HOPEX COMMON FEATURES

User Guide

HOPEX V2R1

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Contents

Using HOPEX

THE HOPEX WEB FRONT-END DESKTOP

This section presents the **HOPEX Web Front-End** interface and explains how to navigate in desktops.

The points covered are:

- ✓ "Accessing HOPEX Web Front-End", page 32
- ✓ "Working in HOPEX", page 35
- ✓ "Interface Presentation", page 37
- ✓ "Common Actions on Repository Objects", page 51
- ✓ "Customizing your Web Front-End desktop", page 60

ACCESSING HOPEX WEB FRONT-END

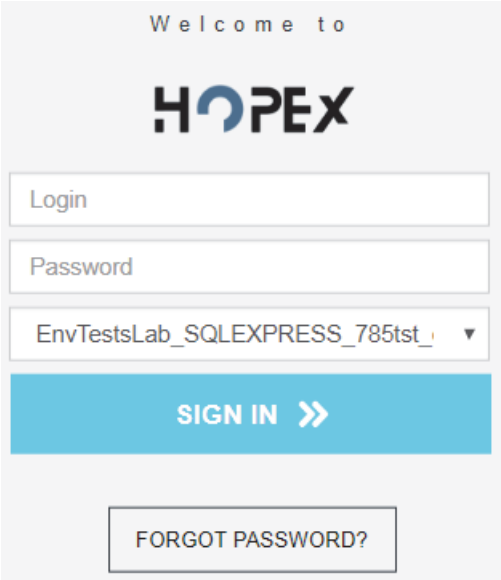
Connecting to HOPEX (Web Front-End)

To connect to your **HOPEX** desktop:

1. Start the **HOPEX** application using its HTTP address.

   ☛ *If you do not know this address, contact your administrator.*

   The connection page appears.



2. In the **Login** field, enter your identifier.
3. In the **Password** field, enter your password.

   ☛ *If you have forgotten your password, click **FORGOT PASSWORD**, see "Reinitializing Your Password", page 33.*

4. In the drop-down menu for environments, select your environment.

   ☛ *If you can access one environment only, this is automatically taken into account and the environment selection field does not appear.*

5. Click **SIGN IN**.
   When you have been authenticated, a new dialog box appears.
6. (If you belong to a person group) In the group drop-down menu, select the group with which you want to connect or "My assignments" to connect with one of your own assignments.
7. In the drop-down menu for repositories, select your work repository.

   ☛ *If you can access only one repository, this is automatically taken into account.*

8. In the profile drop-down menu, select the profile with which you want to work.

   ☛ *If you can access only one profile, this is automatically taken into account.*

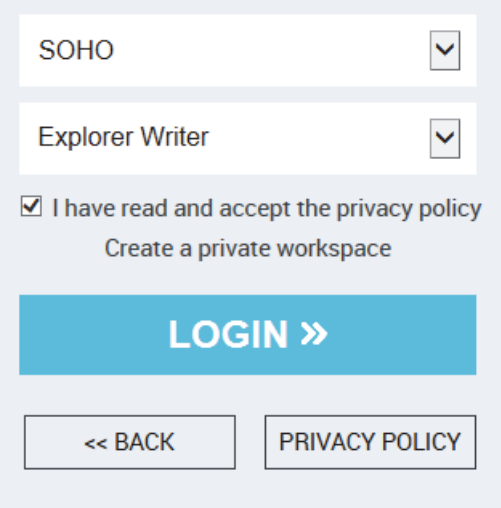
   ☛ *The profile you select defines the applications you can access.*

9. In the application pop-up menu, select the application to which you want to connect.

   ☛ *If you can access only one application with the selected profile, this is automatically taken into account and the application selection field does not appear.*

10. Click **Privacy Policy**, read the confidentiality policy, then select **I have read and accept the privacy policy**.
    The **LOGIN** button is active.

    ☛ *When you have read and accepted the confidentiality policy, a certificate is automatically linked to your person and this step is not required again.*



11. Click **LOGIN**.

    ☛ *Click **BACK** if you want to return to the authentication dialog box.*

    Your desktop home page appears and a session is opened.

    ☛ *After a certain period of inactivity, you are disconnected from the desktop. To reconnect, repeat the steps of the procedure above. This inactivity period is configured by the portal administrator.*

Reinitializing Your Password

If you have lost your password to access HOPEX on the Web, you can reinitialize it.

To reinitialize your password:

1. Open the connection page.

   ☛ *See "Connecting to HOPEX (Web Front-End)", page 32.*

2. Click **Forgot Password**.
   The **Lost password** page appears.
3. In the **Environment** field, select your environment.

   ☛ *If you have access to only one environment, this is automatically selected and this field does not appear.*
4. In the **Login** field, enter your login.
5. Click **Continue**.
6. Answer the security question.
7. Click **Reinitialize**.
   An e-mail containing a link with limited validity period is sent to you.
8. Click this link.
   The **Change password** page appears.
9. Enter your password and answer the security question.

   ☛ *Your password must contain between 8 and 16 characters, with at least one letter, at least one figure and at least one special character.*
10. Click **Apply**.

WORKING IN HOPEX

Workspace Types and Updates

According to the Solutions in which you work, or to your rights, you access your HOPEX desktop in:

- a public workspace
- a private workspace
- a read-only workspace

Public workspace

In some desktops you work in a public workspace. You can perform modifications. Your modifications are automatically saved (each time you are switching to another page). Your modifications are available for other users that are connected in the same way.

```
Desktop examples: HOPEX IT Portfolio Management, HOPEX
Explore (Edit mode), HOPEX Administration (Web).
```

Private workspace

In some desktops you work in a private workspace. You can perform modifications. Your modifications are available for the other users once you have published your work. The other users must refresh their workspace to see your modifications.

```
Desktop examples: HOPEX Report Studio, HOPEX Information
Architecture, HOPEX Enterprise Architecture, HOPEX DoDAF.
```

In a private workspace, if you switch to another desktop with the profile switcher, be careful to publish your work if you want to keep your modifications. See "Switching between Profiles", page 35.

For more details on private workspaces and particularly on your work dispatch, see HOPEX Administration (Web) > Managing workspaces.

Read-only workspace

Some desktops are accessible in read-only mode. You cannot perform any modifications.

```
Desktop example: HOPEX Explorer (Browse mode)
```

Switching between Profiles

In your HOPEX desktop, you can easily switch to another profile without logging out from HOPEX.

To switch to another profile without logging out from HOPEX:

1. In HOPEX toolbar, in your current drop-down menu, select another profile.
2. Select your desktop exit mode:
   - **Yes**

     Modifications you have made in your private workspace are saved in the repository.

     ☺ *In order to work effectively as a team, it is recommended that you dispatch frequently and regularly. Other users can update their own private workspace without dispatching their work (menu **File > Refresh**).*
   - **No**

     All the modifications you made since your last dispatch (private workspace) / save (public workspace) will be lost. You can use this option if you want to view data quickly and exit without impacting the repository.

     ☛ *Modifications to your desktop are also lost.*
   - **(Private workspace specific) Later**

     You work is kept, but other users are not yet seeing the changes you made.

     When you choose "Later" and in a following desktop you exit HOPEX without keeping your modifications ("No"), this work is also lost. If you want to keep your work you must choose "Yes" as HOPEX exit mode.

     The desktop associated with the selected profile is displayed.

INTERFACE PRESENTATION

The desktop is the user's workspace; the elements presented in the interface depend on the solution as well as the profile with which you are connected.

See:

- "Home Page", page 37
- "The interface elements", page 39
- "Managing windows and panes", page 42
- "Managing lists", page 44

Home Page

Accessing the Home page

To access the Home page:

1. In your **HOPEX** desktop, click:
   - either the application logo
   - or the navigation menu and select **Home**.

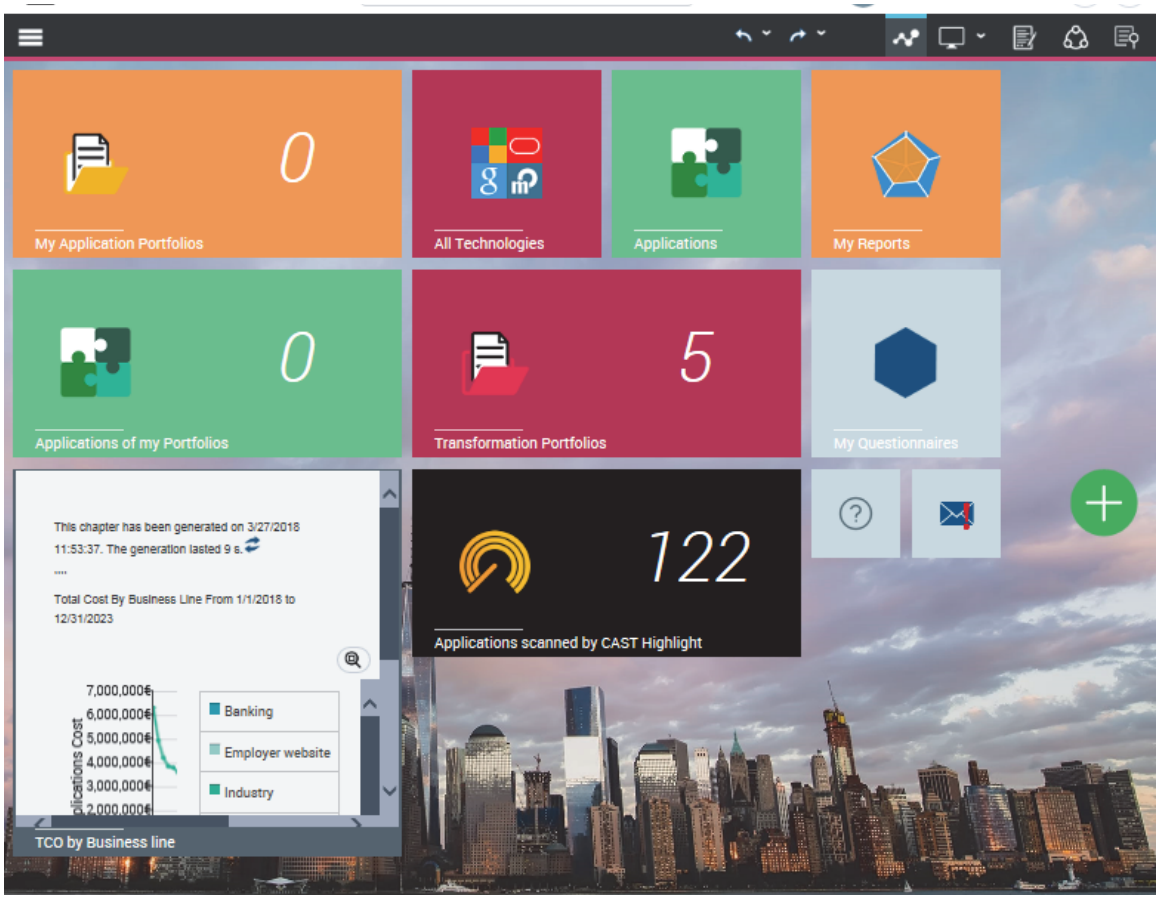
   Your home page appears in the edit area.

   ☛ *See "Home page description", page 38.*

   ☛ *To customize your Home page, see "Customizing the Home Page of your Desktop", page 61.*

Home page description

The home page appears in the form of tiles that represent shortcuts to the repository data.



Example of the Home Page for the HOPEX IT Portfolio Management Solution desktop

According to the Solution, your desktop home page includes:

- tiles specific to your profile.

  ☺ *When you roll the mouse over the tile, the number of objects contained in the list appear on the tile. To permanently display the number of objects contained in the list, see "Modifying the size of a tile", page 63.*

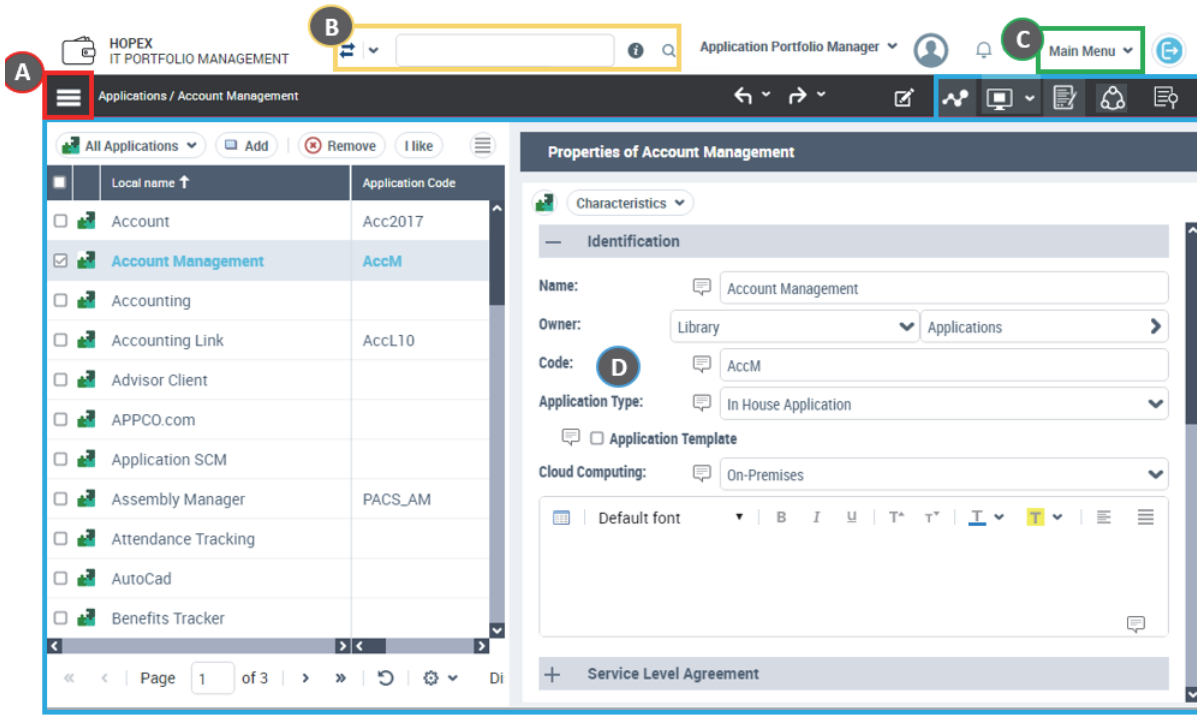
  Example: the HOPEX IT Portfolio Management home page for the functional administrator includes, by default, tiles that

provide access to the list of all inventory portfolios as well as the list of repository applications.

- generic tiles:
  - **New Idea** to access idea management.
    - ☛ *See "Managing Ideas", page 489.*
  - **Help** to access the documentation.
  - **Alert Management** to access the management of your alerts.
    - ☛ *See "Managing the Activity Feed on an Object", page 482.*
- an add tile button .
  - ☛ *See "Customizing the Home Page of your Desktop", page 61.*

The interface elements

The interface displays the elements specific to the profile with which you are connected.



A/ Navigation menu and panes, B/ Search bar, C/Main menu, D/ Edit Area and associated toolbars

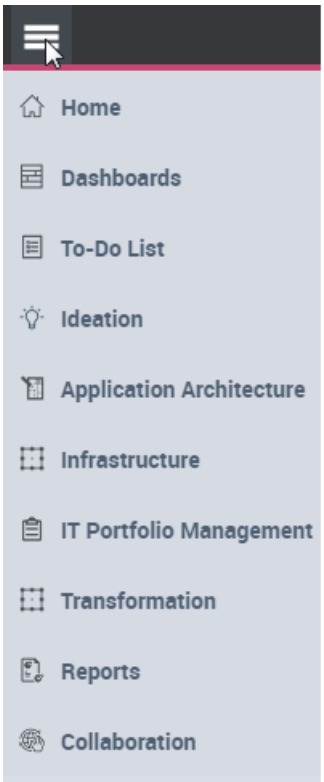
Navigation menu and panes

The navigation menu gives access to navigation panes that vary according to the solution and the connection profile.

The navigation panes correspond to the various types of objects or various steps of a project.

Example

In **HOPEX IT Portfolio Management**, the desktop visible to the application portfolio manager displays the following navigation panes:



When you select a navigation pane, a list of specific objects appear in the pane.

Example

For example, click the **Inventory** pane to access the types of objects that make up the IT assets: applications, technologies, portfolios, etc., classified according to different criteria:

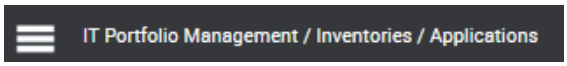
- All applications of the repository
- The applications outside of a portfolio
- Applications without owner
- etc.

Most HOPEX profiles have access to the following navigation panes:

- **Home**: provides quick access to user objects. See "Customizing the Home Page of your Desktop", page 61.
- **Dashboards**: displays the list of indicators required to steer objects such as processes, applications, or org-units. See "Customizing your Dashboard", page 63.
- **List of tasks**: displays the tasks assigned to the user.
- **Reports**: presents a set of dynamic reports that enable repository data analysis according to different perspectives.

Breadcrumb trail

A common thread enables you to access and browse in the navigation pane tree.



Search bar

The search bar enables quick searches (full-text searches and searches by object type) in the entire repository.

☛ *See "Quick Search (Web Front-End)", page 253.*

Main menu

The **Main Menu** gives access to actions that concern:

- dispatching
  - ☛ *You can dispatch or refresh your work at any time. For more details on dispatching and refreshing, see "Managing workspaces", page 135.*
- collaborative work
  - ☛ *See "Communicating in HOPEX", page 457.*
- the advanced search
  - ☛ *See "Advanced Search (Web Front-End)", page 263.*
- import/export tools
  - ☛ *See the documentation related to each of them.*
- the mapping editor
  - ☛ *See "Data Model Mapping", page 51.*
- changing data language.
  - ☛ *See "Modifying the Data Language", page 60.*
- user options
  - ☛ *For more details on options, see the **HOPEX Administration - Supervisor(Web)** guide, "Managing Options" chapter.*
- online documentation, which provides access to **HOPEX** user and technical documentation as well as a search tool.

Edit Area

The edit area is used to perform business and technical operations proposed by the selected Solution.

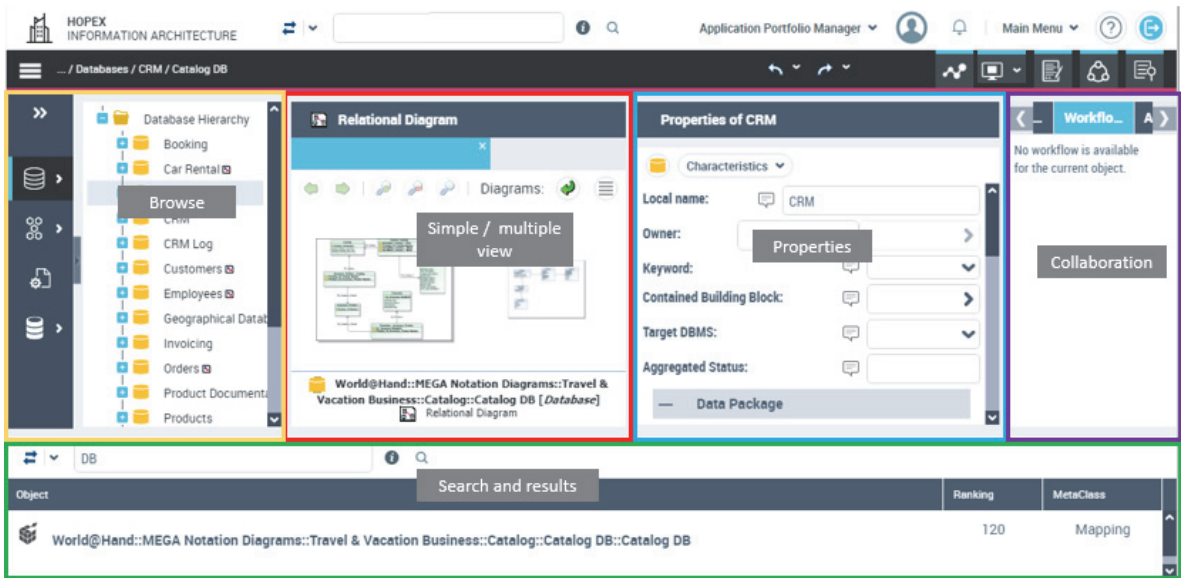
In the edit area, you can display the list of objects, the detail of objects, their diagrams, analysis reports, etc.

See also: "Arranging windows in the edit area", page 42.

Managing windows and panes

Arranging windows in the edit area

In the edit area, five windows are available to display different types of information:



For improved legibility, the group of buttons associated with the edit area is used to display or hide the windows.

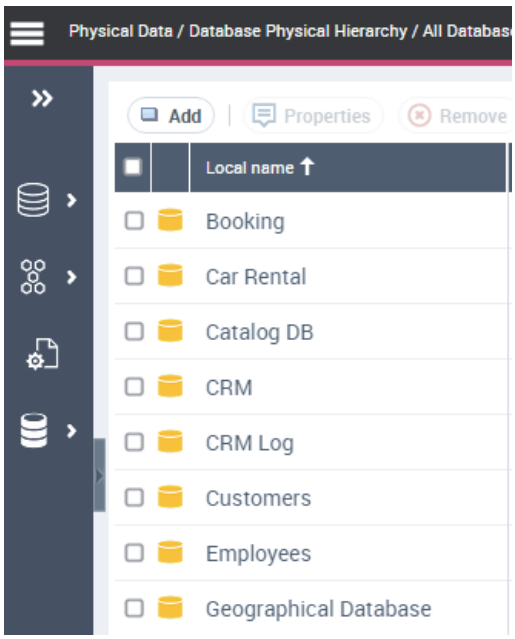
Browse		Displays the list of objects of the selected navigation pane
View selection (the default view depends on the desktop)		**Hide view**: the central page is hidden
		Single-view: displays the central page, particularly the diagrams and reports of selected objects
		Multi-view: authorizes the display of several views in the central page, for example a number of diagrams, in the form of tabs

Properties		Displays the properties of selected object ***Note***: You can also open a pop-up properties window on an object (in the object contextual menu select **Properties**)
Collaboration		Displays the window furthest to the right that contains the **Review Notes**, **Workflows**, **Activity Feed**, **Social** and **Ideation** tabs
Search and results		Displays the bottom window, which shows the search result and enables to perform a search on this result

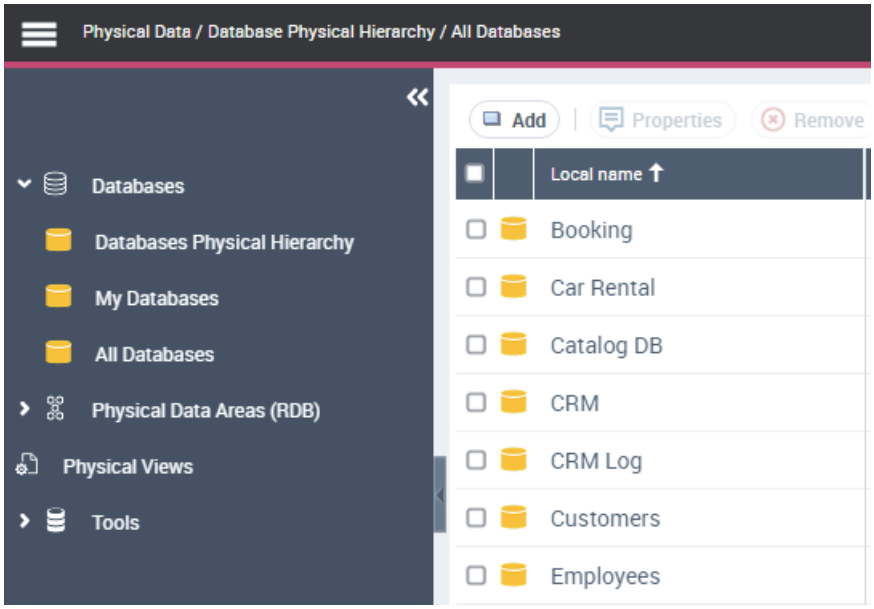
Folding and expanding navigation panes

You can reduce the navigation panes to icon size to unclutter your workspace. In certain cases, the panes are folded by default.

Folded navigation pane



Expanded navigation pane



Organizing folders in navigation trees

You can organize your folders in navigation trees in the same way as in **HOPEX Windows Front-End**.

See "Organizing Folders in Navigation Trees", page 81.

Managing lists

Repository objects are often presented as lists of objects of the same type.

In the lists, you can configure the columns and define filters on the columns.

Defining the columns to be displayed

Each column corresponds to an object characteristic.

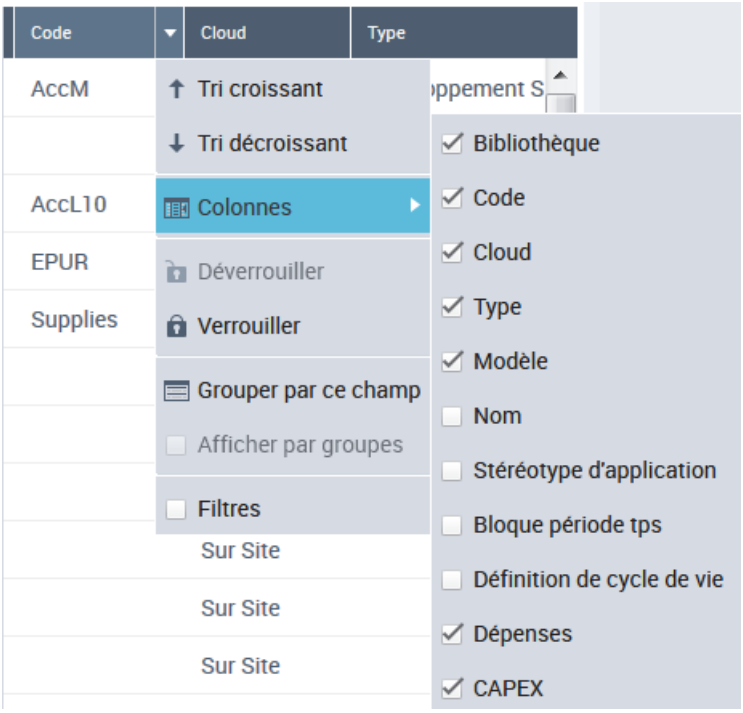
To display or hide one or several columns:

1. In your **HOPEX** desktop, access the list of objects.

   ☛ *See "Managing windows and panes", page 42.*

2. Roll the mouse over the header of the column concerned.
   The arrow of a drop-down menu appears to the right of the column title.

3. Click the arrow and in the drop-down menu, roll the mouse over the **Columns** and select the columns that you want to display.



☛ *To hide a column, clear the corresponding check box.*

Modifying the column order

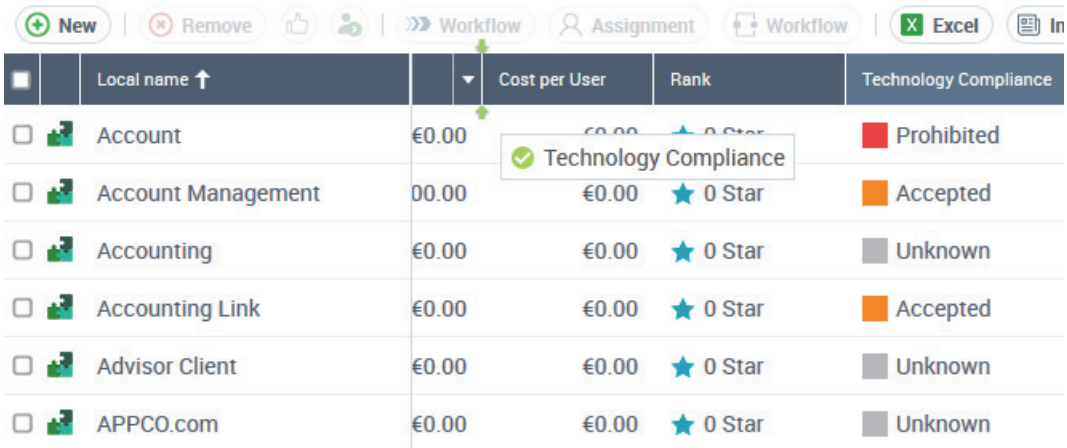
To modify the column order:

1. In your **HOPEX** desktop, access the list of objects.

☛ *See "Managing windows and panes", page 42.*

2. Click in the column header and drag-and-drop the column to the required location.
A green cursor indicates that the chosen position is authorized.

☛ *To return to column initial display order, roll the mouse over a header column and in the drop-down menu select* ***Default column order****.*



Filtering data

In an object list you can quickly filter data of one or several columns.

```
You can, for example, filter the objects of a list to
display only the objects whose specific characteristic
contains a string of characters with a specific character.
```

Operators available on a character string:

- : to show values including the character string
- : to show empty values only
- : to show non empty values only

Operators available on a number or a date:

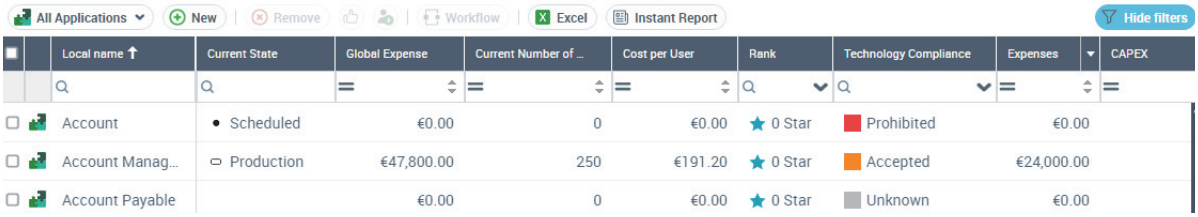
- : to show values equal to
- : to show values greater than
- : to show values lower than
- : to show values between two values
- : to show empty values only
- : to show non empty values only

To define a filter on a column:

1. In your **HOPEX** desktop, access the list of objects.

☛ *See "Managing windows and panes", page 42.*

2. Click **Display Filters** .
Fields appear under the header of each column.



3. (if needed) In the field of the column that you want to filter, click the operator and select another operator.
4. In the field of the column that you want to filter, depending on the case:
   - enter a string of characters.
   - select one of the proposed values.
   - enter a number.

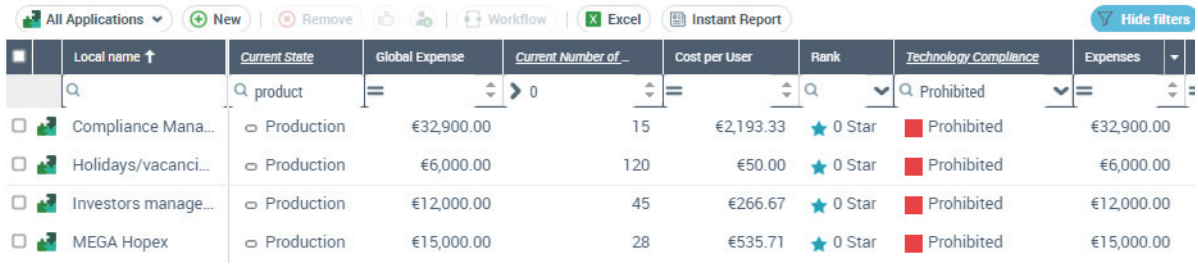
   The list of objects is automatically filtered according to the filtering criterion defined for the column.

   The title of the column that contains a filtering criterion is highlighted.

   ☛ *You can add as many filters as columns.*

   For example, to the list of applications, you can filter applications whose:

   - "Current state" includes the "product" character string
   - "Number of users" is greater than 0
   - "Technology Compliance" is "Prohibited".



☛ *To remove the filter from a column, in the filter field, click* .

☛ *To remove the filtering from all the columns, at the end of the filtering field row, click* ***Delete All Filters*** .

Grouping data by field

In an object list, you can group the objects that have an identical attribute value.

To group objects:

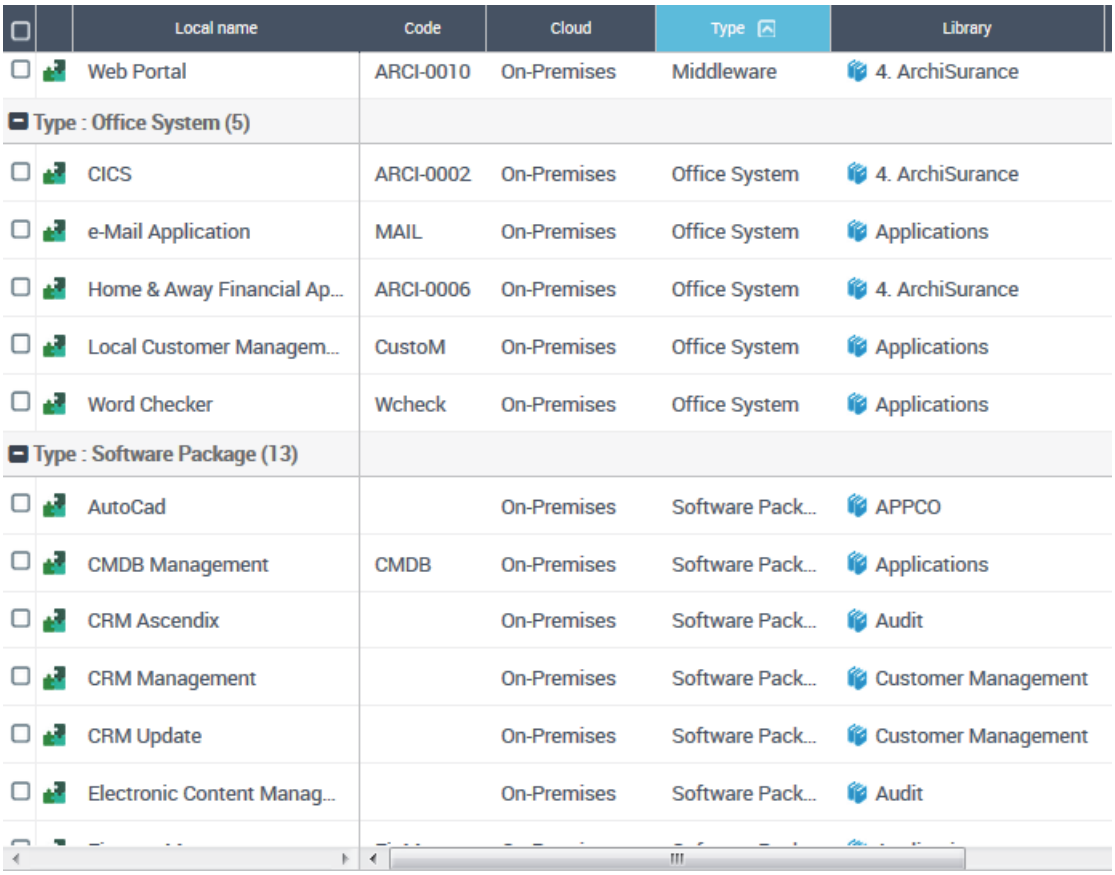
1. In your **HOPEX** desktop, access the list of objects.

   ☛ *See "Managing windows and panes", page 42.*

2. Roll the mouse over the header of the column that corresponds to the attribute concerned.
   The arrow of a drop-down menu appears to the right of the column title.
3. Click the arrow and select **Group by this field**.
   The objects are grouped. A group separator line is added and specifies the value of the group and the number of objects with this value.
   The **Display in groups** box is selected.

   ☛ *To disable presentation in group mode, in the group column, clear **Display in groups**.*

   In the list of applications, you can, for example, group applications with the same type.



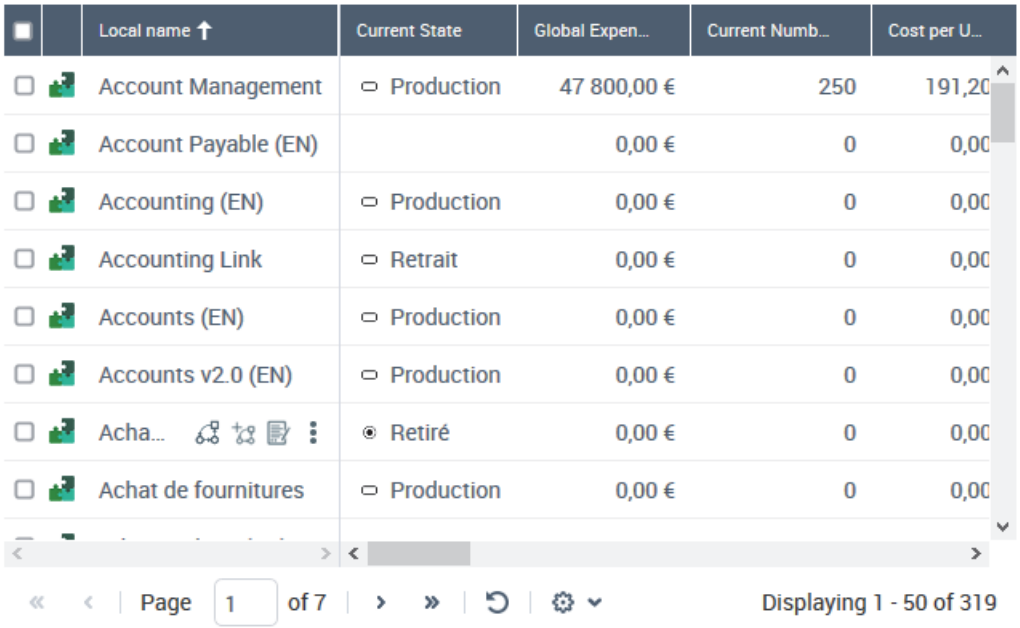
Local name	Code	Cloud	Type	Library
Web Portal	ARCI-0010	On-Premises	Middleware	4. ArchiSurance
Type : Office System (5)				
CICS	ARCI-0002	On-Premises	Office System	4. ArchiSurance
e-Mail Application	MAIL	On-Premises	Office System	Applications
Home & Away Financial Ap...	ARCI-0006	On-Premises	Office System	4. ArchiSurance
Local Customer Managem...	CustoM	On-Premises	Office System	Applications
Word Checker	Wcheck	On-Premises	Office System	Applications
Type : Software Package (13)				
AutoCad		On-Premises	Software Pack...	APPCO
CMDB Management	CMDB	On-Premises	Software Pack...	Applications
CRM Ascendix		On-Premises	Software Pack...	Audit
CRM Management		On-Premises	Software Pack...	Customer Management
CRM Update		On-Premises	Software Pack...	Customer Management
Electronic Content Manag...		On-Premises	Software Pack...	Audit

Freezing a column

In a list, by default, the columns are presented in the following order:

- check box
- icon of the object type of the list
- **Local Name**

The column scrolling cursor is positioned at the level of the first unfrozen column (by default after **Local Name**).



If necessary, you can position one or more columns directly to the right of the **Local Name** column. To do this, you must freeze the column.

To freeze a column:

1. In your **HOPEX** desktop, access the list of objects.

   ☛ *See "Managing windows and panes", page 42.*

2. Roll the mouse over the header of the column concerned.
   The arrow of a drop-down menu appears to the right of the column title.
3. Click the arrow and select **Freeze**.
   The column is moved to the right of the **Local Name** (or to the right of the last column already frozen)
   The scrolling cursor is positioned after this column.

   ☛ *To disable freezing of a column, select **Unfreeze** or move the column.*

   You can, for example, place the **Technology Compliance** and **Global Expense** columns directly after **Local Name** so they remain displayed when you view the other columns. The column

scrolling cursor is positioned at the first unfrozen column level (after **Global Expense**).

Mass modification of the data in a list

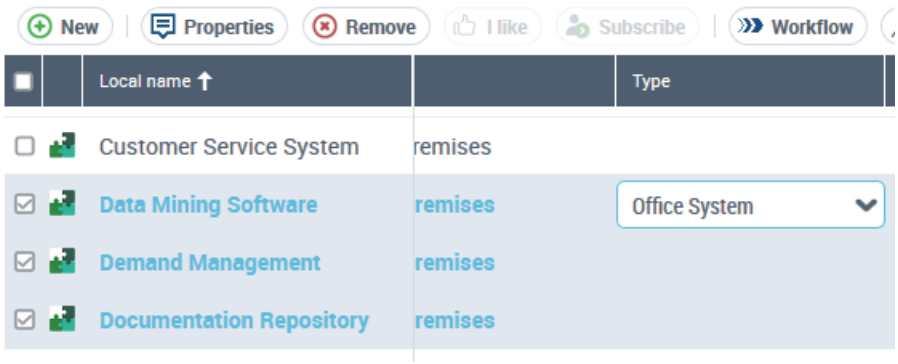
HOPEX can be used to assign the same attribute value to several objects in a list.

To assign the same attribute value to several objects:

1. In your **HOPEX** desktop, access the list of objects.

   ☛ *See "Managing windows and panes", page 42.*

2. In the list, select the objects concerned.
3. In the column of the attribute concerned, specify the new value in one of the fields of the selected objects.



The new value of the field is assigned to all selected objects.

COMMON ACTIONS ON REPOSITORY OBJECTS

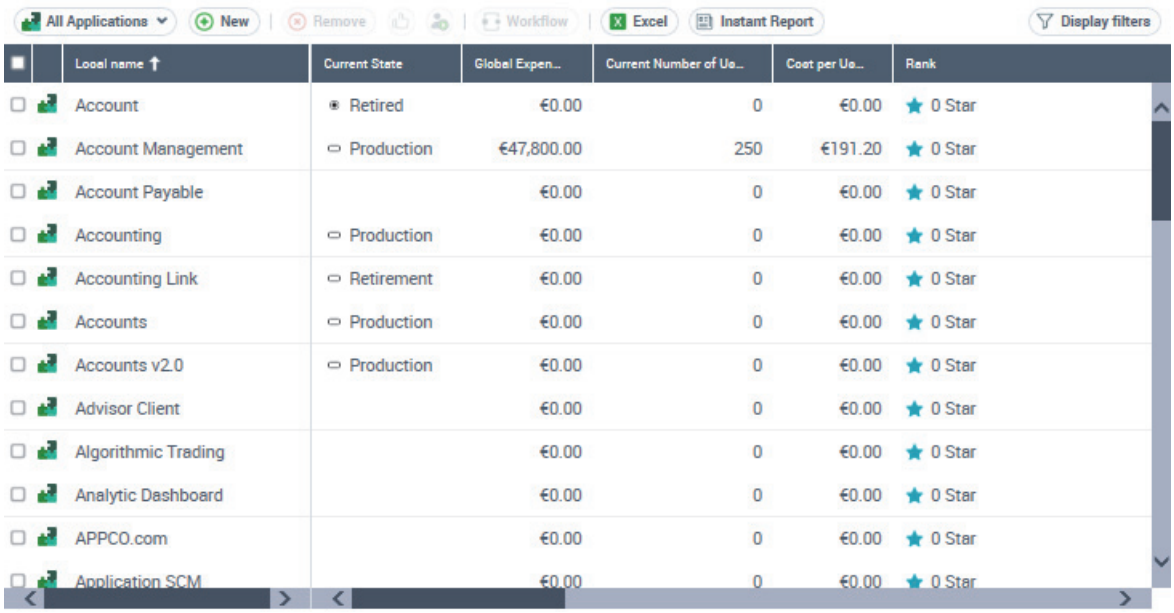
In your **HOPEX** desktop, the objects in a list are useful points of entry to perform actions on objects of the same type.

See:

- "The Actions on a List of Objects", page 51
- "The actions on Several Objects in a List", page 52
- "The Actions on an Object in a List", page 54
- "The actions on an object in a diagram", page 59

The Actions on a List of Objects

In your **HOPEX** desktop, the objects in a list are useful points of entry to perform actions on objects of the same type.



☛ *Click* *to access hidden actions.*

Using the menu bar of a list of objects, you can perform common actions.

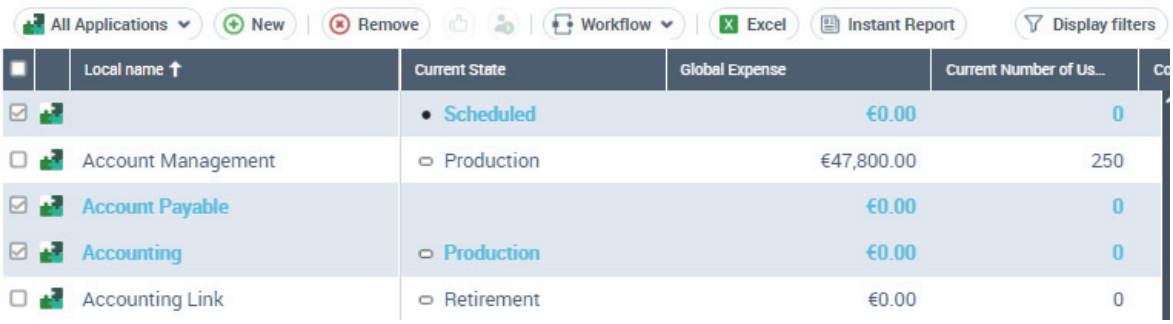
Icon	Action on the list of objects	For more details, see:
	Add an object to the list	
	Export the list in Excel format	"Exporting an Object List in Excel Format", page 230
	Generate an instant report on the list of objects	"Managing Instant Reports", page 348
	Display/Hide the filters on the columns	"Filtering data", page 46

For example, using the "All applications" tile of the home page (see ""Adding a tile to your home page", page 61") on your desktop, you can display the list of all applications.

In this list, you can adjust a new application, export the list of applications in Excel format, generate an instant report on the list of applications (or on a part of the list).

The actions on Several Objects in a List

In your **HOPEX** desktop, the objects in a list are useful points of entry to perform actions on several objects of the same type.



☛ *Click* *to access hidden actions.*

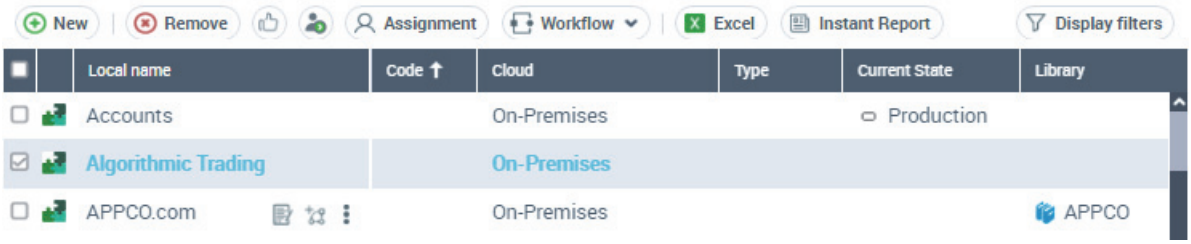
Using the menu bar of a list of objects, you can perform common actions on several selected objects.

Icon	Action on the list of objects	For more details, see:
	Delete the selected object from the **HOPEX** repository	
	Launch a mass workflow transition on the selected objects	"Triggering a transition (HOPEX Web Front-End)", page 523
	Export the selected objects in Excel format	"Exporting an Object List in Excel Format", page 230
	Generate an instant report on the selected objects	"Managing Instant Reports", page 348
	Display/Hide the filters on the columns	"Filtering data", page 46

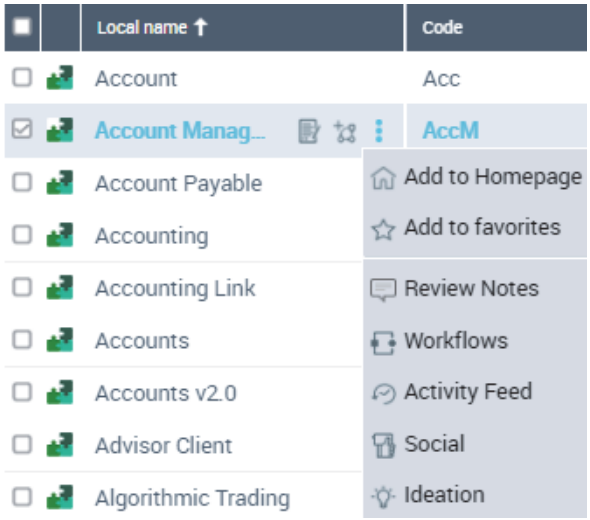
The Actions on an Object in a List

When you select an object in a list of objects, the actions that you can perform are available:

- in the menu bar of the list

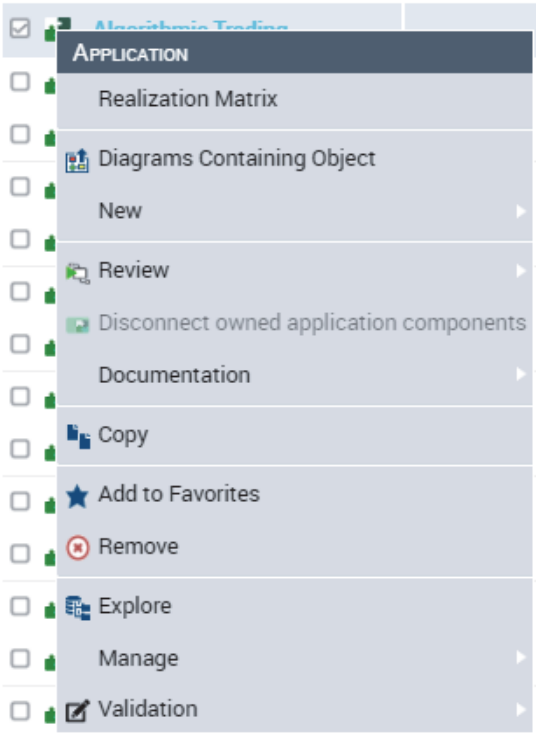


- in the **Local Name** column of the object



- in the contextual menu of the object

☛ *When you select an object in a list, it is highlighted in bold blue.*


Application
Realization Matrix
Diagrams Containing Object
New
Review
Disconnect owned application components
Documentation
Copy
Add to Favorites
Remove
Explore
Manage
Validation

Actions on an object using the icon bar of a list

When you select an object in a list of objects, the icon bar of the list enables you to perform general actions on the object.

☛ *To access all the actions available on an object, see "Pop-up menu for an object", page 58.*

Icon	Actions on the object	For more details, see:
	Delete the object from the **HOPEX** repository	
	Like the object	"Sharing with other users (social)", page 487
	Follow the object to be informed of all the modifications performed on this object	"Sharing with other users (social)", page 487
	Assign the object to a business role (certain desktops)	The **HOPEX Administration - Supervisor (Web)** guide, "Managing Business Roles" chapter.
	Access the object Workflows and launch a workflow transition on the object	"Triggering a transition (HOPEX Web Front-End)", page 523
	Create an instant report on this object	"Managing Instant Reports", page 348

☛ *Click* *to access hidden commands.*

Actions on an object from the Local Name of a list

When you select an object in a list of objects, and then roll the mouse over its **Local Name**:

- a list of buttons enables you to perform current actions on the object
- a list of buttons gives direct access to the collaboration functionalities.

☛ *See "Accessing Collaboration Information on an Object", page 460.*

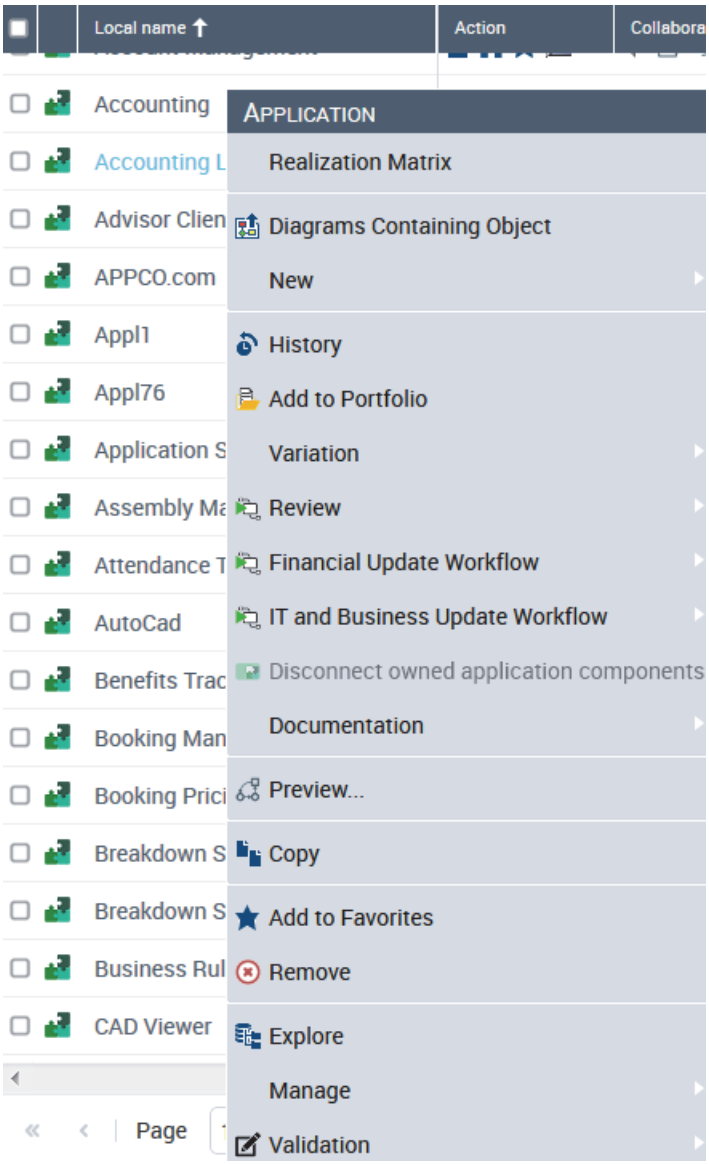
☛ *In* **HOPEX Explorer** *(tablet), these buttons are available in the* ***Action*** *and* ***Collaboration*** *columns of the list.*

Icon	Action on the object	For more details, see:
	Display the properties of the object in the edit area (**Properties** window)	"Defining Object Properties", page 162
	Create diagrams	"Accessing a diagram", page 88
	Add the object to your home page	"Customizing the Home Page of your Desktop", page 61
	Add the object to your favorites	"Managing Favorites", page 172
	Open or preview the diagram(s) describing the object in the edit area (**Navigation** window)	"Handling Diagrams", page 87
	Open the diagram(s) containing the object in the edit area (**Navigation** window)	

Icon	Action/Collaboration on an object	For more details, see:
	Access the **Review Notes** on the object	"Managing review notes", page 463
	Access the object **Workflow** page.	The **HOPEX Power Studio - Workflows** guide, "Using Workflows" chapter.
	Access the **Activity Feed** of the object	"Managing Activity on Objects", page 479
	Access the **Social** theme of the object	"Sharing with other users (social)", page 487
	Access the management of ideas (**Ideation**) on the object	"Managing Ideas", page 489

Pop-up menu for an object

To access all the commands specific to an object using a list, click the icon of the object concerned.



The actions on an object in a diagram

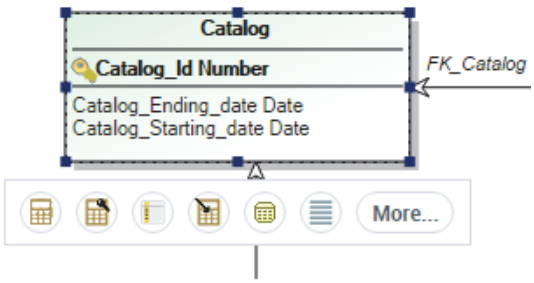
The actions available on an object in a diagram depend on the display mode of the diagram in which you are working (edit mode or preview mode).

When you click an object in a diagram:

- in preview mode, you access the pie menu of the object.
  - : access the object properties
  - : generate a report on the object
  - : access the diagram describing the object.
  - : access the diagrams containing the object

    ☛ *See "Using the pie menu in a diagram preview", page 136.*
- in edit mode, you access:
  - the object pop-up menu
  - the specific actions for the object

    In a relational diagram in edit mode, using a table, a key, a column, an index, a physical view.



For more details on opening diagrams, see:

- "Opening a Diagram", page 89.
- "Displaying Diagram Preview", page 133

See also: "Handling Objects in Diagrams", page 92.

CUSTOMIZING YOUR WEB FRONT-END DESKTOP

Customization can vary depending on the interface of your solution.

See:

- "Modifying the Theme of your Desktop", page 60
- "Modifying your Password", page 60
- "Modifying the Data Language", page 60
- "Modifying the Language of Your Desktop", page 61
- "Customizing the Home Page of your Desktop", page 61
- "Customizing your Dashboard", page 63
- "Common Actions on Repository Objects", page 51

Modifying the Theme of your Desktop

You can modify the default style sheet for your Web Front-End desktop.

To modify the theme of your Web Front-End desktop:

1. In your **HOPEX** desktop, click **Main Menu**.
2. From the drop-down list, select the name of the style sheet you want to apply.

   Example of current style sheet: HOPEX V2 Style.

Modifying your Password

To modify your Web Front-End password:

1. In your **HOPEX** desktop, select **Main Menu** > **Settings** > **Modify Password**.
2. Enter your new password twice.
3. Click **Apply**.

   ☛ *Only the administrator can delete your password. For security reasons, you cannot leave the **New Password** field empty.*

Modifying the Data Language

When you change the data language in the interface, this language is kept for your next connection.

To modify the data language:

❱ On your **HOPEX** desktop, select **Main Menu** > **<current language>** > **<new language>**.
The data (translated) appears directly in the selected language.

Modifying the Language of Your Desktop

To modify the language of your interface language in the Web applications:

1. In your **HOPEX** desktop, select **Main Menu > Settings > Options**.
2. In the options tree, expand the **Installation** folder and select **Web Application**.
3. In the right pane, modify the value of the **GUI language** via the drop-down menu.

☛ *You must disconnect for this modification to be taken into account.*

Customizing the Home Page of your Desktop

The home page appears in the form of tiles that provide access to repository data.

☛ *See "Home Page", page 37.*

You can customize your home page.

☺ *You can, for example, add a tile to access options. For more details on options, see the **HOPEX Administration - Supervisor (Web)** guide, "Managing Options" chapter.*

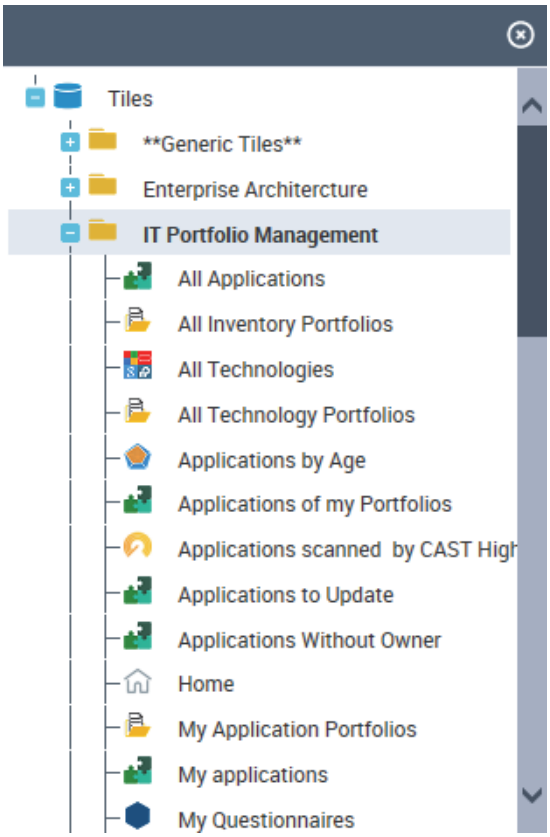
Adding a tile to your home page

To add a tile to your home page:

1. Access the Home page.

☛ *See "Accessing the Home page", page 37.*

2. In the Home page, click .
   A window displays the list of available tiles linked to the product and to your profile.



3. Select a tile and drag and drop it in your home page.
   ☛ *Expand folders if necessary.*
   ☛ *To delete the tile from your home page, see "Deleting a tile from your home page", page 62.*

Deleting a tile from your home page

To delete a tile from your home page:

1. Access the Home page.
   ☛ *See "Accessing the Home page", page 37.*
2. Roll the mouse over the top of the tile to display the title bar of the tile.
3. Click and select **Delete**.
   The tile is deleted from your home page.
   ☛ *To add the tile to your home page, see "Adding a tile to your home page", page 61.*

Modifying the size of a tile

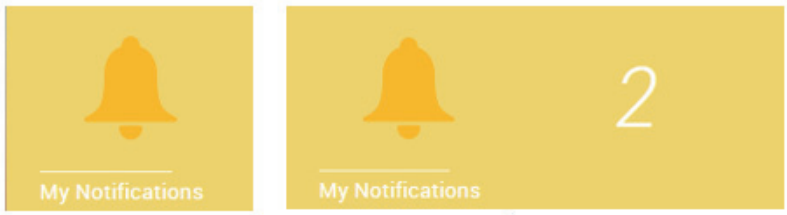
A larger tile displays more information.

To modify the size of a tile:

1. Access the Home page.

   ☛ *See "Accessing the Home page", page 37.*
2. Roll the mouse over the top of the tile to display the title bar of the tile.
3. Click ••• and select **Resize**.
4. Depending on the size of the tile, select:
   - **Large** to enlarge and display more information.
   - **Medium** to reduce it, but display less information.

   `You can for example display the number of your notifications or the diagram of a report.`



Medium Wide

Adding an object to your home page

All the business objects in the repository can be added to your home page. Other objects such as diagrams or reports can also be added to the home page.

To add an object to your home page:

- In a diagram or in a tree, right-click the object and select **Add to Home Page**.

  ☛ *In a list, you can also select the object, and roll the mouse over its **Local Name** and click **Add to Homepage** .*

  This command creates a shortcut to the properties of the object or a diagram of the object depending on the size of the tile.

Customizing your Dashboard

The **Dashboard** of your desktop (**Web Front-End**) is made up of widgets, which use formatters in the form of reports or other HTML pages. They enable fast access to repository information.

`Example: your reports.`

Accessing the dashboard

To access your dashboard and widgets:

❱ From the navigation menu, select **Dashboard**.

Widget types

A widget can be of type:

- private
  A private widget is connected to a user. It is visible in the dashboard of the user who added it.
  ☛ *See "Adding a widget to your dashboard", page 64.*
- public
  A public widget is displayed in the dashboard of all the users.

Adding a widget to your dashboard

To follow the reports you are interested in, you can add them as widgets in your dashboard.

☛ *See also "Adding an Instant Report to Your Dashboard", page 403.*

To add a widget in your dashboard:

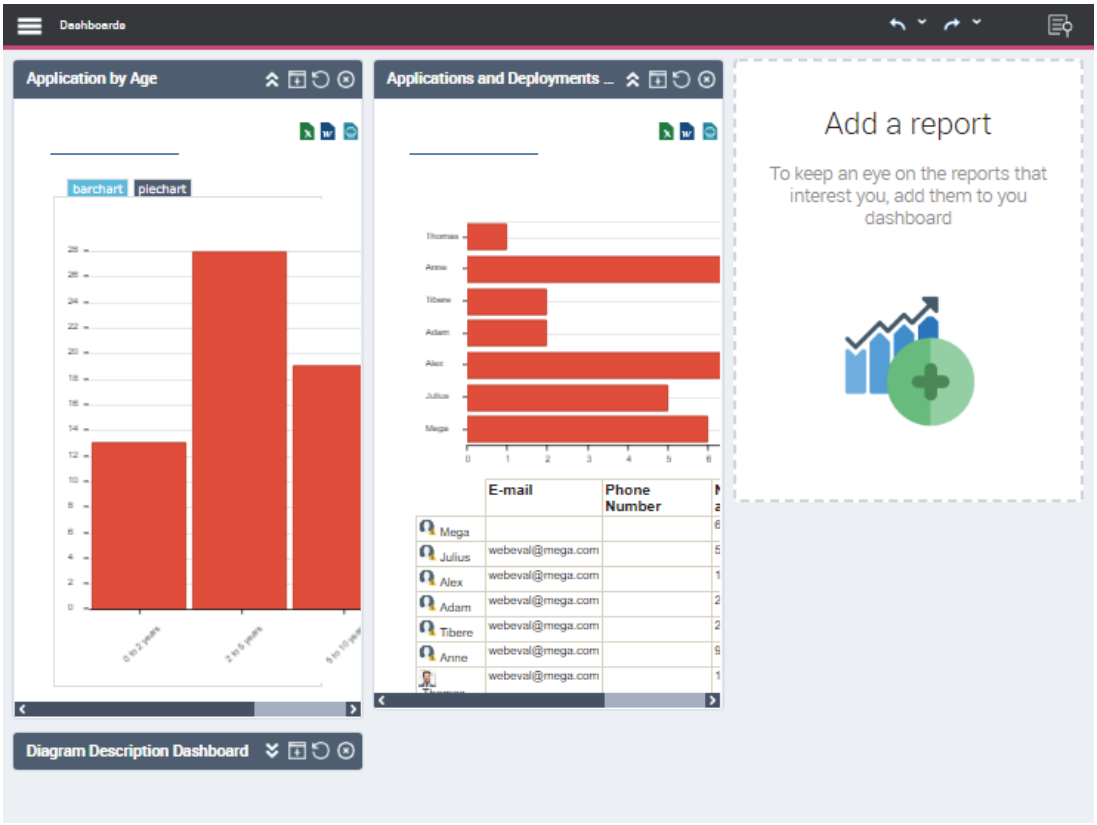
1. Click the navigation menu then click **Dashboards**.
2. In your dashboard, click **Add a widget** .

   A window displays the tree of the elements you can add. These elements are classified according to their category.
3. Expand the folder of the category concerned.

   Example: Application Portfolio Management, then the **Reports** sub-folder.

4. Click the report concerned.
The report is displayed as a widget in your dashboard.
You can add several widgets to your dashboard.

☺ *If you add many widgets, you can reduce the display of some of them, see "Managing your widget display", page 65.*

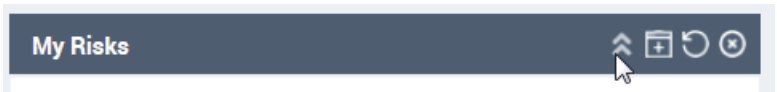


Managing your widget display

Enlarging/Folding a widget window

If you added a large number of widgets in your dashboard, in the widget title bar click ⌃ to reduce the widget.

☛ *Click ⌄ to expand the widget.*



Deleting a private widget

A private widget is connected to a user.

To delete a private widget from your dashboard:

- In the widget title bar, click ×.
  The widget is deleted from your dashboard. It is not displayed at your next connection.

Managing your options (Web Front-End)

To configure your **HOPEX** desktop and access certain functionalities, you may need to configure your options (user level).

To modify your options (user level) from your **HOPEX** desktop:

- In your **HOPEX** toolbar, select **Main Menu > Settings > Options**.
  The window with your options (user level) appears.

  ☛ *For more details on options, see the **HOPEX Administration - Supervisor** guide, "Managing Options" chapter.*

THE HOPEX WINDOWS FRONT-END DESKTOP

This section presents the **HOPEX Windows Front-End** interface and explains how to navigate in desktops.

The points covered are:

- ✓ "Accessing HOPEX Windows Front-End", page 68
- ✓ "Introduction to the Windows Front-End Interface", page 70
- ✓ "Customizing your Windows Front-End Desktop", page 76
- ✓ "Exiting HOPEX", page 83

ACCESSING HOPEX WINDOWS FRONT-END

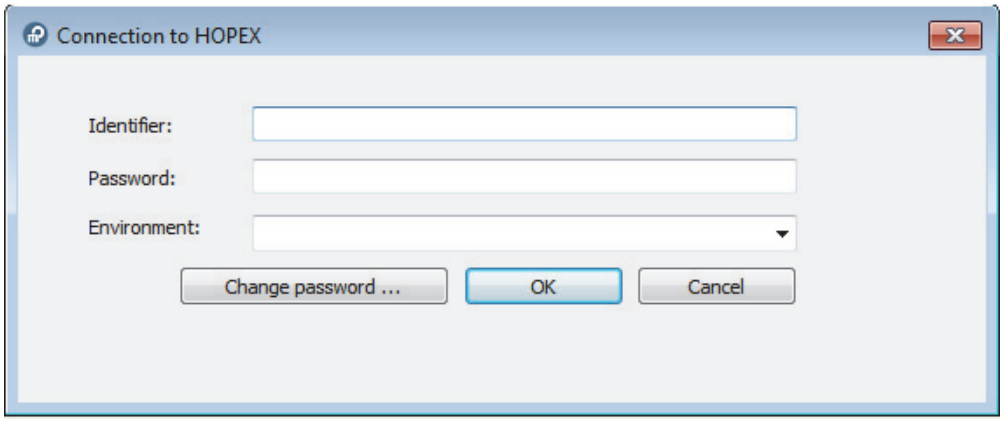
You can start **HOPEX** from your workstation:

- directly with **HOPEX** installed on your machine.
- via a server or another machine to which you can connect.

To start **HOPEX**:

1. Double-click the **HOPEX** icon

. The connexion dialog box appears.



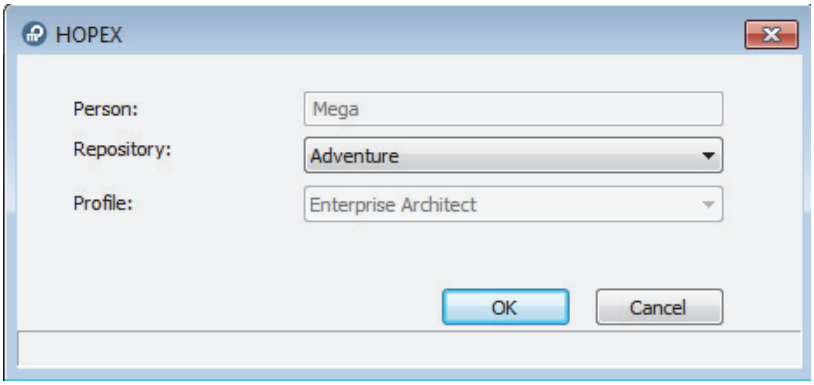
2. In the **Environment** field, select your environment.

   ☛ *If you can access only one environment, this is automatically taken into account and the environment selection field is grayed.*

   ☛ *For more details on environments and users, see the chapters **Managing Environments** and **Managing Users** in **HOPEX Administration - Supervisor**.*

3. In the **Identifier** field, enter your identifier.
4. In the **Password** field, enter your password if necessary.

5. Click **OK**.
When you have been authenticated, the workspace selection dialog box appears.



The **Person** field is defined automatically; it indicates the name of the person associated with the identifier defined in the connection dialog box.

6. In the **Repository** field, select your work repository.

   ☛ *The drop-down menu opens the list of repositories available in the environment. Before you begin modeling the data of your company, it is recommended that you create a new repository in a new environment.*

   ☛ *If you can access only one repository, this is automatically taken into account.*

7. In the **Profile** field, click the arrow and select the profile with which you want to work.

   ☛ *If you can access only one profile, this is automatically taken into account.*

8. Click **OK**.
Your desktop appears.

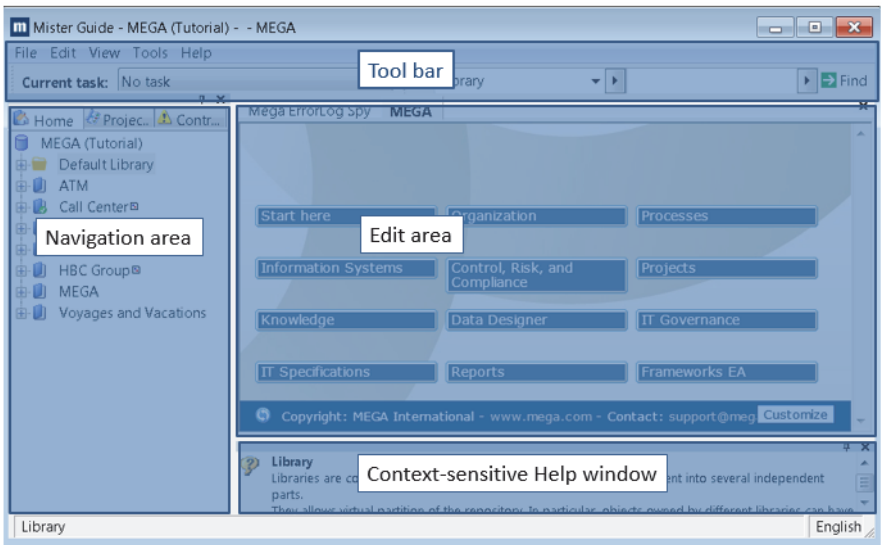
Introduction to the Windows Front-End Interface

By default, the ***Enterprise Architecture desktop*** available in Windows Front-End is comprised of the following elements:

- Toolbar and Query Bar
- Navigation Area
- Edit Area

You can also display the following information:

- Help Window
- Properties Window
- Comment Window



☛ *The object types available depend on the **HOPEX** products you have at your disposal.*

☛ *For more details on organizing and customizing desktop windows, see "Customizing your Windows Front-End Desktop", page 76.*

Toolbar and Query Bar

The toolbar enables fast access to:

- main objects.
- certain actions available from the desktop.

The query bar enables simple searches in the entire repository. For more detailed information, see "Using the Query Toolbar", page 185.

The following table describes the toolbar buttons.

Icon	Definition	Description
	Save All	Saves all your actions in your desktop Shortcut of **File > Save All**
	Dispatch	Dispatches your work in the **HOPEX** repository. This action allows other users to access your work Shortcut of **File > Dispatch**
	Refresh	Updates your desktop with the latest modifications made by other repository users Shortcut of **File > Refresh**
	Cut	Cuts an object in the navigation or edit areas Shortcut of **Edit > Cut**
	Copy	Copies an object in the navigation or edit areas Shortcut of **Edit > Copy**
	Paste	Pastes an object in the edit area Shortcut of **Edit > Paste**
	Navigation window	Opens a new navigation window Shortcut of **View > Navigation Windows** See "Navigation Area", page 72.
	Properties	Opens the properties window of the selected object Shortcut of **View > Edit Windows > Properties** See "Properties Window", page 75.
	Comment	Opens the comment window in the edit area Shortcut of **View > Edit Windows > Comment** See "Comment Window", page 75.
	Favorites	Adds the **Favorites** tab in the navigation area Shortcut of **View > Favorites** See "Managing Favorites", page 172.
	Deep history	Adds the **History** tab of actions executed in **HOPEX** in the navigation area Shortcut of **View > History** See "Using the History", page 174.
	Undo	Cancels chronologically the latest actions executed. You can delete actions singly or several at one time Shortcut of **Edit > Undo** See "Undoing and Redoing Actions on Objects", page 173.

Icon	Definition	Description
	Redo	Restores chronologically the latest actions canceled. You can redo actions singly or several at one time Shortcut of **Edit > Redo** See "Undoing and Redoing Actions on Objects", page 173.
	Explore	Opens the explore window Shortcut of **Diagram > Explore** See "The Explorer", page 214.
	Options	Opens the options window of the current user Shortcut of **Tools > Options**
	Query	Opens the advanced query tool Shortcut of **Tools > Query** See "Querying Objects", page 181.

Navigation Area

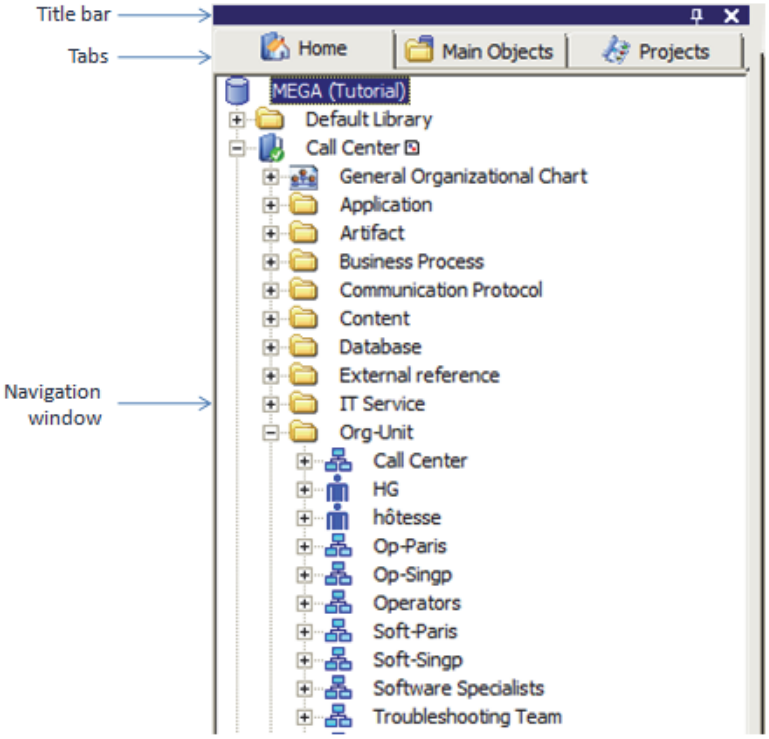
The navigation area contains tabs that allow you to navigate in the repository and easily access objects.

The navigation area comprises:

- an active navigation window, including the tree used to access repository objects.
- tabs, which allow navigation in the navigation area windows.

  ☛ *At first connection, the **Home** and **Projects** tabs are present by default. You can add or delete tabs according to your needs.*
- a title bar, which enables organization of the display of windows in the desktop.

  ☛ *You can for example move or dock a window.*



At access to the repository in read-only, a padlock alongside an object indicates that it cannot be modified.

Edit Area

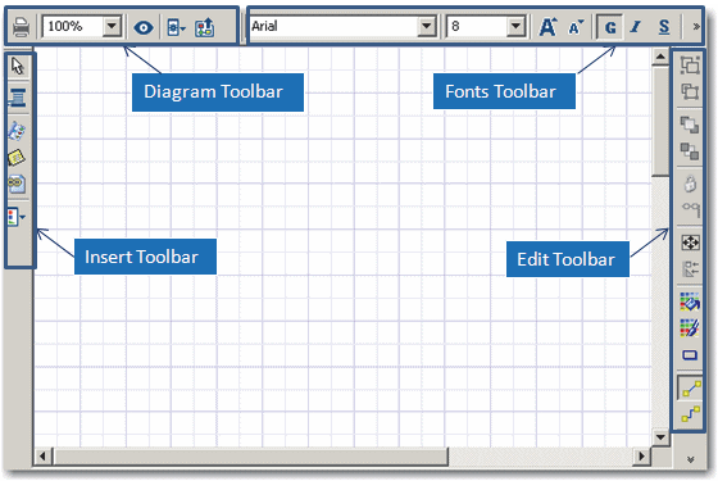
The edit area is mainly used to open and edit diagrams.

The start page in the edit area allows you to:

- build your diagrams using the diagram creation wizard.
- create your projects based on methods proposed by **HOPEX**.
- rapidly access the different **HOPEX** modules.

> ☛ *At first connection, the edit area opens on the home page. To reopen the home page, in the **HOPEX** menu bar, select **?. > Start Page**.*

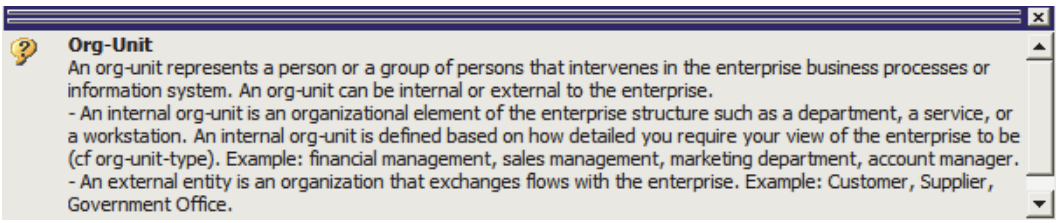
Here is the diagram editor:



Help Window

The context-sensitive help window provides basic information on each concept or repository object type selected.

To display the context-sensitive help window, in the **HOPEX Windows Front-End** menu bar, select **View > Help Window**.



> ☛ *The title bar enables customization of window display in the desktop. You can for example move or dock a window. For more details*

on window display, see "Positioning Windows", page 76.

Properties Window

The properties window presents all the information relating to the selected object. It allows you to consult and modify information on this object.

To display the properties window:

- Click **Properties** or select **View > Edit Windows > Properties**.

  ☺ *Displaying the comment window is useful when you want to successively enter the comments of several objects.*
  So, when you select an object in a navigation window, in a diagram or in a query result dialog box, you can easily modify its properties in this window docked in the workspace, then move on to those of another object.
  This saves you having to activate the pop-up menu of the object each time you wish to access its properties.

For more details on object properties, see "Defining Object Properties", page 162.

Comment Window

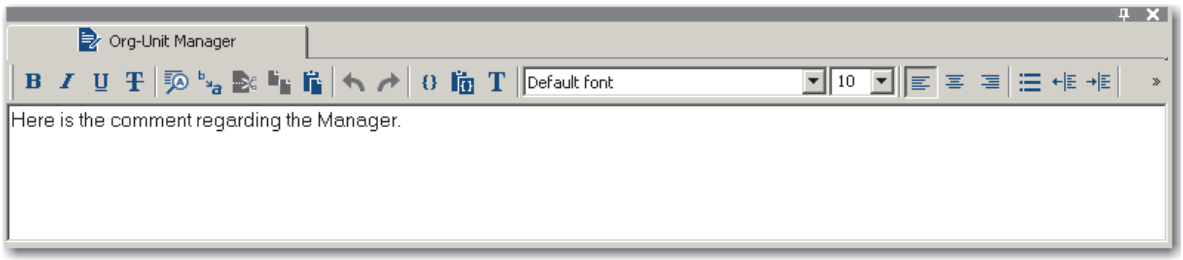
The comment window enables specification of information on the selected object.

To display the comment window:

- Click **Comments** or select **View > Edit Windows > Comment**.

  ☺ *Displaying the comment window is useful when you want to successively enter the comments of several objects.*
  When you click an object in a navigation window, in a diagram, or in a query result dialog box, the comment of the selected (active) object appears in this window. You can therefore easily modify the comment of the object then pass to that of another object.

For more details on how to enter the comment of an object, see "Naming Objects", page 178.



☛ *The title bar enables customization of window display in the desktop. You can for example move or dock a window. For more details on window display, see "Positioning Windows", page 76.*

CUSTOMIZING YOUR WINDOWS FRONT-END DESKTOP

The **HOPEX** desktop (Windows Front-End) comprises various windows enabling repository access:

- a navigation window that contains navigators dedicated to objects, projects, diagrams, utilities, etc.
- an Edit windows (comment and properties)

You can customize the display of these windows.

Organizing your Desktop (Windows Front-End)

To organize your desktop, you can:

- add or close a window
- define position of a window
- create folders in navigation trees

Adding Windows

To add a window in your desktop (Windows Front-End):

1. In the **HOPEX** menu bar, select:
   - **View > Navigation Windows**
   - **View > Edit Windows**
2. Select the window you want to add.

Positioning Windows

You can organize your desktop as you like. You can show/hide/move navigation and edit windows.

You can:

- float, dock, fix, auto hide or enlarge navigation windows.
- merge several windows and access these via tabs.
- integrate a navigation window in the main edit window.

☛ *If you wish to modify the desktop default arrangement, see frequently asked questions, section "The Windows Front-End Desktop", page 752".*

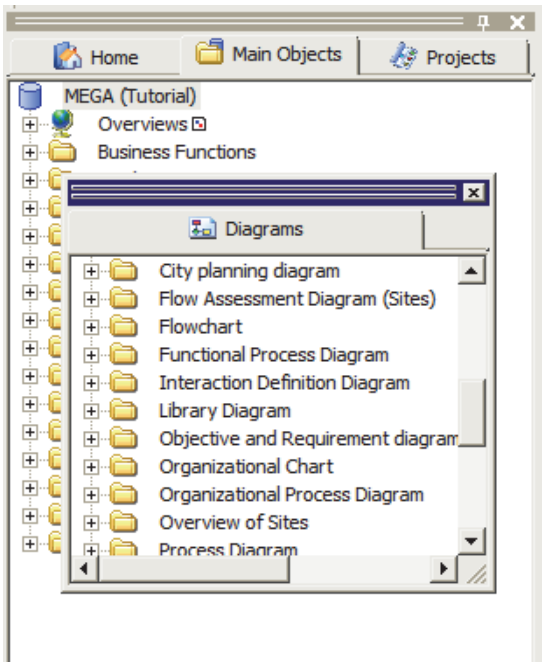
Floating a window

You can detach a window then move it to make it "float" on the desktop.

You can for example detach the navigation tabs (such as **Home** and **Main Objects**)

To float a window:

1. Right-click the navigation area title bar and clear **Fixed**.



☛ *To float a window, you can also clear the **Docked** option from the window title bar pop-up menu.*

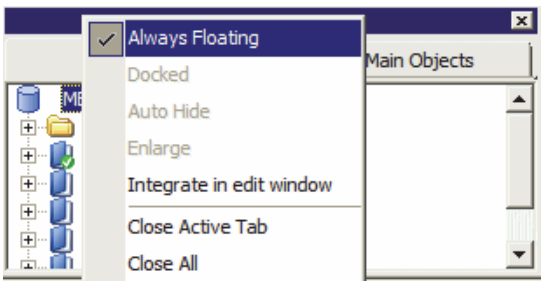
2. Select the window and drag it to where you want.

☛ *Position the window outside "sensitive areas" (when the mouse pointer passes close to sensitive areas, the window will dock in the desktop, which is a situation you do not want here).*

Permanently floating a window

You may decide that a window should always float and never be docked. To do this:

- Right-click the pop-up menu of the floating window title bar, then click **Always Floating**.



Docking a window

You can dock windows in the desktop. A window is said to be **Docked**, as distinct from floating, when it is integrated in the desktop.

To dock a window:

1. Select the floating window and move it in the desktop.
   When the mouse pointer passes close to a sensitive area, a colored frame appears indicating future positioning of the window when docked.
2. When you have found a satisfactory position, release the mouse button.
   The window is docked.

> ☛ *To dock a window, you can also select **Docked** in the window title bar pop-up menu.*

Fixing a window

You can fix a docked window so that it always remains in the same position in the desktop.

To fix a window:

- In the pop-up menu of the floating window title bar, select **Fixed**.

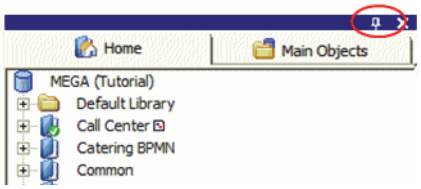
> ☛ *If the **Fixed** command is cleared, the window can become floating, in other words not fixed to the edge of another window.*

Automatically hiding a window

A pushpin in window title bars facilitates switching to "Auto Hide" mode. This function allows you to increase viewable display and editing space by auto hiding navigation and edit windows.

To automatically hide a window:

- In the title bar, click the pushpin icon .



The window is automatically hidden and is positioned at the edge of the application.

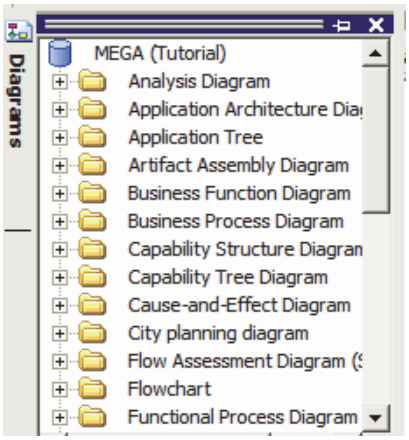
To access an auto-hidden window:

- Click the tab of the hidden window.
  The window appears.

To hide a window again:

- Click its icon.

  ☛ *Clicking outside the active window also has the effect of hiding it.*



To deactivate auto hide:

- Click on the pushpin in the title bar.
  The window reappears and can be used.

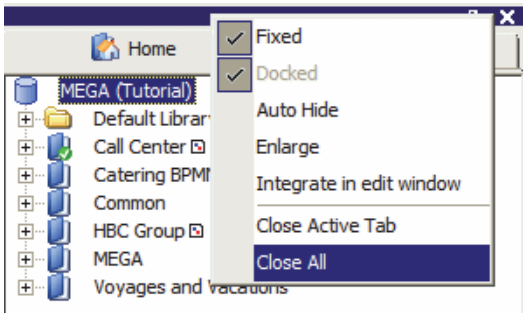
Closing a tab

To close a tab:

- Right-click the tab concerned and select **Close**.

To simultaneously close all tabs of the navigation area:

1. Right-click in the navigation title bar.
2. Select **Close All**.



Integrating a navigation tab in the edit window

To integrate a navigation tab in the edit window:

❱ Right-click the tab you want to move and select **Integrate in edit window**.
The tab is moved into the edit window.

> ☛ *To reintegrate the tab in the navigation area, right-click the tab and select **Remove from edit window**.*

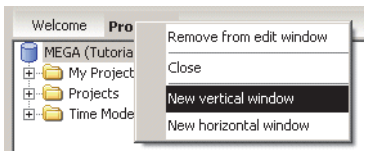
Creating several edit windows

When you have moved a navigation window into the edit window, you can organize this desktop as you wish:

- create new windows
- move tabs in edit windows
- return tabs to the navigation area.

To create a new edit window:

1. In the edit window, right-click the desired tab and select:
   - **New vertical window** or
   - **New horizontal window**.



The new window appears.

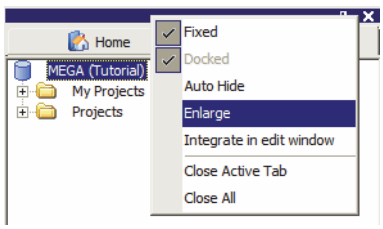
> ☛ *When you have created several edit windows, you can move a tab from one window to another by selecting **Move in previous window** (or **next window**).*

Enlarging a navigation window

You can enlarge a navigation window so that it occupies the entire desktop.

To enlarge a navigation window

1. Right-click in the title bar.
2. Select **Fixed**.
3. Select **Enlarge**.



The window now occupies the entire desktop.

Organizing Folders in Navigation Trees

Folders are used in encyclopedic trees to organize the objects in the tree. For this, **HOPEX** offers two possibilities:

- you can create and name your folders
- you can use the encyclopedic classification options

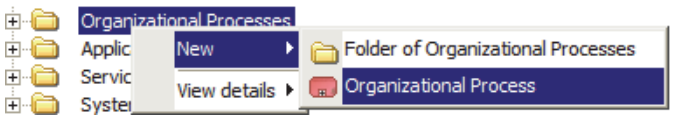
Creating Folders in Navigation Trees

To find your objects more easily in navigators you can create your own groups.

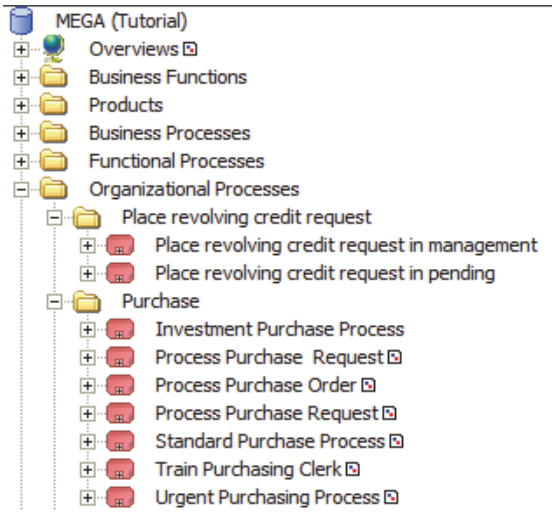
To do this, **HOPEX** proposes creating object folders. You can for example create folders grouping your objects to classify them according to your own criteria.

To create folders:

1. Right-click the object type for which you wish to create a folder and select **New > Folder of**



You can move your objects to the folder or folders created so that you can find them more easily.

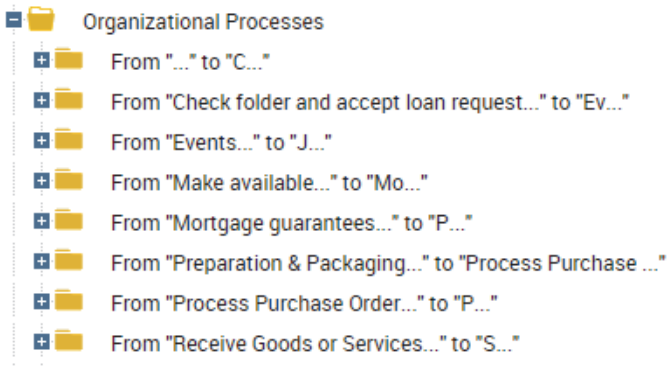


Using the encyclopedic classification options

The display time of a folder that contains a large number of objects can be long.

To reduce this time, you can use these options to classify your objects in alphabetical order in "volumes" represented by folders created and updated automatically by **HOPEX**.

The name attributed to each volume comprises the name of the first object in the volume and the first letter of the last object.



To activate these options:

1. In the following desktop:
   - (**HOPEX Windows Front-End**) select **Tools > Options**.
   - (HOPEX Web Front-End) Select **Main Menu > Settings > Options**
2. In the tree on the left, click **Workspace**.
3. On the right side, complete the following fields:
   - **Trigger threshold for Encyclopedic Classification in the Browser**: this is the number of objects from which automatic classification is triggered within each folder concerned. By default this perspective is set to 200.

     ☛ *If the threshold is equal to zero, the encyclopedic classification is disabled.*
   - **Number of Elements per Encylopedic Volume**, by default set to 200.

Managing User Options (Windows Front-End)

To configure your desktop and access certain functionalities, you may need to configure the user options.

To configure the user options from the desktop:

❱ In the menu bar, select **Tools > Options**.
The user options window opens.

☛ *For more details on options, see the **HOPEX Administration - Supervisor** guide, "Managing Options" chapter.*

EXITING HOPEX

- Before exiting **HOPEX**, remember to save your data, see "Saving Your Data", page 83.
"Exporting Your Private Workspace Log", page 83
- Exiting **HOPEX**, see:
  - "Quitting the application", page 85

Saving Your Data

Your data is preserved in the repositories.

You should regularly perform backups of your repository to avoid loss of your data due to unforeseen circumstances such as hard disk failure.

You should keep these backups in a safe location, on a different site from that containing the data.

Backup frequency will vary depending on how quickly the data changes. Weekly backups are generally sufficient when one user is involved. Backups should be more frequent when multiple users are working every day. You should back up your repository before and after important modifications are made to it.

For more details on repository back-up, see chapter "Managing Repositories" in the **HOPEX Administration - Supervisor** guide.

☛ *You can also export the log of your private workspace if required.*

*For more information, see chapter "Managing Workspaces" in the **HOPEX Administration - Supervisor** guide.*

Remember to regularly back up your data and to keep several backups.

Exporting Your Private Workspace Log

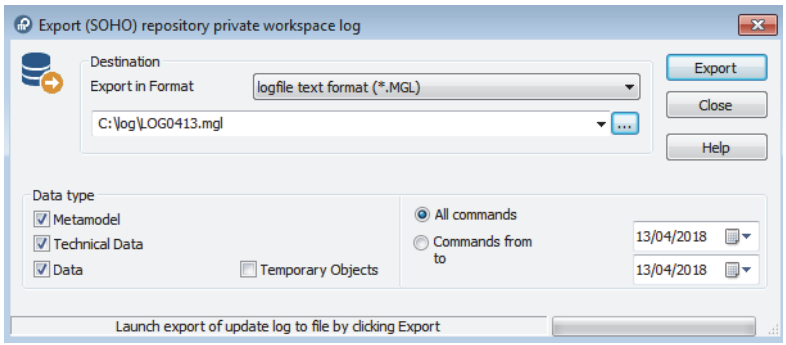
You can create an export file and save it in your work folder.

The export file can be exported in format:

- **logfile text** format (.mgl).
  The format of the exported file name is "LOGmmdd.mgl", where "mmdd" represents logfile export date month and day.
- **XML MEGA format** (.xmg)
  The exported file is in the form of an XML file containing commands or data (objects and links).

To export the work done in the current private workspace in the form of a command file:

1. Click on the **Tools > Manage > Export Updates Logfile**.
   The **Export Repository Private Workspace Log** dialog box opens.



2. Select export format.
3. (Optional) If necessary, modify the data export file name and save folder proposed as default. The **Browse** button ... allows you to browse the folder tree and select the folder in which the file will be placed.
4. In the **Data Type** frame, select the type of exported modifications:
   - **Metamodel** if you want to extract the metamodel from the system repository. This is useful if the standard metamodel has been modified.
   - **Technical Data** if you want to include in your file the changes made to data such as descriptors and queries.
   - **Data** if you only want to export changes made to repository data, particularly the workspace.
   - **Temporary Objects** - these objects are created when you execute requests, when you consult objects (stored in the history), etc. Generally you will not need to export these objects.
5. (Optional) If you want to export only those commands that correspond with a defined period, select **Commands from** / **to** and specify the dates.
6. Click **Export**.
   The **Execution Report** appears.
7. Click **OK**.
   The file is exported and saved in the specified folder.

The user can subsequently import this logfile, for example into a new private workspace.

Quitting the application

If one does not already exist, a private workspace is created when a user requests repository access: **HOPEX** saves a view of the state of the repository at the moment the user is connected.

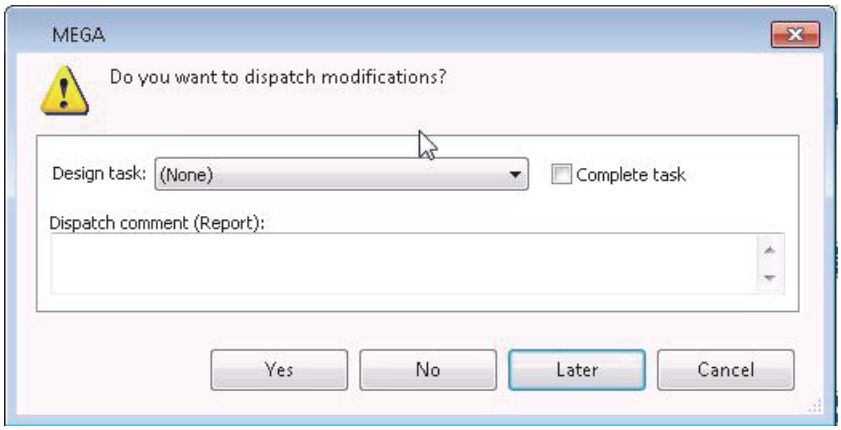
The user can add his/her own modifications without being disturbed by any concurrent modifications of other users: in the case of a network installation, each **HOPEX** user has his/her own view of the repository.

To save your latest modifications at any time, in the **HOPEX** menu bar, click **Save All** or select **File > Save All**.

☛ *To exit your work session from a collaborative workspace, see* *"Exiting a session from a collaborative workspace", page 515*.

To exit your work session:

1. In the menu bar, select **File > Exit**.
   The **HOPEX** exit dialog box appears.
   If **HOPEX**is installed on a network, a dialog box will ask you if you want to dispatch the modifications you made.



2. (Optional) In the **Dispatch comment (Report)** frame, enter a comment to remind you of modifications made in your private workspace.
3. (Optional) Select a design task and select **Complete task** if necessary.
4. Click:
   - **Yes**

   Modifications you have made in your private workspace are saved in the repository.

   ☺ *In order to work effectively as a team, it is recommended that you dispatch frequently and regularly. Other users can update their own*

*private workspace without dispatching their work (menu **File > Refresh**).*

☛ *This exit mode also allows the user to select a different repository the next time he/she logs in.*

- **No**

All modifications you made since your last dispatch will be lost. You can use this option if you want to view data quickly and exit without impacting the repository.

☛ *Modifications to your desktop are also lost.*

- **Later**

This option allows you to keep your changes without impacting the repository. You can open your session later and continue working but other users are not yet seeing the changes you have made.

☛ *Click **Cancel** to not exit your private workspace.*

HANDLING DIAGRAMS

A diagram is a representation of an object in the repository.

This chapter gives some tips on how to make best use of diagrams with the **HOPEX** diagram editor.

Differences between **HOPEX Windows Front-End** and **HOPEX Web Front-End** are indicated.

☛ *(HOPEX Web Front-End) You can also define the content of your diagrams using the tables. For more details, see "Constructing a diagram in easy diagramming mode", page 147.*

✓ "Accessing a diagram", page 88
✓ "Diagram Toolbar", page 90
✓ "Handling Objects in Diagrams", page 92
✓ "Managing Texts", page 110
✓ "Managing Drawing Objects", page 113
✓ "Handling Lines", page 119
✓ "Modifying Shape Colors and Borders", page 127
✓ "Zooming and Moving Around in Diagrams", page 131
✓ "Displaying Diagram Preview", page 133
✓ "Diagram Setup and Printing", page 140
✓ "Exporting Diagrams to PowerPoint", page 145

ACCESSING A DIAGRAM

You can access the diagrams of an object in the following ways:

- from the object pop-up menu,
- from the preview of a diagram that describes the object,

  ☛ *See "Displaying Diagram Preview", page 133.*
- from the commands available in the lists.

  ☛ *See "Creating a diagram from a list", page 88.*

You can create a diagram from an object.

☛ *See "Creating Diagrams", page 88.*

Once the diagram is created, you can edit it:

- manually using the diagram editor,

  ☛ *See "Opening a Diagram", page 89.*
- in tabular input mode (**HOPEX Web Front-End** only).

  ☛ *See "Constructing a diagram in easy diagramming mode", page 147.*

You can access:

- the diagrams that describe the object,

  ☛ *See "Opening a Diagram", page 89.*
- the diagrams that contain the object.

  ☛ *See "Constructing a diagram in easy diagramming mode", page 147.*

Creating Diagrams

Creating a diagram from an object

To create a diagram from an object:

1. Right-click the object for which you want to create a diagram.
2. Select **New > Diagram**.
3. Select the diagram type you want to create.
4. Click **New**.
   The diagram describing the object is initialized with object concerned.

Creating a diagram from a list

To create a diagram from an object list:

1. Roll the mouse over the object of the list you want to describe.
   The buttons for the diagram access commands appear.

2. Select **Create Diagram**.

3. Select the diagram type you want to create and click **OK**.

Opening a Diagram

You can open a diagram:

- from the pop-up menu of an object,
- from an object list,
- (**HOPEX Windows Front-End**) from the **Diagrams** navigation window.

To open a diagram from an object:

- Right-click the object and select the command corresponding to the diagram.
  The diagram appears.

  ☛ *If no diagram exists describing the selected object, the **New** command is proposed. See "Creating Diagrams", page 88.*

  ☛ *(**HOPEX Web Front-End**) For certain types of diagrams, you can open the diagram in tabular mode. For more details, see "Constructing a diagram in easy diagramming mode", page 147.*

To open a diagram from an object list:

- Right-click the object and select the command corresponding to the diagram.
  The diagram appears.

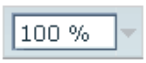
To open a diagram from the **Diagrams** navigation window of **HOPEX Windows Front-End** :

1. In the **Diagrams** navigation tree, expand the diagram type you want to access.
2. Right-click the diagram that interests you and select **Open**.

The diagram appears in the edit area.

DIAGRAM TOOLBAR

Below are the main icons available (in **HOPEX Web Front-End**).

Icon	Description
	Move - Move diagram in the page See "Moving the diagram in Web Front-End", page 131. - Zoom using mouse wheel
	Return to the preview of the diagram See "Viewing Diagrams From an Object", page 133.
	Refresh diagram
	Views and Details Enables configuration of object types to be displayed in diagrams See "Resizing Objects in a Diagram", page 96.
	Quality and performance options To use to modify the picture format (SVG format by default) in PNG or GIF.
	Fit to page Fits diagram to the page: - Fit to height - Fit to width
	Zoom in/Zoom out Zoom in/Zoom out
	**Zoom value** Zoom with indication of zoom factor. See "Zooming and Moving Around in Diagrams", page 131.
	Display page boundaries Enables display in the workspace of the boundaries of diagram pages.
	Layout properties Enables diagram layout See "Defining a diagram Setup", page 140.
	Print diagram Display diagram as a PDF file, enabling printing See "Exporting Diagrams to PowerPoint", page 145.
	Saving an image under Used to save the diagram image

Icon	Description
	Properties of the diagram Provides access to the diagram properties
	Reinitializing components Add the components created during the diagram initialization
	Word wrap text Select word-wrap text to automatically wrap the text to a new line if it does not fit on one line
	Automatic width adjustment Enables automatic resizing of the frame according to the text
	Group Enables grouping of several elements
	Ungrouping Cancels Group function.
	Lock Prohibits moving the object
	Simple line
	Perspective line Technical architecture diagram
	Orthogonal line
	Bring to front See "Bringing Objects to Front/Sending Them to Back", page 117.
	Send to back See "Bringing Objects to Front/Sending Them to Back", page 117.
	Align See "Aligning Drawing Objects", page 116.

HANDLING OBJECTS IN DIAGRAMS

Described here are the operations you can execute on objects modeled in **HOPEX**.

Adding Objects to Diagrams

You can add an already existing object to a diagram in different ways:

- from a navigation tree using drag and drop to the diagram,
- from the insert toolbar on the left of the diagram,
- from the insert toolbar available on each object (**HOPEX Web Front-End**)

Adding an object from the diagram insert toolbar

To add an object in a diagram from the Insert Toolbar:

1. In the insert toolbar click the button corresponding to the type of object required, for example an organizational process .

   ☛ *If you cannot find the button corresponding to the object type, see "Resizing Objects in a Diagram", page 96.*
2. Click on the diagram.
   The window for adding an object appears.
3. Enter the name of the object or select the **Create** or **Connect** commands.
4. Click **OK**.

   ☛ *The command that allows you to use an object from the repository can have one or two titles depending on the case:*

If	... the name of the command is...
You can create a new object in the repository	**Create**
You can only use in the diagram an object that already exists in the repository.	**Connect**

☛ *When you create an object in a diagram, it is automatically connected to the diagram.*

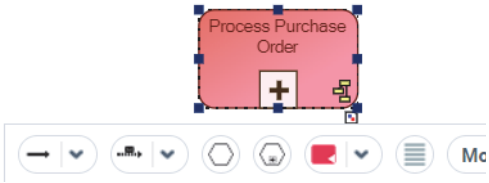
☛ *The same object can appear several times in the same diagram.*

Using the object insert toolbar (HOPEX Web Front-End)

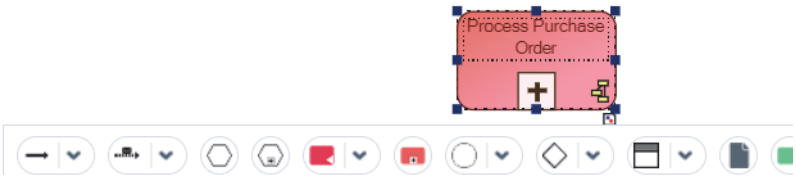
An insert toolbar available on each object simplifies object creation by proposing object selection help. It proposes only those objects that can be connected to the current object.

To create an object from an object of a diagram:

1. Click the diagram object concerned.
   The bar containing the objects you can insert at this stage appears.



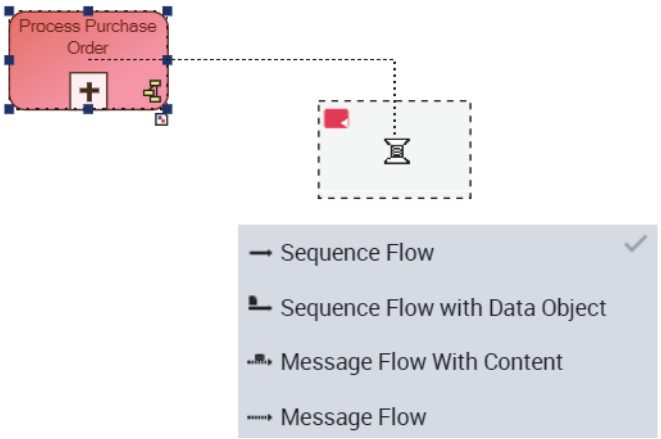
   The **Plus** bottom of the insert toolbar scrolls to display other object types.



2. Click the icon that represents the object you wish to create.

   `For example:` **`Operation`** .
   The link selection dialog box appears.
3. In the link selection dialog box, select the desired link type.

   `For example:` **`Sequence Flow`** `in a BPMN organizational process diagram.`
   You preview the object that will be created, as well as the link to the previous object.



☛ *To cancel the operation, click the <Esc> key.*

4. Click in the diagram at the point where you wish to place the object. The object is created, with the link to the previous object.

Handling Links Between Objects

Creating links

To interconnect objects:

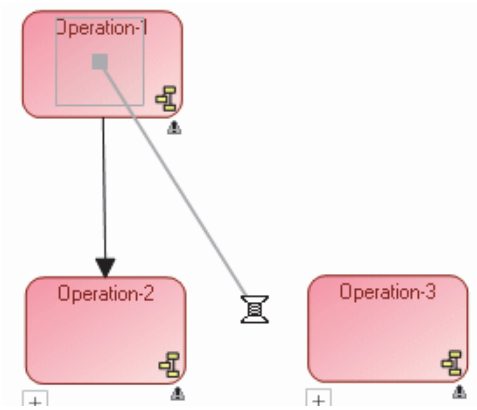
1. In the insert toolbar, click **Link** .
2. Click the first object and, holding the mouse button pressed, draw a link to the target object.

Changing target of a link

You can easily modify the target of an object, that is the object to which this object is connected.

To change target of an object:

- Select the end of the link, then holding the <Shift> key down, move the link to another target object.



☛ *This action allows you to retain the characteristics of the link.*

Modifying link appearance

Links in diagrams behave like lines: it is possible to modify their shape, appearance, etc. Links are obviously attached to the objects that they connect.

☛ *For more details on the lines, see "Handling Lines", page 119.*

Moving a link text

For certain links, text zones can be displayed (for example, for cardinalities). It is possible to modify the position of the text with respect to the line by selecting the text zone and dragging it along the line. Possible movements are necessarily limited so that the text remains attached to the link. This function allows the text to be positioned above, below or on the line.

Removing and Deleting an Object from a Diagram

A **HOPEX** repository object is not simply graphic. It can exist in the repository without being present in the diagram.

The deleted objects are removed from the repository and consequently from all diagrams that use them. The pop-up menu of each object allows you to view the diagrams in question.

To view diagrams containing a particular object:

- Right-click the object and select **Diagrams Containing Object**.
  The dialog box that opens allows you to view the diagrams that contain the object concerned.

Deleting objects

To delete an object from the repository:

1. Select the object and press the <Del> key.

   ☛ *From the object pop-up menu you can also use the **Remove** command.*

   The **Deleting of Collection** dialog box opens.

   It indicates the object you wish to delete together with its dependent objects, if any (operations of an organizational process, for example).

   Check boxes alongside each object allow you to select the objects you wish to delete.
2. Select the objects you wish to delete and click **Delete**.
   Selected objects are deleted from both the diagram and the repository.

If you have deleted an object in error, you can restore it by using the function that enables undo and redo of actions. See "Undoing and Redoing Actions on Objects", page 173.

Warning: if you select a link between two objects, pressing the <Del> key deletes the link from the repository (and not just from the diagram).

Removing objects from a diagram

To remove an object from a diagram:

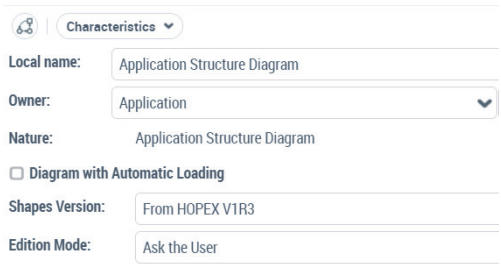
1. In the object pop-up menu, select **Cut**.
   The object no longer appears in the diagram, but it still exists in the repository.

Updating diagram objects

When a diagram is created, the components of the described object are automatically inserted into the diagram. By default, if new components are added to the described object, they are not automatically taken into account in the diagram.

For all components connected to an object to be automatically added to one of the diagrams that describe the object:

1. Open the **General > Descriptions** property page of the object.
2. Open the **Characteristics** property page of the diagram that interests you.
3. Select the check box **Diagram with Automatic Loading**



When you open the diagram again, all the components of the object described appear in the diagram.

Resizing Objects in a Diagram

To modify the dimensions of an object:

1. Select the object concerned.
2. Point to a handle.
   The pointer shape changes to a double-headed arrow. The direction of the arrow indicates whether you can resize the drawing object horizontally, vertically, or both: ↕↔⤡⤢.
3. Hold the mouse button down: a selection rectangle appears around the drawing object.
4. Drag the mouse.
   The rectangle indicates the new size of the object.

5. Release the mouse button when the desired dimensions are obtained.

Shortcuts concerning resizing

You can change both the height and width of a drawing object proportionally:

- By holding down the <Shift> key and dragging one of the handles at a corner of the object.

To enlarge and reduce the element from its center point:

- Hold down the <Ctrl> key while dragging the mouse.

☛ *These shortcuts exist in **HOPEX Windows Front-End** only.*

Resizing drawing objects to the size of another object

To resize one or more drawing objects to the size of a reference object:

1. Select objects to be resized.
2. Select the reference object by holding down the <Shift> key and clicking it.
3. In the pop-up menu, select the desired option of **Make Same Size**: **Height**, **Width**, **Both** (height and width).

The drawing objects now have the same height and/or width as the reference object.

Moving Objects

To move an object or a group of objects:

1. Select them.
2. Click an object in the selection, avoiding a handle.
3. Holding the mouse button down, drag the selection to the desired location, then release the mouse button.

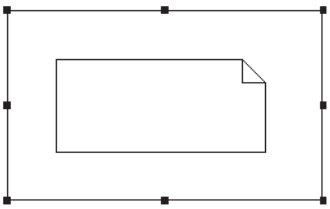
☛ *When the grid is enabled (see "Using the Grid", page 118), the drawing objects you move are automatically aligned with the grid.*

If you move the drawing object beyond the current diagram area, the diagram area automatically scrolls to keep it in view. Note that you cannot move elements outside a diagram.

Moving nested elements

When a drawing object is contained within another graphic element, there are two possibilities:

- Move the two elements together.
- Move only one of the two elements.



To move the two elements together:

- Click the element that contains the other and move it.
  The second element will follow.

To move the containing element without moving the contained element:

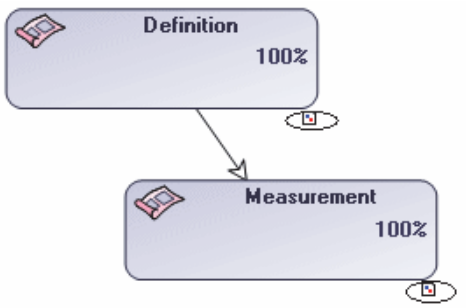
- Move the containing element holding down the <Shift> key.

  ☛ *This procedure can be useful, for example, to move a swimlane with or without its attached objects.*

Object status indicators

You will note the presence of icons below certain objects in your diagrams. These icons give indications on object status.

For example, when an object in a diagram is described by one or more other diagrams, a status indicator appears below the object shape. This indicator reminds you that you can zoom on the object.



Example of state indicators (objects described by a diagram)

It is possible to configure display of these icons. To do that, open the **Options** dialog box and select **Status Indicators**. In the dialog box that opens, select or clear the desired options.

	the object is owned by the parent object
	the object is not owned by the parent object
	the object is described by a diagram
	the object is described by a document
	the object cannot be modified (not authorized and/or locked)
	the object can be modified (authorized and not locked)

the object has variants

the object is a variant

The object has a review note
see "Managing review notes", page 463.

Adding a Note to a Diagram

If you want to highlight a particular point in your diagram, you can create a note and attach it to an object.

To create a note:

1. In the insert toolbar, click **Note**

   ☛ *If the **Note*** icon is not present in the insert toolbar, *see "Resizing Objects in a Diagram", page 96.*
2. Click in the diagram at the position where you wish to add the note.
   The **Creation of Note** window appears.
3. Enter a name for the note in the **Note** box, or retain the name automatically generated by **HOPEX**.

   ☛ *A note is unique in the repository. You cannot give an already existing name for the note.*
4. In the **Type** box, click the drop-down menu arrow and select a note type.

   ☛ *Note types are for example: Warning, Correction, Improvement, Question, Remark, Justification, Example, etc.*
5. Enter your text in the **Comment** area.
6. Click **OK.**
   Your note appears in the diagram.
7. In the insert toolbar, click and connect the note to the object concerned.

Configuring the objects shape

HOPEX objects are represented in a diagram by graphical shapes. Each object is represented by a default shape. Several shapes are available for each object.

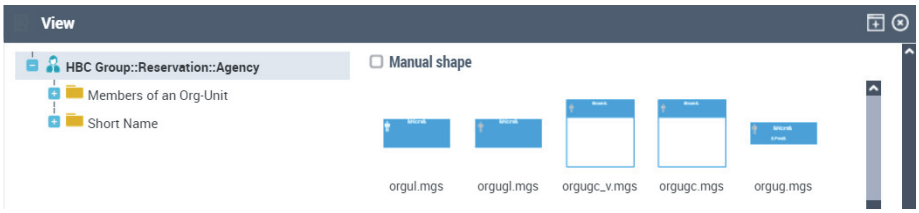
You can modify:

- the object shape
- the object default shape

Modifying object shape

To modify, for example, the shape representing an org-unit in a diagram:

1. In the diagram, right-click the org-unit and select **Shapes and Details**.
   The **Shapes and Details** window appears.



2. In the **Shape** frame, select the desired shape.
   Note that **Manual shape** box is checked automatically.
3. Click **OK**.

Modifying object default shape (HOPEX Windows Front-End)

To modify the default shape of objects of type **Org-Unit**, for example:

1. Right-click the object and select **Shapes and Details**.
   The Display dialog box opens.
2. In the **Shape** frame, clear the **Manual Shape** check box to display the default shape of the object.
   In the grayed **File** box, the name of the default shape is displayed.
3. Note the name of the default shape of the object.

   `ORGU.MGS (for Org-Unit)`
4. In the **Shape** frame, select the shape you wish to display by default.

   `orguc.mgs for example`
5. In the **File** box, note the path of the new shape.

   `...\Mega_Std\Pictures.7220\Method\orguc.mgs`
6. Under the path indicated, select the file `orguc.mgs` and copy this in the `...\Mega_Usr` folder.
7. Change the name of the copied file to the default name.

   `orguc.mgs by ORGU.MGS`

   The default shape of the object (eg: org-unit) is modified.

☛ *For more details on managing shapes available, see "Changing Shape Sets", page 100.*

Changing Shape Sets

As standard, you have several sets of shapes which correspond to:

- version 2009,
- Version HOPEX V1R3 and higher

To modify the shapes version used in a diagram:

1. Open the **Characteristics** property page of the diagram.

2. Select a value in the **Shapes Version** field.
   - "From MEGA 2009"
   - "From HOPEX V1R3"
3. Open the diagram.
4. (**HOPEX Windows Front-End**) Click **Drawing** > **Initialize Shapes**. The appropriate shapes are then loaded.

If you are using a version of **HOPEX** later than 5.2:

- New diagrams will use the new shapes by default.

  ☛ *If you want to use the old shapes, you must select the value "Before HOPEX 5.2" or "After MEGA 5.2" in the **Shapes Version** list box.*

- For compatibility, old diagrams always use the old shapes.

  ☛ *If you want to use the more recent shapes, you must select the value "After HOPEX 2005" in the **Shapes Version** list box.*

Shapes storage folder

Version	Shapes storage folder
Version 2009	MEGA_STD\Pictures.7220
HOPEX V1 and higher	MEGA_STD\Pictures.7600

Configuring the text of a graphical shape

Modify the textual characteristics of a shape

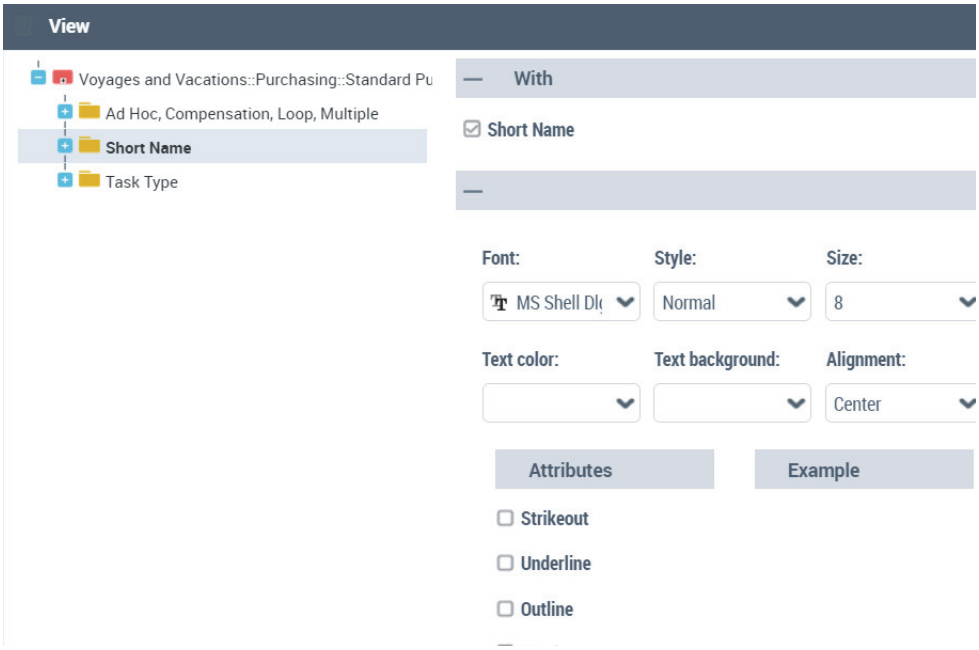
For example, you can choose to display **Short Name** of an **Organizational Process** in a diagram.

To access textual characteristics of a graphical shape:

1. Right-click the shape concerned and select **Shapes and Details**.

2. In the window that appears, click on of the characteristics proposed in the tree on the left.

   For example: **Short name**



3. In the right part of the window, you can select, or unselect, the check box corresponding to the object **Short name**.

   ☛ *With **HOPEX Windows Front-End**, the right pane displays two tabs: the **Content** tab used to select the fields that are displayed in the shape and the **Font** tab used to modify characteristics of the font used by the shape.*

4. Click **OK**.
   If you have customized the size or the font of the text associated to the shape, these options will remain unchanged on shape modification.

With **HOPEX Windows Front-End**, you can restore the shape default parameters:

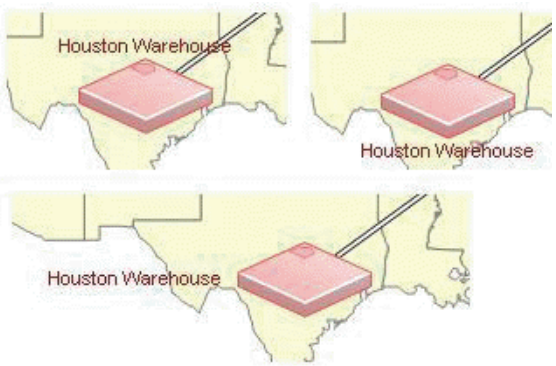
1. In the diagram, right-click the shape and select **Shapes and Details**.
   The Display dialog box opens.
2. Select the check box **Apply default size** restore the default size of the text associated to the shape.
3. Select the check box **Apply default font** restore the default font of the text associated to the shape.

Modifying Text Fields Position

You can modify the position of object text fields that can be placed in a diagram.

Eg: the text field of a site.

You can thus choose to position the text box on top, on the bottom, to the left, etc.



To modify the position of a the text field of an object:

- Right-click the text field, select **Position** and the desired position.

Using Swimlanes

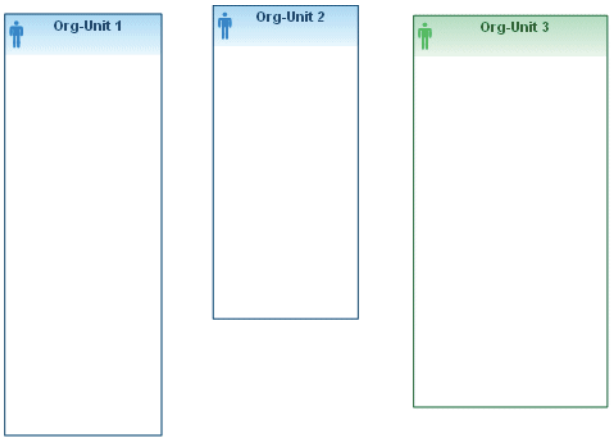
The swimlane is a tool that enables graphical presentation of certain diagram types.

The table below shows examples of objects that can be placed in a swimlane (according to diagram type).

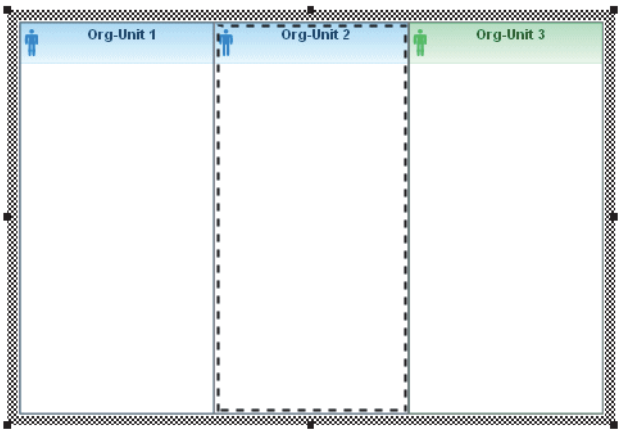
Operating principle

If you insert several org-units of different dimensions in a diagram, by inserting them in a swimlane they automatically take identical dimensions and are automatically aligned.

The objects concerned can be arranged automatically in vertical or horizontal swimlanes.



Org-unit arrangement without use of swimlanes



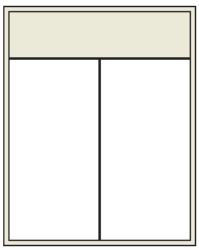
Org-unit arrangement in swimlanes

Creating swimlanes

A zone comprising several swimlanes is called a **pool**.

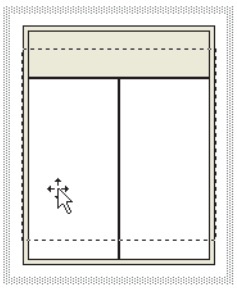
To create a swimlane, you will create a pool:

1. In the toolbar of a diagram, organizational process diagram for example, click one of the two buttons for swimlane creation.
   - used to create vertical swimlanes
   - used to create horizontal swimlanes.
2. Click on the diagram.
   The swimlanes (here, vertical) are added to the diagram.

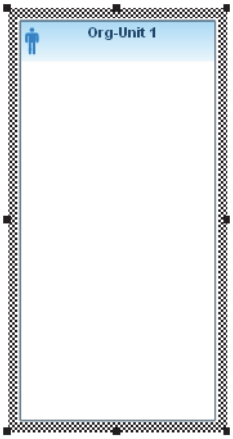


To place a participant (org-unit) in the swimlane:

1. Click on the **participant (org-unit)** and holding the mouse button down, move the participant into the swimlane.



The swimlane adapts to the size of the participant.

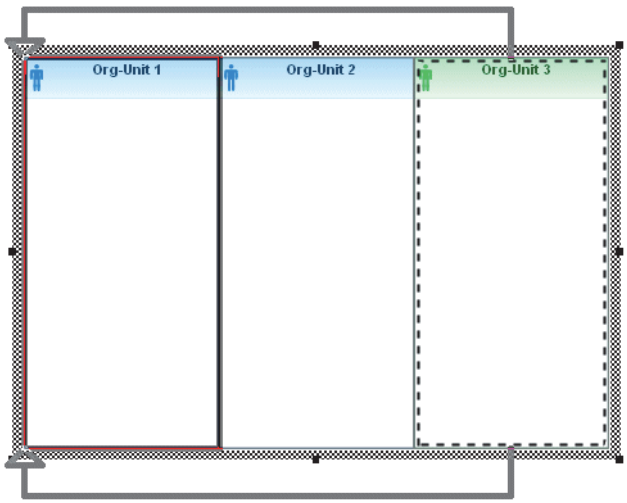


If other objects are linked to the participant (org-unit, operations, organizational processes, etc.), these will remain attached to the participant during its movement.

Modifying the order of objects in a pool

To change the order of objects:

- Using the mouse, move the object to the required position.
  An arrow indicates the direction of movement and the new position of the object.



To remove an object from a pool:

- Using the mouse, drag it outside the zone.

Creating a new object in a swimlane

When creating a new participant in a diagram containing a swimlane, the participant can be added inside or outside the swimlane.

To create a new object inside the swimlane:

1. In the insert toolbar, click the icon corresponding to the object you want to create.
2. Then click inside the swimlane.
   The object creation dialog box appears.
3. Enter the name of the object and click OK.

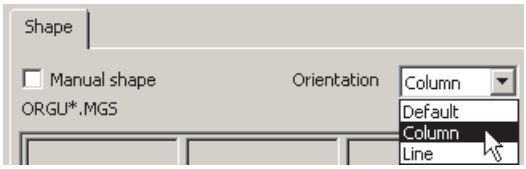
Display mode of objects in a swimlane (HOPEX Windows Front-End)

Objects that can be placed in a swimlane have an additional characteristic enabling determination of object display mode (in lines or columns).

To view this characteristic:

1. Right-click the object and select **Shapes and Details**.
2. In the window that opens, select **Orientation**, which allows selection of object display mode:
   - **Default**
   - **Column** (vertical)
   - **Line** (horizontal)

If you originally created a vertical swimlane, objects placed in the swimlane will have column display mode.

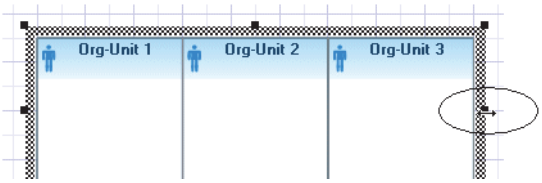


Globally modifying size of objects in a pool

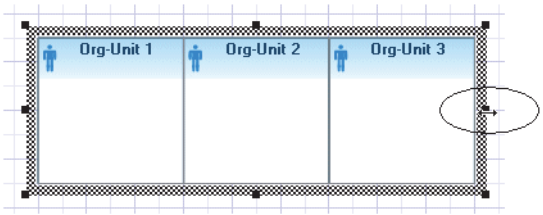
You can modify the size of all objects placed in a pool in a single operation.

To globally modify size of objects in a pool:

1. Select the pool and position the cursor on a handle on the desired outside edge, changing the shape of the cursor to a small arrow.



2. Holding the mouse button down, move the cursor to modify size of the selection.



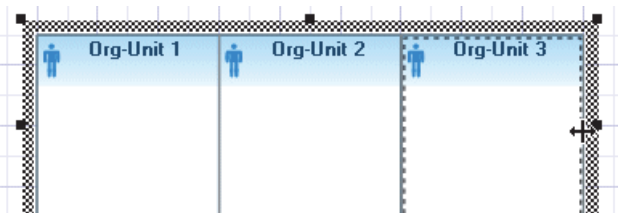
The size of all objects in the pool is modified in identical proportion.

Modifying size of a single object in a pool

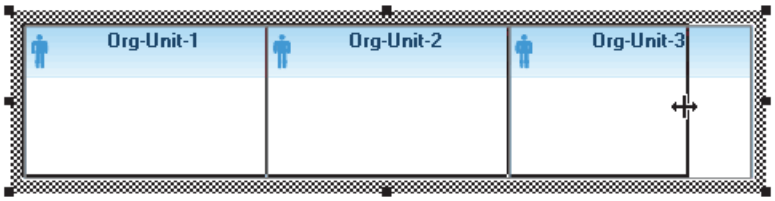
You can modify the size of just one object in a pool.

To do this:

1. Select the object you wish to modify.
   A dotted line frame appears around the object.
2. Position the cursor on the dotted line frame.
   The cursor changes shape to an arrow.



3. Holding the mouse button down, change the size of your selection.



Only the selected object is modified.

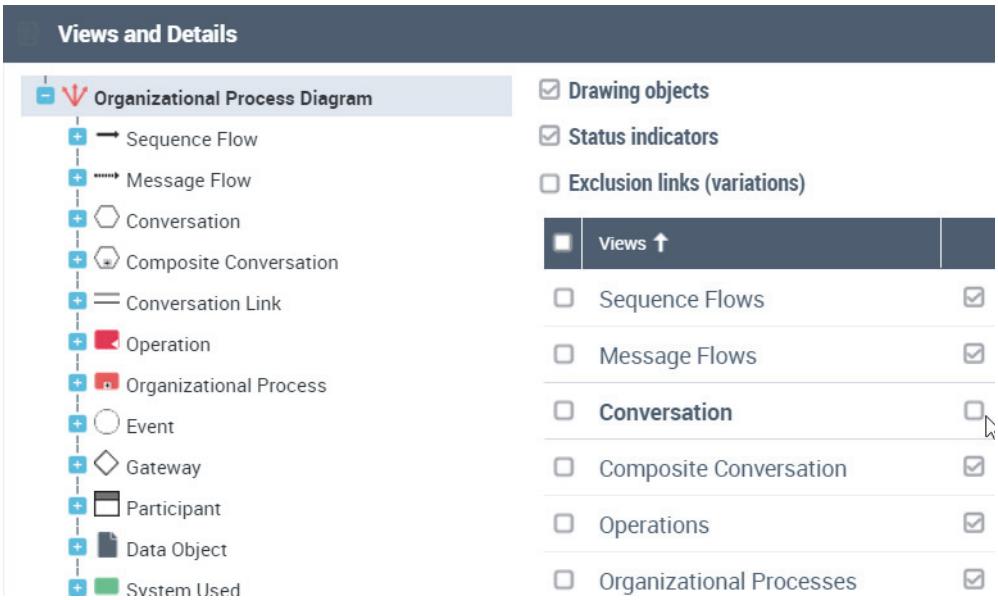
Activating the Views and Details window

The **Views and Details** window details presents a list of views (object types to be displayed) which varies according to diagram type.

To activate the views window:

1. In a diagram, click **Views and Details** .
   The list of views (object types to be displayed) appears.

2. Select or clear the views you wish to display or not.



☛ *The **Drawing Objects** check box allows you to show or hide purely graphical elements representing neither object nor link.*

3. Click **OK**.
   The window closes.
   The display and the insert toolbar of the diagram are updated according to the configuration specified.

MANAGING TEXTS

In diagrams, texts enable informal documentation of diagrams.

Inserting texts

A text box is created under the shape of the element, containing the cursor for text entry.

Fields can be used to insert variable information such as page numbers and dates into your diagram (see "Insert a field in a text", page 111). These fields are updated automatically.

Creating Texts

To create a text in a diagram:

1. Click then **A Text**.
2. Click the diagram.
   The text frame is is displayed.
3. Enter the text you wish to insert in the diagram

Modifying Text

To modify a text:

- Select the text and press the <F2> key.

The pointer shape changes to a cursor. You can then move the cursor using the keyboard arrow keys or by clicking in the text where you want to position the cursor.

The characters you type are inserted where the cursor is positioned. The <Backspace> and <Delete> keys are used to delete characters. You can use **Copy**, **Cut** and **Paste** after selecting text. Simultaneously pressing <Ctrl> and <Enter> enables insertion of line breaks.

Specifying Fonts

You can:

- Specify the style, size and font of text characters.
- Specify text alignment.
- Specify text color and text background.
- Specify a color using the proposed color selector.
- Select **Word-wrap text** to automatically wrap the text to a new line if it does not fit on one line.
- Select **Automatic width adjustment** to resize the text box according to the actual size of the text.

  ☛ *If you do not select this option, you may have to resize the text box using the handles in order to see all of your text.*

To specify the text font:

- In the pop-up menu of the text, select **Font**.
  In the window that appears, you can:
  - Specify the style, size and font of text characters.
  - Specify text alignment.
  - Specify text color and text background.
  - Specify a color using the proposed color selector.
  - Select **Word-wrap text** to automatically wrap the text to a new line if it does not fit on one line.
  - Select **Automatic width adjustment** to resize the text box according to the actual size of the text.

    ☛ *If you do not select this option, you may have to resize the text box using the handles in order to see all of your text.*

Positioning Texts Vertically

To position text vertically:

- Right-click the text and select **Rotation > Rotation left 90°** or **Rotation right 90°** .

  ☛ *This text can then be reused in a shape.*

Insert a field in a text

Fields provide you with a rapid means of inserting date, title, and page number in a diagram. Fields are updated continually, and therefore when printing your diagram, you need not manually update your diagram to print the correct date.

To insert a field in a diagram:

1. Click then **Field**.
   The **Insert Field** dialog box appears.
2. Select the desired field in the **Field Type** box.
   The contents of the **Format** box are determined by the type of field you selected.

Field formats

Formats appear as follows:

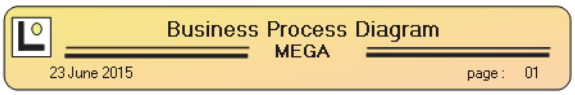
- ***Date and time***
  - JJ: day
  - MM: month number (1-12)
  - MMMM: month name
  - YY: year in two numbers (01)
  - YYYY: year in four numbers (2001)
  - hh:mm: hour and minutes on 24 h (14:45)
  - hh:mm AM/PM: hour and minutes on 12 h (2:45 AM)
- ***Title/short title***
  - AAAAA AAAAA AAAAA: Uppercase
  - Aaaaa Aaaaa Aaaaa: First letter in uppercase
  - aaaaa aaaaa aaaaa: Diagram name all lowercase
- ***Page number***
  - 1 2 3 : Arabic numerals
  - A B C: Letters
  - I II III: Roman numerals
  - 1/x 2/x 3/x: Page number in Arabic numerals followed by total number of pages
  - 1A 1B 1C 2A 2B 2C : Numbering in rows and columns.
- Diagram creator
- Diagram modifier
- Diagram creation date / time
- Diagram modification date / time
- Diagram nature
- Short name of object described
- Long name of object described

Inserting a Title Block

A title block is an area and a set of data used to visually identify the diagram more easily.

To insert a title block in your diagram:

1. Click **Title Block** then the area where you want to insert the title block.



*You can access the shape of the title block easily from the diagram in **HOPEX Windows Front-End**. For this, in your diagram, right-click on the shape of the title block and select **Shape**.*

MANAGING DRAWING OBJECTS

Described here are the operations you can execute on drawing objects in **HOPEX**.

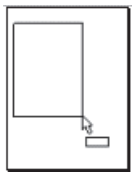
Creating Drawing Objects

To create a basic drawing object (square, circle, polygon, etc.) :

1. Select the type of element using button .

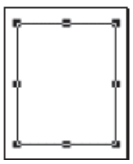
   ☛ *An icon follows the mouse pointer, indicating the type of drawing object selected. This icon resembles the icon on the button in the drawing objects toolbar*

2. Click at the location where you want to anchor one of the angles of the drawing object.
3. Holding the mouse button down, drag the mouse to where you want the opposite angle to be:



4. Release the mouse button.

The drawing object is created: the handles around the object indicate that it is selected.



After the drawing object is created, the pointer returns to its usual shape. You can now select and move elements.

☛ *To create a line or a text, see "Handling Lines", page 119, and "Managing Texts", page 110.*

Tips for creating drawing objects

To create several drawing objects of the same type without having to select the type each time:

- Click then double-click the required type of drawing object.

The type remains selected until you press the <Esc> key.

To create a drawing object with height equal to width (circle, square, etc.):

- Hold the <Shift> key down while moving the mouse.

To create a drawing object based on its center:

- Hold down the <Ctrl> key while dragging the mouse.

> ☛ *Hold down the <Shift> and <Ctrl> keys to create a regular geometric shape for the object, based on its central point.*

Selecting Drawing Objects

After you create a drawing object, you can modify it (size, colors, etc.), duplicate it, move it, align it with another drawing object and change how it is displayed on the screen.

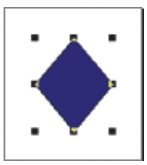
To modify an element, it is first necessary to select it.

To select an element:

- Position the pointer on the element and click.

> ☛ *If a drawing object type is already selected, press the <Esc> key, or select the pointer button in the toolbar.*

The element is surrounded by small squares called "handles". These handles allow you to modify dimensions of the element.

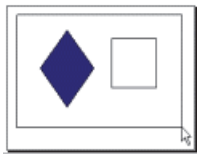


If the drawing object selected is a line or a link, then small squares or "joints" mark the end of each section (see "Handling Lines", page 119).

To select several elements at the same time, drag the mouse to enclose the drawing objects in a selection rectangle:

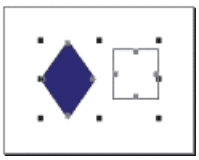
1. Move the mouse holding the button down.
   A rectangle appears. One of the angles of this rectangle is where you first pressed the mouse button, and the opposite angle is where the pointer is presently.

2. Release the mouse button.



Note that the drawing objects have to be completely enclosed by the rectangle in order to be selected.

☛ *If you have only partially enclosed a drawing object, it will not be*



selected. Therefore, a group of drawing objects or a shape whose elements are not close to each other, would not be selected even if it was apparently part of the selection.

Drawing object selection shortcuts

You can select several drawing objects by holding down the <Shift> key while clicking on each drawing object.

When several drawing objects are selected, you can deselect one or more of them by holding down the <Shift> key and clicking on them.

To select all of the objects in the diagram:

❱ Press the <Ctrl> and <A> keys simultaneously.

Cutting, Copying, Pasting, Deleting and Duplicating Drawing Objects

These menu commands of the drawing object pop-up menu enable deletion, moving one or several diagram elements.

Cut

Select **Cut** to delete the selected drawing objects and to place them on the clipboard (the previous clipboard contents are overwritten).

☛ *Only graphical drawing objects and links are actually deleted when you use the **Cut** command. If you delete element, they are no longer displayed in the diagram, but they still exist in the repository.*

Copy

Select **Copy** to put your selection on the clipboard (the previous clipboard contents are overwritten).

Paste

Select **Paste** to put the contents of the clipboard in the diagram at the position you clicked last. Note that the clipboard is not emptied and you can repaste its contents multiple times.

Clear

Select **Clear** to delete your selection from the diagram. This command does not affect the clipboard contents.

Duplicating

Select **Duplicate** to copy your selection and place it next to the original.

☛ *This function is available with **HOPEX Windows Front-End** only.*

To duplicate you can also:

- Hold down the <Ctrl> key and select the drawing object(s) you want to duplicate.
- Keep the <Ctrl> key down and drag the selection to the place in the diagram where you want the duplicate to be.
- Release the mouse button, then the <Ctrl> key.

The selection is still at its original location, but its copy is placed where you dragged it.

Aligning Drawing Objects

To align drawing objects:

1. Select the objects to be aligned, holding the <Ctrl> key down.
2. Click the arrow at the extreme right of the **Align** button.
3. Select an alignment mode in the list proposed.

Alignment by selection rectangle

When you select elements using a rectangle traced with the mouse, the commands **Top** (**Bottom**, **Right**, **Left**) align the selection on the top edge of the highest element (or bottom, right, left).

Centering is on the vertical or horizontal median.

☛ *You must then select the reference element by clicking it while holding down the <Shift> key.*

Alignment by successive clicks

When you successively select elements with <Shift> key held down, the last element selected serves as reference: the selection is aligned on the top (bottom, right, left) edge of the element.

Centering is with respect to the last element selected.

Alignment on the grid

To align the selected object on the grid, see "Activating the grid", page 118

Note that the size of objects created without a grid or using a finer grid is modified to become a multiple of grid spacing (the object is either slightly enlarged or reduced to minimize modifications).

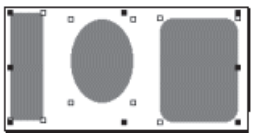
Spacing the Elements

To equally space selected drawing objects:

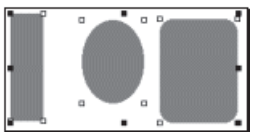
1. Select the drawing objects by holding down the <Shift> key and clicking on them.
2. Right-click the object selection and select a command from the **Space** sub-menu according to the direction required.

☛ *So that these commands are available, it is necessary to select at least three elements.*

Using the commands **Space > Horizontally** and **Vertically**, the space between the three drawing objects becomes identical.



Using the commands **Space Horizontal Centers** or **Vertical Centers**, the distance between centers of the three drawing objects becomes identical.



Bringing Objects to Front/Sending Them to Back

If you place several drawing objects at the same location, they will be superimposed. Drawing objects cover each other in the order you create them: the latest created drawing object covers the previous one. You can modify this order.

To put an object behind another:

1. Select the drawing object(s).
2. In the drawing object pop-up menu, select **Order > Bring forward** or **Order > Send backward**.

To put a drawing object in front of all the others:

- In the **Edit** toolbar, click .

To put a drawing object behind all the others:

- In the **Edit** toolbar, click .

In this way the drawing objects can be completely reordered by successively applying these various commands.

Using the Grid

Showing the grid

To show the grid:

1. Right-click the workspace and select **Grid**.
2. In the dialog box that opens, select **Show grid**.

> ☛ *The fact that the grid is shown does not mean that it is active. To activate the grid, the **Snap objects to grid** option must be selected.*

Activating the grid

When the grid is activated, the drawing objects you create are automatically aligned to the grid lines. The size of drawing objects is a multiple of grid spacing. When you move drawing objects, they will move by increments equal to grid spacing.

To activate the grid:

1. Right-click the workspace and select **Grid**.
2. In the dialog box that opens, select **Snap objects to grid**.
   Objects created before the grid is activated will now be aligned on the grid (it can be activated after the event).

> ☛ *The grid can be active even if it is not shown.*
>
> ☛ *When you hold down the <Alt> key while manipulating objects, the grid is temporarily deactivated if previously activated, and vice-versa.*

Modifying grid lines and spacing

You can configure grid display by modifying:

- **Spacing** of grid lines.
- **Color** of grid lines.

HANDLING LINES

Operations concerning lines in **HOPEX** are described here.

Links in diagrams behave like lines: it is possible to modify their shape, appearance, etc. Links are obviously attached to the objects that they connect.

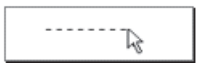
☛ *For more details on links, see "Handling Links Between Objects", page 94.*

Drawing Lines

Tracing a line

To trace a line:

1. In the tool bar on the left, click and select **Line**.
2. Click the mouse where you want the line to begin and, holding the mouse button down, drag the mouse to define the length of your line.



3. Release the mouse button where you want the line to end.

The line is created as a straight line with a handle at each end.

Creating a joint

To create a joint in a line in order to segment the line, for example:

1. Select the line by clicking on it, taking care not to click on a handle.
2. Position the pointer on the line and press the Ctrl key until the pointer changes to form +.

3. Holding the <Ctrl> key down, left-click and move the pointer to where you wish to segment the line.

A joint represented by a handle is added.

You can perform this operation as many times as you want. You can then drag the joints to modify the shape of the line.

Deleting a joint

To delete a joint (except at the two ends):

- Point on the joint and hold down the <Ctrl> key (the pointer shape changes to +) and click to delete the joint in the line.

The joint is deleted.

You can also right-click on joints, which allows you to simultaneously delete all joints.

Moving Line Segments

To change the shape of a line:

1. Point on a joint.
   It changes shape.
2. Holding the mouse button down, drag the joint to the new position.

Moving Lines

To move a line:

1. First select it.
2. Point to the line (and not to a handle) and holding the mouse button down, drag it to the desired position.

> ☛ *If you perform the above steps by selecting a handle, you will change the shape of the line and not its position.*

Connecting a Line to a Drawing Object

You can connect the end of a line to an object, so that if the object moves, the line moves with it.

To attach a line to an element:

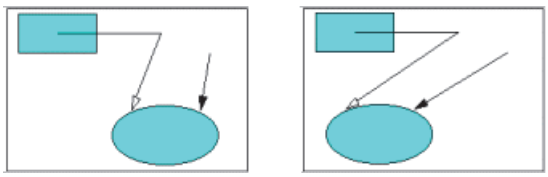
1. Select the handle at the end of the line.
2. Holding the mouse button down, drag the handle inside the drawing object.
3. Release the mouse button.
4. Right-click the handle and in the pop-up menu that appears, select **Connect to object**.

The pointer takes shape and the handle is attached to the element: when the element is moved, the handle follows.

You can also double-click on the handle to connect or disconnect the line.

The linked extremity can then be moved outside the element: when the element moves, the end of the line moves, maintaining its position related to the element.

In the example below, the two arrows are connected to the ellipse and follow its movements:



When an end is connected to a drawing object, the pointer shape changes to when you point to the handle.

To disconnect a line from a drawing object:

1. Position the pointer over the connected end of the line.
2. In the pop-up menu, select **Disconnect**.

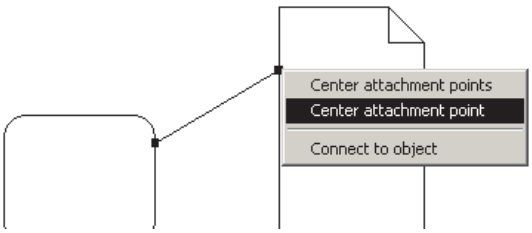
Centering Attachment Points

When you have attached a line to an object, or in the case of links in diagrams, you can center the attachment points.

> ☛ *For more details on how to attach a line to an object, see "Connecting a Line to a Drawing Object", page 120.*

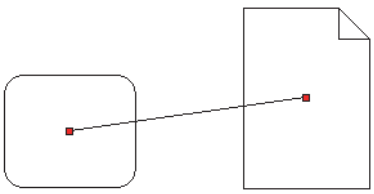
To center attachment points:

- Right-click an attachment point and select **Center attachment point**.



> ☛ *You can also center the attachment point by selecting and double-clicking it.*

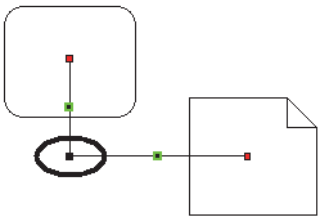
You can also center the two attachment points simultaneously by selecting **Center attachment points**.



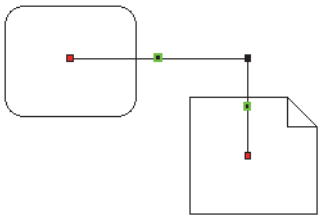
Reversing Position of Orthogonal Lines

To reverse the position of an orthogonal line relative to the objects to which it is attached:

- Double-click the joint in the orthogonal line:



You should obtain the results below:



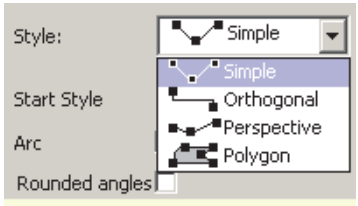
Modifying Lines

To modify the appearance of a line:

1. Right-click on the line.
2. Select **Colors and Borders**.

The **Colors and Borders** tab enables definition of:

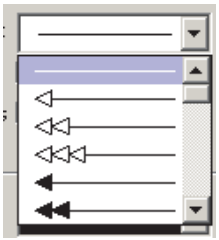
- Line style (simple, orthogonal, perspective, polygon).



The last type, which gives a closed shape, allows you to draw an irregular polygon that can be filled with a color and a pattern as for other elements.

- Line ends (covered or not by connected elements).

- Style for the beginning (**Start style**) and the end (**End style**) of the line.



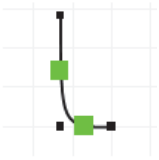
☛ *If you do not want an arrow at the end of the line, select the simple straight line.*

Color of the interior of arrow heads can be modified using the **Fill** frame (only if you have selected an arrow style with solid head).

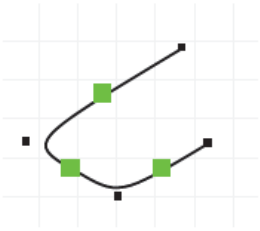
HOPEX enables drawing, for all line types, of:

- **Rounded angles**.
- **Arcs**.
- **Double** lines.

Examples of lines



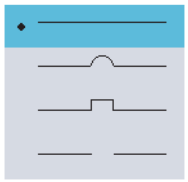
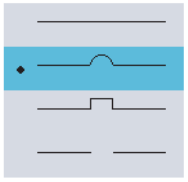
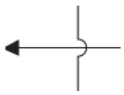
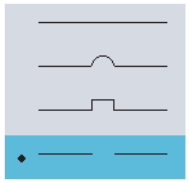
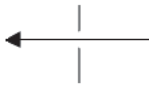
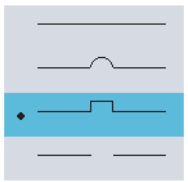
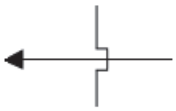
Orthogonal line with rounded angles



Perspective line with rounded angles

Configuring Bridges in Diagrams

Bridges can help you improve the readability of diagrams when several lines cross each other. Those lines can be drawing lines, links, sequences, etc.

Style of bridge option value	Icon in the diagram toolbar	Appearance in the diagram
Disabled		
Semi-circle		
Empty space		
Rectangular		

Lines created in a diagram are associated by default to the style of bridge configured in the user options at the time the diagram was created. However, you can define a style specific to a diagram. See "Modifying the appearance of bridges in a diagram", page 126

Parameterizing the default appearance of bridges

To modify the default appearance of bridges in diagrams:

1. Access user options.
   - "Managing User Options (Windows Front-End)", page 82
   - "Managing your options (Web Front-End)", page 66
2. In user options, select **Diagrams/Edit Shapes**.
   The option **Style of bridges** enables you to specify how bridges display by default in the application.

Modifying the appearance of bridges in a diagram

You can modify the style of bridges applied by default in diagrams or modify the style of a specific bridge.

To modify the default appearance of bridges a diagram:

- In a diagram toolbar, click the icon and select a type of bridge.
  This style applies to new bridges created in the diagram.

To change the bridge of a specific line:

- Select the line you are interested in and select a type of bridge.
  You may apply a different bridge style to each line of the diagram.

MODIFYING SHAPE COLORS AND BORDERS

☛ *The following procedures are described for **HOPEX Windows Front-End**. These functions are available in **HOPEX Web Front-End** but with certain possible variants due to the interface.*

To customize your shapes, you can use fill colors, modify **Style**, **Color** and **Weight** of a line or border, add texture, round off angles, etc.

To modify element colors and borders:

❱ Right-click the workspace and select **Colors and Borders**.

Modifying Shape Fill

You can fill your shapes with plain color, shading or a pattern.

The **Fill** frame in the **Graphical options** dialog box allows you to select a fill color, shading and pattern for shapes.

Selecting a color

When objects cover other objects, color **No fill** allows you to view elements in the background.

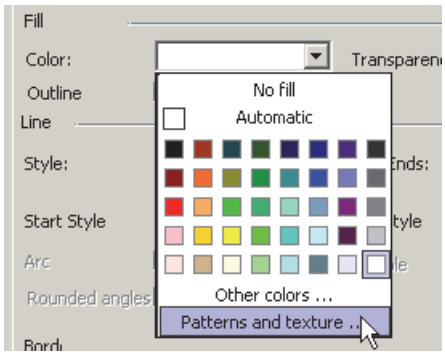
To select a color:

❱ Click the desired color in the **Color** group box.

If a suitable color is not displayed, you can refine selection by selecting:

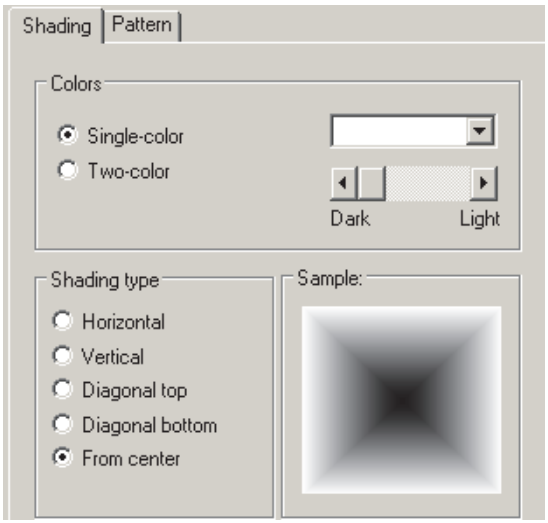
- **Other colors...**
  HOPEX offers a range of 16 million colors (for borders, fonts, texts, etc.).
  In the color picker that opens, click the desired color or enter values in the Shade, Saturation, Brightness, Red, Green and Blue boxes. You can drag the slider to adjust the luminosity of the currently selected color.
- **Shading and Pattern** (see below)

Applying shading and pattern



Shading

- **Colors**

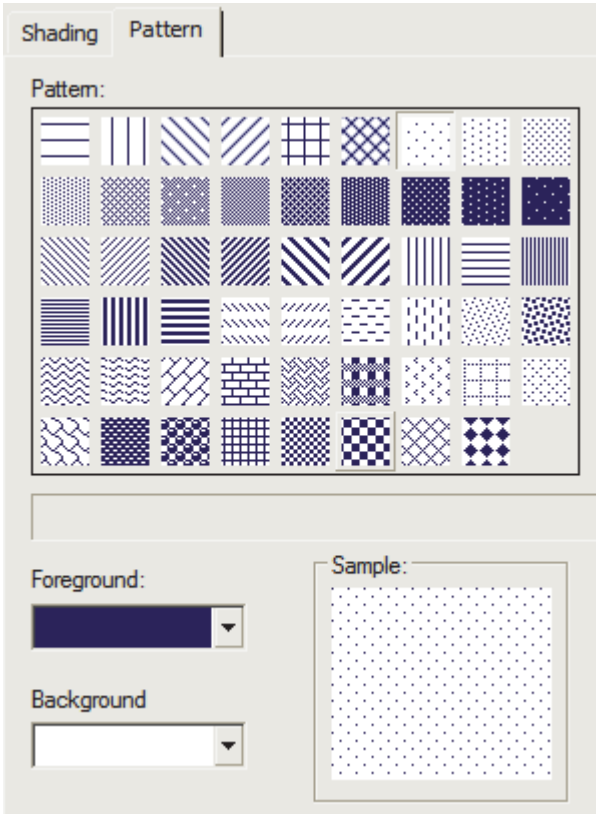


  - **Single-Color**: fills the selected object with single color shading that can be modified between extremes of black and white. Click the desired color in the Single-color drop-down box, then drag the Dark/ Light button to adjust its brightness.
  - **Two-Color**: fills the selected object with a color that gradually changes to another color. Click the desired colors in the Single-color and Two-color drop-down boxes.
- **Shading type**

  The "Sample" box lets you see the selected shading type.
  - Horizontal
  - Vertical
  - Diagonal top
  - Diagonal bottom
  - From center

Pattern

- Click the desired fill pattern.



To modify pattern color:

- Click the new colors desired in the **Foreground** and **Background** drop-down boxes.

Managing transparency

HOPEX enables management of transparency of graphical elements.

- In the **Transparency** box, select or enter a value.
  The transparency percentage indicates the degree of transparency (or conversely the opacity) of fill.

Modifying Drawing Object Borders

To modify **Weight**, **Color** and **Style** of borders of drawing objects:

- In the **Border** frame of the **Colors and Borders** tab, select the desired values in the drop-down boxes.

Color

To hide your lines and borders:

- In the **Color** drop-down list, select value "No border".

Style

To modify style of elements:

- Click the desired border style.

To obtain a thicker or thinner line:

- Select a border style and modify the **Weight** parameter.

Weight

To modify weight of elements:

- Select the desired border weight.

To obtain a thicker or thinner line:

- Enter a new value in the **Weight** drop-down list.

ZOOMING AND MOVING AROUND IN DIAGRAMS

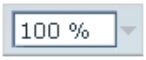
Zoom functions enabling easy movement in diagrams are available under both types of Front-End.

Zooming in Web Front-End

To zoom in or out in a diagram:

1. In the insert toolbar, click .
2. Revolve the mouse wheel in the appropriate direction.

☛ *Simultaneously pressing the <Ctrl> key and revolving the mouse wheel enables zoom in the complete page (this is a possibility offered by Web navigators).*

You can also use button 

to refine the zoom function. You can select from the drop-down list:

- a percentage
- Width: displays the entire diagram in its width
- Height: displays the entire diagram in its height
- Last: enables return to the previous zoom
- Page: displays the entire diagram

Moving the diagram in Web Front-End

When you have zoomed in a diagram, it can be useful to be able to move the diagram quickly, without using the scroll bars.

To move a diagram:

1. In the insert toolbar, click .
2. Click in the page, in a blank area outside the diagram.
3. Then, keeping the mouse button pressed down, move the page as you wish.

☛ *To cancel this movement mode, click button* .

Zooming in Windows Front-End

You can scroll your diagram on the screen without using the scroll bars, by dragging the mouse with button held down in the direction you want. Note that you can also do this when selecting or moving drawing objects.

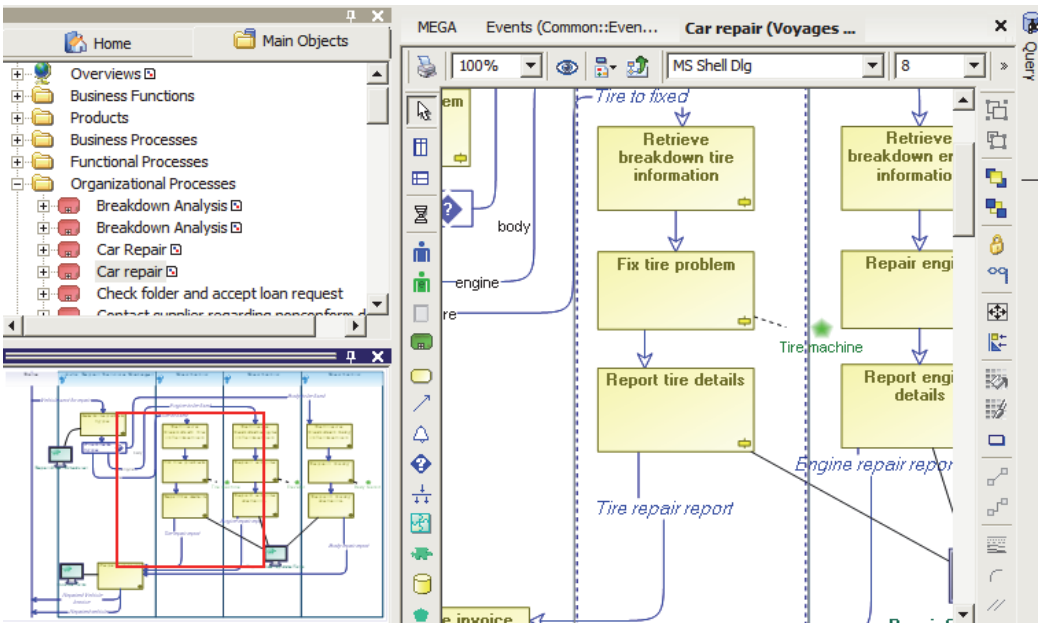
View > Scale allows you to modify view mode:

- **Actual Size** displays the elements at the size they will appear when printed, as a function of dimensions indicated for **Page Setup** in the **File** menu.
- Select **Current Page** to see the entire page on which you are currently working. The scale is adapted to show the entire page.
- Select **Pages Used** to see all pages containing at least one drawing object of the diagram.
- Select **All Pages** to see the entire diagram.
- Select **Previous Scale** to see the last scale used to display the diagram.

> ☛ ***View > Page Boundaries*** *allows you to view, in the workspace and in the zoom window, the boundaries of pages containing the diagram.*

To view the entire diagram, to move rapidly within it and to modify the display scale:

1. In the **View** menu, select **Pan and Zoom Window**.



To go to a particular location in the diagram:

1. Click the desired location in the zoom window.

The place where you clicked (if it is not too close to the edge of the diagram) will appear in the center of the main window.

Note that you cannot use this method if the entire diagram is displayed (**All Pages**).

You can also specify the area of the diagram in which you want to work by dragging the mouse to define a rectangle around it: only the selected part appears; the scale automatically adapts to fill the window.

DISPLAYING DIAGRAM PREVIEW

HOPEX Web Front-End enables you to display a diagram preview from repository objects.

☛ *See "Viewing Diagrams From an Object", page 133.*

You can also view a hierarchy of diagrams within a single diagram.

☛ *See "Viewing Diagram Thumbnails", page 136.*

Viewing Diagrams From an Object

You can view diagrams:

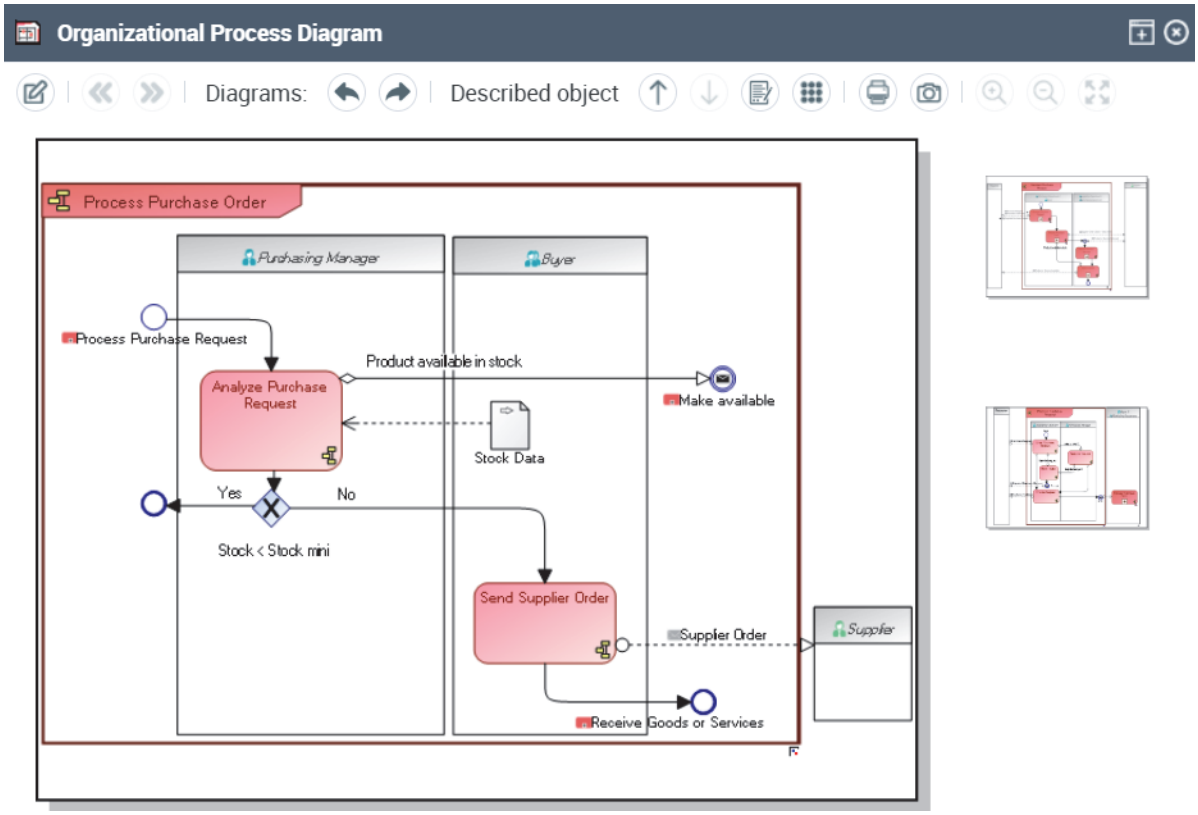
- which ***describe*** the current object.
- which ***contain*** the current object.

To preview diagrams containing the selected object:

1. Right-click an object and in its pop-up menu click **Preview**.

To view diagrams containing the selected object:

- Right-click the object and select **Diagrams Containing Object**.
  A window appears presenting diagram previews.



A specific toolbar appears at the top of the diagram.

Buttons allow you to display the list of diagrams containing or describing an object. The mouse wheel also enables navigation between diagrams.

Using the toolbar of a diagram preview

Below are the main icons available (in **HOPEX Web Front-End**).

☛ *Unavailable icons are grayed.*

Icon	Description
	Edit this diagram Provides access to the diagram properties
	Refresh this diagram Allows you to refresh the diagram, for example if some components have been removed from the repository.
	Diagrams containing described object Provides access to the diagram properties
	Diagrams describing described object Provides access to the diagram properties
	Properties of the diagram Provides access to the diagram properties
	Print diagram Display diagram as a PDF file, enabling printing See "Exporting Diagrams to PowerPoint", page 145.
	Saving an image under Used to save the diagram image
	Zoom in ()
	Zoom out ()
	See All Return to the original size of the image. The mouse wheel also allows you to zoom in and out.

Using the pie menu in a diagram preview

Objects of diagrams are "active".

❱ Select an object in the preview diagram.
A pie menu appears on the object.

With this menu you can:

- Access object properties (icon).
- Generate a report on the object (icon).
- Access the diagram describing the object (icon).
- Access diagrams containing the object (icon).

☛ *Unavailable options are grayed.*

Viewing Diagram Thumbnails

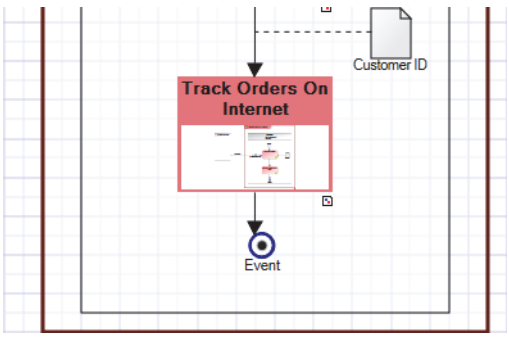
Displaying a diagram thumbnail

You can display the diagrams of described objects within a diagram. The objects are displayed in the form of thumbnails, which you can be enlarged.

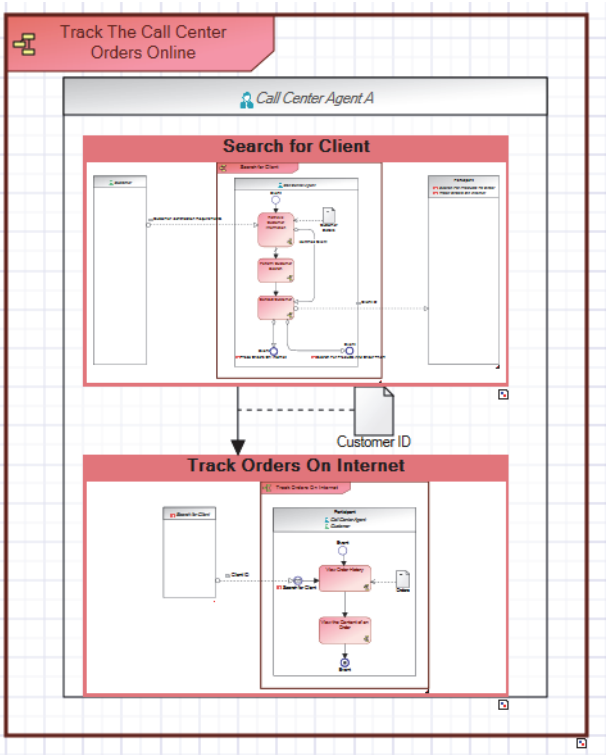
To display the diagrams of the described objects:

1. Right-click an object described by a diagram.
2. In the **Graphic element** sub-section of its pop-up menu, select **Display the diagram describing the object**.

The corresponding diagram replaces the object.



You can enlarge the objects to make the thumbnails easier to read.



☛ *To go back to the initial display, right-click the object and deselect the check box next the the* ***Display describing diagram*** *menu.*

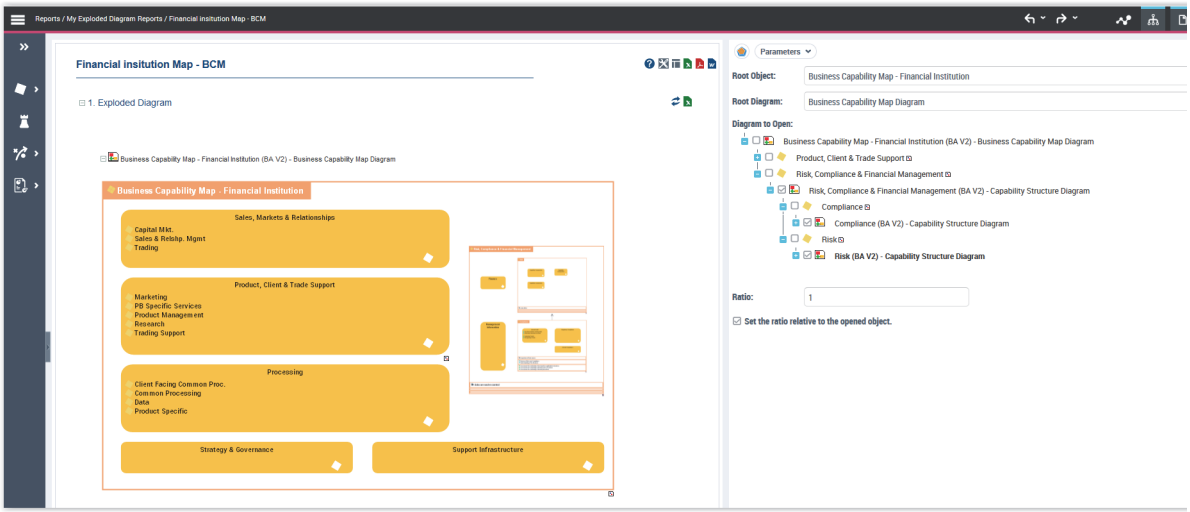
Launching the exploded diagram report

Report presentation

This report enables to build a summary view of a hierarchy of diagrams within a diagram.

It consists in opening the diagram of each object to include it in the diagram describing the root object.

The diagrams which describe the objects mentioned in the source diagram are displayed recursively, so that several diagramming may appear.



Report of exploded diagrams in a business capability map

Accessing the report

Depending on the solution used, several means are available to access this report, for example:

1. Right-click the root object and select **Documentation > Report Discovery**.
2. Unfold the folder "Platform tools" to launch the report.

Report parameters

Input data of this report is specified by the selection of:

- A root object diagram
- Diagrams to be included and to display

Parameters	Constraints
Root object	One object is mandatory
Root diagram	Diagram associated with the root object
Diagrams to be included	Diagram(s) describing a tree object of **diagram > object in diagram > description > object in diagram > ...** type which is offered from the root diagram

Parameters	Constraints
Ratio	Defines the zoom factor applied to the diagram (by default equal to 1) - 0<ratio<1 : the diagram is smaller than the reference size - ratio>1 : the diagram is bigger than the reference size The reference size is defined in the option "The ratio is relative to the open object".
The ratio is relative to the open object	This check box enables to define whether the ratio applies to the size of: - the diagram to include (check box unchecked) - the object in the root diagram (check box checked) Examples: - Check box unchecked and ratio of 0.5: the diagram included is twice smaller than the source diagram. - Check box checked and ratio of 1.0: the sub-diagram is the same size as the object of the root diagram.
Insert border	Deactivated by default Enables to insert a border around the sub-diagram included. This can be useful if for example the sub-diagram does not already contain a border around the described object.
Recompute links	Deactivated by default Enables to reroute all links which go to or from an opened object to the appropriate target in the sub-diagram (e.g. an interaction to or from the object may trigger a service point or be triggered by a request point in the sub-diagram); if deactivated, the lines from the top diagram remain as they were in the original position.

DIAGRAM SETUP AND PRINTING

Defining a diagram Setup

To specify a diagram setup:

1. Right-click the diagram to display its pop-up menu.
2. Click **Diagram Setup**.
   The **Diagram Setup** window appears. It enables definition of:
   - Paper size (A3, A4, A5... or indication of Width x Height in inches)
   - Orientation (Portrait or Landscape)
   - Number of pages (total size of diagram)

     ☛ *You cannot reduce the size of a diagram if elements appear in deleted pages: all elements should be placed in pages that will be kept before reducing format (display of page boundaries simplifies this operation).*
   - Margins (in inches)

     ☛ *The **Margins** are superimposed on those defined by the printing device. This is done so that any information in these margins is not lost.*

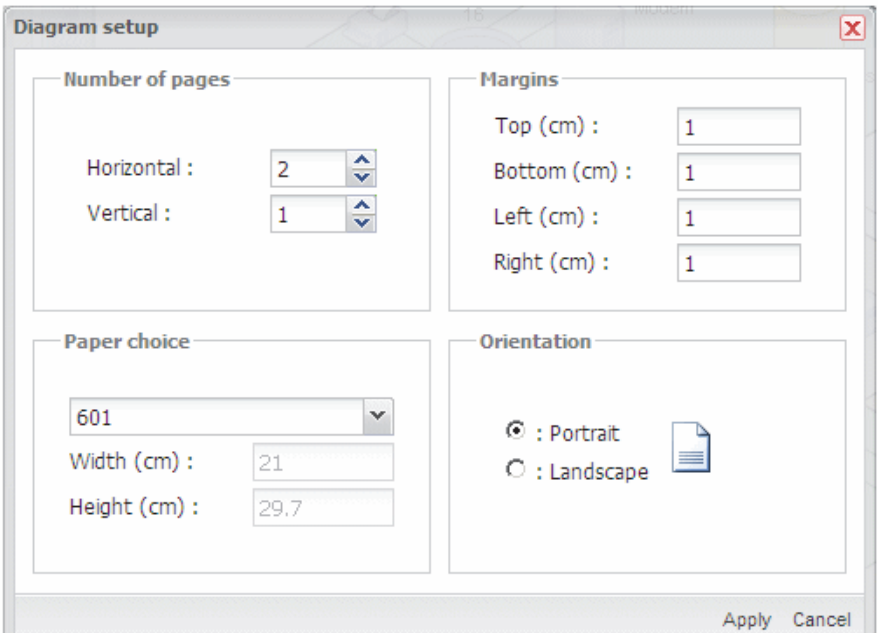


Diagram Setup window with Web Front-End.

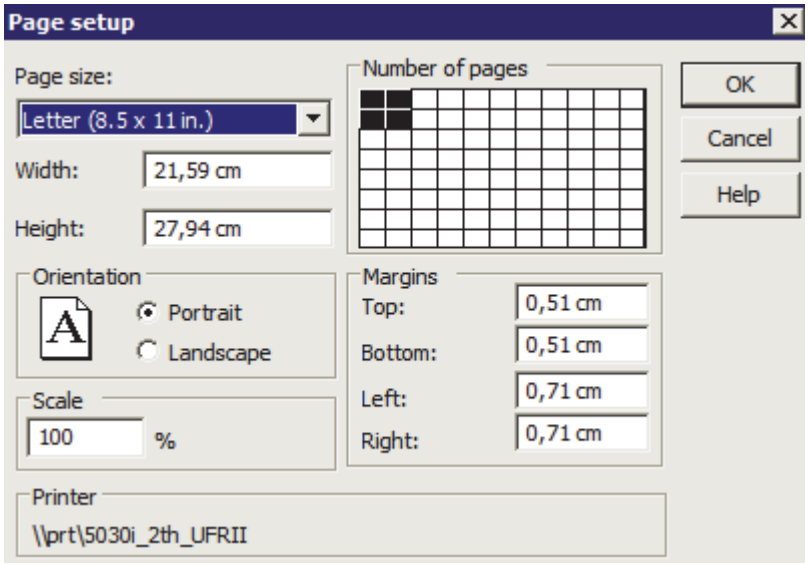


Diagram Setup window with Windows Front-End.

You can also indicate a print **Scaling** percentage.

Printing Diagrams (Web Front-End)

Printing a diagram consists of generating a PDF format file, which you can then print.

To open the print dialog box:

1. Click **Print**.
2. In the **Scaling** frame, select **Mode** "Enlargement/Reduction" to enlarge or reduce a diagram when printing.
3. Enter the number of pages (width and height) on which you wish to print the diagram.

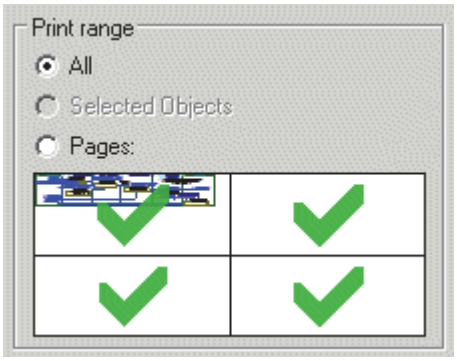
   ☛ *The **Zoom** value is modified as a result and previews the result of printing.*
4. Click **OK**.
   The PDF export process begins.

Printing Diagrams (Windows Front-End)

The **Print** dialog box allows you to edit all or part of the diagram and to store it in a file to be printed later or to be printed from another computer.

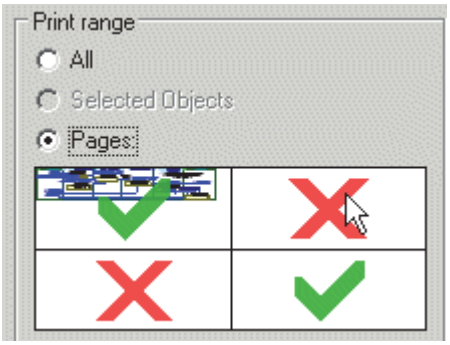
To open the print dialog box:

- Select **File > Print**.
  The **Print range** dialog box includes the number of pages you specified in the **Page Setup** dialog box. By default, all the pages are selected.



To deselect a page:

- Click the page to be excluded from printing.
  The page is then marked with a red cross.



To print only certain diagram objects:

1. In the diagram, select the objects you wish to print.
2. In the **Print** dialog box, **Print Range** frame, select **Selected Objects**.
3. Click **OK**.
   Only those objects selected in the diagram are printed.

To select a deselected page:

- Click the page marked with a red cross.
  The red cross changes to a green tick.

To print multiple copies:

- Indicate the **Number of Copies** required.

When several copies are printed, to sort these by page number:

- Select **Collate**.

To write print commands in a file:

- Select the **Print to File** option.

  ☛ This allows physical printing of the diagram from another workstation.

  A dialog box appears asking for the name and location of the file.

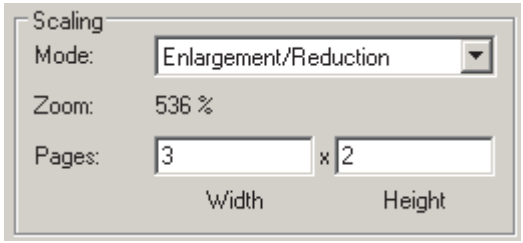
To print the status indicators present in the diagram:

1. Check that the status indicators appear in the diagram.
2. In the **Print** dialog box, select the **Print State Indicators** check box.

☛ *For more details on display of state indicators in a diagram, see "Object status indicators", page 98.*

To enlarge or reduce a diagram when printing:

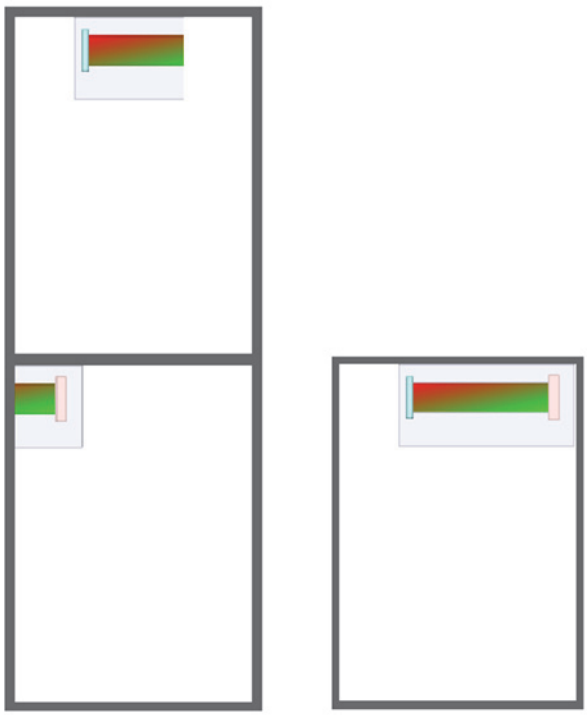
1. In the **Scaling** frame, select "Enlargement/Reduction" **Mode**.
2. Enter the number of pages (width and height) on which you wish to print the diagram.



☛ *The **Zoom** value is modified as a result and previews the result of printing.*

To adapt printing of the diagram to fit the format of your paper:

- In the **Scaling** frame, select "Fit the Paper" **Mode**.
  This mode allows you to make best use of the space provided by a large format page. In these conditions, the entire diagram can be adapted to a single page, which is not the case in this mode.



A3 Format (standard)

A3 Format ("Fit the paper")

☛ *With **Fit the Paper** mode, indications defined in **Page Setup** concerning paper size and number of pages are ignored.*

EXPORTING DIAGRAMS TO POWERPOINT

HOPEX enables creation of a Powerpoint file containing a set of diagrams related to an object.

To start the export to PowerPoint tool:

1. Right-click an object and select **Documentation>Export Diagrams**. The export wizard appears.
2. In the **Summary Line Number**, indicate the maximum number of lines for a summary page.

   You may indicate 10 for the number of lines. If the summary contains 33 lines, 4 pages will be created (10+10+10+3).
3. In the **Name of PPT File** field, specify the location (for **Windows Front-End**) and the name of the PowerPoint file to be generated.
4. Select the export mode:

- **All Diagrams**: all diagrams in which the object appears are exported. In the next window, indicate:
  - The **Deep level** needed to retrieve diagrams.

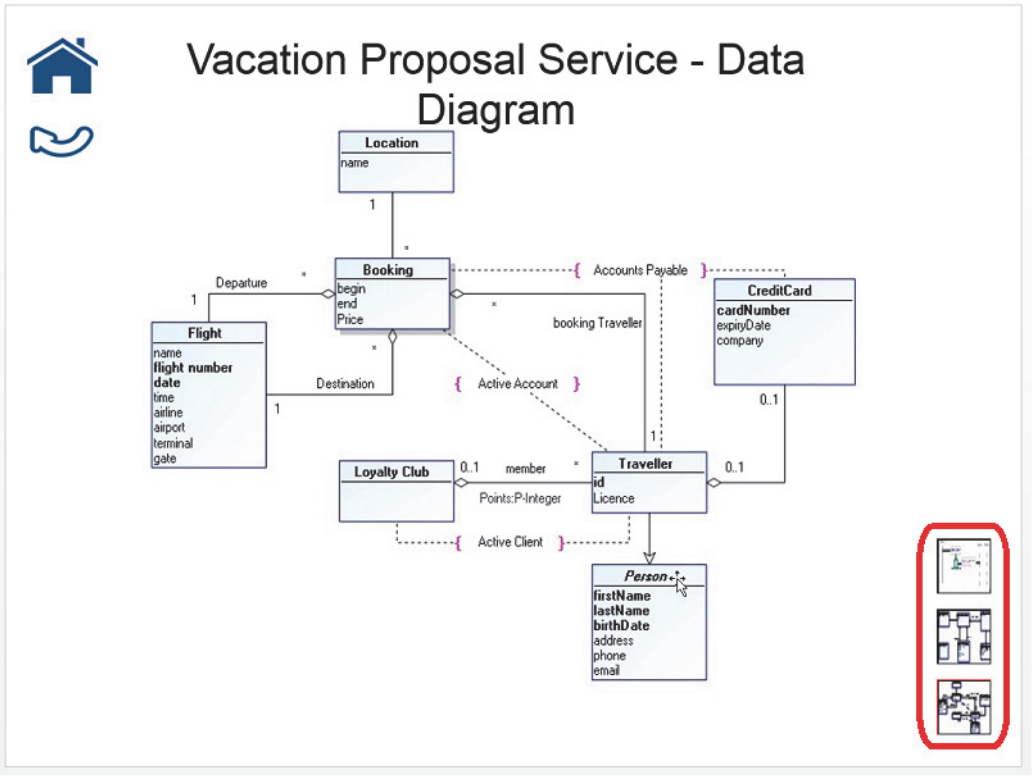
    All diagrams linked directly to the object are retrieved. From these diagrams it is possible to retrieve the objects connected. Depth level is 2 by default. 0 corresponds to an infinite number of levels (except if the initial diagram is found in the tree at some point).
  - The **Diagram Natures** of interest.
- **Select Diagrams**: you can select the diagrams you want to display in the **PowerPoint** file.

5. Click **Next**.

The PowerPoint diagram is generated. It contains a set of slides allowing navigation in diagrams, for instance:

- a summary page
- pages for each diagram

When an object is described by several diagrams of different types (of same level), an overview of diagrams is displayed on the bottom right hand side of the selected diagram page.



The button allows display of the previous page in a series of slides (and not the diagram page that was last viewed).

CONSTRUCTING A DIAGRAM IN EASY DIAGRAMMING MODE

Tabular diagram input, available with **HOPEX Web Front-End** , is used to define the contents of a diagram from a table. The characteristics of the objects described in the diagram, or the links between the objects, are defined in the table columns.

You can preview the diagram at any time.

> 🕮 *A diagram is a representation of an object. It is also a repository object.*
>
> ☛ *For more details on updating a diagram with the editor, see **HOPEX Common Features**, "Handling Diagrams".*

The following points are covered in this chapter:

- ✓ "Tabular input principles", page 148
- ✓ "Constructing a diagram in tabular input mode", page 154

TABULAR INPUT PRINCIPLES

This chapter introduces the principles of this functionality. It describes successively the tools proposed to:

- start with tabular input mode, see "Using tabular input mode", page 148.
- use this functionality to create a diagram, see "Overview of functionalities", page 150.
- determine the list of diagrams that have a tabular input mode, see "Diagram types with tabular input mode", page 153.

Using tabular input mode

Tabular input mode is recommended during the initialization phase of a diagram. It is used to quickly and easily insert objects in the diagram.

The updates in the input table are saved in the snapshot repository.

On each opening of a diagram in tabular input mode, the position of elements is recalculated to preview the diagram.

> **If a diagram was modified manually with the editor, a message is displayed to inform you that the position of the objects in the diagram will be recalculated.**

Defining the diagram opening mode

A number of opening options are available:

- Always open in table entry mode,
- Always open in editor mode,
- Ask, for each diagram, the opening mode to be used and store it.

Opening a diagram in tabular input mode

Tabular input mode is offered for certain diagram types only.

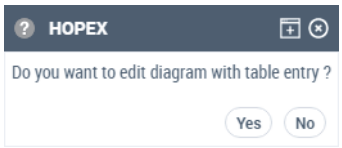
> ☛ *See "Diagram types with tabular input mode", page 153.*

To open a diagram in table entry mode:

1. In the navigation window, right-click the object concerned to display its pop-up menu and create a new diagram.

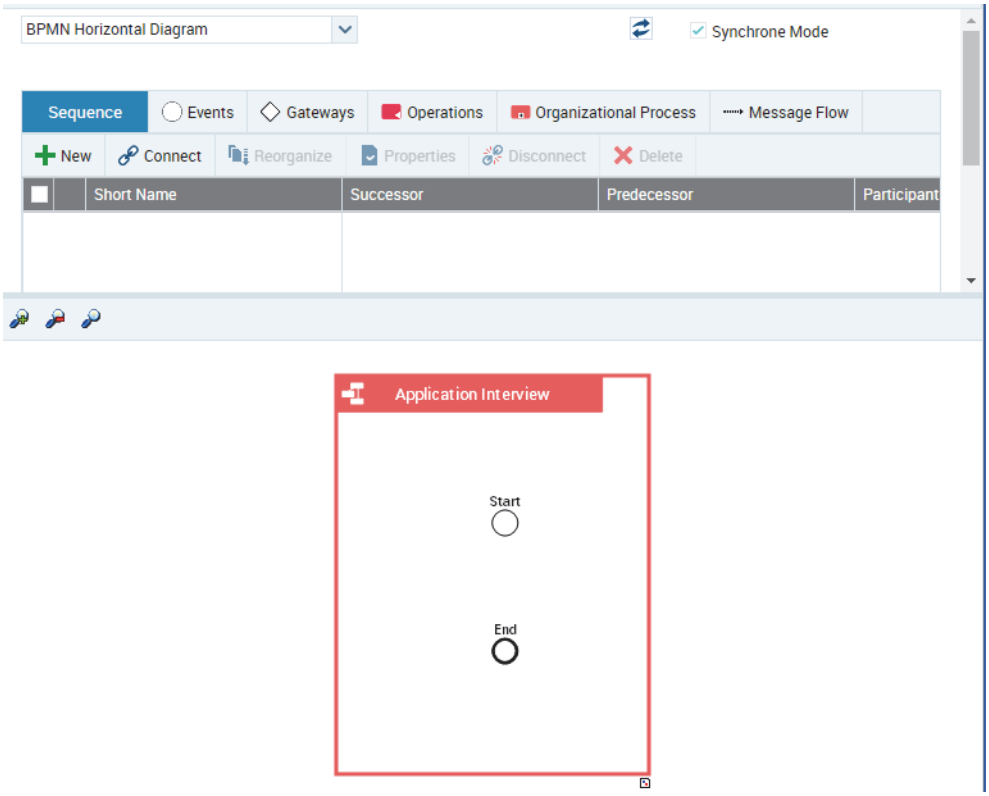
   > ☛ *If a diagram already exists for the object selected, its name appears in the pop-up menu of the object.*

2. Click the diagram you want to open.
A dialog box opens ti choose the diagram opening mode.



3. Select **Yes**.
The UI for table entry mode opens in the edit area. The table already contains the elements contained in the diagram. The view of the elements in the table and the diagram can vary according to the rights attached to the user profile.

☛ *For more details on previewing a diagram, see **HOPEX Common Features**, "Viewing diagrams from an object".*



The tabular input page is divided into two sections:

- one section contains the input table for the diagram data,

  ☛ *See "Overview of functionalities", page 150.*

- the other section contains a preview of the diagram.

  ☛ *See "Previewing the diagram", page 152.*

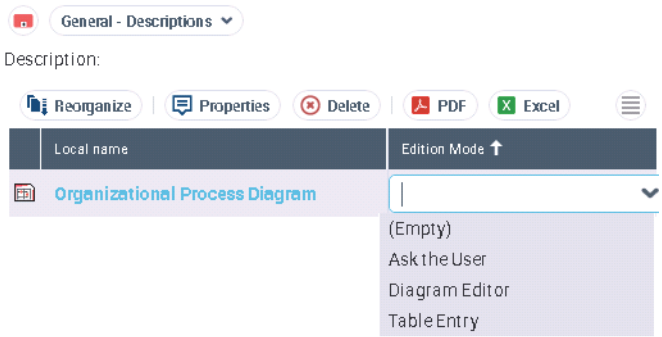
Modifying the diagram edition mode

When a diagram is created, its edition mode is specified depending on the user choice.

☛ *For more details on the user choices, see "Opening a diagram in tabular input mode", page 148.*

To modify the diagram edition mode:

1. Open the **General >Descriptions** properties property page of the object concerned.
   The list of diagrams that concerns the object appears.
2. In the **Edition Mode** colon, select the opening mode that interests you.

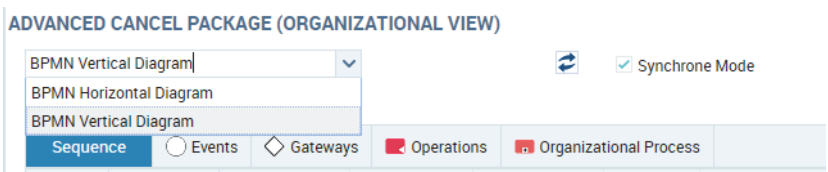


Overview of functionalities

The functionalities presented here are standard functionalities for tabular input mode. Many depend on the type of diagram described. Tabular input mode can be configured for each type of diagram.

☛ *For more details, see "Diagram types with tabular input mode", page 153.*

Title banner



At the top of the section, a banner contains:

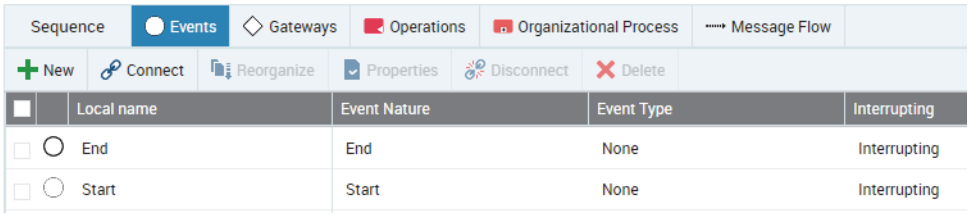
- the name of the element described,
- vertical or horizontal display mode of component display in the diagram is available for BPMN diagrams only,
- the presentation mode of the table section with respect to the diagram section:
  - presents the two section vertically ( ),
  - is used to return to the default presentation; the two sections are positioned horizontally ( ).
- opens the diagram with the diagram editor ( )
- displays or hides the section in which the diagram is found ( )
- the **Refresh diagram** button to refresh the diagram in non-synchronized display mode.
- the synchronization mode of the preview of the diagram that is used to optimize display performance.
  Two preview modes are available:
  - Synchronized mode: the preview is updated directly as the table is populated. Simply select the **Synchronized mode** check box.
  - Non-synchronized mode: the preview is frozen, and can only be updated by clicking on a **Refresh the diagram** button.

Filter tabs

Tabs are used to display all the objects in the diagram broken down according to their type.

The number and the nature of tabs vary according to the type of diagram and the user profile.

For example, **Sequence**, **Event** or **BPMN Activity** are the tabs proposed for an **Organizational Process Diagram**.



☛ *The order of tab display is defined in the configuration.*

Tab content

Each tab presents, in table form, the list of objects of a given type contained in the diagram.

The characteristics and the links associated with each of them are presented in columns.

☛ *The columns displayed for each object type are defined in the parameters.*

Use these tables to add objects to the diagram.

☛ *See "Adding an existing object in tabular diagram mode", page 154.*

Multi-type tab

Depending on the type of diagram, it is possible to provide a tab that you can use to conduct actions on several types of objects contained in the diagram.

```
For example, in an organizational process diagram, use the
Sequence tab to position participants and define the
sequences between the objects.
```

The content of the columns of the summary table is configurable.

Previewing the diagram

Opening the diagram in tabular input mode must always display the preview section that opens the diagram studied in read mode.

☛ *For more information on previewing a diagram, see **HOPEX Common Features**, "Viewing the diagram from an object".*

From the toolbar at the top of the diagram, you can perform the following actions on the diagram:

Below are the main icons available (in **HOPEX Web Front-End**).

☛ *Unavailable icons are grayed.*

Icon	Description
	Zoom in ()
	Zoom out ()
	See All Return to the original size of the image. The mouse wheel also allows you to zoom in and out.
	Print diagram Display diagram as a PDF file, enabling printing See "Exporting Diagrams to PowerPoint", page 145.
	Saving an image under Used to save the diagram image

To move the diagram in the window:

- Click the diagram and move the mouse.

Diagram types with tabular input mode

The diagrams offered with **HOPEX Business Process Analysis** that can be updated in tabular input mode are as follows:

- Business process diagrams,
- Functional process diagrams,
- Organizational process diagrams,
- Application process diagrams,
- Organizational Chart,
- Customer journey mapping.

Tabular input mode is configurable. It can be proposed for diagram types whose presentation can be calculated by a macro.

Moreover, for a given type of diagram, it is also possible to configure functionalities including:

- the order of tabs associated with the object types represented,
- the display of a tab that provides an overview of all the objects in the diagram,
- the content of columns for a given object type and display order,
- the list of profiles authorized to use tabular input mode.

CONSTRUCTING A DIAGRAM IN TABULAR INPUT MODE

Opening a diagram in tabular input mode is used to update the content of the diagram.

The objects created, added and modified in the tabular input tables are updated in the repository.

Updating a diagram in tabular input mode

☛ *When you create an object in a diagram, it is automatically connected to the diagram.*

Creating a diagram in tabular input mode

To create an object in tabular input mode to add it to a diagram:

1. Click the tab corresponding to the type of object you want to create.
2. Click **New.**
   The **Add object** window appears.
3. Enter the name of the object and click **OK**.
   If you are in **Synchronized** mode, the diagram is automatically updated; otherwise, click on **Refresh**.

Adding an existing object in tabular diagram mode

To add an existing object to a diagram:

1. Click the tab corresponding to the type of object you want to create.
2. Click **Connect**.
   The query dialog box appears.
3. If applicable, select the type of object and perform a search on the objects.
4. Select the objects that interest you and click **Connect**.
   If you are in **Synchronized** mode, the diagram is automatically updated; otherwise, click on **Refresh**.

Creating an object from a table

When you roll the mouse over the end of a line of the table a number of buttons appear to add one or more rows, or to delete the current row.

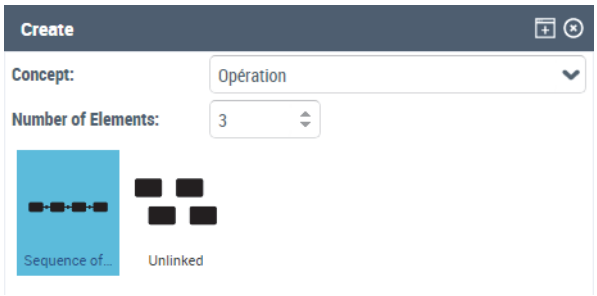
A click on the **Add** button creates a new row located immediately below. The cells of this new row are pre-populated identically to the row row and the new object is associated with the new row and is automatically linked to the copied object.

Creating several objects of the same type in tabular input mode

You can quickly create several objects of the same type possibly linked between them or to an object already in the diagram.

For example, to simultaneously create a number of operations in an organizational process diagram:

1. Select the operation or the organizational process from which you want to create the other operations.
2. Click the **Multiple Creation** button.
   The creation dialog box opens.



3. Select the **concept** that interests you.
4. Enter the **Number of Steps** you wish to create.
5. Link these operations by selecting **Sequenced** or **Independent**.
6. Click **OK**.

Creating connections in tabular input mode

For BPMN diagrams in tabular input mode, connections are created using the columns that characterize the **Previous** or **Next** objects.

For example, to connect a start event to an organizational process in an organizational process diagram:

1. Click the **Sequence** tab to have access to the list of objects in the diagram that can be connected to a sequence,
2. Select the line of the organizational process that you want to connect and click in the column that represents the **Predecessor** object.
   A window opens with the list of diagram objects that can be connected.
3. Select the event that interests you.

   ☛ *You can select several **Predecessor** objects. The list of objects then appears in the table.*
4. Click **OK**.
   The organization of objects in the diagram is updated automatically.

Removing and Deleting an Object from a Tabular Input

When you roll the mouse over a line, a deletion button appears at the end of line. Click this button to delete the line selected from the table thus remove the object from the diagram.

To delete an object from the repository object using the tabular input table:

1. Click the tab corresponding to the type of object you want to delete.
2. Select the check box for the object that you want to delete.
3. Click **Delete**.

> **Warning: The deleted objects are removed from the repository and consequently from all diagrams that use them.**

To remove an object from a diagram without delete it from the repository:

1. Click the tab corresponding to the type of object you want to remove from the diagram.
2. Select the check box for the object that you want to remove.
3. Click the **Disconnect** button.

If you have deleted an object in error, you can restore it by using the function that enables undo and redo of actions.

Creating BPMN participants in tabular input mode

In the BPMN diagrams, the participants are special objects for the following reasons:

- If they are inside the described object, they are represented as pools that contain objects.
- If they are outside the described object, they are used to describe the flows exchanged between the described object and the outside.

The creation mode for participants in tabular input mode is specific to each of the two cases.

Creating a participant inside a described object

To create a participant in an organizational process diagram, for example:

1. Click the **Sequence** tab to have access to the list of objects in the diagram.
2. Select the line in the organizational process that you want to insert in the participant and click the **Participant** column.
   A window opens prompting you to create or connect an org-unit to a participant.
3. Select the org-unit that interests you and click **OK**.

> *You can select several org-units. The list of objects selected then appears in the header of the participant.*

Creating a participant outside a described object

A participant external to a described process only has meaning if it is connected to a flow exchanged with an element included in the described process.

To create a participant outside of an organizational process diagram, for example:

1. Click the **Flow** tab to have access to the list of flows in the diagram,
2. Click **New** to create a new flow.
3. Select the flow line that you have just created and click in the check box of the **Target element** column, for example.
   A window opens prompting you to create a participant.
4. Select the org-unit that interests you and click **OK**.

   ☛ *You can select several org-units. The list of objects selected then appears in the header of the participant.*

Updating an Organizational Chart in tabular input mode

Updating an organizational chart in tabular input mode is based exclusively on the org-unit creation mechanism using an org-unit already created.

When you roll the mouse over a row of the organizational chart, a number of buttons appear.

The functionalities associated with these buttons are as follows:

- the simple addition of an org-unit at the level of that of the current org-unit in the organizational chart,
- the addition of an org-unit and the insertion of an additional level in the organizational chart,
- the multiple addition of a number of org-units that enable you to create org-units sequentially or in a rake structure.

  ☛ *For more details on multiple creation, see "Creating several objects of the same type in tabular input mode", page 155.*
- the deletion of the org-unit from the current row.

Using the Repository

HANDLING REPOSITORY OBJECTS

The repository is at the heart of the **HOPEX** software suite. It stores data, enables company knowledge management and ensures its consistency.

This chapter presents common operations that can be carried out on **HOPEX** repository objects, excluding diagrams.

☛ *For more details on handling objects in diagrams, see "Handling Diagrams", page 87.*

✓ "Defining Object Properties", page 162
✓ "Entering Object Comments", page 165
✓ "Managing objects", page 170
✓ "Naming Objects", page 178
✓ "Using HOPEX in a Multilingual Context", page 180
✓ "Object Variations", page 184
✓ "Object Versions", page 195

DEFINING OBJECT PROPERTIES

Objects have several property types. In most cases, the properties available depend on the type of object.

In their properties, all objects include a **Comment** (or **Text**) tab.

Accessing object properties

In HOPEX, you can :

- access object properties only when you need it.

  ☛ *See "Accessing object properties (Web Front-End)", page 162 and "Accessing object properties (Windows Front-End)", page 162.*

- display the property page on a permanent basis (which is convenient if you need to manage several objects at the same time).
  When you select an object, its properties are automatically displayed in the **Properties** window.

  ☛ *See "Displaying the properties window on a permanent basis (Web Front-End)", page 163.*

Accessing object properties (Web Front-End)

To access an object properties in **HOPEX** (Web Front-End):

1. Connect to **HOPEX**.

   ☛ *See "Connecting to HOPEX (Web Front-End)", page 32.*

2. Depending on where you are in **HOPEX**:
   - ***Diagram***: click the object and from the pie menu, select **Properties** .
   - ***Tree***: click the icon next to the name of the object and select **Properties**.

   The Properties page of the object is displayed.
   - ***Object list***: select the object and in the **Action** column select **Properties** .

   The **Properties** window appears and presents the properties of the object.

Accessing object properties (Windows Front-End)

To access an object properties in **HOPEX** (Windows Front-End):

1. Connect to **HOPEX**.

   ☛ *See "Accessing HOPEX Windows Front-End", page 68.*

2. Right-click the object (for example in a tree, result window, or diagram) and select **Properties**.
   The properties window appears.

Displaying the properties window on a permanent basis (Web Front-End)

You can choose to display the property windows in **HOPEX**on a permanent basis so as to view immediately the properties of an object.

To display the properties window on a permanent basis in **HOPEX** (Web Front-End):

1. Connect to **HOPEX**.
   ☛ *See "Connecting to HOPEX (Web Front-End)", page 32.*
2. Click the edit area display button for **Properties** .
   The **Properties** window appears in the Edit Area.
   ☛ *See "Managing windows and panes", page 42.*
3. Select an object.
   Its properties appear in the **Properties** window.

Displaying the properties window on a permanent basis (Windows Front-End)

You can choose to display the property windows in **HOPEX**on a permanent basis so as to view immediately the properties of an object.

To display the object property window in **HOPEX** (Windows Front-End):

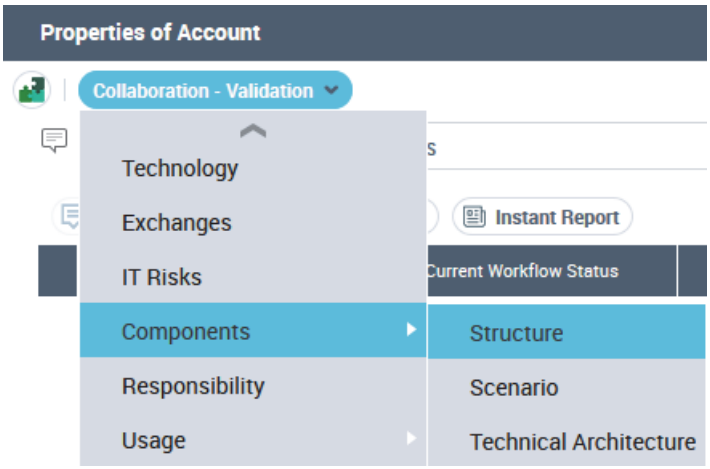
1. Connect to **HOPEX**.
   ☛ *See "Accessing HOPEX Windows Front-End", page 68.*
2. In the **HOPEX** menu bar, select **View > Edit Windows > Properties**.
3. Select an object.
   Its properties appear in the **Properties** window.

Using Object Property Pages (Web Front-End)

To handle object properties pages:

1. Access the object properties.
   ☛ *See "Accessing object properties (Web Front-End)", page 162.*

2. In the property page drop-down list, select the page you want to display.



Certain properties pages are made up of sections.

3. To hide/display a section, click on — / + next to the name of the section.

ENTERING OBJECT COMMENTS

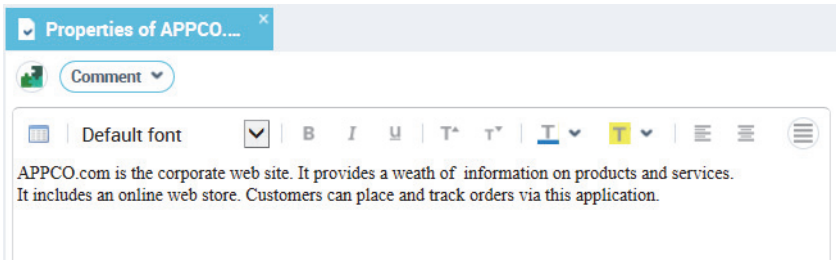
See "Accessing object properties", page 162.

Using the Comment Tab/Page of an Object

To enter or modify a comment associated with an object:

1. Open the property page of the object of interest to you.
   - (Windows Front-End) select the **Comment** tab.

   - (Web Front-End) in the drop-down list select **Comment**



The comment entered will automatically appear in the generated document.

In this tab, icons give access to text editing functions (cut, copy, paste and spell check, etc.).

To create a new paragraph while entering the comment:

- Press <Enter>.

When several types of text are available for the same object, a drop-down list allows you to select the type of text entered.

> ☛ *To comment a diagram and the object it describes in HOPEX Windows Front-End, select **Diagram > Properties** and **Diagram > Described Object > Properties**.*

Using the comment window

You can also modify or enter object comments in the desktop comment window.

☺ *Displaying the comment window is useful when you want to successively enter the comments of several objects.*
When you click an object in a navigation window, in a diagram, or in a query result dialog box, the comment of the selected (active) object appears in this window. You can therefore easily modify the comment of the object then pass to that of another object.

To display the comment window in **Windows Front-End**:

- Select **View > Edit Windows > Comment**.
  The comment window appears. It displays the comment of the active object.

To display the comment window in **Web Front-End**:

- Click the **Properties** icon in the main toolbar of the desktop.

☛ *To view object comments in the Enterprise Architecture desktop, select **Comment** from the drop-down list.*

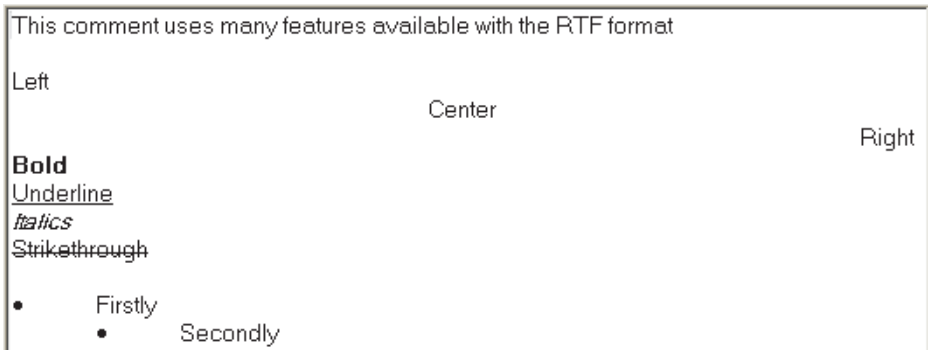
Text formatting

The comment dialog box toolbar allows you to access text edit functions (bold, italic, underline, strikeout, align, bullets, indents, font color, etc.).

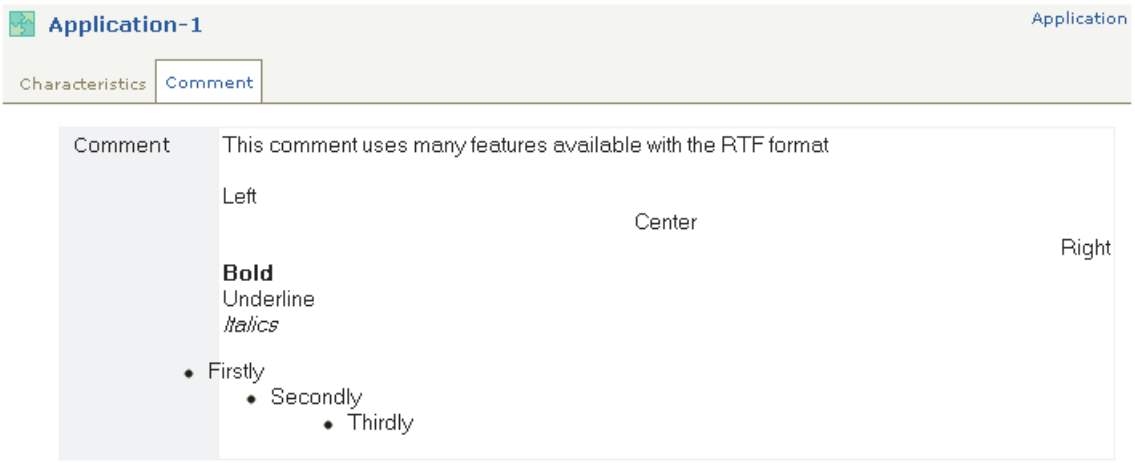
☛ *Bullets and indents cannot be customized. It is not possible to insert tables or page breaks or paste images. For a list of restrictions, see "Authorized formats", page 168.*

An RTF comment is not designed to store the integrality of Word documents. To do this, external references should be used. For more details, see "Using External References", page 437.

The format applied will be used in generated reports (MS Word) and Web sites.



Example of comment formatting



Reproduction in a Web site

Default font in generated reports (MS Word)

You can enter your comment text using the "Default font" or another font. In reports (MS Word) generated from this comment, the font used is that defined by default in the document model.

Authorized formats

Only those formats proposed in the comment dialog box toolbar are permitted:

- Bulleted lists
  (Bulleted lists cannot however be customized)
- Font, size
  (By default, text can be entered without associating a specific font)
- Character formats: bold, italic, strikethrough
  (Text color is not saved)
- Paragraph formats: aligned, indented
  (Indent value cannot be customized)

Prohibited formats

- Text color
- Tables
  (There is no button enabling table creation. Tables pasted in the comment are not taken into account)
- Paragraph formats (page break, header, footer, margin, portrait/ landscape orientation)
- Links
  (In Web sites, links are not reproduced except if these are derived from MetaClasses, see "Inserting object names in comments", page 168.)

Inserting object names in comments

HOPEX enables you to insert object names in comments. This enables:

- Automatic creation of links in generated Web sites.
- Automatic refresh of object names in comments. If you insert the object names as a field, you will not need to update them manually in the comment.

You can for example select an object in the explorer to place it in a comment.

You can also insert an object in the comment window using the following button:

- (Windows Front-End) **Insert Field**
- (Web Front-End) **Insert Object in Text**

In **Windows Front-End**, to view the identifier of objects inserted in comments:

1. In the object comment windows, click **Hide/Show Fields** .

   Org-unit **~rljhTPhmxKX3[Travel Agency]** participates in the following operations:
   - **~IUQ3PmnCy4b1[Propose itinerary]**
   - **~pIJDmTpCyic0[Process cruise reservation]**
   - **~AVQ3A4oCyKt1[Process flight reservation]**

To delete a field in a comment:

1. Click {} to be able to view the field.
2. Select the corresponding field code.
3. Delete the selected code.

Deleting or Removing an Object

Depending on the context, when you remove an object, you have the choice between:

- removing it (from a diagram for example), without deleting it from the repository
- deleting it permanently from the repository.

To remove or delete an object:

❱ In the object pop-up menu, select **Remove**.

Depending on the case, a window prompts you to:

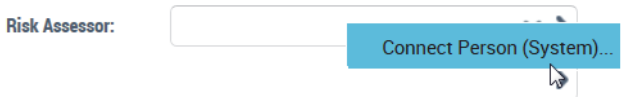
- simply remove the object
- delete the object permanently, with deletion of the child object if applicable.

> ☛ *When you are not authorized to delete the object, a message explains why (for example, objects created outside of the current private workspace, modification underway by another user, etc.)*

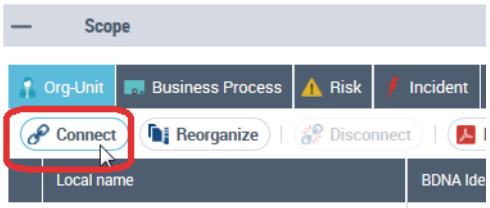
Connecting objects

There are several ways to connect objects, for instance through:

- The **Connect** command available in a field menu

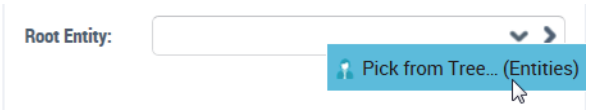


- The **Connect** button available in a list of a property page

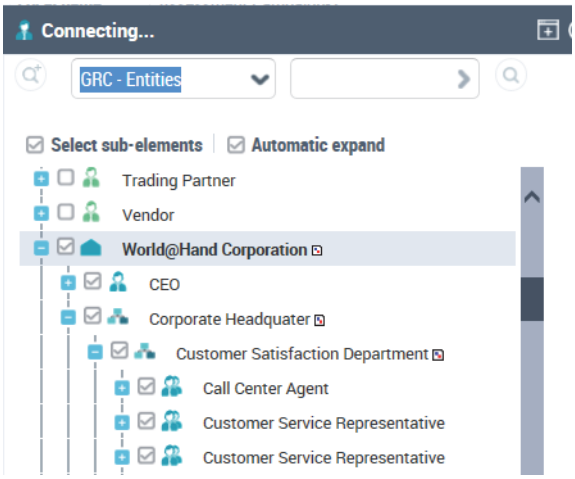


☛ *The Connect feature is based on the query tool. For more details, see "Use the Query Tool to Connect an Object", page 217.*

- A tree



Example: In HOPEX Internal Control, when you wish to launch a control execution campaign, the root entity is to be selected from a tree.



☛ *Two options enable you to select sub-elements and/or automatically expand the tree after clicking an object.*

Managing Favorites

Favorites allows you to quickly access objects consulted regularly. They enable access to all actions possible on these objects. Favorites are useful when your repository is large and you want to save valuable time in navigation.

Adding an object to favorites

To add an object to your Favorites list (Windows Front-End):

1. Connect to **HOPEX**.

   ☛ *See "Accessing HOPEX Windows Front-End", page 68.*

2. Right-click the object you want to add to your favorites and select **Add to Favorites**.

To add an object to your Favorites list (Web Front-End):

1. Connect to **HOPEX**.

   ☛ *See "Connecting to HOPEX (Web Front-End)", page 32.*

2. Depending on where you are in **HOPEX**:
   - ***object or tree***: Right-click the object and select **Add to Favorites**.
   - ***Object list***: select the object and in the **Action** column, select **Properties** ☆.

   The object is added to your favorites.

Accessing your favorites

To access your favorites (Windows Front-End):

1. In the **HOPEX** menu bar, click .
   The favorites navigation window appears.
2. Expand the folders concerned to access the favorites.

To access your favorites (Web Front-End):

1. From your **HOPEX** desktop, click the navigation menu **> <name of the navigation pane > > Favorites** .
   ☛ *Most navigation panes give access to Favorites (e.g.: **Collaboration**).*
   The Favorites tree appears in the edit area.
2. Expand the folders concerned to access the favorites.

Removing an object from favorites

To remove an object from your favorites list:

1. Access your favorites.
   ☛ *See "Accessing your favorites", page 173.*
2. In the Favorites tree, right-click the object to be removed and select **Remove**.

Undoing and Redoing Actions on Objects

The undo mechanism in a drawing or in the navigator allows you to cancel the last action carried out. Having canceled an action you can subsequently change your mind and redo it.

This is true:

- for purely graphical operations,
- for those involving actions on the repository (creating or deleting objects for example).

Having created an object in a diagram, if you decide to undo this creation action, the object will be deleted from both the diagram and the repository. The same applies when you redo an action that you canceled.

To cancel the last action carried out in a diagram or in the navigator:

- In the desktop toolbar, click **Undo** .

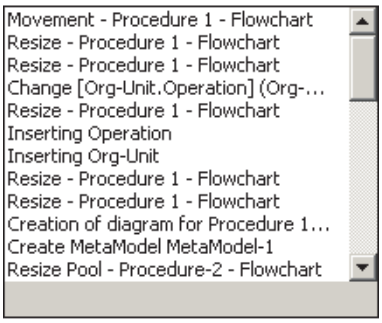
To redo an action you canceled in a diagram or in the navigator:

- In the desktop toolbar, click **Redo** .

You can also undo or redo one or several actions carried out in your private workspace: object creation and deletion, modification of object properties, etc.

To undo one or several actions:

1. In the desktop toolbar, click button **Undo** .
   The window that appears shows the list of actions that you can cancel.



2. Move the cursor in the window to select the (successive) actions you want to undo, then click to undo these actions.

   ☛ *You can only undo actions chronologically.*

   ☺ *To undo only the last action carried out, simply click **Undo**.*

To redo one or several canceled actions:

❱ Proceed in the same way as before, having clicked the drop-down list arrow of the **Redo** button .

☺ *To only redo the last action carried out, simply click **Redo**.*

Using the History

The history is used to:

- obtain the list of objects recently modified
- display the latest modifications performed on each object.
- (in**HOPEX Web Front-End**) compare objects modified between two dates

Using the History in HOPEX Windows Front-End

The history contains all the objects you access or modify.

To open the history in **HOPEX Windows Front-End**:

❱ Click or select **View > History**.

Objects are classified by object type (MetaClass).

Using the History in HOPEX Web Front-End

The history page for an object displays:

- who has made modifications on an object
- which values have been modified
- when the modifications took place

Prerequisites for history display

You must first activate the logfile to display the history page.

☛ *For more details, see the HOPEX Administration - Supervisor guide, chapter "Managing Repositories".*

Accessing history in HOPEX Web Front-End

To access the history page:

1. Open the properties page of an object and select **General > History**.
   A page displaying the chronology of modifications appear.

To access global history:

1. In the **Repository** navigation tab, click the **History** icon.
   History by date and object type appears.

The history comparison feature

In **HOPEX Web Front-End** the history is used to compare the attributes and the links of an object between two dates.

To run comparison:

1. In the history page, click **Compare**.

☛ *To access the history page, see "Accessing history in HOPEX Web Front-End", page 175.*

Comparing object attributes

The Attribute section enables to display the value of attributes at the specified dates in the Before / After column.

Object type	Value meaning
Before	Attribute value on the source date ("From")
After	Attribute value on the target date ("To")

☛ *By default:*

- *the source date ("From") corresponds to the latest dispatch date*
- *the target date ("To") corresponds to the current date.*

Comparing links

The "Links" section displays the list of links existing around an object.

The Before / After columns display the number of objects connected to the analyzed object on the given dates.

If you click a link, the Details zone displays the objects connected through the link on the source and target dates so as to view differences.

Duplicating objects

Duplicating objects

To duplicate an object in the navigator:

1. Right-click the object and select **Duplicate**.
   The **Duplicate an Object** dialog box appears.

   ☛ *Only certain object types can be duplicated (class, generator, hypothesis, organizational and business process, operation, package, phase, city planning plan, DBMS version, _ModelTypeParam).*

Naming duplicated objects

There are two possibilities for naming duplicated objects (duplicate).

The duplicate can have:

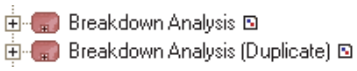
- A **Suffix** (default option).

  `Example: Breakdown Analysis (Duplicate)`

- A **Prefix**.

  `Example: Duplicate of Breakdown Analysis`

The option with suffix can be useful when, in the navigator, the duplicate is located below the duplicated object.



You can modify the **Prefix** or **Suffix** used to name component objects of the object.

☛ *The prefix and suffix are not used for objects that are in a namespace.*

Selecting duplication strategy

For most objects that can be duplicated, you do not have a choice of duplication strategy.

For business processes, you have the choice between:

- "Duplicate Activities and Sub-Processes"
- "Duplicate Organizational Processes"
- "Reuse Activities and Organizational Processes"

Duplicating in another library

For objects already stored in a library, you can store duplicates in another library.

> **For objects not stored in a library, you cannot store duplicates in another library.**

To store duplicates in another library:

1. Select check box **Create duplicates in another library**.
2. Select the required library.
3. Click **OK**.
   Objects are duplicated into the selected library.

> *If you do not select this check box, the duplicate will appear by default in the same library as the duplicated object.*

Duplicated object names in a multilingual environment

When you duplicate an object, it must be in the repository language so that translations in the various languages will be correctly transferred to the duplicates.

> *To determine the language of your repository, consult repository properties.*

Editing Objects (Windows Front-End)

HOPEX Windows Front-Endoffers an editor, that is a data entry tool, for certain object types. This editor enables simple display and modification of the objects concerned, offering in the same interface the advantages of both navigator and properties dialog box.

You can run the editor on the following object types:

- Method
- Project
- Project type
- MetaClass (ie. object type, accessible via the **Utilities** tab)

To run the explorer in **HOPEX Windows Front-End**:

1. Right-click the object and select **Edit**.
   The editor opens on the selected object.

   > *To view the editor with its two panes (tree and properties), click the **Details** button in the toolbar* .

   > *If the editor shows only the tree, click the **Details** button in the toolbar* .
2. To validate modifications carried out in the properties dialog box of an object (right pane of editor), press the <Enter> key.

NAMING OBJECTS

Certain types of objects in **HOPEX** have a local name, specific to a given context. This mechanism allows another object to use the same name, but in a different context.

It is possible for example to use:

- different conditions with the same name in different organizational processes.
- different "Enter Order" operations with the same name in different organizational processes. You can for example have operations:
  - "Enter Order" in the "Normal Order Delivery" organizational process
  - "Enter Order" in the "Urgent Order Delivery" organizational process

  The operations have the same local name though being different. They can have different comments or send different messages.

  ☛ *Examples of object types with local names are: Application, Diagram, Operation, Service, Message, Collaboration, Package, Class.*

Local Name and "Long" Name

When an object has a local name, two names are presented:

- the local name,
- the "long" name which includes the local name, preceded by the name of the object owner (the owner being the context in which the object is defined).

  ☛ *The long name is available in the enterprise architecture desktop.*

In the properties dialog box:

- the **Characteristics** tab presents the **Local Name** of the object.

  Example: The **Local Name** of the operation below is "Enter Order".

- The **General** tab, **Administration** subtab presents the long name of the object. The first part of this long name refers to the object owner.

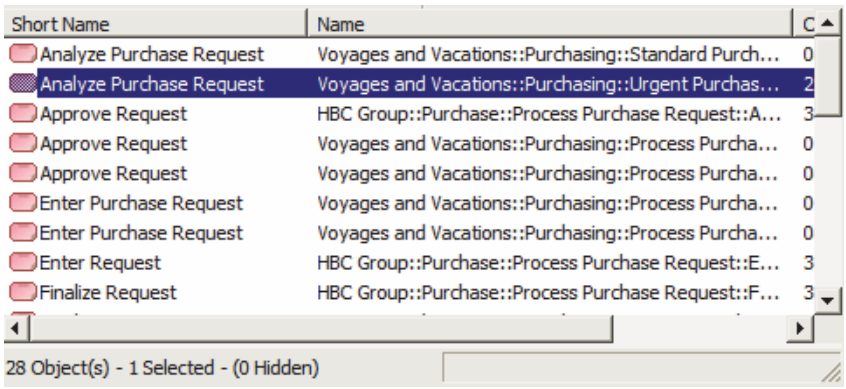
  Example: The long name of the following operation is: "Urgent Order Delivery::Enter Order". The first part of this long name refers to the owner of the operation, the "Urgent Order Delivery" organizational process.

To change the object owner:

- In the **Properties** dialog box of the object, **Characteristics** tab, use the **Owner** field drop-down menus.

Querying Object Types with Local Name

When you query an object type with a local name, the result dialog box presents the object **Short Name** opposite its "long" name. For example, when several operations have the same short name, you can select the operation corresponding to the context.



USING HOPEX IN A MULTILINGUAL CONTEXT

Knowledge sharing is possible across the company and in different languages through multilingual support: repository content is managed and published in as many languages as required.

HOPEX allows you to enter data in several languages.

You can easily switch from one language to another to enter or consult data or to generate documents.

Specifying the Data Language

HOPEX allows you to enter data in several languages. You can switch from one language to another to enter or consult data or to generate documents.

To specify the work language in **HOPEX Windows Front-End**:

- In the desktop, select **Tools > Language**, then specify your work language.
  You do not therefore need to end a session in order to display data in another language.

  ☛ *To configure the list of work languages, see "Managing Options" in the **HOPEX Administration - Supervisor** guide.*

To specify the data language in **HOPEX Web Front-End**:

- From the **Main Menu**, click the button corresponding to the language of your interface ("French" for example) and select the language of your choice in the drop-down menu.

It is possible that the language desired is not available by default. In this case, you must first make it available in your workspace.

To make one or more languages available:

1. Open the options window.
2. Select **Languages**.
3. In the right pane, select the desired languages and click **OK**.

Entering Data in Several Languages

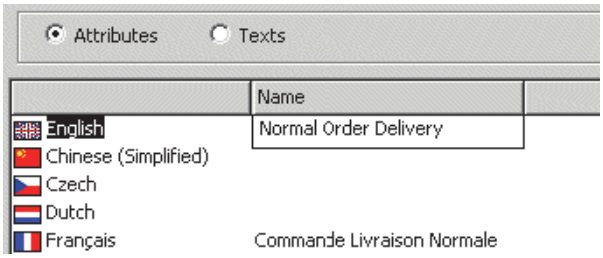
To enter your data in several languages:

- (Enterprise Architecture desktop) Select the **General** tab of the object properties dialog box, then the **Translation** subtab.

Object characteristics in the target language

To enter the characteristics of an object (for example, its name) in another language:

- In the **Translation** subtab, select **Attributes**.



You can enter the **Name** of the object in one or several languages.

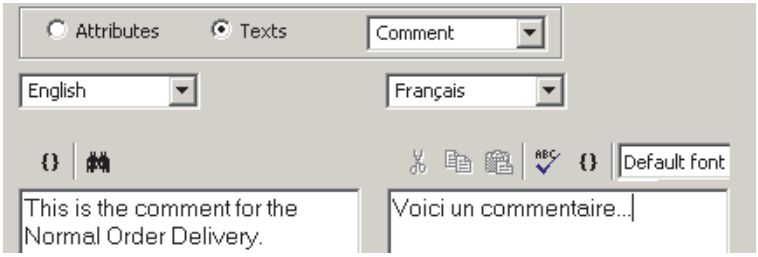
Object comments in the target language

☛ *Before entering a comment in another language, check that it is selected in:*

- *(HOPEX Windows Front-End)**Tools > Options > Languages***
- *(HOPEX Web Front-End) **Main Menu > Settings > Options > Languages***

(HOPEX Web Front-End) To enter the comment of an object (or other text type) in another language:

1. In the **Translation** subtab, select **Texts**.



2. In the drop-down list, select the type of text that you want to enter in another language (**Comment**, **Scope of application**, etc.)
   If a text has already been entered in English, it will appear in the frame on the left.
3. Select the target language, that is the language into which you wish to translate your original text.
4. Enter your text in the target language in the frame on the right.
5. When completed, click **Apply** and/or **OK**.

☛ *In this frame you can use cut/paste and spell checker functions.*

☛ ***HOPEX** offers a tool that can be used to find the remaining objects for translation in a repository.*

*For more detailed information, see "Querying objects to be translated" in "Managing objects" in the **HOPEX Administration - Supervisor** guide.*

Multilingualism and duplicated object names

When you duplicate an object, it must be in the repository language so that translations in the various languages will be correctly transferred to the duplicates.

☛ *To determine the language of your repository, consult repository properties.*

☛ *For more details on duplication, see "Duplicating objects", page 176.*

Viewing Untranslated Objects

To view untranslated objects:

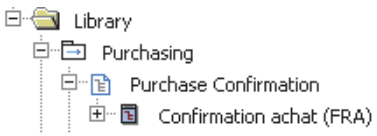
1. Open the **HOPEX** options dialog box.

   ☛ *To, access the options dialog box, see:*

   - *"Managing User Options (Windows Front-End)", page 82*
   - *"Managing your options (Web Front-End)", page 66*
2. Click the **Languages** icon.
3. Select the **Indication of objects not translated** check box.

The name displayed for untranslated objects is their name in the language in which they were created. When you select this option, the name is suffixed by the code of

the corresponding language (for example, US for English). This option is disabled by default.



In the example above, an application has been created in French and has to be translated into the current language (English in this example).

OBJECT VARIATIONS

The system of variations enables the creation of an alternative view of an object or model. This alternative view differs in certain ways from the reference model and enables us to follow updates made to the model over time.

```
You can for example model an application and its deployed
instance while both refer to the same object.
```

Activating Variations

To be able to create variations:

1. Open the **HOPEX** options dialog box.

   ☛ *To, access the options dialog box, see:*

   - *"Managing User Options (Windows Front-End)", page 82*
   - *"Managing your options (Web Front-End)", page 66*
2. Click **Business Process and Architecture Modeling**.
3. In the right pane of the window, select the **Activate Variations** check box.
4. Click **OK**.

When this option has been activated, you can:

- create variations
- view in the interface the options that enable modification of default behavior of variations in **HOPEX**.

  ☛ *The descriptors and the query tool propose for example check boxes to take account of inheritance. For more information on these functions, see the guide and "Using the Query Edit Assistant", page 189.*
- access the **Variations** subtab in the **General** tab of the objects properties dialog box.

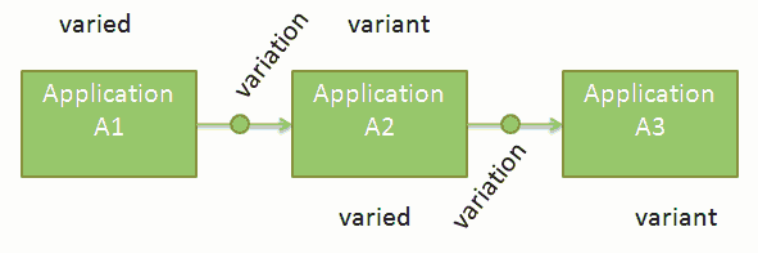
Variations

A variation is a MetaClass that connects concepts to their variants. The link between the existing object and the new object allows the new object to inherit elements of the object from which it is derived.

The user can then indicate the differences to be added to the new object, by modifying or replacing obsolete elements. This mechanism favors maintenance of modeled objects, since inherited elements are not duplicated and modifications to the first version of objects are automatically transferred to the variant objects.

From a theoretical viewpoint, we distinguish three component types in a variation model.

- The varied model: this is the initial model. In the case of application version monitoring, the varied model is the initial application (version 1.0).
- The variant model: this is the new model similar to the first. For applications, it is the new application version (version 2.0).
- The variation: the variation is a modeling artifact that connects the varied model to the variant model. This object is of no interest in itself from an application viewpoint, but it is the reference point for declaring differences between varied and variant.



The variation system can be applied to different object types: it involves variable objects.

This tool for modeling by variation was introduced to satisfy the following requirements:

- Reduced duplication: between a variant object and a varied object, there is no duplication. A certain number of elements attached to the initial object are considered as connected to the new version of the object, and we therefore talk of relationship ***inheritance***. Non-duplication of links simplifies maintenance of the different versions.

  ☛ *Not all elements attached to the initial object are inherited, but all inheritance relationships are defined at the level of the **HOPEX** metamodel which can be easily modified.*
- Integration in ergonomics: elements from a varied object can be viewed graphically in diagrams, but they are also visible in properties pages.
- Included in reports: all elements linked to a varied object can appear in the different reports.

Objects Varied

From a theoretical viewpoint, objects that can be varied are concepts (MetaClasses) inheriting from the "Variable Object" abstract MetaClass.

When a concept is inherited from "Variable Object":

- Its instances can be varied.
- Properties pages are automatically added to the object.
- Finally, the relationship inheritance system is available for this concept.

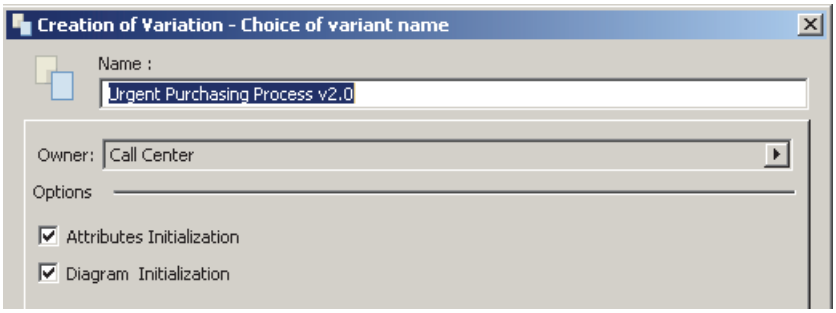
  ☛ *To make an object variable, see technical article "How to make an object variable".*

Creating a Variation of an Object

Variation creation functions are common to all variable objects.

To create a variation of an object:

1. Right-click the object and select **Variation > New Variant**.
   A variation creation wizard appears.
   By default:
   - the variant takes the name of the varied object, with extension v2.0.
   - Attributes and diagrams are copied.



> ☛ *For diagrams, the described object is not copied (it is a variation of the described object).*
>
> ☛ *You can choose to not copy attributes and diagrams. To do this, clear the check boxes* ***Attributes Initialization*** *and/or* ***Diagrams Initialization****.*

2. Click **Finish**.
   The variant object appears in the navigator, under the varied object. By expanding the tree, you can see the inherited elements.

Representing Variations in a Model

If required, you can represent variations in a model diagram, for example in an application tree

To represent a variation in a model diagram:

1. In the diagram insert toolbar, click **Variation** from the reel.
2. Click the object to be varied and drag the pointer to the newly created object before releasing the mouse button.
   A brown colored link appears.

> **The variation is represented by a link, but it is in fact a HOPEX object.**

Variation Modeling Rules

Consistency rules available in the **HOPEX** repository help you to check that your system of variations is correctly modeled.

To access modeling rules, you must have access to:

- "Advanced" metamodel
  - (Windows Front-End) through **Tools > Options > Repository**).
  - (Web Front-End) through **Main Menu > Settings > Options > Repository**
- the **HOPEX Power Studio** product.
  Rules appear in the **MetaStudio** navigation window, under the "Repository Consistency" folder.

These rules are:

- A substituting object must be correctly contextualized: this means that a substitution must connect objects of the same type and must also be connected to the variation in which it intervenes.

  ☛ *For more details on substitution, see "Replacing one element by another: substitution", page 188.*
- An object cannot be the result of several variations.
- An object cannot be its own variant.
- A variation relates to two objects of the same MetaClass.

To apply this regulation and thus check the consistency of objects you create with the rules to be respected:

1. Open the **HOPEX** options dialog box.

   ☛ *To, access the options dialog box, see:*

   - *"Managing User Options (Windows Front-End)", page 82*
   - *"Managing your options (Web Front-End)", page 66*
2. Select **Modeling and Methods Regulations**.
3. In the **Active modeling regulation** field, click .
4. In the dialog box that appears, select "Variation Modeling Regulation" and click **OK**.

You can consult results linked to this regulation at any time. They appear in the properties dialog boxes of the objects concerned.

You can also display them in diagrams and navigators with status indicators showing objects that are not validated with respect to the regulation.

☛ *For more details on modeling rules, see "Consistency Rules", page 224.*

Variation Inheritance

By default, the variant object inherits elements of the varied object (original object).

Commands available on inherited elements allow you to :

- exclude elements from the variant
- replace these by others.

```
Consider application A including functionalities F1 and F2.
By default, the variant Application A v2.0 inherits these
functionalities.
```

Excluding an element from the variant

To exclude functionality F2 from the variant object in the above example:

1. Right-click the inherited functionality.
2. Click **Exclude**.

The functionality disappears from the properties of Application A v2.0.

☛ *You have the possibility to restore it. For more details, see* *"Restoring elements", page 190**.*

Replacing one element by another: substitution

A substitution indicates that a certain object is used instead of another in a given context. In the case of a variation, you can substitute one of the elements of the varied object by an object of your choice.

☛ *Unlike a variation, a substitution does not involve inheritance but a functional conformity.*

Substitution example

In the case of application versions, substitutions enable expression of the following: in considering an application evolution, a service 2 is replaced by a new service 3.

- The new service 3 must be linked to the variant application
- service 2 is linked to one of the parent applications (it is possible to have several application generations linked in cascade)

Differences between variation and substitution

Variations express a similarity relationship between two models; an application v2.0 is very similar to v1.0. The variation enables concentration on their differences. These are expressed through another object. A variant is linked to only one varied object (to simplify inheritance issues).

A ***substitution*** however can be linked to several source elements and to several target elements. This allows indication that a certain set of services is replaced by another set of new services.

If a replacement object is similar to the replaced object (a new version of a service), this can be indicated by adding a variation between them.

☛ *The ability to inherit a relationship is a functionality declared at metamodel level, which can be adapted to suit requirements. The same applies concerning ability to substitute a concept.*

Replacing an object

Certain elements of a variant can be replaced by others.

```
For example, in a new application you can replace an
inherited application service by any other service.
```

Other elements such as functions cannot be substituted. In this case, the replacement command is grayed.

To replace an object by another in a variant:

1. In the **HOPEX** navigator, expand the variant object to see its inherited objects.
2. Select the element you wish to replace.
3. Open its pop-up menu and select **Replace**.

4. In the dialog box that opens, select the substitution element and click **OK**.

Viewing inherited elements

To view inherited elements:

1. Open the properties dialog box of the variant application.
2. Select the **Architecture** tab.
3. In the **Application Architecture** area, click **Inherited Object** .

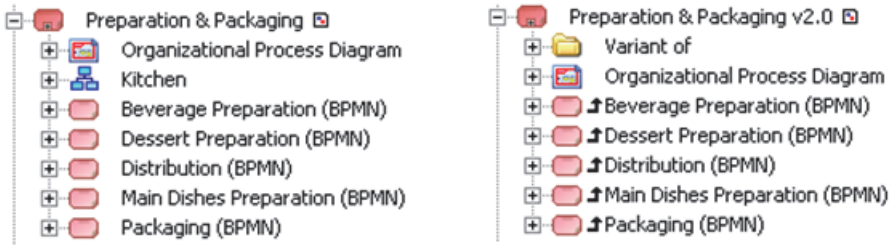
To view elements excluded or replaced by a substitution:

1. Follow the previous steps.
2. Click **Excluded** .

☛ *The point above illustrates inheritance around the application concept.*

In a diagram, inherited elements are accompanied by an arrow :

- In the navigation tree.
- in diagrams

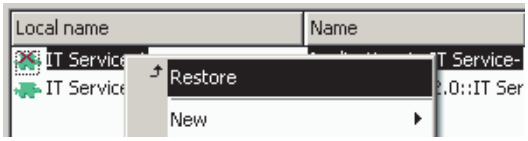


Varied Object **Variant Object**

Restoring elements

To restore a substituted or excluded element:

1. In the properties page, click **Excluded** .
   to display excluded elements.
2. Open the pop-up menu of the element in question and select **Restore**.



In the target object properties dialog box, the **General** > **Variations** tab presents a report that lists all links obtained directly or by varied applications, with indication of the source as well as reasons for replacement or removal via substitutions.

Viewing variations and substitutions graphically

In model diagrams, such as the application internal architecture diagram, elements shown in the diagram are elements belonging to the described object.

☛ *When you click the icon associated with an object, an explanatory message appears.*

Inherited objects are associated with an inheritance arrow

Elements that have been replaced are indicated by a red cross ✕.

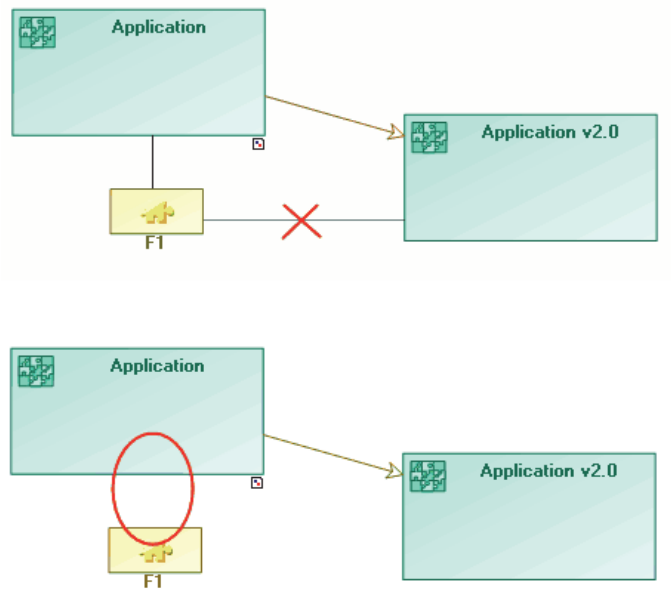
☛ *Diagram objects that are not linked to the described object, not inherited or not replaced are identified by a warning panel to indicate that their presence in the diagram assumes a link with the described object.*

Removal of an inheritance link in a hierarchical diagram

In a hierarchical diagram, such as the application tree, inheritance is characterized by links between described objects.

When you delete an inheritance link between an element of a varied object and the variant object, you delete all possible inheritances and therefore the link between the element and the varied object.

Example: In the example below, Application v2.0 is the variant of Application. Functionality F1 is owned by Application and is inherited by Application v2.0. If you delete the inheritance link between F1 and Application v2.0, you also delete the ownership link between F1 and Application.



Inheritance limits

There is a restriction on the length of sequences of variations. Elements inherited from a varied object cannot be reflected infinitely on all objects derived from the original object. At the end of a certain sub-level of variations (66), inheritance is lost. The limit is indicated by a message.

In the case of a large number of variations, consolidation of variants history is recommended. See "Consolidating variants history", page 192 below.

Consolidating variants history

Thanks to variations, it is possible to keep track of the different versions of an application. After a certain time however, it can be difficult, even pointless, to manage obsolete versions. You can delete from the repository those versions earlier than a certain version, by consolidating the history of variants.

The consolidation command enables transfer of inherited elements of an object to the new object and destruction of ancestors. The purpose is to reduce volume of the repository and remove obsolete information.

To consolidate an application:

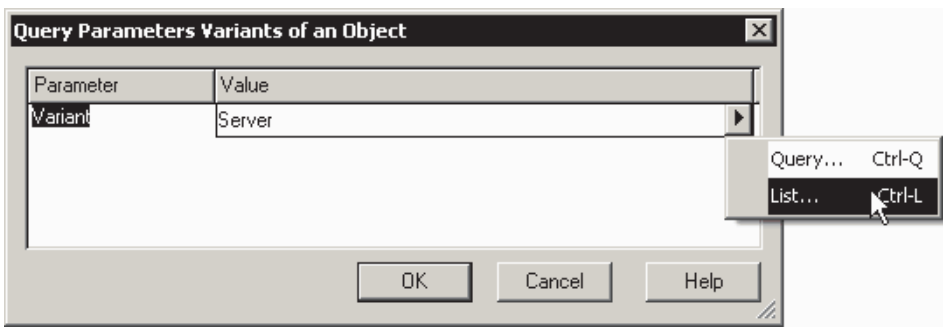
- Right-click the variant application and select **Consolidate**.

Finding Object Variants

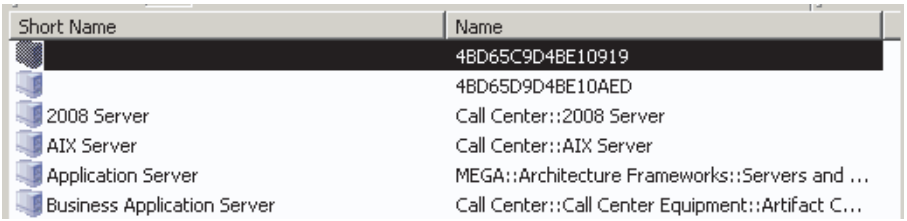
A query can find all objects derived from another. This is the "Object Variant" query.

To find object variants:

1. In the **HOPEX** query bar, select object type "Query" and enter "Object Variants".
   The "Object Variants" query appears in the results dialog box.
2. Right-click the query and select **Execute**.
   ☛ *This function is available with **Windows Front-End** only.*
3. In the dialog box that appears, enter the name of the varied object, for example "Server". Clicking in the **Value** frame, an arrow appears allowing you to find the name of the object.



4. When the object has been selected, click **OK**.



The list of objects derived from "Server" appears. The tool displays not only direct variants but also sub-variations.

Variation Reports

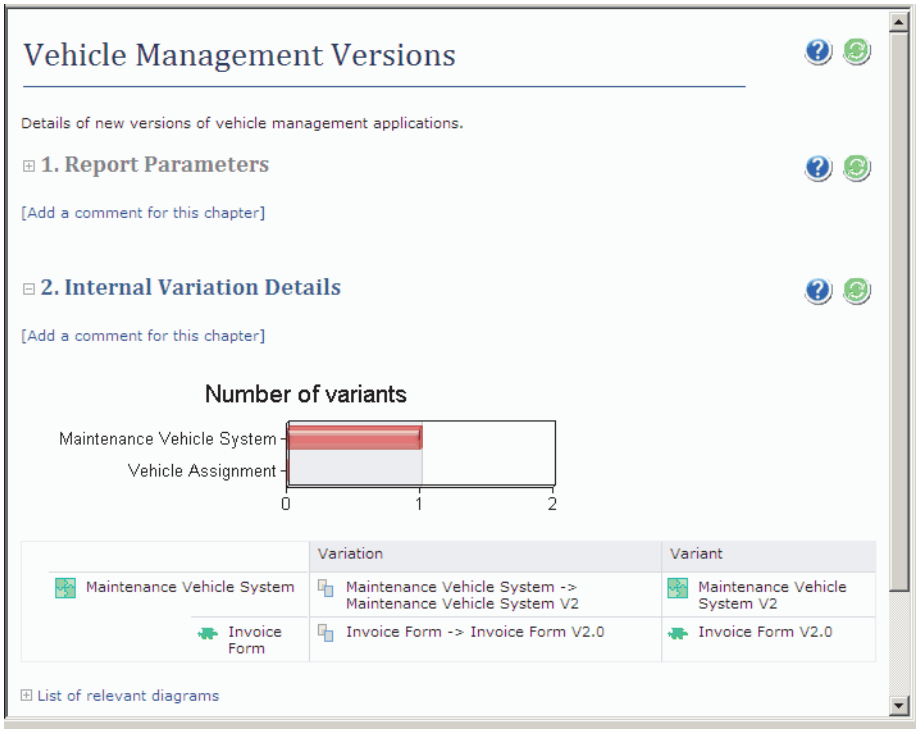
In **HOPEX** there are three report types linked to variations:

- Variant Object Analysis: this report details all relationships linking the variant to objects either directly or by inheritance. In this report, varied sources are indicated with reasons for replacements, and deletions are also accessible.
- Varied Object Analysis: this report type relates to varied objects. It gives a view of:
  - Details of internal variations: when a varied object comprises elements, these elements can also be varied in the context of the primary variation. The objective of this report is to show variations of analyzed elements and the detail of component variations.
  - Details of variation descendant lineage: variants themselves are variable objects and can therefore be varied in turn. This report details the complete lineage of a varied object.
- Variation Analysis: variations are used to establish relationships between a varied object and its variants. A variation can be broken down into sub-variations that define how elements of the varied object are themselves varied. This report details the structure of certain variations.

In **Windows Front-End**, these reports supply the **General** > **Variations** tab in the properties dialog box of each variable object. Depending on its situation (variant

and/or varied), the object displays information on parents, elements inherited, substituted or replaced and on the descending line.

☛ *Example reports are available in the "Tutorial" repository of the "Demonstration" environment.*



Example of "Varied Object Analysis" report

☛ *Display of reports assumes that metamodel access is in "Advanced" mode.*

OBJECT VERSIONS

The variation concept has been extended to object version management, retaining the inheritance principle.

The operating principle of versions is similar to that for variations. However, to comply with operational reality, a versioned object is frozen by a lock mechanism. The object can only be modified by creating a new object version.

☛ *For more details on variations, see "Object Variations", page 184.*

Accessing Object Version Management

To access object version management:

1. Open the **HOPEX** options dialog box.

   ☛ *To, access the options dialog box, see:*

   - *"Managing User Options (Windows Front-End)", page 82*
   - *"Managing your options (Web Front-End)", page 66*
2. Click **Business Process and Architecture Modeling**.
3. In the right pane of the window, select the **Activate Variations** check box.

Creating Object Versions

To create a variation of an object:

1. In the **HOPEX** navigation window, right-click the object and select **New** > **Version**.

   ☛ *Only applications can be versioned.*

   A version creation wizard appears.

   By default:

   - the version takes the name of the initial object, with a version extension.
   - Attributes and diagrams are copied.

     ☛ *For diagrams, the described object is not copied (it is a variation of the described object).*
2. Click **Finish**.
   The object representing the new version appears in the navigator, under the initial object. A lock appears alongside the initial object.

Operation of versions is based on that of variations, to which is added locking of the initial object.

☛ *For more details on variations, see "Object Variations", page 184.*

☛ *Locking of the object to be versioned should not be confused with that covered in **MEGA Administration-Supervisor** in the context of writing accesses.*

Managing Locks on Parent Objects

After creation of a version, the parent object is locked.

To modify the locked object, you must create a new version.

☛ *For more details, see "Creating Object Versions", page 195.*

You can however remove this restriction if you are authorized to unlock protected objects.

Unlocking objects

To unlock the parent object that has been versioned:

❱ Right-click the object and select **Manage > Unlock Object**.

☛ *This command appears if you are authorized to unlock protected objects.*

To be able to unlock objects:

1. Open the **HOPEX** options dialog box.

   ☛ *To, access the options dialog box, see:*

   - *"Managing User Options (Windows Front-End)", page 82*
   - *"Managing your options (Web Front-End)", page 66*
2. Click **Repository**.
3. In the right pane, for **Authorize Unlocking of Protected Objects**, select "Authorize".

Locking objects

It is recommended that you do not leave an object unlocked when a version of this object has been created.

To lock an unlocked object:

❱ Right-click the object and select **Manage > Lock Object**.

☛ *Object locking and unlocking commands only appear in the case of objects that can be versioned.*

ENTERPRISES AND LIBRARIES

This section presents the concepts of a *library* and an *enterprise*, and more broadly, a *container*, as offered by **HOPEX**.

Containers are used to partition a repository **HOPEX** into a number of separate spaces that can be viewed as logical bases, while providing dependency relationships between these spaces. Containers thus also form a logical partitioning of the repository.

> *Libraries are collections of objects used to split repository content into several independent parts. They allow creation of virtual partitions of the repository. In particular, two objects owned by different libraries can have the same name.*

> *An enterprise is a purposeful undertaking, an effort conducted by one or more organizations, aiming at delivering goods and services, in accordance with the enterprise mission in its changing environment. In the course of its development, the enterprise must adapt to its environment and establish the transformation objectives and goals to be achieved as well as the strategic action plans used to achieve these objectives. The development and achievement of the different adaptation and transformation stages can lead to a modification of the organization's boundaries. This requires the implementation of an integrated team, under the responsibility of a governing body, to involve the stakeholders in the transformation.*

The elements referenced by a *container* are *building blocks*. A *building block* belongs to a single container only. *Containers* thus play a namespace role which means that more than one building block can have the same name.

> *A building block is an element that can be directly owned by a container such as a library.*

> *A container is a body-of-knowledge which is made of a set of building-blocks that are asserted to exist for a given understanding of a business domain by a semantic community.*

- ✓ "About Containers", page 198
- ✓ "Defining a Work Context", page 203
- ✓ "Using Libraries", page 207
- ✓ "Using Enterprises", page 209

About Containers

Introduction to Building Blocks and Their Container

With **HOPEX**, a *building block* is owned by a single *container*.

> 🕮 *A building block is an element that can be directly owned by a container such as a library.*
>
> For example, applications, org-units and processes are building blocks.
>
> 🕮 *A container is a body-of-knowledge which is made of a set of building-blocks that are asserted to exist for a given understanding of a business domain by a semantic community.*
>
> 🕮 *A container is a coherent set of building blocks relating to a determined business sector.*
>
> For example, a company can be seen as a container.

Lastly, a building block or a container can be referenced by a container different from that to which it belongs. It is thus part of the scope of the container that references it.

Thus, with **HOPEX**, *containers* have two components:

- *building blocks* , which are reusable elements owned by a single container.
- *import relationships*, which broaden the scope of a container to other modeling building blocks.

> 🕮 *An import relationship indicates that a building block or a set of building blocks for a target container is integrated in the scope of the container initiating the import. There are two import relationships: importing an entire container and importing building blocks on a unitary basis.*
>
> ☛ *You can define a library hierarchy that describes different business contexts. For more details, see "Defining a Work Context", page 203.*

Defining the Scope of a Container

The scope of a container is defined by the set of building blocks accessible from this container via two possible links:

- an ownership link,
- an import link.

A building block can be owned by a container:

- explicitly, if the container owns it directly,
- implicitly, if its owner (or the owner of the owner), etc.) is itself in the container.
  The name of the object is unique only within the context of its owner.

  For example, let us look at two different containers:

  - a library dedicated to architecture building blocks relating to "Public transport".

  - a library dedicated to the "Accounting" public transport department.

  If the "Accounting" library is specialized in transport business functions, it will be owned by the "Public transport" library. The objects owned by the "Accounting" library will also be held by the "Public transports" library.

However, an object owned by a container can be used in the context of another container.

For example, let us look at the container associated with a "Public transport" client company.

The container that represents the client company can import equipment or human resources from the "Public transport" container.

Lastly, to prevent working on objects common to two different containers, you should create an additional container for the shared objects. There will be no name conflict as the users in each company work in their own container.

For example, if the "Accounting" container is sufficiently generic to be common to the "Public transport" company and its client company, it can also be imported in the container that represents the client company, on the one hand, and in the "Public transport" container, on the other hand.

In this case, it is no longer owned by the container associated with the transport company.

Thus, the users of one container can refer to, in their models, other objects created by the users in the other container. They can also share common objects in a third container.

Defining the object owned by a container

Defining the Object Owner

The owner of an object is automatically specified at creation of the object. If there is no current container, the object owner will be the current library.

To modify the container that owns an object:

1. Open the **Characteristics** properties page of the object.

2. In the **Owner** field, click the drop-down menu on the left and select **Link Library**.
   The connection window opens.
3. Select the type of container and the container of your choice and click **OK**.
   The name of the library appears in the **Characteristics** properties page of the object.
   In the navigation tree, the object appears under the container.

Defining objects contained using a navigation tree

To specify that a given object is owned by a container:

1. See "Accessing Work Context Elements", page 203.
2. From the navigation tree, drag and drop the object concerned into the container folder.
   The objects appear in the container navigation tree.

> ☛ *If the container is a library, the objects also appear in its **Scope** properties page.*

Importing other objects in a container

> ☛ *The building blocks and the containers imported in a container appear in the **Imports** properties page of the container.*

Defining the building blocks imported in a container

To specify that a building block owned by the current container can use an object owned by another container:

1. Open the **Import** properties page of the current container.
2. In the **Imported Building Blocks** section, click the **Connect** button.
   A connection dialog box opens.
3. Select the object type you want to import.
4. Select the objects that you want to import and click **Connect**.
   The imported objects appear in the section.

Defining the containers imported in a container

If the building blocks of the current container use other building blocks owned by another container, you can import the container in the current container:

1. Open the **Import** properties page of the current container.
2. In the **Container Import** section, click the **Connect** button.
   A connection dialog box opens.
3. Select the container that you want to import and click **Connect**.
   The imported container appears in the section.

Analyzing Container Dependency Errors

This dependency analysis report examines the objects used in the models and checks that this use is foreseen in the dependencies declared between the imported libraries.

Creating an analysis report for container dependency errors

To create an analysis report for container dependency errors:

1. Right-click the library in question and select **Documentation > Report Discovery**.
2. Expand the "Platform tools" folder.
3. Opposite the **Analysis of Container Dependency Errors** report, click **Launch a New Report**.

Accessing the analysis report for container dependency errors

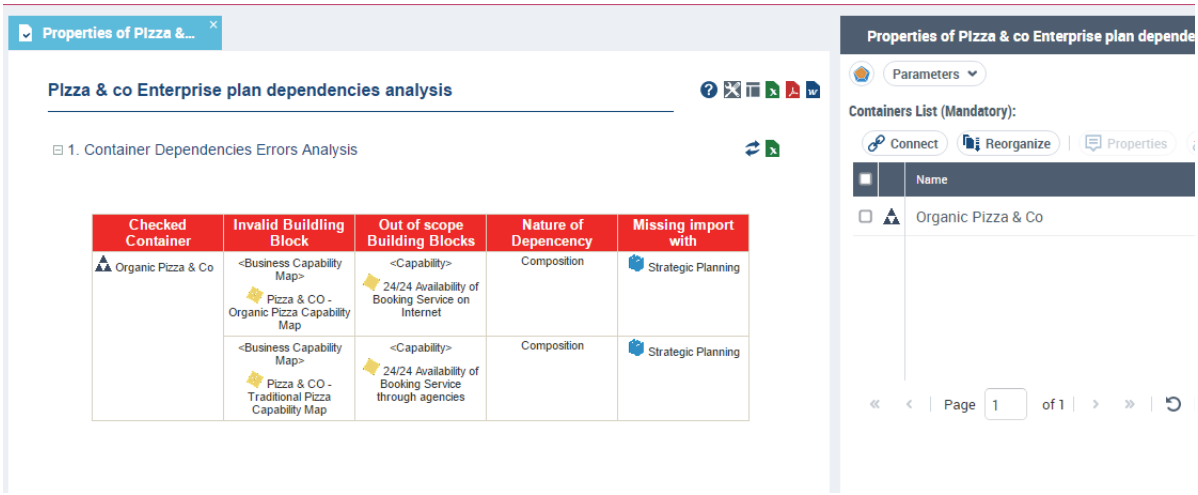
To access an analysis report for container dependency errors using a library:

1. Open the **General > Documents** property pages of the library in question.
2. Expand the **Report** section.
   The list of reports accessible from the library appears.

Report description

This report is used to check the consistency of the use of architecture building blocks within the framework of a container with respect to:

- dependencies declared for the containers (for example, a library) imported by the container examined (for example an Enterprise),
- owner libraries of architecture building blocks.



Example of a dependency analysis report

The report displays the following columns:

- **Containers checked**: specifies the containers tested (entered as a parameter in the report).
- **Non-valid building blocks**: specifies which container building block checked presents a non-valid reference, and is therefore not valid,

  ☛ *Non-valid building blocks in libraries imported by the library entered as a parameter do not appear in the report.*
- **Building blocks out of context**: specifies which object referenced by the building block in the preceding column is not in the declared scope of the container (that is, that the building block is owned neither by the container itself, nor by one of the imported libraries, nor imported individually at the container level).
- **Type of dependency**: specifies the dependency type of the use between the non-valid building block identified in the second column and the out-of-context building block in the third column (direct or by composition, for example),
- **Import missing**: specifies the owner of the out-of-context building block that must, for example, be added to the containers imported from the checked container.

Report parameters

Parameter	Parameter type	Constraints
Checked containers	Library Enterprise Building block container	At least one mandatory container.

Finding isolated objects

Isolated objects are objects that are not connected to a container.

You can create objects without connecting them to a container, and do this at a later stage. A search tool allows you to find the isolated objects.

To find the isolated objects with a **HOPEX Windows Front-End** solution:

1. In the **Home** navigation tab, right-click the repository name and select **Find Isolated Objects**.
   A dialog box displays the list of isolated objects:

DEFINING A WORK CONTEXT

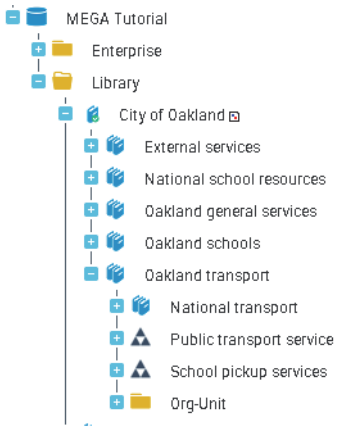
A *library* or an *enterprise* is used to represent a unique work context. The specification of this work context facilitates management of owned building blocks as their access can be protected.

HOPEX offers facilities for access to and updating objects contained in a *library* or referenced by it.

Accessing Work Context Elements

To access the list of libraries and enterprises in the repository:

- (**HOPEX Windows Front-End**) Select the **Home** navigation pane, which is displayed by default.



- (**HOPEX Web Front-End** solutions) Using the **Environment** desktop, select **Enterprise** and select the **Container Tree** tile.

> ☛ *The **HOPEX** library, automatically created for each new repository, contains the list of objects necessary for operation of installed **HOPEX** products.*

Use example for Libraries and Enterprises

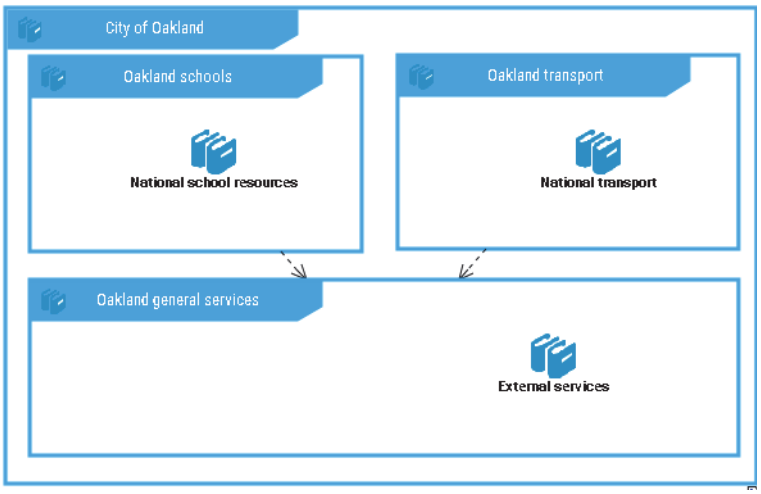
This presentation is based on the example of various services provided by the city of Oakland. The scope of the services is defined by a library called "City of Oakland".

Libraries are essentially used to consolidate all objects linked by their business context. Exporting these libraries takes into account all owned objects.

The city's services are also represented by libraries: "Oakland transport", "Oakland schools" and "Oakland general services".

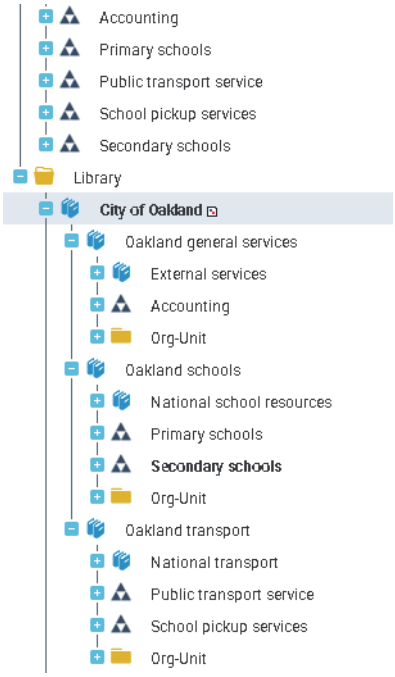
The transport services as well as the schools use general services. Thus the "Oakland transport" and "Oakland schools" libraries import the "Oakland general services" libraries.

Lastly, each of the city's services call on specialized external services. These external services are represented by specific libraries owned by the library that uses these services. For example, the "Oakland transport" library owns the "National transport" library.



By creating Enterprises, you can model services and their updates. Each Enterprise is owned by the library relating to its business context.

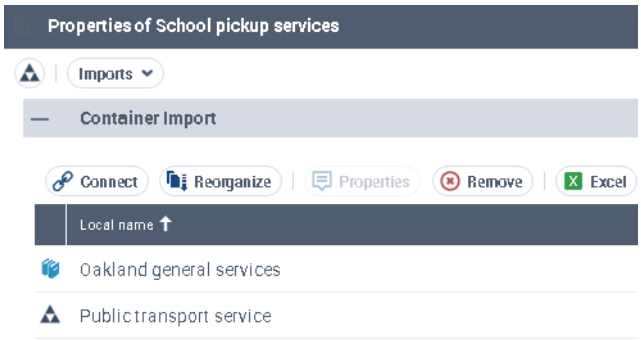
In this example, the container tree displays the objects owned by the libraries and the enterprises.



In this example, we also assume that:

- all Oakland schools use "School pickup services", which means that the "Oakland school library" imports the "School pickup services" enterprise.
- only the "Secondary schools" use the "National school resources", which means that the "Secondary school" enterprise imports the "National school resources" library.
- the "School pickup services" use the "Public transport services", which means that the "School pickup services" imports the "Public transport services" enterprise.

The **Import** properties page of the "School pickup services" lists the containers imported.



USING LIBRARIES

Libraries are collections of objects used to split repository content into several independent parts. They allow creation of virtual partitions of the repository. In particular, two objects owned by different libraries can have the same name.

Creating a Library

Creation and management of accesses to the different libraries must be done under the supervision of the HOPEX repository administrator. The number of libraries should be limited to avoid creating too many duplicates of the same object.

To create a library:

1. (**HOPEX Windows Front-End**) Select the **Home** navigation pane, which is displayed by default.
2. (**HOPEX Web Front-End** solutions) Using the **Environment** desktop, select **Enterprise** and select the **Container Tree** tile.
3. Right-click the **Library** folder and select **New > Library**.
   The library creation dialog box opens.
4. Enter the name of the library.
5. If appropriate, enter the name of the **Owner**.
6. Click **OK**.
   The library appears in the navigation tree.

Modifying the presentation of objects in a library

With **HOPEX Windows Front-End**, objects in a library tree can be grouped in two ways:

- either by type: objects are stored in folders by type.

  This form of presentation is active by default. A folder is created only if there is at least one object of the type.

- or by name: objects are presented in alphabetical order.

To modify the presentation of objects with **HOPEX Windows Front-End**:

1. In the **Home** navigation pane, right-click the repository name and select **Regroup > By Name**.
2. Expand a library to view its list of objects, now presented in alphabetical order.

Exporting Library Content

Export of a library includes all objects owned by the library and, hierarchically, all objects owned by each of its objects.

To export a library with **HOPEX Windows Front-End** :

1. Right-click the library and select **Manage > Export**.
2. In the **Export in format** box, select the export format in the drop-down list.
3. (Optional) Click **Browse** ... to modify the file save location. Change the file name if necessary.
4. Click **Export** to start backup.
   A series of messages keeps you informed of backup progress. The **Execution Report** window appears.
5. In the **Execution Report** dialog box, click:
   - **Open result file** to open the backup file.
   - **OK** to close the dialog box.

USING ENTERPRISES

Choosing a Work Environment

To access the list of enterprises that are assigned to you:

1. Scroll the **Main Menu** and select **Change Work Environment**.
   The list of enterprises assigned to you appear.
2. Select the enterprises on which you want to work.

Managing an enterprise

A basic *enterprise* is made up of the following elements:

- a start event;

  ☛ *The start event can be positioned arbitrarily at the beginning of the current year, for example.*

- an end event;

  ☛ *The end event can be positioned with an analysis time frame (e.g.: year n+ 5, year n+10)*

  ☛ *For more details on enterprise events, see "Defining the start and end events of the enterprise", page 211*

- a current ('As-Is') stage that concerns existing elements;
- a target ('To-Be') stage that concerns target elements;

  ☛ *For more details on enterprise stages, see "Updating the enterprise stages by default", page 211*

Creating an enterprise

To create an *enterprise*:

1. From the **Environment** navigation pane, select **Enterprises**.
   The list of enterprises appears in the edit area.
2. Click **New**.
   An enterprise creation dialog box opens.
3. Specify the name of the enterprise.
4. Click the **IT Transformation** or **Business Transformation** or Other check box. or **Other**.
5. Also specify the types of **Sub Containers**.
6. Click **Next**.
7. Enter the name of the **Work Environment** that you want to create and specify its **Strategic Planning**.
8. Click **OK**.
   The tree for the steps of a **Strategic Planning** type is created automatically.
9. Click **OK**.

Linking an enterprise to a library

> 🕮 *Gateways are modeling elements that are used to control how sequence flows interact as they converge and diverge within a process.*
>
> ☛ *For more details on libraries, see "Using Libraries", page 207.*

To connect an *enterprise* to a *library*.

1. Open the **Characteristics** properties page of the enterprise that interests you.
2. From the **Owner** field, select the library to which you want to connect the enterprise.

Enterprise properties

The **Characteristics** properties page of an enterprise provides access to:

- its **Name**,
- its **Owner**,

  ☛ *For more information on the link between an enterprise and a library, see "Linking an enterprise to a library", page 210.*
- the **Start Event** of the enterprise.
- the **End Event** of the enterprise.
- the **Description** text.

An *enterprise* is described in the same way as an enterprise stage.

☛ *For more details on enterprise stages, see "Updating the enterprise stages by default", page 211*

Initializing an enterprise

When the enterprise is created, the Functional Administrator must run the following tasks:

- Specify the start and end dates of the events,

  ☛ *For more details on updating start and end events, see "Defining the start and end events of the enterprise", page 211.*
- Update the enterprise "As-Is" and "To-Be" stages that are used to start the transformation scheduling,

  ☛ *For more details on updating the basic enterprise stages, see "Updating the enterprise stages by default", page 211.*
- Define the objects in the library that are part of the enterprise scope,

  ☛ *For more details on libraries, see "Using Libraries", page 207.*
- Specify, if appropriate, the participants in the enterprise and the role of each,

  ☛ *For more details on assigning participants, see "Assigning a user to the strategic planning stages", page 212.*

Defining Enterprise Planning

Defining the start and end events of the enterprise

An event represents a fact occurring during execution of a process, for example a new contract concluded with a supplier. An event marks the impact on process progress of a phenomenon internal or external to the process. There are different natures of events: start events, catch events, throw events and end events.

For more details on the events of your repository, see "Defining the start and end events of the enterprise", page 211

When you create the enterprise, the start and end *events* are linked by default to the *enterprise*.

To modify the start and end events of an *enterprise*:

1. Open the properties page of the enterprise that interests you.
2. Select the **Characteristics** page.
3. In the **Start Event** field, select **Create a New Event** to create the event that marks the start date of the enterprise.
4. In the **End Event**, section, select **Link an End Event of the Enterprise**.
5. Select the event that marks the end date of the enterprise.
6. Click **OK**.

Updating the enterprise stages by default

An enterprise stage is a past, current or future stage of an enterprise.

When you create an enterprise, two basic enterprise stages are created by default:

- the current ('As-Is') enterprise stage that holds the currently deployed business capability map, the business architecture environment and the solution building blocks;

  The end event of this stage is the intermediate event that defines the 'pivot' transformation benchmark beyond which you are in the 'target' stage

- the target ('To-Be') stage that concerns the business capability map, the architecture environment and the target solution building blocks.

  The start date is the end pivot event of the previous ('As-Is') stage.

To access the *enterprise stages*of an enterprise:

1. Open the properties page of the enterprise that interests you.
2. Select the **Strategy** page.
3. Open the **Enterprise Sub-stages** section.
   The list of enterprise sub-phases appears.

Assigning a user to the strategic planning stages

Managing an enterprise includes different stages that are defined in the **Strategic Planning** work environment model. In the solution interface, each of these steps is associated with a navigation tree pane.

By default, a user has access to all the steps in the enterprise. To define the steps to which a user has access, you must assign users to the enterprise stages. Thus, when connected to the solution, the user will only see the working environment steps allocated to him/her.

A user of the solution is a system person.

> 🕮 *A person (System) represents a person in the enterprise. This person can be assigned a login and a role (or a profile depending on the connection mode). The login provides access to the HOPEX Application. The role (or the profile) defines the access to product functions and repositories. A system person, if assigned a login, has a specific desktop in each database, and can connect to this desktop from any workstation in a given environment.*

To assign a user to a step of a **working environment**:

1. Open the properties window for the **Enterprise** that interests you and select the **Assignment** page.
2. Opposite the work environment step in question, click in the check box under the **Assignments** column.
   An assignment window opens.
3. Click **Connect**.
   A dialog box for connecting system persons appears.
4. Find and select the persons (system) associated with the users that interest you.
5. Click **Connect**.
6. In the assignment window, select the persons whom you wish to connect to the enterprise and click **OK**.

> ☛ *In the same way, you can link a user to other steps in the work environment.*

EXPLORING THE REPOSITORY

When you modify an object (process, operation, etc.), it is of interest to know the impact of this action on the other objects in the repository.

It can be of interest to display the contents of the repository at a given moment in time and to study the links between different objects, or check consistency between objects.

- ✓ "The Explorer", page 214, which enables you to easily browse the entire repository.
- ✓ "Matrices", page 220, which provide you with a better view of the links between objects.
- ✓ "Tools for Checking Objects", page 224, which enable you to view the consistency of modeled objects.

THE EXPLORER

The explorer allows you to view repository objects and links and to carry out impact analyses. Its use is similar to that of the Windows explorer: objects are represented in the form of a menu tree, which allows you to navigate easily and to have an overview of all the diagrams, objects and links specified in the repository.

☛ *The explorer is available in both Web Front-End and Windows Front-End. The presentation and functions offered are not however identical. Differences are indicated.*

Running the Explorer

Launching Explorer in Windows Front-End

To run the explorer in **HOPEX Windows Front-End**:

- From the desktop, select **Tools > Explore** or click button in the toolbar.
  The explorer window opens. Note that the window is empty because you did not select an object before running the explorer.

To select the object to explore in the explore dialog box:

1. In the explorer menu bar, select **Explore > Object**, or in the explorer toolbar click button .
   The **Selection of an object** dialog box opens.
2. In the left pane of the window, click the object type to explore. For example, select "Org-Unit".
   The list of "Org-Unit" objects appears in the right pane.

To consult the objects that surround an object, for example an "Org-Unit":

- In the right pane of the **Selection of an Object** window, double-click an org-unit.
  The explorer window opens and describes the selected object.

The list on the right shows the object types and links that characterize the object.

☛ *To explore an object, you can also right-click the object that you wish to explore and select **Explore**.*

Launching Explorer in Web Front-End

To run the explorer in Web Front-End:

- Right-click the object you wish to explore and select **Explore**.

Exploring the Repository

Viewing the number of objects

The number between brackets indicates the number of objects of that type in the repository.

To show/hide this number in **Windows Front-End**:

- In the explorer, select **View > Options > View Number of Objects**.

  ☛ *If your repository is very large, you may find it preferable to disable this option: This will speed up display of objects in the explorer.*

Viewing repository objects

The **Description** button in the toolbar (green folder) allows you to view the description of the object you have selected. When you run the explorer from an object, the links that describe this object are displayed.

☛ *In **HOPEX Web Front-End**, the green folders are displayed by default. The button is not available.*

The description of an object includes the more basic objects that define it. For example, the operations of an organizational process are part of the description of the organizational process.

To view the objects connected to the object you are exploring:

- In the left pane of the explorer window, click an object type or link type that is preceded by a green folder.
  Objects connected to the selected object are displayed on the right.

Impact analyses

The **Impact analysis** button in the toolbar (yellow folder) allows you to determine if the object you are exploring has an impact on other objects.

☛ *In HOPEX Web Front-End, the yellow folders are displayed by default. The button is not available.*

Objects included in the impact analysis are the objects that will impact the object being analyzed if they are modified. For example, an organizational process is modified if one of the operations it contains is modified or deleted.

To determine the objects impacted by the object you are exploring:

- Double-click an object type preceded by a yellow folder:

  Example: By double-clicking "Diagram", you will see the diagrams in which an object appears.

Viewing unused links

The **Empty Collections** button in the toolbar (folder with watermark) allows you to display the unused links around an object. It can apply to description folders (green folders) and impact analyses (yellow folders).

☛ *This function is available with **HOPEX Windows Front-End** only.*

To view unused links:

1. Click the **Description** button and/or the **Impact Analysis** button .
2. Click the **Empty Collections** button
   The unused links appear. They are presented as watermarks (green and/or yellow).

   ☛ *You can create objects for these unused links or connect them to already existing objects. For more details, see "Creating objects", page 217, and "Connecting, disconnecting and deleting objects", page 217.*

Opening a diagram from the explorer

To open a diagram from the explorer:

❱ Right-click the diagram and select **Open**.
The corresponding diagram opens in the Edit window.

Exploring other objects

To quickly open a second explorer on an object:

❱ Right-click the object you wish to explore and select **Explore**.
A second explorer window opens.

Explorer Display Modes

To improve explorer readability, use the buttons in the toolbar to select the format you find most suitable for viewing objects in the explorer.

☛ *Selection of display mode is available in **HOPEX Windows Front-End** only.*

In the toolbar, if you click button:

- **Details** , in the right pane you will see the object characteristics that can be specified.
- **List** , you no longer see the details of object characteristics.
- **Tree Only** , only the tree on the left is displayed.

Modifying the Repository with the Explorer

Creating objects

You can create new objects from the explorer in two ways:

- Either directly from the **New** button in the explorer window.
  The object created then appears in the left pane of the explorer.
- Or from the explored object.

To create an object from another object:

1. Right-click the object type you wish to create and select **New**.
   The object creation dialog box appears.
2. Name the object and click **OK**.
   The object is created.

Copying and pasting objects

To copy an object or a group of objects:

1. Select the object(s) to be copied.
2. Right-click and select **Copy**.

To paste the object or group of objects you have just copied:

- Right-click in the tree on the left where you wish to place the objects and select **Paste**.

> **When you paste objects in the explorer, the explorer automatically creates links between the objects you paste and the next object up in the hierarchy. This explains why you cannot paste certain objects in certain positions.**
>
> *In **HOPEX Windows Front-End**, object names can be copied in the explorer and pasted elsewhere, for example in a word processor or a diagram. You can also drag and drop objects from the explorer into a diagram.*

Connecting, disconnecting and deleting objects

To connect objects using the explorer:

1. Click an object type in the left pane of the window.
2. Right-click in the right pane of the window and select **Connect**.
   The **Query** dialog box opens.
3. In the **Query** dialog box, specify the selection to be applied and click **Find**.
4. In the results window, select the objects to be connected.
5. Click **OK**.
   The objects to be connected appear in the explorer window and are connected to the object.

You can also:

- disconnect two objects.
- delete repository objects
  A deletion confirmation message appears. Use the delete command with caution.

  ☛ *It is possible that your authorization, defined by the administrator, limits deletion to those objects that you yourself have recently created.*

Modifying object properties

You can also modify the properties of an object:

- Right-click the object and select **Properties**.
  You can modify characteristics of the object.
  The details entered appear in the right pane of the window.

  ☺ *You can also indicate characteristics by entering them directly in the main explorer window.*

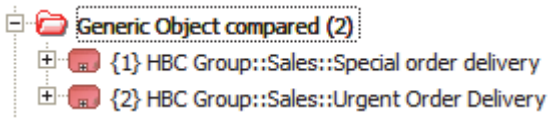
Comparing Objects Using the Explorer (Windows Front-End)

The **HOPEX** explorer allows you to compare objects.
You can, for example, compare two organizational processes: "Normal Order Delivery" and "Urgent Order Delivery".

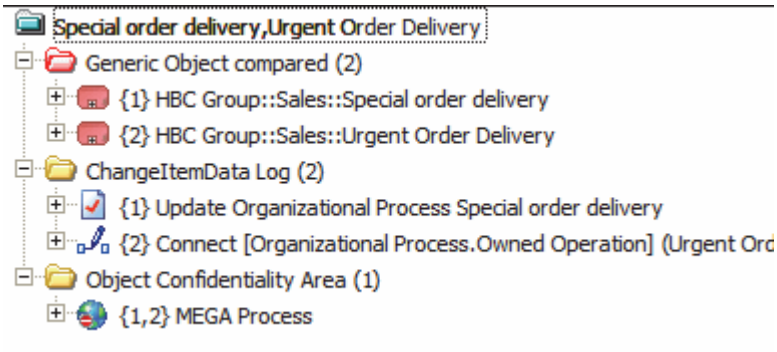
To run a comparison on objects:

1. Select the objects to be compared holding the <Ctrl> key down, then right-click.
2. In the pop-up menu that appears, select **Compare and Align**.

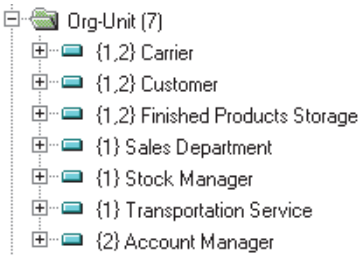
An explorer window opens. It presents the comparison of the two selected objects.
The red folder contains the objects compared.



The number between brackets preceding the object name identifies the object. This number is used in other folders of the explorer to identify the objects compared.



In the example below, you can see that certain org-units are used in both organizational processes (Carrier, Customer, Finished Products Storage).



MATRICES

Matrices allow you to view the links between objects in the repository. The interest is to see how the two object types interact and to analyze impacts of a modification between two concepts.

The **Documentation** navigation window allows display of available matrices.

☺ *Matrices generated by **HOPEX** can be exported to Excel.*

Accessing Matrices

To access matrices from **HOPEX Windows Front-End**:

- Select **View > Navigation Windows > Documentation**.

To access matrices from **HOPEX Web Front-End**:

- Click the navigation menu, then **Repository > Documentation**.

Creating a Matrix

We shall take the example of a matrix between object types "Operation" and "Org-Unit". This matrix will define which operations are concerned when we modify an org-unit, and conversely, which org-units are affected by modification of an operation.

To create a matrix:

1. See "Accessing Matrices", page 220.
2. Right-click the **Matrices** folder and select **New > Matrix**.
   In the **Create Matrix** dialog box, specify the matrix content (for example, org-units executing operations).
3. Enter the name of the matrix, for example "Org-Units/Operations".

   ☛ *The matrix template list box contains predefined templates you can use to create matrices: for example, you can create a matrix based on the "Org-Units x Operations" template.*
4. Select "None" for the **Matrix template**.
5. Click **OK**.
   A new matrix appears.
6. Double-click the new matrix (or right-click and select **Open**).
   The matrix window opens; it is empty. To specify matrix content, see "Specifying Matrix Content", page 221.

Specifying Matrix Content

To specify the content (called rows and columns) of a matrix:

1. See "Accessing Matrices", page 220.
2. In the matrix window, select:
   - (Windows Front-End) **Row > Add**.
   - (Web Front-End) **Add Row**.

   The **Query** dialog box opens for selection of a target object.
3. Select the target and click **Find**.
4. Select all the objects displayed and click **OK**.
   The rows of the matrix are entered.
5. Repeat the procedure for columns (**Columns > Add** or **Add Column**).
   The titles of rows and columns are defined in the matrix.

To define content of cells, see "Defining Cell Content (Windows Front-End)", page 221.

Defining Cell Content (Windows Front-End)

Defining cells consists of indicating which type of link between the two objects you wish to see in the matrix. You can display this link:

- by selecting one of the links proposed in the list.
- by creating a query that will find links between the two object types.

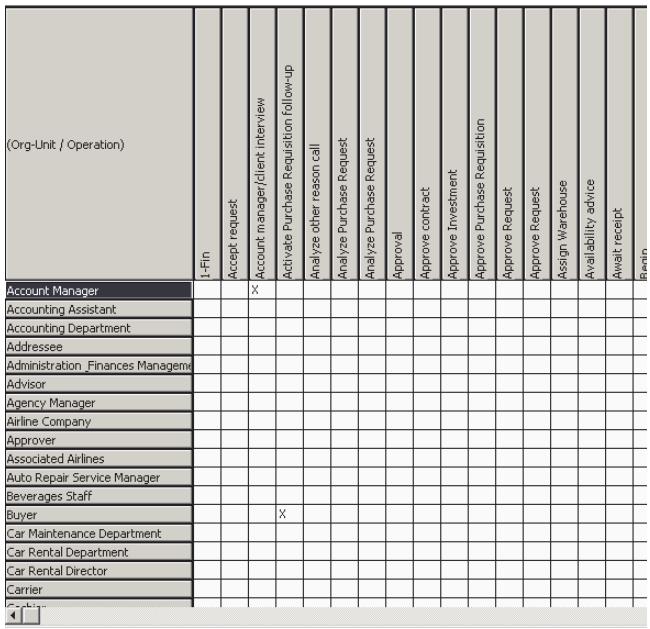
Selecting a link

To complete the cells of the matrix via an existing link:

1. See "Accessing Matrices", page 220.
2. In the matrix window, select **Cell > Define**.
   The **Definitions of Cells** dialog box opens.

> ☛ *If you have created an "Organizational Processes/Messages" matrix, you would be able to choose between two links: Message-Received and Message-Sent.*

3. Select a link and click **OK**.
   Cells of the matrix are filled.



(Org-Unit / Operation)	1-Fin	Accept request	Account manager/client interview	Activate Purchase Requisition follow-up	Analyze other reason call	Analyze Purchase Request	Analyze Purchase Request	Approval	Approve contract	Approve Investment	Approve Purchase Requisition	Approve Request	Approve Request	Assign Warehouse	Availability advice	Await receipt	Begin
Account Manager			X														
Accounting Assistant																	
Accounting Department																	
Addressee																	
Administration_Finances Manageme																	
Advisor																	
Agency Manager																	
Airline Company																	
Approver																	
Associated Airlines																	
Auto Repair Service Manager																	
Beverages Staff																	
Buyer				X													
Car Maintenance Department																	
Car Rental Department																	
Car Rental Director																	
Carrier																	

☺ *Matrices allow you to display one of the characteristics of the selected link. By default, the **Contents** displayed in a cell is an X indicating that a link exists between the objects in row and column.*

Creating a query

In a query, the source corresponds to the row and the target to the column.

Take the example of the Org-Unit/Operations matrix, with org-units in rows and operations in columns.

To display operations of which org-units are those defined in the lines of the matrix, you will use the following query:

```
Select [Operation]  Where [Participant].[Intervening Party
Assignment].[Assigned Agent]=&row
```

Modifying Matrices

Modifying presentation (Windows Front-End)

If column headers are not legible, you can modify their presentation.

To display headers vertically:

1. See "Accessing Matrices", page 220.
2. In the **Display** menu, select **Vertical**.

Modifying cell contents

Removing a row or column

To remove a row or column from the matrix:

- In the matrix menu bar, select:
  - (Windows Front-End) **Row > Remove** or **Column > Remove**.
  - (Web Front-End) **Remove**, after selecting a row or column.

Connecting and disconnecting objects

You can modify a cell by connecting or disconnecting its related objects.

To modify cell contents:

- Right-click the cell to open its pop-up menu.

TOOLS FOR CHECKING OBJECTS

Building a consistent repository requires compliance with modeling rules. These can be rules defined by **HOPEX**, by a standards organization, or by administrators of your enterprise.

HOPEX provides you with tools that enable you to:

- Select rules to be met
- Check that your modeling objects meet these rules

Consistency Rules

Definition of concepts

Consistency Rules

A rule applies to a **HOPEX** repository object and defines a check on this object.

There are several levels of rule:

- **Suggestion**: rule it is advisable to observe, but not a requirement.
  Non-respect of the rule is indicated in the rules application report but does not produce a warning.
- **Recommendation**: important rule.
  Non-respect of the rule produces a warning.
- **Requirement**: mandatory rule.
  Non-respect of this rule produces an error and is a source of blocking.

☛ *For more details on rules, see **HOPEX Power Studio -Publisher**, chapter "Creating Consistency Checks".*

Regulations

A regulation enables classification of rules according to a specific context or domain. It can contain not only a set of rules but also sub-regulations.

You can define an active regulation, permanently visible on objects concerned.

```
For example, if you activate the "Process Modeling
Regulation" regulation, there is an automatic check on the
business processes, organizational processes, activities,
org-units, operations and conditions that you create and
handle.
```

You can also apply another regulation temporarily on an object.

Active regulation permanent check

An active regulation is a reference regulation, defined as such so that you can permanently check the conformity of objects that you create with rules to be respected.

Defining an active regulation (Windows Front-End)

You must carry out this operation in **HOPEX Windows Front-End.**

To define an active regulation:

1. From the **HOPEX** menu bar, select **Tools** > **Options**.
2. Select **Modeling and Methods Regulations**.
3. In the **Active modeling regulation** field, click .
4. In the dialog box that appears, select the regulation to be applied and click **OK**.

You can consult results linked to this regulation at any time. They appear in the properties dialog boxes of the objects concerned. You can also display them in diagrams and navigators with status indicators showing objects that are not validated with respect to the regulation.

Results of checks on objects

When an active regulation exists, results appear in the properties dialog boxes of objects to which the regulation is applied.

To consult results:

1. Open the object properties.
2. Select the **General** tab, **Rules Application** subtab.
   You obtain the name of the regulation, followed by a table containing the names of rules in the regulation, their result for the checked object and the diagnostic.
   Check results appear in the form of an icon.
   Each icon relates to a regulation rule:

Rule is respected.

Rule is "Suggestion" type and is not respected.

Rule is "Recommendation" type and is not respected.

Rule is "Error" type and is not respected.

If the “Error on execution” message appears, it means the rule was not correctly implemented. In this case, consult your administrator.

Results in diagrams and the navigator

You can also display results in the diagram that contains the object. In this case, a status indicator appears alongside the checked object if an error or omission is to be reported.

In the same way you can display check results in the navigator.

> **Since the diagram displays no result by default, the lack of indicator means that no error has been detected, on condition that you had activated the rule and selected the result display option.**

To display rule results in the diagram:

1. In the **HOPEX** menu bar:
   - (Windows Front-End) Select **Tools** > **Options**.
   - (Web Front-End) Click **Main Menu > Settings > Options**.
2. Select the **Modeling and Methods Regulations** folder.
3. Select the option "Apply active regulation in diagrams".

To view results specific to a diagram object:

- Click the icon that appears under the checked object.

A dialog box opens, detailing rules applied to the object.

Regulation specific check

When you run a check on an object, a dialog box asks you to select which regulation you wish to apply. This is a temporary check, independent of any which may be active on the object from another source The specific check relates not only to the selected object but also to objects connected to it.

Occasional checks on objects

To apply a specific regulation to an object:

1. Right-click the object concerned and select **Check** > **Regulation with propagation**.

   > *The effect of this command is to check the object and its connected objects. So in the case of an organizational process, you obtain results not only on the process itself but also on objects contained in this process, such as org-units, operations and messages.*

   The list of regulations appears: This list comprises regulations that can be applied to the object concerned.

   > *The regulations administrator can apply a regulation to the object other than one of those defined by default.*

   If an active regulation is defined and applies to the object in question, it appears in the list and is selected by default.
2. Select the regulation you wish to apply and click **OK**.
   A report in the form of an HTML page appears.

Occasional checks in a diagram

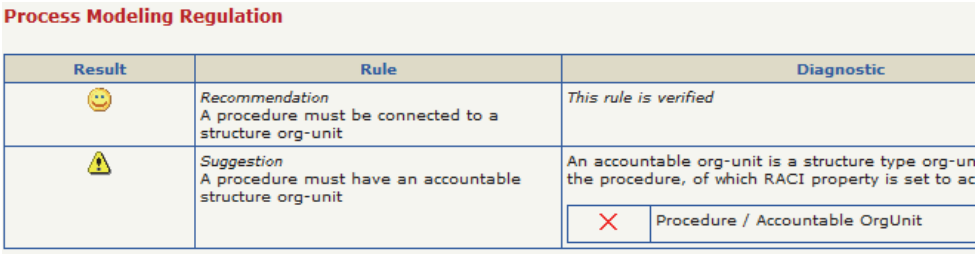
To specifically check objects in a diagram:

1. InWindows Front-End, open a diagram.
2. Select **Diagram Check > Regulation with Propagation**.
3. Select the regulation that you want to apply to the diagram.
4. Click **OK**.
   A report appears. It contains results of the check on diagram objects.

Check results

Check results appear in an HTML report. This report indicates the regulation applied and lists the objects concerned.

The icon that appears before an object corresponds to the result not of a rule but of all rules applied to the object.



The result icon that will appear depends on the level of rules that have not been respected:

All rules respected.

At least one "Suggestion" type rule is not respected. No "Recommendation" or "Error" type rule to be reported.

At least one "Recommendation" type rule is not respected. No "Error" type rule to be reported.

At least one "Error" type rule is not respected.

The link **Rules Application Detail** allows you to consult detail of these rules.

Check Descriptors

A check descriptor applies to part of **HOPEX** repository content and edits results in the form of an HTML report.

The HTML report details characteristics not only of the object checked, but also of the objects it contains. A report on a descriptor relating to an organizational process will therefore display results for the process (such as comment, manager org-unit, etc.) followed by results linked to operations of this process.

You can extend the check to all objects directly or indirectly linked to the main object.

To run the check descriptor:

- Right-click an object and select **Check** > **Check Descriptor**.
  Having selected a check type if necessary, an HTML page appears.
  Checks carried out are listed and objects with no comment or isolated are indicated. You can modify the object types concerned via the explorer by clicking the hypertext links.

EXCHANGING DATA WITH EXCEL

HOPEX proposes data import and export wizards simplifying data exchanges with Excel, thanks notably to use of file templates and more comprehensive management of links and link attributes.

- ✓ "Exporting an Object List in Excel Format", page 230
- ✓ "The Excel Import/Export Wizards", page 231
- ✓ "Using the Excel Export Wizard", page 233
- ✓ "Launching the Excel Import Wizard", page 240
- ✓ "Creating Predefined Excel Template Files (Windows Front-End)", page 243
- ✓ "Data Processed by the Excel Import/Export Wizard", page 246.

Exporting an Object List in Excel Format

You can export an object list in Excel format. The Excel file includes the objects and its attributes (columns).

You can:

- select the objects to be exported (by default all of the objects are included)
- define the attributes (columns) of the objects that you want to include

To create an Excel table from a list of objects:

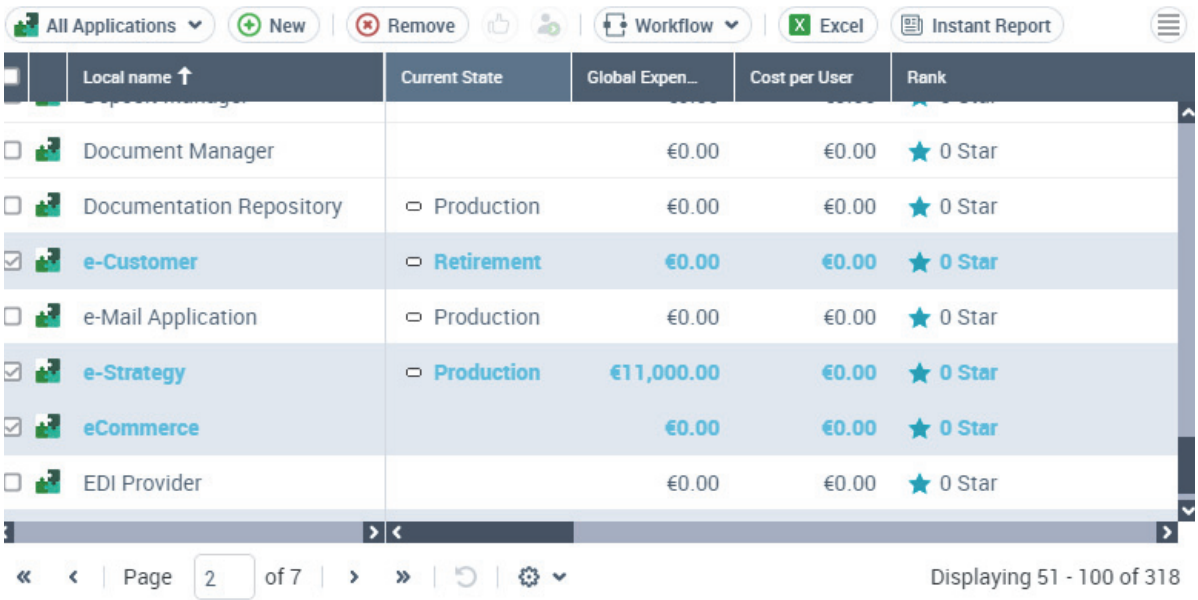
1. Access the list of objects

   For example, using the "All applications" tile of the home page of your desktop, you can display the list of all the applications.

2. By default all of the objects are included, if needed select in each page the objects (rows) you want to export.
3. If needed:
   - Select the attributes (column) you want to export.

     ☛ *Voir "Defining the columns to be displayed", page 44.*
   - Modify the column (order).

     ☛ *Voir "Modifying the column order", page 45.*



4. In the menu bar of the list, click **Excel** .
   The Excel file created contains the objects selected and their attributes in column.

THE EXCEL IMPORT/EXPORT WIZARDS

Export Wizard

The export tool produces an Excel file in which the user can work. This file can subsequently be reimported in **HOPEX**.

The Excel file comprises worksheets in which you can define:

- A list of objects (occurrences) of a given type.

  ☛ *By default, the Excel worksheet carries the name of the selected type (MetaClass), but you can change this name.*

- A list of objects connected by a link to occurrences of a given type.

  ☛ *Only those links (MetaAssociations) between two concrete MetaClasses are accepted.*

  ☛ *By default, the Excel worksheet carries the name of the MetaAssociationEnd, but you can change this name.*

See "Using the Excel Export Wizard", page 233.

Import Wizard

Data contained in the import file should be clearly structured so as to be correctly interpreted in **HOPEX**. This being so, it is recommended that a previously exported file be used as a model.

Import and export formats are compatible, but certain exportable data cannot be imported (such as calculated attributes in **HOPEX**, which cannot be modified by the user).

The file imported in **HOPEX** allows you to:

- create or modify a list of objects.
- connect objects by a given link.

The results file indicates anomalies encountered.

See "Launching the Excel Import Wizard", page 240.

Creating or modifying a list of objects.

If the identifiers of MetaClasses and MetaAttributes are not supplied in the import file, the wizard executes a query by their name in the **HOPEX** repository.

If the identifiers of objects (occurrences) are not indicated, objects are created.

It is possible to assign an external value to attributes (tabulated value attributes).

Connecting occurrences by a given link.

If the identifiers of MetaClasses and MetaAttributes are not indicated, they are queried by name in the repository and entered in the file.

If the identifiers of objects are not indicated, the objects are queried by name in the repository; the link is only made if the objects exist and are unique.

USING THE EXCEL EXPORT WIZARD

Launching the Excel Export Wizard

You can run the Export Wizard from:

- your **HOPEX** workspace (Windows Front-End or Web Front-End)
- the **Administration** desktop (Web Front-End)

Accessing the export wizard

To run the wizard for export of data to an Excel file:

1. In:
   - **HOPEX (Windows Front-End)** : click **File** > **Export** > **Excel (*.xls ; *xlsx)**.
   - **HOPEX (Web Front-End)** : click **Main Menu > Export > Excel**.

     ☛ *If this file is not available, open the options window, select **Data Exchange** > **Export** > **Tools/Third Party Formats** and check that option **Excel (.xls, .xlsx)** is selected.*
   - the **Administration** desktop (**Web Front-End)**: in the **Tools** pane, select the **Excel > Export** sub-folder.

   The export wizard appears.
2. Select the export mode for the file:
   - **New Export File**: no file is selected as template, you must define file parameters (which constitute the structure) as well as objects to be exported.

     ☛ *See "New export file", page 233.*
   - **From Template**: you can use an existing Excel file as a template, or a template supplied as standard with **HOPEX**. The wizard automatically displays the structure of the file used as a model. You can modify this structure so that the generated file will differ from the template file. You can also reuse objects of the existing file.

     ☛ *See "Existing export file", page 234.*

New export file

To export data in a new file:

1. In the export wizard, select **New Export File**, then click **Next**.
2. Enter the name of the file to be created.
3. (Windows Front-End) If necessary, define another backup location.
4. If necessary, change the format type to .xls (by default .xlsx).
5. Click **Next**.
6. Define file configuration. See "Defining Excel File Parameters", page 234.
7. Click **Next**.
8. Select objects to be exported. See "Selecting Objects to Export in Excel Format", page 237.
9. Click **Finish** to start export.

Existing export file

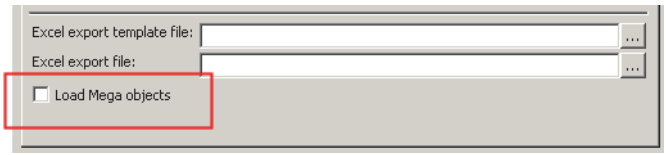
To initialize the export file from an existing file:

1. In the export wizard, select **From Template** mode, then click **Next**.
2. Select the file to be used as template:
   - Either by scrolling the list of files in the **Predefined Template File**.

     *A **Predefined Template file** is an export file template supplied as standard with **HOPEX**.*

     ☛ *For more details on predefined files, see "Creating Predefined Excel Template Files (Windows Front-End)", page 243.*
   - Or by indicating the name and location of a **User Template File**.

     *A **User Template File** is a file created at a previous export.*
3. (Windows Front-End) If necessary, define another location for the **Excel Export File**.
4. If necessary, change the format type to .xls (by default .xlsx).
5. To reuse objects of the existing file, select the **Load HOPEX Objects** check box.



6. Click **Next**.
7. Define file configuration. See "Defining Excel File Parameters", page 234.
8. Click **Next**.
9. Select objects to be exported. See "Selecting Objects to Export in Excel Format", page 237.
10. Click **Finish** to start export.

Export steps

Whatever the selected mode, file export is in three steps:

- "Defining Excel File Parameters", page 234
- "Selecting Objects to Export in Excel Format", page 237
- "Running an Excel Export", page 238

At each of these steps, it is possible to pass to the next step or return to the previous step.

Defining Excel File Parameters

When export mode (new file or existing file) and file name have been defined, click **Next**.

The first step consists of defining Excel worksheets to be produced at export. These worksheets can be type:

- MetaClass (object list + characteristics)
- MetaAssociationEnd (links + link characteristics).

Two cases can be presented:

- If you run export from an existing file, worksheet default parameters are proposed.
- In the case of a new file, the dialog box is empty:

You will:

- create a worksheet for each object type (for example "Application"), and
- in the worksheets, create columns for each characteristic ("Name", "Comment", etc.).

Creating an Excel worksheet

To create a worksheet:

1. See "Accessing the export wizard", page 233.
2. In the Excel export wizard dialog box, **Excel Worksheet**, click **New** . A worksheet appears.
3. Modify the name of the worksheet if necessary.
4. Indicate the object type it contains.

☛ *See "Worksheet datatypes", page 235.*

Worksheet datatypes

In a worksheet you can define:

- a MetaClass, or
- a link type

To specify a MetaClass, for example an application:

1. Select the worksheet in question.
2. Click in the **MetaClass** column, then click on the arrow and select **List MetaClasses**.
   The query dialog box appears.
3. Select the MetaClass and click **OK**.

```
Example: "Application".
```

To specify a link type:

1. Select the worksheet in question.
2. In the **MetaClass** column, select the master MetaClass.

```
Ex. "Application".
```

3. In the **MetaAssociationEnd** column, select the MetaAssociationEnd.

```
Example: "Service defined".
```

4. In the **Slave MetaClass** column, select the slave MetaClass.

   Example: "IT Service".

   ☛ *When the link sends to a concrete MetaClass, the column of the slave MetaClass is completed automatically. When it sends to an abstract MetaClass, the list of concrete MetaClasses is proposed.*

Creating worksheet columns

Columns of an Excel worksheet specify attributes of the object defined in the Excel worksheet.

To create a column:

1. Select the Excel worksheet for which you wish to create a column.
2. In the **Worksheet Column** area, click the **New** button.
3. The column appears. Modify its name if required.
4. To indicate the attribute to be displayed in the column, click in the **MetaAttribute/LegAttribute/Macro** column and select **List MetaAttribute/LegAttribute/Macro**.
   A dialog box lists MetaAttributes, LegAttributes and Macros available on the object type specified in the Excel worksheet. If the worksheet object type is a link, the dialog box lists the link attributes.

   ☛ *For more details on macros, see "Using Macros in Excel Import/Export Files", page 244.*
5. Select a MetaAttribute and click **OK**.

Automatic name

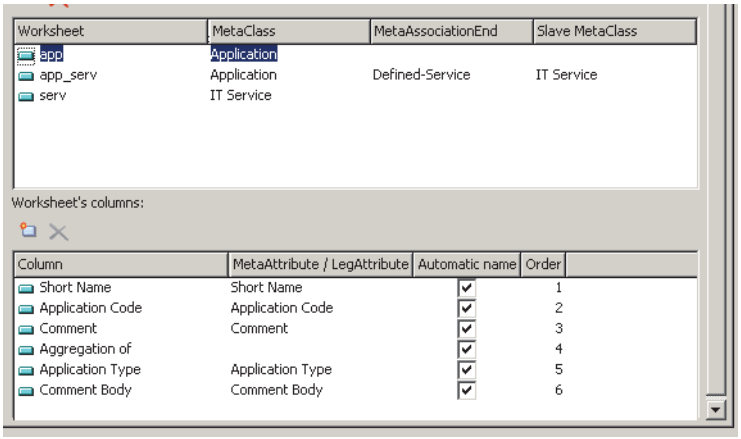
When selected, the **Automatic Name** check box indicates that the file column takes the name of the MetaAttribute (for example "Short name"). If you clear this, the column takes the name indicated under Column ("Column 1").

Excel file configuration example

In the following example, the file contains three worksheets:

- the first worksheet contains applications
- the second worksheet contains links of "Defined Service" type between applications and services
- the third worksheet contains application services

For each application, the name, code, comment and type are displayed.



At this stage you can click the wizard **Finish** button. You obtain an export model which you can then complete.

Selecting Objects to Export in Excel Format

When the object types have been defined in Excel parameterization dialog box, you can select the objects to be exported.

To indicate objects to be exported:

1. See "Accessing the export wizard", page 233.
2. In the **Selection of Excel Objects to be Exported** dialog box of the wizard, section **Excel Worksheets**, select the worksheet in which you wish to insert the objects, for example the applications worksheet.

   ☛ *If you selected an existing file as a model and selected **Load HOPEX Objects**, the objects can appear by default in the worksheets.*

   ☛ *The first two lines of an Excel worksheet are reserved for file configuration; if the file is to be subsequently reimported, ensure that these first two lines are retained.*
3. In the **Objects to be Exported**, click **New**.
   The query dialog box appears, with "Application" MetaClass selected.
4. Click **Find**.
   The list **HOPEX** repository applications appears.
5. Select applications to be exported and click **OK**.
   The applications appear in the wizard.

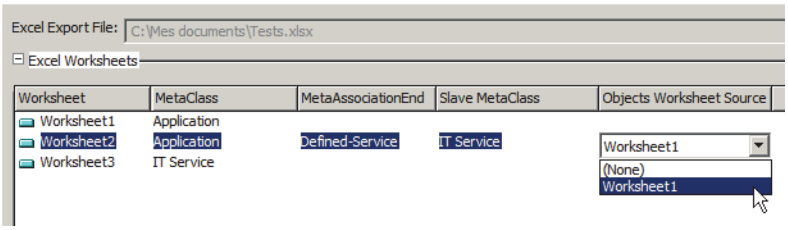
You may need to work in the same list of applications for certain Excel file link worksheets.

To use an existing list of objects in an Excel link worksheet:

1. In the **Selection of Excel Objects to be Exported** dialog box of the wizard, **Excel Worksheets** section and in the **Object Source Worksheets** column, select the worksheet in which you wish to insert the objects, for example the worksheet for "WorkSheet1" applications.

   ☛ *The list proposed presents only the possible source worksheets.*

2. Click in the **Object Source Worksheets** column and select the name of the worksheet that contains objects to be exported.



   The name of the selected worksheet appears in the field.

   ☛ *If you define a list of objects in section **Objects to be exported**, this list will be ignored and only the objects of the worksheet will be taken into account.*

3. Click **Finish** to start export.

Running an Excel Export

You can run an export from the Excel file configuration window.

To run an export:

1. "Accessing the export wizard", page 233.
2. In the wizard, after having indicated the list of objects to be exported, click **Next**.

   ☛ *For more details, see "Selecting Objects to Export in Excel Format", page 237.*

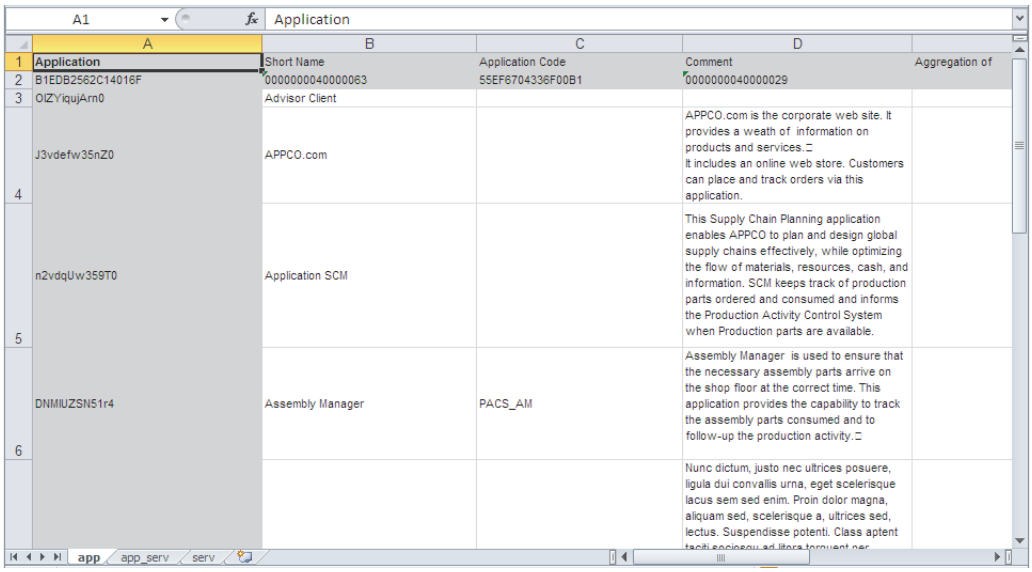
   The file opens automatically in an Excel table.
3. Click **Open Export File** to reopen the generated file.
4. You can modify export file parameters by clicking **Previous**.
5. When the export file has been finalized, click **Finish**.

Example of generated files

Below is an applications worksheet presenting:

- In column A: the list of applications, by absolute identifier.
- Column B: the list of applications, by short name.
- In the columns that follow: attributes of applications (short name, code, comment, etc.).

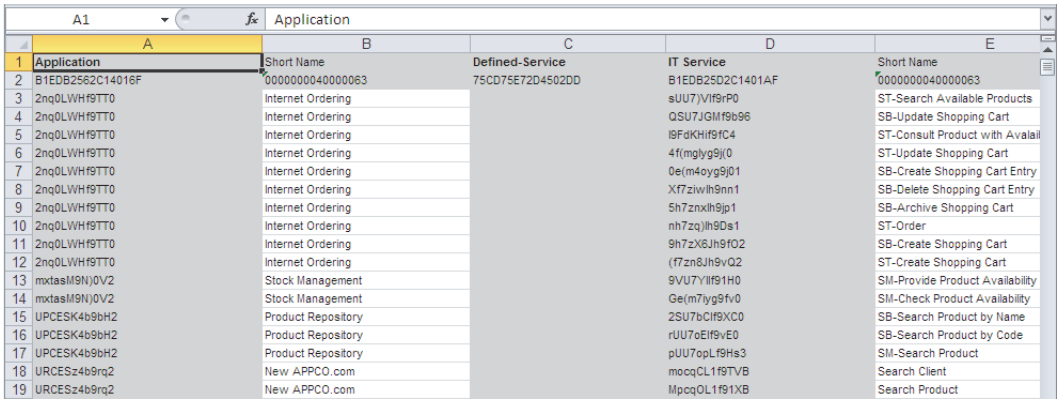
In each column, the grayed first two lines indicate the datatype of the column and its absolute identifier.



	A	B	C	D	
1	Application	Short Name	Application Code	Comment	Aggregation of
2	B1EDB2562C14016F	0000000040000063	55EF6704336F00B1	0000000040000029	
3	OlZYiqujArn0	Advisor Client			
4	J3vdefw35nZ0	APPCO.com		APPCO.com is the corporate web site. It provides a weath of information on products and services. It includes an online web store. Customers can place and track orders via this application.	
5	n2vdqUw359T0	Application SCM		This Supply Chain Planning application enables APPCO to plan and design global supply chains effectively, while optimizing the flow of materials, resources, cash, and information. SCM keeps track of production parts ordered and consumed and informs the Production Activity Control System when Production parts are available.	
6	DNMlUZSN51r4	Assembly Manager	PACS_AM	Assembly Manager is used to ensure that the necessary assembly parts arrive on the shop floor at the correct time. This application provides the capability to track the assembly parts consumed and to follow-up the production activity.	
				Nunc dictum, justo nec ultrices posuere, ligula dui convallis urna, eget scelerisque lacus sem sed enim. Proin dolor magna, aliquam sed, scelerisque a, ultrices sed, lectus. Suspendisse potenti. Class aptent	

Below is a worksheet presenting links of "Defined Service" type between applications and application services: It presents:

- Column A: the list of applications, by absolute identifier.
- Column B: the list of applications, by short name.
- Column C: the link type ("Defined Service").
- Column D: the list of application services, by absolute identifier.
- Column E: the list of application services, by short name.



	A	B	C	D	E
1	Application	Short Name	Defined-Service	IT Service	Short Name
2	B1EDB2562C14016F	0000000040000063	75CD75E72D4502DD	B1EDB25D2C1401AF	0000000040000063
3	2nq0LWHf9TT0	Internet Ordering		sUU7)Vlf9rP0	ST-Search Available Products
4	2nq0LWHf9TT0	Internet Ordering		QSU7JGMf9b96	SB-Update Shopping Cart
5	2nq0LWHf9TT0	Internet Ordering		l9FdKHif9fC4	ST-Consult Product with Availail
6	2nq0LWHf9TT0	Internet Ordering		4f(mglyg9j(0	ST-Update Shopping Cart
7	2nq0LWHf9TT0	Internet Ordering		0e(m4oyg9j01	SB-Create Shopping Cart Entry
8	2nq0LWHf9TT0	Internet Ordering		Xf7ziwlh9nn1	SB-Delete Shopping Cart Entry
9	2nq0LWHf9TT0	Internet Ordering		5h7znxlh9jp1	SB-Archive Shopping Cart
10	2nq0LWHf9TT0	Internet Ordering		nh7zqjlh9Ds1	ST-Order
11	2nq0LWHf9TT0	Internet Ordering		9h7zX6Jh9fO2	SB-Create Shopping Cart
12	2nq0LWHf9TT0	Internet Ordering		(f7zn8Jh9vQ2	ST-Create Shopping Cart
13	mxtasM9N)0V2	Stock Management		9VU7Ylf91H0	SM-Provide Product Availability
14	mxtasM9N)0V2	Stock Management		Ge(m7iyg9fv0	SM-Check Product Availability
15	UPCESK4b9bH2	Product Repository		2SU7bClf9XC0	SB-Search Product by Name
16	UPCESK4b9bH2	Product Repository		rUU7oElf9vE0	SB-Search Product by Code
17	UPCESK4b9bH2	Product Repository		pUU7opLf9Hs3	SM-Search Product
18	URCESz4b9rq2	New APPCO.com		mocqCL1f9TVB	Search Client
19	URCESz4b9rq2	New APPCO.com		MpcqOL1f91XB	Search Product

Launching the Excel Import Wizard

Excel import enables creation of new objects and modification of existing objects.

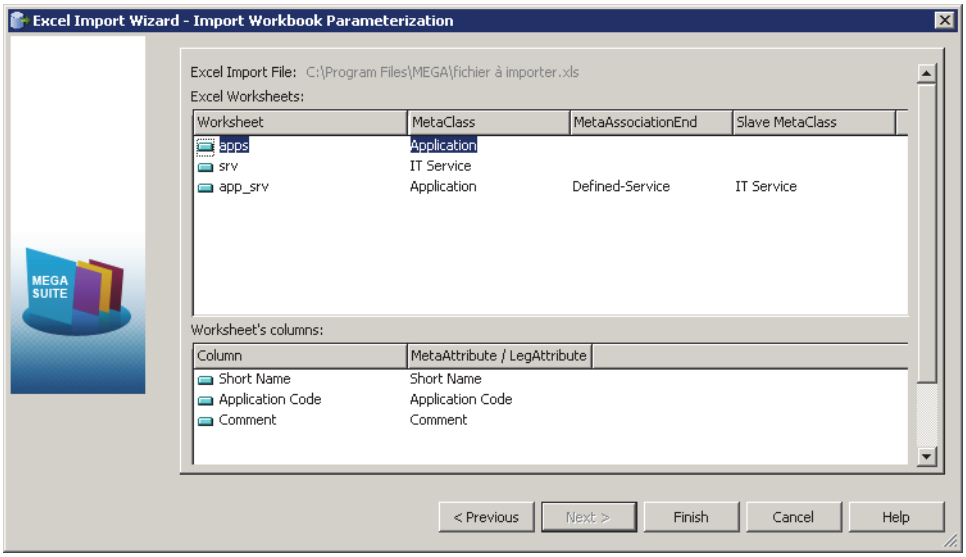
Excel data to be imported in **HOPEX** should be structured. You can use an Excel file previously exported with **HOPEX** to define file parameters and content. See "Example of generated files", page 238.

To import Excel data in HOPEX:

To import Excel data in **HOPEX**:

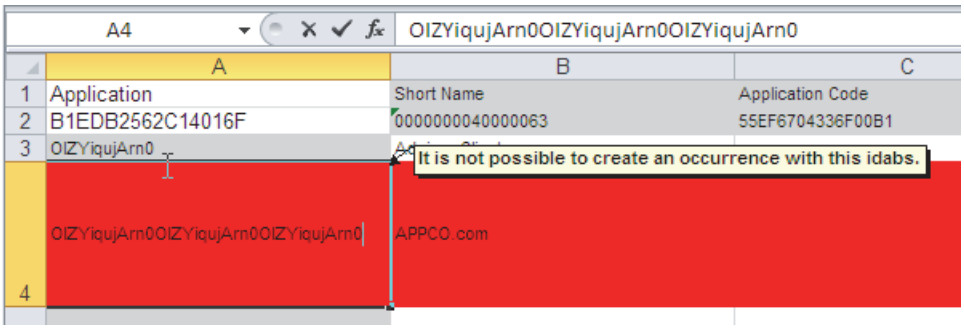
1. From:
   - **HOPEX Windows Front-End**, click **File** > **Import** > **Excel (*.xls ; *xlsx)**.
   - **HOPEX Web Front-End**, click **Main Menu > Import > Excel**.
   - the **Administration** desktop (**Web Front-End**): in the **Tools** pane, select the **Excel > Import** sub-folder.

   The import wizard opens.
2. To the right of the **Excel Import File** field, click **Browse** ....
3. Indicate the file type and file to be imported.
4. Click **Next**.
   The wizard displays the worksheets and columns detected in the file.
   If the file parameters have not been recognized by the wizard, you can enter them in this dialog box.



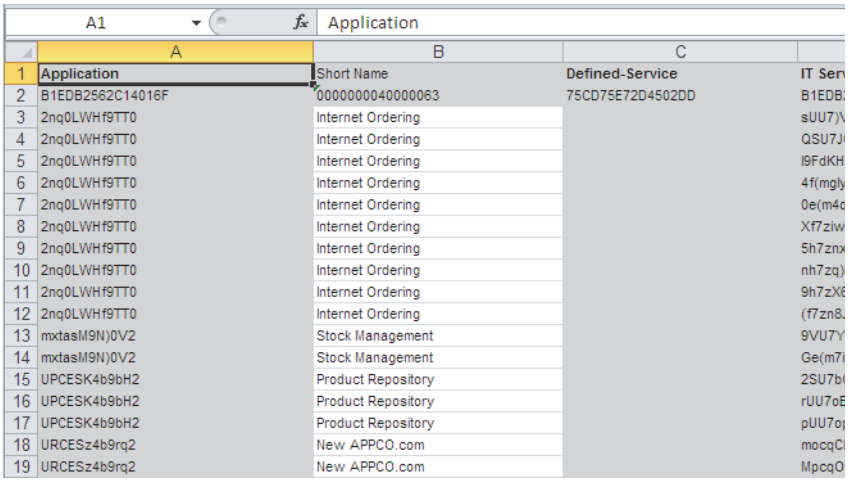
5. Click **Next**.
   The wizard provides a report of import results in an Excel file. This file opens automatically, indicating in red any data that poses a problem. In

the following example, the file has identified an application that exists in **HOPEX** but of which the identifier has been modified in the import file.



The first two lines of an Excel worksheet are reserved for file configuration. Ensure that the first two lines of the imported file remain identical to those obtained after an export.

6. Click the **Open Report** button of the import wizard to access the detailed report of import errors.



7. Click:
   - **Finish** so that imported data will be visible in **HOPEX**.
   - **Previous** to modify import parameters.
   - **Cancel** to discard the report.

Technical limitation of the import

When you want to import Enumeration type attribute values (values available in a drop-down list), you must ensure that the data language in **HOPEX** and the language of the Excel file are identical.

If for example your Excel file is in French and the data language in HOPEX is English, on import you receive a message of the type: ""value name" outside table".

☛ *The data language and the interface language are two different concepts.*

Creating Predefined Excel Template Files (Windows Front-End)

Predefined template files are supplied with certain solutions, for example **HOPEX LDC**.

☛ *This function is available with **HOPEX Windows Front-End** only.*

Each predefined template file is associated with an Excel file. Management of this Excel file is assured by **HOPEX** from system business documents.

☛ *For more details, see "Using Business Documents", page 445.*

Creating Excel Templates

To create an Excel template:

1. From the **HOPEX Windows Front-End** desktop, select **View > Navigation Windows > Utilities**.
2. Right-click the **Excel Templates** folder and select **New > Excel Template**.
3. Open the properties dialog box of the Excel template you have just created and select the **Characteristics** tab.
4. Click the arrow at the right of the **System Business Document** field and select **Create System Business Document**.
   The system business document creation dialog box opens.
5. Define the **System Business Document** name and the **File Location** of the Excel template you want to use.
6. In the **Document Template** field, select **Excel Import/Export Template.**

   ☛ *The system business document must belong to document category **Excel Import/Export Templates** or to a sub-category. For more details, see "Classification", page 446.*
7. Click **OK**.
   The system business document is created.
8. In the **MetaClass** section, click the **Connect** button to select the MetaClasses representing the main concepts managed by the template.

   ☛ *In the context of Excel export, MetaClasses supported by Excel worksheets serve in lists to identify templates to be used as priority. For more details, see "Exporting an Object List in Excel Format", page 230.*
9. In the **Excel Worksheet** section, click **New** for each Excel worksheet you want to add to your file.
10. Click **OK** to finish.

Creating Excel Template Worksheets

An Excel template worksheet should define information required for creation of an Excel import/export worksheet.

☛ *For more details, see "Creating an Excel worksheet", page 235.*

Information defined in columns of the Excel worksheet is Excel template data referenced by the system business document.

To create an Excel template worksheet:

1. Open the properties dialog box of the Excel template you want to attach to the worksheet.
2. In the **Excel Worksheet** space, click the **New** button.
3. In the properties of the Excel template worksheet you have created to specify a link type:
   - In the **MetaClass** column, select the master MetaClass (for example "Application").
   - In the **MetaAssociationEnd** column, select the MetaAssociationEnd (for example "Defined Service").
   - In the **Slave MetaClass** column, select the slave MetaClass (for example "Application Service").
4. In the **Macro** section, click the **Connect** button to specify the macros that will be proposed by the wizard to fill the columns of the Excel export files.

   ☛ *For more details, see "Using Macros in Excel Import/Export Files", page 244.*
5. Click **OK** to finish.

Using Macros in Excel Import/Export Files

A macro enables export to Excel and import to **MEGA** of calculated attribute values, for example: the result of a sum of whole numbers.

☛ *For more details on configuration of notifications or e-mails, see "Creating Excel Template Worksheets", page 244:*

To use the VB macro creation wizard on an object of **Business Document** type:

1. In **Tools > Options**, **Repository** folder, check that **Metamodel Access** option is set to "Expert".
2. Open the properties dialog box of the of the **Excel worksheet**
3. In the **Macro** section, click the **New** button.
   The macro creation wizard opens.
4. Select the check box corresponding to the type of macro you want to use, for example:
   - "(VB) Script macro"
   - "macro based on component"
   - "java macro":
   - "existing macro": to use an existing macro, of which field **Reusable** is selected.
5. Click **Next**.

6. Enter the **Name** of the macro.
7. If the macro you have created can be reused for another Excel import/export, select the **Reusable** box.
8. Click **Finish**.
   The constraint appears in the properties dialog box.

The macro created contains by default the code of functions enabling encoding of operation of:

- Export, with the ColumnExport function that has as parameters:
  - The object being exported.
  - The list of header columns in the form of megafields.

    ☛ *This parameter is a character string that should be broken down using character "#" as separator.*
  - The index in the list of columns of the column being exported.
- Import, with the ColumnImport function that has parameters:
  - The object being imported.

    ☛ *This object can be an object created by import or an existing object modified by import.*
  - The value of the Excel cell being imported.
  - The list of header columns in the form of megafields.

    ☛ *This parameter is a character string that should be broken down using character "#" as separator.*
  - The list of values of cells of the row being imported.

    ☛ *This parameter is a character string that should be broken down using character "#" as separator.*
  - The index in the list of columns of the column being imported.

DATA PROCESSED BY THE EXCEL IMPORT/EXPORT WIZARD

Data Displayed

Metamodel view and product view

The MetaClasses, MetaAssociations and MetaAttributes that appear in the Excel worksheet reflect the view of the metamodel (Beginner, Intermediate, Advanced, Expert, System).

```
For example, if you are connected in Intermediate mode, only
those objects corresponding to the intermediate metamodel
will be displayed.
```

Similarly, only those concepts accessible with the products you have available are proposed.

Management of links and link attributes

In addition to MetaClasses and MetaAttributes, the export wizard supports:

- Links and link attributes
- Tagged values
- Certain MetaAssociationEnds that present maximum cardinality of 1 (eg: "Aggregation of" on an Application).
- Macros

☛ *For more details, see "Using Macros in Excel Import/Export Files", page 244.*

Languages

By default, only those MetaAttributes in the current language are displayed.

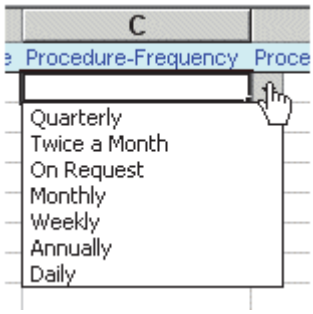
An option allows you to manage MetaAttributes in each available language (for example the Short name of an object in French, English, etc.).

To activate this option:

1. From the **HOPEX** desktop menu, select **Tools** > **Options**.
2. Select **Data Exchange** > **Import/Export Synchronization** > **Tools/ Third Party Formats**.
3. Select the option **Import/Export EXCEL**: **MetaAttributes Translation Availability** and click **OK**.

Value lists

Columns representing MetaAttributes with tabulated values present drop-down lists enabling selection of one of these values.



A list of values cannot be defined on an unlimited number of cells in a column. Automatic creation of a list of values is limited to the first 500 cells of the column.

To modify this value:

1. Open the options window.
2. Expand the folders **Data Exchange > Import/Export Synchronization > Tools/Third Party Formats**.
3. Specify the new value in the field **Excel: Maximum number of rows to be completed in sheet**.

The number of characters composing all values should not exceed 256. Beyond this figure, the cell displays the internal value (independent of language) instead of the external value. A tool tip accessible in the first cell displays correspondence between internal and external values.

Dates format

By default, dates format of files generated by Excel import/export is: yyyy/mm/dd.

To modify this format:

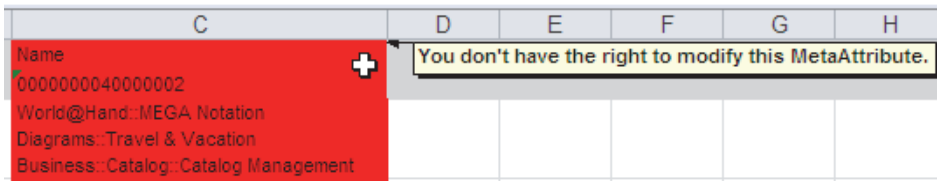
1. From the **HOPEX** desktop menu, select **Tools** > **Options**.
2. Select **Data Exchange** > **Import/Export Synchronization** > **Tools/Third Party Formats**.
3. In the option **EXCEL Import/Export**: **Dates Format** , define the format and click **OK**.

Non-Modifiable Data

For export, MetaAttributes that cannot be modified by the user appear in a grayed column in the Excel page.

It is possible to export properties that cannot be modified, such as calculated attributes (for example "Name" MetaAttributes that contain the object owner), but it is not possible to import these. The wizard indicates that you do not have

permission to update these properties. In the case of object names, favor the "Short name".



Whether export or import, the first two lines of an Excel worksheet are reserved for file configuration. Ensure that no data is entered in these first two lines.

File Formats

The wizard supports two file formats:

- xls
- xlsx

Searching the Repository

SEARCHING OBJECTS (WEB FRONT-END)

✓ "Introduction to Searches (Web Front-End)", page 252
✓ "Quick Search (Web Front-End)", page 253
✓ "Advanced Search (Web Front-End)", page 263

Introduction to Searches (Web Front-End)

Search types

To perform searches on objects in the repository, **HOPEX** (Web Front-End) offers the following tools:

- ***the quick search tool***, which gives access to:
  - the full-text search (available if the repository is indexed),
  - the search by object type.

    ☛ *See "Quick Search (Web Front-End)", page 253.*
- ***the advanced search tool***, by using the wizard or by entering a query using a repository query language.

    ☛ *See "Advanced Search (Web Front-End)", page 263.*

Search Results

In some Solutions, your search results are filtered according to your navigation (breadcrumb).

QUICK SEARCH (WEB FRONT-END)

Presentation of the Quick Search Tool

☛ *To perform advanced queries, see "Accessing advanced search (Web Front-End)", page 264.*

The quick search tool is available in all of your **HOPEX** desktop pages (Web Front-End).

☛ *To locate the quick search tool, see "The interface elements", page 39.*

The quick search tool includes two search types:

- the full-text search.
- the search by object type.

The full-text search bar

☛ *To display the search by object type bar, see "Changing the quick search type", page 254.*

With **HOPEX** (Web Front-End) you can perform full-text quick searches.

All desktops **HOPEX** (Web Front-End) have the full-text search feature.

☛ *This feature is available if the repository has been indexed.*

This is the quick search type by default when the repository is indexed.

To perform a full-text search, see "The Full-text Search", page 254.

The search by object type bar

☛ *To display the full-text search bar (if your repository is indexed), see "Changing the quick search type", page 254.*

With **HOPEX**, you can perform the most common quick searches by object type.

This is the only type of quick search available when the repository is not indexed.

You can use the search by object type:

- to list all of the objects of a given type.
- to find an object whose name (short or long) starts with, contains or ends with a given character string.
- to search for an object whose comments contain a given string.

☛ *You can combine a search using the name and the comments of an object.*

To search by object type, see "The Search by Object Type", page 257.

Changing the quick search type

By default, if your repository is indexed, the quick search tool appears in full-text search mode.

To change the quick search type:

1. On your **HOPEX** (Web Front-End) desktop, click **Switch search bar** ⇄.
2. Select the type of search you want to perform:
   - **Full-text search**

     ☛ *See "The Full-text Search", page 254.*
   - **Search by object type**

     ☛ *See "The Search by Object Type", page 257.*

The Full-text Search

HOPEX Solutions and products enable you to execute quick searches of all objects that have been indexed. This feature is available as standard.

☛ *If the repository is not indexed, the search by object type is available; see "The Search by Object Type", page 257.*

Indexing the repository

Repository indexing can be performed:

- previously by your administrator,
- automatically.

☛ *See the **HOPEX Administration - Supervisor** guide, the "Managing Repositories > Using Repositories > Enabling and Disabling Repository Indexing" chapter.*

☛

Performing a full-text search

Prerequisite: the repository is indexed.

☛ *See "Indexing the repository", page 254.*

To perform a full-text search:

1. On your **HOPEX** desktop, in the full-text search bar, enter the term you want to search for.

   ☛ *See "The full-text search bar", page 253.*

   You can add several terms to your search.

   ☺ *To search for a term that includes the "-" character, use the "*" character.*

   *For example to search for pre-meeting term, enter: *Meeting, pre*, or both of them.*

   ☛ *See "The full-text search syntax", page 255.*

2. Click 🔍.
   Results are displayed in the edit area.

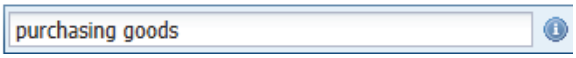
Each full-text search result contains:

- the location where the entered text was found:
  - the short name
  - the comment
- the pertinence, which takes into account:
  - the number of times text was found
  - the weighting attributed to the attribute concerned.

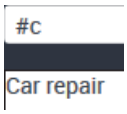
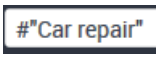
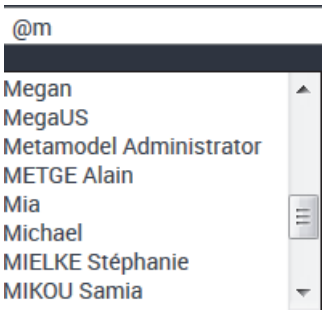
The full-text search syntax

By default, searches relate to objects with names or comments containing one of the terms entered.

For example, if you are searching for two terms, the result displays the objects in which one or the other of the terms has been found (equivalent to the "OR" operator).



To refine your search, you can use operators.

Operator	Use	Example
""	Quotes allow search for a complete phrase	"delivery date"
*	Replaces one or several letters	"delivery date*" order*
?	Replaces a single letter	order?
+	Placed before a word, indicates that the word must be present	+date +delivery
#	Allows to include a tag in the search. Enter the # character followed by the first letter of the tag, then select the tag in the list of tags that begin with this letter. Example: #c 	
@	Used to include a person in the search. Enter the @ character followed by the first letter of the person's name, then select the person in the list of persons whose name begins by this letter. Example: @m 	

Characters behind the "-" character are not taken into account.

Results of a full-text search syntax

Each full-text search result contains:

- the location where the entered text was found:
  - the short name
  - the comment
- the pertinence, which takes into account:
  - the number of times text was found
  - the weighting attributed to the attribute concerned.

The Search by Object Type

☛ *If your repository is indexed, you can perform a full-text search; see "The Full-text Search", page 254.*

Accessing the search by object type

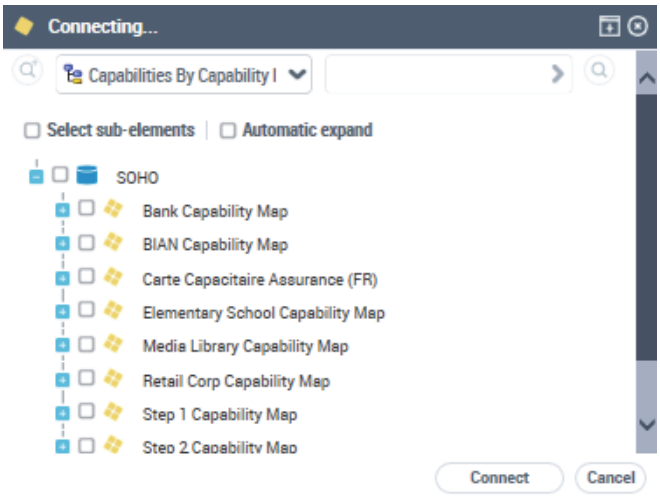
You can access the search by object type from:

- the toolbar on your **HOPEX** desktop.

  ☛ *See "The search by object type bar", page 253.*

- the properties page of an object to connect objects

  ☛ *See "Using the Search Tool to Connect an Object", page 259.*



Searching for an object type

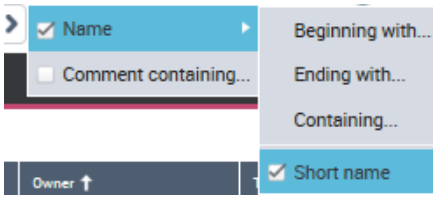
The search by object type bar includes two fields:

- The **Select an object type** field to list all objects of the same type.

  ☛ *If you are in expert metamodel access mode, you can choose to extend or restrict object types searched; see "Extending/Restricting the*

object types queried", page 265.

- The **Find object** field if you want to refine the search by adding a string of characters to be searched for.



You can perform the character string search on:

- the object name (by default its short name).
  To perform a search on the long name of the object: deselect **Short Name**
  You can define the location of the character string:
  - at the start (by default) (**Beginning with**)
  - at the end (**Ending with**)
  - without specifying (**Containing**).
- the object comment (**Comment containing**).
- the object name and its comment.

To perform a search on an object type:

1. In your **HOPEX** desktop, in the search by object type bar, in the **Select an object type** drop-down list, select an object type.

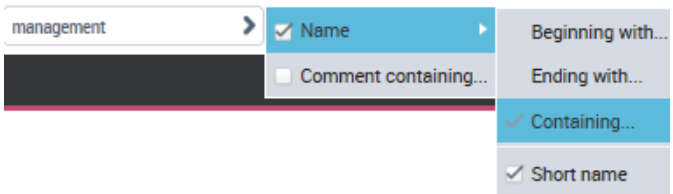
   ☛ *See "The search by object type bar", page 253.*

   `Example: Application`
2. (If necessary) To refine your search:
   - In the **Find object** field, enter the character string to be searched for.

     `Eg.: management`

     ☛ *By default, the search deals with the objects of the selected type and whose short name starts with the character string entered.*
   - (If necessary) In the **Find object** drop-down list, modify the search definition.

     `Eg.: the applications whose short name contains "management".`



3. Click **Find** .
   The objects listed appear in the results window.

   ☛ *You can export the list in Excel format*

   ☛ *You can launch an instant report from the list, see Common Features: Launching an instant report from a list.*

Using the Search Tool to Connect an Object

The search tool can be used:

- to list all of the objects of a given type.
- to search for an object whose name contains or begins/ends with a given string.

Connecting an object

HOPEX offers a wizard to connect an object.

Use this wizard to:

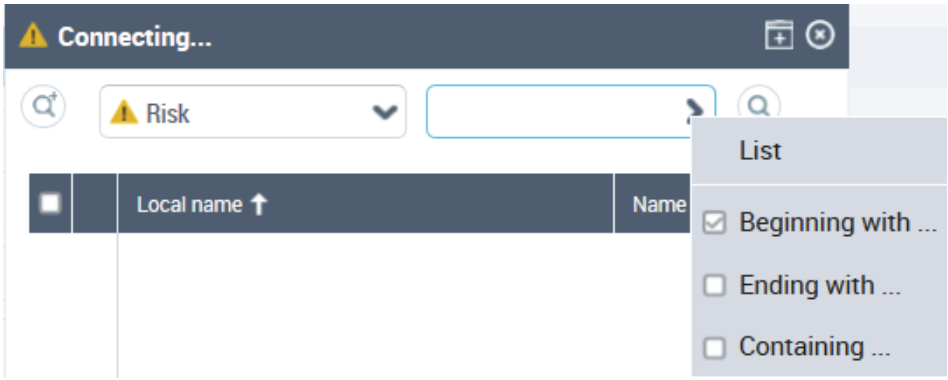
- list all the objects concerned by the connection.
- refine the list with a search for the character string that has the name of the object:
  - name that contains a given character string,
  - name that begins with a given character string (by default),
  - name that ends with a given character string,

To connect an object:

1. In the object properties page, expand a section or select a page in which you can connect objects.
2. Click **Connect** .
3. (optional) In the first field, in the drop-down menu, select the object type to which your search relates.

   ☛ *At times, HOPEX may offer different selection modes for the search. See "Choosing the object selection mode", page 261.*
4. (Optional, to refine your search) In the second field, enter the character string you want to search for.
   By default the search relates to the name, **beginning with** the character string you entered.

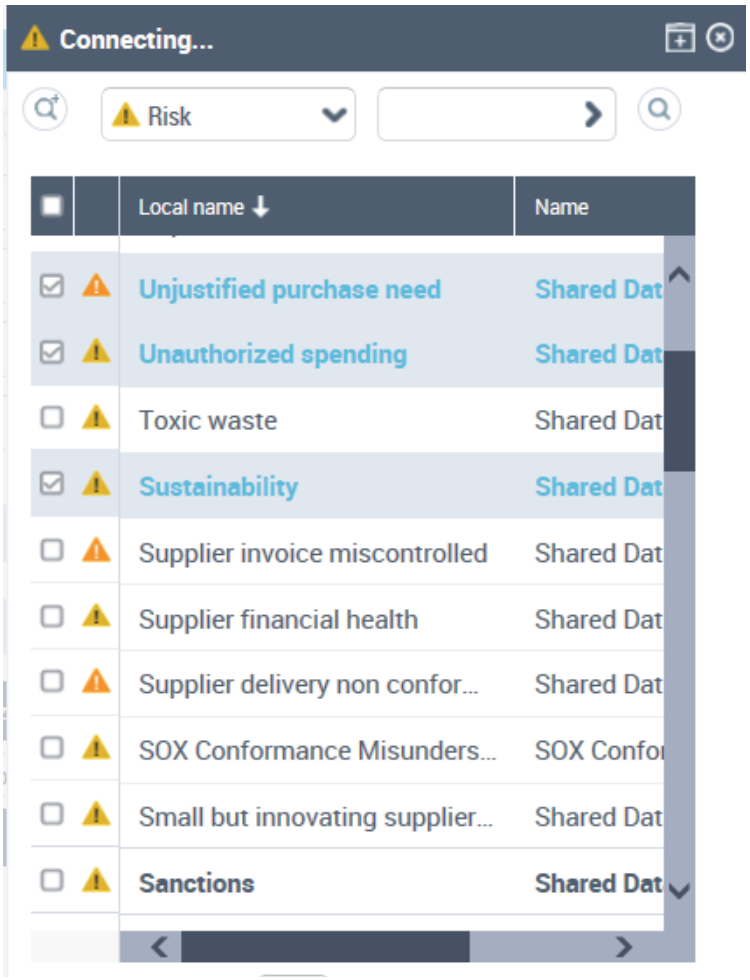
5. (If necessary) Click on the arrow of the second field and select another criterion to refine your search:
   - **Containing**: to list objects containing the character string entered.
   - **Ending with**: to list the objects end with the character string entered.



☛ *The last option selected becomes the default option.*

6. Click **Find** to run the search.

7. Select the object that interests you.
   ☛ *You can select several objects.*



   ☛ *Whenever the result contains many objects, you can use the vertical scrollbar and/or the page arrow.*

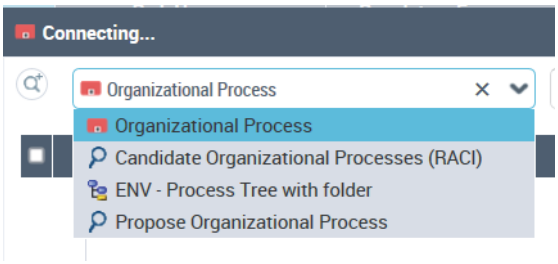
8. Click **Connect**.
   The selected objects appear in the properties window.

Choosing the object selection mode

At times the search tool may offer you several modes to select objects.

```
Example: you want to define the scope of an org-unit and
connect organizational processes. You may choose to select
```

processes, for example, from a list, a tree, a candidate process query, etc.



ADVANCED SEARCH (WEB FRONT-END)

With **HOPEX** (Web Front-End) you can perform advanced searches on repository objects.

Advanced Search Tool Introduction (Web Front-End)

Advanced search tool description

☛ *To carry out searches in the form of queries, you must know the names of the object types handled, and be familiar with query syntax, see HOPEX Power Studio - Customizing the Metamodel - Query Syntax.*

Advanced searches are carried out by means of queries. You can configure advanced searches through:

- a wizard

  ☛ *See "Performing an Advanced Search with the Wizard", page 267.*

- a registered query

  ☛ *See "Performing an Advanced Search on a Registered Query", page 270.*

- a query in ERQL language

  ☛ *See "Performing an Advanced Search in ERQL Mode", page 271 and "Query Syntax", page 269.*

Query type

Queries are sorted by type:

- ***internal query***: includes "technical" queries used in standard supplies (e.g.: descriptors, report templates (MS Word), matrices, etc.), "Name" and "*".
- ***usual query***: includes queries defined by users (by default), as well as the "*" and "Name" queries.

Accessing advanced search (Web Front-End)

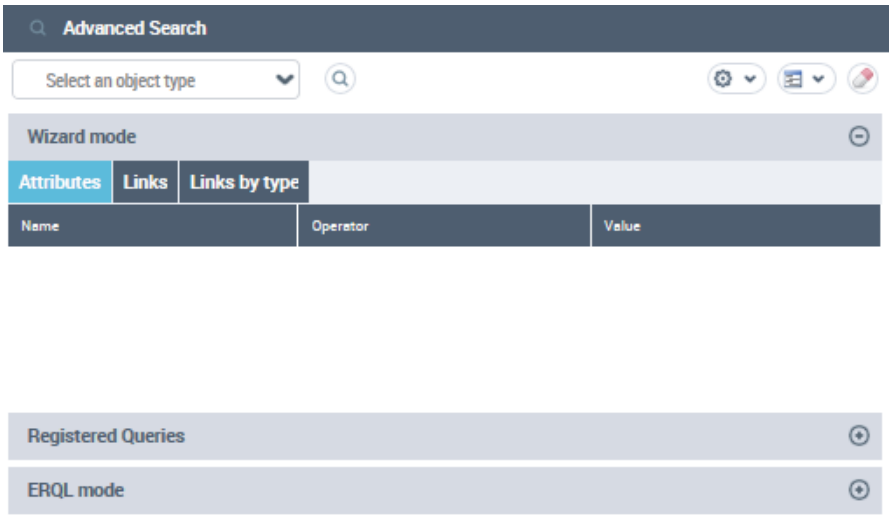
To access the advanced search:

1. On your **HOPEX** desktop, select **Main Menu > Advanced Search**.

   ☛ *See "The interface elements", page 39.*

   The **Advanced Search** window is displayed in the edit page.

   By default, on first opening the window, the advanced search appears in **Wizard Mode**.



2. Run your search.

   ☛ *See "Performing an Advanced Search with the Wizard", page 267.*

Configuring the Search Tools (Web Front-End)

In **HOPEX** (Web Front-End), you can configure the search tools:

- for a search by object type, or
- an advanced search using the Wizard.

Extending/Restricting the object types queried

When you run a search by object type or an advanced search using the Wizard, by default, ***the usual object types and the essential characteristics*** are displayed:

- usual objects include:
  - the main object types

    `E.g.: Application, Portfolio, Risk, Business Capability, Functionality, Organizational Process, Class, Content, Use Case.`
  - the objects that play a containing role

    `E.g.: Enterprise, Library, Package, Subject area, Project domain.`
- essential characteristics are objects considered as a strong components

  📖 *A component is an intermediary object that represents the use of an object in a particular context.*

  `E.g.: Operation (for an Organizational Process), Attribute (for a Class), Column (for a Table).`

You can:

- restrict the search to ***usual object types***.
- extend the search to ***all the object types*** (in "Advanced" or "Expert" metamodel access)
  This category include all of the object types including:
  - objects considered as weak components (objects used in a particular context),

    `E.g.: Participant, Flow, Application Component.`
  - abstract objects.

    ☛ *Abstract objects are prefixed with [A] and are listed after the concrete objects in the IntelliSense tool.*

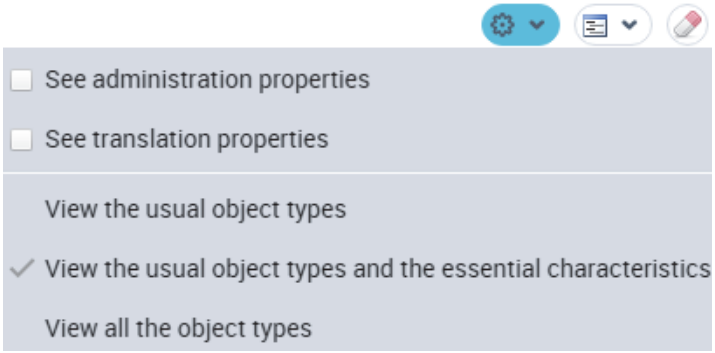
    Abstract objects are prefixed with the / character and are first listed in the IntelliSense tool.

To extend or restrict the scope of the query:

1. With **HOPEX** (Web Front-End), check that you are in "expert" metamodel access mode (**Main Menu > Settings > Options > Repository**).
2. Access advanced search.

   ☛ *See "Accessing advanced search (Web Front-End)", page 264.*

3. In the search wizard toolbar, click **Display** .



☛ *If the options do not appear, refresh your browser page.*

4. Select one of the options offered.
The list of object types in the advanced search tool as well as in the search by object type bar is refreshed according to your selection.

☛ *The last option selected becomes the default option.*

Extending the search to administration and/or translation attributes

When you run your search using the Wizard, to facilitate readability, by default, the administration and translation attributes are not available.

☛ *See "Performing an Advanced Search with the Wizard", page 267.*

To extend the scope of the search to administration and/or translation attributes:

1. Access the advanced search in **Wizard mode**.

☛ *See "Accessing advanced search (Web Front-End)", page 264.*

2. Select the **Wizard mode** tab.
3. In the search wizard toolbar, click **Display** .
4. Select the object properties that you want to add to your search:
   - **See administration properties**

     `Eg. : creator, creation date`
   - **See translation properties**

     `Eg.: in addition to the "Comment" attribute, you can also access comments in the other languages available, "comment (English)" and "comment (German)" for example.`

   The list of object attributes of the advanced search tool in wizard mode refreshes according to your selection.

☛ *The last option selected becomes the default option.*

Defining the condition combination rules

When running an advanced search in Wizard mode, by default, all the conditions that you define must be fulfilled.

If needed, you can change the condition combination rule:

- ALL conditions must be fulfilled (AND) (by default)
- AT LEAST ONE condition must be fulfilled (OR)
- NO condition must be fulfilled (NOT)

To define the condition combination rule:

1. Access the advanced search in **Wizard mode**.

   ☛ *See "Accessing advanced search (Web Front-End)", page 264.*

2. In the search wizard toolbar, click **Condition Combination Rule** .
3. Select the rule that you want.

   ```
   Example: Select "NO condition must be fulfilled" to search
   all objects that do not meet the conditions you defined.
   ```

   ☛ *The last option selected becomes the default option.*

Performing an Advanced Search with the Wizard

With **Wizard Mode**, you can run more detailed searches. Details can relate to:

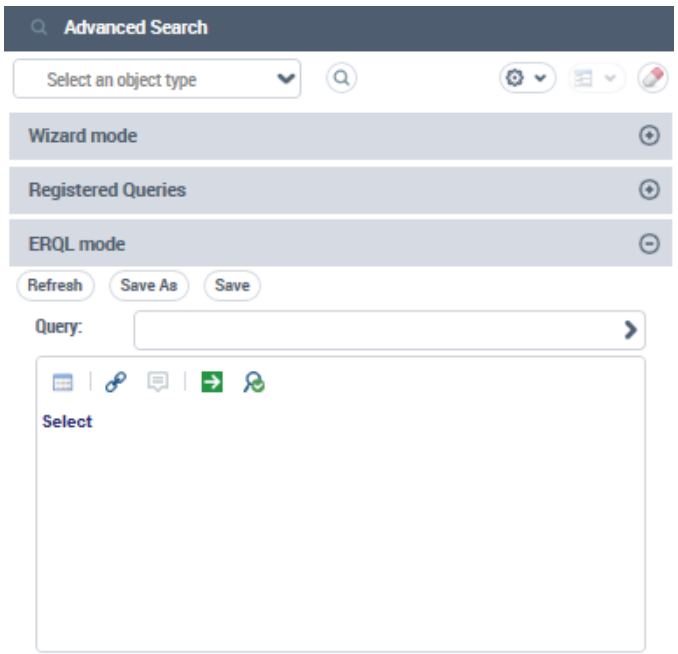
- object attributes and/or
- object links.

To perform an advanced search with the search wizard:

1. Access advanced search.

   ☛ *See "Accessing advanced search (Web Front-End)", page 264.*

   The **Advanced Search** page is displayed in the Edit Area.



2. In the **Select an object type** field, use the drop-down menu to select the object type to which your search relates.

   Example: "Org-unit".

   ☛ *If you are in expert metamodel mode, you can choose to extend or restrict the list of object types searched, see "Extending/Restricting the object types queried", page 265.*

3. Click the **Wizard mode** pane.
4. (Optional) In the **Attributes** tab, specify the operator and value defining the attribute to which the search relates:

   ☛ *To display the administration or translation properties, see "Extending the search to administration and/or translation attributes", page 266.*

   - Click in the **Operator** field of the attribute to which the search relates and select the required operator.

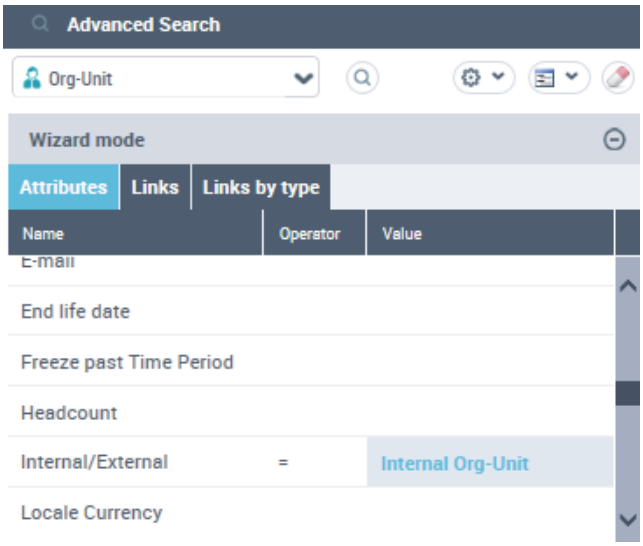
     Example: "="

     ☛ *Attributes in the drop-down list come directly from **HOPEX** and exist in English only.*

     ☛ *With the "Like" operator, the result contains the specified value,while with the "=" operator, the result is exactly the specified value.*

   - Click in the **Value** field of the attribute and find, select one of the proposed values, or enter the string to search for.

     Example: "Internal org-unit"



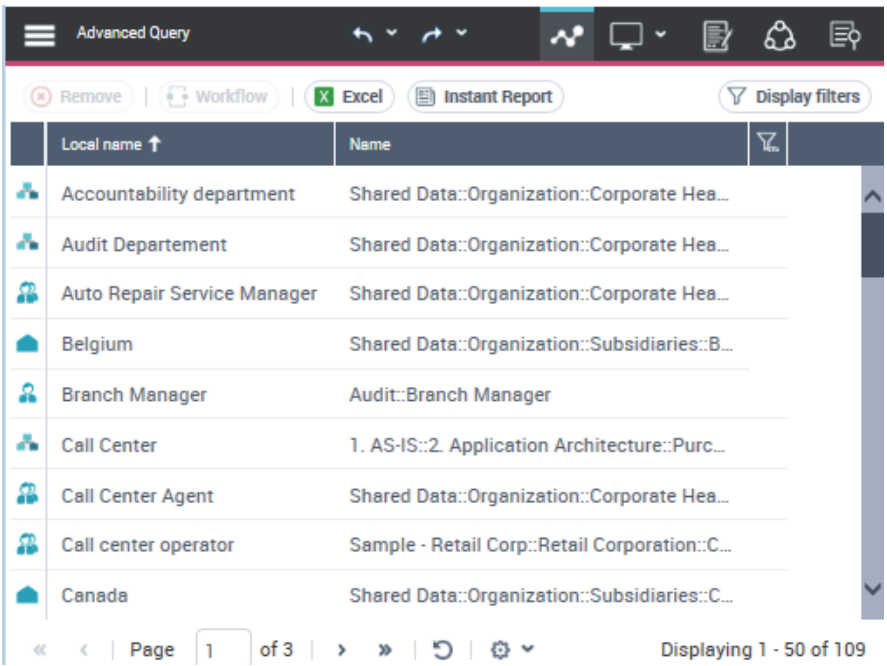
   ☛ *Repeat this step 4 for each attribute to search for.*

5. To include link conditions in your search:
   - Click the **Link** tab (listed in alphabetical order) or **Links by Type** tab (listed by type of link).
   - As with step 4, enter the **Operator** tab and the **Value** defining the attribute to which the search relates.

     ☛ *Repeat this step 5 for each link to search for.*

     ☛ *By default, all conditions must be met. To modify the combination rules for search conditions, see "Defining the condition combination rules", page 266.*

6. Click **Find** to run the search.
   The result list is displayed.



☛ *To return to your search, in the breadcrumb trail, click **Advanced Search**. If needed, you can modify it.*

☛ *To delete all of the search criteria, click **Remove all query criteria** .*

☛ *You can export the list in Excel format*

☛ *You can launch an instant report from the list, see Common Features: Launching an instant report from a list.*

Performing an Advanced Search on a Registered Query

You can perform a search based on registered queries linked to an object, and run the query. **Registered Queries** mode facilitates access to queries by target object type and update.

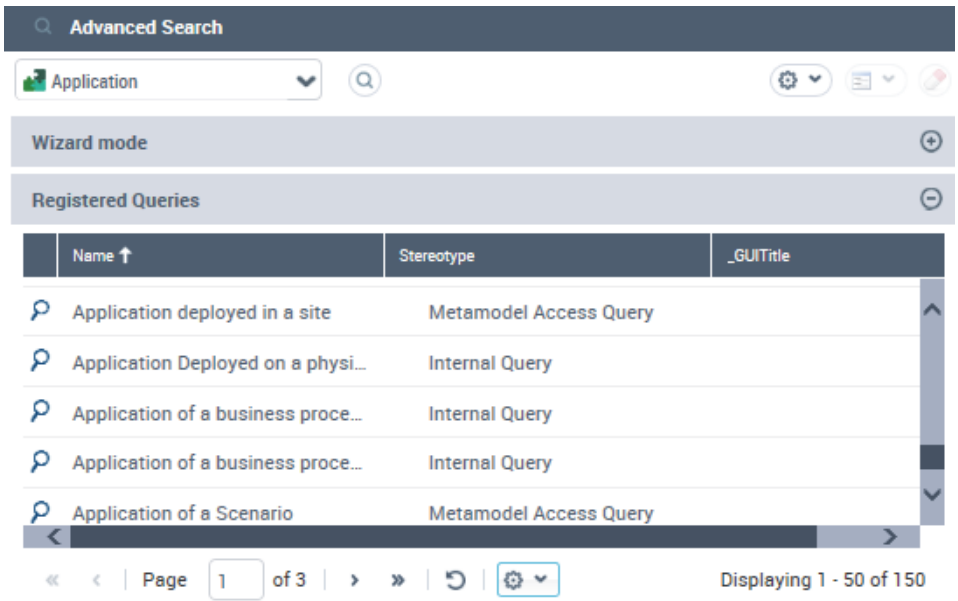
> ☛ *To make a query entered in ERQL mode available in the list of registered queries, see "Saving an ERQL query", page 275.*

To perform an advanced search from a registered query:

1. Open the advanced query tool.

   > ☛ *See "Accessing advanced search (Web Front-End)", page 264.*

   The advanced search tool appears.
2. In the **Select an object type** field, use the drop-down menu to select the object type to which your search relates.
3. Click the **Registered Queries** pane.
   The list of registered queries relating to the selected object appears.



4. Select the query you are interested in.

   > ☛ *The query code selected appears under the pages that list the queries.*

5. Click **Find** to run the query.

6. (If necessary) enter the required parameters.
The result list is displayed.

   ☛ *You can export the list in Excel format*

   ☛ *You can launch an instant report from the list, see Common Features: Launching an instant report from a list.*

   ☛ *To return to your search, in the breadcrumb trail, click **Advanced Search**.*

   ☛ *To delete all of the search criteria, click **Remove all query criteria** .*

Performing an Advanced Search in ERQL Mode

To perform an advanced search in ERQL mode:

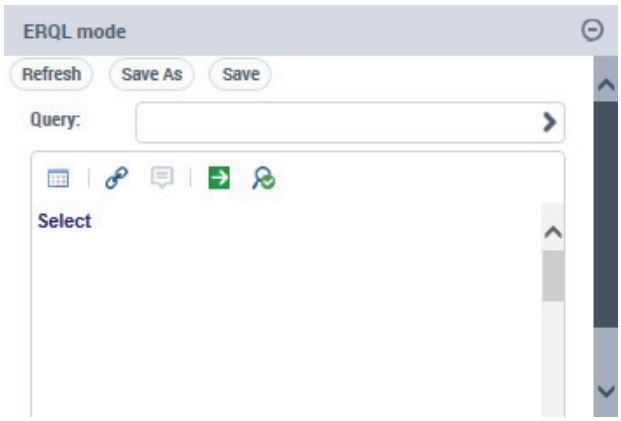
1. Open the advanced query tool.

   ☛ *See "Accessing advanced search (Web Front-End)", page 264.*

   The advanced search tool appears.

   ☛ *You can use the Wizard to enter your query; see "Performing an advanced search in ERQL Mode with the help of the wizard mode", page 273.*

2. Click the **ERQL mode** pane.



3. Enter your query.

   ☛ *For more information on ERQL language (query syntax and conditions), see HOPEX Power Studio - Query Syntax.*

   ```
   Example: "Select Org-Unit Where Name like "#agent#" finds
   org-units whose name contains agent.
   ```

   You can use the **IntelliSense** feature to enter your query:

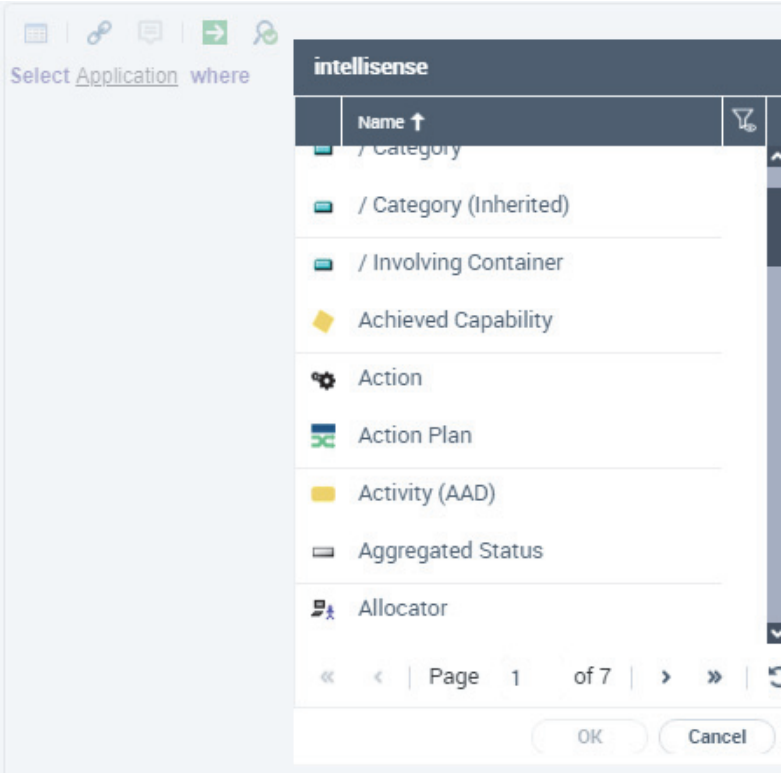
   - Press <Ctrl> + <Space> to display the list of eligible object types.

     ☛ *To extend/restrict the object types displayed in the list, see "Extending/Restricting the object types queried", page 265.*

   - Select an object type to complete your query.

     ☛ *Abstract objects are prefixed with [A] and are listed after the concrete objects in the IntelliSense tool.*

     Abstract objects are prefixed with the / character and are first listed in the IntelliSense tool.



4. (Optional) Click **Analyze** to test the syntax of your request.

   ☛ *To save your request, click **Save As**; see "Saving an ERQL query", page 275.*

5. Click **Process** to run the search.
   The result list is displayed.

6. Select the object you want to consult.

   ☛ *You can export the list in Excel format*

   ☛ *You can launch an instant report from the list, see Common Features: Launching an instant report from a list.*

   ☛ *To return to your search, in the breadcrumb trail, click **Advanced Search**. If needed, you can modify it.*

Performing an advanced search in ERQL Mode with the help of the wizard mode

To simplify data entry, you can build a query from the wizard mode.

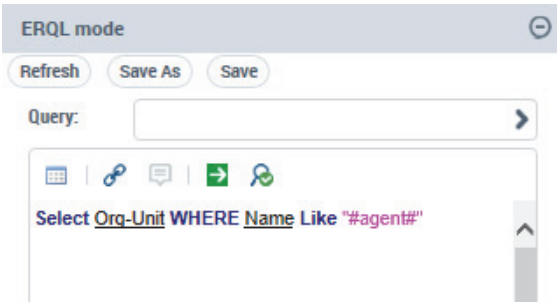
To perform an advanced search in ERQL Mode with the help of the wizard mode:

1. Open the advanced query tool.

   ☛ *See "Accessing advanced search (Web Front-End)", page 264.*

   The advanced search tool appears.
2. In the **Select an object type** field, use the drop-down menu to select the object type to which your search relates.
3. In the **Wizard Mode** pane, select the search parameters.

   ☛ *See "Performing an Advanced Search with the Wizard", page 267.*
4. When you have selected your parameters, select the **ERQL mode** pane.
5. In the command bar of the **ERQL mode** pane, click **Refresh**.
   The syntax of the query appears.

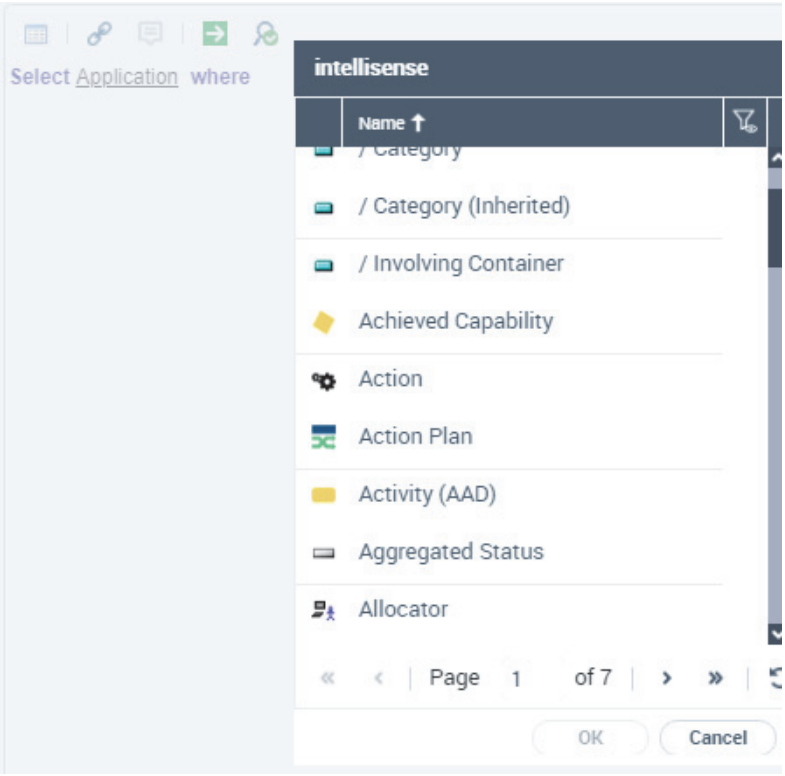


6. Complete the syntax.
You can use the **IntelliSense** feature to complete your code:
   - Press <Ctrl> + <Space> to display the list of eligible object types.

     ☛ *To extend/restrict the object types displayed in the list, see "Extending/Restricting the object types queried", page 265.*
   - Select an object type to complete your code.

     ☛ *Abstract objects are prefixed with [A] and are listed after the concrete objects in the IntelliSense tool.*

     Abstract objects are prefixed with the / character and are first listed in the IntelliSense tool.



7. (Optional) Click **Analyze** to test the syntax of your request.

   ☛ *To save your request, click **Save As**; see "Saving an ERQL query", page 275.*

8. Click **Process** to run the search.
The result list is displayed.

   ☛ *You can export the list in Excel format*

   ☛ *You can launch an instant report from the list, see Common Features: Launching an instant report from a list.*

   ☛ *To return to your search, in the breadcrumb trail, click **Advanced Search**. If needed, you can modify it.*

Saving an ERQL query

You can save an ERQL query to make it available in the registered queries.

To save an ERQL query:

1. Define your ERQL query.
   ☛ *See "Performing an Advanced Search in ERQL Mode", page 271.*
2. Click **Save As**.
3. In the **Name** field, enter a name for your query.
4. In the **Stereotype** field, select the query type.
   ☛ *See "Query type", page 263.*
5. Click **Next** to reread the code of your query.
6. Click **OK**.
   Your query is available in the **Registered Queries** pane.

SEARCHING OBJECTS (WINDOWS FRONT-END)

✓ "Introduction to the Search (Windows Front-End)", page 278
✓ "Quick Search (Windows Front-End)", page 279
✓ "The Advanced Search (Windows Front-End)", page 283
✓ "Editing Queries", page 293
✓ "Query Results", page 296
✓ "Handling Candidate Objects", page 303
✓ "Configuring Query Tool Options", page 304

INTRODUCTION TO THE SEARCH (WINDOWS FRONT-END)

To perform searches on objects in the repository, **HOPEX** (Windows Front-End) offers:

- a search bar for a quick search by object type.
  - ☛ *See "Quick Search (Windows Front-End)", page 279.*
- an advanced search tool, for an advanced search through a wizard or the possibility to enter a query using a repository query language.
  - ☛ *See "The Advanced Search (Windows Front-End)", page 283.*

Searching from the workspace

In your **HOPEX** (Windows Front-End) workspace, you can search objects via:

- the search toolbar to run a quick search
  - ☛ *See "Quick Search (Windows Front-End)", page 279.*
- the advanced search tool (click) which offers a number of search modes:
  - Assistant
    - ☛ *See "Querying Using the Query Assistant", page 283.*
  - Recent queries
    - ☛ *See "Using Recent Queries", page 291.*
  - Registered queries
    - ☛ *See "Editing Queries", page 293.*

Searching from another HOPEX tool

The search tool can be called from numerous HOPEX windows or tools (e.g.: explorer, diagram).

```
For example it is called from a diagram when you want to add an object.
```

When run from another **HOPEX** tool, the search toolbar includes the following tabs in addition to the three standard modes:

- Candidates
  - ☛ *See "Handling Candidate Objects", page 303).*
- Result
  - ☛ *See "Query Results", page 296.*

For more details on the different query modes, see "Querying Using the Query Assistant", page 283.

QUICK SEARCH (WINDOWS FRONT-END)

Search Toolbar

With **HOPEX** (Windows Front-End), you can perform quick searches by object type.

With the search toolbar at the top of the workspace, you can perform the more common searches.

☛ *To run more complex searches, click* *or see "The Advanced Search (Windows Front-End)", page 283 to access the advanced search.*

Objects Being Search for

Searching for a single object type

To perform a search on a single object type:

1. Access the search toolbar.
2. In the first field, select an object type from the drop-down list.

   ```
   Example: "Org-Unit" to search for all the org-units in the repository
   ```

3. Click **Find** or press [Enter].
   Objects are listed in the result window.

Searching for all object types

To perform a search on all object types:

1. Access the search toolbar.
2. In the first field, select "** All **" (the first value in the drop-down list).

3. In the second field, define the search type.

   ☛ *See "Search Type", page 281.*

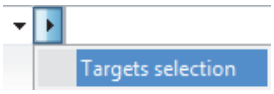
4. Click **Find** or press [Enter].
   Objects are listed in the result window.

Searching for several object types

To perform a search on a limited number of object types:

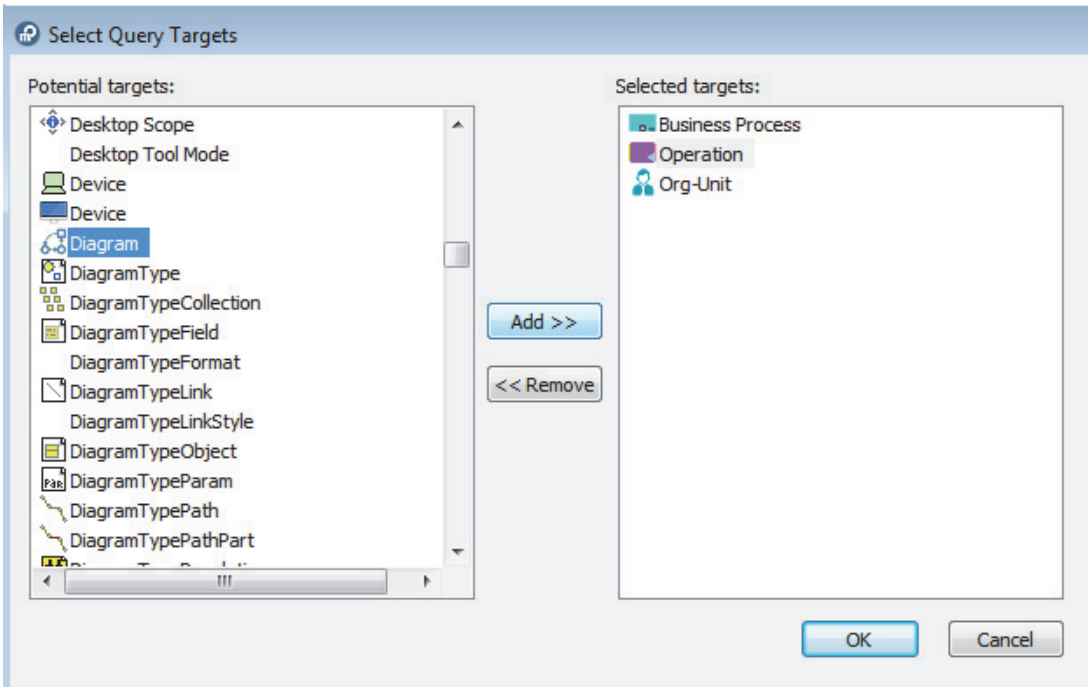
1. Access the search toolbar.

2. In the first field, click the right arrow and select **Targets Selection**.

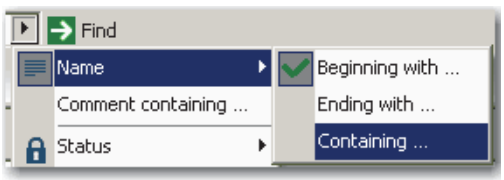


3. In the **Select Query Targets** dialog box, select the object types on which you want to run a search, then click **Add**.

   ☛ *To select several object types at once, use the [Ctrl] key.*



4. Click **OK**.
   The first field, for object type selection, automatically displays "Selection".
5. In the second field:
   - enter the character string to be searched,
   - click the arrow to define whether the search is run on the name and/or comment



6. Click **Find** or press [Enter].
   Objects are listed in the result window. The result is heterogeneous (multitarget).

Search Type

☛ *See also "Quick Search (Windows Front-End)", page 279.*

You can perform searches as a function of characteristics common to all object types.

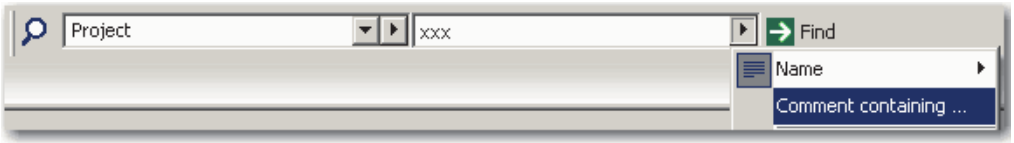
Searching in the object comment

To search for a character string in object comment:

1. Access the search toolbar.
2. In the first field, select the object type.

   ```
   Example: Project
   ```

3. In the second field:
   - enter the character string to be searched for.
   - click the arrow and select **Comment Containing**.



4. Click **Find** .
   Objects are listed in the result window.

Searching in the object names

You can search for objects of which the short name:

- begins with,
- ends with, or
- contains a character string.

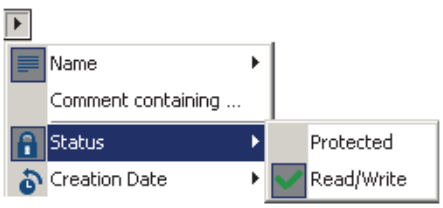
Searching as a function of object status

You can perform a search using object status as search criteria: "read/write" (modifiable) or "protected" (read-only).

This criterion can be combined with another.

```
For example, you can search for modifiable projects whose names begin
with a given string chain.
```

In this case, both criteria are indicated graphically, which allows you to immediately see on which criteria the search is based.



Searching by date

You can perform a search by **Creation Date** or **Modification Date**. This date can be:

- **Before**
- **On**
- **After**

Searching by absolute identifier

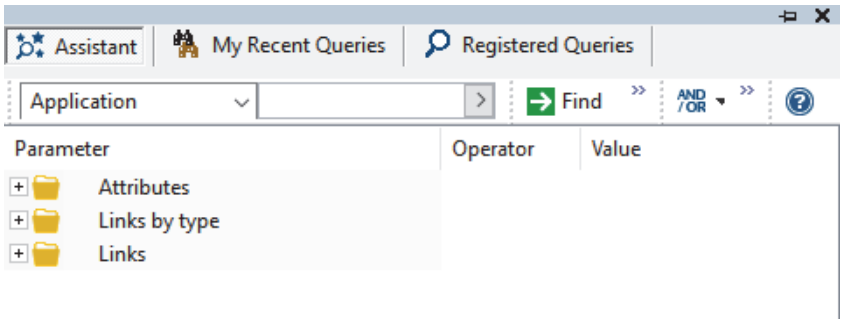
When you are in expert metamodel mode (**Tools > Options**, **Repository** group, **Metamodel Access > Expert**), you can perform a search using an absolute identifier.

☛ *This command is available in expert metamodel mode only.*

THE ADVANCED SEARCH (WINDOWS FRONT-END)

☛ *See also "Quick Search (Windows Front-End)", page 279.*

Presentation of the Advanced Search Tool



The advanced search tool (Query Tool) is available:

- from the workspace, using the search toolbar or .
- from other **HOPEX** tools such as diagrams, the explorer, etc.

Different modes, each corresponding to a tab, are available depending on how the search is run (from the workspace or from another tool).

Use the advanced search tool to enter queries, which define:

- the objects and links browsed.
- the conditions on links and objects making up the repository browsing path.

The subject of the search is called "target".

A query can be written:

- using a wizard (assistant)

  ☛ *See "Querying Using the Query Assistant", page 283.*

- directly using the repository query language (ERQL)

  ☛ *ERQL (Entity Relationship Query Language) enables you to define queries using entity/relationship formalism.*

  Syntax of this language is described in ***HOPEX Power Studio - Query Syntax****.*

Querying Using the Query Assistant

The **Assistant** tab enables creation of multi-parameter searches without needing to know ERQL language.

A search bar similar to that presented in "Quick Search (Windows Front-End)", page 279 section, enables selection of the object type you want to search for.

☛ *The search bar in the advanced search tool does not enable searches from a selection of object types as it is the case for the workspace search bar.*

You can perform a simple search using this bar, or perform a search using the parameters that appear in the tree.

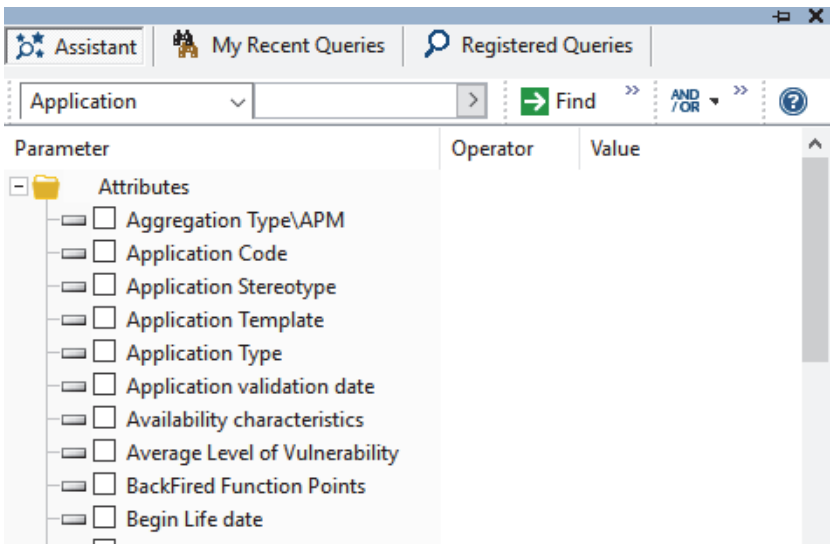
To query using the assistant:

1. Access the advanced search tool.

   ☛ *See "Presentation of the Advanced Search Tool", page 283.*

   The advanced search tool appears and displays the **Assistant** tab.
2. In the search bar, in the first field, select the type of object to query.

   `Example: Application.`



3. In the parameter field, select the parameter concerned by the search.

   ☛ *See "Using the query assistant tree", page 285.*

   ☛ *See "Query parameters", page 287.*
4. In the **Operator** field, define the operator to be applied.

   ☛ *See "Query operators", page 288.*
5. (If necessary) In the **Value** field, define the parameter value.

   ☛ *See "Query parameter values", page 289.*
6. (If needed) Display the query code.

   ☛ *See "Displaying the query code", page 290.*
7. Click **Find** .
   The result list is displayed.

   ☛ *See "Query Results", page 296.*

   ☛ *To save the query, see "Saving a query from the assistant", page 291.*

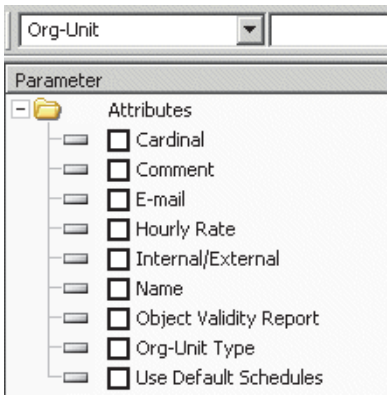
Using the query assistant tree

For each target object type, the query assistant proposes:

- its **Attributes**
- the **Links** to the types of objects that can be connected.

Target object type characteristics

You can use characteristics (attributes) of the target object type as parameters (for example, name and comment, which are valid characteristics for all object types).



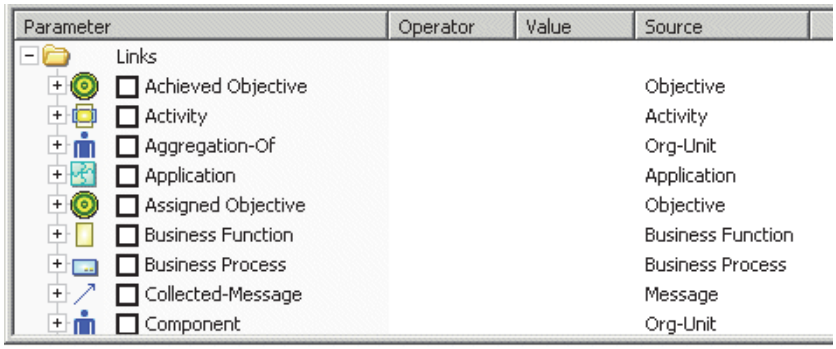
Links

You can also use link characteristics as parameters.

Object types that can be connected to the target object type appear under the "Source" heading.

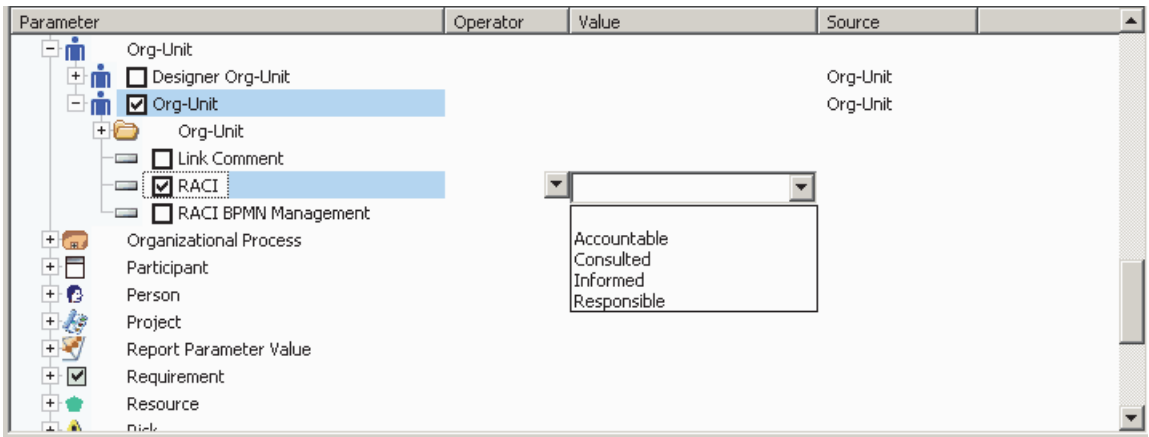
☛ *To sort the links by object type, click this **Source** column.*

Each link groups the characteristics of the link and associated objects.



☛ *The **Links by type** folder shows the links sorted by the object type concerned.*

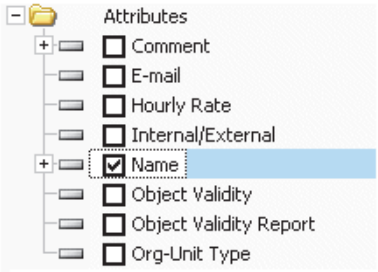
`"Involvement", "Follow-up Policy", "RACI", "Performer status" are properties of the link between Org-Unit and Organizational Process in the example below.`



Query parameters

The **Parameters** column contains the names of the query parameters (characteristics, links, associated objects). Check boxes enable indication of the parameters that define the query.

- Select (or clear) the parameters you want to take into account to build your query.

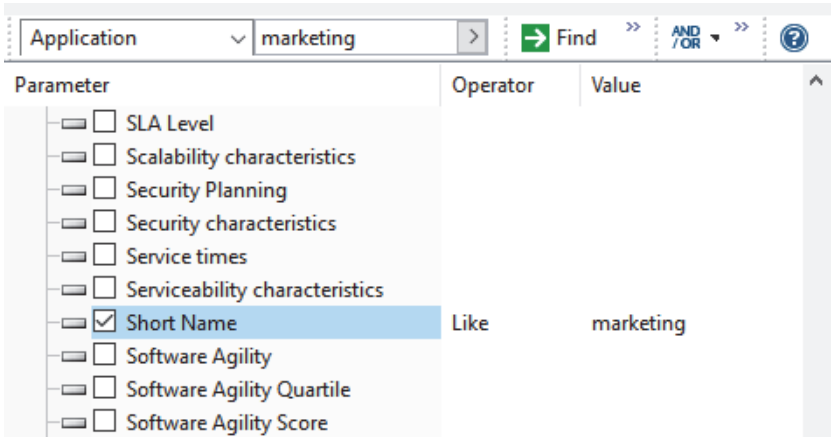


Selected links or properties appear highlighted to facilitate the query build and readability.

☛ *To reset all the parameters, click* *(**Remove all query criteria**).*

When you enter a name in the second field of the assistant query bar, the **Name** parameter is initialized using this value.

☛ *Check that you have selected one of the options offered by the arrow in the second field (e.g.: **Name starting with**, **Name containing**).*

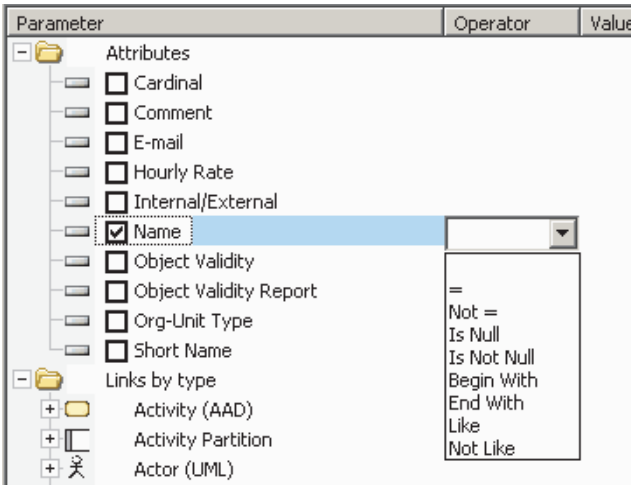


By default, the tree includes the main search parameters only. To extend the list of proposed parameters to:

- the administration properties, see "Displaying administration properties", page 294.
- (If you work in a multilingual environment) translations, see "Displaying translation properties", page 294.

Query operators

Operators are defined as a function of the selected parameter.



And, Or, and Not Operators

In the assistant toolbar of the advanced search tool, the

button enables use of the "And", "Or", and "Not" operators.

These operators concern all parameters selected in the assistant.

The parameters concerned by these operators are highlighted in a color that varies according to the operator (blue for "And", green for "Or", orange for "Not").

- ***And***
  The **And** operator means **ALL conditions must be fulfilled**.

```
Select [Project] Where [Progress percentage] ="100%"
     And [Project manager names] ="Brown"
     And [Project diagram] Is Not Null
```

- ***Or***
  The **Or** operator means **AT LEAST ONE condition must be fulfilled**.

```
Select [Org-Unit] Where [Message-Sent]
     Or [Message-Received]
     Or [Message-Collected]
```

- ***Not***
  The **Not** operator means **NO condition must be fulfilled**.

```
Select [Org-Unit] Where Not [Message-Sent]
     And Not [Message-Received]
     And Not [Message-Collected]
```

Inherited objects

☛ *For more details on inherited objects, see "Object Variations", page 184.*

In case of use of object variations ("Activating Variations", page 184), by default, the **Inherited Objects** option is selected. The code generated by the query assistant includes a keyword mentioning the inheritance.

Examples of query codes taking account of inheritance:

```
Select [IT Service] Inherited Where [Defining-Application] =
'Myapplication V2.0"
```

This query retrieves all services defined for the "Myapplication V2.0" application , including those inherited.

```
Select application inherited Where [Functionality] = &func
```

This query retrieves all applications that carry the "My func" functionality either directly or via inheritance.

Deactivating inheritance in the query assistant

To deactivate inheritance in the query assistant:

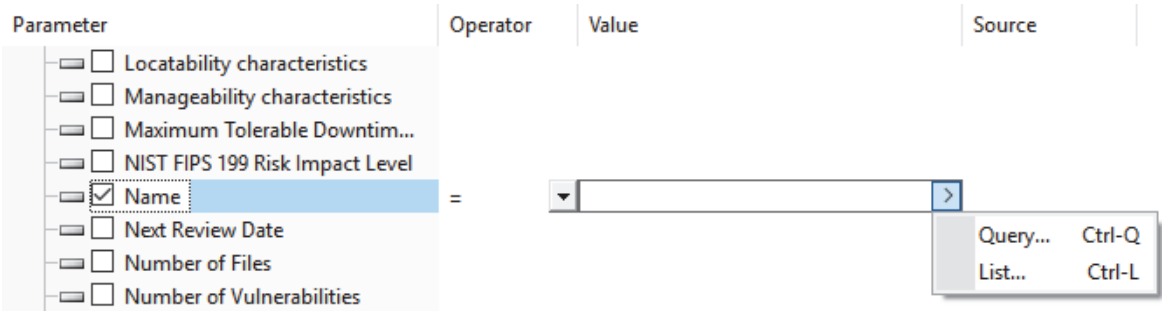
1. In the query assistant, click

.
2. Clear **Inherited Objects**.

☛ *The **Inherited Objects** option of the assistant window impacts only the code generated by this assistant.*

Query parameter values

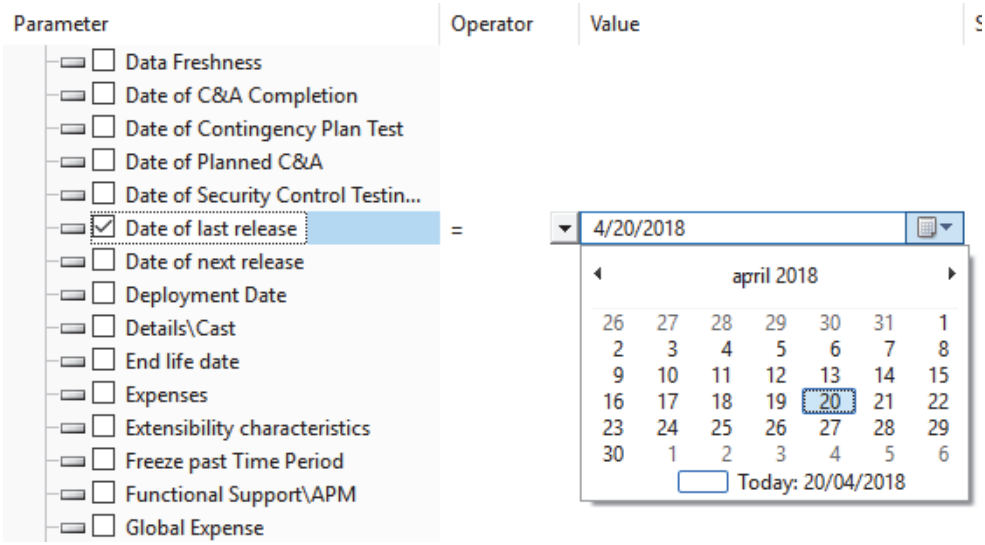
The **Value** field enables to enter or search for the parameter value.



Depending on the parameter type, some tools help you enter its value.

For example:

- to enter a date, a calendar is proposed.



- to enter a frequency, a list of values is proposed.

Displaying the query code

The query code is built as you progressively select the boxes and complete the fields.

Values entered in the fields are kept when you clear the box (so as to note the parameter corresponding to the query code - you can then quickly reintegrate it by rechecking the box).

By default, the query code is not visible in **Assistant** mode.

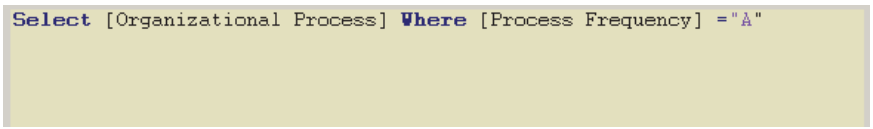
To display the query code:

- In the assistant toolbar of the advanced search tool, click **Show** > **Query Code**.
  The query code is displayed at the bottom of the **Assistant** tab.
  You cannot modify this code.
  If needed, you can copy (Ctrl+C) the query code to use it elsewhere or to save it to create a new query.

☛ *See "Saving a query from the assistant", page 291.*

Saving a query from the assistant

When **Show > Query Code** is selected, the query code appears at the bottom of the assistant.



You can save it by creating a query.

To create a query from the code obtained in the assistant:

1. Display or create a query.
   ☛ *See "Querying Using the Query Assistant", page 283.*
2. In the assistant menu bar, click **Save as** .
   The query creation window opens.
3. In the **Name** field, enter a name for your query.
4. In the **Stereotype** field, select the query type.
   ☛ *See "Query type", page 263.*
5. Click **Next** to reread the code of your query.
6. Click **Finish**.
   Your query is available in the **Registered Queries** tab.

Using Recent Queries

In the advanced search tool, **My Recent Queries** tab provides fast access to the latest queries you have executed.

Accessing your recent queries

To access the last queries you have launched:

1. Open the advanced query tool.
   ☛ *See "Searching from the workspace", page 278.*
2. Select the **My Recent Queries** tab.
3. By default the object type on which your last query dealt with is selected; if needed, in the drop-down list, select another object type.
4. Select a query in the list.
   The query code is displayed at the bottom of the list.

Defining recent queries

My Recent Queries mode uses the "Temporary Query" object type (or MetaClass) to temporarily memorize your queries.

They contain the final code that produced the objects listed in the result tab. These objects are specific to each user.

A recent query is not intended to be kept indefinitely. If you want to keep it, you must save it.

☛ *See "Saving a query from the assistant", page 291.*

Configuring the number of recent queries

For each user, a defined number of recent queries is memorized.

When this number is reached, the oldest recent queries are deleted, except if they are among your favorites.

To configure the number of memorized recent queries:

1. In **HOPEX** menu bar, select **Tools > Options**.
2. Select the **Queries** folder.
3. In the right pane, in the **Number of Recent Queries Kept** field, modify the value.

☛ *The default value is 50.*

Examples of recent queries

A recent query is a query that has been resolved and is directly executable. If the query includes parameters, the recent query contains the values of these parameters.

Query	Parameter values	Temporary query code memorization
Select [Project] Where [Short name] ="&[Short name]	HBC for &[Short name]	SELECT [Project] WHERE [Short name] ="HBC"
Select [Project] Where [Start date] = "&Project.Start date" And [Project manager names] = "&Project.Project manager names"	"15/02/2004" for "&Project.Start date" and "Brown" for &Project.Project manager names"	Select [Project] Where [Start date] = ""15/02/2004"" And [Project manager names] = ""Brown""
Select [Organizational Process] Where [Name] Like "Com#"		Select [Organizational Process] Where [Name] Like "Com#"

EDITING QUERIES

Registered Queries mode facilitates access to queries by target object type and update. You can also create your own queries from this mode.

Using a Repository Query

Queries can be of two types:

- ***Internal***: includes "technical" queries used in standard supplies (descriptors, report templates (MS Word), matrices, etc.), "Name" and "*".
- ***Usual***: includes queries programmed by users (proposed by default) as well as the queries "*" and "Name".

To access repository queries:

1. Open the advanced search tool.
   ☛ *See "Searching from the workspace", page 278.*
2. In the **Registered Queries** tab, select an object type in the drop-down list.

To filter queries according to their type:

1. In the assistant toolbar of the advanced search tool, click **Show** **> Query type**.
   The **Display Queries** window opens.
2. Select the query types you want to be displayed.
   ```
   Example: "Internal query".
   ```
3. Click **OK**.
   The list of registered queries is updated depending on the type selected.

Creating a query

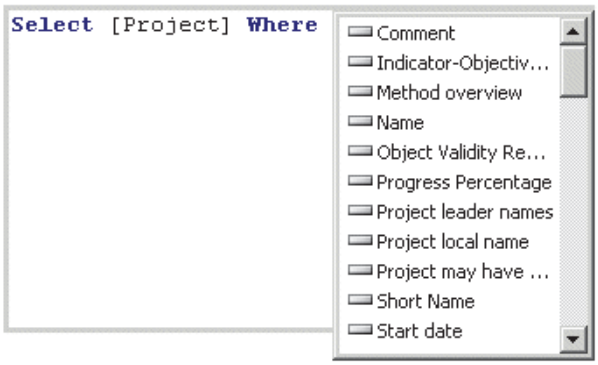
To create a query:

1. Open the advanced search tool.
   ☛ *See "Searching from the workspace", page 278.*
2. Click the **Registered Queries** tab.
3. In the drop-down list, select the object type for which you want to create a query.
4. Click **Create New query**.
   Your query is initialized as follows:
   ```
   "Select xx where", where "xx" is the name of the target object.
   ```
5. Enter your query code.
   HOPEX offers help when you are in doubt on the possibilities offered by the ERQL syntax.
   ☛ *For more details, see "Using Help When Entering Queries", page 294.*
   ☛ *You can analyze your query code before execution by clicking* .

Using Help When Entering Queries

To use help during query code build:

1. Press <Ctrl> + <Space>.
   A drop-down list proposes the possibilities for completion of your code.



   As in **Assistant** mode, properties proposed in this drop-down list are the most common. To add other properties, modify the display parameters, see:
   - "Displaying administration properties", page 294
   - "Displaying translation properties", page 294
2. Select an object type to complete your query.

Displaying administration properties

To display the administration properties:

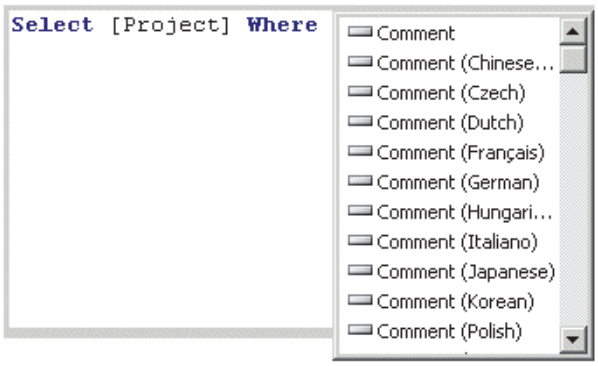
1. Open the advanced search tool.
   ☛ *See "Searching from the workspace", page 278.*
2. Click the **Registered Queries** tab.
3. In the assistant toolbar of the advanced search tool, click **Show** **> See administration properties**.
   The drop-down list is updated and now includes the administration properties.

Displaying translation properties

To display language-dependent properties:

1. Open the advanced search tool.
   ☛ *See "Searching from the workspace", page 278.*
2. Click the **Registered Queries** tab.

3. In the assistant toolbar of the advanced search tool, click **Show** **> See translation properties**.
   The drop-down list is updated and now includes translations of each characteristic in the different languages.



Pasting Object Names in Queries

☛ *See also "Quick Search (Windows Front-End)", page 279.*

An object name can be inserted in a query in the form of a field.

In this way, when you enter a query of type:

```
Select [Org-Unit] Where name = xxx
```

you can copy the object name and paste it in the query.

So when you modify the object name you have copied, the query will be automatically updated.

To copy an object name, right-click the object (in a diagram or in the navigator) and select **Copy**.

QUERY RESULTS

After having executed a query by clicking **Find**, the **Result** tab appears.

To select all objects in the result tab:

- Press the <Ctrl> and <A> keys simultaneously.

Two display modes are proposed:

- **Reinitialize** mode
- **Cumulative** mode

Constituting Results

Reinitializing results

By default, the result tab content is reinitialized at execution of each query. In other words, the result tab is emptied and filled at execution of each query.

☛ ***Reinitialize*** *is the only available mode when a search is performed from the search bar.*

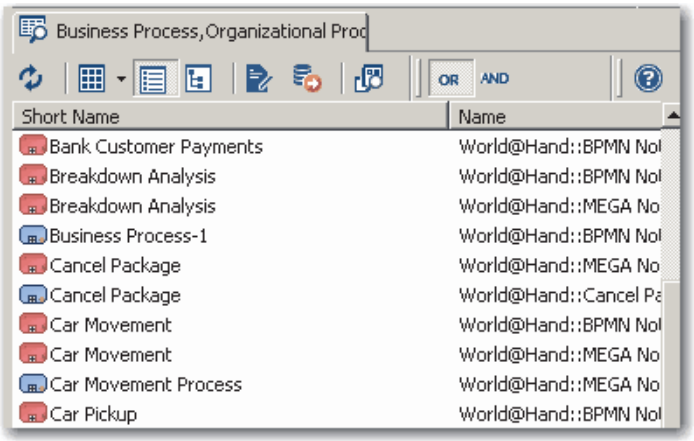
Cumulating results

You can cumulate the results of several queries in the same tab.

☛ *The workspace search toolbar does not allow result cumulation. Content is systematically reinitialized.*

To get the **Cumulative** mode:

1. In the assistant toolbar of the advanced search tool, click > **Cumulative**.
   ☛ *To get a cumulative result, do not close the result window after running queries.*
   In **Cumulative** mode, the result tab can list objects of heterogeneous types (for example, processes and org-units).



Displaying objects common to several result sets

When the cumulative mode is selected, to display objects common to several sets of results, click .

☛ *This button appears only when Cumulative mode is selected.*

Displaying Results of the Advanced SearchTool

Creating a new tab in the result tab

You can create a new tab so as to avoid mixing results.

To create a new tab in the result window:

1. Perform a search.
   ☛ *See "Querying Using the Query Assistant", page 283.*
2. In the search result window, click **Keep result in a new window** .
   Your result appears in a separate tab, allowing it to be kept in case of re-execution of a query.

Customizing result tab columns

By default, the result tab presents the following columns for each object:

- short name
- long name

You can customize these columns. Each column corresponds to an object property.

To customize columns of the search result window:

1. Perform a search.

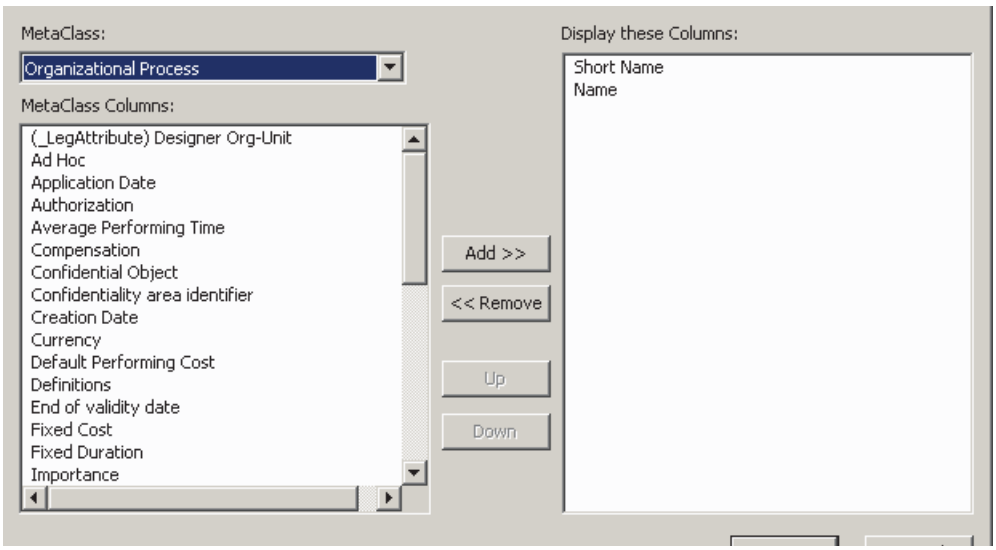
   ☛ *See "Querying Using the Query Assistant", page 283.*

2. In the search results window, click **Show** **> Customize columns**.

   ☛ *The **Use Generic Objects** option presents the objects resulting from the query as abstract MetaClass instances.*

   *For more details on abstract MetaClasses, see "Abstract Metamodel" in **HOPEX Power Studio - Studio**.*

   The **Column Display Customization** dialog box allows you to add or remove columns for a given MetaClass.



   Each new column corresponds to a MetaClass characteristic.

   ☛ *If you want to sort result window results by object type, add the MetaClass column.*

   ☛ *For object types in a namespace, the short name is also indicated by default.*

Memorizing columns

To store in memory the columns to be displayed when executing future queries:

1. Access the user options (**Tools > Options**).
2. In the Options tree, select **Query**.
3. In the right pane, select the **Result: Keep displayed columns** option.
   The next time you perform a query, the result window proposes the same columns as those previously defined.

Reinitializing columns

The list of columns displayed depends on the object types of the query.

To reinitialize the columns:

1. Access the user options (**Tools > Options**).
2. In the Options tree, select **Query**.
3. In the right pane, select the **Result: Reinitialization of result list columns** option. After each query execution, columns corresponding to characteristics not connected to queried targets are removed.

Displaying results as a list

By default, results appear in the form of a list .

When you click **Display result objects list**, duplicates are eliminated (i.e. duplicates of objects that appear in several recent queries).

```
For example, if the "Urgent Order" organizational process appears in
several recent queries (ie. it appears several times in the query tree),
it will appear only once in the list.
```

Display result objects list *is equivalent to*

in the result window.

Displaying queries that produced the result

You can display results as a tree, which enables viewing of recent queries that produced result object collections.

To display query results as a tree:

1. Click **Display tree of recent queries and result objects** .
2. Double-click the recent queries to show the result objects.
   You obtain a tree enabling identification of the different queries executed with their result sets.

Displaying objects common to several result sets

The

button is used to restrict the view to only those objects common to all recent queries.

☛

and

buttons only appear when Cumulative mode is selected.

Refreshing result window content

You can rerun execution of queries that produced the list of objects in the result tab.

To refresh results:

❱ In the query results window, click **Refresh** .

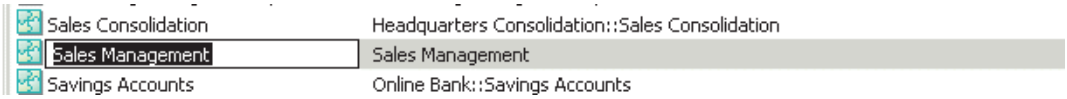
Modifying Objects in the Result Window

You can use the query result window to update the characteristics of objects it contains.

Modifying an object

To modify an object from the result window:

- In the result window, right-click the object and select **Modify**.
  You can then modify the selected characteristic, for example the object name.



Modifying a selection of objects

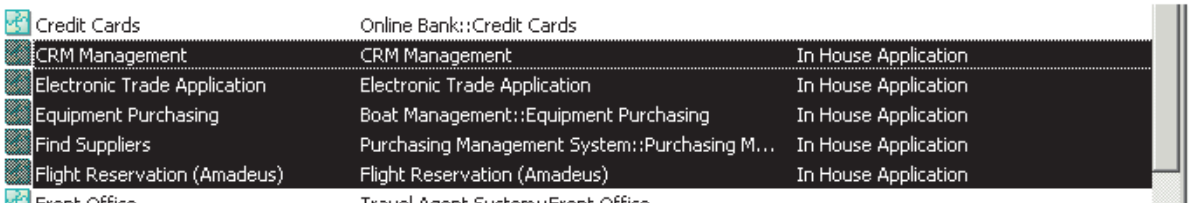
You can also modify the characteristics of a selection of objects (for example, assign the same characteristic value to a selection of objects).

To display columns corresponding to the different object characteristics, see "Customizing result tab columns", page 297.

To modify a selection of objects from the result window:

1. Select the objects you want to modify.
2. Click the object characteristic you wish to modify and in the pop-up menu of the selection, select **Modify**.
3. Then modify the characteristic value.

4. Press "Enter" to validate.
   The data is updated for all objects in the selection.



Search and Confidentiality Result

☛ *If reading access management is activated, see the **HOPEX Administration - Supervisor** guide.*

Certain modeling projects may be confidential or contain confidential or sensitive data (Example: costs, risks, controls). The administrator may therefore decide to hide certain objects so that they are only visible to authorized users.

Visibility of objects by a user is managed in **HOPEX** by reading accesses. A reading access level is assigned to each user, which restricts his/her data visibility.

> ☛ *For more details on data reading access, see the **HOPEX Administration - Supervisor** guide.*

The search tool operates in dynamic mode. Searches take into account the reading access area of the user. Depending on the reading access area, the search results can therefore vary and display different numbers of objects.

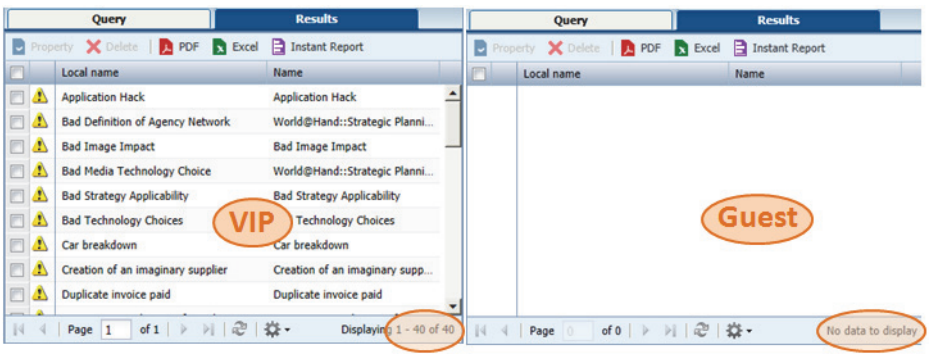
Objects not available in diagrams due to their reading access level appear in search results, but cannot be accessed by the user.

Search example

Take the example of a search for risks with two distinct users and their associated reading access level:

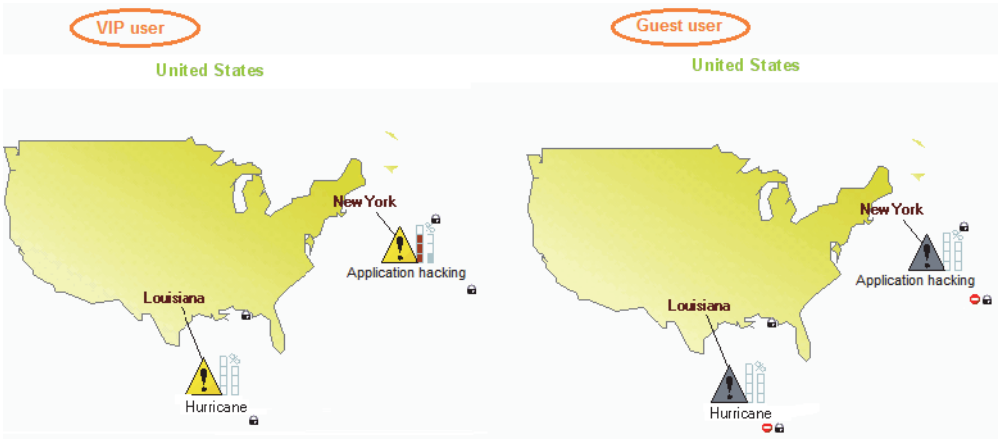
- "Guest" (standard level)
- "VIP" (maximum level)

Search on the **Risk** object returns 0 objects for the "Guest" user and 40 objects for the "VIP" user.



On the following "Geographical Risk Map":

- for the "Guest" user, risks are grayed and their details are not accessible.
- having the maximum reading access level, the "VIP" user can access all risks in the diagram.



Generating Analysis Reports

To generate a report from objects selected:

1. In the query results, select the objects.

   ☛ *To select several objects, use the [Ctrl] key.*

2. Click **Generate Report From Selected Objects** .

   The report is displayed. The table columns are the same as those of the list at the time of report generation.

   ☛ *See "Customizing result tab columns", page 297.*

   This tab allows you to quickly display the list of MetaClasses present in the result dialog box, and the corresponding number of objects.

3. (if needed) Click **Send To** to send by e-mail the report you have generated.

   ☛ *To modify the css style sheet of the query report, see "Style sheet location", page 305.*

HANDLING CANDIDATE OBJECTS

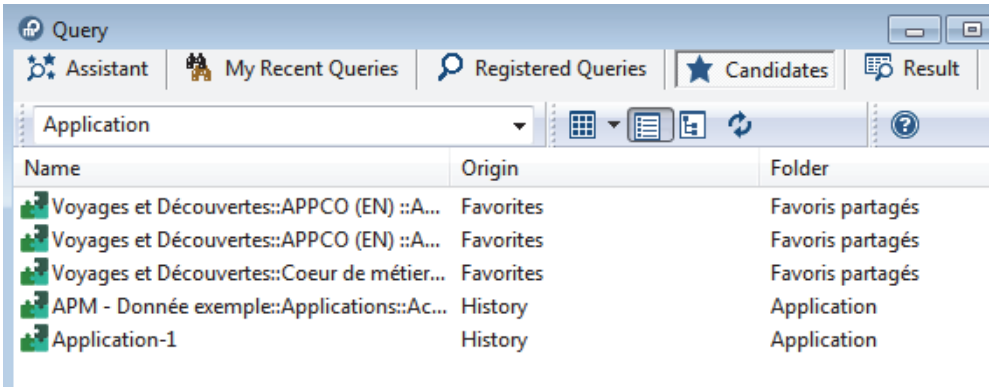
The **Candidates** tab of the advanced search tool appears when the advanced search tool is run from another tool such as the explorer, a diagram, etc.

It presents, by object type:

- objects from History
- objects from Favorites
- objects included in the **HOPEX** clipboard.

These are objects recently or currently used. This mode enables fast access to objects handled. It is useful when you call the query tool from a function that does not allow use of the navigator.

☛ *This tab does not appear if you run the query tool from the desktop (you therefore have access to the navigator, enabling you to easily handle repository objects and in particular your favorites and history).*



To filter the object display as a function of their source:

1. In the search window toolbar, click **Show** .
2. Clear the options from sources that you do not want to display:
   - Favorite objects
   - Recent objects
   - Clipboard

CONFIGURING QUERY TOOL OPTIONS

Accessing the Query Tool Configuration Options

To configure the query tool:

1. (**HOPEX Windows Front-End**) In the menu bar, select **Tools > Options**.
   The user options window opens.

   ☛ *To parameterize the query tool in **HOPEX Web Front-End**, click **Settings > Options** from the **Main Menu***

2. In the Options tree, select **Queries** folder.
   Configure the query tool in the right pane.
3. Select (or clear) the required options.

   ☛ *See "Query Tool Configuration Options", page 304.*

Query Tool Configuration Options

You can modify, for example, the configuration of the following options:

Displaying the query tool and its tabs

You can define whether or not to display:

- the query tool: **Display Query Wizard** option
- tabs constituting the query tool:
  - queries: **Display Registered queries page** option
  - recent queries: **Display Recent Queries** option
  - candidate objects: **Candidate objects display** option

  ☛ *For more details on the different query modes and query tool tabs, see "Querying Using the Query Assistant", page 283.*

Query target synchronization

The **Query target synchronization** option enables activation or deactivation of query target synchronization between workspace query bar and query tool.

- **Always**
  This value enables permanent synchronization of workspace query bar and query tool: if a target is selected in one of these devices, it will also be automatically selected in the other.
- **Sometimes (if the tool is not hidden)**
  The workspace query bar and the query tool are synchronized except if the query tool is hidden (**Auto Hide command**).
- **Never**
  This value deactivates all synchronization between workspace query bar and query tool.

Style sheet location

Report: Style sheet location option defines the style sheet location.

Managing Documentation

GENERATING DOCUMENTATION

- ✓ "Introduction to Documentation", page 310
- ✓ "Managing MS Word Reports", page 312
- ✓ "Generating Analysis Reports", page 321
- ✓ "Managing Report DataSets", page 337
- ✓ "Managing Instant Reports", page 348
- ✓ "Customizing your Reports (Web Front-End)", page 405
- ✓ "Managing report options", page 429
- ✓ "Creating and Generating a Web Site", page 430

INTRODUCTION TO DOCUMENTATION

Documentation Tools

HOPEX offers several documentation tools that supplement description of models supplied as standard, providing a response to internal and external communication needs. Documentation is an essential task in modeling. A modeling approach does not simply consist of the presentation of schemas, however complete and accurate these may be.

These tools can be sorted according to the type of document provided:

- tools that ***generate*** documentation from repository data:
  - reports (MS Word)
  - analysis reports
  - Report DataSets
  - Instant reports
  - Web sites

    ☛ *See "Documents Generated From the Repository", page 311.*

    ☛ *The features covered here are available as standard, irrespective of options.*
- tools that ***store*** in HOPEX documents of which content is independent of the repository:
  - external references
  - business documents

    ☛ *See "Using External References", page 437 and "Using Business Documents", page 445.*

Documents Generated From the Repository

HOPEX enables generation of several types of document from repository objects:

- reports (MS Word)

  ☛ *See "Managing MS Word Reports", page 312.*

- analysis reports to study interactions between different repository objects.

  ☛ *See:*

  - *"Structure of an Analysis Report", page 321.*
  - *"Generating Analysis Reports", page 321.*

- Report DataSets to create repository data tables, and from which create instant reports

  ☛ *See "Managing Report DataSets", page 337.*

- instant reports offering a statistical graphic analysis of the data of analyzed objects.

  ☛ *See "Managing Instant Reports", page 348.*

- web sites to generate a set of HTML pages that can be distributed on an Intranet.

  ☛ *See "Creating and Generating a Web Site", page 430.*

In **HOPEX (Web Front-End)** you can customize your reports.

☛ *See "Customizing your Reports (Web Front-End)", page 405.*

MANAGING MS WORD REPORTS

Thanks to its repository, **HOPEX** automates production of these documents in MS Word format to share information with the teams concerned.

These document models - called report templates (MS Word) - are provided as standard.

See:

- "MS Word Report Content", page 312
- "Managing MS Word Reports in HOPEX (Windows Front-End)", page 312
- "Creating an MS Word report in HOPEX (Web Front-End)", page 319
- "About MS Word Reports in HOPEX (Web Front-End)", page 320
- "Accessing MS Word Reports", page 320

MS Word Report Content

MS Word reports provide a view of the state of repository objects at the time of creation of the report.

MS Word reports:

- include a diagram drawing
- show all the objects that figure in the diagram or are linked to it, with their properties and the comments that the designer entered during the design process.

> ☛ *Unlike analysis reports, which present data according to a particular study viewpoint, reports (MS Word) present raw data.*

Managing MS Word Reports in HOPEX (Windows Front-End)

HOPEX enables generation of reports (MS Word) from the desktop **Documentation** window.

The reports are generated in .doc format.

> ☛ *To access the **Documentation** window from the workspace, select **View > Navigation Windows > Documentation**.*

See:

- "Creating an MS Word report in HOPEX (Windows Front-End)", page 313
- "Detaching an MS Word Report in HOPEX (Windows Front-End)", page 314
- "Distributing an MS Word report for review or validation", page 314
- "Revising reports (MS Word)", page 316
- "Approving an MS Word report revision", page 317
- "Creating a distribution list", page 317

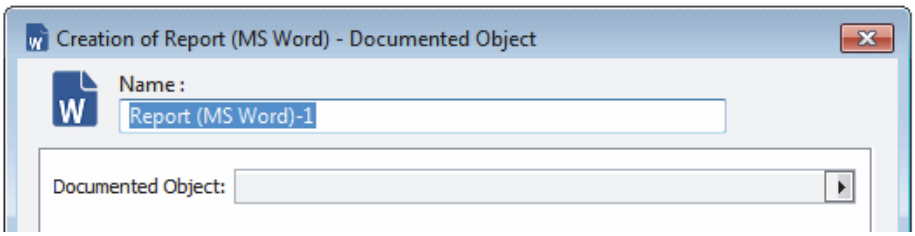
Creating an MS Word report in HOPEX (Windows Front-End)

To create an MS Word report:

1. In the **HOPEX** menu bar, select **View >Navigation Windows > Documentation**.
2. Right-click the **Reports (MS Word)** folder and select **New > Report (MS Word)**.

   ☛ *Alternatively, right-click an object and select **New > Report (MS Word)**.*

   The first step of the **Creation of Report (MS Word)** wizard appears: **Documented Object**.



3. In the **Documented Object** field, click the arrow and select **Connect**.
4. In the **Element With (MS Word) Report** list, select the object type you want to document, and click .
5. In the results list, select the object to be documented and click **Connect**. The object appears in the report (MS Word) creation wizard.
6. Click **Next**.
   The second step of the **Creation of Report (MS Word)** wizard appears: **Report Template (MS Word)**.
7. In the **Report Template (MS Word)** field, in the drop-down list, select the report template (MS Word) on which you want base your report.

   ☛ *The report (MS Word) contains a structure, to which the descriptions and comments for the different objects are added.*
8. (If needed) A window asks you to enter the parameter values. Most frequently the object name provides the starting point for the query in the repository. Parameters correspond to settings of queries that make up the report (MS Word).
   Enter the parameter values in the appropriate fields.

   ☛ The **Value** box drop-down menu allows you to run a query

   ☛ *The number of fields and their titles vary according to the reports (MS Word) created.*
9. Click **Next**.
   The third step of the **Creation of Report (MS Word)** wizard appears: **Distribution**.
10. (Optional) Enter the report (MS Word) distribution list.

    ☛ *For more details, see "Creating a distribution list", page 317.*
11. Click **Finish**.
    The new report (MS Word) appears in the **Documentation** navigation window and at object level.

12. Double-click the new report (MS Word) icon to automatically generate the document.

    ☛ *A first window appears during preparation. The document editor then starts loading the report (MS Word).*

    The report appears in Microsoft Word.

    A specific toolbar and a **HOPEX** menu appear in Word.

    ☺ *If you see strange symbols instead of these screens, check that the Word **Field codes** option is not selected (select **Tools > Options**, **View** tab).*

Detaching an MS Word Report in HOPEX (Windows Front-End)

This functionality can be useful in **HOPEX** (Windows Front-End) if you want to distribute a working report (MS Word) (a diagram and its description) to persons who do not have access to **HOPEX**.

```
For example, within the framework of a quality approach, you
can detach reports (MS Word) of processes as well as the
quality manual once these have been validated.
```

This copy of the report (MS Word) reflects the state of an object at a given moment and will no longer be modified by **HOPEX**. Links with HOPEX are cut.

The report (MS Word) generated via the pop-up menu of the object will continue to evolve according to object modifications.

To detach a report (MS Word):

1. From the **Documentation** navigation window, expand the **Reports (MS Word)** folder.
2. Right-click the report (MS Word) to be detached and select **Detach from HOPEX**.
3. In the **Detach from HOPEX** dialog box, select a location and give a name to your report (MS Word).
   Links with the repository are broken.

   You can now archive your report (MS Word), distribute it in electronic or printed form for information.

Distributing an MS Word report for review or validation

From **HOPEX** (Windows Front-End), you can distribute a report (MS Word) via electronic mail for review or validation if the recipients concerned are business persons whose e-mail address has been specified.

☛ *The e-mail address should be specified in the **Characteristics** tab of the properties dialog box of the person or org-unit.*

Two commands in the report (MS Word) pop-up menu allow you to trigger its distribution.

The **Send for Review** and **Send for Validation** commands trigger distribution of the report (MS Word) and cause:

- Breaking links with **HOPEX**.
- Sending the report (MS Word) as an attachment to the persons concerned.
  For more details on the distribution list, see "Creating a distribution list", page 317.

Sending for review

To send a report (MS Word) for review (checking):

1. Right-click the report (MS Word) and select **Send for Review**.

   ☛ *See "Accessing MS Word Reports", page 320.*

   An e-mail is created. The subject of the e-mail is "Review of report (MS Word) <name of the report (MS Word)>" and the e-mail includes the report (MS Word).
2. Enter e-mail addresses of the recipients as follows:

Person/org-unit role	To	Cc
Writer		
Checker	X	
Approver		X
Writer/Approver		X
Writer/Checker	X	
Approver/Checker	X	
For action		
For information		

Sending for validation

To send a report (MS Word) for validation:

1. Right-click the report (MS Word) and select **Send for validation**.

   ☛ *See "Accessing MS Word Reports", page 320.*

   An e-mail is created. The subject of the e-mail is "validation of report (MS Word) <name of the report (MS Word)>" and the e-mail includes the report (MS Word).

2. Enter e-mail addresses of the recipients as follows:

Role	To	Cc
Writer		
Checker		X
Approver	X	
Writer/Approver	X	
Writer/Checker		X
Approver/Checker	X	
For action		
For information		

☛ *You can configure this feature (for example, recipient list, e-mail subject, etc.) using VB scripts.*

Revising reports (MS Word)

In the properties dialog box of a report (MS Word), the **Revisions** tab allows you to indicate the date and sender of the revision request as well as the version number.

You can create revision notes to keep trace of the various report (MS Word) revision phases. Usually, the user creates a revision note when it has been decided to modify the MS Word report or the corresponding object. It is however possible to create a revision note at any time, for example when incorporating an existing procedure in **HOPEX**.

To create a revision note:

1. In the report (MS Word) properties dialog box, select the **Revisions** tab.

   ☛ *See "Accessing MS Word Reports", page 320.*

2. In the **Document Version** field, enter the current version of the report (MS Word).
3. Click **Apply**.

   ☛ *When you create a new revision note, this number is used in the **Revision Version**. This is the report (MS Word) version at the time the revision note was created.*

4. Click **New** .

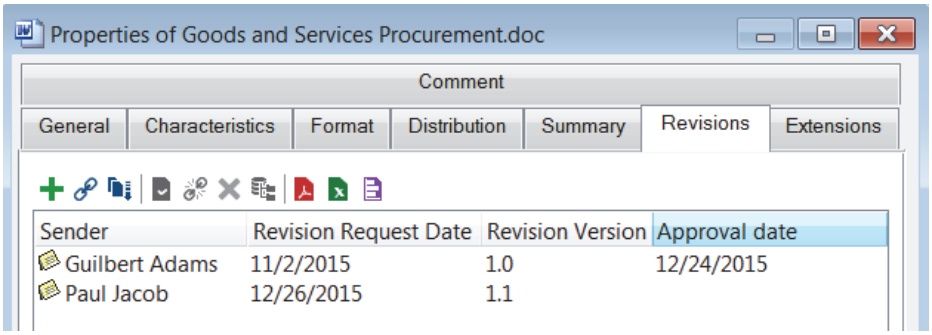
5. Create the note:

   ☛ *To reuse a note already created, in the **Note** field, click the arrow and select the note. **Type** and **Comment** parameters of the note are automatically specified.*

   - In the **Note** field, enter the name of the note.
   - in the **Type** drop-down list, select the note type.
   - In the **Comment** field, enter a comment for the note.
   - Click **OK**.

   In the **Revision Request Date**, the current date is automatically specified.

   In the document **Revision Version**, the document version (if specified step 2) is automatically specified.
6. (Optional) If needed, modify the **Revision Request Date**.
7. (Optional) If needed, modify the **Revision Version**.
8. Click in the **Sender** field, then the arrow and use the query tool to select the note sender.
   The note sender name appears in the corresponding field.
9. Click **Apply**.



Example of a series of revision notes

Approving an MS Word report revision

You can approve the report (MS Word) revision.

```
Eg: after approving the report (MS Word) currently under
revision.
```

To specify the approval date of a report (MS Word):

1. In the report (MS Word) properties dialog box, select the **Revisions** tab.

   ☛ *See "Accessing MS Word Reports", page 320.*
2. Enter (or modify) the date in the corresponding **Approval date** field.

Creating a distribution list

HOPEX enables preparation for distribution of your reports (MS Word) by creation of a distribution list.

In the report (MS Word) properties dialog box, the **Distribution** tab enables:

- selection or creation of persons (or org-units of the enterprise).
- specification of the roles of these persons:

  📖 *A person holds a position in an organization. It is designated by its name. Example: Mr. Smith.*

  📖 *An org-unit is an element of the enterprise structure such as a department, a service, or a workstation. An internal organization unit is defined based on how detailed you require your view of the enterprise to be. Example: financial management, sales management, marketing department, account manager. An external org-unit is an external entity that exchanges flows with the enterprise. Example: customer, supplier, government office.*

  - The writer is responsible for originating the report (MS Word).
  - The checker is responsible for reviewing the report (MS Word) to check accuracy.
  - The approver decides on validity of the report (MS Word), for example that it may be implemented if it is a process.

    ☛ *One person may have several roles:*

    - *"writer/approver"*
    - *"approver/checker" or*
    - *"writer/checker"*

    ☛ *Persons or org-units can be recipients of reports (MS Word):*

    - ***For action**, that is they are responsible for implementing the report (MS Word) within the enterprise,*
    - *or simply **For information**.*

To create the distribution list of a report (MS Word):

1. In the report (MS Word) properties dialog box, select the **Distribution** tab.

   ☛ *See "Accessing MS Word Reports", page 320.*

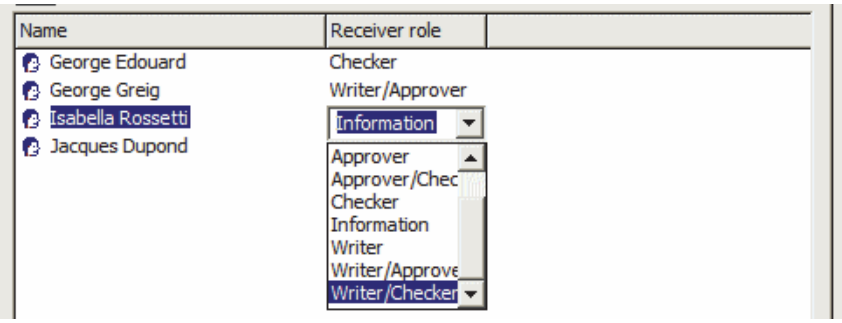
2. Click **Connect** 🔗.

   Your distribution list can include org-units or persons.
3. Select the recipient type ("Org-Unit", "Person (system)", or "Business Person") you want to add in your distribution list.

   ☛ *Depending on the options selected, you can add **Business Persons** and/or **Persons (System)**. For more details, see "How to manage options concerning business persons and (system) persons?", page 757.*
4. In the list that appears, select the recipient.

   ☛ *To select more than one recipient, use the [Ctrl] key.*
5. Add other persons or org-units to the distribution list in the same way.

6. Click in the **Recipient Role** field and use the drop-down list to select the role that each recipient plays.



☛ *To delete persons and/or org-units from the distribution list, select these in the list and click* ***Disconnect*** .

Creating an MS Word report in HOPEX (Web Front-End)

HOPEX (Web Front-End) enables you to create documentation of repository objects: the reports (MS Word).

☛ *These reports (MS Word) are available in .docx format. They are generated in .rtf format then packaged in .docx format so as to reduce size. For more details, see "About MS Word Reports in HOPEX (Web Front-End)", page 320.*

You can create reports (MS Word) from a repository object.

To create a report (MS Word) from an object:

1. In the object pop-up menu, select **Documentation > New Report (MS Word)**.
   The first step of the **Creation of Report (MS Word)** wizard appears.
2. (Optional) In the **Name** field, modify the name given by default to your report (MS Word).
3. (Optional) Modify the report (MS Word) owner.
4. Click **Next**.
   The second step of the **Creation of Report (MS Word)** wizard appears: **Template Document**.
5. In the **Report Template (MS Word)**, select the report template (MS Word) on which you want your report to be based.

   ☛ *Only those report templates (MS Word) corresponding to the documented object type are proposed.*
6. Click **Next**.
   The third step of the **Creation of Report (MS Word)** wizard appears: **Distribution**.
7. Enter the recipients of the report (MS Word).

   ☛ *These can be specified later, see "Creating a distribution list", page 317.*
8. Click **OK**.
   The report (MS Word) opens.

About MS Word Reports in HOPEX (Web Front-End)

Reports (MS Word) available in **HOPEX** (Web Front-End) are .rtf reports packaged as .docx format.

They are automatically detached from **HOPEX**.

Styles, contents and index are not refreshed. You must do this manually.

Accessing MS Word Reports

You can access:

- MS Word reports concerning an object
- on all MS Word repository reports

Accessing MS Word reports concerning an object

To access reports (MS Word) concerning an object:

1. Open the properties page of the object.
2. Select the **General** tab and then the **Documents** subtab.
   Reports (MS Word) concerning the object are visible in the **Reports (MS Word)** pane.

Accessing all MS Word reports

To access all repository Reports (MS Word):

1. Open the **Documentation** navigation window.

   ☛ *To open this window, click* ***> Documentation***.
2. Expand the **Reports (MS Word)** folder.

GENERATING ANALYSIS REPORTS

The analysis reports are dynamic reports that enable repository data analysis according to different perspectives.

Object types processed and the viewpoint from which they are analyzed depend on the type of report to be created.

```
You can for example analyze a set of applications to
determine their level of functional compatibility with a
corresponding city plan.
```

HOPEX provides the predefined report templates for each **HOPEX** solution; the application portfolio analysis reports, risk analyses, etc.

Structure of an Analysis Report

Parameters

The parameters define the input data for the report, in other words, the object groups and their relationship setting in the report. They vary depending on the report template.

```
E.g.: a "Deployment" type report relates to the "To Deploy"
parameter that defines the elements to be deployed (such as
applications, technical infrastructures, etc.) and the
"Location" parameter that defines the target sites.
```

☛ *Each report template parameter defines a multiplicity indicating whether it is possible to connect more than one value for the parameter in question to a given report. If multiplicity is 1 or 0..1, only one parameter value can be connected.*

The definition of input parameters is not mandatory.

Chapters

A report can contain more than one chapter. Each chapter describes a set of data that may or may not be represented in a graphic format.

```
Example: on an application portfolio, the "Cost report"
contains three chapters that describe:
- a graphical view (chart) of costs over time
- the details of costs by nature (table)
- the details of costs by application (table)
```

For more details on the functional content of each report, refer to the “Reports” chapter of the documentation specific to the Solution.

Accessing report properties

The details of parameters and chapters of the report are accessible in the report properties.

To open the properties window of a report:

In the list of reports of the solution or the list of your reports, select the report in question and click the **Properties** button associated with the edit window.

Accessing Analysis Reports

Accessing all the reports of a solution

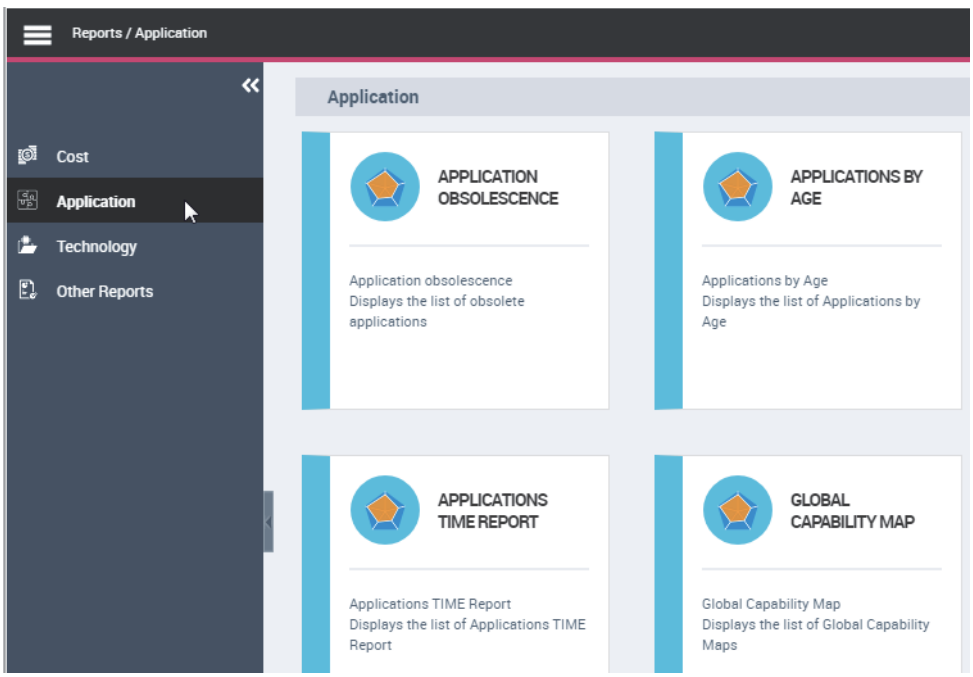
The reports of a solution are available:

In Web Front-End:

- in the **Reports** navigation pane of each solution.
- in the **Repository** > **Documentation** navigation pane of the Enterprise Architecture (EA) desktop.

Depending on the HOPEX solutions, dynamic analysis reports are provided by default and sorted by object type.

```
For example, in ITPM, dynamic reports are provided for the
Cost, Application, and Technology type objects.
```



In Windows Front-End:

- in the **HOPEX** home page, in the **Reports** section.
- in the **Documentation** navigation window, in the **Reports** folder.
  You access all reports of your repository sorted by report template.

Accessing reports available on an object

Reports embedded in an object

Some analysis reports are embedded in the repository objects. These reports vary according to the HOPEX solutions and provide quasi-instant analyses according to a given issue, for example:

- the functional analysis of a process
- the roadmap of a project portfolio
- the cost of the applications a portfolio

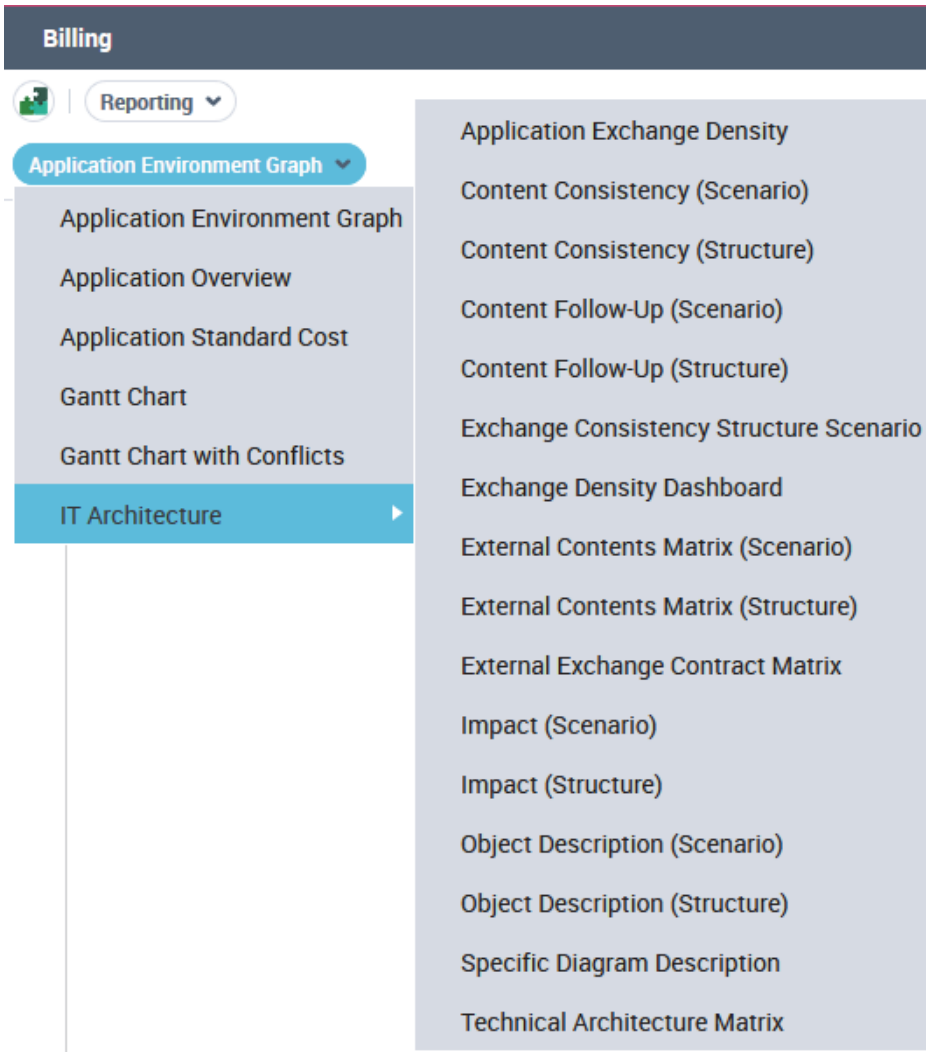
> ☛ *For more details on the report templates supplied, see the documentation for the solution in question.*

The reports embedded are available in the properties of these objects, in the **Reporting** page.

> ☛ *To access the full list of available reports, see "Full list of reports available for an object", page 324.*

Example: In the **IT Portfolio Management** solution, with the **Application Portfolio Manager** profile, the **Reporting** page of an application properties gives directly access to **Application Portfolio Manager** profile specific reports.

Other reports are also available, in that case **IT Architecture** specific reports.



Full list of reports available for an object

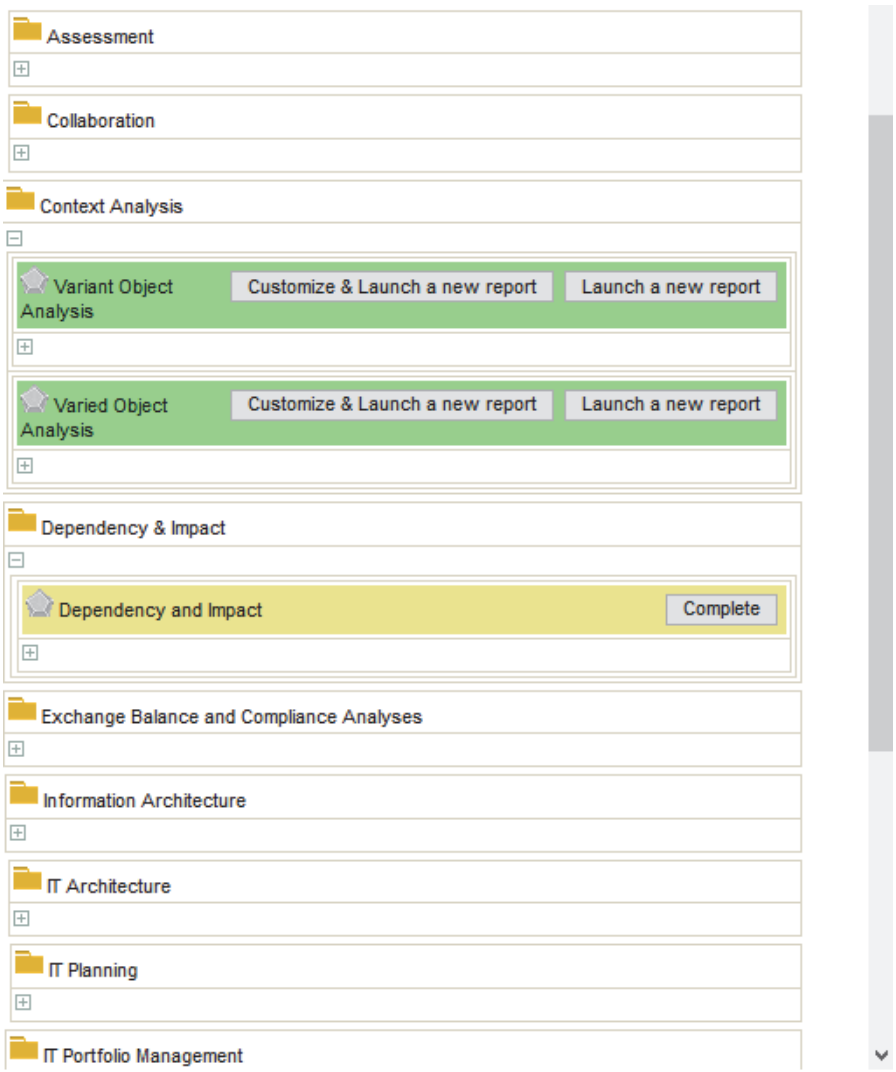
The **Report Discovery** command in the pop-up menu of an object is used to:

- display the list of report templates relating to the object in question, from which you can create new reports.
- launch existing reports.

To access all of the reports regarding an object:

1. Right-click the object and select **Documentation** > **Report Discovery**. The list of report templates relating to the object appears in the edit window. The report templates are classified in folders by category.

2. Click the ⊞ button of the folder to display the report templates included in this category.



Example of report templates available on an application

See also: "Launching an analysis report for an object", page 327.

Accessing reports embedded in a dashboard

The dashboard is used to quickly access repository information. The embedded reports that you want to display in your dashboard depend on the solutions and profiles. They provide key indicators on your repository data.

You can:

- add a report as a widget in your dashboard to access it more quickly.

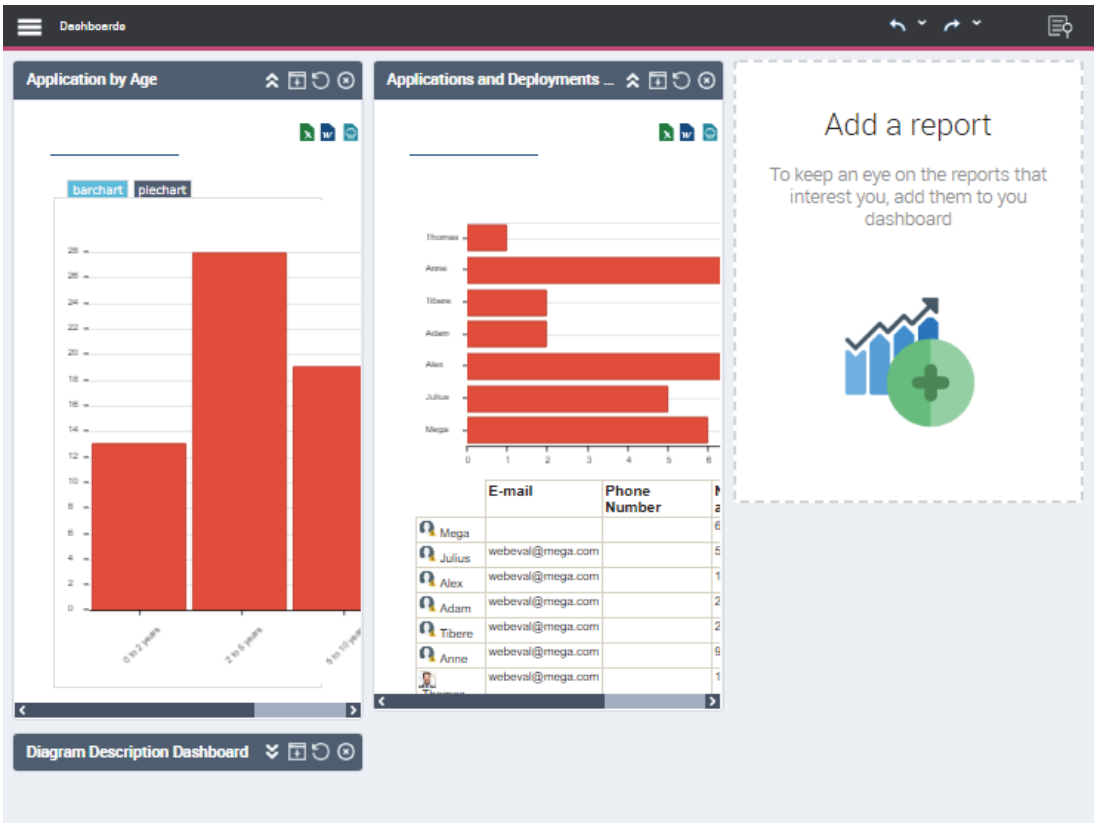
  ☛ *See "Adding a widget to your dashboard", page 64.*

- add an instant report as a widget in your dashboard to access it more quickly.

  ☛ *To add a report to your dashboard, see "Adding an Instant Report to Your Dashboard", page 403.*

To view a report available in your dashboard:

1. Click the navigation menu then click **Dashboards**.
   Reports added to your dashboard are displayed.
2. (If the widget of the report is folded) Click to expand the the widget and display the report.



See also "Saving the content of an analysis report (Web Front-End)", page 332.

Accessing your reports in a HOPEX solution.

In the HOPEX (Web Front-End) solutions, the dynamic reports are updated each time they are launched. To keep the content of a report, you can save it. It is saved in the **My Reports** folder.

☛ *See "Saving the content of an analysis report (Web Front-End)", page 332.*

You can create your reports in this folder by defining the type of report and the data to be analyzed.

☛ *See "Creating your analysis reports (Web Front-End)", page 328.*

To access your customized reports in a HOPEX solution:

1. On your HOPEX desktop, click the navigation menu.
2. Click the **Reports** navigation pane.
   Your reports are accessible in the **Other Reports** section.
3. In the **Other Reports** edit window, click **My Reports**.
   The list of your reports appears.

See also:

- "Structure of an Analysis Report", page 321.
- "Customizing your Reports (Web Front-End)", page 405.

Creating an Analysis Report

Some reports are embedded in the repository (Web Front-End); they are launched automatically. See "Reports embedded in an object".

You can create reports using objects in the repository (in this case, some parameters in the report are pre-populated) or using the list of report templates. See "In the list of reports of the solution or the list of your reports, select the report in question and click the Properties button associated with the edit window. Accessing Analysis Reports", page 322.

Launching an analysis report for an object

Object types (applications, portfolios, projects, etc.) are associated with predefined report templates.

The report templates available for an object can contain one or more parameters. When launching the report, some parameters are defined automatically with the value of the selected object. Other parameters must be specified.

To find and launch a report available on an object:

1. Right-click the object in question and select **Documentation > Report Discovery**.

   ☛ *In Windows Front-End, right-click the object and select **Report Discovery**.*

   ☛ *You can also launch a report search for several objects of the same type, for example, a list of applications.*

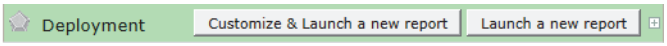
   The list of available reports appears.

2. In the **Available Reports** section, expand the folder that corresponds to the report that interests you.
3. If your report template includes only one required parameter, this parameter is automatically entered with the selected object. Click:
   - **Customize & Launch a new report** to modify parameter data before launching the report.

   The report **Properties** window opens.

   ☛ *Go to step 4.*
   - **Launch a new report** to launch the report directly.

   The report is displayed in a new tab of the edit window.



   If your report template includes several mandatory parameters, you must complete the report before launching it, click **Complete**.

   The report **Properties** window opens.

   ☛ *Go to step 4.*

4. To customize or complete the report parameters before launching the report, in the report properties window, click the **Parameters** page.
   A parameter can group several objects.
5. For each parameter, the object(s) to be analyzed.

   ```
   E.g.: for a deployment report, the "To Deploy" parameter can
   be defined by some applications, technical infrastructures,
   nodes, workstations, etc.
   The second parameter corresponds to the "Location" of the
   deployed elements. The location is defined by "Site"
   objects.
   ```
6. (Optional) You can customize the report display.

   ☛ *See "Defining the Display of an Analysis Report on Opening", page 335.*
7. Click **OK**.
   The report result opens in the center page.

   Report chapters that appear vary according to the report template.
8. Click each chapter title to display its content.

   ☛ *To export the report content in RTF or Excel format, see "Exporting an analysis report in PDF or Excel Format", page 334.*

Creating your analysis reports (Web Front-End)

In addition to the dynamic analysis reports delivered by default for the identified object types, you can create your own reports.

To create analysis report you must:

- define the report template on which the report is based.

  ☛ *HOPEX provide report templates specific to each Solution.*

- (if necessary) enter the report parameters. This consists of defining report input data.
- (optional) define the report chapters.

  ☛ *Report chapters vary depending on the selected report type.*

To create an analysis report:

1. Click the navigation menu, then **Reports**.
2. In the **Reports** navigation pane, click **My reports**.
3. In the edit area, click **New**.
   The report creation window opens.

   ☛ *(EA desktop) In the **Navigation** edit area, expand the **Reports** folder.*

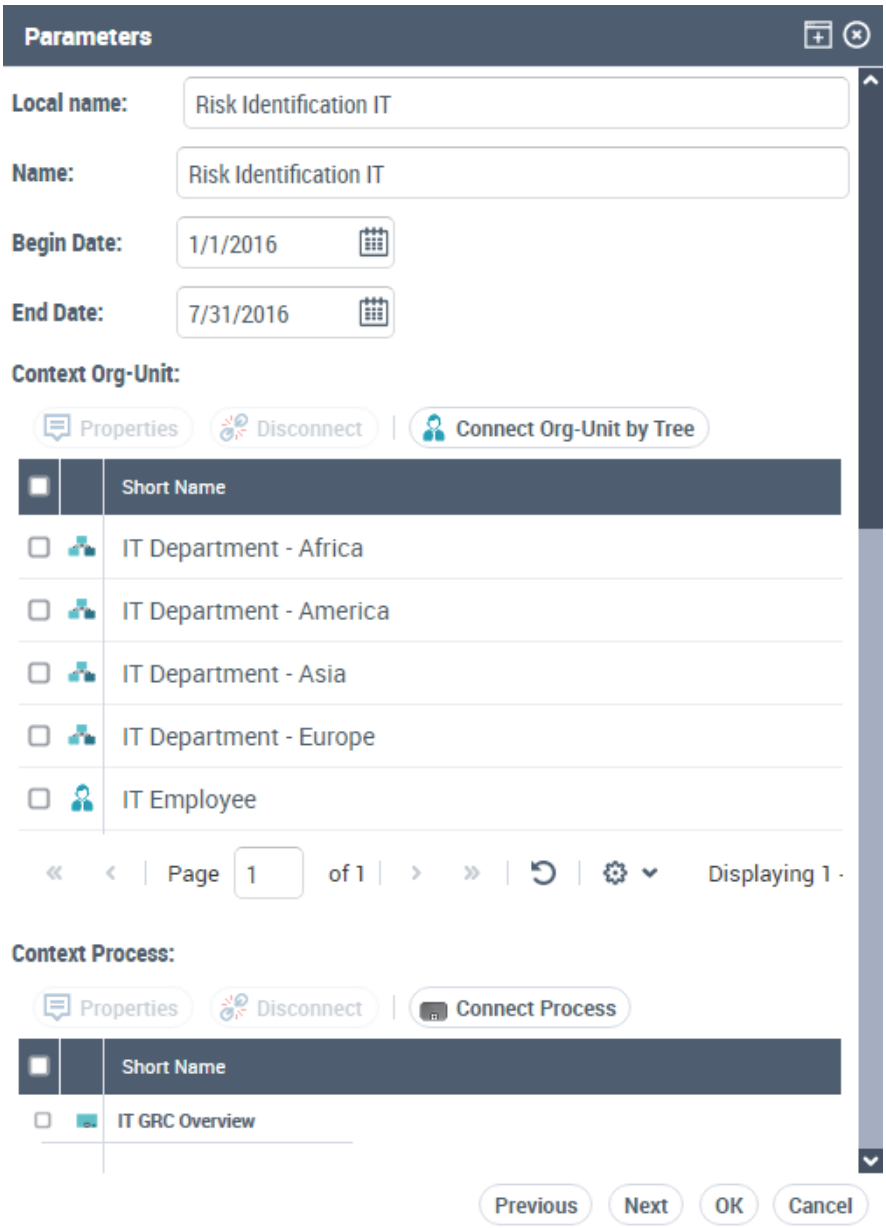
   The reports are classified in the associated report template folders.

   *In the navigation tree, right-click the report template concerned and select **New > Report**.*
4. In the **Local Name** field, enter the report name.
5. (Optional) In the **Owner** field, select an owner.
6. Click **Next**.

   ☛ *(EA desktop) The description of the report template appears.*
7. (HOPEX Solution) Select the report template on which you want your report to be based.
8. Click **Next**.

9. Specify the report parameters.

   E.g.: with the risk identification report you can presents distribution of risks according to several criteria: by process, by risk type, by entity and by objective.



10. Click **Next**.
    The configuration page of the chapters appears.

11. (optional) Define the configuration for each report chapter. In the chapter line:
    - to hide the chapter: clear **Presence**.
      ☛ *By default, all chapters are present.*
    - to display the chapter expanded at report opening: select **Automatic Opening**.
      ☛ *By default, all the chapters appear folded at report opening.*
12. Click **OK**.
    (HOPEX Solution) The report is accessible in the list of your reports.
    (EA Desktop) The report is saved in the folder of the associated report template.
    ☛ *To customize the report, see "Customizing your Reports (Web Front-End)", page 405.*

Using the Contents of an Analysis Report

Different commands are associated with the content of an analysis report:

- Refreshing
- Backup
- Printing
- Exporting in different formats

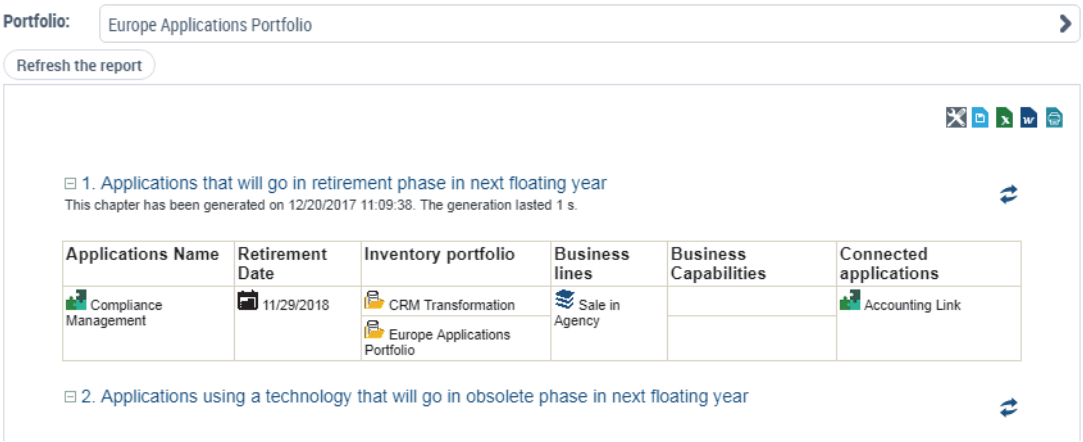
For some Web reports, you can also view the details of a part of the contents.

Refreshing the content of an analysis report

HOPEX reports are generated dynamically. If the characteristics of an object described in the report change, the report content reproduces the changes during the refresh.

Some analysis reports contain report snapshots that save the input parameters and are used to reproduce the results of a report chapter more quickly when it is refreshed.

When the report has a snapshot, a comment specifies the date and the generation time of each report chapter.



Analysis reports without report snapshot

To implement an analysis report that does not contain a snapshot:

1. Open the report concerned.
2. In the report result page, click on the refresh button located to the right of the report title.
   You can also automatically reload a report chapter.

Analysis reports with report snapshot

The **Refresh the Report** button applies the input data selected.

The refresh button associated with a report chapter refreshes the content of the chapter using selected input data for the report.

Thus, if you modify the input data (for example, the name of the portfolio analyzed), you must click **Refresh the Report** to take into account the new data to be analyzed before refreshing the report chapters, without which the chapters update the previously selected data.

Saving the content of an analysis report (Web Front-End)

Depending on the HOPEX solutions, dynamic analysis reports are delivered by default. To keep the results of a report, you can save it. It is saved in the **My Reports** folder.

The report keeps the data saved on a specific date but you can refresh it to take into account the changes in data that it contains.

To save a report in a HOPEX solution:

1. Click the navigation menu, then **Reports**.

2. In the **Reports** navigation pane, click the report category.

   For example, in ITPM, click on the **Application** category to access the reports that deal with applications.

3. In the edit area, click the report concerned.

   Par example Application obsolescence.

   The report is displayed in the **Navigation** edit window.

4. Click **Save As report** .
   Once saved, the report is available in the **Other Reports** > **My Reports**.
   The report creation dialog box appears. It indicates the report description.
5. In the **Create Report** page, enter the report **Name**.
6. Click:
   - **OK** to save the report as it is in your reports.

   The report is saved in your reports.

   ☛ *See "Accessing your reports in a HOPEX solution.", page 327.*

   ☛ *You can modify the name of the report and open the report to edit and customize it; see "Customizing your Reports (Web Front-End)", page 405.*

   - **Next** if you want to modify the input and display parameters of the report, then go to step 7.
7. (Optional) In the **Parameters** window, specify the input and/or display parameters of the report.
   The **Parameters** window contains the following sections:
   - **Parameters** which contains parameters already specified, as well as additional formatting parameters.
   - **Presentation** which contains customization parameters for the report display
8. Click **Next**.
   The **Report chapters** window displays the report chapters that you can modify.
9. (Optional) In the **Report Chapters** window, select **Open Automatically** to expand the chapter automatically when it opens or when the report is refreshed.
10. (Optional) In the **Report Chapters** window, select **Open Automatically** to expand the chapter automatically when it opens or when the report is refreshed.

    ☛ *By default, the chapters are folded.*

11. Click **OK**.
    The report is saved in your reports.

    ☛ *See "Accessing your reports in a HOPEX solution.", page 327.*

    ☛ *You can modify the name of the report and open the report to edit and customize it; see "Customizing your Reports (Web Front-End)", page 405.*

Exporting an analysis report in PDF or Excel Format

You can export the report content in RTF or Excel format.

> ☛ *You can also print a report .*
>
> ☛ *To hide the export buttons on report chapters, see "Managing report options", page 429.*

Exporting a report in RTF format

To export the entire content of the report in RTF format:

1. Open the report concerned.
2. In the report result page, click **RTF** to the right of the report title.

   > ☛ *The first time you open a separate window, your navigator may request authorization to open unexpected windows. If this is the case, accept.*

   The report opens in MS Word.

Exporting a report in Excel format

You can export certain report data in Excel format.

This feature is available for Java report chapters and does not apply to VB or VBScript reports.

> ☛ *For more details on macros, see **HOPEX Power Studio - Report Studio documentation**.*

By default, export generates an .XLS file. To generate the report in .XLSX see "Managing report options", page 429.

Excel export limits:

- Certain charts such as the Gantt chart are not supported.
- Views of over three dimensions are not processed.

To export the content of the report in Excel format:

1. Open the report concerned.
2. In the report result page, click **Excel** at the level of the report title to export the content of the entire report. You can also export the content of a report chapter in particular.

   > ☛ *The first time you open a separate window, your navigator may request authorization to open unexpected windows. If this is the case, accept.*

   The generated file displays an Excel sheet per data set (e.g.: table, tree, diagram), carrying the name of the set if it has one, or by default the name of the current report chapter followed by a digit (beginning with 1).

Viewing the details of a data series (Web Front-End)

In some reports you can view the content of a chart data series.

```
Example: in a quantitative type chart.
```

To view the content of a data series:

1. Open the analysis report.

2. In the chart, click the series for which you want to view the content. Roll the mouse over the series to highlight it.

   The **Result** window appears in the edit area and lists the content of the series.

   In the list, you can click on one of the following commands:

   - **Properties** , to view the properties of an element in the series.
   - **Excel** to export the elements of the series in .xls format.
   - **Instant Report** , to generate an instant report for the series.

     ☛ *See "Launching an Instant Report", page 376.*

Defining the Display of an Analysis Report on Opening

Specifying the report chapters to be displayed

The chapters of an analysis report vary according to report type. In the report results, you can show certain chapters and hide others.

To define the chapters to be displayed:

1. In the list of reports of the solution or the list of your reports, select the report in question and click on the **Properties** button associated with the edit window.
2. In **HOPEX**:
   - Web Front-End: in the drop-down list, select **Report Chapters**.
   - Windows Front-End: select the **Report Chapters** tab.
3. In the **Presence** column, clear the chapters you want to hide. By default, all of the chapters are displayed.

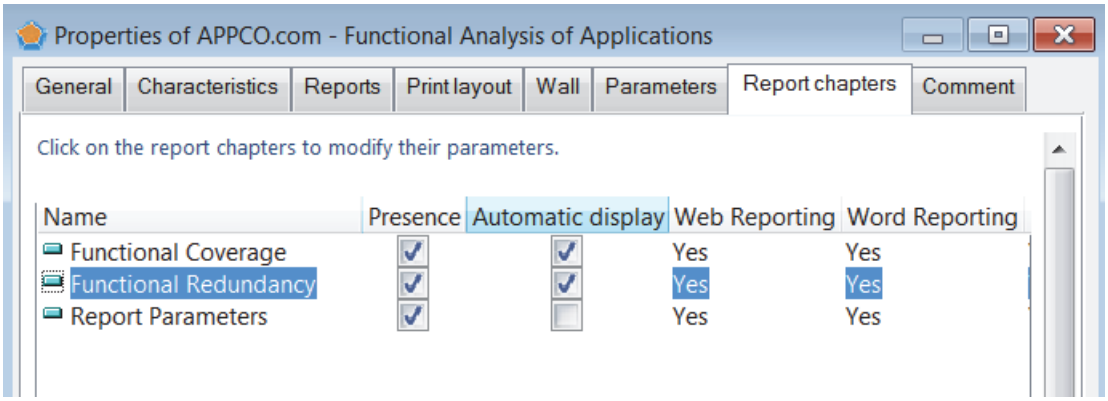
Expanding a Report Chapter Automatically on Opening

In the report result, you must click each chapter title to display its content. You can define automatic opening of report chapters on report launching, so as to expand only the chapters you are interested in.

To expand a report chapter automatically on opening:

1. In the list of reports of the solution or the list of your reports, select the report in question and click on the **Properties** button associated with the edit window.
2. In **HOPEX**:
   - Web Front-End: in the drop-down list, select **Report Chapters**.
   - Windows Front-End: select the **Report Chapters** tab.

3. Select **Automatic display** associated with the chapter in question.



On opening the report, the chapters for which **Automatic Opening** is selected are opened; the others are closed.

MANAGING REPORT DATASETS

You can create data tables (Report DataSets) from the **HOPEX** repository objects. The data displayed in the table is read-only. With this table, you can use standard export and instant report features.

To create a Report DataSet, Report DataSet definitions are available.

See:

- "Accessing Report DataSets", page 337
- "Accessing the properties of a Report DataSet", page 339
- "Creating a Report DataSet", page 342
- "Configuring and Using a Report DataSet", page 345

Accessing Report DataSets

Access to the Report DataSets in **HOPEX** (Web Front-End):

- is similar in all **HOPEX** Solutions.

  ☛ *See "Accessing to Report DataSets in a HOPEX Solution (Web Front-End)", page 337.*

- is specific in the Enterprise Architect (EA) desktop.

  ☛ *See "Accessing Report DataSets from the EA Desktop (Web Front-End)", page 338.*

Accessing to Report DataSets in a HOPEX Solution (Web Front-End)

In **HOPEX** (Web Front-End) Report DataSets are listed in two pages :

- public Report DataSets
- your Report DataSets

Each Report DataSet is listed with the following characteristics:

- its confidentiality (public/private)
- the Report DataSet Definition on which it is based
- the date and time it was last generated
- its generation time
- its owner container

  ☛ *See "Configuring and Using a Report DataSet", page 345.*

To access a Report DataSet preview, see "Accessing the properties of a Report DataSet", page 339.

To access Report DataSets in a **HOPEX** Solution (Web Front-End):

1. Connect to **HOPEX** (Web Front-End).

   ☛ *See "Connecting to HOPEX (Web Front-End)", page 32.*

2. On your **HOPEX** desktop, click the navigation menu .

3. Click the **Reports** navigation pane.
   The **Other Reports** category is selected.
4. In the **Navigation** edit area, click **My Report DataSets** tile.
   By default, the publics Report DataSets (including yours) are listed.
5. To access your Report DataSets, in the **Public Report DataSets** drop-down menu, select **My Report DataSets**.
   Your Report DataSets are listed.

   In this page, you can create a Report DataSet and access its properties.

   - *See "Creating a Report DataSet", page 342.*
   - *See "Accessing the properties of a Report DataSet", page 339.*
   - *See also "Configuring and Using a Report DataSet", page 345.*

Accessing Report DataSets from the EA Desktop (Web Front-End)

To access Report DataSets from the EA desktop (Web Front-End):

1. Connect to **HOPEX** (Web Front-End) with the Enterprise Architect profile.
   - *See "Connecting to HOPEX (Web Front-End)", page 32.*
2. In your **EA** desktop, click the navigation menu .
3. Click the **Repository** navigation pane.
4. In the **Repository** navigation pane, click **Documentation** .
   The Documentation tree appears in the **Navigation** edit area.
5. In the **Navigation** edit area, expand the **Report DataSets** folder.
   Report DataSets are classified in the associated Report DataSet definition folders.

   You can access properties, create, and manage your Report DataSets.
   - *See "Accessing the properties of a Report DataSet", page 339.*
   - *See "Creating a Report DataSet", page 342.*
   - *See "Configuring and Using a Report DataSet", page 345.*

Accessing Report DataSets (Windows Front-End)

To access Report DataSets in **HOPEX** (Windows Front-End):

1. Connect to **HOPEX** (Windows Front-End).
   - *See "Accessing HOPEX Windows Front-End", page 68.*
2. In the **Documentation** navigation window, expand the **Report DataSets** folder.
   Report DataSets are classified in the associated Report DataSet definition folders.

   You can access, create and manage your Report DataSets.
   - *See "Accessing the properties of a Report DataSet", page 339.*
   - *See "Creating a Report DataSet", page 342.*
   - *See "Configuring and Using a Report DataSet", page 345.*

Accessing the properties of a Report DataSet

To access the properties of a Report DataSet:

1. Access Report DataSets.

   ☛ *See "Accessing Report DataSets", page 337.*

2. From your **HOPEX** desktop:
   Web Front-End :
   - In the Report DataSet list, select the Report DataSet concerned.
   - Roll the mouse over the **Name** column and click **Properties** .

   The properties of the Report DataSet appear in the **Properties** edit area.

   ☛ *In the EA desktop, right-click Report DataSet and select **Properties**.*

   Windows Front-End:
   In the Report DataSet tree, right-click Report DataSet and select **Properties**.
   The Report DataSet properties window opens.

   ☛ *See "Properties of a Report DataSet", page 339.*

Properties of a Report DataSet

A Report DataSet is created from objects of the **HOPEX** repository.

In the Report DataSet properties, the **Characteristics** page specifies the characteristics of the Report DataSet:

- **Report DataSet Definition** is the definition on which the Report DataSet is based
- **Report DataSet Sharing** defines the confidentiality mode of the Report DataSet:
  - public: the Report DataSet is shared with the other users
  - private: the Report DataSet is confidential to the user who created it.

  ☛ *See "Making a Report DataSet confidential", page 345.*

In the Report DataSet properties, the **Data** page contains the following sections:

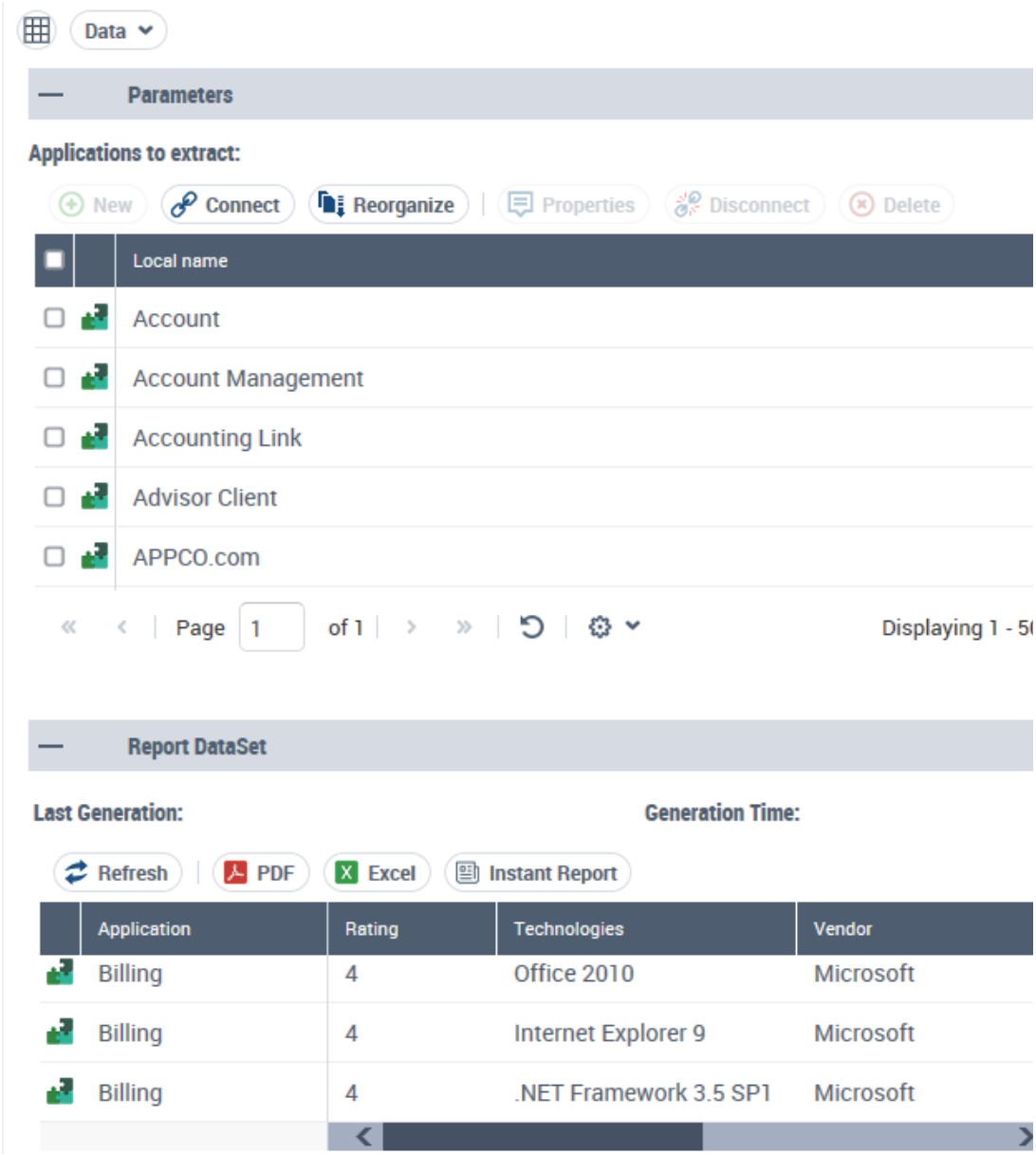
- **Parameters**, which defines the objects to be extracted from the **HOPEX** repository.
- **Report DataSet**, which presents the Report DataSet data in table format.
  The data displayed in the table is read-only.

  For example, a Report DataSet with the "Application technologies" definition Report DataSet contains the

following data for each application selected (objects to be extracted):

- "Application"
- "Rating"
- "Technologies"
- "Vendor"
- "Cost"
- "Number of Users".

☛ *See "Creating a Report DataSet", page 342.*


Data
Parameters
Applications to extract:
New
Connect
Reorganize
Properties
Disconnect
Delete
Local name
Account
Account Management
Accounting Link
Advisor Client
APPCO.com
Page 1 of 1
Displaying 1 - 5
Report DataSet
Last Generation:
Generation Time:
Refresh
PDF
Excel
Instant Report
Application
Rating
Technologies
Vendor
Billing 4 Office 2010 Microsoft
Billing 4 Internet Explorer 9 Microsoft
Billing 4 .NET Framework 3.5 SP1 Microsoft

From the **Data** properties page, you can:

- perform the following operations:
  - "Making a Report DataSet confidential", page 345.
  - "Refreshing Report DataSet data", page 345
  - "Hiding Report DataSet column display", page 346
  - "Restricting the display of Report DataSet rows (display only specified data)", page 346

    ☛ *Only the display is concerned: when you launch an instant report, the instant report is performed on all data. You can filter the data in the instant report, see: "Defining and customizing the data of a table-type instant report (Report DataSet)", page 382.*
  - "Exporting a Report DataSet", page 347
- launch an instant report

  ☛ *See "Launching an instant report from a Report DataSet", page 379.*

Creating a Report DataSet

To create a Report DataSet you must:

- define the Report DataSet Definition on which you want the Report DataSet to be based.

  ***MEGA** provides predefined Report DataSet Definitions for each product.*

  `Example: Application Technologies.`
- (if necessary) enter the Report DataSet parameters.

  `E.g.: the applications concerned.`

  ☛ *This consists of defining report input data.*

  The parameters define the object groups and their relationship setting in the report. They vary according to the Report DataSet Definition. A parameter value can group several objects.

Creating a Report DataSet (Windows Front-End)

To create a Report DataSet (Windows Front-End):

1. Access Report DataSets.

   ☛ *See "Accessing Report DataSets (Windows Front-End)", page 338.*
2. In the list of Report DataSet definition folders , select a Report DataSet definition.
3. Right-click the relevant Report DataSet definition folder and select **New > Report DataSet**.
4. Enter the **Name** of your Report DataSet.
5. Click **OK**.
   Your Report DataSet is created.
6. Access the Report DataSet properties and select the **Data** tab.
7. In the **Parameters** section, enter the required parameters.
8. In the **Report DataSet** section, click **Refresh** .
   The Report DataSet is populated with the selected data.

   ☛ *See "Configuring and Using a Report DataSet", page 345.*

Creating a Report DataSet (Web Front-End)

To create a Report DataSet (Web Front-End):

1. Access Report DataSets.

   ☛ *See "Accessing to Report DataSets in a HOPEX Solution (Web Front-End)", page 337.*

   ☛ *See "Accessing Report DataSets from the EA Desktop (Web Front-End)", page 338.*

2. In the **Navigation** edit area, click **Add** .
   The Report DataSet creation window opens.

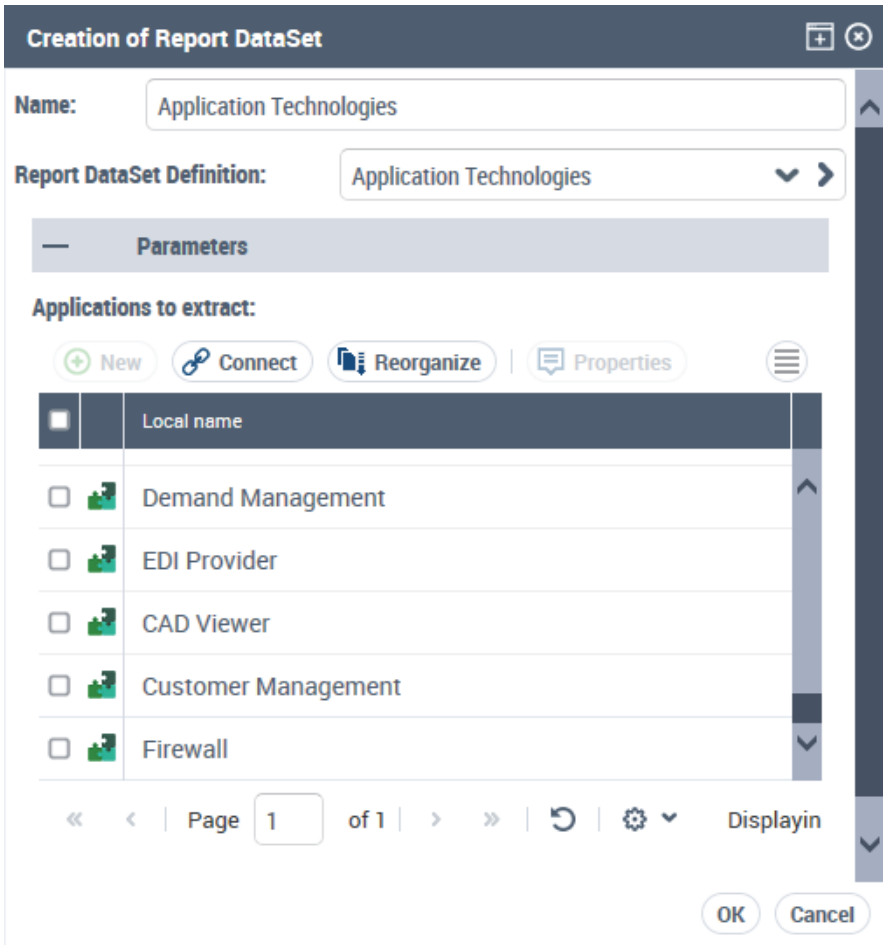
   ☛ *(EA desktop) In the **Navigation** edit area, expand the **Report DataSets** folder.*

   The Report DataSets are classified in the associated Report DataSet definition folders.

   *In the navigation tree, right-click the Report DataSet folder and select **New > Report DataSet**.*

3. Enter the **Name** of your Report DataSet.
4. (Optional) In the **Owner** field, select an owner.
5. (HOPEX Solution) In the **Report DataSet Definition** field, use the drop-down list to select the Report DataSet definition on which you want your Report DataSet to be based.

6. In the **Parameters** section, enter the required parameters.



7. Click **OK**.
   Your Report DataSet is created and fed by the selected data.
   (HOPEX Solution) The report is accessible in the list of your Report DataSets.
   (EA Desktop) The report is saved in the Report DataSet definition folder.
   To manage and customize your Report DataSet, see "Configuring and Using a Report DataSet", page 345.

Configuring and Using a Report DataSet

When the Report DataSet is created, go to the properties page to perform the following operations:

- "Making a Report DataSet confidential", page 345.
- "Refreshing Report DataSet data", page 345
- "Hiding Report DataSet column display", page 346
- "Restricting the display of Report DataSet rows (display only specified data)", page 346
- "Launching an instant report from a Report DataSet", page 379
- "Exporting a Report DataSet", page 347

Making a Report DataSet confidential

A Report DataSet is public by default. It is stored in **HOPEX** and shared with other users.

You can:

- make your Report DataSet confidential.
- define the persons who have access to your Report DataSet.

To make your Report DataSet confidential:

1. Access the Report DataSet properties.
   ☛ *See "Accessing the properties of a Report DataSet", page 339.*
2. In **HOPEX**:
   - Web Front-End: in the drop-down list, select **Characteristics**
   - Windows Front-End: select the **Characteristics** tab.
3. In the **Report DataSet Sharing** field, select 'Private' from the drop-down list.
4. (optional) Click **Connect** and select the persons with whom you want to share the Report DataSet.
5. Click **Connect** (Web Front-End) / **Close**(Windows Front-End).
   The Report DataSet is confidential and accessible to the persons you have selected.

Refreshing Report DataSet data

(Web Front-End) In your Report DataSet list, the date and time of the last Report DataSet generation is specified as well as the time required for generation.

To refresh Report DataSet data:

1. Access the Report DataSet properties.
   ☛ *See "Accessing the properties of a Report DataSet", page 339.*
2. In **HOPEX**:
   - Web Front-End: in the drop-down list, select **Data**
   - Windows Front-End: select the **Data** tab.

   The **Report DataSet** section specifies the date and time of the last Report DataSet generation, as well as the time required for generation.

3. In the **Report DataSet** section, click **Refresh** .

Hiding Report DataSet column display

To facilitate readability of the Report DataSet, you can hide the Report DataSet columns that you do not want to appear.

The hidden column data remains included in the Report DataSet. When you launch an instant report, the instant report is performed on all the Report DataSet data.

> ☛ *You can filter the data in the instant report, see: "Defining and customizing the data of a table-type instant report (Report DataSet)", page 382.*

For example, in a Report DataSet with the "Application Technologies" definition, you can hide the "Vendor" column.

To hide Report DataSet columns:

1. Access the Report DataSet properties.

   > ☛ *See "Accessing the properties of a Report DataSet", page 339.*

2. In **HOPEX**:
   - Web Front-End: in the drop-down list, select **Data**
   - Windows Front-End: select the **Data** tab.
3. in the **Report DataSet section,** from the drop-down menu of a column title, select **Columns**, then clear all the titles of the columns you want to hide.
   The cleared columns are hidden in the **Report DataSet**.

Restricting the display of Report DataSet rows (display only specified data)

To facilitate readability of the Report DataSet, you can hide the Report DataSet rows whose column cell values are not specified.

The hidden row data remains included in the Report DataSet. When you launch an instant report, the instant report is performed on all the Report DataSet data.

> ☛ *You can filter the data in the instant report, see: "Defining and customizing the data of a table-type instant report (Report DataSet)", page 382.*

For example, in a Report DataSet with an "Application Technologies" definition, you can hide the application rows for which the "Vendor" is not specified.

To hide Report DataSet rows:

1. Access the Report DataSet properties.

   > ☛ *See "Accessing the properties of a Report DataSet", page 339.*

2. In **HOPEX**:
   - Web Front-End: in the drop-down list, select **Data**
   - Windows Front-End: select the **Data** tab.
3. In the **Report DataSet** section, click **Display filters**.
4. Configure the filtering.

   > ☛ *See "Filtering data", page 46.*

   The rows that correspond to the unspecified values of the column concerned are automatically hidden in the **Report DataSet**.

Exporting a Report DataSet

You can export a Report DataSet in Excel format.

To export a Report DataSet:

1. Access the Report DataSet properties.

   ☛ *See "Accessing the properties of a Report DataSet", page 339.*

2. In **HOPEX**:
   - Web Front-End: in the drop-down list, select **Data**
   - Windows Front-End: select the **Data** tab.
3. In the **Report DataSet** section, click **Excel** .
   The Report DataSet is exported in the selected format.

MANAGING INSTANT REPORTS

You can generate instant reports, which give access to a more detailed analysis of a list of objects.

Instant reports offer statistical graphic analysis of the data of analyzed objects. They offer a rapid view of trends, or easy comparison of objects according to certain characteristics.

See:

- "Introduction to Instant Reports", page 348
- "Instant Report Types and Examples", page 351
- "Launching an Instant Report", page 376
- "Handling an Instant Report", page 399
- "Saving an instant report as a report", page 402
- "Adding an Instant Report to Your Dashboard", page 403

Introduction to Instant Reports

When a list includes attributes enabling automatic report calculation, this functionality is proposed.

You can launch instant reports from:

- a list of objects

  ☛ *See "Launching an instant report from a list", page 376.*

- an object

  ☛ *See "Launching an instant report from an object", page 379.*

- a Report DataSet

  ☛ *See "Launching an instant report from a Report DataSet", page 379.*

By default the report is launched on all of the objects in the list (no objects selected). To restrict the analysis to specific objects, select the objects concerned before launching the report.

You can:

- choose the characteristics of objects to be represented

  ☛ *"Attributes available in instant reports", page 349.*

  `E.g.: the cost of objects.`

- define the type of chart in which to display the data

  `E.g.: quantitative, table, time.`

  ☛ *See "Instant Report Types and Examples", page 351.*

- (table type instant report from a Report DataSet), add filters to each input data item

  ☛ *See "Defining and customizing the data of a table-type instant report (Report DataSet)", page 382.*

You can save an instant report:

- in your reports

  ☛ *See "Saving an instant report as a report", page 402.*

- in your dashboard
  The report is recorded as a Widget and available for other users.

  ☛ *See "Adding an Instant Report to Your Dashboard", page 403.*

- in your home page (as a tile)

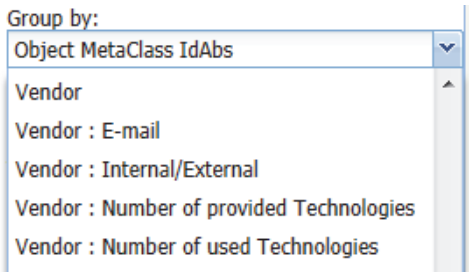
You can customize your instant report (Web Front-End):

☛ *See "Customizing your Reports (Web Front-End)", page 405.*

Grouping characteristics of objects concerned

Characteristics of grouping can relate not only to attributes of the selected object, but also to attributes of an object that is connected to it by a multiplicity = 1. The connected object attributes, which may grouped, are presented as follows: "Connected object: connected object attribute".

```
Example: the Supplier object appears in the list of
characteristics of the Technology object, with the
different attributes to which grouping can relate.
```



Attributes available in instant reports

Object attributes taken into account in instant reports are:

- those that naturally enable grouping of objects

  ```
  E.g.: tabulated value attributes (including booleans).
  ```

- those that position the object in time:

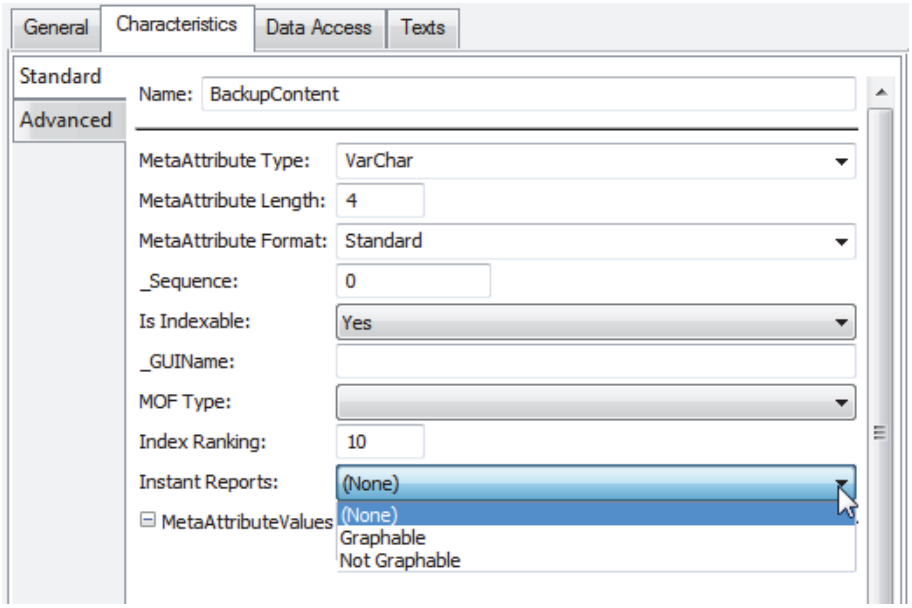
  ```
  E.g.: to create a Gantt diagram: life cycle
  ```

Unless otherwise specified, these eligible attributes are proposed by default to constitute a new report.

Other attributes can constitute grouping criteria, but require a declaration at their metamodel definition level.

The **Instant Reports** attribute on MetaAttributes/_LegAttributes enables specification of attribute behavior related to reports:

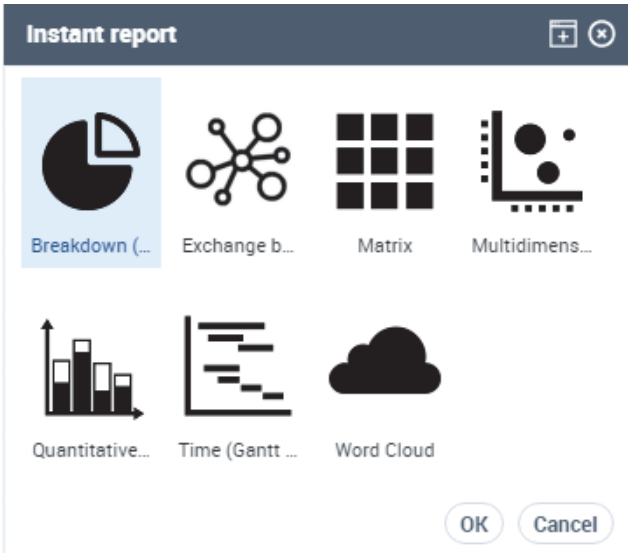
- Graphable: the attribute participates in the instant reports mechanism
- Non Graphable: the attribute is excluded from the instant reports mechanism



By default, tabulated value attributes and _legattributes are included in the mechanism.

This attribute is also available on links.

Instant Report Types and Examples



Depending on the objects selected, you can launch different types of instant reports:

- ***from an object list:***
  - ***Matrix***

    ☛ *See "Matrix-type instant report from an object list", page 353.*
  - ***Quantitative***: breakdown of values in the form of a bar chart.

    ☛ *See "Quantitative-type instant report from an object list", page 359.*
  - ***Breakdown***: breakdown of objects with respect to the values of a qualitative criterion in the form of a pie chart or a bar chart.

    ☛ *See "Breakdown-type instant report from an object list", page 362.*
  - ***Multidimensional***: two- or three-dimensional display depending on the criteria chosen in the form of a bubble chart.

    ☛ *See "Multidimensional–type instant report", page 368.*
  - ***Time***: change in values over time (Gantt diagram).

    ☛ *See "Time type instant report", page 371.*
  - ***Word cloud***: random distribution of #tags.

    ☛ *See "Word cloud type instant report", page 371.*
  - ***Environment graph***: display of the exchanges between the objects.

    (On an application list) ***Exchange between applications***: display of the flows between the applications.

    ☛ *See "Environment graph type instant report: Exchanges between applications", page 372.*
  - You can also launch all the reports available for this object list.

    ☛ *To add the creation of a report to a list of objects, see HOPEX Power Studio - How to Make a Report Creation Available on an Object List.*
- ***from an object:***
  - (Application) ***Environnement Graph***, display of the environments of the object.

    Example: ***Application Environment Graph***: Flows and Data graph, Software Installation graph, Functional Environment Scope Graph.

    ☛ *See "Environment graph type instant report: Application Environment Graph", page 374.*
- ***from a Report DataSet :***
  - ***Matrix***: representation in the form of a bar chart, line chart, area chart or radar chart.

    ☛ *See "Matrix-type instant report from a Report DataSet", page 355.*
  - ***Quantitative***: breakdown of values in the form of an area chart, bar chart, line chart, or radar chart.

    ☛ *See "Quantitative-type instant report from a Report DataSet", page 360.*
  - ***Breakdown***: breakdown of objects with respect to the values of a qualitative criterion in the form of a bar chart, pie chart, or gauge.

    ☛ *See "Breakdown-type instant report using a Report DataSet", page 364.*

- ***Multidimensional***: two- or three-dimensional display depending on the criteria chosen in the form of a bubble chart.

  ☛ *See "Multidimensional–type instant report", page 368.*

- ***Table***

  ☛ *See "Table-type instant report from a Report DataSet", page 367.*

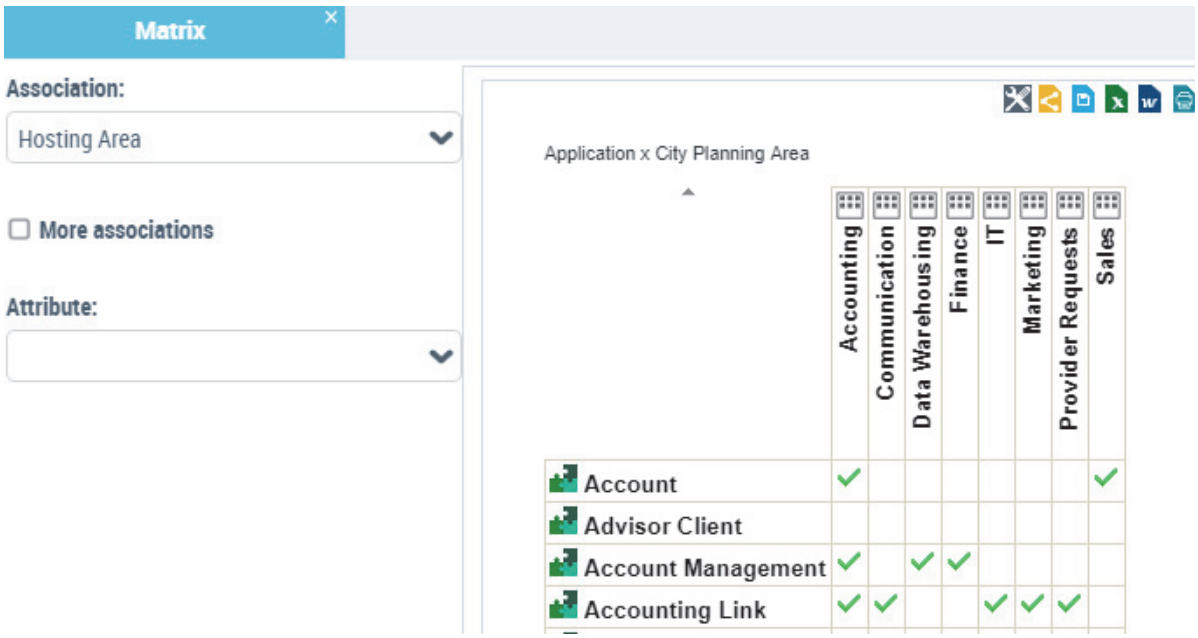
Matrix-type instant report from an object list

From an object list, you choose an association (a link or a query) whose source is the MetaClass of the objects of the list.

In the example below, the matrix specifies the City planning Area associated with each Application.

- Source MetaClass: Application
- Selected association: the "Hosting Area" link
- Selected attribute:
  - none: the cells concerned display a tick by default.

    ☛ *See "Customizing the Display of a Table or a Report Matrix", page 415.*



  - (for a link type association) the attribute of the link that you want to display in the cells.

    Example: if you select "Cost Contribution key\Area", the cells display the percentage of exploitation of the application by city planning area instead of the ticks.

Application x City Planning Area

	Accounting	Communication	Data Warehousing	Finance	IT	Marketing	Provider Requests	Sales
Account	50%							50%
Advisor Client								
Account Management	33.3333333333333%		33.3333333333333%	33.3333333333333%				
Accounting Link	20%	20%			20%	20%	20%	

Matrix-type instant report from a Report DataSet

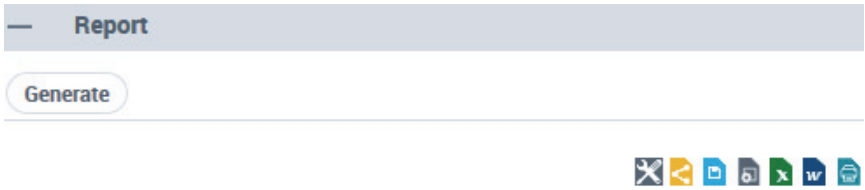
From a Report DataSet, all the Report DataSetcolumns are available to make up the rows and columns of the matrix.

For example, a Report DataSet with the "Application technologies" definition contains the following information for each selected application:

- "Rating"
- "Technologies"
- "Vendor"
- "Cost"
- "Number of Users"

With this Report DataSet, you can make up the following matrices:

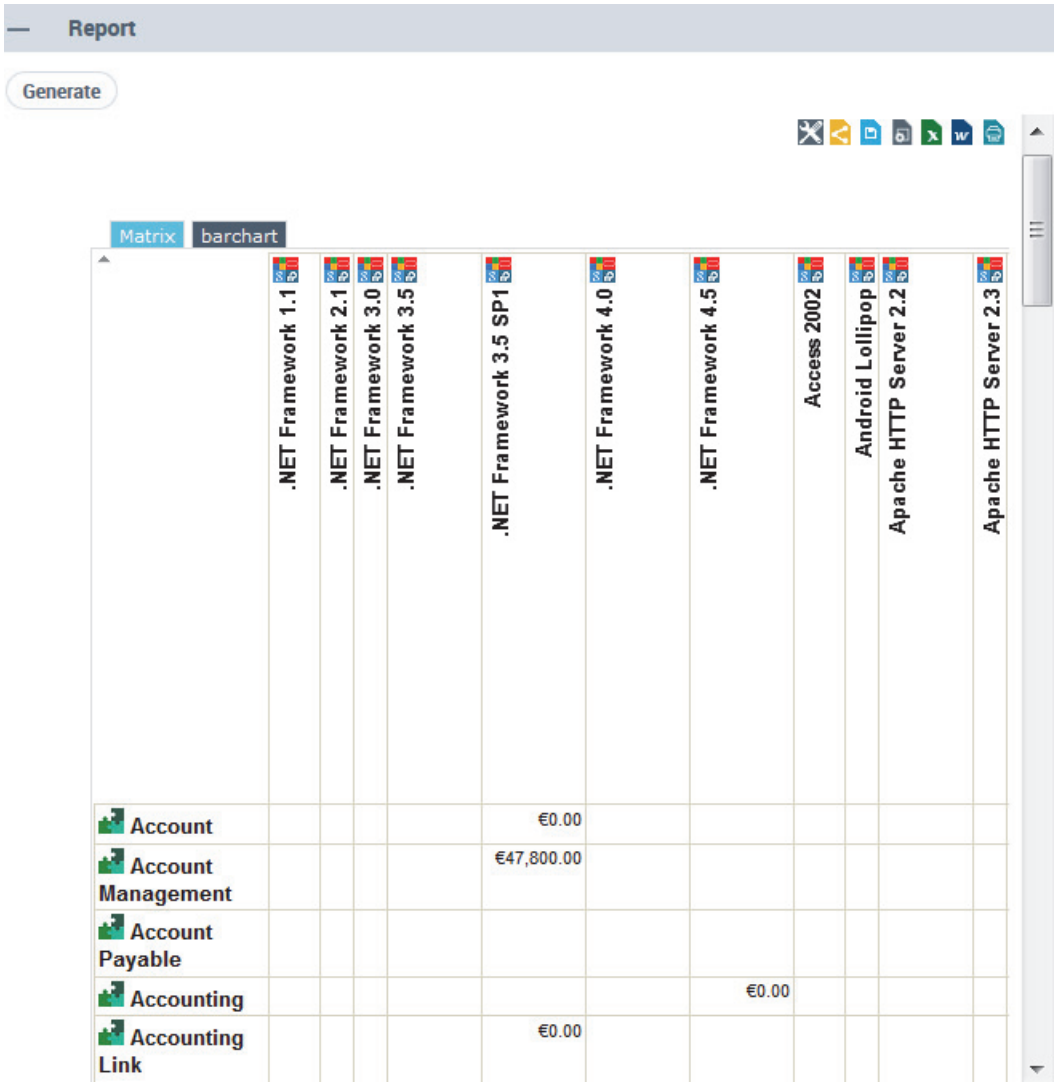
- Matrix 1: each cell displays the number of applications, ranked by vendor and rating.
  - Row: "Rating"
  - Column: "Vendor"
  - Apply Computation On: "Application"
  - Compute: "Count"



Matrix | barchart

	altik	Apache Software Foundation	Apple	Citrix	Debian	Google	HP	IBM	MEGA	Microsoft	Oracle	PostgreSQL	Redhat	Sage	salesforce.com	SAP	SoftwareAg	vmware
0 Star	1	8				1	2					3			2			2
1 Star						1						3			1			
2 Stars		4				22			2			11			2	17		
3 Stars			11				8		22			17			22		7	9
4 Stars				9	7	17	2	4	11	2	7	22	7	8	11			
5 Stars			4					1	3			8				4		

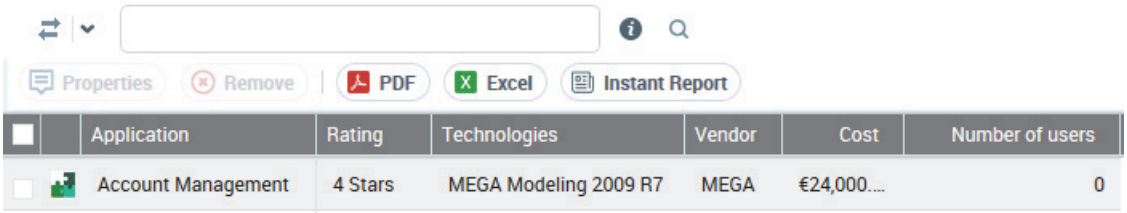
- Matrix 2: each cell of the matrix displays the sum of the costs of an application ("Cost") by technology type ("Technologies").
  - Row: "Application"
  - Column: "Technologies"
  - Apply Computation On: "Cost"
  - Compute: "Sum"



- Matrix 3: each cell of the matrix displays the best rating of an application by vendor.
  - Row: "Application"
  - Column: "Vendor"
  - Apply Computation On: "Rating"
  - Compute: "Maximum"

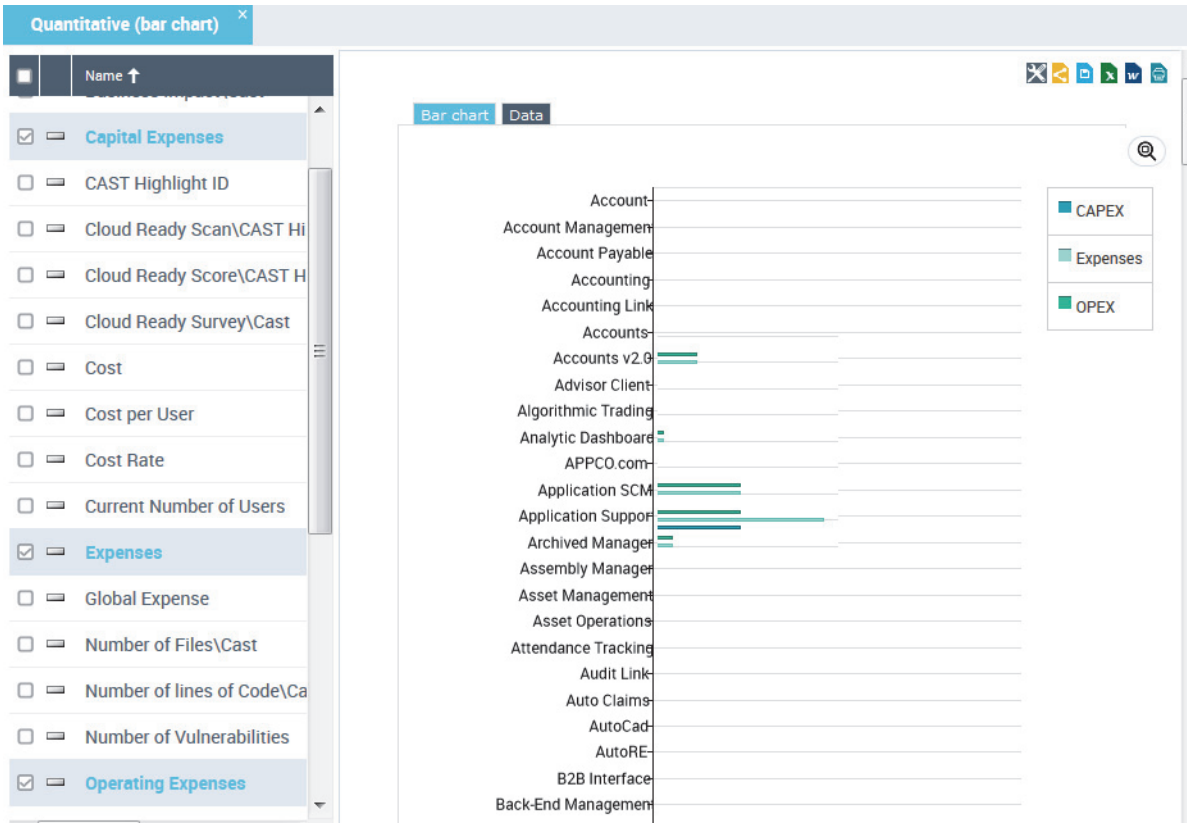
You can click in each populated cell of the table to display the rows of the Report DataSet that meet the criteria used in the rows and columns of the matrix.

Example: in the previous matrix 3 example, click in the "Account Management" Application cell of the "MEGA" vendor. You thus obtain other useful information such as its cost.



Quantitative-type instant report from an object list

The quantitative report is based on one or more numerical attributes on which you can perform arithmetic operations. The quantitative report displays a bar chart.



Quantitative-type instant report from a Report DataSet

From a Report DataSet, all the columns of the Report DataSet are available to make up distributed data and to define the grouping criterion. The other columns are used to make up series of data displayed in the graphic.

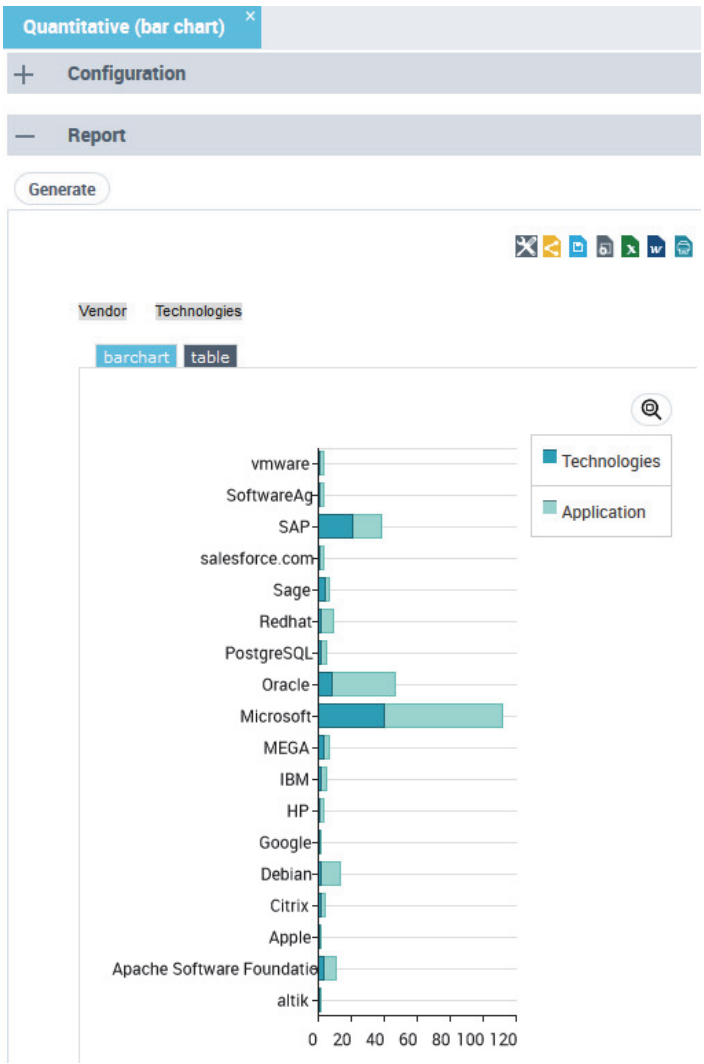
In the same graphic you can add a maximum of five data series. The bars may stack one on top of each other.

For example, a Report DataSet with the "Application technologies" definition contains the following information for each selected application:

- "Rating"
- "Technologies"
- "Vendor"
- "Cost"
- "Number of Users"

With this Report DataSet, you can for example aggregate the following bar charts broken down according to the "Vendor" parameter. The following information is displayed for each technology:

- the number of technologies that use it (Series: "Technologies", Calculate: "Count"
- the number of applications that use it (Series: "Application", Compute: "Count"



You can click in each series (bar) to obtain its complete corresponding characteristics:

Example: in the example for the "Microsoft" vendor, click the "Application" series. You thus obtain other useful information such as its cost.

Application	Rating	Technologies	Vendor	Cost	Nu...
Operation Support (...	0 Star	Windows 8.1	Microsoft	€0.00	0
Order Management	0 Star	Windows 8.1	Microsoft	€0.00	0
Purchasing System	0 Star	Windows 8.1	Microsoft	€0.00	0
Purchasing System...	0 Star	Windows 8.1	Microsoft	€0.00	0
Salesforce	0 Star	Windows 8.1	Microsoft	€36,000.00	0
SAP Italy	0 Star	Windows 8.1	Microsoft	€500,000.00	0

Breakdown-type instant report from an object list

The breakdown report is based on a qualitative criterion to present the breakdown of objects of the list related to this criterion.

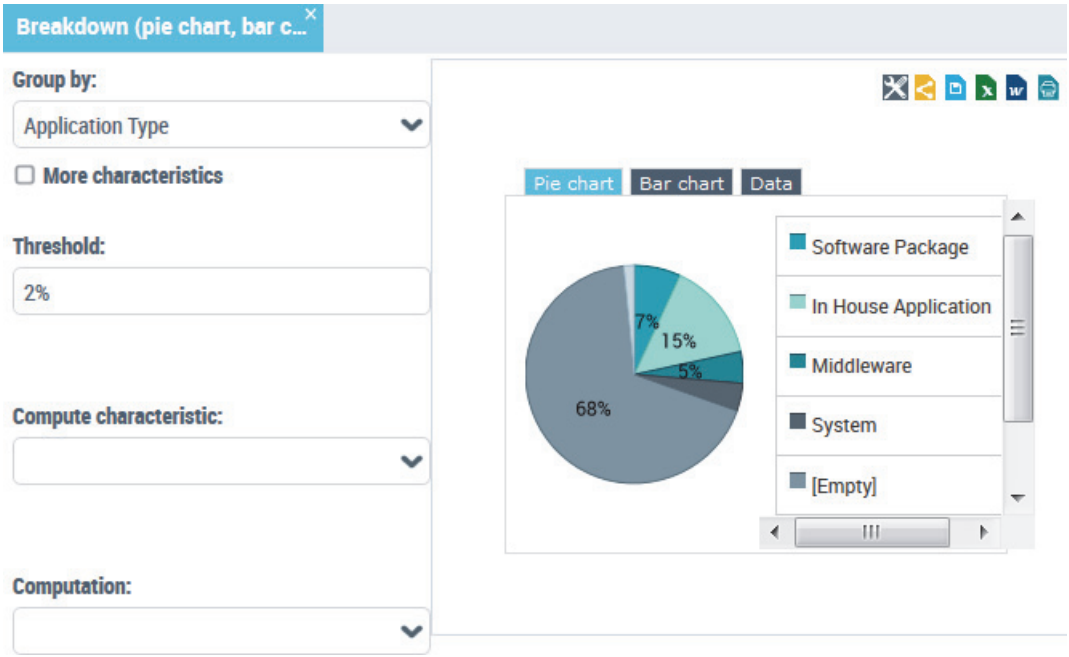
The presentation can be in the form of a:

- pie chart
- bar chart
- data table

A qualitative criterion can be of different types, for example:

- a character string (code)
- a number
- a percentage
- a tabulated value attribute
- a boolean

In the example below, the pie chart displays the breakdown of the selected applications by type (Grouping characteristic: "Application type").

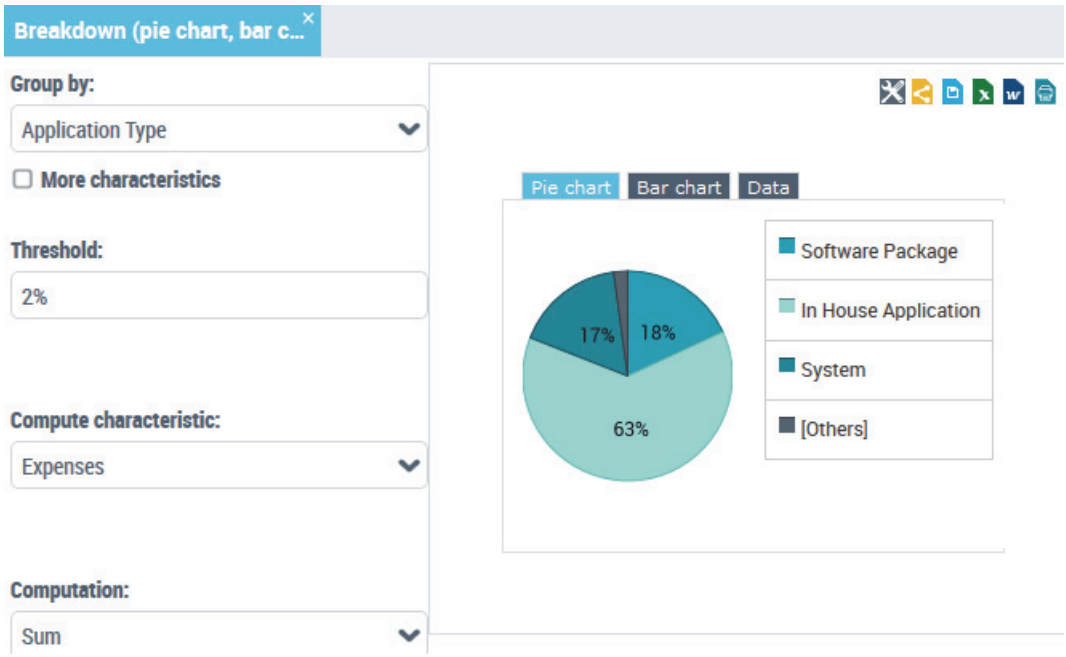


Calculations from a grouping criterion

In the context of a breakdown report, when analyzed objects also include numerical value characteristics, you can associate these values with the grouping criterion and carry out simple calculations. The most common calculations are proposed (sum, average, maximum and minimum values).

In the example below, the pie chart indicates how application costs are broken down according to their type.

- Grouping characteristic: application type
- Calculation characteristic: expenses
- Selected calculation: sum



From this graphic you can generate a new instant report.

```
Example: click in the "Software package" type part. You
obtain the list of "software package" type applications,
with which you can launch another instant report.
```

Breakdown-type instant report using a Report DataSet

With a Report DataSet, you can create a breakdown-type report on a column of the Report DataSet.

The breakdown report is based on a qualitative criterion to display the breakdown of objects of a column related to this criterion.

The presentation can be in the form of a:

- pie chart or bar chart

  ☛ *See "Breakdown-type instant report from an object list", page 362.*

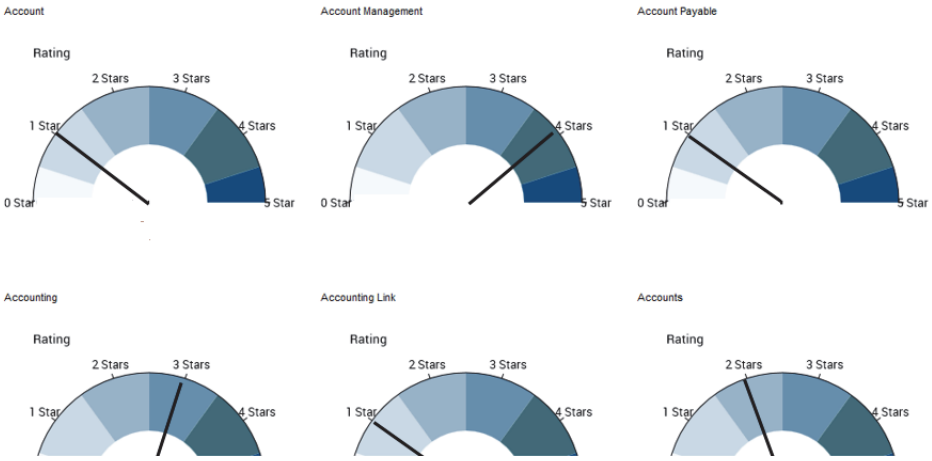
- a set of gauges.
  A gauge displays, as a percentage, that which represents the average value, of a given column, with respect to the maximum value of the column.

For example, a Report DataSet with the "Application technologies" definition contains the following information for each selected application:

- "Rating"
- "Technologies"
- "Vendor"
- "Cost"
- "Number of Users"

Using this Report DataSet you can:

- display a gauge that specifies its rating for each technology.
  - Broken down by: "Application"
  - Apply Computation On: "Rating"
  - Selected calculation: "Sum"



- display a gauge that specifies its cost for each technology.
  - Broken down by: "Application"
  - Apply Computation On: "Cost"
  - Selected calculation: "Sum"

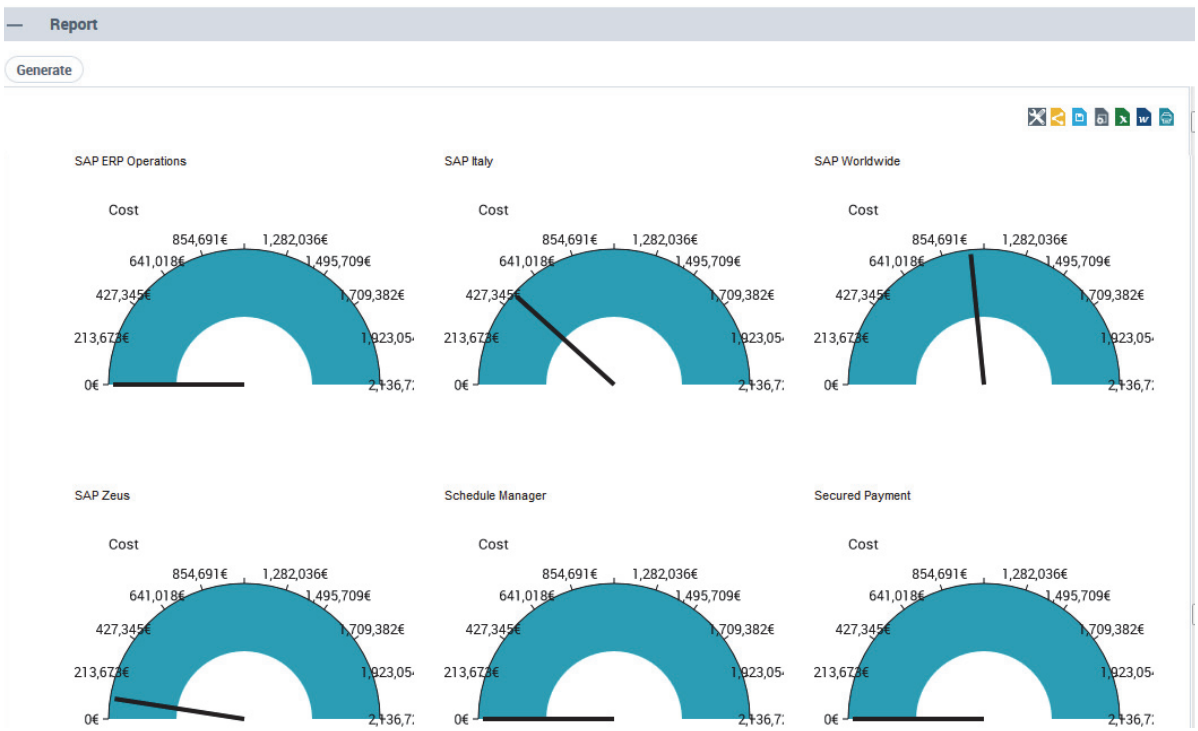


Table-type instant report from a Report DataSet

From a Report DataSet, all the Report DataSet columns are available to make up the rows and columns of the table.

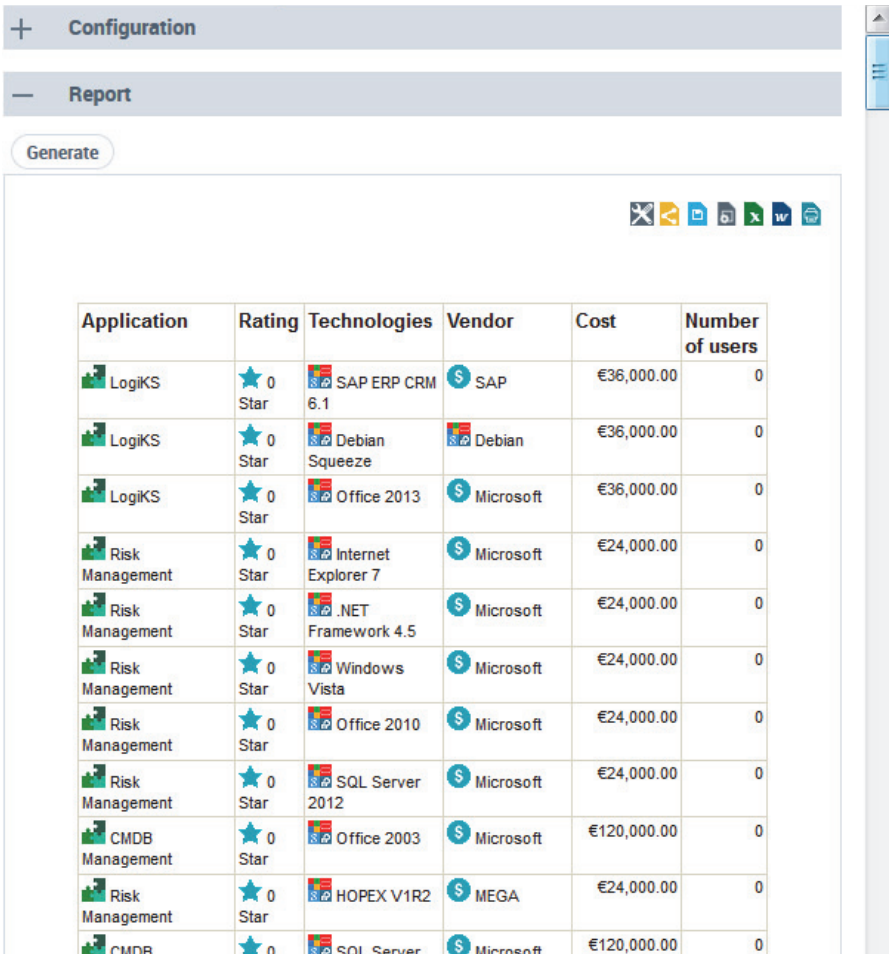
For example, a Report DataSet with the "Application technologies" definition contains the following information (columns) for each application selected:

- "Rating"
- "Technologies"
- "Vendor"
- "Cost"
- "Number of Users"

It contains as many rows as objects (e.g. applications) and as many columns as object characteristics.

The report obtained presents this information in table format that you can customize (e.g.: sorting on columns, grouping, addition of breaks).

☛ *see "Defining and customizing the data of a table-type instant report (Report DataSet)", page 382.*



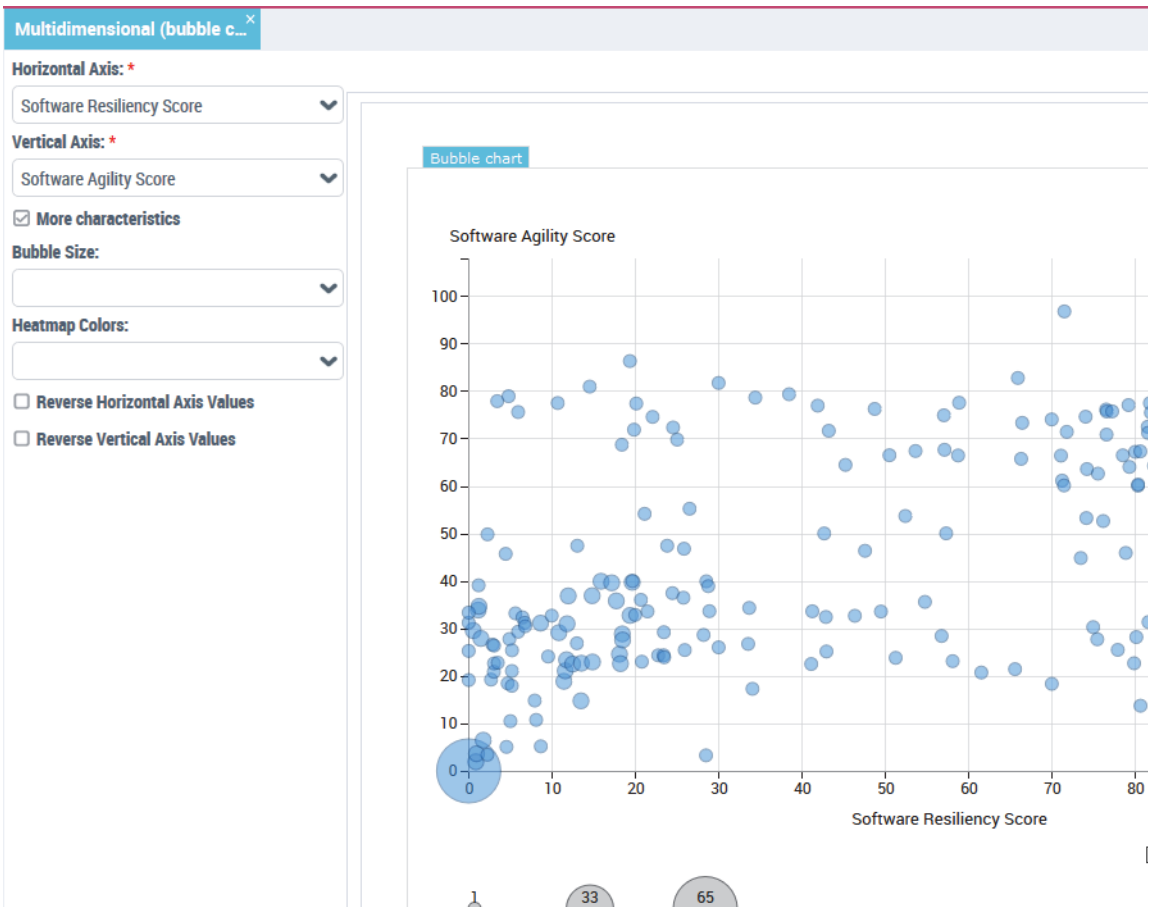
Application	Rating	Technologies	Vendor	Cost	Number of users
LogiKS	0 Star	SAP ERP CRM 6.1	SAP	€36,000.00	0
LogiKS	0 Star	Debian Squeeze	Debian	€36,000.00	0
LogiKS	0 Star	Office 2013	Microsoft	€36,000.00	0
Risk Management	0 Star	Internet Explorer 7	Microsoft	€24,000.00	0
Risk Management	0 Star	.NET Framework 4.5	Microsoft	€24,000.00	0
Risk Management	0 Star	Windows Vista	Microsoft	€24,000.00	0
Risk Management	0 Star	Office 2010	Microsoft	€24,000.00	0
Risk Management	0 Star	SQL Server 2012	Microsoft	€24,000.00	0
CMDB Management	0 Star	Office 2003	Microsoft	€120,000.00	0
Risk Management	0 Star	HOPEX V1R2	MEGA	€24,000.00	0
CMDB	0	SQL Server	Microsoft	€120,000.00	0

Multidimensional–type instant report

Bubble chart

The three-dimensional report relates to a choice of three criteria displayed in a bubble chart. You define criteria on:

- the **Horizontal axis**
- the **Vertical axis**
- the **Bubble size**



When you choose only two criteria, the number of objects determines bubble size. Each bubble represents a set of objects that can in turn be the source of the report.

When an attribute (numerical) is selected to determine bubble size, each bubble represents a distinct occurrence.

☛ *The three-dimensional report is only available if objects have at least two attributes.*

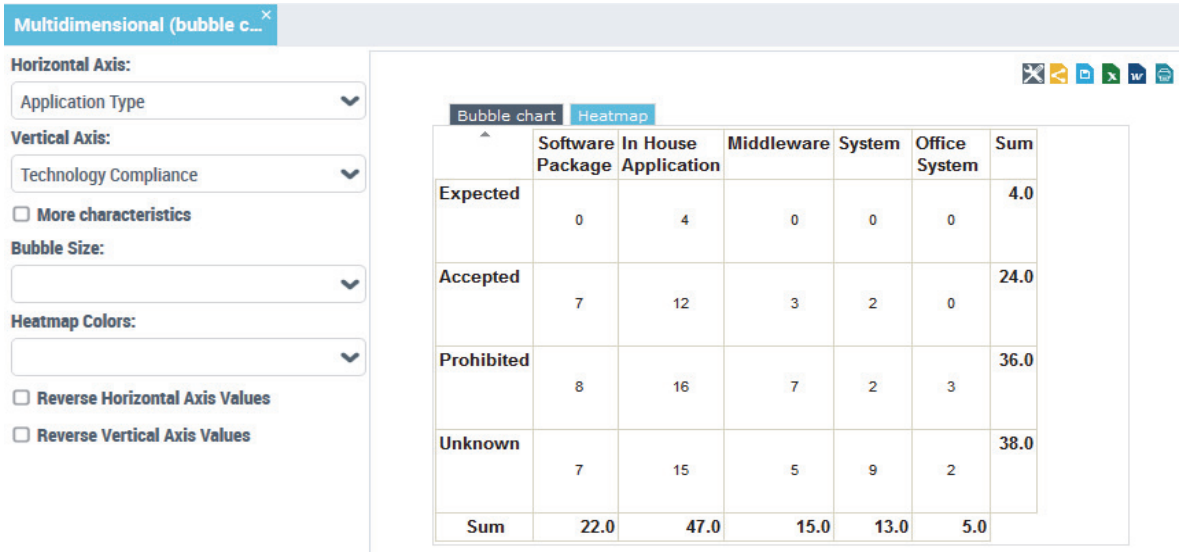
☛ *See "Handling a Bubble Graph", page 426.*

Heatmap chart

The use of two qualitative criteria enables proposal of heatmap charts.

> ☛ *This type of chart is only available with discrete values (Enumeration type MetaAttributes)*

The heatmap below displays the technology compliance (expected, accepted, prohibited, unknown) of an application list according to their type (office system, system, etc.).

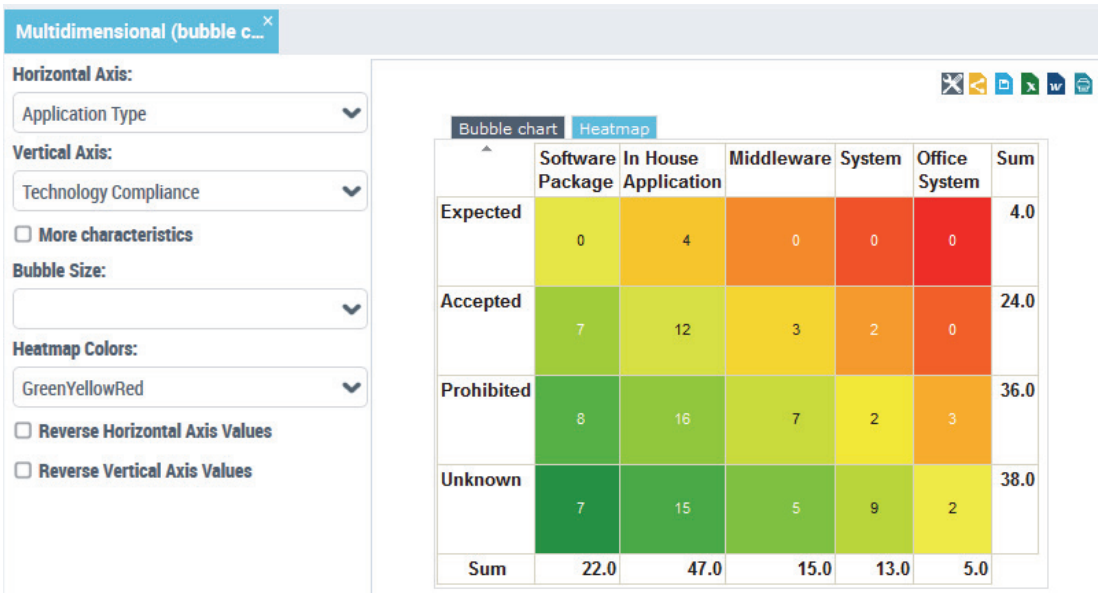


	Software Package	In House Application	Middleware	System	Office System	Sum
Expected	0	4	0	0	0	4.0
Accepted	7	12	3	2	0	24.0
Prohibited	8	16	7	2	3	36.0
Unknown	7	15	5	9	2	38.0
Sum	22.0	47.0	15.0	13.0	5.0	

You can:

- reverse the column order
- reverse the row order
- display colors
  By default, the colors displayed are calculated as a gradation of three colors: green, yellow, red.

  Example: you can reverse the order of rows to display the colors (in red for example) to locate the lowest scoring applications more easily.



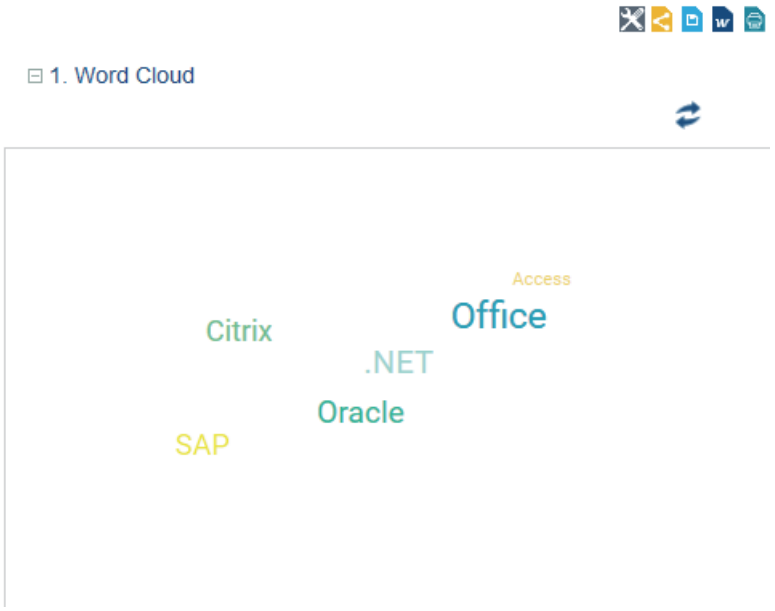
	Software Package	In House Application	Middleware	System	Office System	Sum
Expected	0	4	0	0	0	4.0
Accepted	7	12	3	2	0	24.0
Prohibited	8	16	7	2	3	36.0
Unknown	7	15	5	9	2	38.0
Sum	22.0	47.0	15.0	13.0	5.0	

From this graphic you can generate a new instant report.

Example: click in the "Prohibited" x "In House Application" cell. You obtain the list of "In House" application types that are compliant with a "Prohibited" technology compliance.

Word cloud type instant report

With the Collaboration functionality (see "Managing Tags", page 473), you can add tags to the objects. The word cloud report displays the tags with sizes weighted by their frequency.



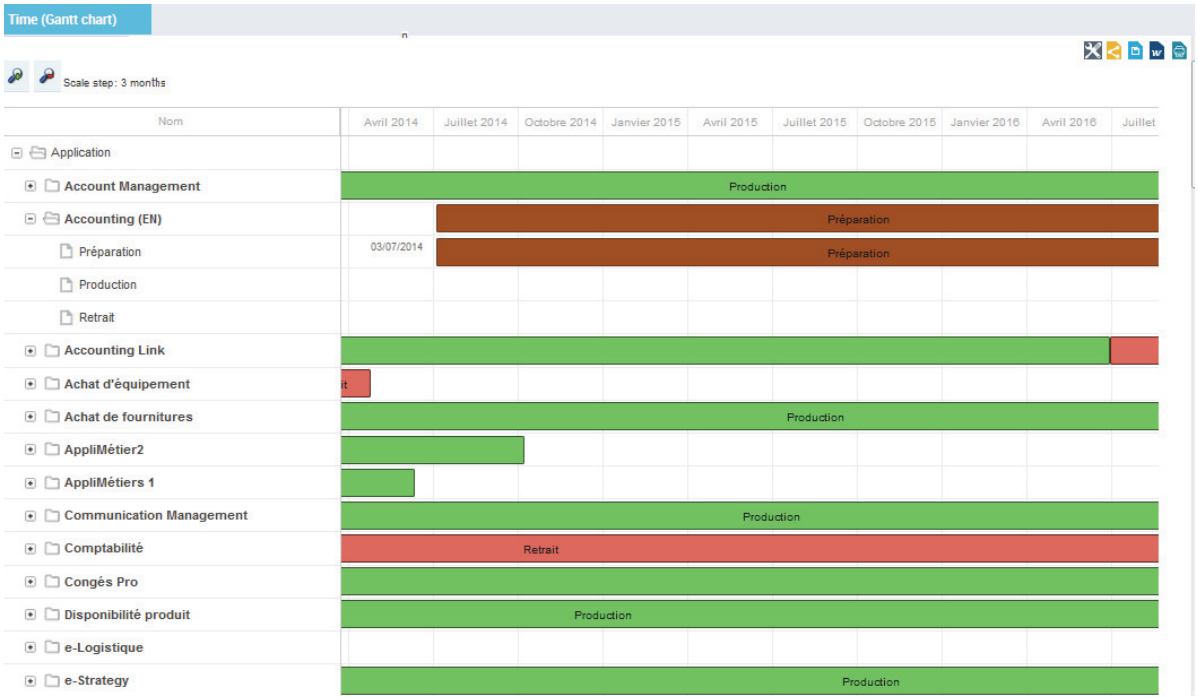
From this graphic you can generate a new instant report.

```
Example: click "Oracle" to obtain the list of applications
that are tagged "Oracle".
```

Time type instant report

Objects are used to constitute a Gantt chart. The time-type instant report is only available if all the objects have a life cycle.

You can define the unit of scale: from the week to the year.



This chart does not enable launch of a new instant report.

Environment graph type instant report: Exchanges between applications

The ***Exchanges between applications*** instant report is available on all the applications. It displays the graph of the exchanges between all the applications for

a better understanding of the data structure and the relationships that bind the data together.

Example: the exchanges between applications graph

In this graph, for a better readability, you can:

- zoom in and move about in the graph

  ☛ *See "Zooming in and moving about in an environment graph", page 420.*

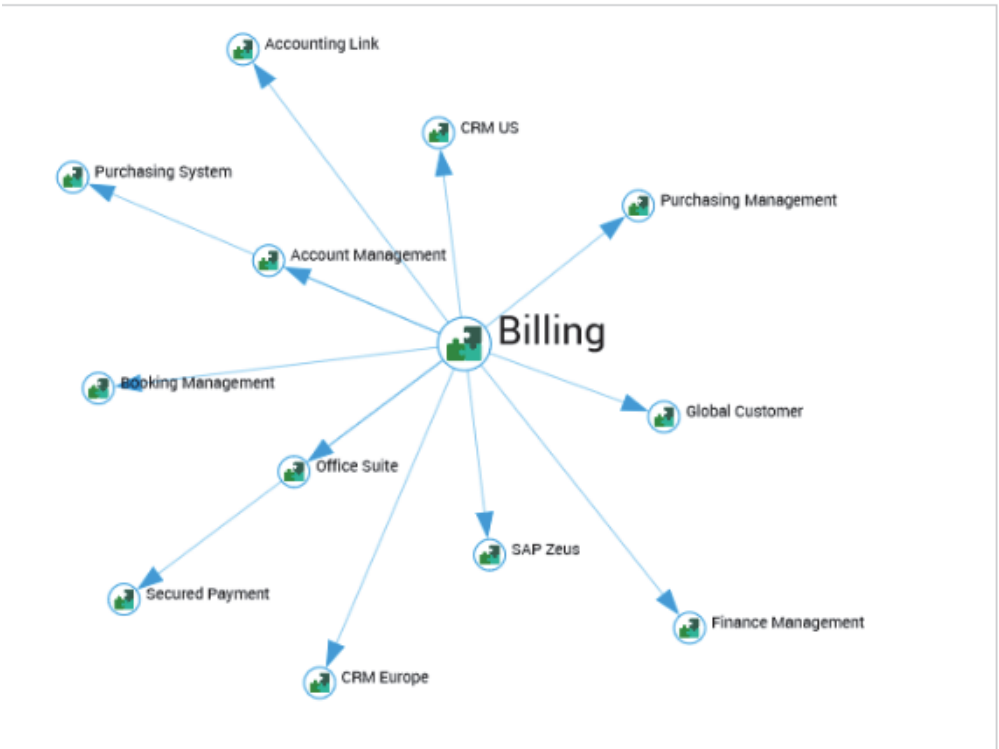
- handle the graph

  ☛ *See "Handling an Environment Graph", page 420.*

Environment graph type instant report: Application Environment Graph

The application environment graph instant report is available on an application. It includes several graphs showing the selected application in different environments.

Example: Flows and Data Graph of the application



Example: Functional Environment Scope Graph of the application

In these environment graphs, for a better readability, you can:

- zoom in and move about in the graph

  ☛ *See "Zooming in and moving about in an environment graph", page 420.*

- handle the graph

  ☛ *See "Handling an Environment Graph", page 420.*

Launching an Instant Report

You can launch an instant report from:

- a list of objects

  ☛ *See "Launching an instant report from a list", page 376.*

  E.g.: a list available in a tile of your home page, in a search result, or in the result of an analysis report when the latter allows this.

  ☛ *To add a tile to you home page, see "Customizing the Home Page of your Desktop", page 61*

- an object

  E.g.: the **Application Environment Graph** is available for an application.

  ☛ *See "Launching an instant report from an object", page 379.*

- a Report DataSet

  ☛ *See "Launching an instant report from a Report DataSet", page 379.*

To launch and keep several instant reports in the edit zone, see "Launching several instant reports", page 382.

Launching an instant report from a list

To launch an instant report from a list:

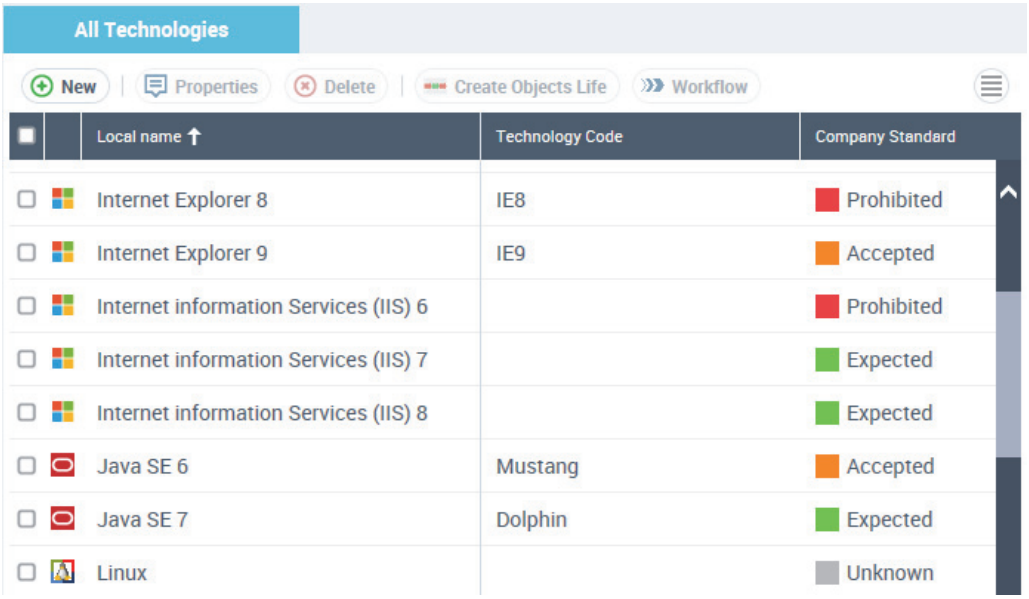
1. Display the relevant object list.

   E.g.: in your home page, from the **All Applications** tile, display the list of all the applications.

2. (Optional) Filter the list on the objects you are interested in.

   `E.g.: applications with expenses > 1.`

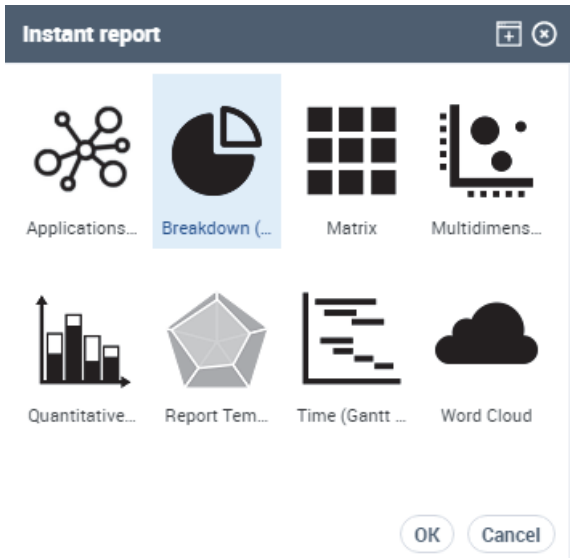
   ☛ *See "Filtering data", page 46.*



3. (optional) By default the instant report is launched on all the objects included in the list (all pages). Select the objects concerned to restrict the instant report to the selected objects. You can select a single object only.

4. Click **Instant Report** .

   ☛ *If the button is hidden, click to access it.*



5. Select the required instant report.
   You can create matrix, multidimensional, word cloud, quantitative, breakdown, or time-type instant reports.

   ☛ *See "Instant Report Types and Examples", page 351.*

   Example: Breakdown.

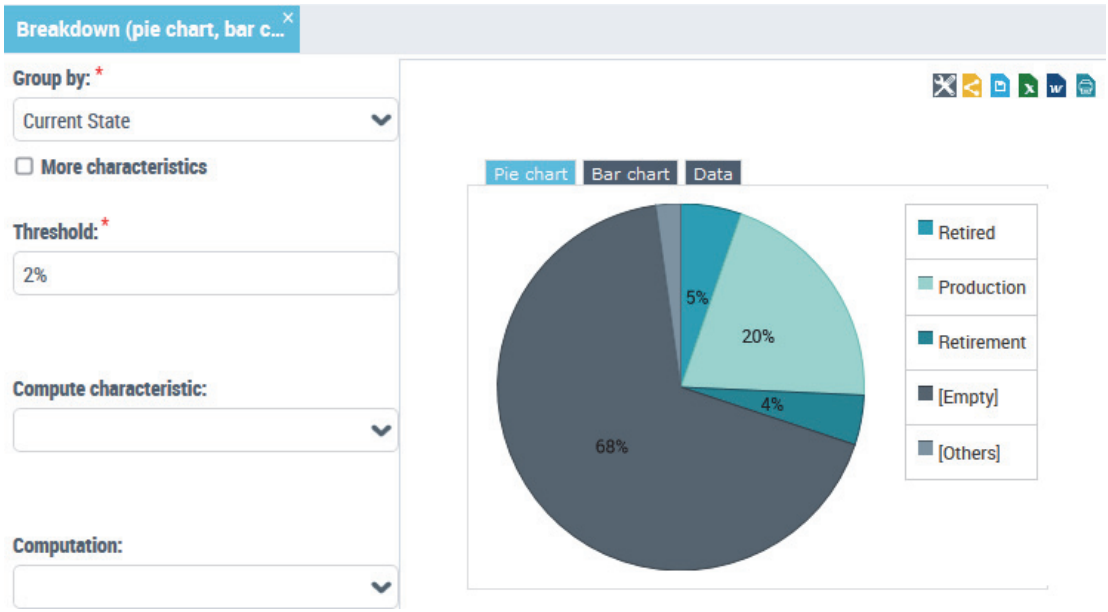
6. Click **OK**.
   The instant report is displayed in the **View** edit area.
7. Depending on the type of instant report selected, you can enter the instant report parameter information.
   For example, for an instant report:
   - of breakdown type, in the **Group by** field, you can select a grouping characteristic from the list of attributes offered.
   - of quantitative type, you can select information to be taken into account in the graphic display.

   Objects are automatically displayed according to the selected grouping.

   ☛ *To customize your report (Web Front-End), see "Customizing your Reports (Web Front-End)", page 405.*

   Example: "Current State".

   For all selected technologies, you get their breakdown according to their current state.



8. (if need, for a breakdown type report) Select another type of breakdown display.
   By default, the breakdown chart appears in the form of a pie chart; click on another type.

   `Example: Bar chart, Data.`
9. (optional) If necessary, click in a part of the pie chart, in a bar of the bar chart or in a cell of the data table.
   The list of objects included in this part appears in the **Search and results** window.

   ☛ *See "Arranging windows in the edit area", page 42.*

Launching an instant report from an object

To launch an instant report from an object:

1. Access the object.

   `Example: an object in a list or in a diagram.`
2. In the object pop-up menu, select **Documentation > <instant report name>**.

   `Example for an application:` **`Documentation > Application Environment Graph`**.

   The instant report is displayed in the **View** edit area.

Launching an instant report from a Report DataSet

To generate an instant report from a Report DataSet:

1. Access the Report DataSet properties.

   ☛ *See "Accessing the properties of a Report DataSet", page 339.*

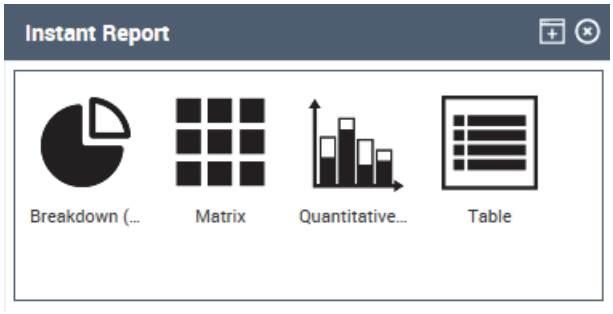
2. Display the **Data** page.
3. (If needed) In the **Parameters** section, click **Add** and select the input parameters.

   E.g.: with a Report DataSet with the "Application Technologies" definition, you can add applications.

4. In the **Report DataSet** section, click **Refresh** .
5. In the **Report DataSet** section, click **Instant Report** .
6. Select the required instant report.

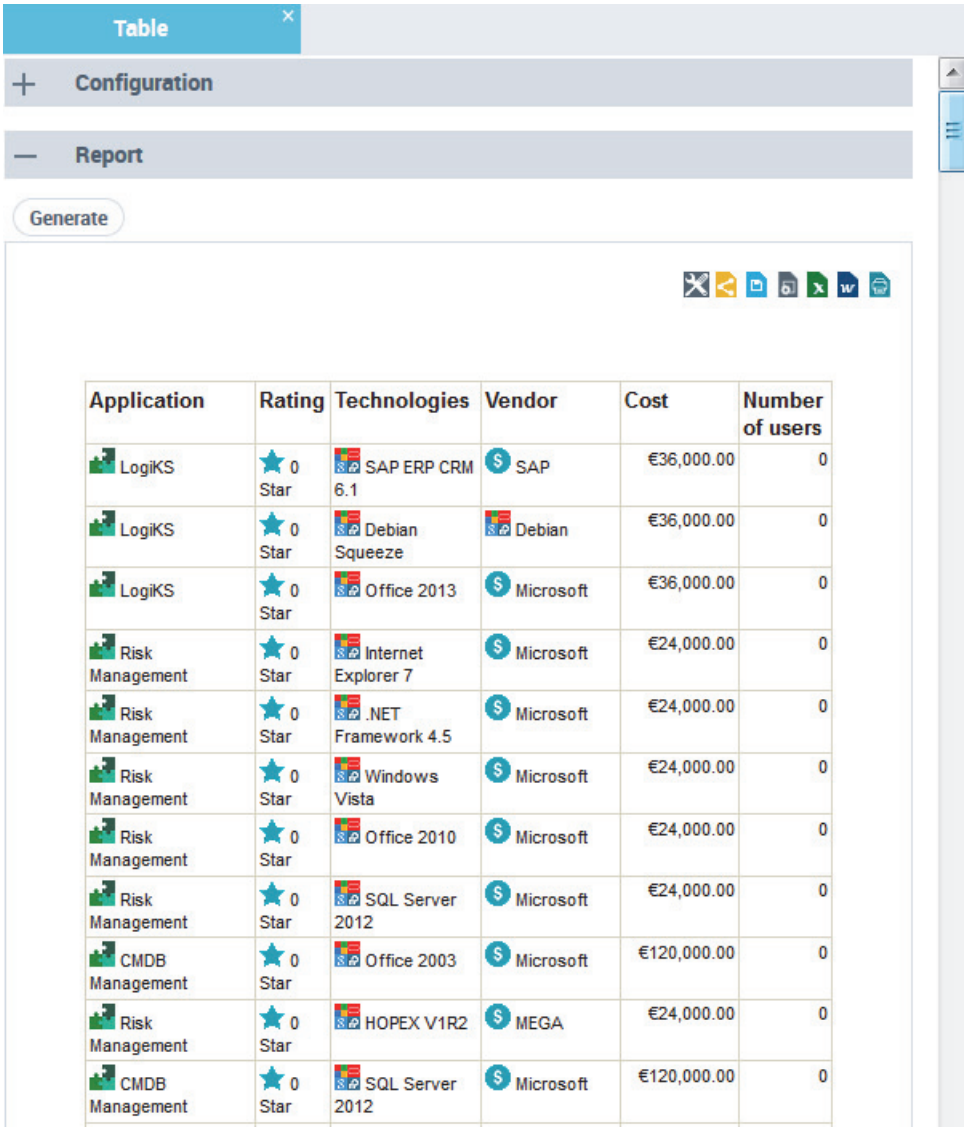
   ☛ *See "Instant Report Types and Examples", page 351.*

   Example: Table



7. Click **OK**.
   The instant report is displayed in the **Navigation** edit area, **Report** section.

   Example: If it is a table, it contains as many rows as objects and as many columns as object characteristics.



Application	Rating	Technologies	Vendor	Cost	Number of users
LogiKS	0 Star	SAP ERP CRM 6.1	SAP	€36,000.00	0
LogiKS	0 Star	Debian Squeeze	Debian	€36,000.00	0
LogiKS	0 Star	Office 2013	Microsoft	€36,000.00	0
Risk Management	0 Star	Internet Explorer 7	Microsoft	€24,000.00	0
Risk Management	0 Star	.NET Framework 4.5	Microsoft	€24,000.00	0
Risk Management	0 Star	Windows Vista	Microsoft	€24,000.00	0
Risk Management	0 Star	Office 2010	Microsoft	€24,000.00	0
Risk Management	0 Star	SQL Server 2012	Microsoft	€24,000.00	0
CMDB Management	0 Star	Office 2003	Microsoft	€120,000.00	0
Risk Management	0 Star	HOPEX V1R2	MEGA	€24,000.00	0
CMDB Management	0 Star	SQL Server 2012	Microsoft	€120,000.00	0

8. (Optional) You can customize the report display.

   You can customize the table to obtain a more precise description of the result and facilitate the analysis. For this, in the **Configuration** section, add one or as many

filters as necessary to the input characteristics of the report.

☛ *See "Defining and customizing the data of a table-type instant report (Report DataSet)", page 382.*

Launching several instant reports

To display several instant reports in your **View** edit area, you must be in **Multi-view** display before launching another instant reports.

In **Single-view** display (by default), the second instant report replaces the current one.

☛ *See "Arranging windows in the edit area", page 42.*

Defining and customizing the data of a table-type instant report (Report DataSet)

To obtain a more detailed description, improve the table and facilitate its analysis, in the **Configuration** section you can:

- define the input characteristics of the report, that is, the table columns (**Configuration** tab),
- add filters to the data values, that is, the cells of the table columns (**Filters** tab).

You can add as many configurations as necessary to the input characteristics of the report and their values.

☛ *See "Defining the columns in a table-type instant report", page 383.*

You can add filters to the table columns and cells.

☛ *See "Adding a filter to the columns and to the column data values in a table-type instant report", page 385.*

☛ *See "Adding a filter to the columns and to the column data values (with initial values) in a table-type instant report", page 386.*

See:

- "Defining the columns in a table-type instant report", page 383
- "Adding a filter to the columns and to the column data values in a table-type instant report", page 385
- "Adding a filter to the columns and to the column data values (with initial values) in a table-type instant report", page 386
- "Example 1: column configuration with break", page 387
- "Example 2: column definition (display, order) and value computation", page 390
- "Example 3: filters on the table columns", page 393
- "Example 4: filter on the table columns and cells (initial values)", page 396

Defining the columns in a table-type instant report

> ☛ *See the examples: "Example 1: column configuration with break", page 387 and "Example 2: column definition (display, order) and value computation", page 390.*
>
> ☛ *You can also add filters to the cells of the table, see "Adding a filter to the columns and to the column data values in a table-type instant report", page 385.*

By default, the instant report includes all of the Report DataSet columns. You can modify its content and define the table columns and their position.

You can:

- display (/hide) one or more columns:
- modify the display order of columns (by drag-and-drop).
- sort columns by ascending or descending order:
  - You can also define as many sorts as columns.
  - For each sort defined, you can define its priority, that is define as many sort priorities as column sorts
- define a characteristic for grouping the rows
- add breaks to the table

  > ☛ *See "Example 2: column definition (display, order) and value computation", page 390.*
- add information to the break:
  - define the column considered by the information
  - define the information calculation
  - define a calculation performed on cell values

    > ☛ *See "Example 1: column configuration with break", page 387.*

To define the columns in a table-type instant report:

1. Launch the instant report on the Report DataSet.
   - The instant report is displayed in the **View** edit area, **Report** section. It contains as many rows as objects and as many columns as object characteristics.
   - In the **View** edit area, **Configuration** section, the **Configuration** tab displays all the possible columns of the table. It contains as many columns as object types and object characteristics.

     > ☛ *See "Launching an instant report from a Report DataSet", page 379.*
     >
     > ☛ *You can add as many sorting characteristics as possible columns.*
2. To hide the display of a column in the table, roll the mouse over the column name and click **Remove Report Column** .

   > ☛ *To reintegrate a hidden column, click **Add** and select the column concerned.*

   ```
   Example 2: from a Report DataSet with the "Application
   Technologies" definition, delete the "Rating",
   "Technologies" and "Number of Users" columns.
   ```
3. (if needed) Modify the display order of columns with a drag-and-drop.

   ```
   Example 2: drag-and-drop the "Application" column after the
   "Vendor" column.
   ```

4. Select a column, in the **Sort** field, select **Asc** or **Desc** to sort the table data according to this characteristic, ascending or descending.
The **Sort Priority** field appears with the value "1".

   ☛ *If you already have configured a column you must define the column priority.*

   Example 1: from a Report DataSet with the "Application Technologies" definition, for the "Rating" column, select "Descending" to sort the applications by rating level, from the highest scored to the lowest scored.

   Example 2: from a Report DataSet with the "Application Technologies" definition, for the "Vendor" column, select "Ascending" to sort the vendors in alphabetical order.

5. (if needed) In the **Sort Priority** field, modify the column priority.
6. In the **Group** field, select "Yes" to group the table rows according to the selected column.

   Example 1: from a Report DataSet with the "Application Technologies" definition, for the "Rating" column, in the **Group** field, select "yes" to group the applications according to their rating level.

   Example 2: from a Report DataSet with the "Application Technologies" definition, for the "Vendor" column, in the **Group** field, select "yes" to group the applications according to their vendor.

7. (optional) In the **Value computation** field, select the computation value to perform on the column cells in the column.

   Example 2: from a Report DataSet with the "Application Technologies" definition, for the "Application" column, in the **Value Computation** field, select "Count" to display the number of applications by "Vendor" and for the "Cost" column, in the **Value computation** field, select "Sum" to display the sum of costs per "Vendor".

8. (optional) To highlight the defined grouping, you can add a break in the table: roll the mouse over the column name and click **Add Break** ⊕.
The addition of the break addition is specified below the column (**At break, compute**).

   ☛ *To delete the break, click **Remove break** 🗑.*

9. (optional) To add an information in the break, select **At break, compute** and in the right pane define the computation to be performed.
   - in the upper field, select the column concerned by the computing.
   - In the lower field, select the computing to be performed.

   Example 1: from a Report DataSet with the "Application Technologies" definition, for the grouping on the "Rating" column, at the break, in the upper field select: "Technologies" and in the lower field select: "Count" to

```
display in the break the number of technologies contained in
the grouping.
```

☛ *To add additional information to the break, click again **Add Break** and define the fields.*

☛ *To delete an information added in the break, delete its definition.*

10. In the **Report** section, click **Refresh**.
    The report display takes the configuration applied into account.

☛ *You can configure several elements.*

Adding a filter to the columns and to the column data values in a table-type instant report

☛ *See the example: "Example 3: filters on the table columns", page 393.*

Filters are specific to the data type.

For example, the following filtering operators are available for a column whose cells are:

- numerical values: equals, inferior, superior or shows a value.
- character strings: contains, starts with, ends with, contains a value
- Objects or multivalued attributes: choice of one or more objects (single or multiple choice), contains values

☛ *See "Example 3: filters on the table columns", page 393 and "Example 4: filter on the table columns and cells (initial values)", page 396.*

You can define as many filters as columns (characteristics) to the table.

☛ *You can also add a filter to the data values with initial values, see "Adding a filter to the columns and to the column data values (with initial values) in a table-type instant report", page 386.*

To add a filter to the column cells in a table-type instant report:

1. Launch the instant report on the Report DataSet.
   - The instant report is displayed in the **View** edit area, **Report** section. It contains as many rows as objects and as many columns as object characteristics.
   - In the **View** edit area, **Configuration** section, the **Filters** tab is used to add a customized filter on each of the cells in the table.

☛ *See "Launching an instant report from a Report DataSet", page 379.*

2. Click **Add Filter** to add a filter.
   The list of columns appears.
3. Select the column to which you want to add a filter.

```
Example 3: from a Report DataSet with the "Application
Technologies" definition, select "Vendor" and repeat the
operation for "Cost" and "Application".
```

4. In the right part of the filter, define the filtering.
The filtering definition depends on the type of data.

```
Example 3: from a Report DataSet with the "Application
Technologies" definition for the column:

- "Application", in the Filter choice field, select
"Contains", then in the Contains field, enter "management".

- "Cost", in the Greater than field, enter "10000".

- "Vendor", in the Filter choice field, select "Multiple
choice".
```

> ☛ *You can add initial values to the "Multiple choice" or "Single choice" filters; see "Adding a filter to the columns and to the column data values (with initial values) in a table-type instant report", page 386.*

Adding a filter to the columns and to the column data values (with initial values) in a table-type instant report

> ☛ *See the example "Example 4: filter on the table columns and cells (initial values)", page 396.*

You can define as many filters as columns to the table.

> ☛ *You can also configure the columns of the table, see "Defining the columns in a table-type instant report", page 383.*

To add a filter to the column cells in a table-type instant report:

1. Launch the instant report on the Report DataSet.
   - The instant report is displayed in the **View** edit area, **Report** section. It contains as many rows as objects and as many columns as object characteristics.
   - In the **View** edit area, **Configuration** section, the **Filters** tab is used to add a customized filter on each of the cells in the table.

     > ☛ *See "Launching an instant report from a Report DataSet", page 379.*
2. Click **Add** to add a filter.
The list of columns appears.
3. Select the column to which you want to add a filter with an initial value.

```
Example 4: from a Report DataSet with the "Application
Technologies" definition, select "Vendor".
```

4. In the right part of the filter, define the filter with an initial value.
The filtering definition depends on the type of data.

```
Example 4: from a Report DataSet with the "Application
Technologies" definition for the "Vendor" column:

- in the Filter choice field, select "Multiple choice".

- in the Initial values field, select the "Microsoft" and
"Oracle" values.
```

5. Click **Add** to add a filter to another column.

```
Example 4: from a Report DataSet with the "Application
Technologies" definition, select the column:

- "Cost", then in the Greater than field, enter "10000".

- "Application", in the Filter choice field, select
"Contains", then in the Contains field, enter "management".
```

Example of column definition on a table

For example, in the instant report obtained from a Report DataSet with the "Application technologies" definition you can configure the following columns:

- "Application"
- "Rating"
- "Technologies"
- "Vendor"
- "Number of Users"
- "Cost"

☛ *See "Example 1: column configuration with break", page 387, "Example 3: filters on the table columns", page 393, "Example 4: filter on the table columns and cells (initial values)", page 396.*

You can also:

- hide columns
- modify the order of columns.

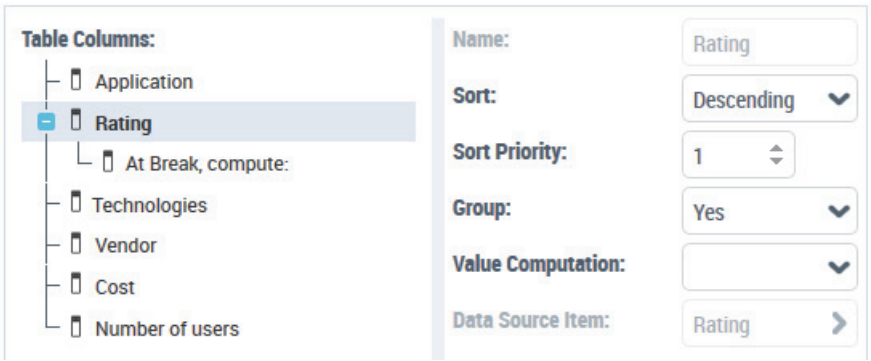
☛ *See "Example 2: column definition (display, order) and value computation", page 390.*

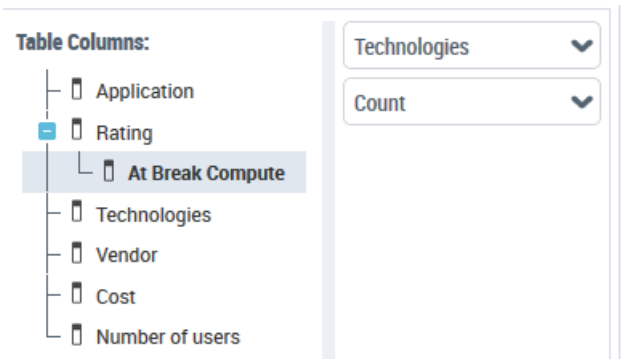
Example 1: column configuration with break

☛ *To configure this filter, see "Defining the columns in a table-type instant report", page 383*

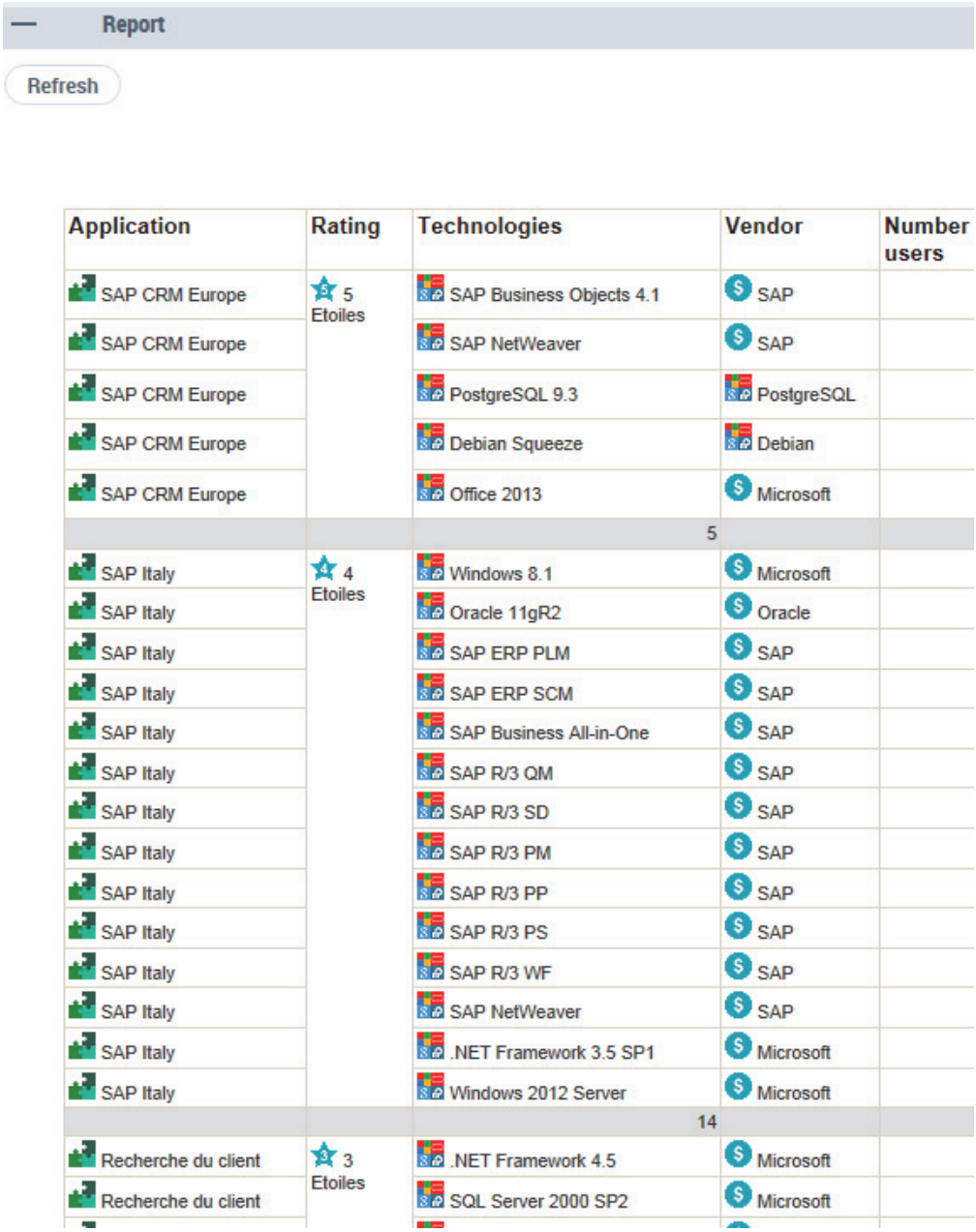
For example, in an instant report generated from a Report DataSet with the "Application technologies" definition, you can:

- classify the applications by descending level of rating
- perform a grouping and define an operation at a value break on this grouping criteria
- at the level of the break indicate the number of Technologies included in this rating level.





This report result presents the applications sorted by descending level of rating. At each change of level a break indicates the number of Technologies included in this rating level.



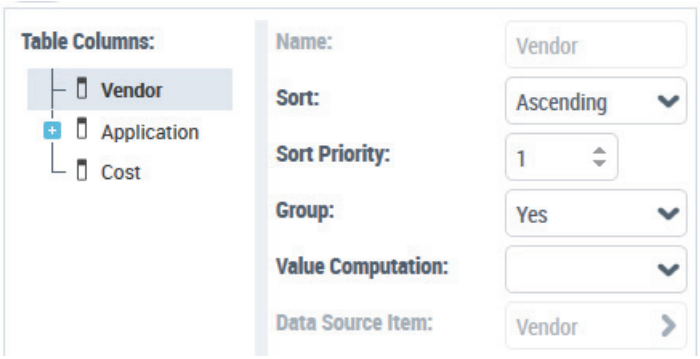
Application	Rating	Technologies	Vendor	Number users
SAP CRM Europe	5 Etoiles	SAP Business Objects 4.1	SAP	
SAP CRM Europe		SAP NetWeaver	SAP	
SAP CRM Europe		PostgreSQL 9.3	PostgreSQL	
SAP CRM Europe		Debian Squeeze	Debian	
SAP CRM Europe		Office 2013	Microsoft	
		5		
SAP Italy	4 Etoiles	Windows 8.1	Microsoft	
SAP Italy		Oracle 11gR2	Oracle	
SAP Italy		SAP ERP PLM	SAP	
SAP Italy		SAP ERP SCM	SAP	
SAP Italy		SAP Business All-in-One	SAP	
SAP Italy		SAP R/3 QM	SAP	
SAP Italy		SAP R/3 SD	SAP	
SAP Italy		SAP R/3 PM	SAP	
SAP Italy		SAP R/3 PP	SAP	
SAP Italy		SAP R/3 PS	SAP	
SAP Italy		SAP R/3 WF	SAP	
SAP Italy		SAP NetWeaver	SAP	
SAP Italy		.NET Framework 3.5 SP1	Microsoft	
SAP Italy		Windows 2012 Server	Microsoft	
		14		
Recherche du client	3 Etoiles	.NET Framework 4.5	Microsoft	
Recherche du client		SQL Server 2000 SP2	Microsoft	

Example 2: column definition (display, order) and value computation

☛ *To configure this filter, see "Defining the columns in a table-type instant report", page 383*

For example, in an instant report generated from a Report DataSet with the "Application technologies" definition you can:

- hide the columns:
  - Rating
  - Technologies
  - Number of users
- modify the display order of columns:
  - column 1: Supplier
  - column 2: Application
  - column 3: Cost
- sort in ascending order and group the table rows by "Vendor"



- instead of displaying all the "Applications" by "Vendor", display their number

- display the sum of "Costs" by "Vendor"

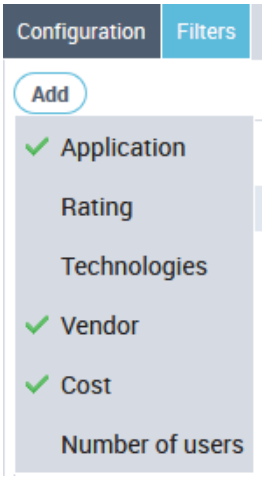
The report result presents the Vendors sorted in alphabetical order and for each vendor specifies the number of applications and their total cost

Vendor	Application	Cost
Apache Software Foundation	3	€180,000.00
Debian	7	€2,733,727.00
HP	1	€36,000.00
IBM	1	€11,000.00
MEGA	3	€86,800.00
Microsoft	27	€5,403,285.00
Oracle	15	€2,685,875.00
PostgreSQL	1	€2,136,727.00
Redhat	2	€22,083.00
Sage	3	€290,400.00
salesforce.com	2	€176,400.00
SAP	12	€4,222,402.00
SoftwareAg	1	€52,800.00
vmware	2	€30,000.00

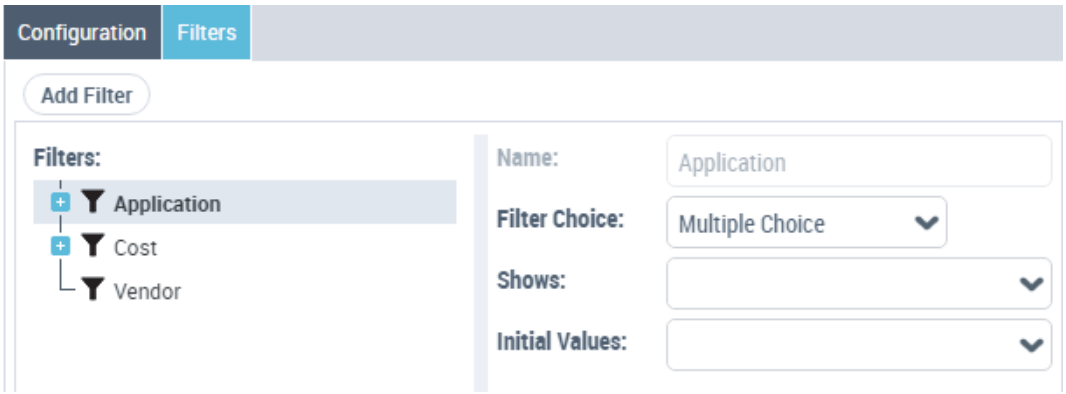
Example 3: filters on the table columns

For example, in an instant report generated from a Report DataSet with the "Application Technologies" definition you can:

- add a filter to each following table column:
  - "Application"
  - "Vendor"
  - "Cost"



- define each filter added



The three filters are available in the report result:

To define a filter:

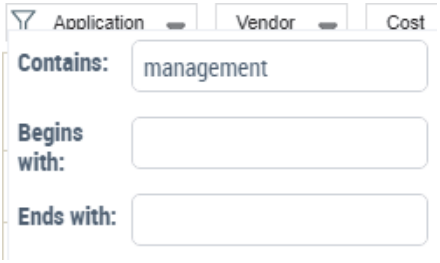
1. Click the name of the filter.

   `Example: Application`

2. In the filter definition window, configure the filter.
   The icon next to the filter name indicates that the filter is configured.
   The report result is automatically updated as soon as a value is entered.

For example, you can display:

- the applications that contain "management" in their name,



- for the "Microsoft" vendor " (selected in the multiple-choice list),

- and whose costs are greater than "10,000".

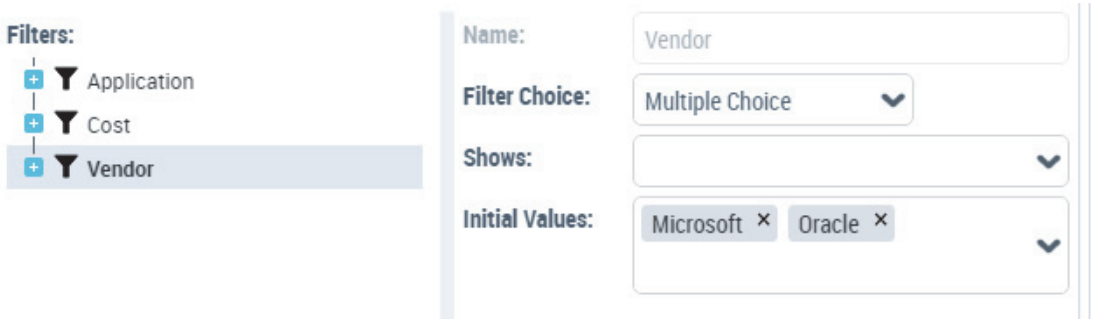
☛ *To configure this filter, see "Adding a filter to the columns and to the column data values in a table-type instant report", page 385*

Example 4: filter on the table columns and cells (initial values)

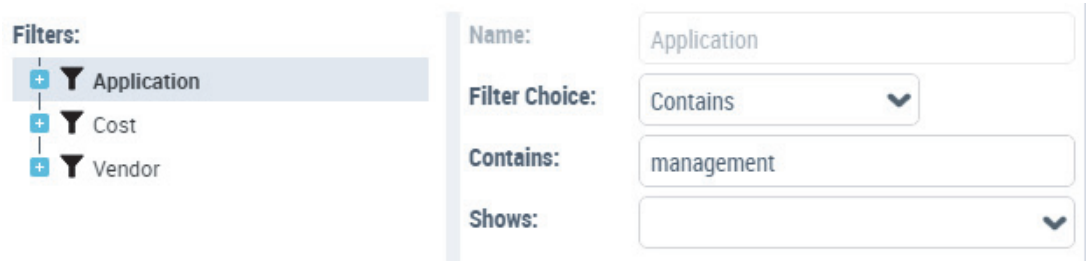
☛ *To configure this filter, see "Adding a filter to the columns and to the column data values (with initial values) in a table-type instant report", page 386*

For example, in an instant report generated from a Report DataSet with "Application Technologies" definition, you can filter the table data with the following three filters on the cells:

- display the "Microsoft" and "Oracle" vendors only



- display the applications that contain the word "management" only



- display costs greater than €10,000

The report result filters the applications that contain "management" in their name, whose vendors are "Microsoft" and "Oracle", and whose costs are greater than €10,000.

☛ *The icon next to the filter name indicates that the filter is configured.*

Cost | Application | Vendor

Application	Rating	Technologies	Vendor	Cost	Number of users
Risk Management	0 Star	Internet Explorer 7	Microsoft	€24,000.00	15
Risk Management	0 Star	.NET Framework 4.5	Microsoft	€24,000.00	15
Risk Management	0 Star	Windows Vista	Microsoft	€24,000.00	15
Risk Management	0 Star	Office 2010	Microsoft	€24,000.00	15
Risk Management	0 Star	SQL Server 2012	Microsoft	€24,000.00	15
Risk Management	0 Star	Windows 2008 Server	Microsoft	€24,000.00	15
Booking Management	0 Star	ASP.NET 4.0	Microsoft	€180,000.00	0
Booking Management	0 Star	Windows 8.1	Microsoft	€180,000.00	0
Booking Management	0 Star	Internet information Services (IIS) 8	Microsoft	€180,000.00	0
Booking Management	0 Star	Oracle 11gR2	Oracle	€180,000.00	0
Booking Management	0 Star	.NET Framework 4.0	Microsoft	€180,000.00	0

Handling an Instant Report

See:

- "Updating an instant report", page 399
- "Obtaining the list of objects in a data series", page 399
- "Hiding a data series", page 399
- "Defining and customizing the data of a table-type instant report (Report DataSet)", page 382

Updating an instant report

When an instant report is not updated, a message (at the top of the report) specifies the date of the latest generation of the instant report as well the time required for generation. If the data contained in the list of objects changes, you must refresh the instant report to take these changes into account.

☛ *When the instant report is updated, the message for the latest generation date of the instant report is not displayed.*

To update an instant report:

1. Access the instant report.

   ☛ *See "Launching an Instant Report", page 376.*

2. In the **Report** section, click **Refresh**.
   The report is updated.

Obtaining the list of objects in a data series

To get the list of objects making up part of the chart:

1. Access the instant report.

   ☛ *See "Launching an Instant Report", page 376.*

2. Click the chart part concerned.

   ☛ *In a bubble graph, roll the mouse over the bubble and click **Set of objects**. **Click to view details**.*

   The list of objects contained in this part appears in the **Result** window.

   In the list, you can click:

   ☛ *The functionalities available depend on the desktop on which you are working*

   - **Properties**, to view the properties of an element in the series.
   - **Excel** to export the elements of the series in .xls format.
   - **Instant Report**, to generate an instant report for the series.

     ☛ *See "Launching an Instant Report", page 376.*

Hiding a data series

For improved visibility, you can hide data series in the report graphic.

☛ *This feature is available with **HOPEX** (Web Front-End) only.*

To show/hide a data series:

1. Access the instant report.

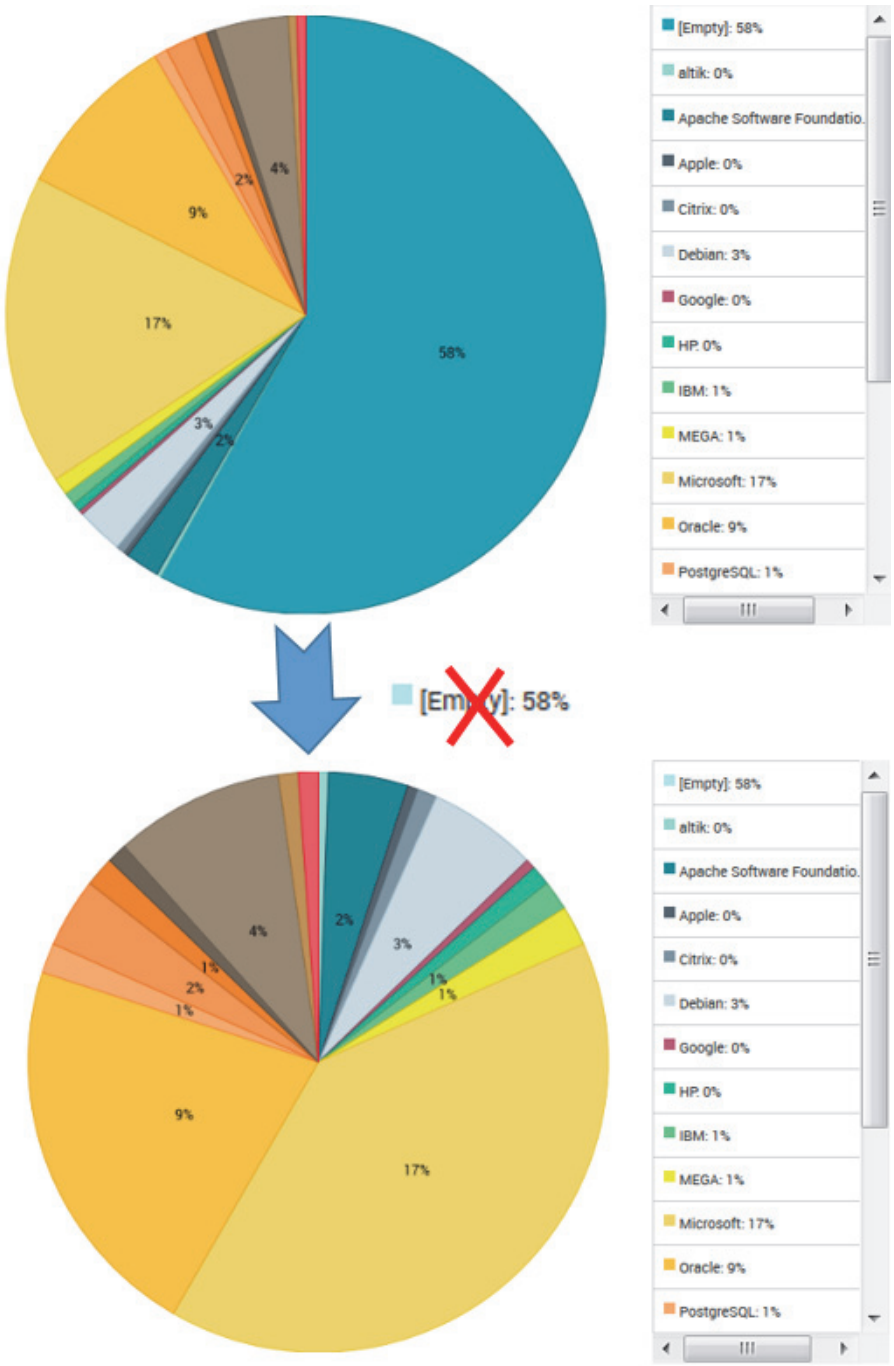
   ☛ *See "Launching an Instant Report", page 376.*

2. In the report legend, click the data series concerned.
   In the legend, the color that represents the series is grayed.
   The series is not display anymore in the chart.

   ☛ *You can hide several series.*

   Example: in the chart that displays the breakdown of applications according to vendors, you can hide the series

"[empty]" that represents the applications whose vendor is not entered.



3. In the key, click the series again to re-display it in the chart.

Saving an instant report as a report

You can save an instant report as a report to:

- access the report at any time

  ☛ *See "In the list of reports of the solution or the list of your reports, select the report in question and click the Properties button associated with the edit window. Accessing Analysis Reports", page 322.*

- customize the report display (e.g.: display of values, caption format, titles).

  ☛ *See "Customizing your Reports (Web Front-End)", page 405.*

When an instant report is generated from:

- a list, you can customize the report information when you save the instant report as a report
- a Report DataSet, you can filter and customize the instant report before saving it as a report.

  ☛ *See "Defining and customizing the data of a table-type instant report (Report DataSet)", page 382.*

Saving an instant report generated from a list

To save an instant report generated from a list:

1. Launch your instant report.

   ☛ *See "Launching an instant report from a list", page 376.*

2. In the report result page, click **Save as Report** .
   The report creation dialog box appears. It indicates the report description.
3. In the **Create Report** page, enter the report **Name**.
4. Click **Next**.
   The **Parameters** window contains the following sections:
   - **Parameters** which contains parameters already specified, as well as additional formatting parameters.
   - **Presentation** which contains customization parameters for the report display
5. (Optional) In the **Parameters** window, specify the input and/or presentation parameters of the report.

   ```
   E.g..: enter a report title.
   ```

6. Click **Next**.
   The **Report chapters** window displays the report chapters that you can modify.
7. (Optional) In the **Report Chapters** window, select **Open Automatically** to expand the chapter automatically when it opens or when the report is refreshed.

   ☛ *By default, the chapters are folded.*

8. Click **OK**.
   The report is saved in your reports.

   ☛ *See "Accessing your reports in a HOPEX solution.", page 327.*

   ☛ *You can modify the name of the report and open the report to edit and customize it; see "Customizing your Reports (Web Front-End)", page 405.*

Saving an instant report generated from a Report DataSet

To save an instant report generated from a Report DataSet:

1. Launch your instant report.

   ☛ *See "Launching an instant report from a Report DataSet", page 379.*

2. In the report result page, click **Save as Report** .
   The **Save as a Report** window appears.
3. Enter a **Name** for the report.
4. Click **OK**.
   The report is saved in the list of your reports.

   ☛ *See "Accessing your reports in a HOPEX solution.", page 327.*

Adding an Instant Report to Your Dashboard

You can add an instant report to your dashboard. This instant report is then available in the list of Widgets for the other users.

☛ *See "Adding a widget to your dashboard", page 64.*

To share an instant report as a Widget:

1. Launch your instant report.

   ☛ *See "Launching an Instant Report", page 376.*

2. In the report result page, click **Add to Dashboard** .
   The report creation dialog box appears. It indicates the report description.
3. In the **Create Report** page, enter the report **Name**.
4. Click **Next**.
   The **Parameters** window displays parameters already specified, as well as additional formatting parameters.
5. (Optional) In the **Parameters** page, specify the input parameters of the report.
6. Click **Next**.
   The **Report chapters** window displays the report chapters that you can modify.
7. (Optional) In the **Report Chapters** window, select **Open Automatically** to expand the chapter automatically when it opens or when the report is refreshed.

8. Click **OK**.
   The report is added to your dashboard.
   The report is added to the list of widgets available to populate dashboards.
   All users can use your report as a widget.
   ☛ *See "Customizing your Dashboard", page 63.*

Adding an Instant Report to Your Home Page

You can add an instant report to your home page.

To add an instant report to your home page:

1. Save your instant report as a report.
   ☛ *See "Saving an instant report as a report", page 402.*
   The report is saved in the list of your reports.
2. Access your reports.
   ☛ *See "Accessing your reports in a HOPEX solution.", page 327.*
3. In the list of your reports, select the report concerned.
4. Roll the mouse over its **Local Name**, then click **Add to Homepage** .
5. The report is added to your home page as a tile.
   ☛ *To display the report, click the tile. The report is displayed in the **View** navigation area.*

CUSTOMIZING YOUR REPORTS (WEB FRONT-END)

In **HOPEX** (Web Front-End) you can customize your report display

Prerequisites (HOPEX Solutions): before customizing a report, you must first save it in your reports.

☛ *See "Saving the content of an analysis report (Web Front-End)", page 332.*

See:

- "Editing a Report", page 405
- "Exiting Report Edit Mode", page 406
- "Adding a comment to a report", page 406
- "Customizing the Display of a Report Graphic", page 407
- "Customizing the Display of a Table or a Report Matrix", page 415
- "Reinitializing the Customization of the Report Settings", page 417
- "Creating a Report Style", page 417
- "Applying a Style to Your Report", page 418
- "Zoom in on a Diagram Part", page 418
- "Handling an Environment Graph", page 420
- "Managing report options", page 429

Editing a Report

You can also customize the reports saved in:

- (**HOPEX** Solutions) **Other Reports > My Reports** folder.

  ☛ *See "Saving an instant report as a report", page 402.*

  ☛ *See "Creating your analysis reports (Web Front-End)", page 328.*

- (EA Desktop) **Reports** folder.

  ☛ *See "In the list of reports of the solution or the list of your reports, select the report in question and click the Properties button associated with the edit window. Accessing Analysis Reports", page 322.*

To edit a report:

1. Open the report.
2. In the report page, click **Edit Report** .
   The edit pane appears to the right of the report.

   ☛ *To exit edit mode, "Exiting Report Edit Mode", page 406.*

   You can customize the report.

   ☛ *See "Customizing the Display of a Report Graphic", page 407.*

Exiting Report Edit Mode

To exit report edit mode:

1. Open the report.
2. In the page of the report, click **Exit Report Edit Mode**
   The edit pane to the right of the report disappears. You have exited the report edit mode.

Adding a comment to a report

You can add a comment at:

- report level
- report chapter level

> ☛ *To hide the report chapter comments, see "Managing report options", page 429.*

To add a comment to a report or to a report chapter:

1. Edit the report.
   > ☛ *See "Editing a Report", page 405.*
2. Under the chapter title, click **Add a comment** / **Add a comment to this chapter**.
   An edit window opens.
3. Enter your text.
4. (optional) Click to access the text formatting menus.
   > ☛ *Click **Enlarge** to enlarge the text edit window and display all formatting menus.*
5. Click **OK**.
   The comment appears under the title of the report / report chapter.
   > ☛ *If the "Do not display chapter comments" option is selected after the addition of the comment, it is hidden; the content of the comment reappears if the option is cleared.*

Customizing the Display of a Report Graphic

You can customize a graphic in your report at the following levels:

- chapter content

  ☛ *See "Updating the content of a graphic of a report chapter", page 408.*

- graphic style in the chapter

  ☛ *See: "Updating the font of a graphic of a report chapter", page 408, "Updating the style of a graphic of a report chapter", page 411, "Modifying the style of labels", page 412, "Modifying the legend style", page 413.*

- of the style of a series in the chapter

  ☛ *See "Modifying the style of parameters in a report chapter", page 414.*

- of the style of the chapter for exporting

  ☛ *See "Modifying the style for export", page 414.*

  The values modified locally override the global values defined for all reports.

You can reinitialize the values configured by default at the level of:

- the parameter
- the entire chapter

  ☛ *See "Reinitializing the Customization of the Report Settings", page 417.*

You can add comments:

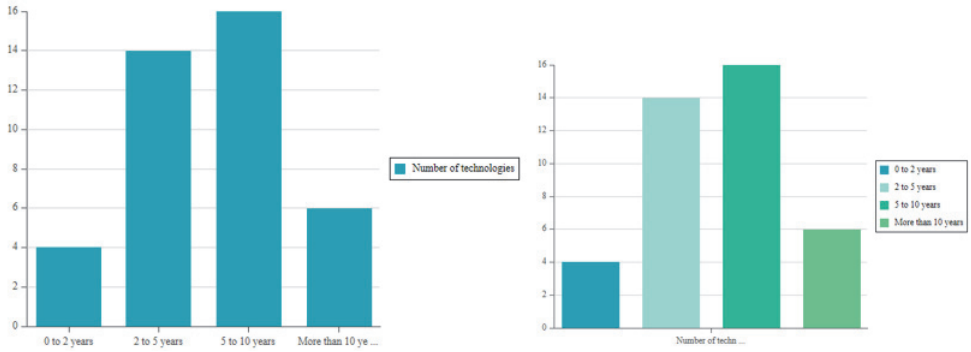
- at the report level
- at the report chapter level

  ☛ *See "Adding a comment to a report", page 406.*

Updating the content of a graphic of a report chapter

You can, for example:

- reverse the display of the series



- show/hide the percentage values in the bars.
- add a title on the horizontal and/or vertical axis

To modify the report content:

1. Edit the report.

   ☛ *See "Editing a Report", page 405.*

2. In the report page, click **Edit style parameter values** and select **All Series**.
   The edit pane appears.
3. In the **Content** section, modify the parameters concerned.

   ☛ *To reset the values, click **Reset Parameter Values** .*
   ***Attention**: the style parameter values in the report chapter are also reinitialized.*
4. Click **Apply**.
   Your modifications are immediately taken into account in the report.

   ☛ *If the modifications do not appear automatically, click or see "Expanding a Report Chapter Automatically on Opening", page 335.*

Updating the font of a graphic of a report chapter

You can, for example:

- modify the color and the size of the font
- add a title to the graphic

To update the font of a graphic of a report chapter

1. Edit the report.

   ☛ *See "Editing a Report", page 405.*

2. In the report page, click **Edit style parameter values** and select **All Series**.
   The edit pane appears to the right.

3. In the **Style** section, modify the parameters concerned.

   ☛ *To reinitialize the value of a parameter, delete the value that you entered.*

   ☛ *To reset all values, click* ***Reset Parameters Values*** .
   Attention*: all parameter values in the report are also reinitialized.*

4. Click **Apply**.
   Your modifications are immediately taken into account in the report.

   ☛ *If the modifications do not appear automatically, click* *or see* *"Expanding a Report Chapter Automatically on Opening", page 335*.

Modifying the bubble style in a bubble graph

You can, for example:

- modify the bubble color
- add a background image (.png format)
  You can add a .png format image, which is saved in HOPEX.
- remove the background grid

To modify the bubble style in a bubble graph:

1. Edit the report.

   ☛ *See "Editing a Report", page 405.*

2. In the report page, click **Edit style parameter values** and select **All Series**.
   The edit pane appears to the right.
3. In the **Style** section, modify the parameters concerned.

   ☛ *To reinitialize the value of a parameter, delete the value that you entered.*

   ☛ *To reset all values, click **Reset Parameters Values** .*
   ***Attention**: all parameter values in the report are also reinitialized.*
4. Click **Apply**.
   Your modifications are immediately taken into account in the report.

   ☛ *If the modifications do not appear automatically, click .*

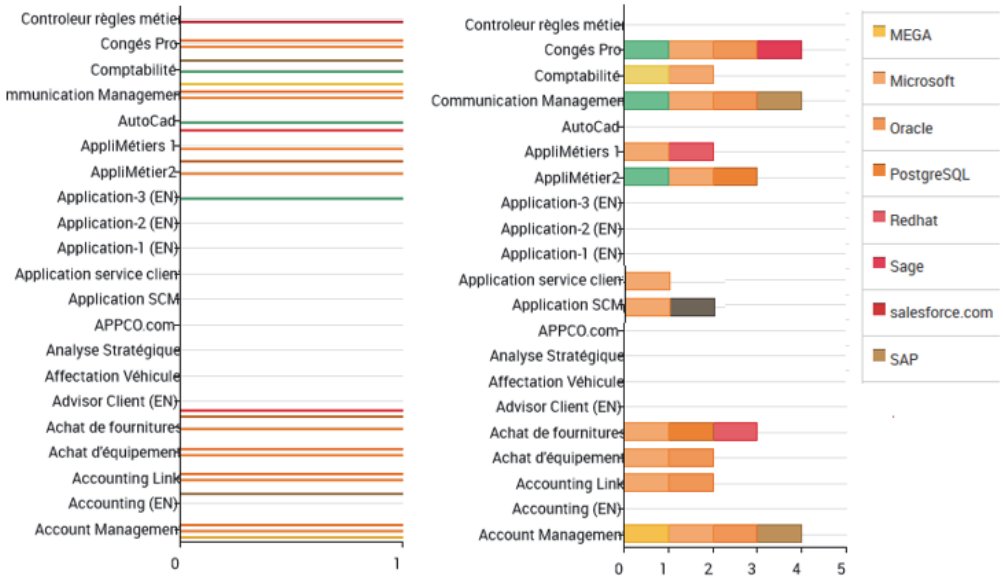
Updating the style of a graphic of a report chapter

You can, for example:

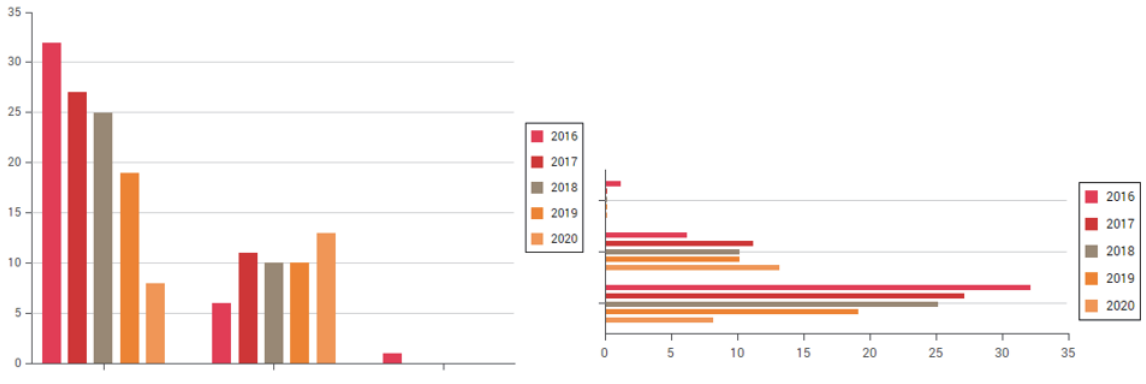
- modify the color palette of the series

  ☛ *By default, if the series contains text in the chart, the text color is automatically adapted to the color of the series to be readable. If the text color is defined, it is applied irrespective of the color of the series.*

- add a horizontal and/or vertical grid
- stack the bars



- reverse the bar direction (vertical or horizontal)



To modify the style of a report chapter:

1. Edit the report.

   ☛ *See "Editing a Report", page 405.*

2. In the report page, click **Edit style parameter values** and select **All Series**.
   The edit pane appears to the right.
3. In the **Chart Style** section, modify the parameters concerned.

   ☛ *To reinitialize the value of a parameter, delete the value that you entered.*

   ☛ *To reset all values, click **Reset Parameters Values** .*
   ***Attention**: all parameter values in the report are also reinitialized.*
4. Click **Apply**.
   Your modifications are immediately taken into account in the report.

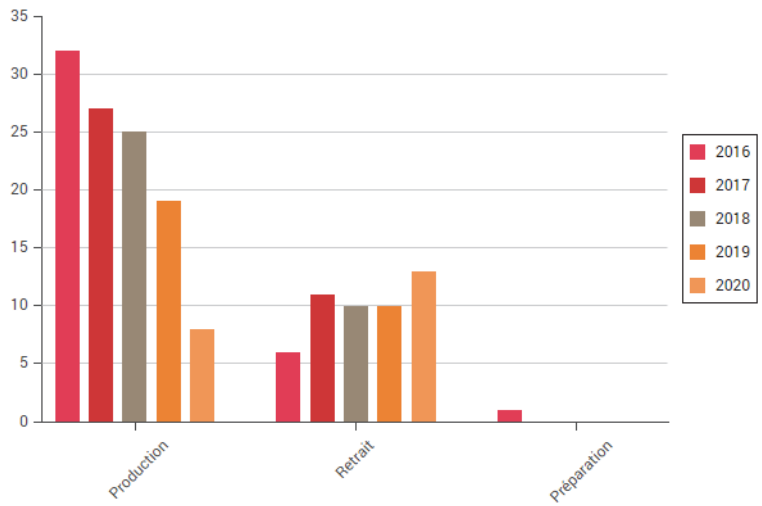
   ☛ *If the modifications do not appear automatically, click or see "Expanding a Report Chapter Automatically on Opening", page 335.*

Modifying the style of labels

You can, for example:

- hide the axes
- define the maximum value of axes
- truncate the labels
- modify the display angle of the lower label text (in degrees)

  ☛ *Default value: 0°, the text is horizontal.*



To modify the style of the labels of a report chapter:

1. Edit the report.

   ☛ *See "Editing a Report", page 405.*
2. In the report page, click **Edit style parameter values** and select **All Series**.
   The edit pane appears to the right.

3. In the **Labels Style** section, modify the parameters concerned.

   ☛ *To reinitialize the value of a parameter, delete the value that you entered.*

   ☛ *To reset all values, click* ***Reset Parameters Values*** . ***Attention****: all parameter values in the report are also reinitialized.*

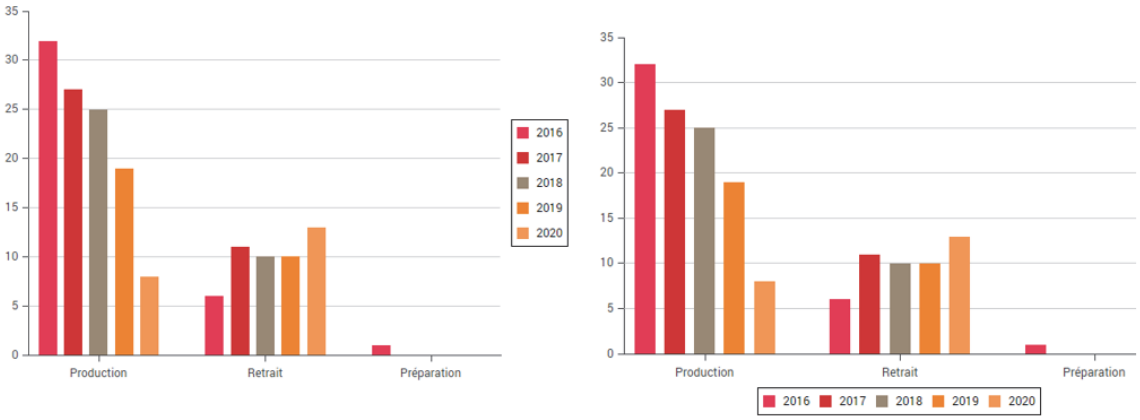
4. Click **Apply**.
   Your modifications are immediately taken into account in the report.

   ☛ *If the modifications do not appear automatically, click* *or see* *"Expanding a Report Chapter Automatically on Opening", page 335*.

Modifying the legend style

You can, for example:

- hide/show the legend
  - ☛ *Default value: yes (display)*
- modify the position of the legend (on the bottom or right)
  - ☛ *Default value: to the right*



To modify the legend style of a report chapter:

1. Edit the report.

   ☛ *See* *"Editing a Report", page 405*.

2. In the report page, click **Edit style parameter values** and select **All Series**.
   The edit pane appears to the right.
3. In the **Legend Style** section, modify the parameters concerned

   ☛ *To reset all values, click* ***Reset Parameters Values*** . ***Attention****: all parameter values in the report are also reinitialized.*

4. Click **Apply**.
   Your modifications are immediately taken into account in the report.

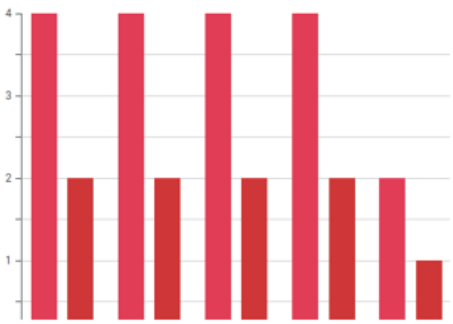
   ☛ *If the modifications do not appear automatically, click* *or modify the configuration (see* *"Expanding a Report Chapter Automatically on Opening", page 335**).*

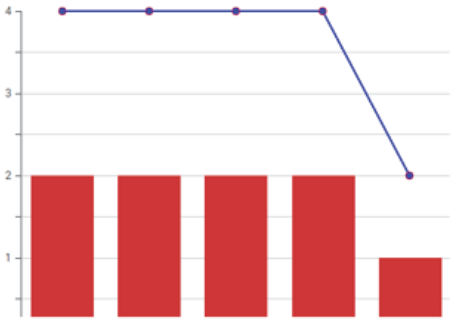
Modifying the style of parameters in a report chapter

You can:

- (for a bar chart) modify the display style (as bars or as lines)

  ☛ *Default value: no (as bars)*





- modify the series color

To modify the parameter style of a series in a report chapter:

1. Edit the report.

   ☛ *See "Editing a Report", page 405.*

2. In the report page, click **Edit the Style Parameters Values** and select the series that you want to modify.
   The edit pane of the selected series appears to the right.
3. In the pane of the selected series, in the **Graphic Style** section, select the parameter values of the series that you want to modify.
4. Click **Apply**.

   Attention: the values defined locally replace the global values defined for all reports.

Modifying the style for export

You can:

- define the maximum value of axes
- display a percentage in the bars.

To modify the style of a report chapter for export:

1. Edit the report.

   ☛ *See "Editing a Report", page 405.*

2. In the report page, click **Edit style parameter values** and select **All Series**.
   The edit pane appears to the right.
3. In the **Style for Export** section, enter the required fields.
4. Click **Apply**.

   ☛ *See "Exporting an analysis report in PDF or Excel Format", page 334.*

Customizing the Display of a Table or a Report Matrix

You can customize the display of a table or a matrix in your report at the level:

- of the table content of a chapter

  ☛ *See "Modifying the content of a table or a matrix of a report chapter", page 416.*

- of the style of a chapter

  ☛ *See: "Updating the font of a graphic of a report chapter", page 408, "Updating the style of a graphic of a report chapter", page 411, "Modifying the style of labels", page 412, "Modifying the legend style", page 413.*

- of the style of a series in the chapter

  ☛ *See "Modifying the style of parameters in a report chapter", page 414.*

- of the style of the chapter for exporting

  ☛ *See "Modifying the style for export", page 414.*

  The values modified locally override the global values defined for all reports.

You can reinitialize the values configured by default at the level of:

- the parameter
- the entire chapter

  ☛ *See "Reinitializing the Customization of the Report Settings", page 417.*

You can add comments:

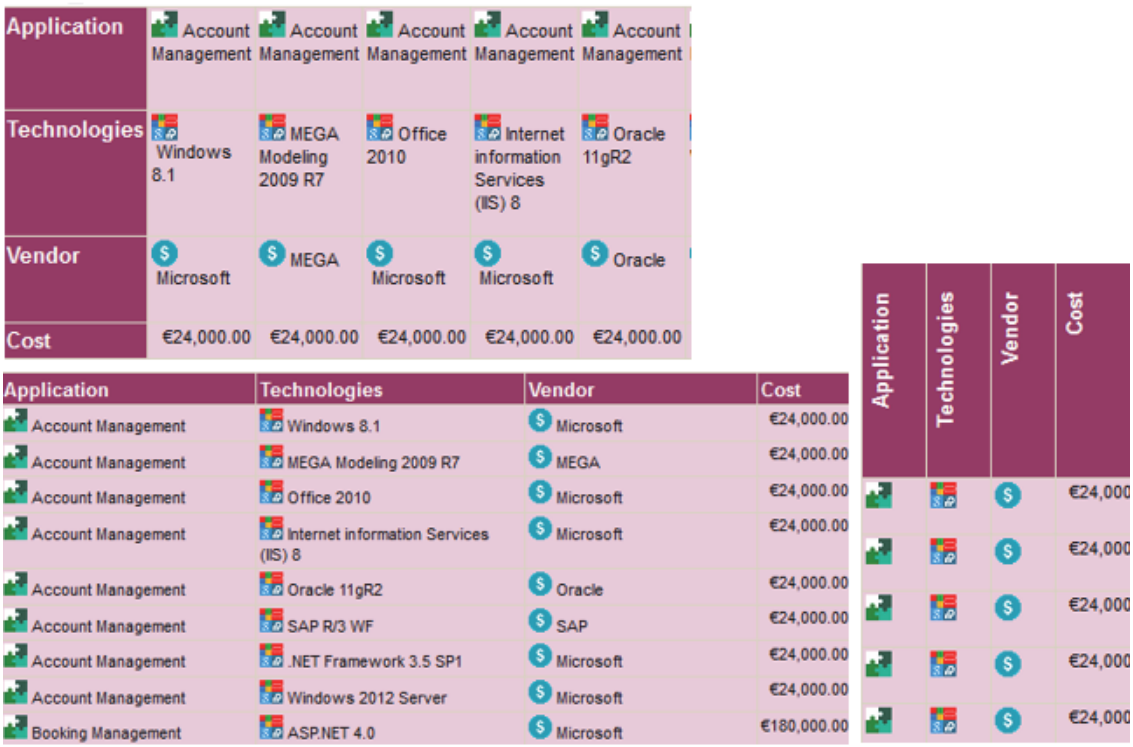
- at the report level
- at the report chapter level

  ☛ *See "Adding a comment to a report", page 406.*

Modifying the content of a table or a matrix of a report chapter

You can, for example:

- customize the header of the table: add a background color, display the vertical text
- customize the cells: define the content (icon and/or text), add a background color
- reverse the display of the series



Application	Account Management	Account Management	Account Management	Account Management	Account Management
Technologies	Windows 8.1	MEGA Modeling 2009 R7	Office 2010	Internet information Services (IIS) 8	Oracle 11gR2
Vendor	Microsoft	MEGA	Microsoft	Microsoft	Oracle
Cost	€24,000.00	€24,000.00	€24,000.00	€24,000.00	€24,000.00

Application	Technologies	Vendor	Cost
Account Management	Windows 8.1	Microsoft	€24,000.00
Account Management	MEGA Modeling 2009 R7	MEGA	€24,000.00
Account Management	Office 2010	Microsoft	€24,000.00
Account Management	Internet information Services (IIS) 8	Microsoft	€24,000.00
Account Management	Oracle 11gR2	Oracle	€24,000.00
Account Management	SAP R/3 WF	SAP	€24,000.00
Account Management	.NET Framework 3.5 SP1	Microsoft	€24,000.00
Account Management	Windows 2012 Server	Microsoft	€24,000.00
Booking Management	ASP.NET 4.0	Microsoft	€180,000.00

Application	Technologies	Vendor	Cost
			€24,000
			€24,000
			€24,000
			€24,000
			€24,000

- hide the column titles
- add a title to the table
- add a total to the bottom of each column (sum, average, maximum, minimum)

To modify the content of the table of a report chapter:

1. Edit the report.

   ☛ *See "Editing a Report", page 405.*

2. In the report page, click **Edit style parameter values** and select **All Series**.
   The edit pane appears.
3. In the **Content** section, modify the parameters concerned.

   ☛ *To reset the values, click **Reset Parameter Values** .*
   ***Attention**: the style parameter values in the report chapter are also reinitialized.*

4. Click **Apply**.
   Your modifications are immediately taken into account in the report.

   ☛ *If the modifications do not appear automatically, click* *or see* *"Expanding a Report Chapter Automatically on Opening", page 335*.

Reinitializing the Customization of the Report Settings

You can reinitialize:

- the value of content or report style parameter
- all your changes to content and report style parameters

Reinitializing the parameter value of the report chapter

To reinitialize the value of a content or report style parameter:

1. Edit the report.

   ☛ *See* *"Editing a Report", page 405*.
2. Delete the value that you have entered for the parameter.
3. Click **Apply**.
   The default value of the parameter is automatically taken into account.

Reinitializing all changes to the report

To reinitialize all your changes:

1. Edit the report.

   ☛ *See* *"Editing a Report", page 405*.
2. Click **Reset Parameters Values** .
3. Click **Apply**.
   Attention: all content and report style parameters return to their default value.

Creating a Report Style

You can customize the style of a report. To apply this style customization to another report, you must create the style.

To create a style:

1. Open a report and customize its display.

   ☛ *See* *"Customizing the Display of a Report Graphic", page 407*.
2. Expand the **Manage Styles** section.
3. Click **Save as style**.
   The report style creation dialog box opens.
4. In the **Name** field, enter the name of the report style.

5. Click **OK**.
   Your report style is created.

   ☛ *To apply this style to another report, see "Applying a Style to Your Report", page 418.*

Applying a Style to Your Report

To apply a style to your report:

1. Edit the report concerned.

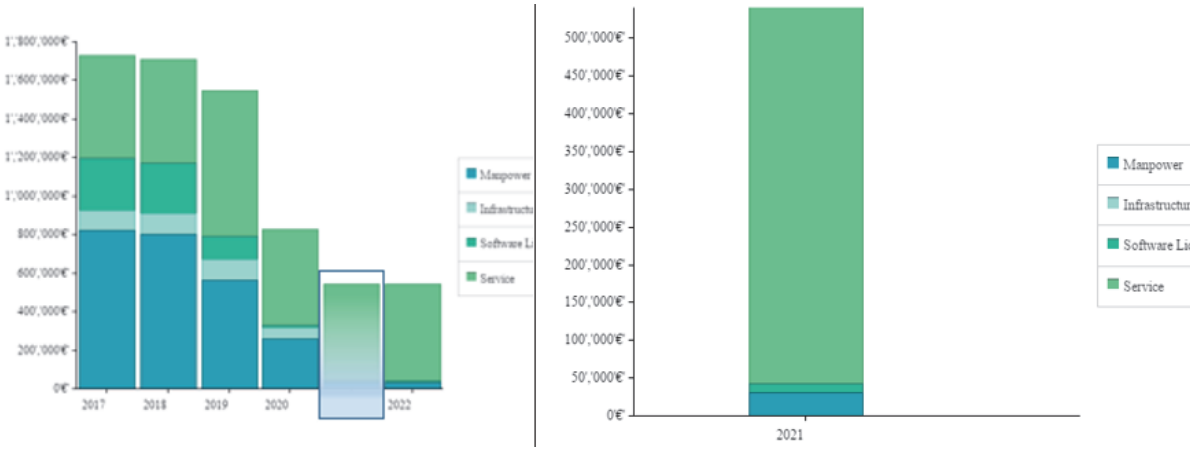
   ☛ *See "Editing a Report", page 405.*
2. Expand the **Manage Styles** section.
3. In the drop-down list of the **Apply Style** field, select the style that you want to apply to the report.

   ☛ *You must have created a style, see "Creating a Report Style", page 417.*
4. Click **Apply**.
   The style is applied to your report.

Zoom in on a Diagram Part

For improved readability, you can zoom in on a part of certain charts (e.g.: bar charts, linear charts, bubble charts, dendrograms, radar charts).

Zooming in on a bar, linear, or radar chart



To zoom in on a part of a chart:

1. Access the report concerned.
2. In the chart, with the mouse, select the part on which you want to zoom.
   The selected part is automatically zoomed.

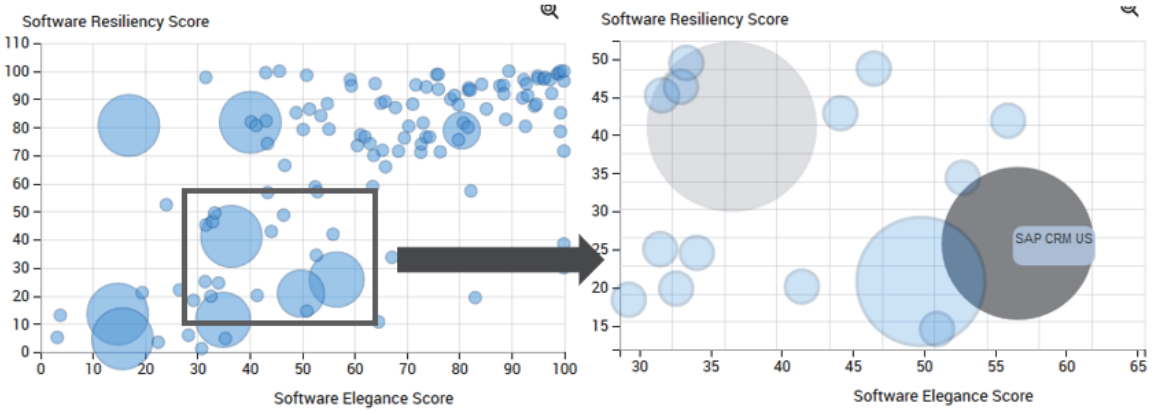
   ☛ *To zoom out, click* ***Reset zoom*** *or double-click in the chart.*

Zooming in and moving about in a dendrogram

To zoom in on a dendrogram:

1. Access the environment type report concerned.
2. In the dendrogram, use the mouse roller to zoom in/zoom out.
   The zoom is performed on the dendrogram as a whole.
3. (if necessary) To move about within the chart, click the chart, keep the mouse button pressed and move the mouse.

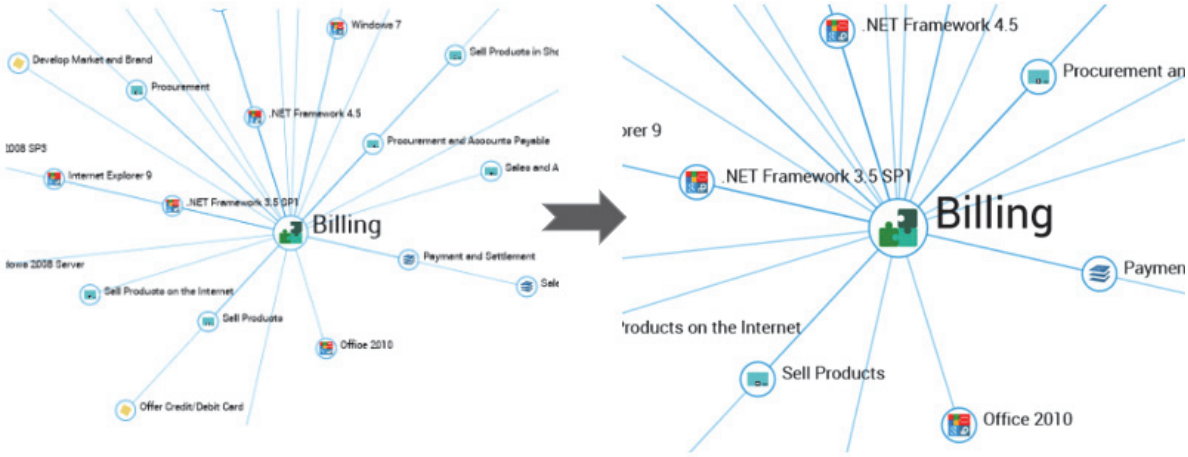
Zooming in and moving about in a bubble chart



To zoom in and move about in a bubble chart:

1. Access the bubble graph.
2. In the bubble graph, use the mouse roller to zoom in/zoom out.
   The zoom is performed on the graph as a whole.
3. (if necessary) To move about within the chart, click the chart, keep the mouse button pressed and move the mouse.

Zooming in and moving about in an environment graph



To zoom in and move about in an environment graph:

1. Access the environment graph report concerned.
2. In the graph, use the mouse roller to zoom in/zoom out.
   The zoom is performed on the graph as a whole.

   ☛ *To zoom in on a single object in the graph, see "Zooming in on an object.", page 423.*
3. (if necessary) To move about within the chart, click the chart (outside an object), keep the mouse button pressed and move the mouse.

   ☛ *To find an object in the graph, see "Finding objects in the graph", page 424.*

Handling an Environment Graph

For a better readability in an environment graph, you can:

- modify the object spacing
- modify the label length
- isolate an object
- zoom in on an object of the graph
- zoom in and move about in the graph

  ☛ *See "Zooming in and moving about in an environment graph", page 420.*

In the graph, you can also:

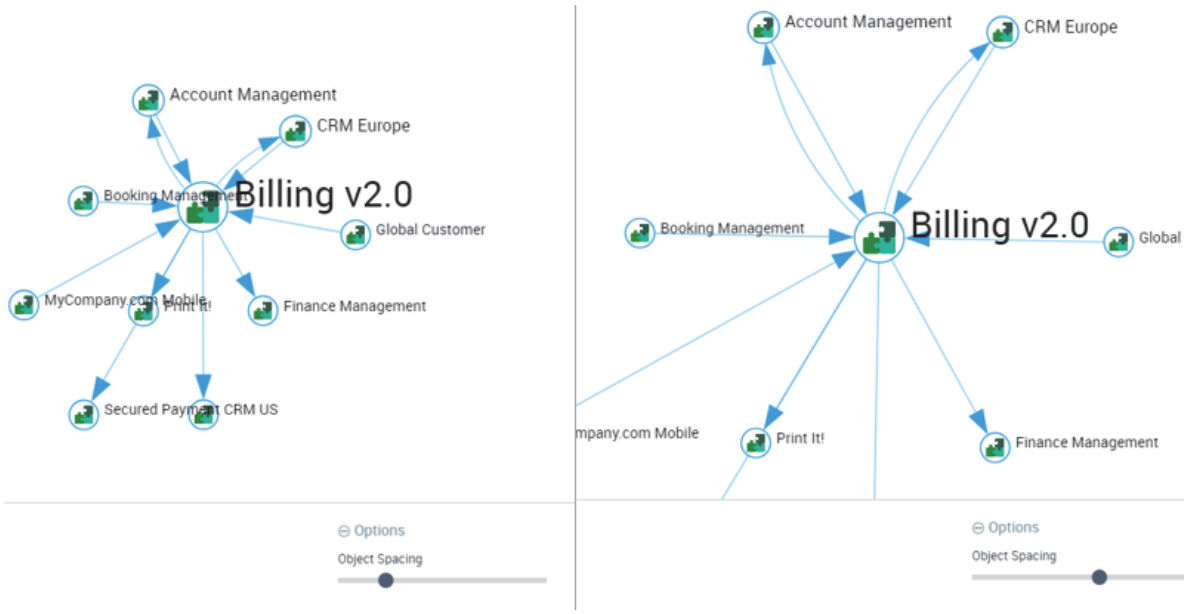
- perform searches to find objects in the graph
- access object properties
- access the object pop-up menu (right-clicking the object)

Improving an environment graph readability

To improve an environment graph readability:

1. Access the environment graph.
2. (If needed) Bellow the graph, click to display the **Options**.

3. Move the cursors:
   - **Object Spacing**, to the left to narrow the object spacing or to the right to increase the object spacing.



   - **Label Length**, to the left to reduce or to the right to increase the character numbers of the labels.

Isolating an object of an environment graph

To isolate an object of an environment graph.

1. Access the environment graph.
2. Double-click the object icon you want to isolate.
   Only the objects in a direct environment of the object are displayed.

```
Example A: isolating HR Management

Example B: isolating Global Customer
```

To come back to the whole graph, click the isolated object.

Zooming in on an object.

To zoom in on an object of an environment graph:

1. Access the environment graph.

2. Roll the mouse over the icon of the object concerned.
   Only the object and its label are enlarged.

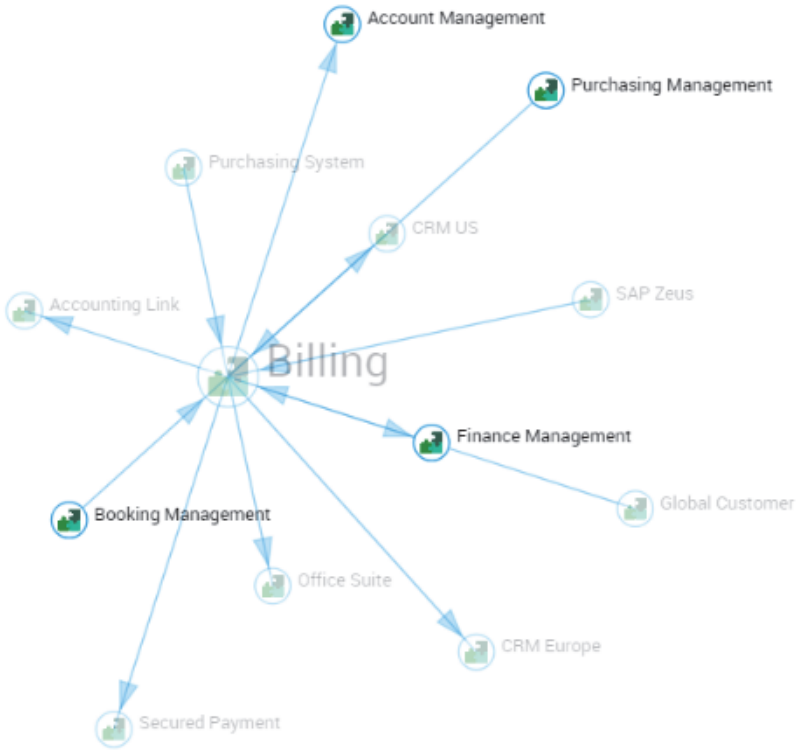
Finding objects in the graph

To find objects in the environment graph:

1. Access the environment graph.
2. In the **Find an object** field, enter the character string to be searched.

   `Example: manage`

3. Click .
   The objects that do not include the character string are grayed to highlight the wanted objects.



   To come back to the standard display, delete the character string.

Displaying an object properties

To display an object properties in an environment graph:

1. Access the environment graph.
2. In the edit zone, click **Properties** to display the Properties window.
   ☛ *See "Arranging windows in the edit area", page 42.*
3. In the graph, click the object concerned.
   The object properties are displayed in the Properties window.
4. Click another object to display its properties.
   This object properties are displayed in the Properties window.

Handling a Bubble Graph

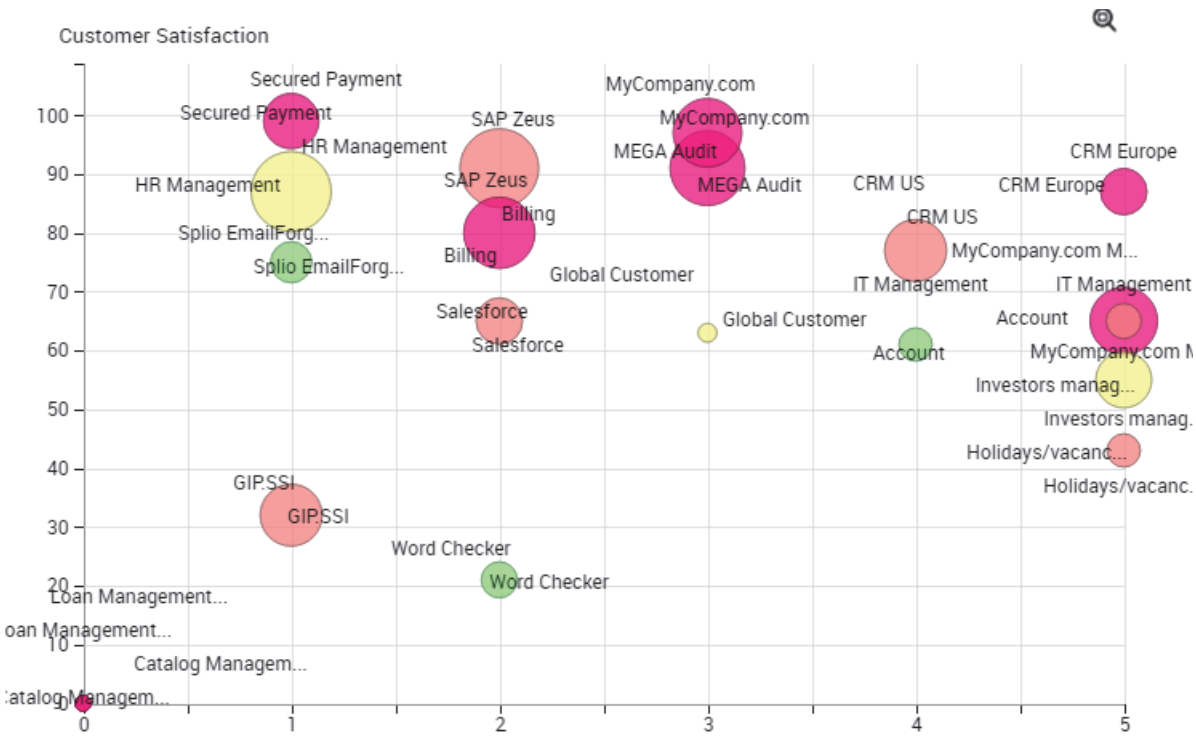
In a bubble graph, you can:

- display or hide the labels to lighten the graph
- display and highlight a bubble label
- display the link between each bubble and its label
- add a background image
- zoom in and move about in the graph

☛ *See "Zooming in and moving about in a bubble chart", page 419.*

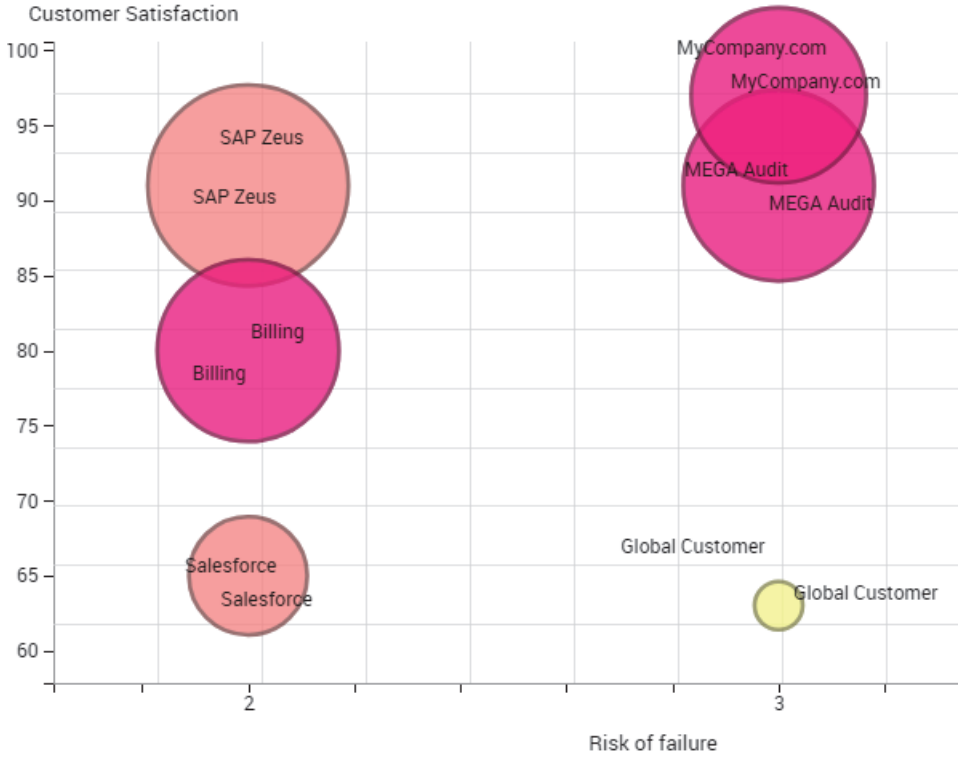
To improve a bubble chart:

1. Access the bubble graph.



2. (If needed) Zoom in and move about in the graph.

   ☛ *See "Zooming in and moving about in a bubble chart", page 419.*



3. Modify the label style to display/hide the labels and their links.

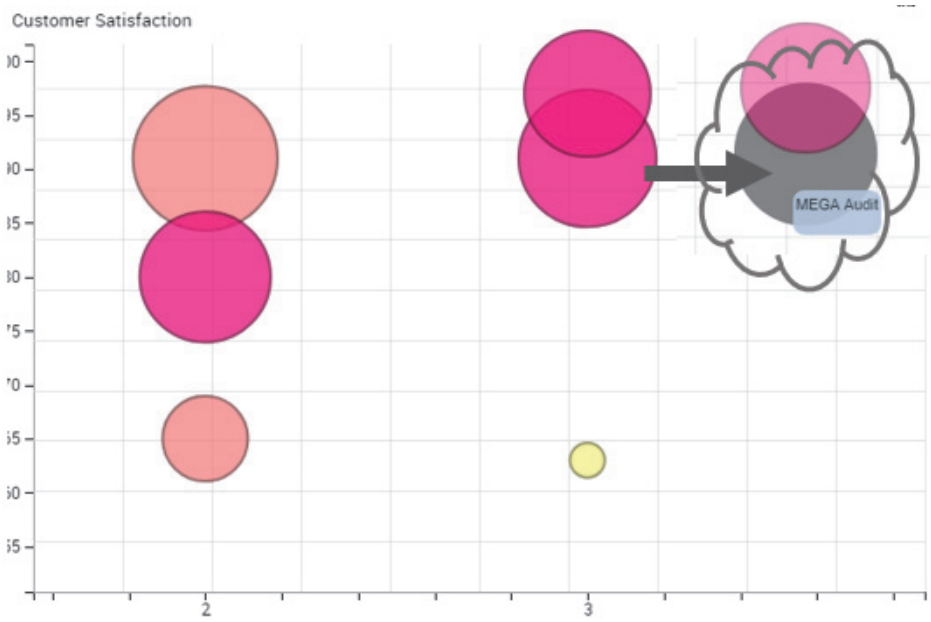
   ☛ *See "Modifying the style of labels", page 412.*

   ☛ *(Instant Report) Bellow the graph select/clear **Display labels** to quickly display/hide the labels.*

4. (If needed) Add a background image.

   ☛ *See "Updating the style of a graphic of a report chapter", page 411.*

5. Roll the mouse over a bubble to highlight its label.



MANAGING REPORT OPTIONS

You can hide the following information appearing in your reports:

- the export buttons on report chapters
- the chapter comments

  ☛ *To add a report chapter comment, see "Adding a comment to a report", page 406.*
- help buttons

You can disable the following functions:

- (Web Front-End) the dynamic appearance of reports
- the display limit for reports (the number of cells displayed in the Checkmark matrices and intersection of reports)

You can activate the following function:

- use of advanced report parameters: this functionality is used to enhance the parameters of a report in a very advanced way (E.g.: with the use of requests)

You can define the formats:

- Excel export format (XLSX, XLS)

  ☛ *By default: XLS.*
- paper format

  ☛ *By default: A4.*

To modify report options:

1. Access the options:
   - (Web Front-End) Select **Main Menu > Settings > Options**
   - (Windows Front-End) In **HOPEX** menu bar, select **Tools > Options**.
2. In the options tree, expand the **Documentation** folder and select **Reports**.
3. In the right frame, modify the options in question.
4. Click **OK**.

CREATING AND GENERATING A WEB SITE

Every **HOPEX** product enables generation of a Web site from objects in the repository. This allows simple distribution of the content of the **HOPEX** repository via an Intranet. Users can consult the objects of a project (e.g.: processes) in the form of HTML pages.

As standard, you can create and generate a Web site from a Web site template that serves as a model. The pages are generated independently of each other, and the links between the repository objects automatically define the hypertext links (you need only click one of these links to pass from one page to another and navigate within the Web site).

> ☛ *To create and configure your own Web site, you must have the* **HOPEX Power Studio** *technical module. See the* **HOPEX Power Studio** *documentation.*
>
> ☛ *Web site creation is only available with Windows Front-End. You can however generate it from Web Front-End.*

See:

- "Creating a Web site from a Web site template", page 430
- "Generating a Web Site", page 431

Creating a Web site from a Web site template

> ☛ *To create and configure your own Web site, you must have the* **HOPEX Power Studio** *technical module. See the* **HOPEX Power Studio** *documentation.*
>
> ☛ *Web site creation is only available with Windows Front-End. You can however generate it from Web Front-End.*

It is possible to create and generate a Web site without the **HOPEX Power Studio** technical module. To do this you must base it on a Web site template supplied as standard or one that you have created specially.

To create a Web site from a Web site template:

1. Connect to **HOPEX** (Windows Front-End).

   > ☛ *See "Accessing HOPEX Windows Front-End", page 68.*

2. Access the **Documentation** window:

   > ☛ *To access the* ***Documentation*** *window from the* ***HOPEX*** *menu bar, select* ***View > Navigation Windows > Documentation****.*

3. In the tree, right-click the **Web Sites** folder and select **New > Web Site**.
   The **Create Web Site** page appears.
4. Enter the **Name** of the Web site.

   Example: "Site 1".

5. (Optional) To modify the default generation folder (<environment path>\Intranet) of the Web site click ...
   It is recommended that you create a sub-folder for each Web site generated

   ```
   Example: under the "Intranet" folder, create folders with the same name as your Web site.
   ```

   ☛ *The content of the "Intranet" folder is deleted at each generation. This being so, when you have obtained a satisfactory site you want to keep, remember to copy it to an appropriate folder.*
6. In the **From Site Web Template** field, use the drop-down menu to select a Web site template.

   ```
   Example: "Enterprise Portal".
   ```
7. Click **Finish**.
   The new Web site is listed in the **Web Sites** folder.

   ☛ *The "Enterprise Portal (Example)" Web site template generates the entire repository, which takes some time. You can restrict the range of objects to be generated by choosing to generate only a project.*
8. Right-click the new Web site and select **Properties**.
9. In the Web site properties window, select the **Objects** tab.
10. To restrict the range of objects to be generated, click the object type and then click **Delete**.
11. To add an object to the range of objects to be generated, click **Add** and select **An object**.
12. In the **Add an Object** window, select the object **Type**.

    ```
    Example: "Project".
    ```
13. In the **Name** field, select the object.

    ```
    Example: "Customer Loyalty Program".
    ```
    The object appears in the list.
14. Click **OK**.

Web Site Generation Prerequisites (Web Front-End)

To be able to generate a Web site with **HOPEX Web Front-End**, you must first:

- Configure email sending at the installation level
- Identify a HOPEX addressee and specify an email
- make sure that there is an existing and ready-to-be generated web site in **HOPEX Windows Front-End**.

☛ *See "Generating a Web Site", page 431.*

Generating a Web Site

☛ *See also "Web Site Generation Prerequisites (Web Front-End)", page 431.*

Managing and scheduling web site generation

To generate a Web site with **HOPEX Web Front-End**, you must define its generation date and time.

> ☛ ***HOPEX Windows Front-End*** *enables also to immediately generate the Web site.*

To generate a Web site:

1. Connect to **HOPEX** (with the "Enterprise Architect" profile for example).

   > ☛ *See "Accessing HOPEX Windows Front-End", page 68 or "Accessing HOPEX Web Front-End", page 32.*

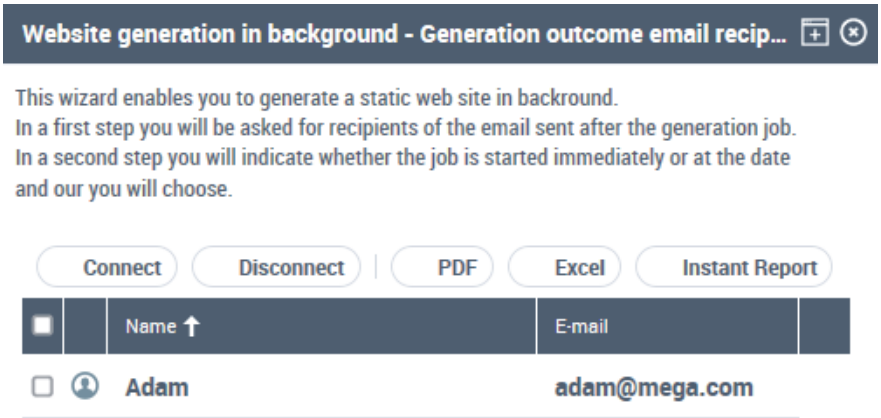
2. Access the Web site you want to generate:
   - (**Web Front-End**) via the search by object type "Web Site ".
   - (**Windows Front-End**) from the **Documentation** window. Unfold the "Web sites" folder.

     > ☛ *To access this window, from the* ***HOPEX*** *menu bar, select* ***View > Navigation Windows > Documentation****.*

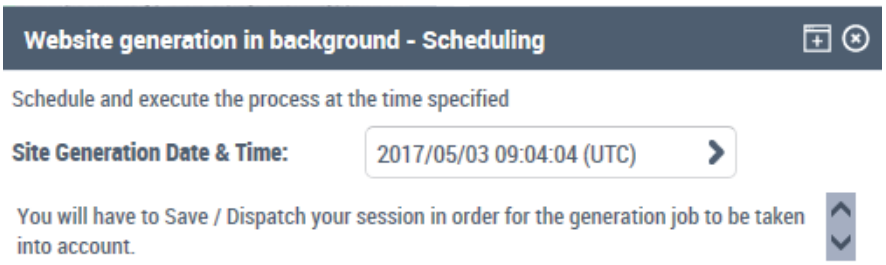
3. Right-click the Web site and select **Generate in background**.

   > ☛ *(Windows Front-End) you can also click* ***Generate*** *to immediately generate the Web site.*
   >
   > *Dialog boxes appear, indicating the progress of site generation.*
   >
   > *When the Web site has been generated, a dialog box proposes opening the site.*

4. (If needed) In the generation scheduling window, click **Connect** to add recipients to the email reception regarding the Web site generation information.



5. Click **Next**.
   The **Scheduling** windows opens.



6. In the **Site generation Date Time**, click the arrow to define the Web site generation date and time.
7. Click **Finish**.

   ☛ *You must **save** and **dispatch** your work for generation to be taken into account.*

   At the Web site generation, the recipients specified step 4 receive an email including a link to download the Web site.

Accessing the generated web site

(Web Front-End) To access the generated web site from the informative email received:

1. Click the link and connect to **HOPEX Web Front-End**.
2. Right-click the business document which is displayed and click **Open**.
   A zip file is downloaded. It contains the generated pages of the static web site.

   ☛ *To consult later the generated Web site, right-click the Web site name and select **Open**.*

Web Site Folders and Files

Files supplied as standard and those resulting from generation are stored in the <environment path>\Intranet folder.

☛ *Do not mix-up the "Site" folder, in which **HOPEX** is installed, with the "Web site" folder.*

A sub-folder for each Web site is automatically created (if it has not been specified in the **Generation Folder** field at the time of creation of the Web site).

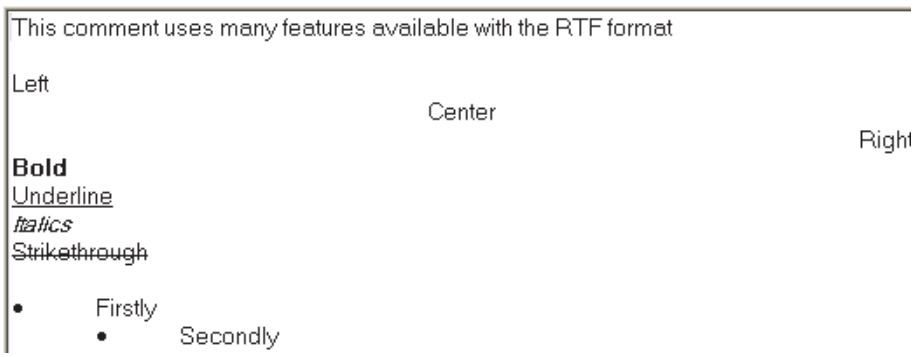
In the "Intranet" folder of the environment or in the sub-folder corresponding to the Web site you will find:

- the "Standard" folder that contains the standard images provided for use when generating the Web site.
- the "Pages" folder that contains the generated files (".htm" extension).
- the "Images" folder that contains the generated diagrams.
- files corresponding to the Home Page and Site Map.

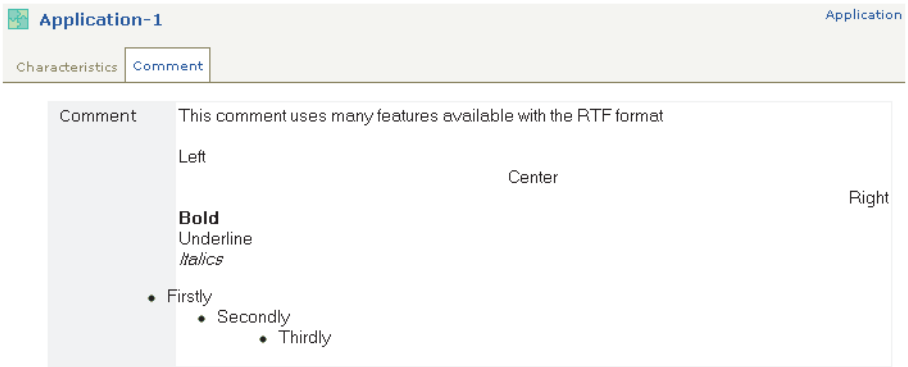
Reproducing Comments in an HTML Page

Formatting of RTF comments is reproduced in the Web site.

☛ *For more details on entering comments, see "Naming Objects", page 178.*



Example of comment formatting



Reproduction in a Web site

USING EXTERNAL REFERENCES

HOPEX allows you to create references to text outside the repository. For example, you can create references to regulations concerning security measures, the environment, legal issues, and so on.

These external references can be associated with all repository objects: In the properties dialog box of the object, you can enter the location of the document or the Internet or Intranet address (URL) where the information can be accessed. You need only click the Open button in the tab to access the document.

☛ *If the document cannot be accessed in electronic format, you can make reference to it in the comment of the object associated with this document.*

✓ "Types of External References", page 438
✓ "Creating an External Reference", page 439
✓ "Predefining an Address", page 441
✓ "Using External References", page 443

Types of External References

There are several types of external reference:

- **File**
- **SWF** (Shockwave Flash) animation: Flash animation used in Web navigators
- **URL** (Universal Resource Locator address: protocol used on the Web to specify the location of a file or a resource on the Internet.

  ☛ *In **HOPEX Web Front-End**, only external references of URL type are created.*

CREATING AN EXTERNAL REFERENCE

Creating an External Reference Connected to an Object

To insert and create an external reference in a diagram, see "Inserting External References in a Diagram", page 440.

To create an external reference connected to an object:

1. Open the properties page of the object.
2. Select **General > References**.
3. In the **References** section, click .

   ☛ *Alternatively, to create an external reference from the diagram, click the **External Reference** icon in the **Insert** toolbar. In the **Add External Reference** dialog box, enter a **Name** for the external reference and click **Create**.*

   The **Creation of External Reference** dialog box appears.
4. In the **Creation of External Reference** dialog box, indicate the **Type** of external reference that you want to create:
   - File
   - SWF
   - URL

   ☛ *For more details on external reference types, see "Types of External References", page 438.*

   ☛ *In **HOPEX Web Front-End**, only external references of URL type are created.*
5. Click **Next**.
   The external reference **Characteristics** dialog box appears.
   Its content depends on the type of external reference selected.
6. (Optional) Enter the **Name** of the external reference.

   ☛ *The **Name** of the external reference is the name of the file to be referenced. This box is completed automatically when the **Access Path** of the file is specified.*
7. (Optional) Define the **Owner** of the external reference.
8. (Optional) In the case of an external reference of **File** or **URL,** type, in the **Predefined Address** box, click:
   - the drop-down menu arrow to select a predefined address.

     ☺ *If the file that you want to access is in a predefined folder or one of its sub-folders, it is recommended that you select this folder when creating the external reference.*

     ☺ *If the URL address of the page that you want to access has been predefined, it is recommended that you select this folder when creating the external reference*
   - arrow to create a predefined address.

     ☛ *To create a predefined address, see "Predefining an Address", page 441.*

9. (Optional) In the case of an external reference of **SWF** type, enter the characteristics of the SWF animation (width, height and variable).
10. In the **Access Path** box, to reference an external reference of type:
    - File: click **Browse** and select the file you wish to reference.

      ☛ *The file name must not contain special characters (such as ä, ö, ü, é, è, ô, à).*

      The name of the file appears in the **Access Path** and **Name** boxes.
    - File: click **Browse** and select the file you wish to reference.

      ☛ *In the case of an external reference of **SWF** type, the external reference should be located in the mega_std or mega_usr directory of the site.*
    - indicate complements of the URL address that will obtain the desired page.
11. Click **Finish**.

Inserting External References in a Diagram

To insert an external reference in a diagram:

1. In the diagram, click the **Views and Details** button.
2. In the dialog box that opens, select **External References**.
3. In the Insert toolbar, click **External reference** and then click in the diagram frame.
   The **Add External Reference** dialog box appears.
4. In the **Name** box, click the drop-down list arrow and select **Query**/**List**/**Propose** to find an existing external reference.

   ☛ *If the external reference does not exist, select **Create** and go to "Creating an External Reference Connected to an Object", page 439.*
5. Select the external reference and click **OK**.
6. The name of the external reference appears in the **Add External Reference** dialog box.
7. Click **New**.
   The external reference appears in the diagram.

PREDEFINING AN ADDRESS

To simplify administration of external references, you can predefine addresses:

- "Predefining a File Type Address", page 441.
- "Predefining a URL Type Address", page 441

Predefining a File Type Address

A **Predefined address** of file type avoids having to browse the complete path when you create an external reference in this folder. You need only indicate the name of the file.

You can create predefined folders for the most frequently consulted folders.

To predefine a file type address:

1. In the **Creation of External Reference** of File type (see "Creating an External Reference", page 439), in the **Predefined Address** box, click arrow and select **Create Predefined Address**.
2. In the **Creation of Predefined Address** window, enter the **Name** of the address to be predefined.

   ☛ *The **Type** of address to be predefined is automatically defined according to the type of external references created.*
3. In the **Access Path** box, click ... and select the folder that you wish to reference.

   ☛ *If you know its name and/or path, you can enter this directly.*
4. Click **OK**.
   The folder you have predefined is automatically selected in the **Creation of External Reference** dialog box.

   In the **Access Path** field, when you click ..., you are directly positioned on the folder concerned.

Predefining a URL Type Address

A **Predefined address** of URL type avoids having to browse the complete path when you create an external reference stored at this address. You need only enter the rest of the basic URL address in the **URL** text box to create an external reference:

You can create predefined URL addresses for the most frequently accessed URL addresses.

To predefine a URL type address:

1. In the **Creation of External Reference** of URL type (see "Creating an External Reference", page 439), in the **Predefined Address** box, click arrow and select **Create Predefined Address**.
2. In the **Creation of Predefined Address** box, enter the **Name** of the URL address to be predefined.

   ☛ *The **Type** of address to be predefined is automatically defined according to the type of external references created.*
3. In the **URL** box, enter the complete URL of the page you wish to reference.

   ☛ *A URL address often begins with "http://www."*
4. Click **OK**.
   In the **Creation of External Reference** dialog box, the URL address you have created is automatically selected in the list of predefined URL addresses.

USING EXTERNAL REFERENCES

You can disconnect, delete and open external references:

Deleting a Predefined Address

To delete a predefined address:

1. In the **HOPEX Windows Front-End** toolbar, open the query tool.
2. In the query wizard, select **Predefined Address**.
   The list of predefined addresses appears.
3. Right-click the predefined address you wish to delete and select **Delete**.

   ☛ *You cannot delete a predefined address when it is used to create an external reference.*
4. In the delete objects dialog box, click **Delete**.
   The predefined address is deleted from the repository.

Accessing External References

You can access an external reference from:

- a diagram
- object
- the properties dialog box of an object
- the navigator
- query tool

Opening an external reference from a diagram

To open an external reference inserted in a diagram, you can:

- Right-click the external reference and select **Open**.
- Double-click the external reference.

Opening an external reference from an object

An object can be connected to several external references.

To open an external reference from an object:

1. Right-click the object and select **External Reference**.
   - When only one external reference is connected to the object, this will open directly.
   - When several external references are available, an intermediate dialog box listing the various external references available appears.

2. Select the external reference you want to open and click **OK**.

☛ *This feature is available in **HOPEX Windows Front-End** only.*

Accessing an external reference from an object property dialog box

To open an external reference from the properties dialog box of an object:

1. In the properties dialog box of the object, select **General > References**.
2. Select an external reference and click button **Open**
   The external reference opens.

Accessing an external reference from the navigation window

To open an external reference from the **navigation** window:

1. In the **HOPEX** menu bar, select **View >Navigation Windows > Documentation**.
2. Expand the **External reference** folder.
3. Double-click the desired external reference to open it.

☛ *This function is available with **HOPEX Windows Front-End** only.*

Accessing external references from the query tool

To open an external reference from the query tool:

1. In the **HOPEX** toolbar, open the query tool.
2. In the query wizard, select **External Reference** and click **Find**.
   The list of external references appears.
3. Double-click the desired external reference to open it.

External references relative to the environment or site

You can locate your external references in a sub-folder of the environment or site.

This folder relates to the environment or site. This allows you to move the environment or site without having to worry about path validity.

Path example:

C:\MyEnvironment\ExternalRef.doc.

If the environment is moved to another network resource, the path (relative and not absolute) remains valid.

USING BUSINESS DOCUMENTS

The purpose of business documents is to manage in **HOPEX** documents that evolve independently of the repository.

These can be, for example, legal or financial documents updated by org-units outside the enterprise, but attached to objects in the repository. A report (MS Word) generated by **HOPEX** can become a business document.

- ✓ "Business Documents Overview", page 446
- ✓ "Accessing Business Documents", page 448
- ✓ "Creating Business Documents", page 449
- ✓ "Managing Business Documents", page 451

BUSINESS DOCUMENTS OVERVIEW

Storage

To determine the storage directory defined by default by the administrator:

1. Click:
   - (**Windows Front-End**) **Tools > Options**.
   - (**HOPEX Web Front-End**) **Main Menu > Settings > Options**
2. In the tree on the left, expand the **Installation** folder and select **Advanced**.
   In the right pane, the **External files storage path** field indicates the address of the business document storage directory.

   ☺ *Confirm with your administrator that you have rights to access this directory.*

Business Document Patterns

To simplify management of business documents, **HOPEX** allows the end user to select from among the document patterns that can be accessed by his/her profile.

The document pattern predefines:

- the category, see "Classification", page 446.
- the confidentiality area, see "Confidentiality and reading access", page 447.
- encryption associated with a document: encryption renders unreadable the content of files physically stored on the disk (.dat files).

☛ *For more details on business document patterns, see technical article **HOPEX Power Studio - Publisher,** chapter "Customizing Business Documents".*

Classification

The document repository can be extensive, it is therefore important to classify business documents in categories.

A category enables classification of documents according to standard subjects such as Audit, Diagram, Control Documentation. Categories are organized hierarchically from these main types.

☛ *For more details on creation of categories, see technical article **HOPEX Power Studio - Publisher,** chapter "Customizing Business Documents".*

Confidentiality and reading access

Certain documents may be confidential and their access, even in read-only, is restricted to certain profiles. To do this, you must define reading access area to confidential documents.

The reading access area assembles a group of **HOPEX** objects. It can be associated with persons or person groups.

This means that users can see **HOPEX** objects defined at the reading access area level, but also objects associated with child reading access areas. The user cannot access objects defined in a parent reading access area.

☛ *Use of reading access areas is only proposed with a **HOPEX Power Supervisor** license.*

For more details on reading access areas, see HOPEX Administration - Supervisor guide.

ACCESSING BUSINESS DOCUMENTS

Accessing Business Documents in Windows Front-End

To access all repository business documents:

1. Open the **HOPEX Windows Front-End**, open **Documentation** navigation window.

   ☛ *To open this window, with **HOPEX Windows Front-End**, select **View > Navigation Windows > Documentation**.*

2. Expand the **Business Documents** folder.
   You can access:
   - all documents classified by alphabetical order (**All documents**)
   - documents classified by **categories**
   - documents classified by **document patterns**

To access business documents referenced from an object:

1. Open the properties page of the object.
2. Select the **General** tab and then the **Documents** subtab.

Accessing Business Documents in Web Front-End

☛ *Access to business documents can vary depending on the solution used. In this case, refer to the corresponding user guides.*

To access all repository business documents:

- In the **HOPEX Web Front-End** Enterprise Architect desktop, click **Repository > Documentation > Business Documents**.
  You can access:
  - business documents classified by category
  - business documents classified by pattern
  - the business documents list.

  ☛ *To define other object types that can be documented, see technical article **HOPEX Power Studio - Publisher**, chapters "Customizing Business Documents", "Defining Business Document Objects".*

To access business documents referenced from an object:

1. Open the properties dialog box of the object concerned.
2. Click **Characteristics**.
3. Expand the **Attachments** section.

CREATING BUSINESS DOCUMENTS

A business document is a **HOPEX** object created from a file downloaded in **HOPEX**. The business document is independent of the initial file.

The business document is attached to an object, it is based on a model and category.

Creating Business Documents in Windows Front-End

You can create a business document:

- from the navigation window **Documentation Business Documents Documents by Category**.
- from an object that can be documented.

You can create a business document:

- From a file external to **HOPEX**.
- from a document generated in **HOPEX**.

From a file external to HOPEX

To create a new business document from an org-unit for example:

1. Open the properties page of the org-unit.
2. Select the **General** tab and then the **Documents** sub-tab.
3. In the **Business Document** frame, click **New**.
4. Enter the **Name** of the business document.
5. Click **Browse** and select the file to be downloaded.
6. Specify the **Document Pattern**.

   *The **document pattern** predefines the category, confidentiality area and encryption associated with a new document.*
7. Click **OK**.
   The business document is connected to the object and stored by the **HOPEX** application.

From a document generated with HOPEX

HOPEX reports enable automatic generation in written form of knowledge extracted from design data managed by the software. These reports can be:

- analysis reports
- reports (MS Word)

HOPEX books can also be generated and saved in doc, rtf or pdf format.

When you obtain a version of a document generated with MEGA that you find satisfactory and wish to keep or distribute, you can save it as a business document.

To transform a document generated with **HOPEX** to a business document:

1. Right-click the document generated with **HOPEX** and select **Save as business document**.
   The **Creation of Document** dialog box opens.
2. Indicate the **Owner** of the document.
3. In the **Document Pattern** field, select a pattern.
4. Click **OK**.
   The business document created appears in the list of documents attached to the owner object.

Creating a Business Document in Web Front-End

☛ *Creation of business documents can vary depending on the solution used. Refer to the corresponding user guides.*

To create a business document from the **HOPEX Web Front-End** Enterprise Architecture desktop:

1. Open the properties dialog box of the object concerned.
2. Click **General > Documents**.
3. In the **Owned Business Documents** section, click **New**.
   The business document creation window opens.
4. Indicate the business document **Name**.
5. In the File Location field, click then select the file.
6. Specify the **Document Pattern**.

   ☛ *For more details, see "Business Document Patterns", page 446.*
7. Click **Finish**.
   The business document is connected to the object and stored by the **HOPEX** application.

MANAGING BUSINESS DOCUMENTS

Managing Business Document Content

On creation of a business document, a business document version is created automatically. A business document therefore comprises at least two objects:

- a business document
- a business document version

> ☛ *The business document version name is calculated from the business document name.*

If document content evolves, following a new regulation for example, you must create a new version of your business document and download the new updated file in **HOPEX** .

To modify the business document, **HOPEX** offers two possibilities that involve file download:

- ***Update business document***: replaces the old version

  > ☛ *This functionality should be used when:*
  >
  > - *you want to carry out minor corrections.*
  > - *you are debugging the business document.*

- ***Create now business document version***: keeps the old version and creates a new version

  > ☛ *This functionality should be used when business document content evolves and you want to keep the different versions.*

Updating business documents

> ☛ *See "Accessing Business Documents", page 448.*

To update a business document:

1. Open the business document and save it locally.
2. Make your modifications in the local copy.

   > **You can open a business document to consult its content, but you cannot modify it directly from the editor proposed by HOPEX.**

3. In **HOPEX**, right-click the business document and select **Update**.
4. In the dialog box that appears, select the modified document and click **OK**.
   The current version of the business document is updated in the repository.

   > ☛ *Updating a business document does not create a new version.*

Managing business document versions

> 🕮 *The version of a document enables access and referencing of the different valid versions of the same document. For example, legal*

regulations evolve from one year to another. a business document version is a business document.

☛ *See "Accessing Business Documents", page 448.*

Creating a new business document version

To create a new business document version:

1. Right-click the business document and select **New Version**.
2. Select the file in the desired location and click **OK**.
   A new business document version is created. The modified document is downloaded in this new version.
   The document version number is incremented.

   ☛ *The old business document version is kept.*

Accessing business document history

To access business document history:

1. Open the properties dialog box of the business document.
2. Click:
   - **(HOPEX Windows Front-End) Characteristics > Versions History**.
   - **(HOPEX Web Front-End) Versions History**

   ☛ *This tab is available only if your profile authorizes you to create document versions.*

   ☛ *In **HOPEX Windows Front-End**, content of the **Versions History** tab has no connection with the **History** tab available in the pop-up menu of an object, which tracks actions executed on the object.*

Referencing Business Documents

A business document is attached to an object but can be referenced by another object. For example, a business document created for an org-unit can be connected to organizational processes for which the org-unit is responsible.

Referencing business documents (HOPEX Windows Front-End)

☛ *See "Accessing Business Documents in Windows Front-End", page 448.*

The reference link is displayed in the **General** > **References** tab (the document can be referenced by several objects).

☛ *The ownership link of a business document by an object is displayed in the **General** > **Documents** tab of the object (the document can be owned by only one object).*

So that an object can reference an existing business document:

1. Open the properties dialog box of the object concerned, in our example the organizational process.
2. Select the **General** tab and then the **Reference** subtab.
3. In the **Business Document** frame, click **New**.
   The query dialog box appears.

4. Click **Find** .
   You obtain a list of all business documents accessible with your profile.
5. Select the business document to be referenced and click **Connect**.
   The document appears in the list of documents of the organizational process.

Referencing business documents (Web Front-End)

To reference a document relating to an object:

1. Open the properties of the object that interests you.
2. Click **General > References**.
3. In the **External Reference** section, click **New**.
   The query dialog box appears.
4. Click **Find** .
   You obtain a list of all business documents accessible with your business role.
5. Select the org-unit that interests you and click **Connect**.
   The document appears in the list of business documents.

Deleting Business Documents

You can however delete:

- a business document
- a business document version

> ☛ *Note that a business document must have at least one version to function, and that a version cannot exist independently of a business document.*

To delete a business document:

1. Right-click the business document and select **Delete**.

   > ☛ *See "Accessing Business Documents", page 448.*

   A window appears listing the document versions you are authorized to delete.
2. Select the business documents and/or business document versions you wish to delete and click **Delete**.
   The business documents disappear from the object lists to which they were connected. The file managed by **HOPEX** remains however in the business documents storage directory.

   > ☛ *For more information on the storage directory, see "Storage", page 446.*

Using Collaboration Tools

COMMUNICATING IN HOPEX

HOPEX simplifies teamwork and makes different means of communication available with your **HOPEX** (Web Front-End) desktop. You can:

- ✓ create and participate in review notes on objects or object attributes.
  - ☛ *See "Managing review notes", page 463.*
- ✓ add tags to objects
  - ☛ *See "Managing Tags", page 473.*
- ✓ view the activity on objects
  - ☛ *See "Managing Activity on Objects", page 479.*
- ✓ share with the other **HOPEX** users: add tags, like an object, add ideas.
  - ☛ *See "Sharing with other users (social)", page 487.*
- ✓ follow objects and receive notifications of their ongoing modifications.
  - ☛ *This function is also available in **HOPEX** (Windows Front-End).*
  - ☛ *See "Managing my notifications", page 490.*
- ✓ work on objects with certain users without other users seeing your work.
  - ☛ *This functionality is also available in **HOPEX** (Windows Front-End) and in an RDBMS format repository.*
  - ☛ *See "Working in a Collaborative Workspace", page 498.*

ACCESSING COLLABORATION IN HOPEX

In HOPEX (Web Front-End), you can access collaboration features:

- for all objects.
  - ☛ *See "Accessing a Collaboration Feature", page 458.*
- for a specific object.
  - ☛ *See "Accessing Collaboration Information on an Object", page 460.*

To access a collaborative workspace, see "Working in a Collaborative Workspace", page 498.

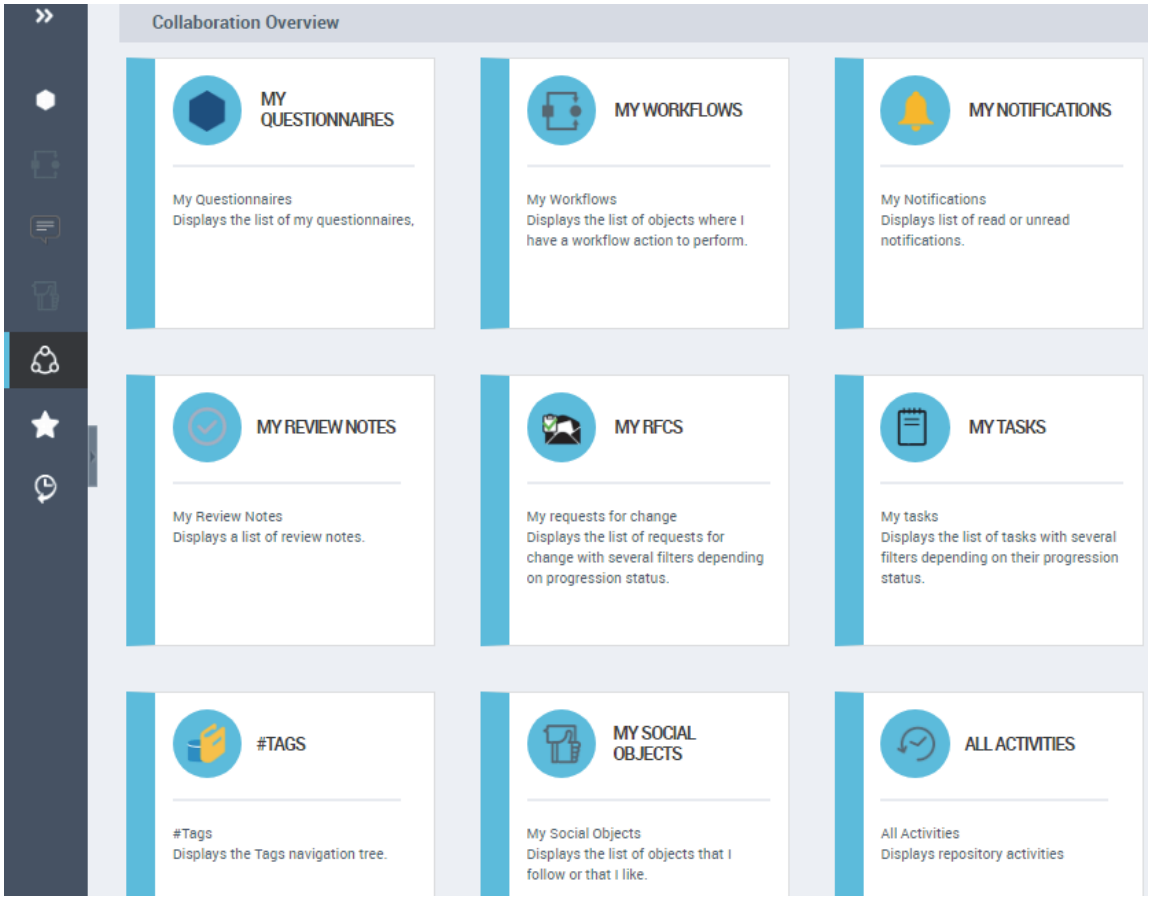
Accessing a Collaboration Feature

Depending on the desktop on which you work, the **Collaboration** navigation pane provides access to:

- your questionnaires
  - ☛ *See "Answering a Questionnaire", page 651.*
- your workflows
  - ☛ *See "Using Workflows", page 517.*
- your notifications
  - ☛ *See "Managing my notifications", page 490.*
- your review notes
  - ☛ *See "Managing review notes", page 463.*
- tags
  - ☛ *See "Managing Tags", page 473.*
- activities on objects
  - ☛ *See "Managing Activity on Objects", page 479.*
- objects that you are following
  - ☛ *See "Accessing the activity on the objects that you are following", page 481.*
- your tasks
  - ☛ *See "Using Design Tasks", page 527.*
- your change requests
  - ☛ *See "Using Requests For Change", page 525.*
- your social objects
  - ☛ *See "Sharing with other users (social)", page 487.*

To access a collaboration feature:

1. From your **HOPEX** desktop, click the navigation menu and select **Collaboration**.
   The collaboration features appear in the form of tiles in the **Navigation** edit area.



2. Click the feature you want to access.
   The feature appears in the **Navigation** edit area.

Accessing Collaboration Information on an Object

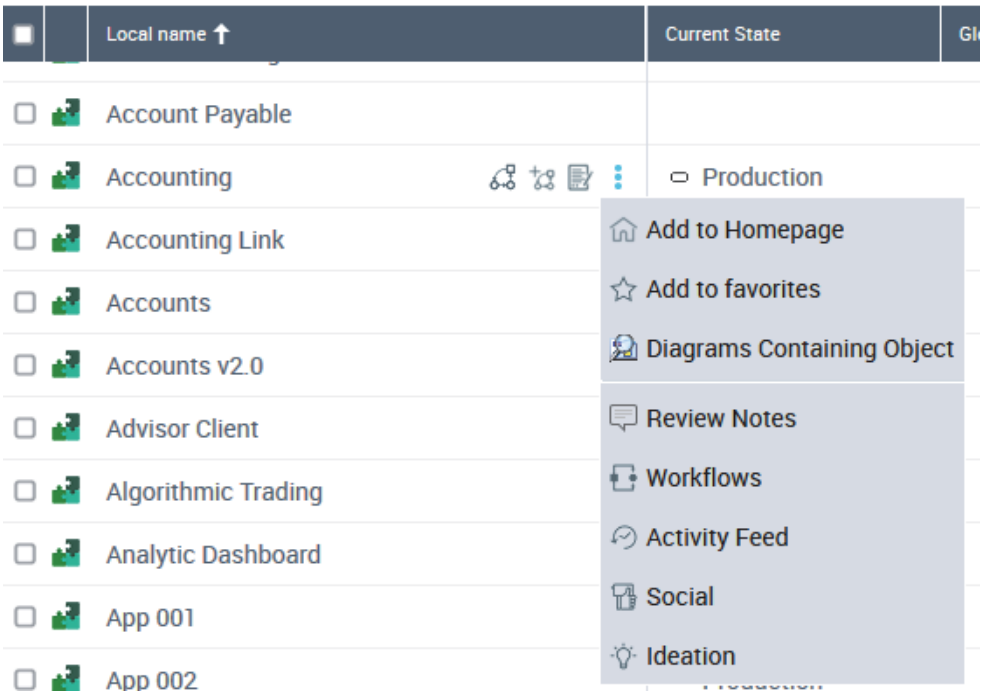
Accessing collaboration information on an object in a list

To access collaboration information on an object in a list:

1. From your **HOPEX** desktop, access a list of objects that contains the object concerned.

   ☛ *See "Common Actions on Repository Objects", page 51.*

2. Roll the mouse over the **Local name** column of the object and click **More** ⋮.



3. Click the feature concerned:
   - **Review Notes**
   - **Workflows**
   - **Activity Feed**
   - **Social**
   - **Ideation**

   The **Collaboration** window of the edit area appears and displays the tab of the selected feature:
   - **Review Notes**, see "Managing review notes", page 463.
   - **Workflows**, see "Using Workflows", page 517.
   - **Activity Feed**, see "Managing Activity on Objects", page 479.
   - **Social**, see "Sharing with other users (social)", page 487.
   - **Ideation**, see "Managing Ideas", page 489.

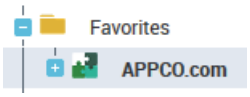
Accessing collaboration information on an object in a tree

To access collaboration information on an object in a tree:

1. In your **HOPEX** desktop, open the **Collaboration** window.

   ☛ *See "Displaying a Collaboration Feature", page 461.*
2. In the **Collaboration** window, select the collaboration feature corresponding tab.
3. In your **HOPEX** desktop, access a tree that includes the object concerned.
4. In the tree, select the object concerned.

   For example: an object in your favorite tree.

   The collaboration tab details the collaboration information for the object.

Displaying a Collaboration Feature

The tabs in the **Collaboration** window display the collaboration information concerned for the object selected in another window on your desktop.

To display a Collaboration feature:

1. From your **HOPEX** desktop, click the edit area display button for **Collaboration** .

   ☛ *See "Managing windows and panes", page 42.*

   The **Collaboration** window appears and provides access to the following objects:

   - **Review Notes**
   - **Workflows**
   - **Activity Feed**
   - **Social**
   - **Ideation**

2. Select the tab that corresponds to the feature concerned.
3. Select an object in another window.
   The corresponding collaboration information for the object appears in the tab concerned.

MANAGING REVIEW NOTES

In **HOPEX** (Web Front-End), review notes enable you to communicate between users on **HOPEX** objects. Review notes are public and independent of the desktop on which you work. They concern a specific object or a specific object attribute.

See:

- "The Actions Linked to the States of a Review Note", page 463
- "Adding a Review Note", page 465
- "Accessing Review Notes", page 467
- "Modifying a Review Note", page 469
- "Answering a review note", page 470
- "Modifying your Answer to a Review Note", page 471
- "Validating a review note", page 471
- "Canceling the Validation of a Review Note", page 471
- "Closing a Review Note", page 472
- "Reopening a Closed Review Note", page 472
- "Managing Tags", page 473

The Actions Linked to the States of a Review Note

The actions that you can perform on a review note are linked to its state:

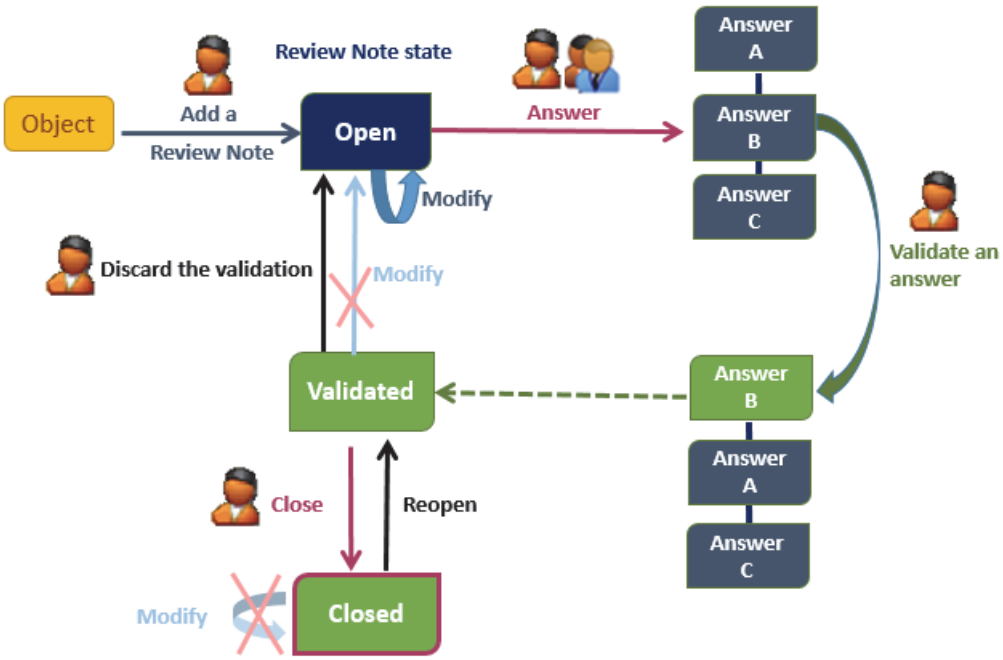
- opened:
  - answer
  - modify (if you are the author)
- validated
  - closed
  - cancel the validation
- closed
  - reopen

The elements that participate in review notes are:

- the author of the review note: all persons with access to the object
- the annotated object
  - the object itself
  - one of the object attributes
- the review note
- the answers to the review note
- the persons who answer the review note: all persons who have access to the object, including the author of the review note.
- the person who validates the answer: all persons who have access to the object, including the author of the review note or the author of the answer.
- the person who closes the review note: all persons with access to the object.

The diagram below presents the actions linked to the states of a review note and the elements that participate in the review note.

☛ *These actions are not configurable.*



You can:

- add a review note to an object or an object attribute.
  ☛ *See "Adding a Review Note", page 465.*
- access your review notes.
  ☛ *See "Accessing Review Notes", page 467.*
- modify a review note if you are the author.
  ☛ *See "Modifying a Review Note", page 469.*
- answer a review note.
  ☛ *See "Answering a review note", page 470.*
- modify your answer to a review note.
  ☛ *See "Modifying your Answer to a Review Note", page 471.*
- validate a review note.
  ☛ *See "Validating a review note", page 471.*
- cancel the validation of a review note.
  ☛ *See "Canceling the Validation of a Review Note", page 471.*
- close a review note.
  ☛ *See "Closing a Review Note", page 472.*
- reopen a closed review note.
  ☛ *See "Reopening a Closed Review Note", page 472.*
- reorder review notes.
  ☛ *See "Reopening a Closed Review Note", page 472.*

Adding a Review Note

You can add a review note:

- to an object using a list of objects
- to an object attribute in the property pages of the object.

Adding a review note to an object

To add a review note to an object:

1. From your **HOPEX** desktop, access the **review notes** of an object.
   ☛ *See "Accessing Collaboration Information on an Object", page 460.*

   The **Collaboration** window appears and displays the **Review Notes** tab for the object.

   All the opened or validated review notes already existing on the object are displayed.
2. In the text edit field enter your note.

   ☺ *You can use the @ character followed by at least the first letter of the name of the person that you want to mention in your text. Then, select the person in the list that appears.*

   ☛ *The persons mentioned in a review note are automatically added to the list of persons that follow the object.*

3. Click **Add**.
Your object review note on the object is created.

☛ *To modify your review note, see "Modifying a Review Note", page 469.*

☛ *To view all the review notes created on the object (on the object itself and on its attributes), see "Accessing the review notes of an object", page 467.*

☛ *To answer (yourself or other users) this review note, see "Answering a review note", page 470.*

If you are working in a:

- public workspace, the other users have access to your review note.
- private workspace, the other users can access your review note when you have dispatched your updates.
- collaborative workspace, the other users can access your review note once you have exited your session (and saved your updates). The other users have access to your review note when the workspace is dispatched.

☛ *See "Exiting a session from a collaborative workspace", page 515.*

You are automatically subscribed to the alerts on the modification to the object.

Users subscribing to alerts on object modifications are notified.

☛ *See "Managing Your Alerts on Object Modification", page 494.*

Adding a review note to an object attribute

To add a review note to an object attribute:

1. From your **HOPEX** desktop, access the properties of the object for which you want to create a review note for one of its attributes.

☛ *See "Accessing object properties", page 162.*

2. Click the edit area display button for **Colaboration** and select **Review Notes** tab.

☛ *This step is not necessarily needed in HOPEX Explorer.*

3. In the property page, click the attribute concerned.

☛ *(HOPEX Explorer) Alongside the attribute concerned, click **Display or Create Review Notes**. The icon changes color to highlight the attribute concerned by the review note. The **Collaboration** window appears and displays the **Review Notes** tab.*

In the **Review Notes** tab, the **Annotated field** indicates the attribute concerned by the review note.

4. In the text edit field enter your note and click **Add**.
The **Opened/Validated Review Notes** section displays the note.

☛ *To modify your review note, see "Modifying a Review Note", page 469.*

☛ *To view all the review notes created on the object (on the object itself and on its attributes), see "Accessing the review notes of an*

object", page 467.

☛ *To answer (yourself or other users) this review note, see "Answering a review note", page 470.*

If you are working in a:

- public workspace, the other users have access to your review note.
- private workspace, the other users can access your review note when you have dispatched your updates.
- collaborative workspace, the other users can access your review note once you have exited your session (and saved your updates). The other users have access to your review note when the workspace is dispatched.

☛ *See "Exiting a session from a collaborative workspace", page 515.*

Users subscribing to alerts on object modifications are notified.

☛ *See "Managing Your Alerts on Object Modification", page 494.*

Accessing Review Notes

You can access:

- all your review notes classified by type
- the review notes of an object
- the review notes of an object attribute

Accessing all your review notes

Your review notes are classified by type:

- opened or validated review notes for which you are the author
- opened or validated review notes in which you participate
- closed review notes

To access all your review notes:

1. From your **HOPEX** desktop, access the **My Review Notes** feature.

   ☛ *See "Accessing a Collaboration Feature", page 458.*

   All the opened or validated review notes for which you are the author appear.
2. To display other types of review notes, click the drop-down list and select the type of review notes that you want to access.

Accessing the review notes of an object

Review notes are classified by type:

- opened or validated review notes
- closed review notes
- all review notes

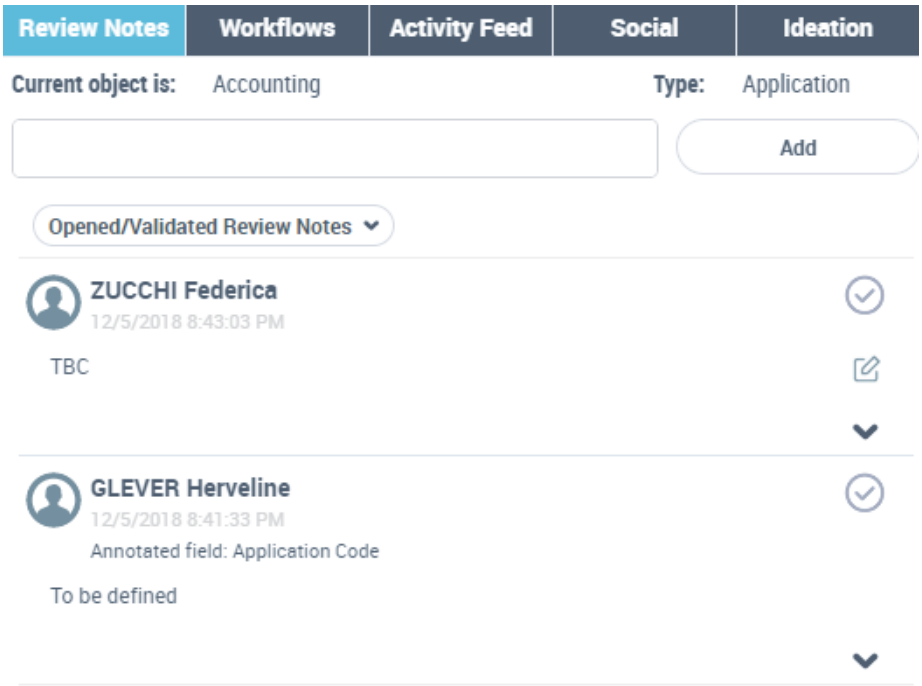
To access the review notes of an object:

1. Access the **Collaboration** information of the object concerned.

   ☛ *See "Accessing Collaboration Information on an Object", page 460.*

2. Select **Review Notes** .

   The **Collaboration** window appears and displays the **Review Notes** tab with:
   - the object concerned by the review note (**Current object is**)
   - the object **Type**
   - the **Open/Validated Review Notes** added to the object, in chronological order (the newest first).



3. Select another review note type you want to access.
   The review notes (of the type chosen) added to the object appear.

   ☛ *To access the review notes of an object from the review notes of another object attribute, see "Accessing the review notes of an object attribute", page 468.*

Accessing the review notes of an object attribute

Review notes are classified by type:

- opened or validated review notes
- closed review notes
- all review notes

To access the review notes of an object attribute:

1. From your **HOPEX** desktop, access the properties of the object concerned.

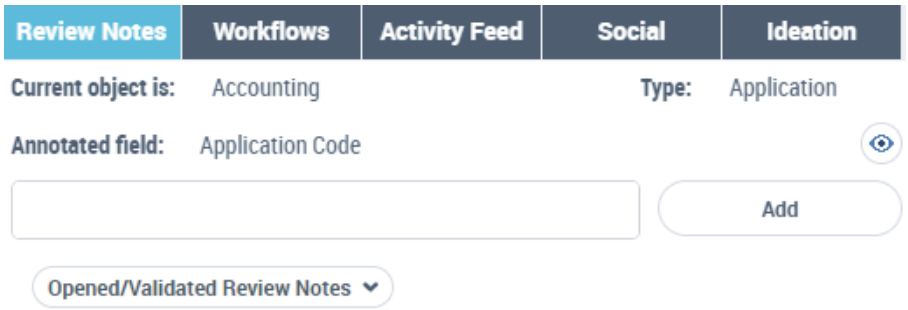
   ☛ *See "Accessing object properties", page 162.*

2. Click the attribute concerned.

   ☛ *(HOPEX Explorer) Alongside the attribute concerned, click* ***Display or Create Review Notes*** *. The icon changes color to highlight the attribute concerned by the review note.*

   The **Collaboration** window appears and displays the **Review Notes** tab which details:

   - the object concerned by the review note (**Current object is**)
   - the object **Type**
   - the object attribute concerned by the review note (**Annotated field**)
   - the **Open/Validated Review Notes** added to the attribute concerned, in chronological order (the newest first).



3. Select the type of review note to which you want access.
   All the review notes (of the type chosen) added to the attribute appear.

   ☛ *To display all the review notes added to the object, click* ***See all review notes of the object*** .

Modifying a Review Note

You can modify a review note that is in opened state.

☛ *See "The Actions Linked to the States of a Review Note", page 463.*

To modify a review note:

1. Access the review notes for which you are the author.

   ☛ *See "Accessing Review Notes", page 467.*

2. Alongside the note that you want to modify, click **Edit** .

3. In the edit field, modify the text of your note and click **OK**.
   The review note is modified.

   If you are working in a:

   - public mode, the other users see your modification.
   - private mode, the other users see your modification when you have dispatched your updates.
   - collaborative mode, the other users your modification once you have exited your session (and saved your updates). The other users see your modification when the workspace is dispatched.

     ☛ *See "Exiting a session from a collaborative workspace", page 515.*

   Users subscribing to alerts on object modifications are notified.

     ☛ *See "Managing Your Alerts on Object Modification", page 494.*

Answering a review note

All persons with access to the object concerned (including the creator of the review note) can answer an open review note.

☛ *See "The Actions Linked to the States of a Review Note", page 463.*

To answer a review note:

1. Access the review note concerned.

   ☛ *See "Accessing Review Notes", page 467.*

2. On the bottom of the review note, click **Expand** .
   The answers to the review note appear.

   An edit field appears.

3. In the text edit field, enter your answer.
4. Click **Add** alongside your answer.
   Your answer is added to the review note. If other answers are already present, it is added to the end of the list.

   ☛ *To modify your answer, see "Modifying your Answer to a Review Note", page 471*

   If you are working in a:

   - public mode, the other users see your modification.
   - private mode, the other users see your modification when you have dispatched your updates.
   - collaborative mode, the other users your modification once you have exited your session (and saved your updates). The other users see your modification when the workspace is dispatched.

     ☛ *See "Exiting a session from a collaborative workspace", page 515.*

   Users subscribing to alerts on object modifications are notified.

     ☛ *See "Managing Your Alerts on Object Modification", page 494.*

Modifying your Answer to a Review Note

You can modify your answer to an open review note.

☛ *See "The Actions Linked to the States of a Review Note", page 463.*

To modify your answer to a review note:

1. Access your answer.

☛ *See "Accessing Review Notes", page 467.*

2. Alongside your answer, click **Edit** .
3. In the text edit field, modify the text of your note and click **Add**.
   Your answer is modified.

   If you are working in a:

   - public mode, the other users see your modification.
   - private mode, the other users see your modification when you have dispatched your updates.
   - collaborative mode, the other users your modification once you have exited your session (and saved your updates). The other users see your modification when the workspace is dispatched.

☛ *See "Exiting a session from a collaborative workspace", page 515.*

   Users subscribing to alerts on object modifications are notified.

☛ *See "Managing my notifications", page 490.*

Validating a review note

A review note must have received at least one answer to be validated.

To validate a review note:

1. Access the answer to the review note that you want to validate.

☛ *See "Answering a review note", page 470.*

2. Select **Click to Validate this answer** .
   The answer is validated:
   - the answer takes first place in the answers.
   - the icon alongside the answer appears .

   The review note is validated:
   - the icon alongside the review note appears .

Canceling the Validation of a Review Note

You can cancel the validation of a review note.

☛ *See "The Actions Linked to the States of a Review Note", page 463.*

To cancel the validation of a review note:

1. Access the answer that validates the review note.

   ☛ *See "Accessing Review Notes", page 467.*

   The answer that validates the review note is at the top of the answers.

2. Click **Click to invalidate this answer** .
   The answer validation is invalidated and the review note switches to opened state. Its answers are kept.

Closing a Review Note

You can close a review note that has been validated.

☛ *See "The Actions Linked to the States of a Review Note", page 463.*

To close a review note:

1. Access the validated review note that you want to close.

   ☛ *See "Accessing Review Notes", page 467.*

2. Click **Validated by <Name of the Person> on <date> <time>** .
   A message prompts you to confirm closing the review note.
3. Select **Yes**.

   ☛ *Click **No** if you do not want to close the review note.*

   The review note is moved to **Closed Review Notes**.

Reopening a Closed Review Note

You can reopen a review note that has been closed.

☛ *See "The Actions Linked to the States of a Review Note", page 463.*

To reopen a review note:

1. Access the closed review note that you want to reopen.

   ☛ *See "Accessing Review Notes", page 467.*

2. Click **Close by <Name of the Person> on <date> <time>** .
   A message prompts you to confirm reopening the review note.
3. Select **Yes**.

   ☛ *Click **No** if you do not want to reopen the review note.*

   The review note is moved to **Opened or Validated Review Notes**, and keeps its validated status.

MANAGING TAGS

In **HOPEX** (Web Front-End), you can add tags to objects. These tags are used as #tags (hashtags) in the quick search tool.

A tag is a classifying description used to characterize objects.

See:

- "Accessing the Repository Tags", page 473
- "Classifying the Tags", page 474
- "Creating a Tag or Creating Mass Tags", page 474
- "Mass Addition of a Tag to Objects", page 475
- "Displaying all the Objects with a Given Tag", page 476
- "Deleting a Tag from the HOPEX Repository", page 476
- "Managing tags on an Object", page 476

Accessing the Repository Tags

You can access all the tags defined in the **HOPEX** repository.

☛ *To access all the tags added to an object, see "Accessing Collaboration Information on an Object", page 460.*

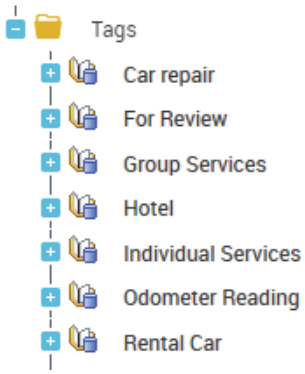
To access the repository tags:

1. Access the **Tags** feature.

   ☛ *See "Accessing a Collaboration Feature", page 458.*

2. Click the **Tags** folder.

   The **Tags** tree appears in the **Navigation** edit area.



Classifying the Tags

If necessary, you can classify the tags in the folders.

To classify the tags:

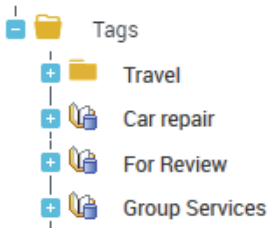
1. Access the **Tags** feature.

   ☛ *See "Accessing a Collaboration Feature", page 458.*

2. Right-click **tags** and select **New > Tag Folder**.
3. In the **Name** field, enter a tag classification name.

   ```
   Example: "Travel".
   ```

   The folder is added to the **Tags** folder.



4. In the **Tags** tree, select a tag and drag and drop it to the tag classification folder.

   ```
   Example: move the "Hotel" and "Rental" tags to the "Travel"
   folder.
   ```

Creating a Tag or Creating Mass Tags

To standardize tags, instead of creating a tag by adding the tag to the object, you can create tags.

These tags are then available in the list of tags to be added to the objects.

☛ *See "Adding a tag to an object", page 477.*

To create a tag:

1. Access the repository tags.

   ☛ *See "Accessing the Repository Tags", page 473.*

2. Right-click **Tags** folder (or a classification sub-folder) and select **New > Tag**.

   ☛ *See "Classifying the Tags", page 474.*

3. In the **Name** field, enter a tag.

   ```
   Example: location.
   ```

4. Click **OK**.
   The tag is added to the **Tags** tree.

Mass Addition of a Tag to Objects

You can add a tag to one object or add a tag to more than one object at a time.

> ☛ *To add a tag to one object, see "Adding a tag to an object", page 477.*

To add a tag to more than one object at a time:

1. Access the repository tags.

   > ☛ *See "Accessing the Repository Tags", page 473.*

2. Right-click the tag concerned and select **Connect > Element With Tag**.

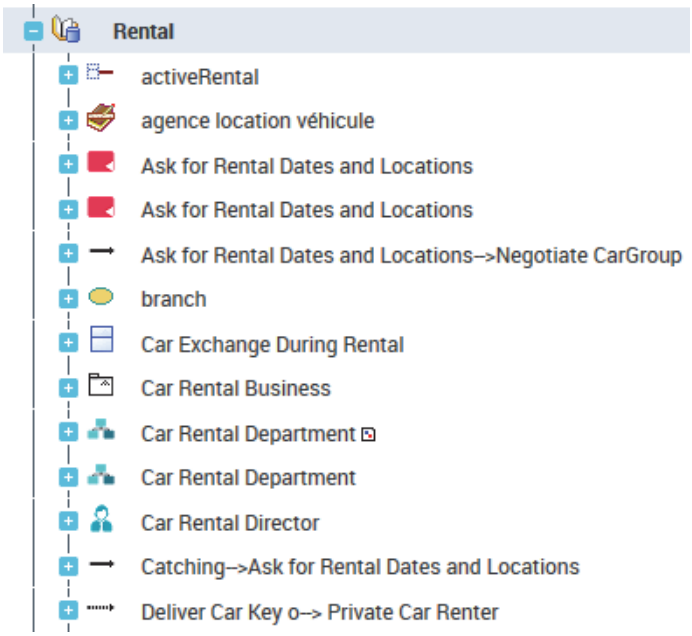
   ```
   Example: the "rental" tag.
   ```

3. (if needed) In the first selection field, select a specific object type to restrict the search.
4. In the second field of the search tool, enter the search characters.

   ```
   Example: "rental".
   ```

   All objects that contain the searched characters are listed.
5. In search results, select all the objects for which you want to add the tag.
6. Click **OK**.
   The tag is added to all the selected objects.

   ```
   Example: The "rental" tag is added to all objects whose name
   contains "rental".
   ```



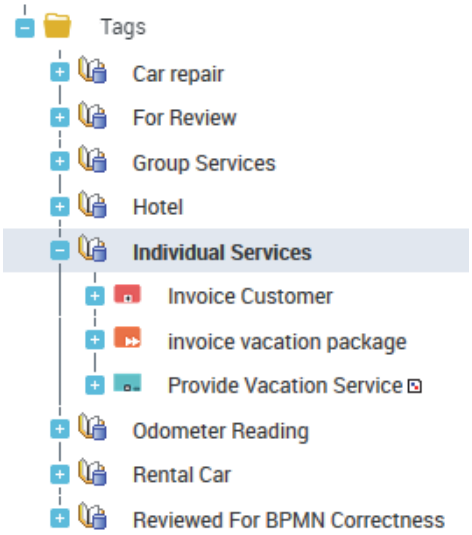
Displaying all the Objects with a Given Tag

To display all the objects to which a specific tag has been added:

1. Access the repository tags.

   ☛ *See "Accessing the Repository Tags", page 473.*

2. Expand the tag concerned.
   The objects with the given tag are listed.



Deleting a Tag from the HOPEX Repository

To delete a tag from the **HOPEX** repository:

1. Access the tags.

   ☛ *See "Accessing the Repository Tags", page 473.*

2. Expand the **Tags** folder.
3. In the **Tags** tree, right-click the tag concerned and select **Remove**.
4. In the removing tag dialog box, click **Delete**.
   The tag is deleted from the **HOPEX** repository.

Managing tags on an Object

You can add as many tags as you want to an object.

☛ *When an object has a large number of tags, you can create a quantitative instant report (word cloud) on this object, see "Word cloud type instant report", page 371.*

Adding a tag to an object

To add a tag to an object, you can enter the tag when adding it or choose it from the list of tags created.

☛ *To create a tag, see "Creating a Tag or Creating Mass Tags", page 474.*

To add a tag to an object:

1. Access the **Social** feature on the object concerned.
   The **Collaboration** window appears and displays the **Social** tab.

   ☛ *See "Accessing Collaboration Information on an Object", page 460.*

2. In the **#Tags** section, enter the tag in the field.

   ```
   Example: "important"
   ```

   If your tag already exists, it is made available to you in a drop-down list.

   ☛ *You can also click on the arrow in the field and in the drop-down list, select a tag already defined.*

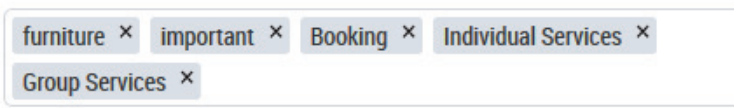
   When you enter letters, tags that exist and start by these letters are automatically made available.

   ☛ *In the drop-down list, select the tag already defined.*

3. Press [Enter].
   Your tag is added to the object.
   Your tag is also added to the list of tags available for use on another object.

4. (if needed) In the field enter another tag.
5. Press [Enter].
   The other tag is added.

   ☛ *You can add as many tags as you want to an object.*



Removing a tag from an object

You can remove a tag from an object.

> ☛ *To delete a tag from the repository, see "Deleting a Tag from the HOPEX Repository", page 476.*

To remove a tag from an object:

1. Access the **Social** feature on the object concerned.
   The **Collaboration** window appears and displays the **Social** tab.
   > ☛ *See "Accessing Collaboration Information on an Object", page 460.*
2. Click × to the right of the tag.
   The tag is deleted from the object.
   The tag is always present in the list of repository tags.

Using the tags in the quick search tool

You can use the "#" character followed by a tag in the quick search tool. This also enables you to associate the tag with another object in your search.

MANAGING ACTIVITY ON OBJECTS

You can access the activity:

- on all repository objects
- on all the repository objects that you are following
- on one object in the repository

Managing Activity on Objects

You have access to the activity:

- on all objects in the repository (**All activities** tile)

  ☛ *See "Accessing the activity on objects", page 480.*

- on all objects in the repository that you follow (**What I follow** tab)

  ☛ *See "Accessing the activity on the objects that you are following", page 481.*

- on one object in the repository (**Activity Feed** tab)

  ☛ *See "Using the activity feed on an object", page 483.*

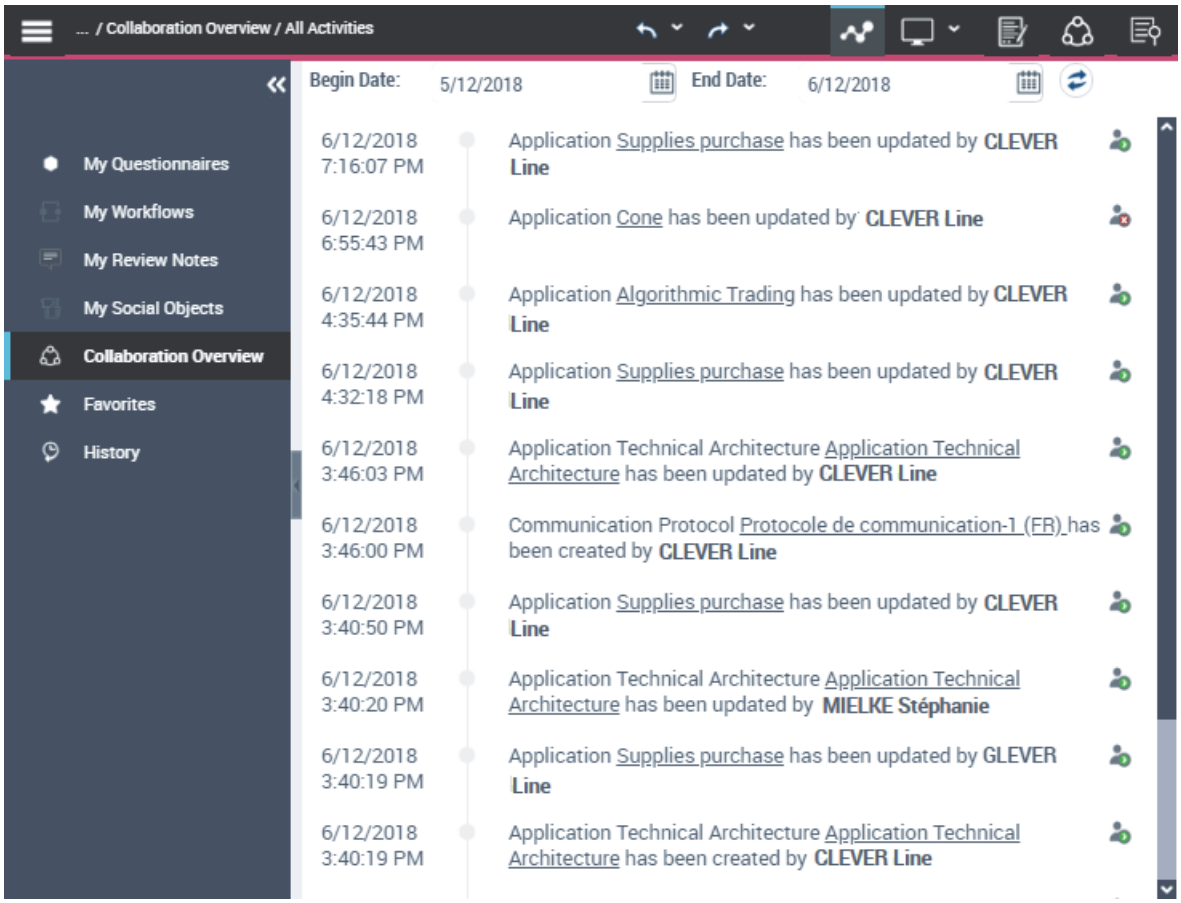
Accessing the activity on objects

To access the activity on objects:

1. From your **HOPEX** desktop, access the **All Activities** feature.

   ☛ *See "Accessing a Collaboration Feature", page 458.*

   The activity on the repository objects appears in the **Navigation** edit area.



The modifications dispatched on all the objects to which you have access appear in chronological order with the most recent at the top.

Each modification indicates:

- the name and type of object concerned by the update
- the name of the person who performed the update
- if you follow the object concerned or not

  ☛ *To display only the objects that you are following, see "Accessing the activity on the objects that you are following", page 481.*

2. See:
   - "Using the activity on objects", page 481.
   - "Modifying the display period for the activity", page 481.
   - "Managing the options on the activity of object", page 482.

Accessing the activity on the objects that you are following

To access the activity on the objects that you are following:

1. From your **HOPEX** desktop, access the **What I follow** feature.

   ☛ *See "Accessing a Collaboration Feature", page 458.*

   The activity on the repository objects that you are following appears in the **Navigation** edit area.

   The modifications dispatched on the objects that you are following appear in chronological order with the most recent at the top.

   Each modification details:
   - the name and the type of object concerned by the update
   - the name of the person who performed the update.

   ☛ *To access the activity on all the objects, see "Accessing the activity on objects", page 480.*

2. See:
   - "Using the activity on objects", page 481.
   - "Modifying the display period for the activity", page 481.
   - "Managing the options on the activity of object", page 482.

Using the activity on objects

To use the activity on objects:

1. Access the activity on the objects.

   ☛ *See "Accessing the activity on objects", page 480 or "Accessing the activity on the objects that you are following", page 481.*

2. (if necessary) Define the display period for the activity.

   ☛ *See "Modifying the display period for the activity", page 481.*

3. View an activity: click the name of the object updated.
   The properties of the object are displayed in the **Properties** page of the edit area.

4. If you want to follow the changes of an object, click **Follow** at the end of the activity line.

Modifying the display period for the activity

By default, the activity displays the modifications made to the objects for the past month.

☛ *To modify the default value for displaying modifications, see "Managing the options on the activity of object", page 482.*

To modify the display period for the activity:

1. Access the activity on the objects.

   ☛ *See "Accessing the activity on objects", page 480 or "Accessing the activity on the objects that you are following", page 481.*

2. Using the calendars, define:
   - The **Begin Date**
   - The **End date**
3. Click **Refresh** .
   The list of modifications is updated according to the MetaClass selected.

Managing the options on the activity of object

You can modify the default value ("month") of the activity display period on objects.

To modify the default value of the activity display on objects:

1. Access the options (**Main Menu > Parameters > Options**).
2. In the **Options** tree, expand **Collaborative environment**.
3. Select **Notification management and object follow-up**.
4. In the pane to the right, in the **Period by default for updates of followed objects** select the required period.

   `Example: Week, Month, Quarter, Year.`

Managing the Activity Feed on an Object

From your **HOPEX** desktop, you can view the activity on a specific object.

☛ *To view the activity on all objects, see "Managing Activity on Objects", page 479.*

In the activity feed on an object you can:

- view the activity on the object
- compare the modifications performed (before/after) on the attributes or on the links
- modify the display of the object activity feed (how far back in time and granularity)

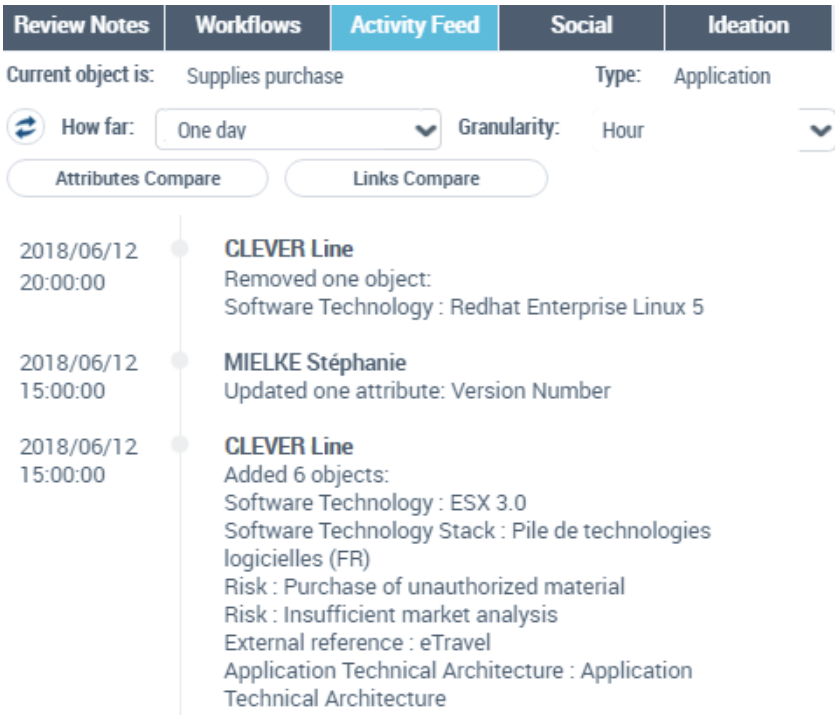
Using the activity feed on an object

To use the activity feed on an object:

1. Access the **Activity Feed** feature on the object concerned.
The **Collaboration** window appears and displays the **Activity Feed** which details the modifications dispatched on the object selected.

   ☛ *See "Accessing Collaboration Information on an Object", page 460.*

   The modifications are classified in chronological order by user and displayed according the granularity defined.



2. (optional) Compare the attribute/link values modified on the object.

   ☛ *See "Comparing the attribute/link values modified on an object", page 483.*

3. (if necessary) Modify the display of the object activity feed.

   ☛ *See "Modifying the display of the activity feed on an object", page 485.*

Comparing the attribute/link values modified on an object

To compare the modified attribute/link values on an object:

1. Access the **Activity Feed** feature on the object concerned.
The **Collaboration** window appears and displays the **Activity Feed** which details the modifications dispatched on the object selected.

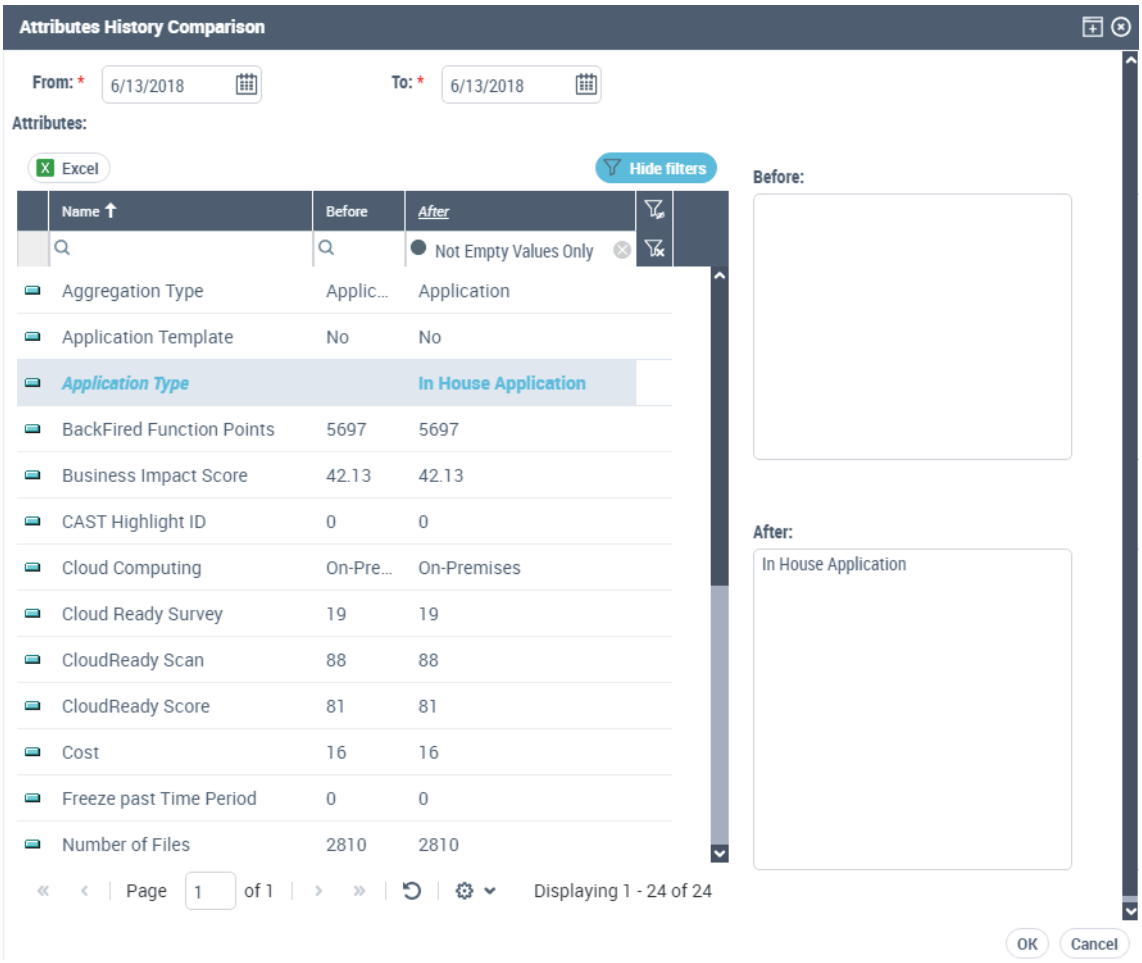
   ☛ *See "Accessing Collaboration Information on an Object", page 460.*

2. Click **Attributes Compare** (/**Links Compare**).
   All of the object attributes (/links) are listed with their value before and after modification on the current day.
3. (If needed) Use the (**From** and **To**) calendars to modify the comparison display period.
4. Use the filters to display one of the elements mentioned in the activity feed to view its value before modification.

☛ *See "Filtering data", page 46.*

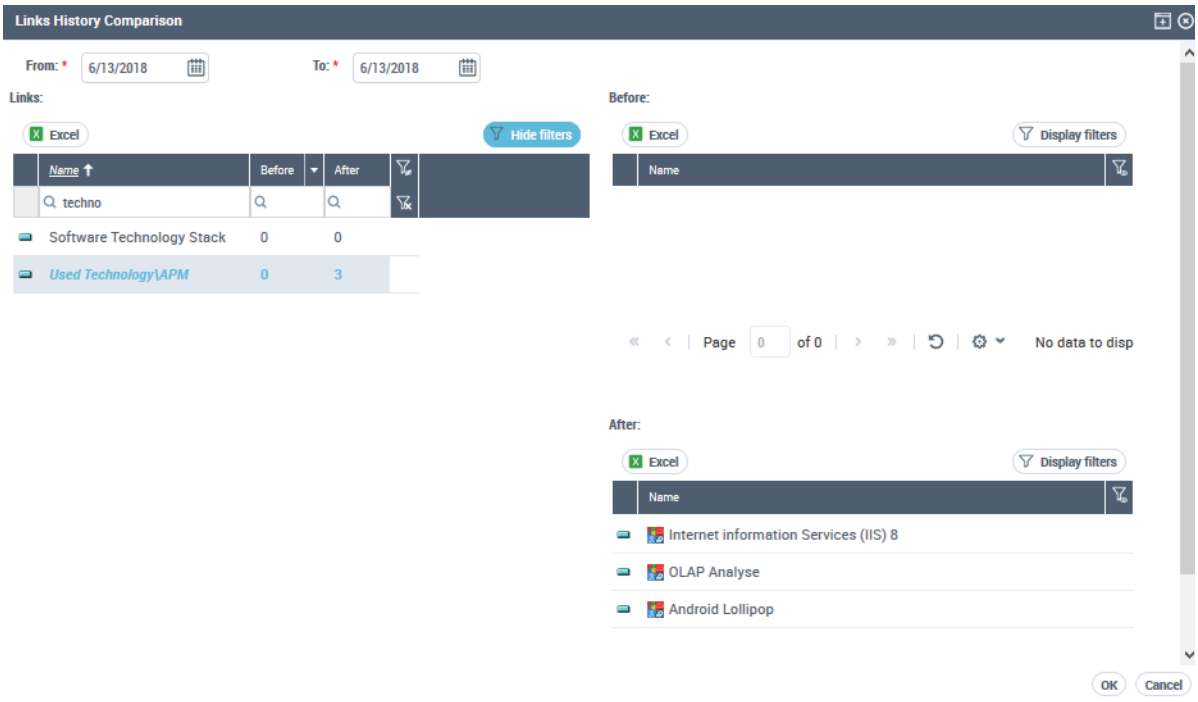
Example: List of attributes

In the list of attributes, **After** column, show non empty values only.



Example: List of links

In the list of links, enter the link name.



In the **Before** and **After** panes you have access to the contextual menu of the listed objects (i.e.: Properties, Explorer, Add to favorites).

Modifying the display of the activity feed on an object

The activity feed on an object is classified by user and displayed according to the granularity defined.

For improved legibility of the activity feed, you can modify its display.

To modify the display of the activity feed on an object:

1. Access the **Activity Feed** feature on the object concerned.
   The **Collaboration** window appears and displays the **Activity Feed** which details the modifications dispatched on the object selected.
   ☛ *See "Accessing Collaboration Information on an Object", page 460.*
2. (If necessary) In the **How far** field, modify the value that defines until when you want to display the activity performed on the object.
   ☛ *Default value: "one week".*

3. (If necessary) In the **Granularity** field, modify the display value. Take account of what you have defined in the **From** field.

   ☛ *Default value: "one hour".*

   Examples:

   For an activity feed displayed for one day, you can define the granularity at one hour.

   For an activity feed displayed for one week, you can define the granularity at one day.

4. Click **Refresh the List** .
   The modifications appear in chronological order (with the most recent at the top) and by user.
   Each modification details:
   - the name of the person who performed the update(s).
   - the type of action on the object.
   - the number of actions per action type.

Managing options on the activity feed

You can hide the Activity feed feature.

To modify the default value of the activity display on objects:

1. Access the options (**Main Menu > Parameters > Options**).
2. In the **Options** tree, expand **Collaborative environment**.
3. Select **History management**.
4. In the pane to the right, clear **Activate Activity Feed feature on an Object**
   In **Collaboration**, the **Activity Feed** tab disappears.
   In the lists, the **Collaboration** column no longer displays **Activity Feed** .

SHARING WITH OTHER USERS (SOCIAL)

In **HOPEX** (Web Front-End), you can share with other users. You can:

- add tags to an object
- like an object
- add an idea
- follow an object

See:

- "Managing tags on an Object", page 476
- "Managing your Likes on an Object", page 487
- "Adding an idea", page 489
- "Following an object", page 490

Managing your Likes on an Object

You can:

- let other users know that you like an object.
- cancel your **Like** on an object

When you like an object, you are also automatically added to the followers of this object.

Liking an object (in a list)

To like an object:

1. From your **HOPEX** desktop, access the list of objects that contains the object concerned.
2. In the list, select the object concerned.
3. In the icon bar of the list, click **Like** .

   In the **Collaboration** window, **Social** tab:
   - **Likers** section, your name is added to the list of persons who like this object.
   - **Followers** section, your name is also added to the list of persons who follow this object.

     ☛ *To stop following the object, see "Canceling Follow-up of an Object", page 497.*

Liking an object (in a tree)

To like an object:

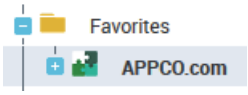
1. From your **HOPEX** desktop, access the **Social** feature.

   ☛ *See "Displaying a Collaboration Feature", page 461.*

   The **Collaboration** window appears and displays the **Social** tab.

2. Access a tree that contains the object concerned.
3. In the tree, select the object concerned.

   For example: an object in your favorite tree.



4. In the **Collaboration** window, **Social** tab, in the **Likers** section, click **Like** .
   Your name is added to the list of persons who like this object.
   Your name is also added to the list of persons who follow this object.

   ☛ *To stop following the object, see "Canceling Follow-up of an Object", page 497.*

Removing your Like on an object (in a list)

To remove your **Like** on an object:

1. From your **HOPEX** desktop, access the list of objects that contains the object concerned.
2. In the list, select the object concerned.
3. In the icon bar of the list, click **Stop liking** .
   In the **Collaboration** window, **Social** tab, **Likers** section, your name is removed from the list of persons who like this object.

Removing your Like on an object (in a tree)

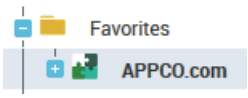
To remove your **Like** on an object:

1. From your **HOPEX** desktop, access the **Social** feature.

   ☛ *See "Displaying a Collaboration Feature", page 461.*

   The **Collaboration** window appears and displays the **Social** tab.
2. Access a tree that contains the object concerned.
3. In the tree, select the object concerned.

   For example: an object in your favorite tree.



4. In the **Collaboration** window, **Social** tab, in the **Likers** section, click **Stop liking** .
   Your name is removed from the list of persons who like this object.

Managing Ideas

The management function for **Ideation** is available on all **HOPEX** desktops. It enables you to add ideas to objects.

An idea is a modification suggestion.

For information on in-depth use of this feature, see "Submitting and evaluating ideas", page 541.

Adding an idea

Ideas are sorted by type:

- Innovation
- Improvement
- Rationalization

To add an idea:

1. In **HOPEX**, access the **Ideation** feature.

   ☛ *See "Displaying a Collaboration Feature", page 461.*

   The **Collaboration** window appears and displays the **Ideation** tab for the object.

2. Click **Add** ⊕.
3. In the **Idea** field, click the arrow and select **Add an Idea**.
4. In the **Name** field, enter the name of your idea.
5. Click **Next**.
6. In the **Comment** section, enter your idea.

   ☛ *You can use text edit buttons to format your comment.*

7. Click **Next**.
8. (optional) In the **Idea Submission Date** field, modify the submission date.

   ☛ *By default the submission date is the current date.*

9. Click **OK**.
   Your idea is entered.
10. In the **Idea Type** field, enter the name of your idea.

MANAGING MY NOTIFICATIONS

With the notification feature in **HOPEX**, you can follow the modifications made to certain objects. When you follow an object you receive notifications when this object is modified.

In the main toolbar of your **HOPEX** desktop, a red dot indicates that you have unread notifications .

All users subscribing to alerts on modifications to the object receive a notification and/or email as soon as you dispatch your modifications, and according to their alert management.

☛ *See "Managing Your Alerts on Object Modification", page 494.*

Following an object

You can receive a notification and/or an email when an object is modified. To do this, you must follow the object.

You can follow:

- all objects to which you have access in **HOPEX**

  ☛ *See "Following an object", page 490.*

- all objects for which you participate in a review note

  ☛ *See "No longer receive notifications on review notes that concern me", page 491.*

Following an object

☛ *You can stop following an object at any time.*

To follow the modifications to an object:

1. From your **HOPEX** desktop, access a list of objects.

2. Select the object that you want to follow and click **Follow** .

   ☛ *Alternatively, in the **Social** tab of the object concerned, in the **Followers** section, click **Follow** .*

   In the **Collaboration** window, **Social** tab, **Followers** section, your name is added to this object follower list.

   When modifications are made to the object:

   - you are notified by email

     ☛ *See "Accessing your Notifications", page 491.*
   - in the main toolbar of your **HOPEX** desktop, a red dot indicates that you have unread notifications .

   If you are working in a:

   - public workspace, you receive the notification as soon as it is issued.
   - private or collaborative workspace, you receive the notification after refreshing your workspace.

No longer receive notifications on review notes that concern me

By default, when you participate in review notes (creation or answer) on an object, you automatically receive modification alerts that concern these objects.

☛ *See "Adding a Review Note", page 465.*

☛ *See "Answering a review note", page 470.*

To no longer receive notifications on review notes that concern you:

1. Access your alert management feature.

   ☛ *See "Accessing alert management", page 494.*
2. In the drop-down menu, select **My Subscriptions**.
3. Clear **Automatically subscribe to objects for which I create a review note**.
4. Click **OK**.
   You no longer receive notifications that concern review notes.

   ☛ *See "Configuring management of your alerts", page 495.*

Accessing your Notifications

In the main toolbar of your **HOPEX** desktop, a red dot indicates that you have unread notifications .

You can access:

- your unread notifications directly
- all your notifications

Your notifications are sorted by state:

- the notifications that you have not read
- the notifications that you have read

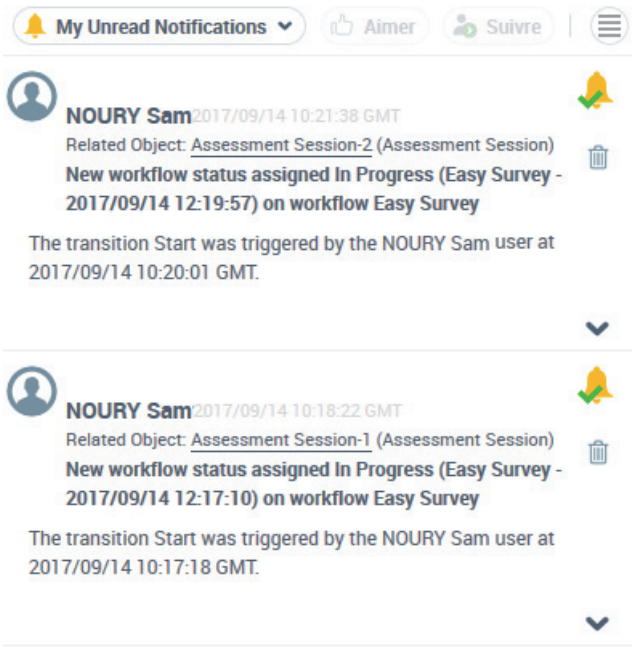
☛ *To modify the state of a notification, see "Modifying the State of a Notification", page 493.*

Accessing your unread notifications directly

In the main toolbar of your **HOPEX** desktop, a red dot indicates that you have unread notifications .

To access your unread notifications directly:

1. In the **HOPEX** main toolbar, click .
2. Click **Show all Unread Notifications**.
   All your unread notifications are listed in the **Navigation** edit area.
   Each notification specifies:
   - the person at the origin of the notification
   - the **HOPEX** object associated with the notification
   - the subject of the notification
   - the date and time of transmission (GMT) of the notification



☛ *To access your notifications that are already read, select **My Read Notifications** in the drop-down menu.*

3. Click the name of the **HOPEX** object to access its properties.
   The **Properties** window appears in the edit area and presents the properties of the modified object.

Accessing all notifications

To access all your notifications

1. From your **HOPEX** desktop, access the **My Notifications** feature.

   ☛ *See "Accessing a Collaboration Feature", page 458.*

   The notifications that you have not read appear in order of creation (with the most recent first).
2. To access your notifications that you have already read, select **My Read Notifications** in the drop-down menu.
   The notifications that you have already read appear in order of creation (with the most recent first).

Modifying the State of a Notification

When you have read a notification or when you no longer want to keep it in your list of read notifications, you can change its state to "Notification unread".

To modify the state of a notification:

1. Access your notifications.

   ☛ *See "Accessing your Notifications", page 491.*
2. In the drop-down menu, select **My Read Notifications**.
3. In the notification concerned, click **Mark as Unread** .
   The notification is moved to **My Unread Notifications**.

   ☛ *In the same way, click **Mark as Read** to move the notification to **My Read Notifications**.*

Deleting a Notification

To delete a notification:

1. Access your notifications.

   ☛ *See "Accessing your Notifications", page 491.*
2. In the notification concerned, click **Delete** .
   The notification is deleted directly.

   You are not prompted to confirm the deletion.

Managing your Notification and Object Follow-up Options

You can modify the notification and object follow-up default options:

- receive your alerts in pop-up mode
- view the notifications for all users
- disable the reception of alerts
- define the default address of the senders of the alert via e-mail
- define the period for updating followed objects by week, quarter, or year (monthly by default).

Receiving your alerts in pop-up mode

By default, your alerts appear in the toolbar of your **HOPEX** desktop. A red dot indicates that you have unread notifications .

You can also receive your alerts in pop-up mode.

To receive your alerts in pop-up mode:

1. Access your options (**Main Menu > Settings > Options**).
2. In the options tree, select **Collaborative environment**.
3. Select **Notification management and object follow-up**.
4. In the pane to the right, select the **Activate notification pop-up window** option.

Modifying the default options

To modify the notification and follow-up default options:

1. Access your options (**Main Menu > Settings > Options**).
2. In the options tree, select **Collaborative environment**.
3. Select **Notification management and object follow-up**.
4. In the right pane, select/clear the options in question.

Managing Your Alerts on Object Modification

To follow the modifications carried out on an object, you must follow it.

☛ *See "Following an object", page 490.*

When you follow an object, this alert also includes the modifications to all its component objects.

Accessing alert management

To access management of your alerts on objects:

1. Connect to your **HOPEX** desktop.

☛ *See "Connecting to HOPEX (Web Front-End)", page 32.*

2. In the **HOPEX** toolbar, click **Main Menu** and select **Settings > Alerts Management**.
   The **Alerts management** dialog box opens.
3. You can:
   - view all the alerts to which you have subscribed (**My Subscriptions** page).
   - stop receiving automatic alerts on the review notes that concern you.

     ☛ *See "No longer receive notifications on review notes that concern me", page 491.*
   - configure management of your alerts.

     ☛ *See "Configuring management of your alerts", page 495.*
   - view your **Notification** type alerts.

     ☛ *See "Accessing your Notifications", page 491.*
   - cancel subscription to an alert.

     ☛ *See "Canceling Follow-up of an Object", page 497.*

Configuring management of your alerts

You can receive information by notification or e-mail on modifications to the objects you are following.

You can define the reception of your notifications:

- notification receipt frequency:
  - none
  - daily summary
  - daily summary with choice of day and time (UTC)
- content of notifications:
  - with or without details

You can define the receipt of your emails:

- e-mail receipt frequency:
  - none
  - immediate
  - daily summary
  - daily summary with choice of day and time (UTC)
- content of e-mails:
  - with or without details
- format of e-mails:
  - plain text
  - HTML

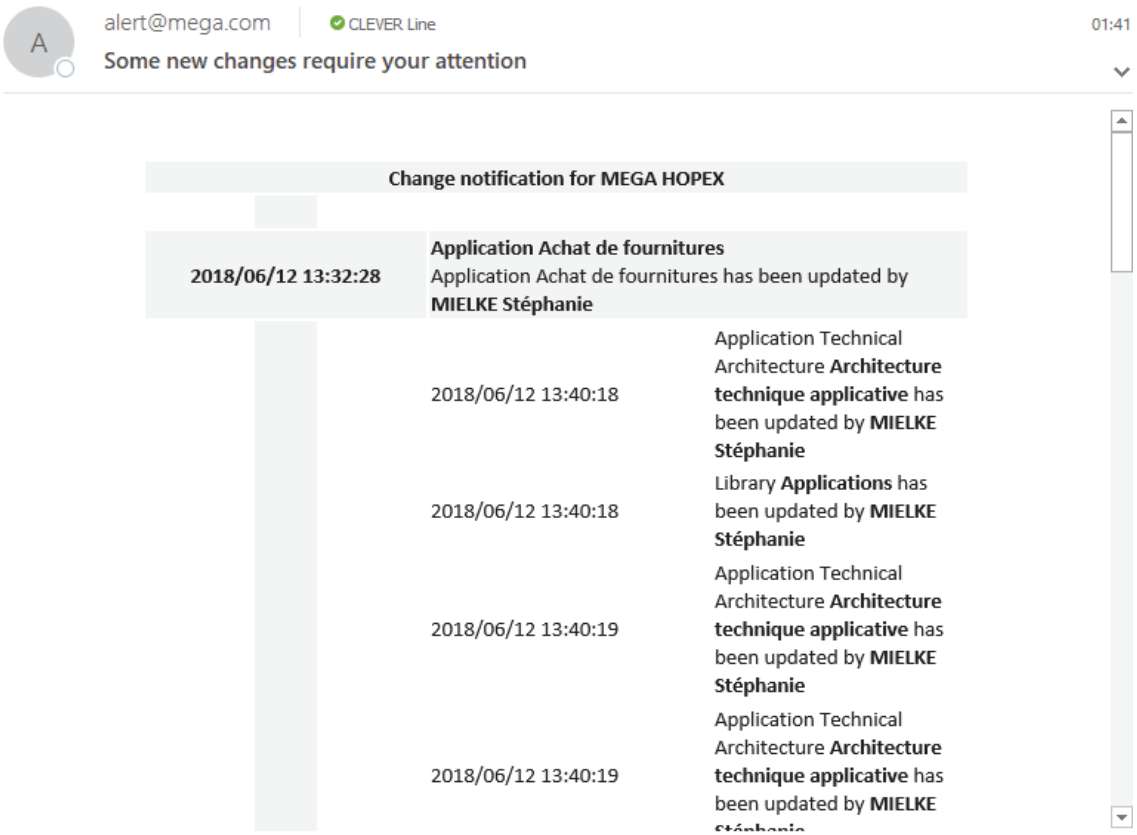
To configure management of your alerts:

1. Access your alert management dialog box.

   ☛ *See "Accessing alert management", page 494.*
2. In the drop-down menu, select **Alerts Settings**.

3. In the **Notification** section, select the receipt frequency and notification content.
   When a user dispatches modifications on an object you are following, you receive a notification according to your configuration.
   If you are working in a:
   - public workspace, you receive the notification as soon as it is issued.
   - private or collaborative workspace, you receive the notification after refreshing your workspace.
4. In the **Email** section, select the receipt frequency, the content and format of emails.
   When a user dispatches modifications on an object you are following, you receive an email according to your configuration.
   If you are working in a:
   - public workspace, you receive the email as soon as it is sent.
   - private or collaborative workspace, you receive the email after refreshing your workspace.

   For example, you can receive a daily notification by email.



Canceling Follow-up of an Object

You can stop following:

- an object
- several objects

Canceling follow-up modifications on an object

To stop following the modifications on an object:

1. From your **HOPEX** desktop, access a list of objects.
2. Select the object you do not want to follow anymore and click **No longer follow** .

   ☛ *Alternatively, in the **Social** tab of the object concerned, in the **Followers** section, click **Stop following** .*

   In the **Collaboration** window, **Social** tab, **Followers** section, your name is added to this object follower list.

   You no longer receive notifications when the object is modified.

Canceling follow-up modifications on several object

To stop following the modifications on several object:

1. Access your alert management dialog box.

   ☛ *See "Accessing alert management", page 494.*

2. In the drop-down menu, select **My Subscriptions**.
3. Select the object(s) that you no longer want to follow.
4. Click **Remove** .
5. Click **OK**.

   For each object, in the **Collaboration** window, **Social** tab, **Followers** section, your name is removed from this object follower list.

   You no longer receive notifications when these objects are modified.

WORKING IN A COLLABORATIVE WORKSPACE

☛ *This functionality is only available in an RDBMS format repository.*

The following points are covered here:

- "Overview", page 498
- "Creating Collaborative Workspaces", page 501
- "Inviting Persons to Your Collaborative Workspace", page 505
- "Deleting Participants from Your Collaborative Workspace", page 506
- "Modifying Collaborative Workspace Participant Access Level", page 506
- "Modifying Your Collaborative Workspace Characteristics", page 507
- "Adding/Deleting Objects in Your Collaborative Workspace", page 508
- "Working in a Collaborative Workspace", page 509

Overview

HOPEX enables you to share your work with certain users. They see modifications as these progress. The other users of the repository do not see updates until this work is dispatched in the repository.

From your **HOPEX** desktop, you can share your work with certain users. To do this, you must:

- create a collaborative workspace

  ☛ *See "Creating Collaborative Workspaces", page 501.*

- invite participants

  ☛ *See "Inviting Persons to Your Collaborative Workspace", page 505.*

- define objects on which you want to work

  ☛ *See "Adding/Deleting Objects in Your Collaborative Workspace", page 508.*

Collaborative workspace participant access level

The access level of a participant to a collaborative workspace defines actions he/she can and cannot perform within this workspace.

☛ *Participants of **Blocked** level do not receive an update notification e-mail if the **Send notification by e-mail** option is selected (see "Sending automatic notifications to participants", page 507).*

☛ *To modify the access level of a participant, see "Modifying Collaborative Workspace Participant Access Level", page 506.*

Access levels of a collaborative workspace participant are:

- **Blocked**
  The blocked user cannot connect to the collaborative workspace.
- **Viewer**
  The viewer has read-only access to the collaborative workspace and its properties. He/she cannot update the collaborative workspace. He/she can offer an opinion on the workspace when it is in review.
  - ☛ *See "Connecting to a collaborative workspace", page 510.*
  - ☛ *See "Giving your opinion on work in review", page 512.*
  - ☛ *See "Accessing collaborative workspace properties", page 507.*
- **Contributor** (default)
  By default, a participant has contributor status. He/she can carry out updates, indicate when his/her work is completed and resumed, and offer an opinion on the workspace when it is in review.
  - ☛ *See "Connecting to a collaborative workspace", page 510.*
  - ☛ *See "Communicating your work progress in the collaborative workspace", page 511.*
  - ☛ *See "Giving your opinion on work in review", page 512.*
- **Manager**
  In addition to the actions available to the contributor, the manager can also manage participants and objects, organize reviews, and modify the collaborative workspace owner.
  - ☛ *See "Inviting Persons to Your Collaborative Workspace", page 505.*
  - ☛ *See "Deleting Participants from Your Collaborative Workspace", page 506.*
  - ☛ *See "Modifying Collaborative Workspace Participant Access Level", page 506.*
  - ☛ *See "Adding/Deleting Objects in Your Collaborative Workspace", page 508.*
  - ☛ *See "Modifying the collaborative workspace owner", page 508.*
- **Owner**
  The owner is the user who creates the collaborative workspace. Only one of the participants has this access level.

  Only the owner of the workspace can perform all available actions in his/her collaborative workspace.

  In addition to the actions available to the manager, the owner can close, dispatch and discard his/her collaborative workspace.
  - ☛ *See "Closing a collaborative workspace", page 513.*
  - ☛ *See "Dispatching or discarding collaborative workspace updates", page 514.*

Collaborative workspace states

A collaborative workspace can be in the following states:

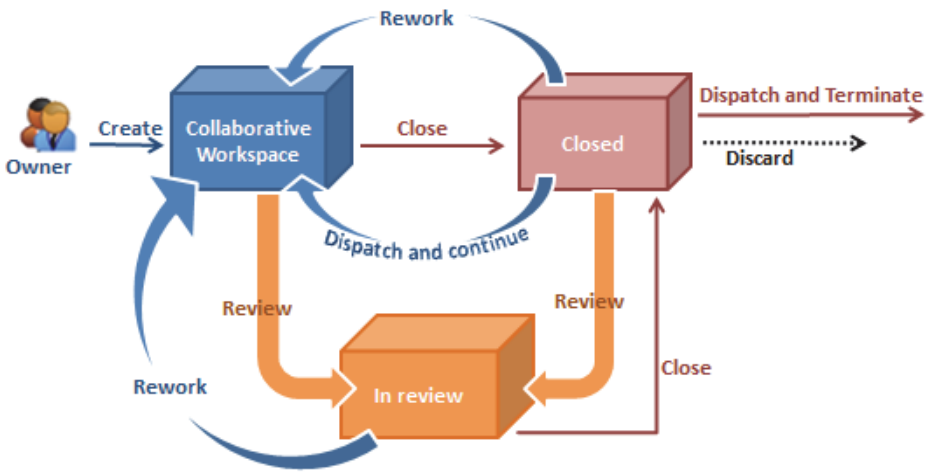
- **Shared**
  Once the collaborative workspace has been created, it is in Shared state. All authorized participants can connect to it.
  Authorized participants can update this collaborative workspace.
- **Closed**
  When the collaborative workspace has been closed by its **Owner**, it can no longer be accessed by the other participants. The owner is the only participant who can modify collaborative workspace objects.
- **In Review**
  All authorized participants can connect to the collaborative workspace. Participants who have not completed their work can complete it. Participants can offer their opinion on the collaborative workspace.

☛ *See "Collaborative workspace participant access level", page 498.*

Owner actions and collaborative workspace states

The owner of the collaborative workspace is the only participant who can perform all available actions in his/her collaborative workspace.

☛ *See "Working in a Collaborative Workspace", page 509.*



Work status of a participant

A collaborative workspace participant may or may not be connected to the collaborative workspace.

Work status of a participant can be:

- **Idle**
  The participant remains in this status for as long as he/she does not connect for the first time to the collaborative workspace.

  ☛ *Status for participants of access level **Owner**, **Manager**, **Contributor**, or **Viewer**.*
- **Reading in progress**
  The participant has connected at least once to the collaborative workspace.

  ☛ *Status for participant of access level **Viewer**.*
- **Work in progress**
  The participant has connected at least once to the collaborative workspace.

  The participant remains in this status until he/she specifies that his/her work is completed.

  ☛ *Status for participants of access level **Owner**, **Manager**, or **Contributor**.*
- **Review in progress**
  The participant has connected at least once to the collaborative workspace.

  The participant remains in this status until he/she specifies that his/her work is completed.

  ☛ *Status for participants of access level **Owner**, **Manager**, or **Contributor**.*

  When the collaborative workspace is in status:
  - **Shared**, the participant passes from status **Work in Progress** to **Review in Progress** or the reverse when he/she indicates **Work Completed** or **Work Resumed**.
  - **In Review**, once the participant has indicated **Work Completed** he/she cannot resume work.

    ☛ *See "Communicating your work progress in the collaborative workspace", page 511.*

Creating Collaborative Workspaces

You can create a collaborative workspace:

- when you have created or modified one or several objects in your private workspace and you want to share your work with other users before dispatching it in the repository (when it will be available to all users).
- from opening your private workspace, to directly share your work with other users.

Once you have created a collaborative workspace:

- you can create another collaborative workspace (to work on other repository objects).

  ☛ *This action is performed from a private workspace.*

- you cannot modify, in your collaborative workspace, repository objects that are not reserved in Check Out in your collaborative workspace.

  ☛ *See "Adding/Deleting Objects in Your Collaborative Workspace", page 508.*

- you can be invited to other collaborative workspaces as a participant.

  ☛ *See "Inviting Persons to Your Collaborative Workspace", page 505.*

- you can create a private workspace (if you do not already have one).

To create a collaborative workspace:

1. From your **HOPEX** desktop:
   - **Windows Front-End**: in the **HOPEX** menu bar, select **File > Workspace > New**.
   - **Web Front-End**: click **Main menu > Collaborative Workspace > New Workspace**.

   The collaborative workspace creation dialog box appears
2. In the **Name** field, enter the name of the collaborative workspace.

   ☛ *You can modify its name later, see "Modifying the collaborative workspace name", page 508.*
3. (Optional) Select **Send notification by e-mail** to warn each collaborative workspace participant (including yourself) of certain modifications in this collaborative workspace (change of collaborative workspace state, addition/deletion of participants).

   ☛ *At creation of your collaborative workspace, participants receive a connection invitation by e-mail. This invitation specifies the name of the collaborative workspace, the repository and environment in which it has been created, and the access level of the participant to this collaborative workspace.*
4. (Optional) In the **Comment** pane, you can enter information on creation of this collaborative workspace.

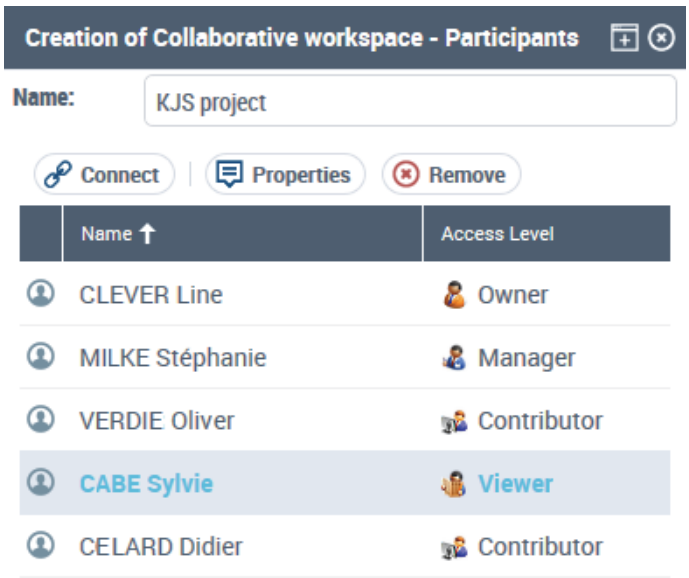
   ```
   For example, enter information on objects you want to share
   with users.
   ```

   ☛ *To later define users with whom you want to share your private workspace and the objects in question, click **Finish**.*
5. Click **Next** to define users with whom you want to share your private workspace.
   The add participants dialog box appears, presenting you as **Owner** of the collaborative workspace.
6. Click **Connect** .
   The add persons dialog box appears.
7. Select the person (use [CTRL] key to select several persons) with whom you want to share your work, then click **Connect**.
   The person or persons are added to the list of collaborative workspace participants as **Contributor**.

   ☛ *To return to the previous step, click **Previous**.*

8. (Optional) To change access level of a participant, in the **Access Level** field of the person, select another access level.

   ☛ *To define access level of a participant later, see "Modifying Collaborative Workspace Participant Access Level", page 506.*



9. Click **Next**.
   If you have already created objects in your private workspace, these appear in the list of objects of your collaborative workspace.

   ☛ *If you do not want to share one or several of the listed objects, select the object (use the [CTRL] key to select several), then click* ***Cancel Check Out*** ❌.

10. (Optional) To reserve repository objects for your collaborative workspace, click **Check Out Objects** .

> ☛ *To reserve objects later, see "Adding/Deleting Objects in Your Collaborative Workspace", page 508.*

The add generic objects dialog box of the workspace appears.

- (Optional) Clear **Propagation** if you do not want to add objects that depend on the selected object as a function of the chosen perimeter.
- By default, export perimeter is as defined in the properties of the Export tool. To modify default perimeter, in the **Perimeter** field, select the propagation perimeter.
- In the **Objects to Reserve in Check Out** pane, click the **Add Objects to List** button .
- Perform object search and select the objects in the result dialog box.
- Click **OK**.

The objects appear in the list of objects in Check Out in your collaborative workspace.

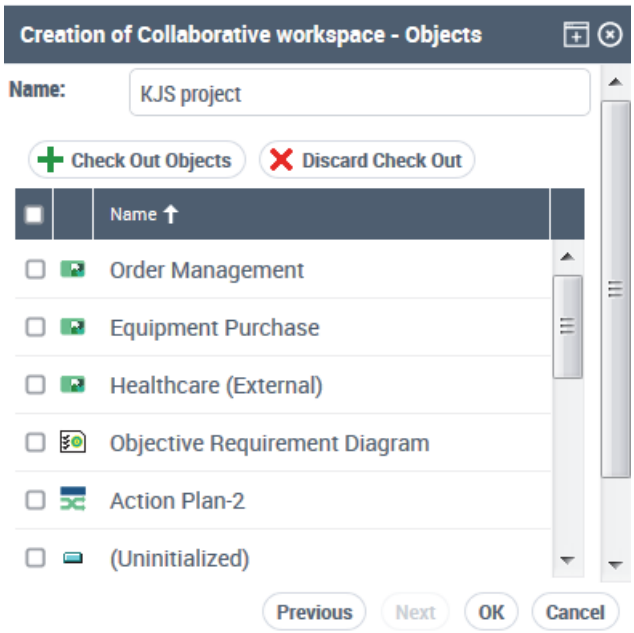
> ☛ *An object can be in Check Out in only one collaborative workspace at a time.*

> ☛ *In case of an error, select the object (use the [CTRL] key to select several), then click **Remove Objects from Propagation List** .*

- Click **Next**.

The list of objects and their dependent objects appears.

- In case of an error, select the object (use the [CTRL] key to select several) that you do not want to reserve, then click **Remove Objects from Propagation List** .
- Click **OK**/**Finish**.



11. Click **OK/Finish**.
    The selected objects are reserved in Check Out for your collaborative workspace. They are locked for users who are not participants in your collaborative workspace.
    If you selected option **Send notification by e-mail**:
    - an invitation message is sent immediately to all participants (including yourself) of your collaborative workspace, with their status in this collaborative workspace.
    - you receive a notification message on sharing your collaborative workspace.

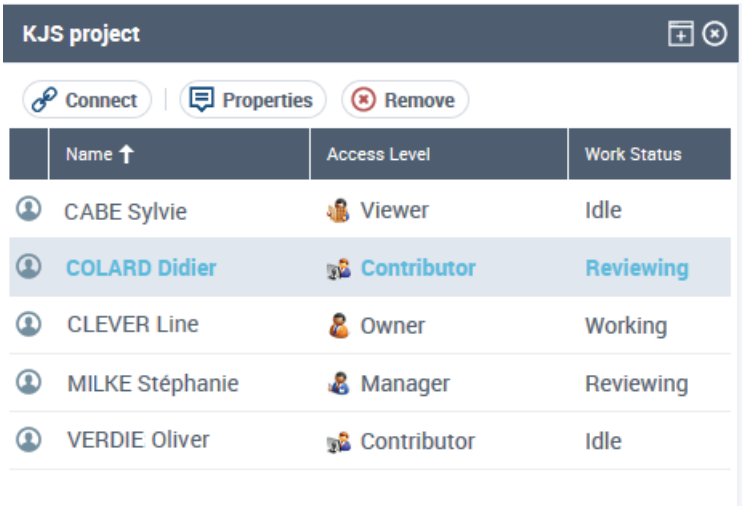
Inviting Persons to Your Collaborative Workspace

Once your collaborative workspace has been created, you can invite other persons to participate in your work.

To invite persons to your collaborative workspace:

1. From your **HOPEX** desktop:
   - **Windows Front-End**: in the **HOPEX** menu bar, select **File > Workspace > Manage Participants**.
   - **Web Front-End**: click **Main menu > Collaborative Workspace > Management Participants**.

   The collaborative workspace participants dialog box appears.



2. Click **Connect** .
3. In the add persons dialog box, select the person you want to invite to share your workspace.

   ☛ *Use the [Ctrl] key to select several persons at the same time.*

4. Click **Connect**.
   The person is added to the list of participants in the collaborative workspace as **Contributor**.

   ☛ *The person receives a notification e-mail if you selected option **Send notification by e-mail** (see "Creating Collaborative Workspaces", page 501).*

   ☛ *To modify the access level of the person to your collaborative workspace, see "Modifying Collaborative Workspace Participant Access Level", page 506.*

Deleting Participants from Your Collaborative Workspace

Once your collaborative workspace has been created and participants defined, you can delete participants from your collaborative workspace.

☛ *To block access to a participant, see "Modifying Collaborative Workspace Participant Access Level", page 506.*

To delete a participant from your collaborative workspace:

1. From your **HOPEX** desktop:
   - **Windows Front-End**: in the **HOPEX** menu bar, select **File > Workspace > Manage Participants**.
   - **Web Front-End**: click **Main menu > Collaborative Workspace > Management Participants**.

   The collaborative workspace participants dialog box appears.

2. Select the person and click **Disconnect** .
   The person is deleted from the list of participants in your collaborative workspace and can no longer connect.

   ☛ *The person receives a notification e-mail if you selected option **Send notification by e-mail** (see "Creating Collaborative Workspaces", page 501).*

Modifying Collaborative Workspace Participant Access Level

To modify collaborative workspace participant access level:

1. From your **HOPEX** desktop:
   - **Windows Front-End**: in the **HOPEX** menu bar, select **File > Workspace > Manage Participants**.
   - **Web Front-End**: click **Main menu > Collaborative Workspace > Management Participants**.

   The collaborative workspace participants dialog box appears.
2. Select the line of the person concerned.
3. In the **Access Level** field, select the access level of the participant to the collaborative workspace.

   ☛ *See "Collaborative workspace participant access level", page 498.*

   ☛ *See "Modifying the collaborative workspace owner", page 508.*

Modifying Your Collaborative Workspace Characteristics

If you are owner or manager of the collaborative workspace, you can modify its following characteristics:

- sending or not of automatic notifications to participants

  ☛ *See "Sending automatic notifications to participants", page 507.*

- its description

  ☛ *See "Modifying collaborative workspace status description", page 507.*

- its owner

  ☛ *See "Modifying the collaborative workspace owner", page 508.*

- its name

  ☛ *See "Modifying the collaborative workspace name", page 508.*

Accessing collaborative workspace properties

To access collaborative workspace properties:

1. Connect to your collaborative workspace.

   ☛ *See "Connecting to a collaborative workspace", page 510.*

2. From your **HOPEX** desktop:
   - **Windows Front-End**: in the **HOPEX** menu bar, select **File > Workspace > Properties**.
   - **Web Front-End**: click **Main menu > Collaborative Workspace > Properties**.

   The collaborative workspace properties dialog box appears.

Sending automatic notifications to participants

You can automatically send e-mail notification to warn each participant of modifications to this collaborative workspace:

- change of status of collaborative workspace
- addition/deletion of participants

  ☛ *Participants of **Blocked** level do not receive an update notification e-mail if the **Send notification by e-mail** option is selected.*

To send automatic notifications to participants:

1. Access collaborative workspace properties

   ☛ *See "Accessing collaborative workspace properties", page 507.*

2. Select **Characteristics**.
3. To modify sending or not of e-mail notifications to participants, select or clear the option **Send notification by e-mail**.

Modifying collaborative workspace status description

To modify your collaborative workspace characteristics:

1. Access collaborative workspace properties

   ☛ *See "Accessing collaborative workspace properties", page 507.*

2. Select **Characteristics**.
3. To modify collaborative workspace description, enter your modifications in the **Comment** pane.

Modifying the collaborative workspace owner

You can modify the collaborative workspace owner

To modify your collaborative workspace owner:

1. Modify the collaborative workspace owner access level.

   ☛ *See "Modifying Collaborative Workspace Participant Access Level", page 506.*
2. In the participants dialog box, select another user and specify **Owner** access level.

Modifying the collaborative workspace name

To modify your collaborative workspace name:

1. From your **HOPEX** desktop:
   - **Windows Front-End**: in the **HOPEX** menu bar, select **File > Workspace > Rename**.
   - **Web Front-End**: click **Main menu > Collaborative Workspace > Rename**.

   The collaborative workspace renaming dialog box appears.
2. In the **Name** field, enter a new name.
3. Click **OK**.

Adding/Deleting Objects in Your Collaborative Workspace

If you are owner of a collaborative workspace, you can add or delete objects. When you add an object to your collaborative workspace, this is extracted from the repository and locked for users who are not participants in your collaborative workspace.

To add or delete objects in your collaborative workspace:

1. From your **HOPEX** desktop:
   - **Windows Front-End**: in the **HOPEX** menu bar, select **File > Workspace > Manage Objects in Check Out**.
   - **Web Front-End**: click **Main menu > Collaborative Workspace > Manage Checked-Out Objects**.

   The dialog box of objects included in the collaborative workspace appears.
2. To cancel the Check Out of one or several of the listed objects, objects not yet modified in the workspace, select the object (use the [CTRL] key to select several), then click **Cancel Check Out** ❌.
   Selected objects are deleted from the collaborative workspace.
3. (Optional) To reserve repository objects for your collaborative workspace, click **Check Out Objects** ➕.
4. (Optional) Clear **Propagation** if you do not want to add objects that depend on the selected object as a function of the chosen perimeter.

5. By default, export perimeter is as defined in the properties of the Export tool. To modify default perimeter, in the **Perimeter** field, select the propagation perimeter.
6. In the **Objects to Reserve in Check Out** pane, click the **Add Objects to List** button .
7. Perform object search and select objects in the result dialog box.
8. Click **OK**.
   Objects appear in the list of objects to be reserved for your collaborative workspace.

   ☛ *In case of an error, select the object (use the [CTRL] key to select several), then click **Remove Objects from Propagation List** .*
9. Click **Next**.
   The list of objects and their dependent objects appears.
10. In case of an error, select the object (use the [CTRL] key to select several) that you do not want to reserve, then click **Remove Objects from Propagation List** .
11. Click **Finish**.
12. Click **OK**.
    The selected objects are reserved for your collaborative workspace. They are locked for users who are not participants in your collaborative workspace.

    ☛ *If you selected option **Send notification by e-mail**, a message is sent to all your collaborative workspace participants.*

    To select the notification by e-mail option, see "Modifying Your Collaborative Workspace Characteristics", page 507.

Working in a Collaborative Workspace

Actions you can perform as a participant depend on your collaborative workspace access level.

☛ *(see "Collaborative workspace participant access level", page 498 and "Modifying Collaborative Workspace Participant Access Level", page 506).*

☛ *So that each participant receives a modification notification e-mail, the send notification by e-mail option must be selected, see "Sending automatic notifications to participants", page 507.*

Depending on your collaborative workspace access level, you can perform the following actions:

- "Connecting to a collaborative workspace", page 510
- "Communicating your work progress in the collaborative workspace", page 511
- "Organizing a review", page 512
- "Giving your opinion on work in review", page 512
- "Consulting opinions of other participants on work in review", page 512
- "Consulting participant work status", page 513
- "Closing a collaborative workspace", page 513
- "Dispatching or discarding collaborative workspace updates", page 514
- "Exiting a session from a collaborative workspace", page 515

Connecting to a collaborative workspace

Depending on his/her collaborative workspace access level, a participant can connect to this collaborative workspace to:

- update objects in Check Out in this workspace.

  ☛ *Available for participants of access level **Contributor**, **Owner**, or **Manager**.*

- consult objects in Check Out in this workspace.

  ☛ *Available for participants of access level **Viewer**.*

Only participants of access level **Blocked** cannot connect to the collaborative workspace.

To connect to a collaborative workspace:

1. Start the **HOPEX** application.
   The authentication dialog box appears.
2. In the **Login** field, enter your login.
3. (If you have a password) In the **Password** field, enter your password.
4. In the drop-down menu for environments, select your work environment.

   ☛ *If you can access one environment only, this is automatically taken into account and the environment selection field does not appear.*

5. Click **SIGN IN**.
   When you have been authenticated, a new dialog box appears.
6. In the drop-down menu for repositories, select your work repository.

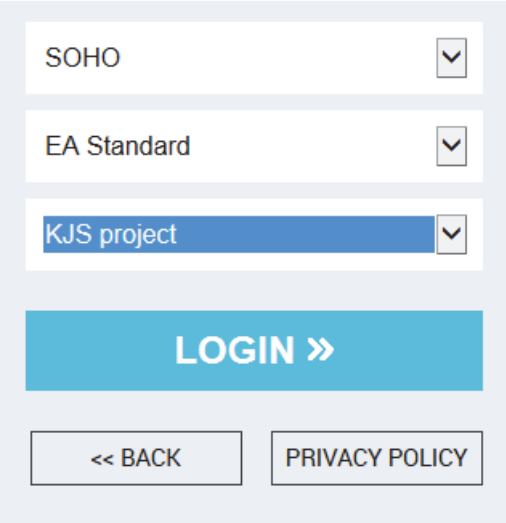
   ☛ *If you can access only one repository, this is automatically taken into account and the repository selection field does not appear.*

   ☛ *If you already have a private workspace open, the repository is automatically selected and this field is grayed. To change repository, you must first dispatch or discard your current private workspace.*

7. In the profile drop-down menu, select the profile with which you want to work.

8. (You already have at least one collaborative work space available) Select the collaborative workspace to which you want to connect.

   ☛ *A user has at most one private workspace in progress in an environment, but can have in parallel several available collaborative workspaces.*



9. Click **LOGIN**.
   Your desktop opens and objects in Check Out in the collaborative workspace are available. Authorized participants can update these objects.

   ☛ *See "Collaborative workspace participant access level", page 498.*

Communicating your work progress in the collaborative workspace

Participants of **Contributor**, **Owner**, or **Manager** access level can communicate progress of their work in the collaborative workspace by means of the following actions:

- **Work completed**
  The participant can warn other participants when his/her work is completed.
- **Work again**
  The participant can then resume work and warn other participants.

To define progress state of your work:

1. Connect to your collaborative workspace.

   ☛ *See "Connecting to a collaborative workspace", page 510.*

2. From your **HOPEX** desktop:
   - **Windows Front-End**: in the **HOPEX** menu bar, select **File > Collaborative Workspace**.
   - **Web Front-End**: click **Main menu > Collaborative Workspace**.
3. Select the action to be performed.

Organizing a review

Participants of **Owner** or **Manager** status can organize review of updates carried out in the collaborative workspace.

> ☛ *All participants can communicate on work in progress in the collaborative workspace, see "Communicating on collaborative workspace updates", page 513.*

When work is completed, or at a request for opinion on current state, you can organize a review of updates carried out in the collaborative workspace.

> ☛ *When the collaborative workspace is in review, all participants can give their opinion, see "Giving your opinion on work in review", page 512.*

To organize a review:

1. Connect to your collaborative workspace.

   > ☛ *See "Connecting to a collaborative workspace", page 510.*

2. From your **HOPEX** desktop:
   - **Windows Front-End**: in the **HOPEX** menu bar, select **File > Collaborative Workspace**.
   - **Web Front-End**: click **Main menu > Collaborative Workspace**.
3. Select **Review**.
   The collaborative workspace passes to **In Review** state.

Giving your opinion on work in review

You can give your opinion to other users on updates carried out in the collaborative workspace when it is in the **In Review** state.

To give your opinion on work in review:

1. Connect to your collaborative workspace.

   > ☛ *See "Connecting to a collaborative workspace", page 510.*

2. From your **HOPEX** desktop:
   - **Windows Front-End**: in the **HOPEX** menu bar, select **File > Workspace**.
   - **Web Front-End**: click **Main menu > Collaborative Workspace**.
3. Select your opinion (**I like**, **I don't like**).

   > ☛ *To consult the opinions of participants on updates carried out in the collaborative workspace, see "Consulting opinions of other participants on work in review", page 512.*

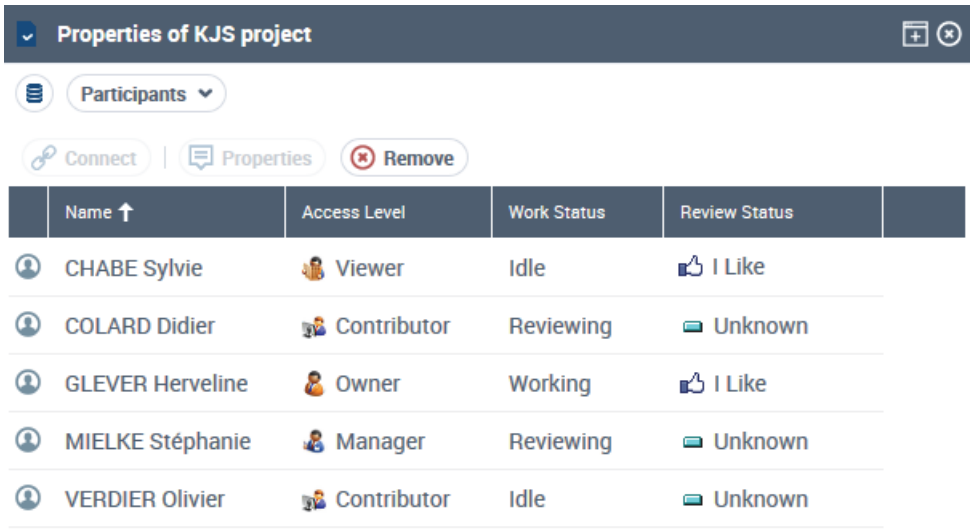
Consulting opinions of other participants on work in review

To consult opinions of other participants :

1. Access collaborative workspace properties

   > ☛ *See "Accessing collaborative workspace properties", page 507.*

2. Select **Participants**.
The **Review Status** indicates the opinion of each participant.



Consulting participant work status

To consult work status of another participant:

1. Access collaborative workspace properties

   ☛ *See "Accessing collaborative workspace properties", page 507.*

2. Select **Participants**.
The **Work Status** field indicates the work status of each participant.

   ☛ *See "Work status of a participant", page 500.*

Communicating on collaborative workspace updates

As work progresses, all authorized participants (**Contributor**, **Manager** and **Owner** access levels) can exchange progress of their work.

☛ *See "Managing review notes", page 463 and "Sharing with other users (social)", page 487.*

Closing a collaborative workspace

Once updates have been completed, or to lock access to the collaborative workspace, a participant of **Owner** status can **Close** the collaborative workspace.

☛ *Only participants of **Owner** status can perform this action. Other participants can no longer access the collaborative workspace when it is closed.*

*Participants of **Owner** status can reopen the workspace to participants via the **Resume work** action.*

When the workspace has been closed, you can **Discard** or **Dispatch** updates carried out in the collaborative workspace in the repository.

☛ *See "Dispatching or discarding collaborative workspace updates", page 514.*

To close your collaborative workspace:

☛ *You must be **Owner** of the collaborative workspace.*

1. From your **HOPEX** desktop:
   - **Windows Front-End**: in the **HOPEX** menu bar, select **File > Workspace > Close**.
   - **Web Front-End**: click **Main menu > Collaborative Workspace > Close**.

   You access actions **Discard** or **Dispatch** the collaborative workspace.

   Other participants can no longer connect to the collaborative workspace.

Dispatching or discarding collaborative workspace updates

Only the collaborative workspace **Owner** can **Discard** or **Dispatch** updates carried out in his/her collaborative workspace .

In a collaborative workspace, once it has been closed, if you are its **Owner**, you can:

☛ *To close your collaborative workspace, see "Closing a collaborative workspace", page 513.*

- **Discard**
  All updates carried out in the collaborative workspace are lost.
- **Dispatch and Terminate**
  This action allows you to update the repository and make available to other users the updates you have carried out in your collaborative workspace.

  Your collaborative workspace is no longer available.
- **Dispatch and Continue**
  This action allows you to update:
  - the repository, to make available to other users the updates you have carried out in your collaborative workspace.
  - your collaborative workspace, with updates carried out in the repository by other users.

  Your collaborative workspace is still available with the same objects in Check Out and the same users. You can, if needed, free objects in Check Out that you do not need anymore.

  All authorized participants can connect to the collaborative workspace.

To dispatch or discard your collaborative workspace:

1. Connect to your collaborative workspace.

   ☛ *See "Connecting to a collaborative workspace", page 510.*
2. From your **HOPEX** desktop:
   - **Windows Front-End**: in the **HOPEX** menu bar, select **File > Collaborative Workspace**.
   - **Web Front-End**: click **Main menu > Collaborative Workspace**.

3. Select either:
   - **Discard**
   The collaborative workspace disappears. Updates are lost. Objects in Check Out are freed unchanged.
   - **Dispatch and Terminate**
   All updates carried out in the collaborative workspace are dispatched in the repository. They can be accessed by all users.
   The collaborative workspace disappears.
   - **Dispatch and Continue**
   A window appears listing objects that you are going to dispatch and keep in Check Out.
   (optional) Select objects that you want to free from your private workspace and click **Remove objects from the list** .
   Click **OK**.
   All updates carried out in the collaborative workspace are dispatched in the repository. They can be accessed by all users.
   The collaborative workspace is updated, with updates carried out in the repository by other users.
   The collaborative workspace is available to all authorized participants.

Exiting a session from a collaborative workspace

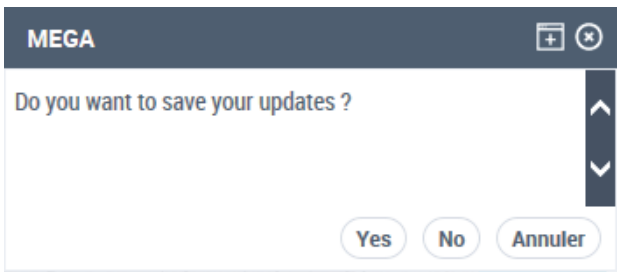
Exiting **HOPEX** from a collaborative workspace is the same whether you are its **Owner** or not.

While the collaborative workspace is in **Shared** or **In Review** state, a participant can exit and rejoin the collaborative workspace at any time.

☛ *See "Collaborative workspace states", page 500.*

From **HOPEX**, to exit your work *session*:

1. From your **HOPEX** desktop:
   - **Windows Front-End**: in the **HOPEX** menu bar, select **File > Exit**.
   - **Web Front-End**: click **Logout** .
   The **HOPEX** exit dialog box appears.



2. Click:
   - **Yes** to save your modifications in the collaborative workspace.

   You will be able to continue your modifications in a subsequent work session.

   These modifications are not saved in the repository. Users not participants in the collaborative workspace do not see these modifications.
   - **No** to cancel your modifications in the collaborative workspace.

   Your modifications are not saved in the collaborative workspace, but the latter remains available to carry out other updates.

☛ *Click **Cancel** to remain in your collaborative workspace.*

USING WORKFLOWS

In **HOPEX**, workflows manage expected actions as well as roles of the different participants involved in execution of these actions.

This section describes how to:

- ✓ Consult workflows
- ✓ Consult notifications
- ✓ Start a workflow
- ✓ participate in a workflow

The workflows delivered as standard which are common to the different products are also described.

☛ *Other workflows are supplied with **HOPEX** solutions. See the corresponding guide for further details.*

☛ *To create your own workflow, see "Configuring Workflows".*

CONSULTING WORKFLOWS

Consulting workflows (Web Front-End)

To access the workflows which are of interest to you:

❱ From the navigation menu, click **Collaboration > My Workflows**.

You can access the following from the drop-down list:

- your active workflows (in progress, on which you can still perform actions)
- your completed workflows (that you can no longer take forward or backward, on which you can no longer perform actions)

☛ *To start a workflow, see "Starting a workflow (Web Front-End)", page 521.*

Consulting Workflows (Windows Front-End)

HOPEX proposes several modes for consulting workflows:

- from a tree in the **Collaboration** navigation window.
- from a list via the workspace edit area
- from an object

From the navigation window

To list workflows:

1. In the **HOPEX** desktop, open the **Collaboration** navigation window.

   ☛ *To access this window, select **View > Navigation Windows > Collaboration**.*

2. Expand the folders:
   - **My Workflows.**

     This folder contains the workflows with which you are involved.
   - **All Workflows**.

     ☛ *This folder is available if you have the necessary authorization (menu **Tools > Options > Collaborative Environment**, option **View workflows of all users**).*

Workflows in progress appear in the tree. They are classified according to different criteria (waiting for x months or x weeks).

From a dedicated page

To list workflows in progress:

1. At the top of the Collaboration navigation window, click button **Workflows > List Workflows** .

   ☛ *You have to distinguish between two workflow instances:*

   - *single-repository workflow instances, which are stored in data repositories (for instance, workflows associated to **HOPEX** solutions.)*
   - *multiple-repository workflow instances, which are stored in the system repository.*

   Workflows in progress appear in a dedicated page.

From this page, you can:

- sort workflows according to your own criteria, and modify the order of appearance of columns.
- export the list of change requests in the form of an Excel file.

☛ *You can also use this page to participate in a workflow (**Next Status** button). For more details, see "Participating in a Workflow", page 523.*

From an object

To consult workflows in progress on an object:

1. In the properties dialog box of the object, select the **Workflows** tab.
   Workflow history appears.

   ☛ *The **Workflows** tab only appears if the selected object is subject of a workflow instance.*

   ☛ *Only those objects that are subjects of a workflow include this **Workflows** tab.*

CONSULTING NOTIFICATIONS

As a workflow progresses, the user(s) assigned to the next status can receive a notification warning of the existence of a request needing attention.

Consulting notifications (Web Front-End)

See "Accessing your Notifications", page 491.

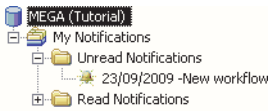
Consulting notifications (Windows Front-End)

In **HOPEX Windows Front-End** notifications are displayed automatically:

☛ *To no longer display the notification window, in the same window, tick the **Deactivate Notification Pop-up Window** check box*

To consult notifications:

1. In the **HOPEX** desktop, open the **Collaboration** navigation window.
2. In the **My Notifications** folder, expand the **Unread Notifications** sub-folder.
   Notifications that concern you are contained in this folder.



☛ *You can also list notifications from the workspace edit area. To do this, in the **Collaboration** navigation window, click button* ***Notifications > List Notifications**. A window opens in the desktop edit area.*

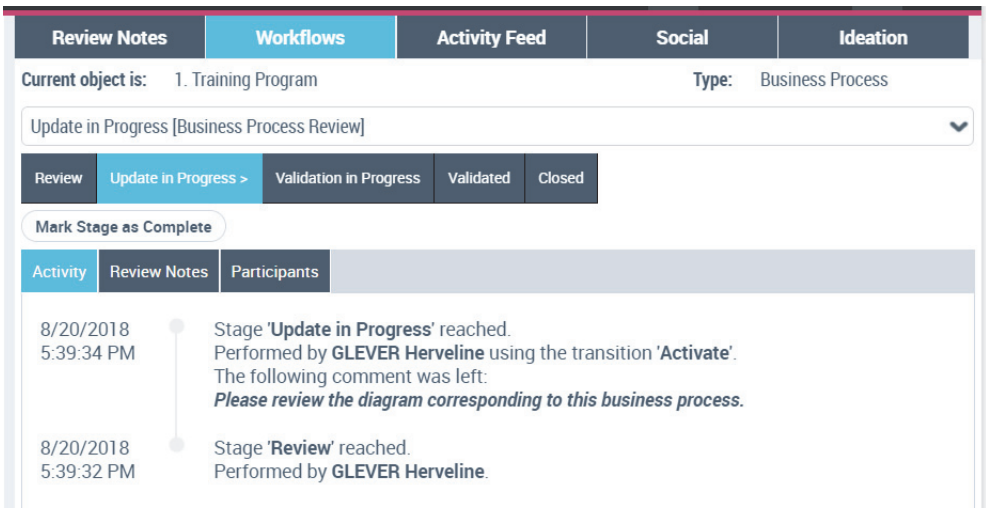
STARTING A WORKFLOW

Starting a workflow (Web Front-End)

You may start a workflow from a list of objects, for example a list of applications.

To start a workflow:

1. From your **HOPEX** desktop, access a list of objects that contains the object concerned.
   ☛ *See "Common Actions on Repository Objects", page 51.*
2. Roll the mouse over the **Local name** column of the object, click **More** and select **Workflows**.
   A panel is displayed on the right.
3. From the drop-down list, select the workflow you wish to use.
4. Click **Start Workflow**.
   After triggering the first workflow transition, you may view the activity of the on-going workflow:



See also "Triggering a transition (HOPEX Web Front-End)", page 523.

Starting a workflow (Windows Front-End)

To access workflows, see "Consulting Workflows (Windows Front-End)", page 518.

To start a new workflow:

1. At the top of the **Collaboration** navigation window, via , click **Start Workflow**.
2. Click the workflow that interests you then **OK**.

   ☛ *Only those workflows that you are authorized to start are displayed.*
3. In the first dialog box of the wizard that appears, enter the workflow name.
4. In the **Workflow Subject** field, click **Create** then select an object to connect.
5. Click **OK**.
6. Enter a comment for the workflow if required and click **Next**.
7. Select the **Users** assigned to the next workflow status then click **Finish**.

   🕮 *A workflow status corresponds to a step in progress of a workflow defined by a workflow definition.*

   ☛ *When you take part in a workflow, remember to **dispatch work made in your private workspace**.*

PARTICIPATING IN A WORKFLOW

After initiation of a workflow, only those users assigned to the next workflow status can intervene in this workflow.

☛ *Any **HOPEX** user can participate in a workflow, whatever the product used.*

Triggering a transition (HOPEX Web Front-End)

From the list of workflows that concern you

To take part in a workflow:

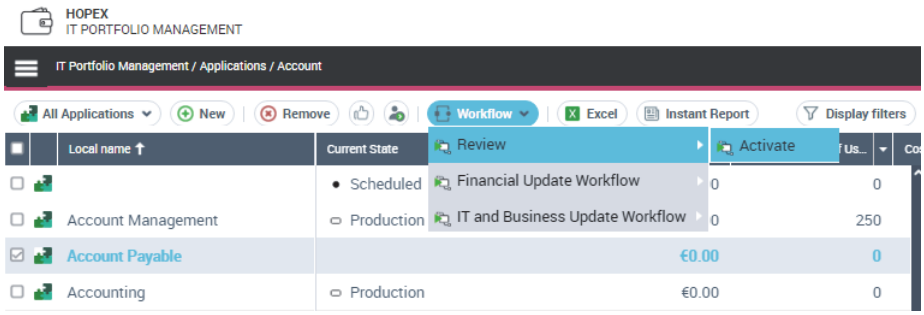
1. Access the workflows which are of interest to you.
   ☛ *For more details, see "Consulting Workflows", page 518.*
   ☛ *See also "Starting a workflow (Web Front-End)", page 521.*
2. If you are assigned to the next workflow status, the workflow appears in the "My Active Workflows" page.
3. Select the workflow of interest.
4. Roll the mouse over the **Local name** column of the object, click **More** and select **Workflows**.
   The workflow window appears to the right.
5. To switch the workflow to the next status, click **Mark the step Completed**.
6. Select the transition that you want to trigger and click **Next**.
7. Enter a comment for this transition and select a user, then click **Finish**.

From a list of objects

To participate in a workflow from a list of objects:

1. Select the object on which you want to perform an action and:
   - Click the **Workflow** button on the list bar.

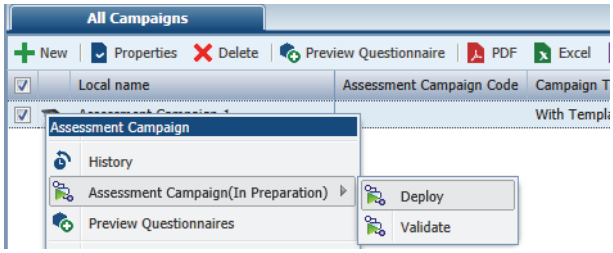
2. Select the workflow on which you want to perform an action and the transition to be triggered.



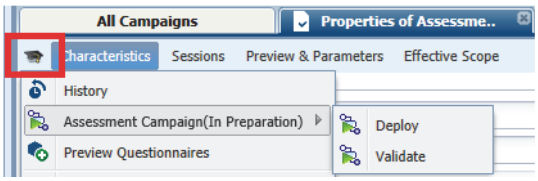
☛ *You can select more than one object and move these objects on to the next workflow step if these objects all have the same status. To do this, click on the workflow button and select* ***Mass Transition****.*

For GRC solution, you may trigger a workflow transition:

- from the pop-up menu of a repository object



- From the properties of the object concerned.



EXAMPLES OF WORKFLOWS SUPPLIED AS STANDARD

Below are examples of workflows supplied in standard mode.

Other customizable workflows are supplied with solutions. See the corresponding guide for more details.

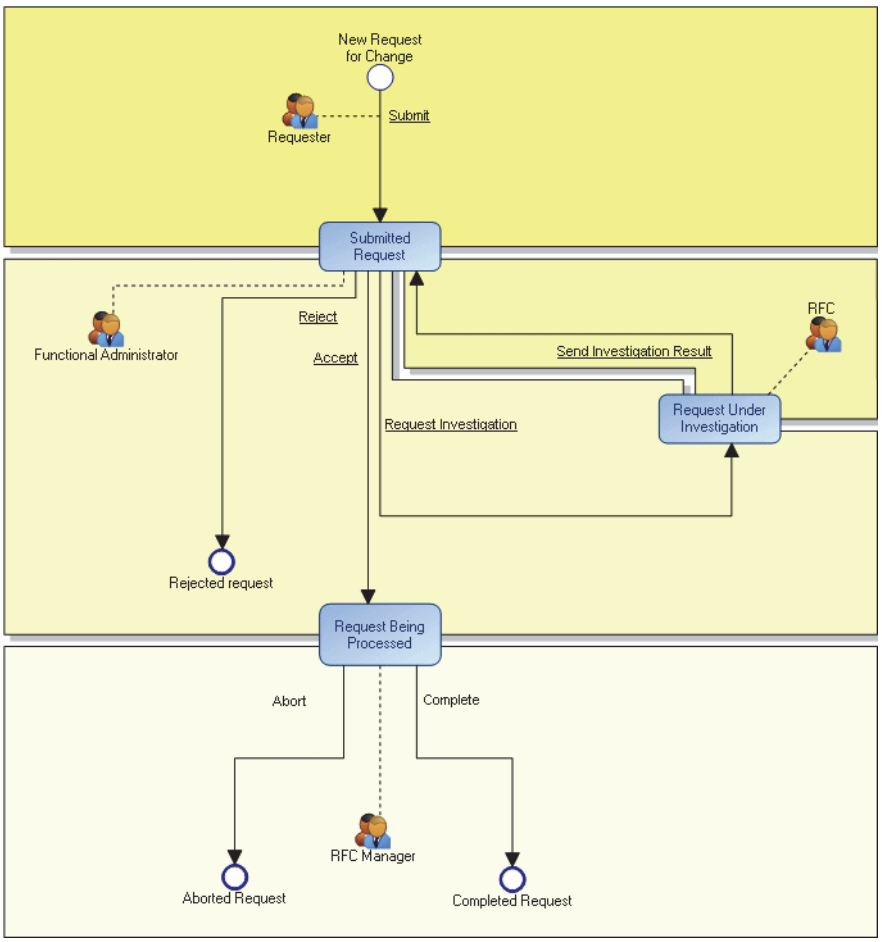
Using Requests For Change

Change requests allow users to request a modification on one or more repository objects.

Depending on workflow configuration, users receive an e-mail or a notification to inform them of the request for change.

Request For Change Workflow

The diagram that illustrates this workflow is shown below.



In this workflow, a requester makes a new request for change. The request then passes to status ***Submitted Request***.

An administrator of requests for change analyzes the request, with three possible decisions:

- accept request for change.
- reject request for change.
- request investigation from a modeler.
  In this last case, the request for change passes to status ***Request Under Evaluation***. Following evaluation, the modeler submits the outcome to the request for change administrator (the request returns to ***Submitted Request*** status).

When the request has been accepted, the requests for change administrator can decide to complete or abort it. The request for change then passes to final status ***Completed Request*** or ***Aborted Request***.

☛ *You can customize behavior of requests for change. To do this, seek assistance of a **MEGA** product engineer if necessary.*

Accessing Requests for Change

In HOPEX Web Front-End

- From the navigation tree, select **Collaboration > Overview > My Requests for Change**.

In HOPEX Windows Front-End

- Click **View > Navigation Windows > Collaboration**.

Creating a Request For Change

To create a request for change:

1. See "Accessing Requests for Change", page 527.
2. Click one of the following buttons:
   - (Windows Front-End)
   - (Web Front-End)
3. In the dialog box that appears, enter the name of the request for change.
4. In the **Related Objects** frame, create or connect objects concerned by the RFC, then click **OK**.
5. In the next dialog box, enter a comment and click **Next**.

   ☛ *The comment allows you to enter the content of your request and motivate it if necessary.*

   Creation of a request for change also triggers creation of a request for change workflow; this enables sending of a notification and e-mail concerning the request for change.
6. In the next dialog box, select the recipients of the request for change, then click **Finish**.

Using Design Tasks

A design task enables assignment of execution of work to be done in the modeling repository. The design task assures traceability and check of work carried out by modelers by associating dispatched modifications with a motive.

🕮 *A motive is an object connected to a design task that justifies or explains why the design task has been created. The request for change is an example of task motive.*

Management of design tasks integrated in **HOPEX** improves control and analysis of repository modifications. In particular it is used to:

- check user dispatch rights (the user can be obliged to associate private workspace modifications with a design task).
- identify modifications to be transferred from one repository to another.

Prerequisites for using design tasks

To be able to use design tasks, you must:

- Activate task management.
- Activate the logfile of the repository and/or the system repository for which you want to keep history of modifications associated with tasks.

> ☛ *For more details on repository log activation, see the **HOPEX Administration-Supervisor** guide, "Managing Repositories", "Managing Logfiles".*

To activate task management:

1. From the administration application, open the desired environment.
2. Right-click the environment and select **Options > Modify**.
3. In the **Collaborative Environment > Change Management** option group, select the "Enabled" value for the **Associate modifications with a design task** option.
   Task management is activated.

> ☛ *The option can also be defined at user level.*

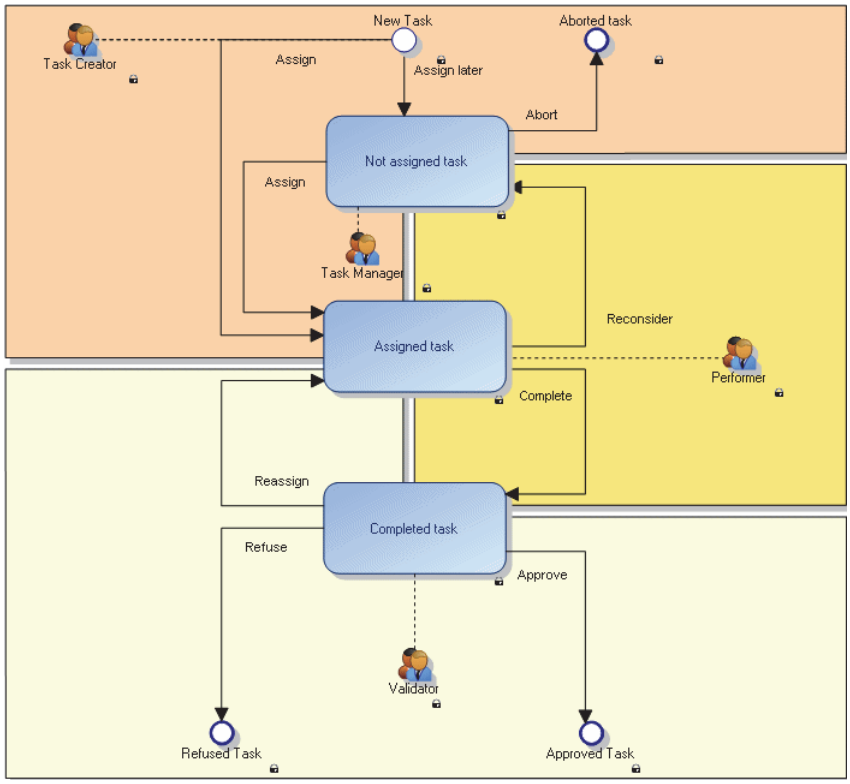
The **Associate modifications with a design task,** option has three values:

- if task management is **Disabled**, the user cannot dispatch his/her private workspace as a task
- if task management is **Enabled,** the user can use tasks, and can choose whether or not to associate a task with the work dispatched
- if task management is **Mandatory**, the user can only dispatch his/her work by associating it with a task.

When dispatching the private workspace as a task, the user associates all dispatched modifications with the assigned task.

Design Task Workflow

HOPEX delivers a design task management workflow as standard. This workflow enables management of the life cycles of the different assigned design tasks.



According to this standard workflow:

- A design task is created.
- It can be:
  - assigned to a user responsible for its execution (the executor): it passes from status ***New Task*** to status ***Assigned Task***.
  - assigned later
- The executor can:
  - complete the design task:: it passes to status ***Completed Task***
  - request its reassignment.

  The creator of the design task can reassign it to another user.
- A reviewer can decide to reassign a design task to another user.
  The design task then passes from status ***Completed Task*** to status ***Assigned Task***.
- A design task in ***Completed Task*** status can be:
  - approved: it passes to status ***Approved Task***.
  - refused: it passes to status ***Refused Task***.

> ☛ *You can customize behavior of design tasks. To do this, seek the assistance of a product engineer if necessary.*

Accessing Design Tasks

In HOPEX Web Front-End

To access design tasks:

- From the navigation tree, select **Collaboration > Overview > My Tasks**.

HOPEX enables you to view:

- **tasks to complete**: these are tasks assigned to the current user
- **tasks to validate**: these are tasks that the current user must validate, or not
- **requested tasks**: these are all design tasks assigned to the current user

In HOPEX Windows Front-End

To access design tasks:

1. Click **View > Navigation Windows > Collaboration**.
2. In the **Collaboration** navigation window, select one of the task categories mentioned above.

To view design tasks connected to a project:

- In the **Projects** navigation window, expand the Projects folder, then the sub-folder corresponding to the project concerned.
  The project sub-folder includes tasks connected to the project.

Creating Design Tasks

To create a design create:

1. See "Accessing Design Tasks", page 530.
2. Click one of the following buttons:
   - (Windows Front-End) In the **Collaboration** navigation window, click **Assign a Task** .
   - (Web Front-End) In **Collaboration > My Tasks**, select **Expected Tasks** in the drop-down menu and click

   The dialog box for creating a design task appears.
3. Enter the name of the design task.
4. If applicable, specify the design task motive and due date and the EA project connected to the design task, then click **OK**.

   ☛ *A motive is an object connected to a design task that justifies or explains why the design task has been created. The request for change is an example of task motive.*
5. In the dialog box that appears, specify if you want to:
   - create the task and assign it
   - create the task and assign it later
6. In the next dialog box, enter a comment and click **Next**.
7. Select the user who must execute the task and click **Finish**.
   The design task is created and if specified, assigned to the selected user.

Specifying design task motive

Design tasks can be created from:

- a request for change

  A request for change enables expression of a comment concerning change to be made to an object.

- a requirement

  A requirement is a need or expectation explicitly expressed, imposed as a constraint to be met within the context of a project. This project can be a certification project or an organizational project or an information system project.

These two object types constitute the motive of a design task.

It can be useful, from a request for change, to create and assign a design task to the person responsible for its execution.

To create a design task from its motive (here, a request for change):

1. See "Accessing Requests for Change", page 527.
2. Expand the navigation folder corresponding to the request for changes.
3. (**Windows Front-End**) Right-click the desired change request and select **New > Design Task**.
4. (**Web Front-End**) In the page corresponding to your change request, click **Expand** to create a design task.
5. In the dialog box that appears, enter the name of the design task and indicate the task due date.
6. Click **OK**.
7. In the dialog box that appears, specify if you want to:
   - create the task and assign it
   - create the task and assign it later
8. Enter a comment for the design task, then click **Next**.
9. Select the design task assigned user if required, then click **Finish**.

The design task is created.

Creating a design task from a project

Design tasks can be created in the framework of a project.

We can define users with authorization to create tasks in the framework of a project. For more details, see "Workflow Participants", page 35 and "Associating persons with participants", page 36.

To create a design task from a project:

1. In the **Projects** navigation window of the Enterprise Architecture desktop, right-click a project and select **New > Design Task**.
2. In the dialog box that appears, enter the name of the design task.
3. Enter the design task motive and due date if required.
4. Click **OK**.
5. In the wizard that appears, indicate if you want to assign the design task or not to a person responsible for its execution.
6. Enter a comment and click **Next**.
   The design task is created and connected to the project.
   A design task workflow instance is triggered.

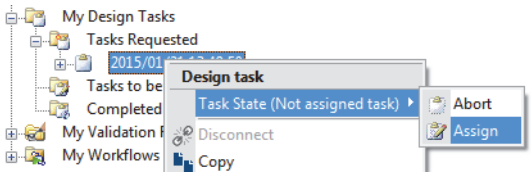
Assigning and Aborting a Design Task

Assigning a design task later

When you created the design task, you were able to create it without immediately assigning it.

To assign a design task after creation:

- (**Windows Front-End**) In the list of requested tasks, right-click the unassigned task and select **Assign**.



- (**Web Front-End**) In the list of expected tasks, click . In the right part of the window, click on the button used to move on to the next step in the workflow.

Discarding a design task

If a design task has been created but not immediately assigned, it can be aborted.

To abort an unassigned task:

- (**Windows Front-End**) In the list of requested tasks, right-click the unassigned task and select **Abandon**.
- (Web Front-End) In the list of expected tasks, click . In the right part of the window, click on the button used to move on to the next step in the workflow and select **Abandon**.

Viewing design task properties (Windows Front-End)

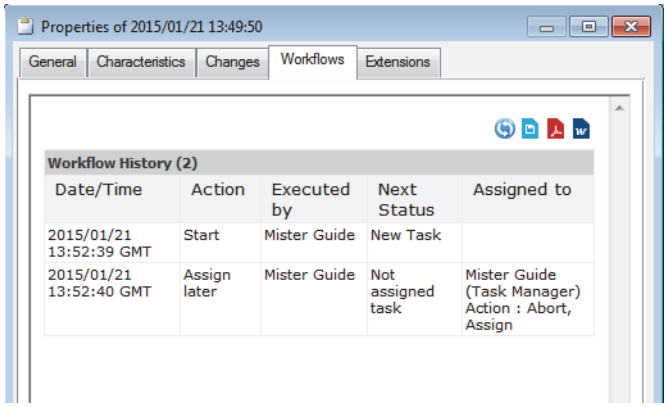
To consult design task properties:

- Right-click a design task and select **Properties**.

The **Characteristics** tab allows you to view:

- in the **Standard** subtab: the design task assigned user.
- in the **Advanced** subtab:
  - the assigner
  - the project with which the design task is associated
  - the design task motive (requirement or request for change)
  - the assignment date
  - the completion date (date on which task is completed)
  - the resolution date (date on which task is validated)
  - the design task due date

The **Workflows** tab lets you consult the history of triggered workflow transitions:

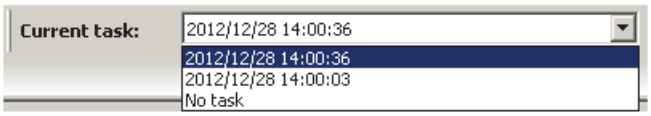


Selecting a design task (Windows Front-End)

Once a private workspace is open, you can select the design task with which modifications to the current private workspace will be associated.

To select the design task associated to the current private workspace:

1. In the **HOPEX Windows Front-End** desktop, select the desired task in the **Current Task** drop-down list.



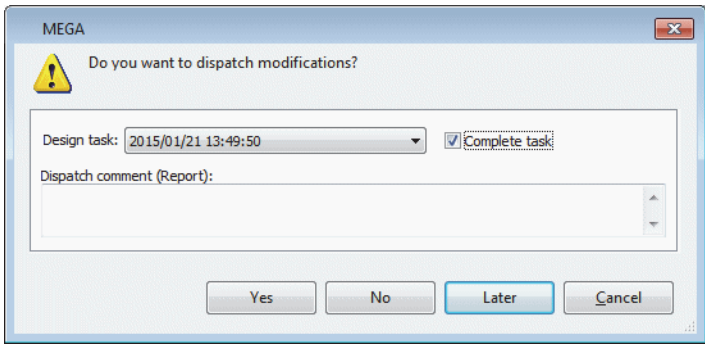
Dispatching as a Design Task

A user can dispatch work in a private workspace as an assigned design task if the task management function is activated.

When dispatching work in the private workspace as a task, the user associates all dispatched modifications with the assigned task.

To dispatch work in a private workspace as a design task:

1. In the following desktop:
   - **HOPEX Windows Front-End**, select **File > Dispatch**.
   - **HOPEX Web Front-End**, save and quit while dispatching.
2. In the dialog box that appears, select the required design task if you have not already done so.



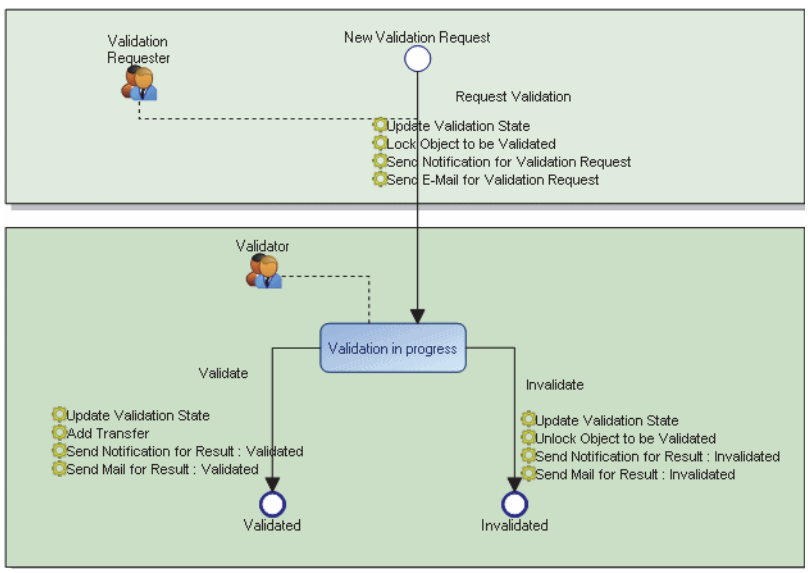
3. If this dispatch contains all the modifications necessary for resolution of the design task, select the **Complete Task** check box.

   ☛ *You can dispatch work from several private workspaces as the same design task. However, you cannot group several design tasks in the same private workspace.*

4. Select **Yes**.

Using the Validation Request Workflow

The diagram that illustrates this validation request workflow is shown below.



In this workflow, a requester makes a request for validation. The request then passes to status ***Validation in Progress***.

A reviewer analyzes the request for validation. He can:

- validation
- invalidate

> ☛ *This workflow offers simple implementation of validation requests. You must configure it so that it responds to the requirements of your enterprise.*
>
> ☛ *When validated, the object can be transferred to another repository if required. For more details, see "Transfering Objects", page 738.*

Requesting validation

To request validation of an object:

1. Right-click the object concerned and select:
   - (**Windows Front-End**) **Administer > Validation > Request Validation**.
   - (**Web Front-End**) **Administer > Request Validation**

   > ☛ *The location of the menu can vary if customized. For more details, see "Customizing the Validation Workflow", page 68.*
2. In the dialog box that appears, enter a comment to accompany your request and click **Next**.
3. Select a person to be assigned if your workflow requires this and click **Finish**.

The object subject of a request fro change can no longer be modified. A padlock appears alongside the object.

> ☛ *If you are in metamodel expert mode in **HOPEX Windows Front-End**, the **Immutability** value of the object to validate properties dialog box, **General** sub-tab, is "Protected".*

Validating the object

To validate the object subject of a request for change:

1. Right-click the object and select:
   - (**Windows Front-End**) **Administer > Validation (Validation in Progress) > Validate**.
   - (**Web Front-End**) **Administer > Request Validation**

   > ☛ *The location of the menu can vary if customized. For more details, see "Customizing the Validation Workflow", page 68.*
2. In the dialog box that appears, enter a comment if required and click **Finish**.

   > ☛ *You can also associate a transfer at this stage. For more details, see "Transfering Objects", page 738.*

   The object is protected. If you want to modify it, you must first unlock it.

   > ☛ *Right-click the object and select **Manage > Unlock Object**. If you do not have the necessary rights to unlock the object, you can request unlocking. For more details, see "Making an unlocking request", page 536.*

Refusing object validation

To refuse validation of the object subject of a validation request:

1. Right-click the object and select:
   - (**Windows Front-End**) **Administration > Validation > Invalidate**.
   - (**Web Front-End**) **Validation > Invalidate**.

   ☛ *The location of the menu can vary if customized. For more details, see "Customizing the Validation Workflow", page 68.*
2. In the dialog box that appears, enter a comment if required and click **Finish**.

Using the Unlocking Request Workflow

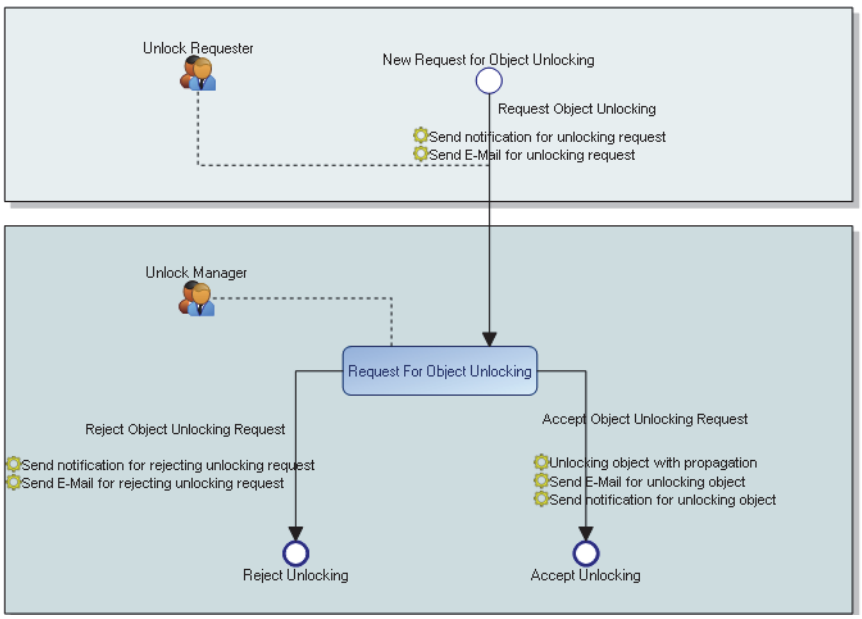
When an object becomes the subject of a request for change, the object is locked. It can no longer be modified.

☛ *For more details on the validation process, see "Using the Validation Request Workflow", page 534.*

After validation of the object, if you want to modify the object you must unlock it.

☛ *If you do not have the necessary rights to do this, you must make an unlocking request.*

The diagram that illustrates this workflow is shown below.



Making an unlocking request

To be able to modify the object after its validation, and if you do not have rights to unlock the object, you must make an unlocking request.

To make an unlocking request:

1. Right-click the validated object to be modified and select **Manage > Unlocking Request**.
2. In the next dialog box, enter a comment and click **Next**.
3. Select a person to be assigned if your workflow requires this and click **Finish**.
   A notification is sent to the person responsible for object unlocking.

Consulting unlocking requests

To consult unlocking requests addressed to you:

1. In the **HOPEX Windows Front-End** desktop, select the **Repository Activity** navigation window.
2. Expand the **My Unlocking Requests** folder.
   The unlocking requests that have been addressed to you appear in the "To Evaluate" sub-folder.

Accepting an unlocking request

To accept an unlocking request:

1. See "Consulting unlocking requests", page 537.
2. Right-click the unlocking request and select **(Object Unlocking Request) > Accept Unlocking Request**.
   The object for which you have accepted the request is no longer protected. It is unlocked and you can modify it.

   ☛ *The validation state of the object has become "Not validated".*

Refusing an unlocking request

To refuse an unlocking request:

1. Right-click the unlocking request and select **(Object Unlocking Request) > Refuse Unlocking Request**.
   The object remains protected. It cannot be modified.

   ☛ *To be able to accept or refuse unlocking requests, you must be authorized to unlock protected objects (see repository option **Authorize unlocking of protected objects** in **Tools > Options**).*

CREATING A SKETCHING DIAGRAM

HOPEX enables to draw diagrams informally, using shapes without having to select a specific object type from the start.

This feature makes teamwork easier and allows to make a draft of a diagram.

Creating a Sketching Diagram

To create a sketching diagram:

1. Click the navigation menu then select **Collaboration > Collaboration Overview > All Sketches**.
2. Click **Create** to create a sketch and in the drop-down menu, click **New > Sketching**.
   A diagram opens.

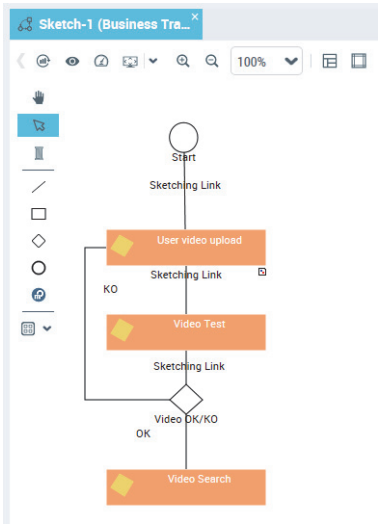
Creating a Sketching Diagram

See "Creating a Sketching Diagram", page 539.

Shapes available in sketching diagrams

Sketching diagrams consist of:

- Sketching items
  - Rectangle
  - Rombus
  - Circle
- Sketching links



Connecting a sketching item with a repository object

You can connect shapes of a sketching diagram with repository objects representing architecture elements.

To do so:

1. Open the properties of the sketching item.
2. Under **Characteristics**, from the **Enterprise Model Element** field, connect a repository object.
   The sketching item appears in the form of the object type selected.

   ☛ *To associate a sketching item with a repository object, you can also drag-and-drop an object from a navigation tree.*

SUBMITTING AND EVALUATING IDEAS

HOPEX offers an organized process for generating ideas, referred to as Ideation.

An idea can be a suggestion for a modification with a view to improving the enterprise capabilities, or more generally any suggestion that impacts the transformation of the resource organization of the enterprise or the change path of its strategic line.

Ideas can be submitted freely or collected within the context of an ideation campaign on the initiative of the innovation manager.

The ideas are examined by the innovation manager; they can give rise to project demands that can then be assessed within the context of the project management process.

✓ For more information on project management, see "Defining Enterprise Projects", page 589.

Les points abordés ici sont :

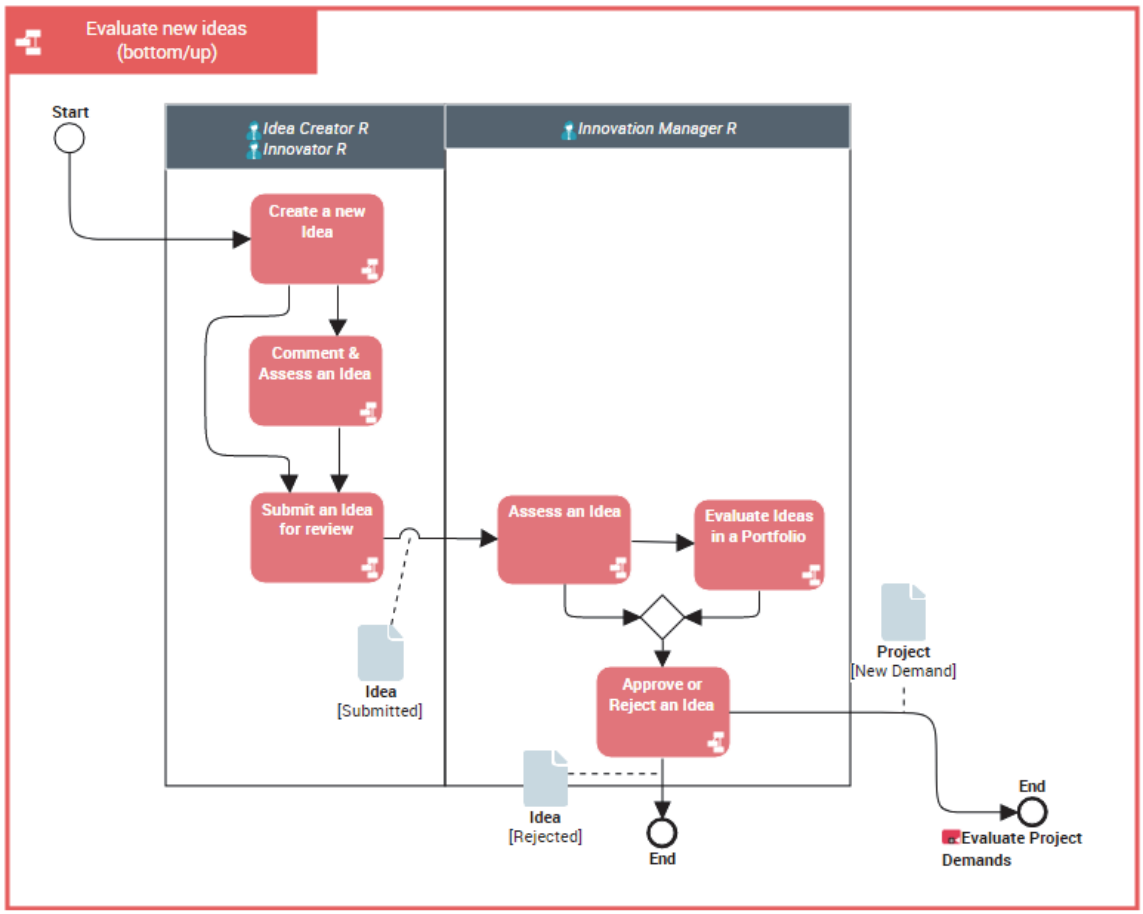
✓ "Idea Management Process", page 542
✓ "Submitting an Idea", page 545
✓ "Starting an Ideation Campaign", page 550
✓ "Examining an Idea", page 554
✓ "Validating or Rejecting an Idea", page 556

IDEA MANAGEMENT PROCESS

Ideation refers to the management process for ideas that become possible project demands.

The ideation process is broken down into three main parts:

- Creating the idea
- Assessing the idea
- Approving or rejecting the idea



Submitting an idea

There are two ways to submit ideas:

- Ascending: at any time, users can submit an idea to the innovation manager For more details, see "Creating an Idea", page 545.
- Descending: the innovation manager can organize an ideation campaign, which involves the different stakeholders, on a particular subject (e.g.: a business capability). See also "Starting an Ideation Campaign", page 550.

Ascending ideation process

At any time, a person can submit an idea to an innovation manager. This idea is not necessarily linked to a repository object, because the end user may not have the in-depth knowledge of the content of the repository or access to data (data such the capabilities may be beyond his/her reach). Thus, for example, the "Innovator" user can submit a new idea by describing the detail in an associated document attached to the idea; this idea can be attached to elements in the architecture at a later stage by a more expert user.

```
For example, Ben from the marketing team wants to suggest
the possibility for the customer to order customized pizza
recipes on the Web and on mobile devices.
```

It is possible to submit an idea

- for an existing architecture block.

  ```
  For example, Dave from IT wants to submit the idea that the
  "Online pizza ordering application" is growing old and must
  be improved.
  ```

- for a given capability.

  ```
  For example, Ben wants to suggest that the "pizza delivery"
  capability be implemented by a fleet of automated drones in
  certain areas.
  ```

- for an architecture block AND one of its capabilities achieved.

  ```
  For example, Dave wants to suggest that the "Pizza Ordering"
  functionality of the "Online pizza order request" should
  also be available on Android devices and not only on iOS
  devices.
  ```

Descending ideation process

An innovation manager or a project portfolio innovation manager can start an ideation campaign based on a given capability. This is organized for a certain period of time during which the stakeholders can submit their ideas.

```
For example, Veronica, who is an innovation manager, is
aware of a candidate project that aims to improve the
deadline of the "Pizza delivery" business capability and is
looking for innovative ideas to implement this. She wants to
```

```
start an ideation campaign on the "Pizza delivery" business
capability in the marketing and logistics user communities.
```

Assessing an idea

Ideas submitted are examined by the innovation managers.

Once the ideas are submitted (irrespective of the source or the submission mode), the ideas collected can be examined by an innovation manager, and reviewed:

- Informally through messages exchanged by the various stakeholders;
- More formally via a dedicated approval workflow, through an assessment request by the innovation manager.

The ideas can be assessed and added to by the innovation manager or other persons assigned to the idea.

See "Examining an Idea", page 554.

Validating an idea

An innovation manager can validate an idea, which can either:

- Give rise to a new project demand, or
- Be associated with an existing project demand or a validated project, or
- Be associated with a similar idea, already validated or rejected and if appropriate declared as a "duplicates".

See "Validating or Rejecting an Idea", page 556.

Profiles Associated with Ideation

Two profiles are associated by default with ideation; the Innovator and the Innovation Manager.

Depending on your connection profile, you have access to a lesser or greater number of properties:

- The innovator can create an idea and provide a brief description. It accesses a dedicated desktop, limited to idea creation.
- The innovation manager is responsible for examining, approving or rejecting the ideas presented by the idea creators, for example by using idea portfolios. He can also organize ideation campaigns.
- Other profiles such as the Application Portfolio Manager in HOPEX ITPM can submit ideas within the framework of their solution and complete ideas by combining them with repository objects (e.g. business capability, application, organization).

SUBMITTING AN IDEA

Ideas are opportunities whose concept has not yet been refined before they become project demands.

Creating an Idea

Everyone, including a business architect, a technician, an application owner, etc., can submit an idea to an innovation manager.

☛ *The Idea Creator sub-profile is associated with connection profiles to allow idea creation.*

To create an idea:

1. In the home page, click on the **New Idea** tile.
   The properties window for the new idea opens.
2. In the **Characteristics** page, enter the name of the idea.
3. Specify the **Idea Inventor**. By default, the name that appears is that of the person who created the idea in the solution, but you can attribute the idea to another person.
4. Select the **Idea Submission Date**. Enter a **Detailed Description** of the idea.

Viewing the Ideas

To view the ideas:

1. Click the navigation menu, then the **Ideation** pane.
2. In the edit area window, click **Ideas**.
3. Use the drop-down list to display:
   - For the innovation manager: all ideas
   - For other users: the ideas for which you are creator or with which you have been associated as a stakeholder (directly or as member of a governance body associated with the idea).

In the **Ideation** pane, the innovation manager can also access idea portfolios.

Accessing the properties of an idea

To define the properties of an idea:

1. Click the navigation menu, then the **Ideation** pane.
2. In the edit window, click **All ideas** or **My ideas**.

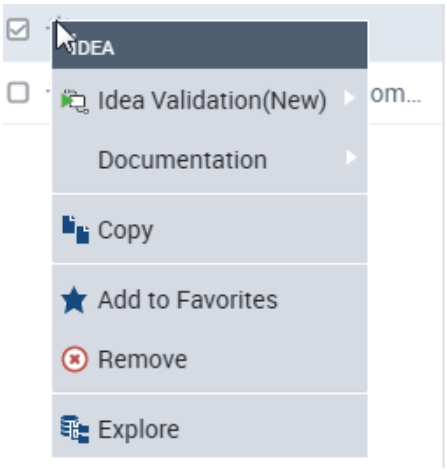
3. In the **Action** column relating to the wanted idea, click **Properties**. The properties of the idea appear in the edit area.

   A drop-down list gives you access to the following properties pages:

   - Characteristics. See "Idea Description", page 546.
   - Assessment. See "Examining an Idea", page 554.
   - Assignment. See "Assigning an Idea to Persons", page 548.

Commands are also associated with the idea, available when you click the icon associated with the idea:

- Workflow: at this first stage of creation, the idea is visible to the author only. See "Submitting the Idea for Review (workflow)", page 548.
- Documentation (including reports)
- etc.



Idea Description

To describe an idea:

1. Open the idea properties.

   ☛ *See "Accessing the properties of an idea", page 545 above.*

2. In the properties window, click the drop-down list and select **Characteristics**.

You can use this to indicate:

- the object **name**
- the **submission date**
- The **inventor**

The **status of the idea** is defined automatically by the worklow:

- New
- Being reviewed
- Approved
- Archived

Idea category

By way of information you can define a category for the idea.

You can create a category or link an existing category, for example:

- Technological breakthrough
- Improvement
- Innovation
- Quick win

Objects concerned by the idea

You can associate idea subjects with an idea.

An idea subject is used to define the scope and the impact of the idea in terms of capabilities and/or architecture blocks.

To create an idea subject:

1. In the **Objects Concerned by the Idea**, click **New**.
2. In the idea subject window, you can specify:
   - the subject name
   - the idea type: improvement, innovation or rationalization
   - the capability with which the object idea
   - deals, for example an application.
3. Click **OK**.

Similar ideas

You can link the idea to similar ideas and specify where appropriate the duplicates.

To link a similar idea:

1. In the **Similar Ideas** section, click **Connect**.
2. In the search window, search and select the idea concerned.
3. Click **Connect**.
   The idea appears in the properties window.

Projects inspired by the idea

In the same way as you can specify similar ideas, you can specify the projects inspired by the idea, by linking the projects concerned to the idea.

Assigning an Idea to Persons

The persons assigned to an idea are persons authorized to complete and assess this idea.

The inventor of the idea and the innovation manager can both assign persons to an idea.

To assign a person or a person group to an idea:

1. Open the idea properties.

   ☛ *See "Accessing the properties of an idea", page 545 above.*

2. In the properties window, click the drop-down list then **Assignment**.
3. Click **New**.
4. In the dialog box that appears, select a **Person** or a **Person Group**, as well as their **Business Role**.
5. Click **OK**.

Repeat this procedure to assign other persons to the campaign.

Submitting the Idea for Review (workflow)

To submit an idea for review:

1. Click the navigation menu, then the **Ideation** pane.
2. In the edit window, click **All ideas**.
   Ideas are displayed in the edit window.
3. Click the icon of the idea and select **Idea Validation (New)** > **Sumit For Review**.

When a new idea is submitted for review, a notification is sent automatically to the innovation manager(s). Any innovation manager can complete and decide to validate or reject the idea.

The idea switches from the "New" state to the "Being reviewed" state.

It is visible to the creator, the innovation manager(s) and the persons associated with the idea. See "Assigning an Idea to Persons", page 548.

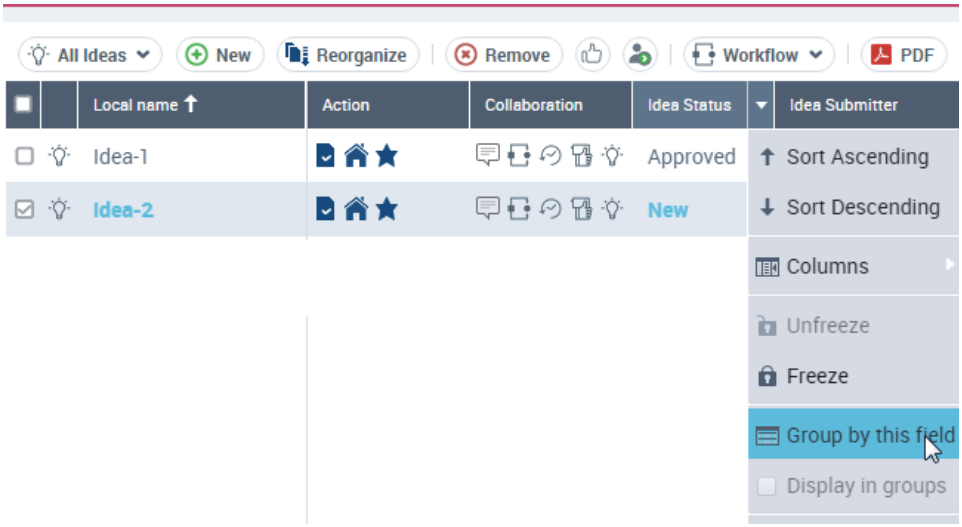
View the ideas submitted for review

The creator of the idea can view the status of his/her idea in **Ideation** > **Ideas** > **My Ideas**.

The innovation managers and the persons assigned can see the ideas submitted in **Ideation** > **All Ideas**.

To display the ideas according to their status (new, under review, etc.):

- Click the arrow associated with the **Idea Status** column then **Group by this Field**.



The ideas are grouped and displayed according to their status.

STARTING AN IDEATION CAMPAIGN

An ideation campaign is a way of organizing the collection of stakeholder ideas on a particular subject.

The scope of the campaign is defined in terms of capability, and even on the entire capability map.

You can submit an idea on a sub-set of the scope defined for the campaign (sub-capability or capability in the map).

Campaign Workflow

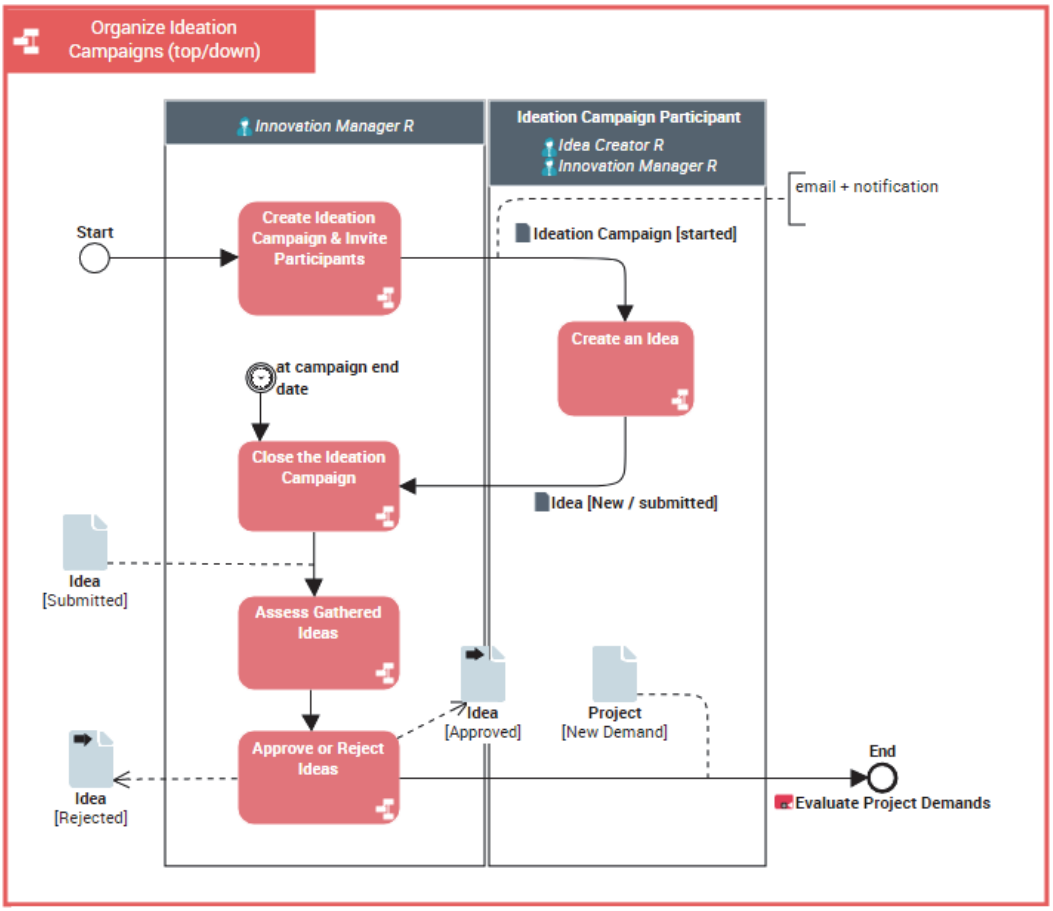
A campaign is initiated by an innovation manager. This involves a number of stakeholders who can be called on to submit ideas on a given theme.

The ideation campaign is organized for a defined period of time.

The stakeholders of the campaign receive a notification on campaign startup. It is up to them to create and comment on the ideas.

Once the campaign ideas are created and the necessary information gathered, the innovation manager closes the campaign. He/she then analyzes the information given and validates or does not validate the ideas.

Once the the campaign is closed, no additional ideas can be submitted within the framework of this campaign.



Creating an Ideation Campaign

To create an ideation campaign:

1. Click the navigation menu, then **Ideation**.
2. In the navigation pane, select **Ideation Campaigns**.
3. In the edit area, select **All Ideation Campaigns**.
4. Click **New**.
   The creation of an ideation dialog box appears.
5. Enter the name of the campaign.
6. Click **Next**.
7. Specify:
   - the campaign dates
   - the associated capability
8. Click **OK**.

Assigning an Ideation Campaign to Persons

The persons assigned to an ideation campaign are those authorized to create and comment on the ideas in the campaign.

To assign a person or a person group to an ideation campaign:

1. Click the **Ideation** navigation pane then **Ideation Campaigns**.
2. In the edit window, select the campaign in question and in the **Action** column, click the **Properties** button.
3. In the properties window, click the drop-down list then **Assignment**.
4. Click **New**.
5. In the dialog box that appears, select a **Person** or a **Person Group**, as well as their **Business Role**.
   - Campaign manager
   - Campaign participant
6. Click **OK**.

Repeat this procedure to assign other persons to the campaign.

Depending on his/her role, a person has access to a lesser or greater number of properties for campaign ideas:

- The innovator can create an idea and provide a brief description
- The portfolio manager can, in addition, define the idea category, the associated objects, etc.

Starting an Ideation Campaign

To start the ideation campaign:

1. Click the **Ideation** navigation pane then **Ideation Campaigns**.
2. In the edit window click the campaign icon and select **Campaign Workflow (New) > Start**.

The campaign switches to "In Progress" state.

When the campaign is open:

- The stakeholders receive a notification informing them of their participation in the campaign, with a link to the campaign. They can see the ideation campaigns "in progress" in which they are involved in the "My ideation campaigns" list.
- The stakeholders involved can create new ideas within the campaign, and they can also comment on the ideas of others on their wall (collaborative functionality).

Adding Ideas to the Campaign

To add an idea to the campaign:

1. Click the **Ideation** navigation pane then **Ideation Campaigns**.

2. In the edit window, select the campaign in question and in the **Action** column, click the **Properties** button.
3. In the campaign properties, click the drop-down list and then the **Characteristics** page.
4. Expand the **Gathered Ideas** section.
5. Click **New**.
   The creation dialog box for an idea appears.
6. Specify the name of the idea and click **OK**.
   The key appears in the properties of the campaign.

You can specify the subject of an idea, for example, a business capability of the capability map associated with the campaign.

For more details, see "Objects concerned by the idea", page 547.

Assessing the ideas collected

To assess the ideas of a campaign:

1. In the properties of the campaign, select the **Assessment** page.
2. Click **New Assessment**.
3. Select one of the following options:
   - **All**: to assess all the ideas
   - **Some**: to assess some ideas

Evaluation lines appear for each idea selected. Assessment criteria are associated with these assessment criteria. You can select the criteria values in the corresponding columns.

In the properties of an idea, the **Assessment** page displays the results of the latest assessment performed on the idea.

See also "Assessing an Idea", page 554.

Approving or Rejecting Campaign Ideas

Once the ideas are assessed, they are submitted to the approval of the innovation manager. See "Submitting the Idea for Review (workflow)", page 548.

The latter can validate or reject them. See "Validating or Rejecting an Idea", page 556.

EXAMINING AN IDEA

When an idea is submitted for review (irrespective of the source):

- It can be assessed and noted by the innovation manager or other stakeholders.
- The innovation manager can complete the idea, for example, by attaching it to the architecture element or the capability concerned, to obtain a more precise project.

See also: "Submitting the Idea for Review (workflow)", page 548.

Assessing an Idea

You can start the assessment on a portfolio or on a particular idea.

The innovation manager can ask for an assessment or proceed his/herself with the assessment.

Assessing a particular idea

To assess an idea:

1. Click the navigation menu, then the **Ideation** pane.
2. In the edit window, click **All ideas** or **My ideas**.
3. Select the idea in question and in the **Action** column, click the **Properties** button.
4. In the properties window, click the drop-down list then **Assessment**.
5. Expand the **Assessment** section
6. Click **New Assessment**.
7. Select the values for the following fields:
   - **Strategic Alignment Level**: 1 to 10 (the higher the value, the better the level)
   - **Feasibility**: 1 to 10 (the higher the value, the better the feasibility)
   - **Costs (budget)**: 1 to 10 (the higher the value, the higher the cost)
   - **Benefits**: 1 to 10 (the higher the value, the higher the benefits)
   - **Risk**: 1 to 10 (the higher the value, the higher the risk)

Once the assessment is completed, click **Validate Assessment** to transfer the assessment values to the idea properties.

The **Spider chart** section displays the results of the assessment in chart form.

Assessing the ideas in an idea portfolio

To create an assessment for the ideas of a portfolio:

1. Click the **Ideation** navigation pane then **Idea Portfolios**.
   The idea portfolios appear in the edit area.

2. In the **Action** column relating to the idea portfolio in question, click the **Properties** button.
   The portfolio properties appear.
3. Click the drop-down list, then the **Assessment** page.
4. Click **New Assessment**.
5. In the window that appears, select the ideas to be assessed:
   - Some
   - All
6. Click **OK**.
   An assessment line is created for each portfolio idea with the different criteria in a column.
7. For each line, select the values of the different criteria.

Once the assessment is completed, click **Validate Assessment** to transfer the assessment results to the idea properties concerned.

VALIDATING OR REJECTING AN IDEA

Validating an Idea

An innovation manager can validate an idea, which can either:

- give rise to a new project demand
- be attached to an existing project
- result in no immediate action

To validate an idea:

1. Click the navigation menu, then the **Ideation** pane.
2. In the edit window, click **All ideas** or **My ideas**.
3. Click the icon of the idea in question and select **Validate the Idea (Under Review)** > **Approve**.
4. Select the type of action to follow.
5. Click **OK**.

Rejecting an Idea

To reject an idea:

- Click the icon of the idea and select **Validate the Idea (Under Review)** > **Reject**.
  The idea status changes to "Rejected".

Displaying the Number of Ideas at the Origin of Projects

On an idea portfolio, use the "Funnel of ideas and projects" report to display the number of ideas that have given rise to projects.

To access this report:

1. Display the idea portfolio properties.
2. Click **Reporting**.
3. In the **Reporting** page, select the "Funnel of ideas and projects" report.
4. Refresh the report if necessary.

ACTION PLANS

This action plan management function consists of defining, executing and following up a certain number of actions in a project framework. This function is transverse to the different HOPEX solutions such as **HOPEX Enterprise Risk Management**, **HOPEX Internal Audit**, **HOPEX IT Risk Management**.

The following points are covered in this chapter are:

- ✓ "Action plan implementation process", page 558
- ✓ "Accessing action plans", page 559
- ✓ "Desktops linked to Action Plans", page 560

Introduction to Action Plans

Action plan implementation process

Associated with all **HOPEX** Suite products, and more specifically **HOPEX Enterprise Risk Management**, **HOPEX LDC** enables identification, assessment and remediation of incidents.

Creating the action plan

When the action plan is created, it is in "To submit" state.

By default, the action plan creator is the action plan **Owner**.
Having specified the characteristics of a new action plan, the creator can: **Propose** the action plan.

Validating the action plan

The action plan "Responsible" user can **Validate** or **Cancel** the action plan.

- **Validate**: the action plan, which then takes status can be executed.
- **Cancel**: the action plan which takes status "Canceled".

Executing the action plan

Having executed actions relating to the action plan, the "Owner" can: **Terminate** the action plan which takes status "Closed". To do this, all action plan actions must be terminated.

Closing the action plan

After having consulted action plan follow-up reports, the "Approver" user can **Close** and then **Reopen** the action plan.

- **Close**: the action plan, which retains "Closed" status and disappears from the task lists of creator, approver and owner.
- **Reopen**: additional actions can then be created. The action plan again takes status "In Progress".

Accessing action plans

Prerequisites for using action plans module

Below is a summary of functions available with each product or option.

Product/Option	Features
as standard	- Creating and executing action plans and actions
HOPEX Power Studio	- Creating and modifying workflow definitions - Adding objects on which to execute action plans

Profiles Linked to Action Plans

Presentation of the solution interface depends on the profiles selected by the user at connection to the application; the tree of menus and functions can vary from one profile to another.

Before organizing work with **HOPEX**, appropriate teams must be set up and roles and responsibilities assigned. To do this, a set of tools enables creation and management of the different participants.

☛ *For more details on management of profiles, see the **HOPEX Power Supervisor** guide.*

Action Plan Manager

Has authorizations for creation of action plans and their associated actions. He/she can access all follow-up reports. The action plans created by the Action Plan Manager respect top-down workflow.

Action Plan Owner

Has authorizations for modification of action plans and creation of associated actions. He/she can only access action plans of which he/she is the owner. He/she cannot access follow-up reports of all action plans.

Action Owner

Has authorizations to access their assigned actions. The "Action Owner" can also consult the action plans containing his actions.

Action plan approver

This is the person who can approve starting an action plan.

It is not a connection role, since it is not associated with a profile. User of a **HOPEX** solution, the approver has another role elsewhere.

Action plan creator

This role can be used by a user to modify his action plans and to create new ones. However, the new action plans must be validated by an approver before being implemented (workflow Bottom-Up). An Action plan creator can also create or modify the actions of his action plans.

Desktops linked to Action Plans

This section presents desktops proposed to the different profiles concerned by action plans.

Desktop proposed to the action plan manager

This profile accesses the same commands as profiles "Action Owner" and "Action Plan Owner". It has an additional command to access follow-up reports of all action plans: **Action Plan > Reports**.

☛ *For more details, see "Action Plan Follow-Up Reports", page 572.*

Desktop proposed to the action plan owner

The "Action Owner" can only access action plans of which he/she is owner, and their actions.

To access the list of action plans, the "Action Plan Owner" must:

- Select the command **Action Plan > My Responsibilities > My Action Plans**.

The "Action Plan Owner" can also access the list of his/her action plans and the actions he/she has created.

To access these lists, the "Action Plan Owner" must:

- Select **Action Plan > My Responsibilities >Action Plans**.
  Folders displayed concern:
  - All action plans created
  - All action plans created by the connected person
  - Actions created by the connected person.

☛ *For more information on the different action plan steps, see "Action Plan Workflows", page 32.*

Desktop proposed to the action owner

To access the list of action plans, the "Action Owner" must:

- Select **Action Plan > My Responsibilities > My Action Plans**.
  The list of action plans concerning actions placed under the responsibility of the connected person is displayed in the edit area.

To access action plan properties:

1. Select the action plan.

2. Click **Properties**.

   ☛ *For more information on action plans, see "Supplementing Action Plan Information", page 562.*

   ☛ *For more details on action properties, see "Creating an Action", page 566.*

USING ACTION PLANS

This chapter introduces the operating principles of *action plans* proposed as standard in **MEGA**.

> 🕮 *An action plan comprises a series of actions. Its objective is to reduce the risks or events that have a negative impact on enterprise activities, or to improve efficiency of a process or organization.*

Two workflows are proposed to manage steps of two types of action plan progression:

- A **Bottom-Up** workflow, which corresponds to the case where an action plan is created by any user. The new action plan must then be validated by an approver before being implemented.
- A **Top-Down** workflow, which corresponds to the case where an action plan is created by a responsible user (action plan manager or action plan owner). The validation step of the new action plan is not necessary in this case.

> ☛ *For more information on action plan standard workflows, see "Appendices", page 31.*

Creating Action Plans

To create an action plan:

1. Select **Home > My Desktop > My Responsibilities > My Action Plans**.
2. In the edit area, click the **New** button.
   The action plan is created and added to the list of action plans. The action plan is created with status "Open".

Supplementing Action Plan Information

Before proposing the action plan for approval, the action plan requester may supplement Action Plan Information.

To update fields that characterize an action plan:

❱ Open the properties of the action plan that interests you.
In the **Characteristics** tab, the following sections appear:

General characteristics

In the **Characteristics** section, you can specify action plan fields, for example:

- **Name**: action plan name.
- **Owner**: this field is specified by default by the user who created the action plan.
- **Owner Entity**: enables restriction of the list of owner entities.
- **Approver**: user responsible for validation of the action plan when all actions are completed.
- **Means**: text description of means required/desired for action plan execution.
- **Priority**: enables indication of a level. Priority can be: "Low", "Medium", "High" or "Critical".
- **Organizational Level**: final objective of plan; this can be "Global" or "Local".
- **Origin**: enables definition of the context of carrying out the action plan: "Audit", "Compliance", "Event", "Risk", "RFC" or "Others".
- **Category**: enables specification of the action undertaken, for example: "Process Improvement".
- **Nature**: enables definition of the action plan undertaken: "Preventive" or "Corrective".
- **Comment**: supplements information on the action plan and its characteristics.

Action plan statuses

- **To Send**: proposed by the action plan creator.
- **To Start**: accepted by the person designated as "approver" in the properties of an action plan.
- **Canceled**: the action plan responsible user has refused the action plan, which will not be implemented.
- **In Progress**: accepted by the action plan responsible user, actions are defined or being executed.
- **Completed**: all action plan actions have been executed. The responsible user has submitted a closing request to the approver, who can accept or refuse it.
- **Closed**: the action plan is completed and approved.

Financial assertion

- **Forecast Cost**: estimate of action plan cost expressed in **Currency**.
- **Real Cost**: action plan real cost expressed in **Currency**.
- **Forecast Cost (Man-Days)**: estimate in man-days of action plan implementation workload.
- **Real Cost (Man-Days)**: cost of action plan implementation expressed in man-days .

Success factors

In the **Success Factors** section, you can specify in text the success indicators enabling assessment of success of the action plan.

- **Key Success Factors**: text information on action plan success factors.
- **Success**: information on action plan final success. "None", "True" or "False"
- **Comments on Success**: text information on action plan results.

Scope

To position an action plan in its environment, you can associate objects with the action plan in the **Scope** section.

You can connect objects of risk, business and organizational process, control, entity or application type.

Milestones

Milestones are important dates of the action plan. You can specify these dates later.

- **Effective Begin Date** and **Planned Begin Date**
- **Effective End Date** and **Planned End Date**

Attachments

You can attach business documents to an action plan:

☛ *For more details on the use of business documents, see the **HOPEX Common Features** guide.*

Action Plan Progress Steps

Creating the action plan

When the action plan is created, it is in "To submit" state.

By default, the action plan creator is the action plan **Owner**. Having specified the characteristics of a new action plan, the creator can:

- **Propose** the action plan.
  In this case, the user defined as "Approver" receives a notification mail, and the new action plan appears with status "To Begin" in his/her tasks list.

Preparing the action plan

The action plan "Responsible" user can **Validate** or **Cancel** the action plan.

- **Validate**: the action plan, which then takes status "In Progress". Actions can then be created.
- **Cancel**: the action plan which takes status "Canceled".

Executing the action plan

Having executed actions relating to the action plan, the "Owner" can:

- **Terminate** the action plan which takes status "Closed". To do this, all action plan actions must be terminated.
  The "Approver" user is notified of the action plan termination request.

Closing the action plan

After having consulted action plan follow-up reports, the "Approver" user can **Close** and then **Reopen** the action plan.

- **Close**: the action plan, which retains "Closed" status and disappears from the task lists of creator, approver and owner.
- **Reopen**: additional actions can then be created. The action plan again takes status "In Progress".

☛ *For more information on action plan workflow, see "Action Plan Workflows", page 32.*

MANAGING ACTIONS

The action plan Responsible User must define actions enabling execution of the action plan. The Responsible User can create actions and assign these.

Creating an Action

To create an action from an action plan:

1. Select **Home > My Desktop > My Responsibilities > My Action Plans**.
2. In the page that appears, select the action plan that interests you and click **Property**.
3. In the **Actions** section, click **New**.
   The action appears in the list of action plan actions.
4. Open the properties of the action and specify its **Name**.
5. Specify the following fields:
   - **Priority**: enables indication of a level. Priority can be: "Low", "Medium", "High" or "Critical".
   - **Action Responsible**: responsible for the action as specified by the action plan creator.
   - **Owner Entity**: owner organization unit enabling restriction of the list of action owners.
6. You can specify milestones, which are important dates of the action.
   - **Effective Begin Date** and **Planned Begin Date**.
   - **Effective End Date** and **Planned End Date**.
7. Click **OK**.
   The action is created with "Created" status.
8. Connect the controls you want to implement.

☛ *These fields are accessible when the action has taken "Open" status.*

Action statuses

- **Created**: the action is created.
- **Project**: the created action awaits opening by the "action owner".
- **In Progress**:action is accepted by its owner.
- **To Close**: the action is completed and must be approved by the "action plan owner or approver".
- **Closed**:the action is completed and approved.

Defining Action Scope

An action can concern one or several objects of control, risk or application type.

For example, to define the controls that will be executed in the framework of the action:

1. Open the properties of the action.
2. Expand the **Scope** section.
3. Connect the controls you want to implement.

> ☛ *These fields are accessible when the action has taken "Open" status.*

Action Management Steps

> ☛ *For more details on an action workflow, see the, chapter "Action Workflow" in the **HOPEX Collaboration Manager guide**.*

When an action has been created, the action creator can declare the action as being in "Project" status.

When all actions of an action plan have been published and accepted, the action plan can be implemented.

Command proposed to creator

Having specified the characteristics of a new action, the "action plan owner or approver" can use the commend:

- **Project**.
  In this case the user defined as "Responsible User" receives a notification by mail and the new action takes status "Project".

Command proposed to entities concerned by an action in "Project" status

When an action has been proposed by the user the "action plan owner or approver" and the "Responsible" user can:

- **Open** the action, which takes status "Open".

Command proposed to "Open" action responsible user

Having studied action execution possibilities, the "Responsible User" can:

- **Terminate** the action.
  A notification is sent to the user defined as "action plan owner or approver".

Commands proposed to the "action plan owner or approver" of a terminated action

After studying characteristics of the action he/she created, the action plan owner or approver" creator can:

- **Close**.
  In this case the user defined as "Responsible" receives a notification and the action takes status "Closed".
- **Return to responsible user**, for supplementary actions.

ENSURING ACTION PLAN FOLLOW-UP

Action plan progress is specified at periodic dates by the action plan responsible user. For more details, see "Specifying action plan progress rate", page 569.

So that a reminder e-mail can be automatically sent to the action plan responsible user, you can connect a **Steering Calendar** to the action plan. For more details, see "Using a steering calendar", page 569.

Specifying action plan progress rate

The action plan progress rate can be specified if the action plan is in the status "In progress", that is it has been validated.

To indicate progress of an action plan:

1. Open the properties of the action plan and expand the **Action Plan Progress** section.
2. In the **Progress Rate** table, click **New**.
   The **Progress Rate** creation page appears.
3. Specify the **Name** of the progress rate.
4. Specify the **Updated Progress Percentage** and add a percentage **Comment**, if required.
5. Verify the **Progress Date**.
6. Specify the **Progress Assessment**:
   - Delayed
   - On Time
7. In the progress rate properties page, click **OK**.
   The progress rate appears in the list.

   The **Last Progress Percentage** and **Last Progress Percentage Comment** fields are updated.

Using a steering calendar

Creating a steering calendar

You can connect a **Steering Calendar** to the action plan so that the action plan responsible user can indicate a progress percentage at dates defined in this calendar. A message is sent to the user on these dates.

☛ *For more details on managing steering calendars, see the technical article **HOPEX Power Studio - Steering calendar**.*

To create a steering calendar for an action plan:

1. Open the properties of an action plan.
2. In the **Characteristics** section, click the arrow at the right of the **Steering Calendar** field.
3. Select **Create a steering calendar**.
   The steering calendar creation page appears.
4. Specify the **Name** of the steering calendar.
5. In the **Steering Calendar Type** field, leave the default value "Action Plan".
6. In the **Scheduler Configuration** field, leave the default value "Steering Calendar - Configuration scheduler".
7. In the **Reminder** field, leave the default value "Steering Calendar - Emailing SchedulerJob".
8. Click **OK**.
   You must then create Steering Dates.

Creating steering dates

A steering date is a date defined in a steering calendar on which a reminder will be sent to the person responsible for an element. This can be an initial date, reminder date or final due date.

To create a steering date for an existing steering calendar:

1. Open the properties of the steering calendar that interests you.
2. In the **Steering Date** section, click **New**.
   The new steering date appears in the list.

To define steering date characteristics:

1. Open the steering date properties dialog box and select the **Characteristics** tab.
2. Specify the **Name** of the date, to enable its reuse in another steering calendar if required.
3. Specify the **Date Type**.
   - "Initial" - to signify start of an action plan
   - "Remind" - to remind the responsible user of progress rate update
   - "Last" - to signify close of an action plan
4. Specify messages that will be addressed as notification and as E_mail.
   You must then plan the dates of actions execution.

To schedule a steering date:

1. Open the steering date properties dialog box and select the **Scheduling** tab.
   You must define the **Start date** (absolute ou Relative) and the **Recurrence Type**.

   ☛ *The start hour is defined in **UTC** format.*

   - The **Start date** may be specified by **Start date (absolute)** or by **Relative Date**.

     ☛ *The **Relative Date** is defined related to the **Effective Begin Date** of the action plan.*

   - The **Recurrence Type** defines the frequency at which reminders are sent: daily, weekly, monthly, once only.

     ☛ *For details on scheduler configuration, see "Scheduling" chapter in the **HOPEX Power Studio - Steering calendar** technical article*

ACTION PLAN FOLLOW-UP REPORTS

Dynamic reports enable repository data analysis according to different perspectives.

To get a more detailed view of the information regarding the action plans, you can use the Drill-Down Analyses facilities.

☛ *For more details, see the **HOPEX Common Features** guide, chapter "Launching Drill-Down Analyses (Instant Reports).*

Accessing Action Plan Standard Reports

To generate an action plan follow-up report:

1. Select **Action Plans > Action Plan Reports > Action Plan Follow-Up**.
2. Specify:
   - the action plans concerned.
   - the period, defined by begin date and end date.
3. Click **Calculate**.

Action plan reports enable a user to plan his/her action plans and follow their progress. Proposed action plan report types are:

- "Action Plan Follow-Up", page 572
- "Action Plan Gantt Chart", page 573
- "Action Plan Progress", page 573

Action Plan Follow-Up

This report presents distribution of action plans according to criteria such as priorities or categories.

To generate a report in the form of action plan follow-up:

❱ Select **Action Plans > Reports > Action Plan Follow-Up**.

Report example

The upper part of the report presents distribution of action plans on the following criteria:

- Distribution by priorities
- Distribution by organizational level
- Distribution by status
- Distribution by origin
- Distribution by category
- Distribution by execution

☛ *To obtain a list of action plans making up a sector or a bar chart bar:, click the sector (or bar chart bar) that interests you. For more information, see **HOPEX Common Features**.*

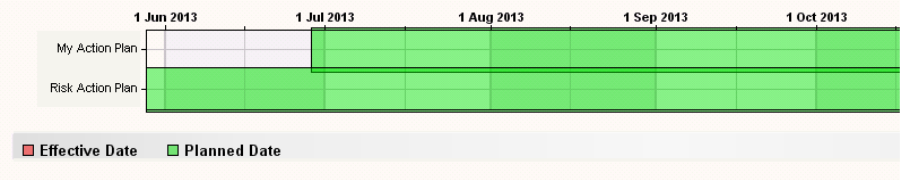
Action Plan Gantt Chart

This report enables comparison of action plan begin and end dates defined in parameters.

☛ *For more details, see "Milestones", page 564.*

To generate a report in the form of a Gantt chart:

❱ Select **Action Plans > Reports > Action Plan Gantt**.



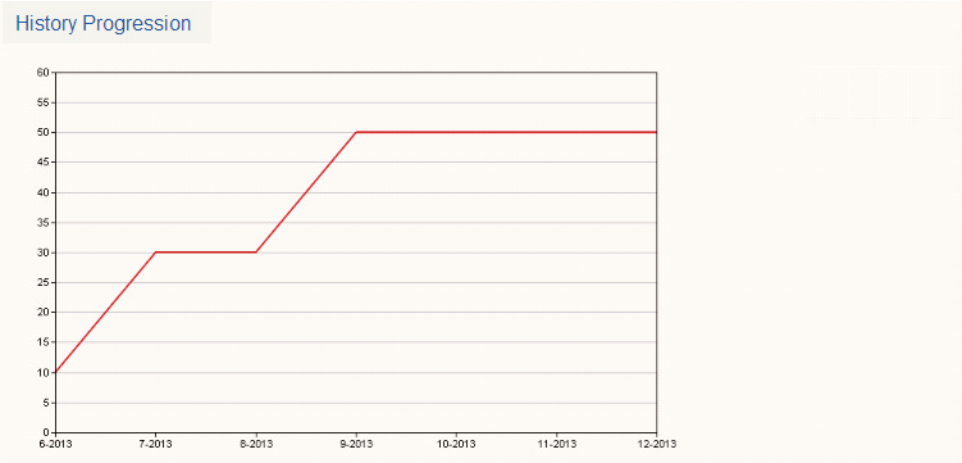
Action Plan Progress

This report enables follow-up of progress of action plans defined in parameters. Action plan progress is defined by responsible users.

☛ *For more details, see "Managing Actions", page 566.*

To generate a report in the form of a Gantt chart:

- Select **Action Plans > Reports > Action Plan Progress**.



ACTION PLAN WORKFLOWS

Two workflows are proposed to manage different steps of an action plan:

- A **Bottom-Up** workflow, which corresponds to the case where an action plan is created by any user. The new action plan must then be validated by an approver before being implemented.
- A **Top-Down** workflow, which corresponds to the case where an action plan is created by an "action plan manager". The validation step of the new action plan is not necessary in this case.

With the exception of the action plan validation step, these two workflows are identical. The **Bottom-Up** workflow is described here, since it is more comprehensive.

Action Plan Progress Steps Defined as Bottom-Up

Creating the action plan

When the action plan is created, it is in "To submit" state.

By default, the action plan creator is the action plan **Owner**. Having specified the characteristics of a new action plan, the creator can:

- **Propose** the action plan.
  In this case, the user defined as "Approver" receives a notification mail, and the new action plan appears with status "To Begin" in his/her tasks list.

Preparing the action plan

The action plan "Approver" user can:

- **Validate** the action plan, which then takes status ""In Progress". Actions can then be created. For more details, see "Managing Actions", page 566.
- **Cancel** the action plan which takes status "Canceled".

Executing the action plan

Having executed actions relating to the action plan, the "Owner" can:

- **Terminate** the action plan which takes status "Closed". To do this, all action plan actions must be terminated. For more details, see "Managing Actions", page 566.
  The "Approver" user is notified of the action plan termination request.

Closing the action plan

After having consulted action plan follow-up reports, the "Approver" user can:

- **Close** the action plan, which retains "Closed" status and disappears from the task lists of creator, approver and owner.
- **Reopen**, for additional actions. The action plan again takes status "In Progress".

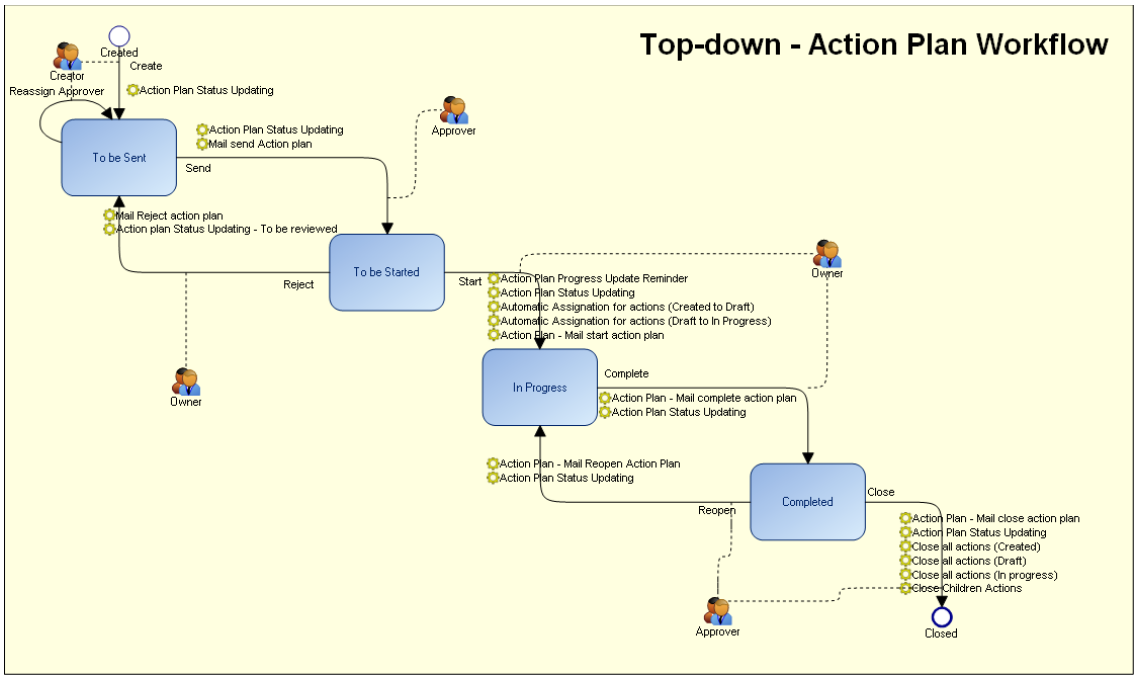
Action Plan Workflows

Steps in the action plan management process are described in "Action Plan Progress Steps", page 564.

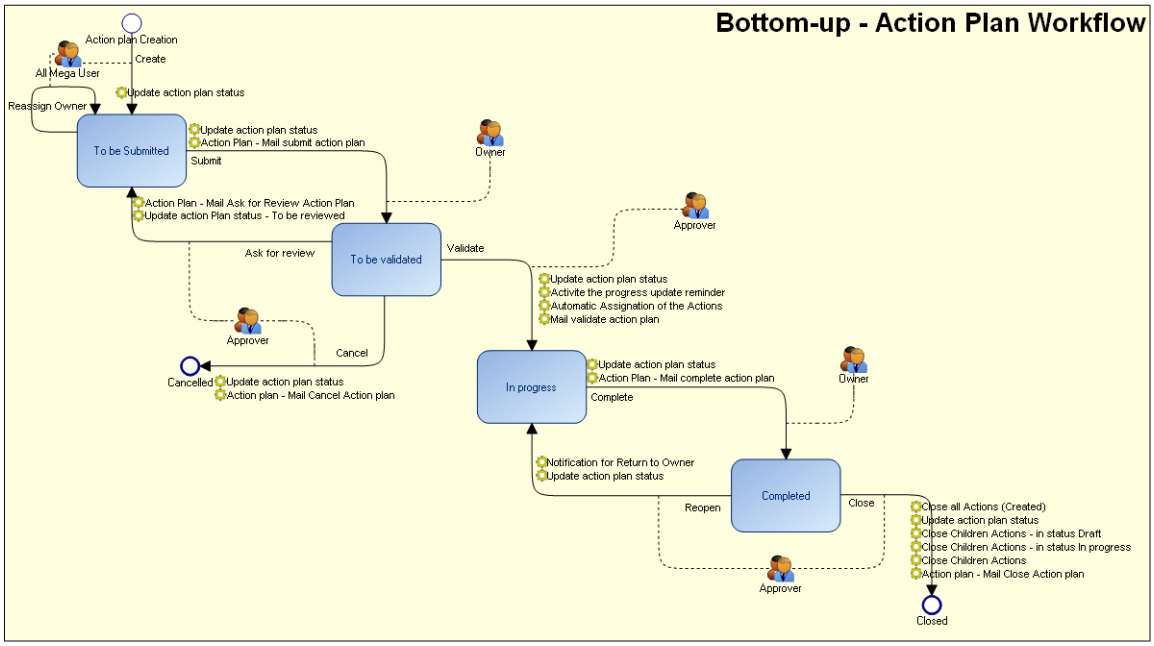
The workflow diagram introduces:

- participants
  - "Creator", who also validates action plan closure
  - "Owner", who is responsible for carrying out actions of the action plan.
  - "Approver", who is responsible for scope covered by the action plan.
- Workflow statuses of the action plan, and planned transitions between statuses.
- Planned notifications on certain transitions.

Top-down action plan workflow



Bottom-up action plan workflow



Action Plan Workflow Mails

Action plan to be validated

From	Creator
To	Approver
Subject	Action plan to validate - [Action plan name]
Content	Dear Sir, Madam, Please validate the action plan submitted by [Action plan creator name] To enter the application and perform your task, click here. Comment: [Comment] This e-mail has been sent automatically by MEGA HOPEX.

Action plan to be reviewed

From	Approver
To	Creator
Subject	Action plan to review - [Action plan name]
Content	Dear Sir, Madam, The following action plan must be reviewed - [Action plan name] Please enter the application for details by clicking here. Comment: [Comment] This e-mail has been sent automatically by MEGA HOPEX.

Action plan validated

From	Approver
To	Owner
Subject	Action plan validated - [Action plan name]
Content	Dear Sir, Madam, The action plan [Action plan name] is validated. Thank you for your collaboration Comment: [Comment] This e-mail has been sent automatically by MEGA HOPEX.

Close action plan

From	Owner
To	Approver
Subject	Action plan to close - [Action plan name]
Content	Dear Sir, Madam, The following action plan has been completed for closure [Action plan name]. Please enter the application for details by clicking here. Comment: [Comment] This e-mail has been sent automatically by MEGA HOPEX.

Action Plan Reopened

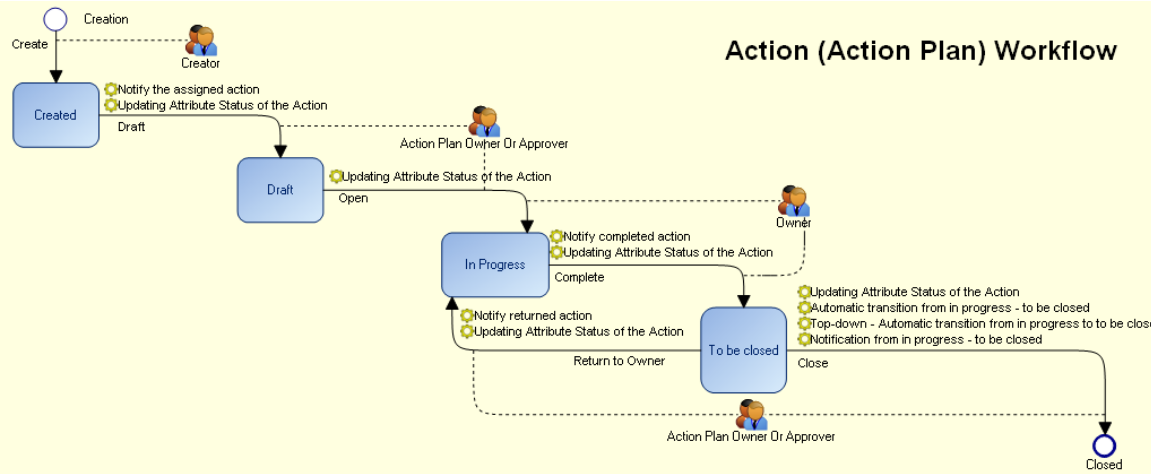
From	Approver
To	Owner
Subject	Action Plan reopened - [Action plan name]
Content	Dear Sir, Madam, The following action plan must be re-completed [Action plan name]. Please enter the application for details by clicking here. Comment: [Comment] This e-mail has been sent automatically by MEGA HOPEX.

Action plan closed

From	Approver
To	Owner
Subject	Action plan Closed - [Action plan name]
Content	Dear Sir, Madam, The action plan [Action plan name] has been closed. Thank you for your collaboration Comment: [Comment] This e-mail has been sent automatically by MEGA HOPEX.

Action Workflow

Action Workflow Steps



Action Workflow Notifications

No mail is provided for actions, only notifications are sent by the creator to the responsible user:

- when the action is assigned to a user,
- when the action is closed.

Managing Enterprise Projects

INTRODUCTION TO PROJECT PORTFOLIO MANAGEMENT

Project Portfolio Management (PPM) is an approach used by an organization to analyze the potential return of a set of projects. Its primary aims are to:

- Control the suitability of projects with respect to the strategic objectives of the organization.
- Ensure consistency between the projects and the organization's capability.

This approach examines the risks, the available funds, the probable duration of a project and the expected results. A group of decision-makers assesses the benefits and the priority to be given to each project to determine the best way to invest the capital and the human resources of the organization.

In HOPEX solutions, the **HOPEX Project Portfolio Management** option offers a set of functionalities to:

- Submit and assess the project demands and candidate projects.
- Validate the candidate projects: the project demand goes through a validation process that results in a project creation.
- Select and define the project priority: a limited list of projects is drawn up according to selection criteria (strategic, financial, etc.)
- Analyze and arbitrate the projects.
- Follow project progress.

> ☛ *Pour plus de détails sur les fonctionnalités de **HOPEX**, voir le guide **HOPEX Common Features** qui présente les fonctionnalités communes à tous les produits **HOPEX**.*

The Scope Covered by PPM

In HOPEX, the **HOPEX Project Portfolio Management** option covers the following concepts:

- The management of project demands and candidate projects
- Project portfolio management

Prerequisites for Creating Projects

Importing the PPM Solution Pack

To be able to use functionalities of **HOPEX Project Portfolio Management**, you must first import the **PPM** solution pack.

It contains:

- The following portfolio types:
  - project demand portfolios
  - candidate project portfolios and projects in progress
- The states of the project:
  - Project demand
  - Candidate project
  - Ongoing project
- The two criteria weighting models:
  - PPM value & risk weighting model
  - PPM flat weighting model

For more details on importing a solution pack, see "Importing a Solution Pack in HOPEX", page 250.

Defining project domains

Each project belongs to a project domain.

Before creating a project, you must create the corresponding domain.

See "Defining Project Domains".

Managing Project Demands and Candidate Projects

Identifying and documenting demands

The demand manager can create a project demand or research a project demand created from an idea.

☛ *For idea creation, see "Submitting and evaluating ideas".*

The demand manager can document the project charter and its business case. He/she can in particular:

- Define the scope of the project in terms of deliverables or impact on the capabilities of the enterprise,
- Define a forecast budget,
- Identify the project risks,
- etc.

Assessing demands

The demand manager can assess a project demand:

- According to qualitative and quantitative criteria defined in the project demand portfolio.
- Through the qualitative assessment (business value level, strategic alignment, cost, global risk level), which is used to calculate a global score for the project and compare the projects between each other.

Validating demands

The demand manager can submit a project demand to the demand approver.

The approver can validate or reject the project demand.

A validated demand leads to the creation of a candidate project, submitted for assessment to project portfolio managers.

Assessing candidate projects

In the same way as demands are assessed, candidate projects can be assessed:

- According to qualitative and quantitative criteria defined in the project demand portfolio.
- Through the qualitative assessment (business value level, strategic alignment, cost, global risk level), which is used to calculate a global score for the project and compare the projects between each other.

Validating candidate projects

The approver can validate or reject the candidate project.

When a candidate project is validated, it takes on the status of a project in progress.

Follow-up of ongoing projects

The project portfolio manager assigns a manager to the project, responsible for follow-up of the progress of the project. You can view the calendar and the progress of a project in a report.

Project Portfolio Management

Selecting the projects and defining priorities

Portfolio managers and administrators define the project domains that determine the strategic perspectives of the organization in which the projects are classified (for example: "Business projects", "IT projects").

Arbitration portfolios are automatically associated with the domains of the projects created. They group the projects in the domain, classifying them according to their type (project demands, candidate projects and ongoing projects).

In an arbitration portfolio, the project portfolio manager and approver can create analysis portfolios; they represent a sub-set of projects in the arbitration portfolio and can be assigned to a specific project portfolio manager.

In an arbitration portfolio or an analysis portfolio, the project portfolio manager can:

- Browse, in read-only, the criteria assessed at the project level (for example, the strategic alignment level, the risk level, the cost level and other attributes specific to the project).
- Assess the criteria specific to the portfolio (other than the project criteria).
- Generate project comparison reports (for example, bubble charts) based on these criteria.

Using an arbitration portfolio or an analysis portfolio, the project portfolio manager can create scenarios.

In a scenario, the project portfolio manager can choose to select or not a given portfolio line (which is different from the project validation), and note the impact of this choice in dedicated reports.

Analyze and arbitrate portfolio projects

Using a portfolio, the project portfolio manager can generate analysis and comparison reports to compare, for example, the accumulated risks or costs of a given scenario.

The project portfolio manager can keep one scenario or a set of scenarios.

PROFILES AND ROLES OF HOPEX PROJECT PORTFOLIO MANAGEMENT

HOPEX Project Portfolio Management includes by default Profiles and Business roles, which define specific access rights and tasks, as follows:

- PPM specific profiles:
  - Demand Manager
  - Project Portfolio Manager
  - Project Leader
- Solution specific profiles:
  These profiles are standard profiles included in the Solutions that have the PPM option. These profiles benefit from the PPM features and functionalities.

  For example, in the ITPM Solution with the PPM option, the Application Portfolio Manager profile can perform all the standard actions of the Application Portfolio Manager profile as well as all the actions of the PPM Project Portfolio Manager profile.
- Business roles associated with specific objects

  For example, for a project domain, a project portfolio or a project, you can assign the Demand Manager or the Project Approver Business roles to a person.

Case of PPM specific profiles that are sub-profiles of Solution specific profile

PPM specific profiles can be included in other profiles.

For example, the 'Project Portfolio Manager' profile is a sub-profile of the ITPM 'Application Portfolio Manager' profile. The ITPM 'Application Portfolio Manager' profile has access to all the PPM features.

In that case, the 'Project Portfolio Manager' profile is not proposed to the user at connection, as already included in the ITPM 'Application Portfolio Manager' profile. This is defined by its **Profile display** value set to "if not included in another profile".

To modify the profile display setting, see "Profile display".

PPM Specific Profiles

Demand manager

The demand manager is responsible for examining and approving or rejecting submitted project demands by validating, from a technical point of view, the project and business case charter.

Project Portfolio Manager

The portfolio manager is responsible for examining candidate projects in their entirety and approving or rejecting the candidate projects submitted by the demand managers. He/she is responsible for assessing the risk level, the strategic alignment and the costs/benefits of the project in the project portfolio, and to thus define the relative benefits of the candidate projects and projects in progress.

Project Leader

The project leader is responsible for project completion and follow-up.

Roles with respect to objects

Roles can be assigned for specific objects.

They are part of the workflow associated with objects.

Demand Submitter

The requester is the person who creates the demand (role created automatically on demand creation).

Demand Approver

The demand approver is responsible for validating the demand. The approvers can be defined globally for a project domain or a portfolio, or on a project-by-project basis.

Project Portfolio Approver

The project portfolio approver is responsible for validating the demand. The approvers can be defined globally for a project domain or a portfolio, or on a project-by-project basis.

Project Stakeholder

The project stakeholder is the role of an individual, team, or organization that represents their interests in the outcome of the project.

Other roles

Some profiles also exist as a role, for example, "Project Portfolio Manager". When several "Project Portfolio Manager" profile users exist, the role allows to divide the projects among them. Projects assigned to each user appear in the "My projects" menus.

DEFINING ENTERPRISE PROJECTS

According to the PMI® standard PMBOK, "a project is a temporary enterprise chosen with the aim of creating a product, a service or a unique result".

A project has a purpose in terms of an acquired, improved/extended or aban doned capability. A project generates project deliverables.

With **HOPEX Project Portfolio Management**, you can:

- Submit project demands
- Define project content
- Assess project demands and candidate projects.
- Follow project progress

The topics covered are as follows:

✓ "Defining Project Domains", page 590
✓ "Managing Project Demands", page 591
✓ "Managing Candidate Projects", page 598
✓ "Assessing a Project", page 601
✓ "Follow-up of Ongoing Projects", page 603

DEFINING PROJECT DOMAINS

A project can be defined in a given project domain.

The project domain defines the sector and the application scope of the project (for example: business function, IT, search and development). It is the container of a set of projects on which an arbitration can be conducted.

Two arbitration portfolios are automatically associated with a project domain:

- demand portfolios
- candidate project portfolios and projects in progress

For more details on arbitration portfolios, see "Grouping Projects by Portfolio", page 612.

Creating a Project Domain

To create a project domain:

1. Click the navigation menu, then **Transformation**.
2. In the navigation pane, select **Project Domains**.
3. In the edit window, select **Project Domains**.
   The list of project domains appears.
4. Click **New**.
   The create a project domain window appears.
5. Enter the name of the domain.
6. Click **OK**.

When you create a domain, the two types of portfolios that correspond to the different project statuses (project demands, candidate projects and projects in progress), are also created. They are visible in the **Transformation Portfolios** folder.

Assigning a Domain to Persons

It is possible to define particular roles for users on a domain; these roles are then valid for all the projects in the domain.

To assign a person to a domain:

1. Display the domain properties.
2. Click the **Assignment** page.
3. Click **New**.
4. In the window that opens, select the person or person group.
5. Select their role. You can define the following roles:
   - Demand Approver
   - Project Portfolio Approver
   - Project Portfolio Manager
6. Click **OK**.

MANAGING PROJECT DEMANDS

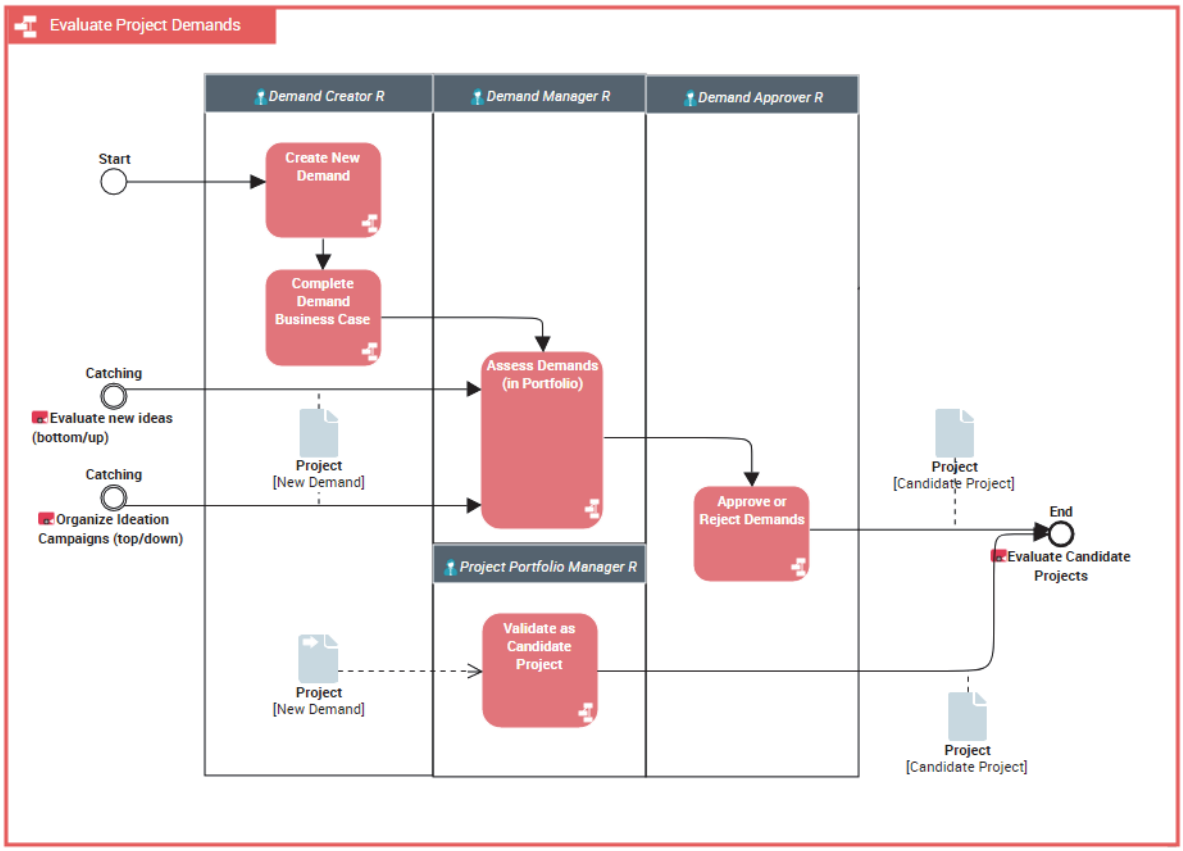
The demand creators and the demand managers can create new project demands and view the project demands that were generated using ideas.

Demand managers can document the project charter as well as the business case. They can in particular define the scope of the project in terms of deliverables and the risks associated with the project.

Demand Management Process

The project demand process is broken down into three parts:

- Creating the demand
- Evaluating the demand
- Approving or rejecting the demand



Creating a Project Demand

To be able to create projects, you must import the PPM pack solution. See "Prerequisites for Creating Projects", page 584.

You must also have created a project domain. See "Defining Project Domains", page 590.

To create a project demand:

1. Click the navigation menu, then **Transformation**.
2. In the navigation pane, click **Demands**.
3. In the edit window, display "All demands".
4. In the demands for the edit area, click **New**.
   The project demand creation window appears.
5. Specify:
   - The project name
   - the owner project domain
   - the project code (optional)
   - the planned start date
   - the planned end date
6. Click **OK**.

Defining the Project Charter

To define the charter for a project:

1. Click the navigation menu, then the **Transformation** pane.
2. In the navigation pane, click **Projects**.
3. In the edit window, click **Projects** and display all the projects.
4. Select the project in question, and in the associated **Action** column, click the **Properties** button .
5. In the project properties window, click the drop down-list and select **Project Charter**.

The definition of the project charter includes:

- The **identification**:
  - project name
  - project owner domain
  - project code (optional)
  - project manager
  - state (life cycle status) Defined automatically.
  - status (workflow step). Defined automatically.
  - description (comment)
- The project **category or categories**. See "Idea category", page 547.
- The **initiating ideas**: ideas that have inspired the project.

Defining the Business Case of a Project

To define the business case for a project:

1. Click the navigation menu, then the **Transformation** pane.
2. In the navigation pane, click **Projects**.
3. In the edit window, click **Projects** and display all the projects.
4. Select the project in question, and in the associated **Action** column, click the **Properties** button .
5. In the project properties window, click the drop down-list and select **Business Case**.

Transformation objective

A project has an objective with respect to the capabilities of the enterprise (as defined in a capability map); it can:

- deliver the means to acquire a new capability (innovation)
- extend the coverage of a capability already held (improvement)
- restrict or abandon the coverage of an existing capability (rationalization).

To add a transformation objective to the project:

1. In the **Transformation Objective** section, click **New**.
   The creation dialog box for a transformation objective opens.
2. Specify:
   - its name
   - the transformation type (Innovation, Improvement, Rationalization)
   - the capability transformed
3. Click **OK**.

Project deliverables

A project deliverable defines the result of a project and its impact on or its contribution to the architectural solution landscape of the enterprise.

It is defined by a solution block (example: an organization, an application, an infrastructure element) delivered by the project in the target architectural landscape. Within the framework of a project deliverable, a block can be:

- New: the project delivers a new block to the target architectural landscape.
- Updated: the project modifies an existing block in the current landscape, for example by extending its lifecycle, and delivers the updated version to the target architectural landscape.
- Deleted: the project deletes an existing target architectural block, which will therefore not be part of the target landscape.

To add a deliverable to the project:

1. In the **Deliverables** section, click **New**.
   The window for creating a deliverable appears.
2. Specify if you want to:
   - create a new block
   - update an existing block
   - decommission an existing block

3. Click **Next**.
4. Specify:
   - the deliverable name
   - the deliverable type
   - the deliverable production dates
5. Click **OK**.

Deliverable production dates

To model component change scenarios for elements in your portfolio without impacting the life of components in place, you will associate an *object life* with the deliverables.

> 🕮 *The object life is a set of time periods representing the updated calendar of object life cycle states.*

When the project is terminated (via the corresponding workflow command), the life cycle of deliverables is automatically transferred to the objects concerned.

To define the life of a project deliverable:

1. In the **Deliverables** section, select the deliverable in question.
2. Click **Properties**.
   The properties window of the deliverable appears.
3. Click the drop-down list then **Object Life**.
4. Click **New**.
   The creation of object life dialog box appears.
5. Specify the following characteristics:
   - the **life cycle** that defines the list of possible object states.

     ☛ *For more information on proposed life cycles, see "Defining Life Cycles".*
   - a **Begin Date** and an **End Date** which enable positioning of the object life in time.
6. Click **OK**.
   A Gantt char is used to view the steps of the life cycle of a deliverable.

On the project, the **Gantt char for the lifecycle of the project deliverables** details the lifecycle of the project deliverable.

Project dependencies

A project can depend on other projects:

- In a "positive" sense: a project can have another project as a prerequisite, of which one of the deliverables is necessary to build a deliverable of the dependent project (this is the equivalent of an AND logic: both projects must be conducted jointly to reach the final result).
- In a "negative" sense: two projects can be concurrent and mutually exclusive (this is the equivalent of the OR logic: only one of the projects must be managed, not both).

To associate a dependency with the project:

1. In the **Project Dependencies** section, click **New**.
2. Specify:
   - The name of the dependency
   - The project required
   - The type of dependency: "Exclusive" or "Prerequisite".
3. Click **OK**.

Project costs

The specification of the costs of a project take place through the cost lines.

One or more cost lines can be associated with a project.

A cost line enables identification of cost kind and type.

A cost line is characterized by:

- a type: operating or capital;
- a nature: infrastructure (for a deployment), license (for an application), service, manpower;
- state of the cost line .

Associated with a cost line can be:

- a periodic expense
- one or several fixed expenses

Creating a cost line

To create a cost line for a project:

1. Expand the **Costs** section.
2. Under **Cost Line**, click **New**.
   The **Creation of a cost line** box opens.
3. To create a single cost line, select option **Create only one cost line**.
4. Click **Next**.
5. Specify the **Name**of the cost line.
6. Select the **Cost Type**.
7. Select the **Cost Nature**.
8. Select the **state** of the cost line.

   The states proposed in the drop-down list are the states of the life cycle associated with the object life.
9. Click **Next**.
10. Define the periodic expense.

    Fixed expenses, which can be multiple, are defined separately. For more details on fixed expense creation, see "Adding a fixed expense", page 595.
11. Click **OK**.
    The new cost line appears in the **Cost Line**.

Adding a fixed expense

To associate a fixed expense with a cost line:

1. In the **Cost Line** section, select the cost line that interests you.
2. In the **Cost Line Expenses**section, click **New**.
   The **Creation of Expense** dialog box opens.
3. Specify:
   - the **Name** of the expense
   - the **Date** of the expense,
   - the **Amount** of the expense.
4. Click **OK**.
   The new expense appears in the **Fixed Expenses** section.

Project benefits

You can specify:

- the **Qualitative Benefits**: to be entered as a comment.
- the **Financial Value** of the project: in currency = project NPV (net present value), calculated outside the tool according to the standards of the enterprise.
- the **Return on Investment**: calculated attribute, as a %
  (Financial value - Budget) / budget
- the **Forecast Return on Investment**: calculated attribute, as a %
  (Financial value - Estimated total cost) / Estimated total cost
- the **Actual Return on Investment**: calculated attribute, as a %
  (Financial value - Real total cost) / Real total cost

Project risks

With **HOPEX IT Portfolio Management**, you can identify the risks linked to a project. Each risk is associated with a single project.

To create a project risk:

1. Expand the **Risk** section.
2. Click **New**.
   The risk creation dialog box appears.
3. Enter the name of the risk and the type of risk (cost, deadline, quality).
4. Click **OK**.

To assess risks, see "Assessing the Risks of a Project", page 602.

Assigning a Project to Persons

The persons who can be assigned to a project are those who perform one of the following business roles:

- Demand Approver
- Requester
- Project Manager
- Project Holder
- Project Portfolio Approver
- Project Portfolio Manager
- Project Stakeholder

The author of the idea and the innovation manager can assign persons to a project.

To assign a person or a person group to a project.

1. Click the navigation menu, then the **Transformation** pane.
2. In the navigation pane, click **Projects**.
3. In the edit window, click **Projects** and display all the projects.
4. Select the project in question, and in the associated **Action** column, click the **Properties** button .
5. In the properties window, click the drop-down list and select **Assignment**.
6. Click **New**.

7. In the dialog box that appears, select a **Person** or a **Person Group**, as well as their **Business Role**.
8. Click **OK**.

Repeat this procedure to assign other persons to the project.

Validating or Rejecting a Project Demand

After assessment, the demand manager can submit the project demand to the Project Portfolio Approver.

This assumes that a Project Portfolio Approver has been previously linked to the project, portfolio or domain of the project in question.

☛ *To assign a project to a person, see "Assigning a Project to Persons", page 596.*
☛ *For more details on assessment, see "Assessing a Project", page 601.*

The Project Portfolio Approver approves or rejects the demand.

Validating a project demand

A validated project demand becomes a candidate project; the state of its life cycle is automatically modified and it is transferred to the portfolios of the candidate projects in the domain to which it belongs.

Rejecting a project demand

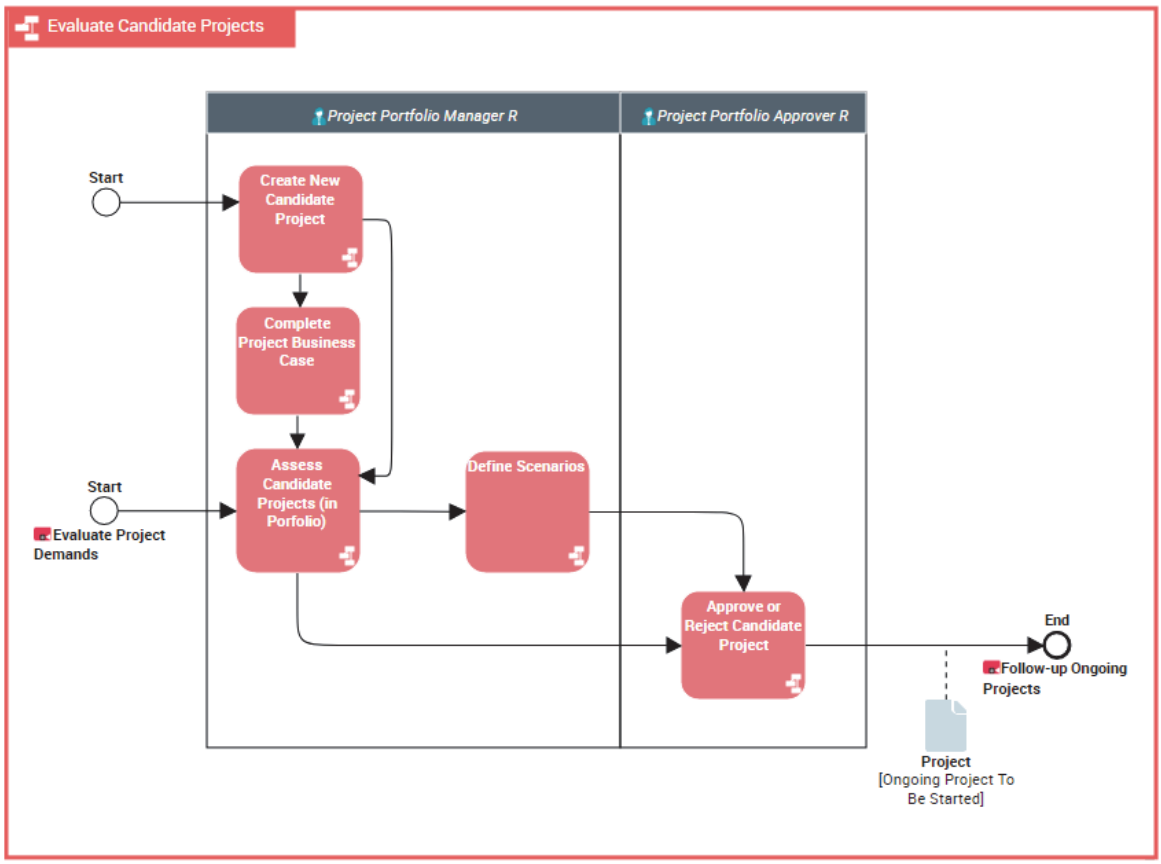
A rejected project demand remains in the list of projects, with the "Demand rejected" status. It can be archived.

MANAGING CANDIDATE PROJECTS

Candidate Project Management Process

The management process of a candidate project is broken down into three parts:

- Creating the project
- Assessing the project
- Defining the scenarios
- Approving or rejecting the project



Creating a Candidate Project

A project demand validation leads to a candidate project.

The project portfolio manager can create a candidate project directly without going through the demand management phase, or an ongoing project (in other words validated) if needed.

To be able to create projects, you must import the PPM pack solution. See "Prerequisites for Creating Projects", page 584.

You must also have created a project domain. See "Defining Project Domains", page 590.

To create a project candidate:

1. Click the navigation menu, then **Transformation**.
2. In the navigation pane, click **Projects**.
3. In the edit area, click **Projects**.
   Use the drop-down list to display:
   - all projects
   - projects by status (candidate projects, ongoing projects)
   - the projects assigned to you
4. Display all projects.
5. In the demands for the edit area, click **New**.
   The window for creating a project appears.
6. Enter the name of the project.
7. Select the "Candidate" project type.
8. Click **Next**.
9. Specify:
   - the owner project domain
   - the project code (optional)
   - the planned start date
   - the planned end date
   - the project leader
10. Click **OK**.

See also: "Creating a Project Demand", page 592.

Completing the Candidate Project Definition

Once the project is created, you can complete its properties in the same way as for a project demand.

See:

- "Defining the Project Charter", page 592
- "Defining the Business Case of a Project", page 593
- "Assigning a Project to Persons", page 596

See also:

- "Assessing a Project", page 601

Validating or Rejecting a Candidate Project

After assessment, the demand manager can submit the candidate project to a demand validator.

☛ *For more details on assessment, see "Assessing a Project", page 601.*

The demand validator approves or rejects the project.

Validating a candidate project

A validated candidate project becomes an ongoing project; the state of its lifecycle is automatically modified and it is transferred to the portfolios of the ongoing projects in the domain to which it belongs.

Rejecting a candidate project

A rejected candidate project remains in the list of projects, with the "Project rejected" status. It can be archived.

ASSESSING A PROJECT

A first assessment of a project takes place with the definition of the business case of the project; you can specify the deliverables, the dependencies with other ideas or risks, the costs, the benefits, the risks.

The business case elements can be defined on project demand, and subsequently completed. For more details, see "Defining the Business Case of a Project", page 593.

Once the project characteristics are defined, an evaluation tool facilitates the selection of projects and helps define priorities.

The demand managers can assess the projects:

- At the level of the project, via:
  - the qualitative review of the project (business value, level of strategic alignment, etc.)
  - the assessment of the project risks
- according to qualitative and quantitative criteria defined in the project portfolio. See "Assessing Portfolio Projects", page 614.

Assessing a Project

An assessment can concern a project demand or a candidate project.

To assess a project:

1. Click the navigation menu, then the **Transformation** pane.
2. In the navigation pane, click **Projects**.
3. In the edit window, click **Projects** and display all the projects.
4. Select the project in question, and in the associated **Action** column, click the **Properties** button .
5. In the properties window, click the drop down-list and select **Project Assessment**.
6. In the **Assessment** section, click **New Assessment**.
   An assessment line appears.
7. In each corresponding column, specify:
   - the business value level
   - the strategic alignment level
   - the cost level
   - the global risk level

To validate the assessment, select the assessment line and click **Validate Assessment**.

> ☛ *The **Project Note** attribute visible on a portfolio is calculated automatically based on these values.*

Assessing the Risks of a Project

Assessing the risks of a project can start on project demand. This can take place globally on the project (in the **Project Assessment**) or for each risk associated with the project (in **Risk Assessment)**.

To assess the risks of a project:

1. Click the navigation menu, then the **Transformation** pane.
2. In the navigation pane, click **Projects**.
3. In the edit window, click **Projects** and display all the projects.
4. Select the project in question, and in the associated **Action** column, click the **Properties** button .
5. In the project properties window, click the drop down-list and select **Risk Assessment**.
6. Click **New Assessment**.
7. In the window that appears, select the risks to be assessed.
   - Some
   - All
8. Click **OK**.
   The assessment appears in the properties window.
   You can define:
   - The**Impact**: characterizes the impact of the risk when it occurs.
   - The **Likelihood**: characterizes the probability that the risk will occur.
   - The **Inherent Risk Level**: The inherent (or gross) risk indicates the risk to which the organization is exposed in the absence of measures taken to modify the likelihood of occurrence or impact of this risk. This is the result of multiplying the impact value and the likelihood value before taking account of risk prevention or reduction measures. In summary, an inherent risk = impact x likelihood
     It is calculated automatically.
   - The **Control Level**: The Control level characterizes the efficiency level of control elements deployed (controls) to assess the risk.
   - The **Net Risk Level**: the residual (or net) risk indicates the risk to which the organization remains exposed after management has processed the risk. This is the difference between the Inherent Risk and the Control Level. It is calculated automatically.

See also "Analyzing the Project Risks of a Portfolio", page 620.

FOLLOW-UP OF ONGOING PROJECTS

Process for Follow-up of Ongoing Projects

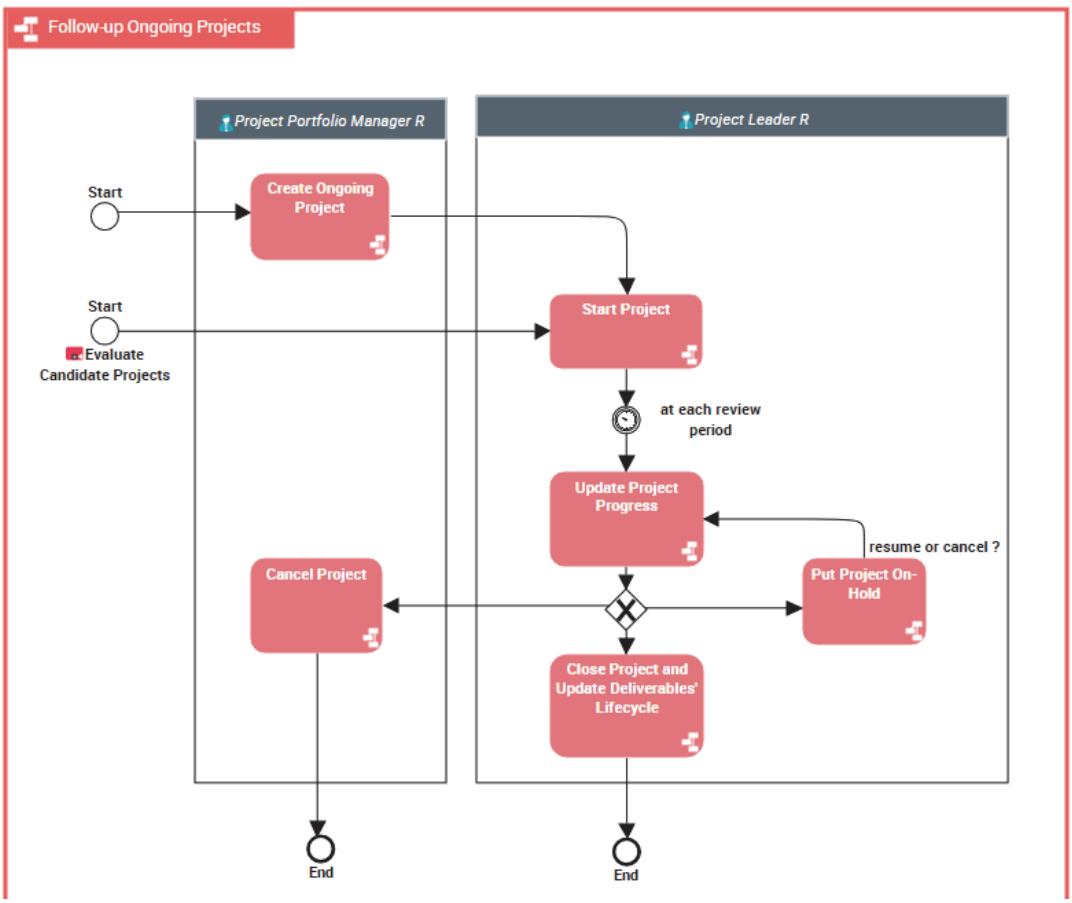
Ongoing projects result from the validated candidate projects.

☛ *A project portfolio manager can also directly create an ongoing project.*

The project portfolio manager assigns a manager to the project, responsible for follow-up of the progress of the project.

Project follow-up consists of the following steps:

- Starting the project
- Specifying the project milestones
- Updating the project progress
- Terminating the project



Starting a project

The project portfolio manager and project managers can start a project.

To start a project:

1. Click the navigation menu, then **Transformation**.
2. In the navigation pane, click **Projects**.
3. In the edit area, click **Projects**.
4. In the drop down list, select the list of ongoing projects.
5. Click the icon of the project concerned and select **Project Workflow (Project to Start) > Start the Project.**
   A dialog box appears:
6. Enter a comment if required and click **OK**.
7. Specify the effective start date of the project and click **OK**.
   The project workflow status switches from "To be started" to "Ongoing Project".

Specifying the Project Milestones

Between the scheduled start and end dates, intermediate milestones can be defined and associated with deliverables.

> 🕮 *A project milestone defines an intermediate delivery step in the life cycle of the project life. A project deliverable can be associated with a project milestone if it is delivered during the project and on the project date.*
>
> ☛ *Associating a project deliverable with a milestone does not affect automatic initialization of its life cycle; it can be subject to a manual modification if appropriate.*

Within the framework of project progress follow-up, you can define the level of progress for each milestone.

To add a milestone to a project:

1. Click the navigation menu, then the **Transformation** pane.
2. In the navigation pane, click **Projects**.
3. In the edit window, click **Projects** and display all the projects.
4. Select the project in question, and in the associated **Action** column, click the **Properties** button .
5. In the project properties window, click the drop down-list and select **Project Milestones**.
6. In the **Milestones** section, click **New**.
   The window for creating a milestone appears.
7. Specify:
   - The local name
   - The scheduled date of the milestone
   - A comment if required
8. Click **OK**.

Assessing the Progress State of a Project

Updating the project progress

To update the progression of a project in progress:

1. Click the navigation menu, then the **Transformation** pane.
2. In the navigation pane, click **Projects**.
3. In the edit window, click **Projects** and display all the projects.
4. Select the project in question, and in the associated **Action** column, click the **Properties** button .
5. In the project properties window, click the drop-down list and select **Execution Follow-up**.
6. In the **History of Project Progression Updates** section, click **New**.
   The progress rate creation window appears.
7. In the **Progress Rate** section, specify:
   - the progress rate percentage
   - the progress rate date
   - the assessment of the progress rate (On time or Late)
   - the forecast end date
   - the amount spent
   - the remaining forecast amount
8. Click **OK**.

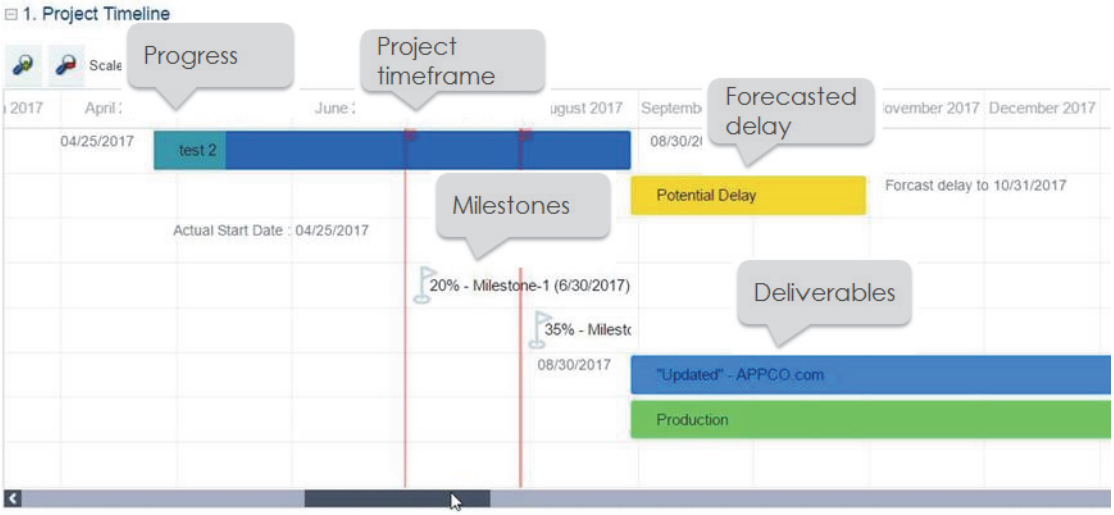
Viewing the timeline of a project

A report enables you to view the timeline of the project.

To access the Reports tab:

1. In the project properties, select the **Reports** page.

2. Select the "Lifecycle Gantt Chart for Project Deliverables" report.
The project calendar appears.



Putting a Project on Stand-by/Canceling a Project

For a project in progress, you can:

- Cancel the project: the project remains visible but cannot be recovered Update the project on stand-by: the status changes from "Project in progress" to "Project on stand-by". Subsequently, you can:
  - Recover the project on stand-by
  - Cancel the project on stand-by

Terminating a Project

Terminating a project updates the lifecycle of the objects attached to the project.

To terminate a project in progress:

1. Click the icon of the project then **Project Workflow (Ongoing Project)** > **Terminate the Project**.
   A message prompts you to confirm the changes to the lifecycle of the architecture blocks concerned.
2. Click **OK** to confirm.

REPORTS AVAILABLE ON THE PROJECTS

Dynamic reports are provided by default for projects; they are used to analyze project content from different angles.

Embedded reports for projects are visible in the **Reports** page of the project properties window.

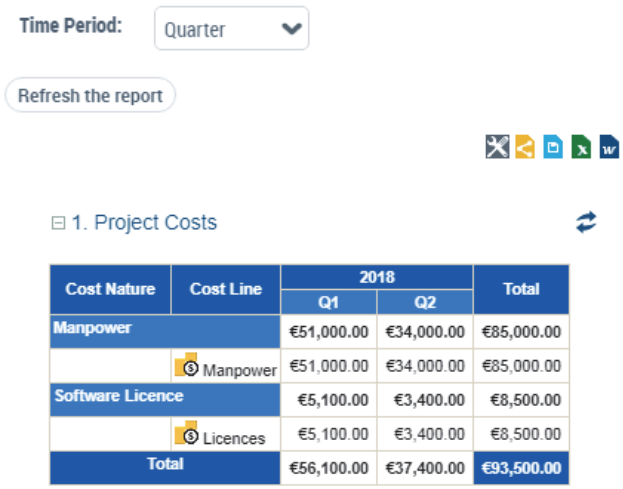
Project Costs

This report details the project costs for a given period and by cost type (labor, infrastructure, etc).

Its input data concerns the costs defined in the project properties (on the **Business case** page).

☛ *To define the costs of a project, see "Project costs".*

It is possible to configure the cost consolidation period via the **Time Period** parameter; for example a sub-total of project costs is possible per quarter.



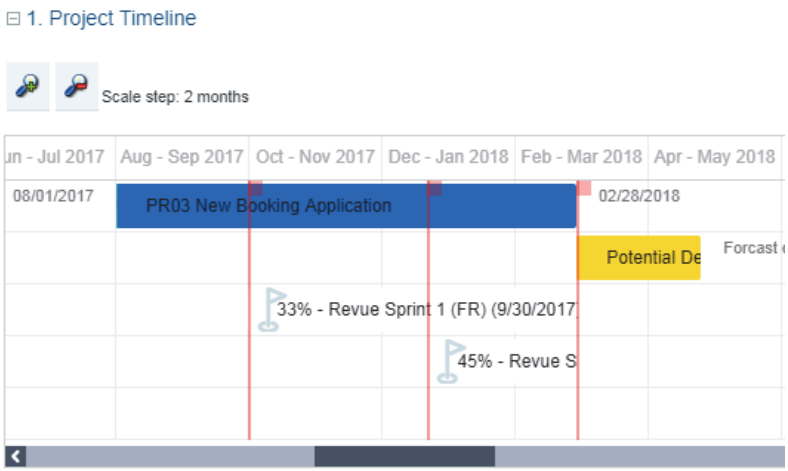
Cost Nature	Cost Line	2018		Total
		Q1	Q2	
Manpower		€51,000.00	€34,000.00	€85,000.00
	Manpower	€51,000.00	€34,000.00	€85,000.00
Software Licence		€5,100.00	€3,400.00	€8,500.00
	Licences	€5,100.00	€3,400.00	€8,500.00
Total		€56,100.00	€37,400.00	€93,500.00

Project and Deliverable Timeline Gantt Chart

This report presents the lifecycle of deliverables in the project schedule.

Its input data concerns the production dates of the deliverables as well as the milestones defined for the project.

The progress of the project and the projected deadlines declared during the follow-up of the execution of the project are also reported on the graph.



See also:

- "Project deliverables"
- "Specifying the Project Milestones"
- "Assessing the Progress State of a Project"
- "Analyzing the Road Map for Portfolio Projects".

Project KPIs

This report analyses the key indicators of the project. It collects the following data:

- The progress and any delays in the project (defined on the **Execution Follow-up** page for projects in progress)
- The budget and the costs defined on the project properties (on the **Business case** page).
- The Return on Investment (calculated)
- Cost variance (calculated)
- The project risks

Progression and delays

Project progression and delays are defined using the last update performed on the project.

☛ *For more details, see "Assessing the Progress State of a Project".*

Budget and costs

A bar chart presents the following data:

- The planned budget, input manually.
- The total forecast cost, calculated according to the last update of the project (amount spent + remaining to be spent)
- The effective cost, input manually at the end of the project.

> ☛ *The "Total cost" displayed in the Costs section is calculated based on cost lines; it is for information purposes and is not used in the report calculations.*

For information on project cost input, see "Project costs".

Return on investment

A bar chart presents the following data:

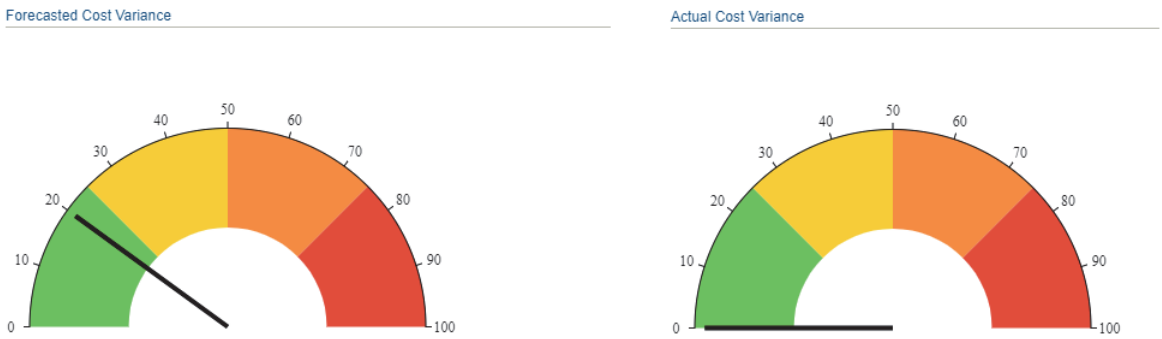
- Forecast ROI (as a percentage)
- Effective ROI (as a percentage)

Calculation of the ROI = (profit - budget) / budget.

Forecast variance and effective variance

A gauge displays the following data:

- Forecast variance = (total forecast cost - budget) / budget, as a percentage.
- Effective variance = (effective cost - budget) / budget, as a percentage.



Risks

A bar chart displays the risks per risk level (low, high, etc.)

Project summary

This report offers a summary of the characteristics of the project, that is:

- The project charter
- The persons responsible
- The Business case
- The execution follow-up
- The key project indicators.

PROJECT PORTFOLIO MANAGEMENT

Whereas project management aims to focus on scheduling and executing an individual project, project portfolio management analyzes all projects in progress or potential projects and their viability in reaching the objectives of the enterprise.

The portfolio management process can be represented in three sub-steps:

- Project selection: a restricted list of projects is drawn up according to selection criteria (strategic, financial etc.). The projects are classified according to the strategic perspectives (the domains) used in the organization.
- Analysis and arbitration: the best project combination is defined to maximize the objectives and the restrictions of the portfolio.
- Follow-up: the portfolio's performance indicators ensure the alignment of the portfolio with the strategy of the organization.

The points covered here are:

✓ "Grouping Projects by Portfolio", page 612
✓ "Assessing Portfolio Projects", page 614
✓ "Analyzing and Arbitrating Portfolio Projects", page 616

GROUPING PROJECTS BY PORTFOLIO

Grouping projects by portfolio summarizes the information relating to different projects to facilitate decision-making.

Portfolio Types

There are two types of project portfolios:

- Arbitration portfolios, created automatically, which are divided into two groups:
  - project demand portfolios
  - candidate project and ongoing project portfolios, used to compare candidate projects with ongoing projects
- Analysis portfolios you can create later and which make up sub-sets within the arbitration portfolios

Arbitration portfolio

Project arbitration portfolios group all the projects created according to their domain.

When you create a project domain, two types of arbitration portfolios are created by default and associated with this domain:

- Domain name - demand arbitration portfolio
- Domain name - arbitration portfolio of candidate projects and ongoing projects

Each new project appears in the dedicated portfolio.

In an arbitration portfolio, the projects can be assessed and compared according to a number of criteria:

- project criteria: these come from information on the projects (for example, the costs) or the qualitative evaluation of the project (for example, the level of strategic alignment).
- portfolio criteria: criteria that can be defined at the portfolio level, above the project criteria.

See also: "Defining Project Domains", page 590.

Analysis portfolio

You can create an analysis portfolio in an arbitration portfolio; it groups a sub-set of parent arbitration portfolio projects. It can be defined to assign certain projects to a specific portfolio manager.

Portfolio Lines

For each project added to a portfolio, a portfolio line is created.

A project portfolio line is used to assess the project in the context of a portfolio. It is linked to assessment criteria and provides the global note of the project in the context of the portfolio.

See also "Assessing Portfolio Projects", page 614.

Assigning a Portfolio to Persons

The persons who can be assigned to a project portfolio are:

- the demand approver
- the portfolio manager
- the portfolio approver

For more information on profiles, see "Profiles and Roles of HOPEX Project Portfolio Management", page 587.

ASSESSING PORTFOLIO PROJECTS

You can compare projects defined in a portfolio based on common criteria.

You can also add specific assessment criteria to the portfolio.

Defining Portfolio Assessment Criteria

You can compare the projects defined in a portfolio based on common *criteria* associated with the portfolio. This is used in particular to define the priorities for each project within the portfolio.

Some criteria are provided by default. You can create new criteria.

To create a criterion on a project portfolio:

1. Display the portfolio properties.
2. Click the drop-down list, then the **Projects** page.
   The criteria appear in the **Portfolio Criteria** section.
3. Click **New**.
   The dialog box for creating a criterion opens.
4. Specify:
   - its name
   - its type
   - its length
   - its format
5. Click **OK**.

Criteria weighting model

A criteria weighting model defines, for a set of criteria, the weight relative to each of the criterion in the calculation of a weighted scoring criterion, used to automatically calculate the rank of a project in the context of this portfolio with respect to its score on these criteria.

Creating a Project Assessment

To create an assessment for the projects of a portfolio:

1. Display the portfolio properties.
2. Click the drop-down list then the **Project Assessment** page.
3. Click **New Assessment**.
4. In the window that appears, select the projects to be assessed.
   - Some
   - All

5. Click **OK**.
   An assessment line is created for each portfolio project with the different criteria in a column.
6. To define the value of a criterion for a project, select the line of the project concerned and click in the criterion column.

Assessing common criteria

The criteria common to all projects are calculated automatically on the basis of assessments performed specifically on the projects.

☛ *For the qualitative evaluation of a project to appear in the portfolio properties, the assessment must have been validated at the project level.*

Assessing criteria specific to the portfolio

For criteria created specifically for the portfolio, and are therefore not displayed in the project properties, you can define them directly on the project assessment line (drop-down list for a list or direct entry for a number/a text).

Analyzing and Arbitrating Portfolio Projects

In a portfolio, a number of projects can concern a single object to represent different hypotheses, exclusive of each other, for the change in this object.

Scenarios can then be created by selecting a set of projects to be produced. The different scenarios can be compared by means of specific reports:

Using a project portfolio, the project portfolio manager can generate scenario analysis and comparison reports to decide which scenarios to keep or reject.

In an arbitration portfolio, if several scenarios have been selected for different analysis portfolios, the project portfolio approver has access to an analysis tool which provides an overview. This is used, for example, to determine whether contradictory choices exist for a single project in the different scenarios selected.

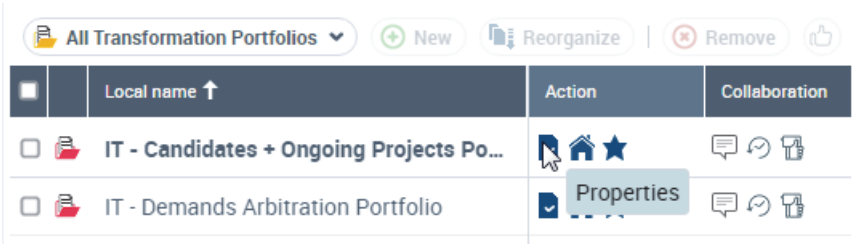
Creating a Scenario

Using an arbitration portfolio or an analysis portfolio, the project portfolio manager can create a number of scenarios.

A scenario defines, in a portfolio, a set of projects that can be implemented. It is used to generate analysis reports to assess the impact of this set of projects.

To create a scenario:

1. Click the navigation menu, then **Transformation**.
2. In the edit window, select **Project Portfolios**.
3. Display all the transformation portfolios.
4. In the list, display the project portfolio concerned and in the corresponding **Action** column, click **Properties**.



The properties dialog box of the portfolio appears.

5. Click the drop-down list then **Transformation Scenarios**.
6. In the **Transformation Scenarios** section, click **New**.
   The dialog box for creating a scenario opens.
7. Enter the name of the scenario and click **OK**.

Defining the properties of the scenario

To define the properties of the scenario:

1. In the portfolio properties, in the **Transformation Scenario** page, display the scenario concerned and in the corresponding **Action** column, click the **Properties** button.
   The scenario properties window appears on the right of that of the portfolio.
2. In the scenario properties, select the **Characteristics** page.
   Note that for each project held in the portfolio, a scenario line is created.

Scenario lines

For each project held in the portfolio, a scenario line is created.

A scenario line corresponds to a project line in the source portfolio. It uses the values of the criteria and lifecycle defined on the project line of the portfolio. It is used to record the potential decision with respect to the project (validated, rejected) within the framework of the scenario analysis.

In a scenario, the project portfolio manager can decide to select or not select a given portfolio line in a simulated scenario (which is different from validation of the project).

Accepting or Rejecting the Project Lines of a Scenario

A project line must be accepted in order to be taken into account in a given scenario. Conversely, a project line must be rejected if you want the scenario to ignore it.

To accept or reject a project lines in a scenario:

1. Open the properties pages of the scenario.
2. Select the **Characteristics** page.
3. In the **Scenario Lines** section, select the project line you want.
4. In the **Decision** column, select one of the following values:
   - **Accepted**: the project line is integrated in the scenario.
   - **In progress**: the project line is under review; it is integrated in the scenario
   - **Rejected**: the project line is not taken into account in the scenario

Analyzing and Comparing Scenarios

With embedded reports, you can analyze and compare the scenarios created in a project portfolio.

To view these reports:

1. Display the properties concerned.
2. In the properties window, click the drop-down list and select the **Reports** page.
3. Select the report concerned.

Comparing scenario costs

This report compares the costs of the selected scenarios.

It relates to the project costs, it does not take into account the impact of the scenario on the operating cost of the applications.

Comparing the scenarios in terms of project deliverables or capabilities impacted

This report compares the scenarios of a portfolio on the basis of the deliverables supplied and the capabilities concerned.

The deliverables table specifies, for each scenario, the name of the deliverable and the percentage of deliverables that are new, updated and deleted.

The objective table specifies, for each scenario, the name of the capabilities and the percentage of capabilities that are new, updated or deleted.

See also:

- "Transformation objective", page 593
- "Project deliverables", page 593

Project deliverables by scenario

This report details the deliverables included in a scenario; they are classified by status and whether the projects within the scenario are validated or rejected.

☛ *See "Accepting or Rejecting the Project Lines of a Scenario", page 617.*

In the example below, two deliverables are part of the projects that were accepted in the scenario; a new CRM application and a server update.

The solution building blocks will thus be created/updated in the scenario.

⊟ 1. Projects Deliverables

Project Impact Type	Validated Projects	Rejected Projects
New	New CRM Application	
Updated	Media Library Web Server	
Deleted		

Analyzing the Road Map for Portfolio Projects

The "Project RoadMap" report displays the Gantt chart for projects and the road maps for project deliverables.

To see this report:

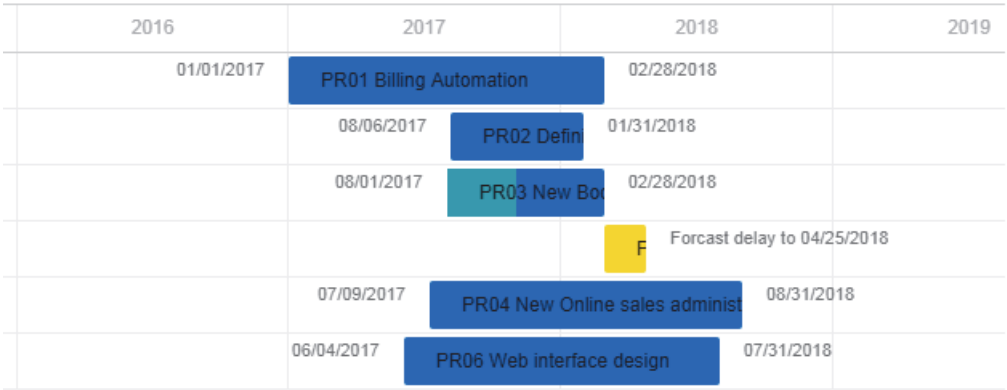
1. Display the properties concerned.
2. In the properties window, click the drop-down list and select the **Reports** page.
3. Select the "Project RoadMap" report.

Project Gantt chart

The Gantt chart presents one row per project. The following information is provided for each project:

- Start and end dates
- Progress
- Dependencies
- Declared delays

> ☛ *See also*
> - *"Follow-up of Ongoing Projects", page 603*
> - *"Project dependencies", page 594.*



Roadmap of portfolio project deliverables

The following information is displayed for each portfolio:

- The projects included
- The dependencies
- The status of projects
- The project progress
- The dates defined for the project

☛ *See also "Follow-up of Ongoing Projects", page 603.*

⊟ 2. Projects Deliverables Delivery Roadmap

Portfolio	Project	Dependency (prerequisite)	Status	On Time ?	Project end date			2016	2017
					Plan	Forecast	Actual		
Portefeuille Open Data et Ecosystème (FR)	PR01 Billing Automation		Project In Progress	On Time	2/28/2018				
	PR02 Definition of the Billing Business Capacity		Project In Progress	Late	1/31/2018				
	PR03 New Booking Application	PR07 Billing software stack technical overhaul	Project In Progress	Late	2/28/2018	4/25/2018			

Analyzing the Project Risks of a Portfolio

An embedded report for the project portfolio is used to display, in the form of a heatmap, the risks inherent to the portfolio projects.

To view this report:

1. Display the properties concerned.
2. In the properties window, click the drop-down list and select the **Reports** page.
3. Select the "Project Portfolio Risk Roadmap".

The heatmap displays the number of risks per risk level (low, high, etc.)

See also: "Assessing the Risks of a Project", page 602.

Dashboard for Portfolio Projects

This report analyzes the projects included in a portfolio using different graphics.

To launch this report:

1. Display the properties concerned.
2. In the properties window, click the drop-down list and select the **Reports** page.
3. Select the "Project Dashboard" report.

Project bubble chart

The bubble chart is used to connect the different key indicators of the portfolio projects.

To define the project indicators to be displayed in the graph:

1. In the **X-axis** field, select the first indicator, for example, the profit.
2. In the **Y-axis** field, select the second indicator, for example, the total cost.
3. In the **Bubble size** field, select the third indicator, for example, the ROI.
4. Click **Refresh the Report** to take the selected data into account.

Project matrix by criteria

For this graph, the parameters selected for report input must be of "enumeration" type (e.g. Risk level, Business Value Level).

It allows to consult evaluations of a larger number of projects than the bubble graph (several hundred projects vs. a few dozen).

When you modify the input parameters, you must click on **Refresh the Report** to take into account the input data, then click the refresh button of the chapter to update it.

Summary table for project assessments

This table presents the latest assessment of the key indicators of the portfolio project.

3. Projects Assessment Summary Table

	Strategic Alignment Level	Business Value Level	Risk Level	Cost Level	Budget	Benefits	Return on Investment	Project Score
PR01 Billing Automation	6 - Medium	4 - Low	1 - Very Low	10 - Very High	€500,000.00	€1,000,000.00	100%	3.94
PR02 Definition of the Billing Business Capacity	5 - Medium	4 - Low	6 - Medium	6 - Medium	€40,000.00	€40,000.00	0%	4.73
PR03 New Booking Application	9 - Very High	1 - Very Low	10 - Very High	5 - Medium	€1,000,000.00	€1,500,000.00	50%	2.71
PR04 New Online sales administration capacity	2 - Very Low	6 - Medium	6 - Medium	6 - Medium	€600,000.00	€700,000.00	17%	4.16
PR06 Web interface design	3 - Low	6 - Medium	6 - Medium	9 - Very High	€50,000.00	€60,000.00	20%	3.66

See also "Assessing a Project", page 601.

Using Assessments

INTRODUCTION TO ASSESSMENT FEATURES

HOPEX proposes a mechanism for managing surveys of **HOPEX** users. These surveys enable quantification of characteristics of specific objects for a selected population in a specific context.

Several assessment templates are supplied as standard in **HOPEX** solutions. You can use these templates to create your assessments. You can also duplicate them to enhance and configure them to create your own questionnaire and assessment templates.

To go even further, **HOPEX Power Studio** offers the possibility of creating assessments on other MetaClasses.

☛ *For a more advanced use of assessment features, we recommend you should use **HOPEX Windows Front-End**.*

✓ "Assessment Processes", page 626
✓ "Additional Resources", page 629

ASSESSMENT PROCESSES

HOPEX Power Studio enables creation of assessment sessions, running these and analyzing their results. An assessment session can be managed directly or from an assessment campaign.

HOPEX Power Studio offers the possibility of creating new assessments:

- from assessment templates proposed as standard in **HOPEX** solutions
- from new templates.

> ☛ *For more details on the main assessment template debugging process steps, see "Definition of an Assessment Template", page 53.*

Concepts Overview

Assessments relate to predefined objects: risks or controls for example.

> 🕮 *Assessment is a mechanism enabling sending of questionnaires to an identified population to obtain assessments (qualitative or quantitative) on identified objects. The assessment is supplemented by results analysis tools.*

Assessment sessions and campaigns

An assessment is based on concepts:

- assessment sessions

  > 🕮 *An assessment session is an assessment carried out over a determined time period. When an assessment session is published, a questionnaire is sent to targeted users.*

- assessment campaigns

  > 🕮 *An assessment campaign enables creation and planning of several assessment sessions over a given time period.*

An assessment session is defined by a ***scope*** and a ***questionnaire template***.

> 🕮 *The scope of an assessment session is defined by the objects to be assessed, the context of the assessment, and the list of respondents.*

> 🕮 *A respondent is a person in the enterprise questioned in the context of the assessment. This person should complete the assessment questionnaire and return it.*

Questionnaire templates and questionnaires

Assessment ***questionnaires*** are sent to appropriate ***respondents*** .

> 🕮 *An assessment questionnaire is a list of questions relating to a particular object and addressed to persons questioned.*

Questionnaires of an assessment session are described in a ***questionnaire template*** defined:

- directly in the assessment session:
- in an ***assessment template***.

> 🕮 *The assessment template defines the assessment scope, the questionnaire template to be used, and if required, the aggregation schemas to be applied for interpretation of global results. The assessment template can also supply deployment queries activated from one session to another to better determine the scope of objects to be assessed, the context and even the respondents.*
>
> 🕮 *A questionnaire template represents definition of questionnaire content: question group, questions, unique or multiple answers and possible answers. It can be associated with a questionnaire presentation specifying display options. The questionnaire template is defined either at assessment template level or assessment session level. Questionnaires sent to respondents are generated from the definition supplied in the questionnaire template.*

Quotation rules

Assessment session unitary results are then calculated from respondent answers according to ***Quotation Rules*** defined for the session.

> 🕮 *A quotation rule defines the list of answers used to calculate the value of an assessment characteristic. It also provides the plugIn handling the calculation.*

Aggregation schemas

Assessment results are then consolidated according to one or several ***aggregation schemas***.

> 🕮 *An aggregation schema is a series of steps used to consolidate assessment results according to specified assessment rules.*

Assessment Types

There are several ways of running assessments:

- direct assessment
- assessment by assessment sessions
- assessment by assessment campaigns
- data call (which is a kind of assessment)

Direct assessment

This is an "expert view" assessment.

For more details, see "Direct Assessment", page 664.

Assessment by assessment sessions

This consists of sending questionnaires to respondents.

Assessment by assessment campaigns

A campaign comprises different sessions, each with a scope and specific respondents.

Campaigns are used notably in **HOPEX** solutions.

☛ *For more details, see "Using Assessment Campaigns", page 658.*

Assessment through data call

The objective here is to send forms to stakeholders in order to collect answers, enabling to fill in object properties automatically.

Example: You can collect data concerning applications (attribute values..).

See:

- "Collecting Data for a Set of Applications", page 79
- "What is "Data Call" ?"

ADDITIONAL RESOURCES

This documentation about assessment parameterization can be supplemented by:

- The **HOPEX Common Features** guide, describing the **MEGA** interface of products and solutions.
- The chapter concerning the assessments of each of the guides of the following **HOPEX** solutions.
  - HOPEX Enterprise Risk Management
  - HOPEX Internal Control
  - HOPEX Compliance
- The administration guide **HOPEX Power Supervisor**, for management of profiles.
- Technical article **HOPEX Power Studio**.

Below is a summary of functions available with each product or option linked to the assessment engine.

Product/Option	Features
Standard	Creation and execution of assessment campaigns and sessions
HOPEX Power Studio	Creation of assessment templates Creation of questionnaire templates Creation and modification of workflow definitions

ASSESSMENT OVERVIEW

This chapter describes the assessment desktop.

☛ *The majority of procedures in this guide are described from **HOPEX Web Front-End**. More advanced assessment template customization features are described from **HOPEX Windows Front-End**.*

✓ "Assessment Profiles and Roles", page 632
✓ "Navigation Tree Overview", page 634
✓ "Assessment Desktop Presentation", page 635
✓ "Workflows Linked to Assessments", page 636

ASSESSMENT PROFILES AND ROLES

There are default user ***profiles*** with which rights and accesses are associated.

> 🕮 *A profile defines what a person can see or not see and do or not do in tools, and how he/she sees and can do it. The profile defines options, access rights to repositories and products, read/write and read-only rights on objects. All users with the same profile share these same options and rights.*
>
> ☛ *For more details on managing profiles in HOPEX, see the **HOPEX Power Supervisor** administration guide.*

Object roles are used to define rights on objects, in workflows, for example.

Connection profiles

The profiles below are available to use assessment features with the dedicated desktop.

Profiles	Tasks
Assessment Designer	Responsible for creation of assessment templates and questionnaires.
Assessment Manager	Responsible for creation and follow-up of assessment campaigns and sessions.
Respondent	Completes questionnaires.

> ☛ *When assessment functions are used in the context of **HOPEX** solutions, the profiles of solutions should be used instead. In this case, assessment functions are tu be used withing the framework of the specific solution deksktop, not the standard assessment desktop. For more details, see the user guide corresponding to each solution.*

The object roles

Object roles can appear in the properties page of certain objects.

Role	Tasks
Assessment Template Owner	Has assessment template updating rights.
Assessment Campaign Owner	Has assessment campaign follow-up rights, and rights to create and modify assessment sessions.
Assessment Session Manager	Has rights to create and follow up assessment sessions, and rights to create questionnaire templates.

NAVIGATION TREE OVERVIEW

Depending on the profile with which you are connected, you can access different navigation trees.

Tree	Tree content
Home	Contains libraries used to subdivide content of a repository. They are not simply a means of classifying repository objects: they are real partitions of the repository.
Assessments Definition	Contains all elements describing assessment templates, assessment campaigns and assessment sessions.
Assessments Follow-Up	Contains sessions the user can access. These sessions are classified according to their progress state: "assessments in design" or "assessments in validation" as well as assessments started.
My Questionnaires	Contains questionnaires the user can access. These questionnaires are classified according to their status: "validation in progress" for example.

☛ *Other navigation trees can appear depending on the products available.*

ASSESSMENT DESKTOP PRESENTATION

The trees, menus and commands available in the assessment desktop depend on the profile with which you are connected.

> ☛ *For more details on profiles, see "Assessment Profiles and Roles", page 632.*

> ☛ *When assessments are used in the context of **HOPEX** solutions, the desktops used are those available with these solutions. Access paths to functions are different in this case. For more details, see the user guide corresponding to each solution.*

Assessment Designer and Assessment Manager desktops

The Assessment Designer and Assessment Manager can access the following navigation trees:

- **Home**
- **Assessments Definition**: enables access to all:
  - assessment templates

    > ☛ *The assessment template defines the assessment scope, the questionnaire template to be used, and if required, the aggregation schemas to be applied for interpretation of global results. The assessment template can also supply deployment queries activated from one session to another to better determine the scope of objects to be assessed, the context and even the respondents.*
  - assessment sessions

    > 🕮 *An assessment session is an assessment carried out over a determined time period. When an assessment session is published, a questionnaire is sent to targeted users.*
  - assessment campaigns

    > 🕮 *An assessment campaign enables creation and planning of several assessment sessions over a given time period.*
- **Assessments Follow-Up**: enables follow-up of assessment sessions for which the user is responsible.
- **My Questionnaires**: provides access to the questionnaires in its various stages, for example:
  - assessments in design
  - assessments in validation
  - assessments in delegation

Respondent desktop

The Respondents Manager has the following navigation trees:

- **Home**
- **My Questionnaires**

WORKFLOWS LINKED TO ASSESSMENTS

HOPEX proposes two methods of starting assessment campaigns, assessment sessions and questionnaires:

- a ***Generic*** method, which describes a process in which different roles intervene to manage steps of the process.
  The corresponding workflows are generic workflows.
- an ***Automatic*** method, which is used for example to execute controls in **HOPEX Internal Control**.

  ☛ *In the case of automatic workflows, the different process steps do nor require the intervention of several profiles. These workflows are simplified versions of generic workflows.*

For more details on workflows used to govern interactions between participants, see "Assessment Workflows", page 109

RUNNING ASSESSMENTS

This chapter describes the steps comprising an assessment session. Progress is managed by standard workflows.

☛ *For more details on assessment session processing steps, see "Assessment Workflows", page 109.*

✓ "Assessment Session Steps", page 638
✓ "Creating Assessment Sessions", page 640
✓ "Deploying and validating the assessment session", page 647
✓ "Starting Assessment Sessions", page 650
✓ "Completing Questionnaires", page 651
✓ "Following Up Session Progress", page 654
✓ "Using Assessment Campaigns", page 658
✓ "Direct Assessment", page 663

ASSESSMENT SESSION STEPS

Standard Launch of Assessment Sessions

The following is a summary of assessment session steps.

Preparing assessment sessions

An assessment session can be created by a user with Assessment Designer or Assessment Manager profile.

This user must describe scope of the assessment session:

- assessed objects and characteristics
- objects defining assessment context
- identification of respondents

At assessment session creation, the questions asked of respondents, the answer format and the questionnaire presentation must be defined.

For more details, see "Creating Assessment Sessions", page 640.

Deploying and validating the assessment session

This step is executed by an assessment designer or assessment manager.

Deploying an assessment session consists of preparing all questionnaires sent to the persons questioned.

In the deployment phase, assessment nodes are created from definition elements of the session or its template.

> 🕮 *An assessment node is associated with values calculated from answers given in questionnaires by respondents for each of the assessed characteristics. It is created at the time of deployment of the assessment session, or at aggregation. Objects created at deployment are owned by the session and enable determination of the object that will be evaluated, by whom and in which context.*

Assessment nodes can be reviewed or deleted and must be validated. This phase defines the exact scope of the assessment session.

For more details, see "Deploying and validating the assessment session", page 647.

Starting assessment sessions

Starting an assessment session triggers sending of questionnaires to respondents, who are notified by e-mail.

Following this start step, respondents can process the questionnaire in the following ways:

- Complete the questionnaire and return it: "Answering a Questionnaire", page 651
- Delegate questions to other persons: "Delegating a Questionnaire", page 652
- Have answers validated by another person

For more details, see "Starting Assessment Sessions", page 650.

Following up assessment sessions

When an assessment session has started, the assessment designer or assessment manager can follow up progress of the assessment session and questionnaires.

For more details, see "Following Up Session Progress", page 654.

Closing the assessment session

This step automatically closes all questionnaires and result calculation.

Calculation of the value of each assessed characteristic is carried out from the answer given by each person consulted. Execution of aggregation enables consolidation of results obtained taking account of the aggregation schema.

For more details, see "Closing the assessment session", page 656.

Variations in the Launch of Assessment Sessions

There are other possibilities for assessment session workflow.

At creation of an assessment session, you may, for example:

- Launch the assessment session immediately, which enables to regroup the following steps:
  - Deploy the session ("Deploying Assessment Sessions", page 647)
  - Validate the session ("Validating Assessment Sessions", page 649)
  - Start the session ("Starting Assessment Sessions", page 650)
- Schedule the assessment session, as soon as possible or at a specific date.

CREATING ASSESSMENT SESSIONS

At creation of an assessment session, you must specify:

- Assessment execution period
- Assessment scope
  - List of objects to be assessed and characteristics to be assessed on each object
  - Assessment context: which entities, which sites, etc.
  - Persons to be questioned
- Questionnaire template
  - Questions to be asked
  - Possible answers
  - Questionnaire presentation

Launching Modes for an Assessment Session

HOPEX enables starting assessment in different ways:

- ***From an Assessment Campaign***: characteristics of the session can be inherited from the assessment campaign.

  An assessment campaign enables creation and planning of several assessment sessions over a given time period.

  For more details on assessment session starting steps, see "Steps of assessment workflow with campaign", page 662.

- ***From an Existing Template***: assessment is created from an existing assessment template. All information characterizing the session is described in the template.
  See "Creating Assessment Sessions From an Existing Template", page 641.

  The assessment template defines the assessment scope, the questionnaire template to be used, and if required, the aggregation schemas to be applied for interpretation of global results. The assessment template can also supply deployment queries activated from one session to another to better determine the scope of objects to be assessed, the context and even the respondents.

- Starting from zero ***In Ad-Hoc mode***: the assessment is created simply from lists to be completed so as to specify the scope objects.
  See "Creating Ad-Hoc Assessment Sessions", page 643.

- Starting from zero ***In Expert mode***: this mode is reserved for experts who want to define queries and macros. Assessment is carried out from deployment collections constituting a first step to reuse of object lists defining a scope.
  See "Creating Expert Assessment Sessions", page 645.

Creating Assessment Sessions From an Existing Template

The first steps in the procedure for creating an assessment session are identical irrespective of the selected creation mode.

Creating Assessment Sessions

To create an assessment session:

1. In the **Assessment Definition** tree, select **Assessment Session > New**.
   The session creation page appears.
2. Indicate the **Name** of the session.

   ☛ *The **Session Manager** is initialized with the name of the user that created the session, but this value can be modified.*
3. Select the **From an Existing Template** option and select the assessment template you want to use.

   ☛ *For more details on:*

   - *The **Ad-hoc** creation mode, see "Creating Ad-Hoc Assessment Sessions", page 643.*
   - *The **Expert** creation mode, see "Creating Expert Assessment Sessions", page 645.*
4. Specify assessment session dates:
   - **Assessment Planned Begin Date** is fixed at today's date
   - **Assessment Planned End Date**.
5. Click **Next**.
6. Select the **Assessed Parameter** that corresponds to the object from which the object list to be assessed will be established.

   ☛ *In certain assessment templates, the scope can be defined by a tree. For more details, see "Defining assessment scope by tree", page 642.*

   A preview report of the scope calculated for the session is presented for information.

   ☛ *This window presenting the list of assessment session parameters remains accessible from the **Parameters and Preview** tab of assessment session properties.*
7. Click **Next**.
   The assessement session creation wizard also offers you to start the session.

There are several possibilities:

- only create the session and close the wizard: to do this, click "**Not Now**" then **OK**.
  You can reopen the assessment session properties to view its parameters. See "Viewing session parameters", page 642.
- Start the session "**Now**"
  If you choose this option, you will be able to see the assessment session being launched. This option enables to execute the following workflow transitions at the same time:
  - deploy: "Deploying Assessment Sessions", page 647
  - validate: "Validating Assessment Sessions", page 649
  - start: "Starting Assessment Sessions", page 650
- start the session in batch mode after saving ("**as soon as possible**")
- Start the session later, specifying the date and hour in UTC format ("**scheduled**")

  ☛ *To specify the UTC format date and hour of scheduled execution, click the arrow then **Open**.*

Viewing session parameters

To view parameters of your session:

1. Open the properties of the assessment session and select the **Parameters and Preview** tab.
   The report summarizes:
   - the campaign
   - the session, its begin and end dates
   - the list of assessed characteristics
   - the list of objects to be assessed
   - the list of assessment context elements
   - the list of respondents
   - the updated list of assessment nodes

   ☛ *If you modify parameters of your session, click the **Refresh Report** button so that your updates will be taken into account in the report.*

Defining assessment scope by tree

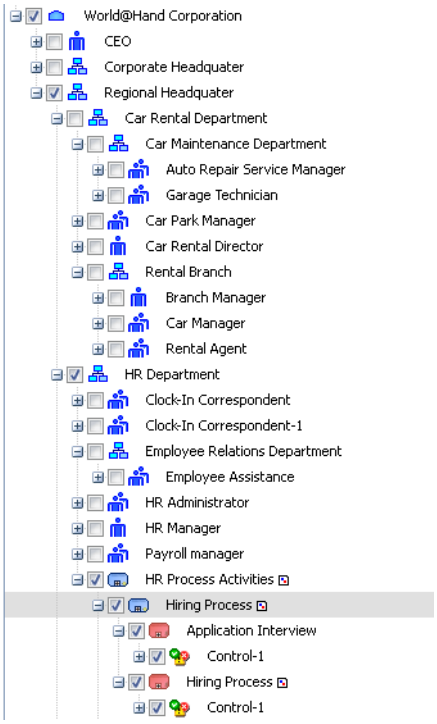
So that this possibility will be proposed, assessment mode must be appropriately configured.

☛ *For more details on this configuration, see "Defining Assessment Template Properties", page 53.*

The tree allows you to select objects assessed ***in their context***.

For example, a control is assessed in the context of elements of the branch from the control up to the root.

☛ *The tree automatically expands if the **Automatic Expand** box is selected.*



In the above example, if you select the "Manage Human Resources" process, all controls and context objects located at a lower level are selected, as well as all parent context objects up to the tree root.

☛ *If you deselect a node of a branch, only the child elements of this branch are deselected.*

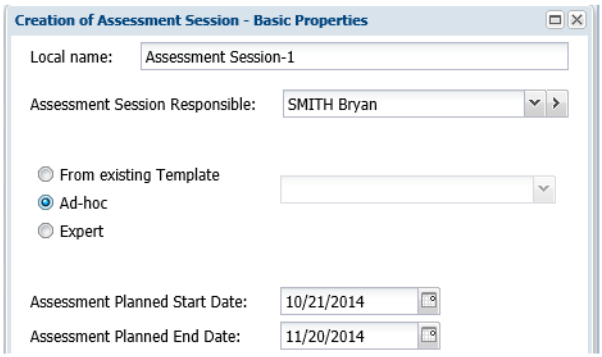
Creating Ad-Hoc Assessment Sessions

Ad-Hoc assessment session creation mode allows you to explicitly define objects characterizing the scope of your session.

To create an assessment session in Ad-Hoc mode:

1. Create a session following the first two steps of the procedure "Creating Assessment Sessions From an Existing Template", page 641.

2. Select **Ad-Hoc** mode:



3. Click **Next**.
4. Complete each of the sections with the objects that interest you:
   - **Assessed Characteristics**

     An assessed characteristic defines what the assessment seeks to assess. It can be associated with a MetaClass, and more specifically with one of its MetaAttributes, for example: Risk MetaClass, MetaAttribute: Criticality.

   - **Assessed Objects**

     The Connect button allows you to select objects by filtering these by assessable object type.

   - (Optional) **Context Objects**

     A context object is an object in the framework of which the assessment is carried out. For example, a risk can be assessed in the framework of an entity, a control can be assessed in the framework of a process).

   - **Assessors**: you may select a ***Respondent*** as well as ***Person Assignments***.

     A respondent is a person in the enterprise questioned in the context of the assessment. This person should complete the assessment questionnaire and return it.

     Person assignment enables specification of the profile to which you wish to address the questionnaire when the same person has several profiles. For example, if a person is both "ERM Business User" and "IC Business User", you may wish to send the questionnaire only in the ERM desktop when assessing risks.

5. Click **Next**.
6. Create a **Questionnaire Template**.

   You cannot connect existing questionnaire templates.

   A questionnaire template represents definition of questionnaire content: question group, questions, unique or multiple answers and possible answers. It can be associated with a questionnaire presentation specifying display options. The questionnaire template is defined either at assessment template level or assessment session level. Questionnaires sent to respondents are generated from the definition supplied in the questionnaire template.

   For more details, see "Questionnaire Contents", page 76.

7. In the dialog boxes that follow, you can:
   - specify the **Quotation Rule** to be applied.

     A quotation rule defines the list of answers used to calculate the value of an assessment characteristic. It also provides the plugIn handling the calculation.

     ☛ *For more details, see "Quotation Rules", page 98.*
   - refine questionnaire template presentation

     ☛ *For more details, see "Defining Questionnaire Presentation", page 71.*
8. Click **OK**.

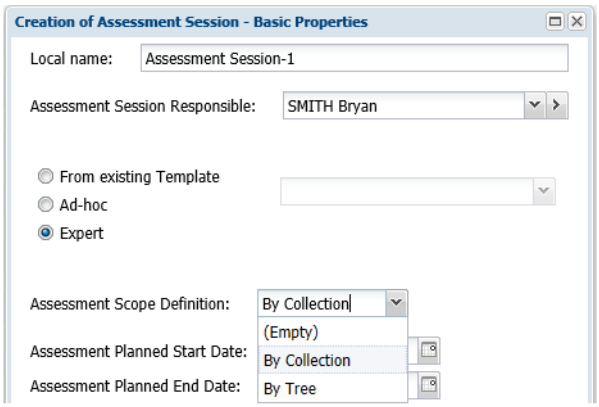
Creating Expert Assessment Sessions

Expert creation mode is reserved for experts who want to use queries or macros to define scope of their assessment session.

To create an assessment session in **Expert** mode:

1. Create a session following the first steps of the procedure "Creating Assessment Sessions From an Existing Template", page 641.
2. Select **Expert**.
3. In the **Assessment Scope Definition** field, specify how you wish to define scope:
   - "By Tree"
   - "By Collection"

   ☛ *For more details on assessment scope definition, see "Defining Assessment Template Properties", page 53.*



4. Click **Next**.
5. Complete the list of assessed characteristics explicitly.

   ☛ *For more details, see "Managing Assessed Characteristics", page 55.*

6. Complete assessment scope using deployment collections to determine:
   - the list of objects to be assessed
   - the list of objects defining the assessment context
   - the list of respondents

   ☛ *For more details, see "Creating Assessment Deployment Collections", page 58.*
7. Click **Next**.
8. Create a **Questionnaire Template**.

   ☛ *For more details, see "Questionnaire Contents", page 76.*

   🕮 *A questionnaire template represents definition of questionnaire content: question group, questions, unique or multiple answers and possible answers. It can be associated with a questionnaire presentation specifying display options. The questionnaire template is defined either at assessment template level or assessment session level. Questionnaires sent to respondents are generated from the definition supplied in the questionnaire template.*
9. Click **Next**.
10. Specify the **Quotation Rules** to be applied as well as a MetaTest if required.

    🕮 *A quotation rule defines the list of answers used to calculate the value of an assessment characteristic. It also provides the plugIn handling the calculation.*

    ☛ *For more details, see "Quotation Rules", page 98.*
11. Click **OK**.

DEPLOYING AND VALIDATING THE ASSESSMENT SESSION

Session deployment consists of preparing sending of questionnaires to users declared as respondents.

☛ *This step is not to be executed manually if you choose to start the session or schedule it immediately after creating it. For more details, see "Variations in the Launch of Assessment Sessions", page 639.*

Deploying Assessment Sessions

Session deployment enables calculation of all possible assessment nodes for the session.

📖 *An assessment node is associated with values calculated from answers given in questionnaires by respondents for each of the assessed characteristics. It is created at the time of deployment of the assessment session, or at aggregation. Objects created at deployment are owned by the session and enable determination of the object that will be evaluated, by whom and in which context.*

To deploy an assessment session and create the list of assessment nodes for this session:

1. In the **Assessment Definition** navigation tree, expand the **Assessment Sessions** folder.
2. Right-click the session that interests you and select **Deploy**.
   An intermediate window asks when you want to execute deployment:
   - Now
   - As soon as possible (after dispatch of your transaction)
   - At scheduled date and time

   ☛ *The deployment operation can take some time. For this reason, a deferred execution option is available.*

   When deployment is executed, the session automatically takes status "To Be Validated".

The session manager can then review this list of assessment nodes to remove certain of these or modify parameters.

Defining assessment session scope

Having deployed the assessment session, you can define the scope, that is select the assessment nodes you want to include in your session.

☛ *By default, all assessment nodes are taken into account.*

Accessing effective scope

To access the list of calculated assessment nodes:

1. Open the properties of the assessment session and select the **Effective Scope** tab.
   The list of assessment nodes appears. The following information is presented in columns:
   - Validity for assessment - "Valid" is the default value
   - The objects defining the assessment context
   - Assessed object
   - Respondent

Modifying effective scope

From the **Effective Scope** tab of a session, you can:

- delete or add assessment nodes
- validate or unvalidate assessment nodes
- modify the defined respondent

> ☛ *If you have defined the scope on the assessment campaign, you do not necessarily need to redefine it on the assessment session.*

Duplicating assessment nodes

This function allows you, for example, to define several respondents for the same object in the same context.

To duplicate assessment nodes:

1. In the properties of the session, select the **Effective Scope** tab.
2. Select the elements that interest you and click **Duplicate**.

Defining respondents

To define respondents:

1. In the properties of the session, select the **Effective Scope** tab.
2. Select the elements that interest you and click **Set Respondent**.

Unvalidating assessment nodes

To unvalidate assessment nodes:

1. In the properties of the session, select the **Effective Scope** tab.
   The list of assessment nodes from your deployment appears.

   > ☛ *These are basic assessment nodes that will then be used to create corresponding assessment nodes used at execution of the aggregation schema.*
2. Select the assessment nodes you want to remove from the session and click **Unvalidate**.

Validating Assessment Sessions

The effect of assessment session validation is to:

- freeze its parameters
- generate questionnaires, without however sending these to addressees.

> 🕮 *An assessment questionnaire is a list of questions relating to a particular object and addressed to persons questioned.*

Validating sessions and generating questionnaires

To generate questionnaires:

1. In the **Assessments Follow-Up** navigation tree, expand the **Assessment Design** tab and select **Assessments in Validation**.
   The list if sessions of status "To Be Validated" appears in the edit area.
2. Right-click in the session in question, then select **Assessment Session (To Be Validated) > Validate**.
   All questionnaires are created with status "To Send". This operation can take several minutes.

You can now view questionnaires that have been generated.

Viewing Generated Questionnaires

To view generated questionnaires:

❱ In the properties page for the assessment session, **Questionnaires** tab, click **Display Questionnaires**.

> ☛ *It is recommended that the assessment session be validated just before starting the session. If you validate too early, information concerning respondents could be not up-to-date.*

Regenerating Questionnaires

Having regenerated the questionnaires and before starting the assessment session, you can:

- view the questionnaires: see "Viewing Generated Questionnaires", page 649.
- modifying respondents

To regenerate the questionnaires after modifying respondents:

❱ Right-click the assessment session concerned and select **Assessment Session (To Start) > Regenerate Questionnaires**.

You can now start the assessment session. See "Starting Assessment Sessions", page 650.

STARTING ASSESSMENT SESSIONS

☛ *This step is not to be executed manually if you chose to start the session or schedule it immediately after creating it. For more details, see "Variations in the Launch of Assessment Sessions", page 639.*

The effect of starting an assessment session is to send questionnaires to respondents.

Prerequisites to session launch

The creation wizard checks from different creation modes (from a template, ad-hoc or expert) that conditions are met to deploy nodes and generate questionnaires.

The definition of an assessment session done through an assessment template must contain at least:

- An assessed characteristic
- An assessment object deployment collection
- A respondent deployment collection
- A questionnaire template
- A question
- A parameter value in the creation wizard if a deployment collection requires a value.

Sending questionnaires to respondents

To send questionnaires to respondents:

1. In the **Assessments Follow-Up** navigation tree, expand the **Assessment Design** folder and select **Assessments To Be Started**.
   The list if sessions of status "To Be Started" appears in the edit area.
2. Click the session that interests you, then click **Assessment Session > Start**.
   The session activation page appears.
3. Click the **Save** button at top of the page.
   The session effective start date is updated.
   The assessment questionnaires are sent to respondents defined in the assessment session perimeter.

COMPLETING QUESTIONNAIRES

To reply to a questionnaire, you must connect to the **HOPEX Web Front-End** application with the profile "Respondent".

☛ *In **HOPEX** solutions, you must use the "Business User" profile.*

☛ *For more details on questionnaire processing steps, see "Questionnaire Generic Workflow", page 111.*

Accessing Your Questionnaires

After starting an assessment session, questionnaire addressees receive a notification.

To complete questionnaires:

1. In the **My Questionnaires** navigation tree, expand the **Questionnaire Management** folder and select **My Questionnaires in Execution**.
   The list of questionnaires of which status is "To Be Completed" appears.
2. Right-click the questionnaire in question and select **Open**.

   ☛ *Questionnaires are visible from this menu as long as the assessment session is not closed. If the assessment session is closed, you can consult them in the **Questionnaires** tab of the assessment session.*

Managing Your Questionnaires

Having consulted content of a questionnaire, the respondent can:

- **Close** the questionnaire without answering.
- **Request Transfer** of the questionnaire to another respondent.

  ☛ *For more details, see "Making a Transfer Request", page 652.*
- **Delegate** all or part of a questionnaire to another person.

  ☛ *For more details, see "Delegating a Questionnaire", page 652.*
- Accept the questionnaire and answer.

  ☛ *For more details, see "Answering a Questionnaire", page 651.*

Answering a Questionnaire

To complete questionnaires:

1. In the **My Questionnaires** navigation tree, expand the **Questionnaire Management** folder and select **My Questionnaires in Execution**.
   The list of questionnaires of which status is "To Be Completed" appears.
2. Select the questionnaire that interests you and click **Display Questionnaire**.

3. Select the questions in turn and reply to these in the lower part of the window.
4. Click **Save**.
5. Close the questionnaire display window.
6. Click the questionnaire in the questionnaires list and select **Assessment Questionnaire (To Be Completed) > Submit Answers**.

Delegating a Questionnaire

You may need to delegate all or part of a questionnaire to a third party (if for example you are not the person best qualified to answer certain questions).

You may delegate:

- Questions

  ☛ *To parameterize question delegation, see "Questions and Answer Types", page 77.*

- Question Groups

  ☛ *To parameterize delegation, see "Creating Question Groups", page 85.*

- the whole Questionnaire.

  ☛ *To delegate a questionnaire, it must be possible to delegate at least one question.*

To make it possible to delegate a question, see "Questions and Answer Types", page 77. A **Delegation allowed** field must me completed.

The person which receives the delegated questionnaire see all the questions but she can only answer those which were delegated.

Making a Transfer Request

If you receive a questionnaire in error, you can ask the session manager to transfer the questionnaire to another person.

To make a transfer request:

1. Select **Home > My Desktop > Questionnaires and Check-Lists > My Assessment Questionnaires**.

   ☛ *In some of the solutions, the corresponding menu is as follows: **Home > My Desktop > My Responsibilities > My Assessment Questionnaires**.*

2. Click the icon of a questionnaire and select **Assessment Questionnaire (To Be Completed) > Transfer Request**.
   The questionnaire passes to status "To Reassign".
   The manager is informed by e-mail and must reassign the questionnaire to another person.

   ☛ *Transfer requests are exceptional if execution campaign creation preparatory work has been correctly carried out.*

Closing Questionnaires

Having selected the appropriate check boxes, several choices are proposed to the respondent:

- **Save**: to save answers without sending these immediately; this allows return to the questionnaire for completion later.
- Submit answers for validation by the session manager.

A questionnaire can be opened and closed several times before submission.

To submit a questionnaire:

1. In the **My Questionnaires** navigation tree, expand the **Questionnaire Management** folder and select **My Questionnaires in Execution**.
   The list of questionnaires of which status is "To Be Completed" appears.
2. Select the questionnaire that interests you and click **Assessment Questionnaire (To Be Completed) > Submit Answers**.

Viewing the Score of a Questionnaire

This menu is available if the questionnaire template designer has authorized it.

☛ *To make this menu available, see* *"Defining Questionnaire Presentation", page 71*

It enables the respondent to view values calculated from his/her answers.

FOLLOWING UP SESSION PROGRESS

Consulting Reports

To consult progress of an assessment session and its results:

- Open the properties page of the assessment session and select the **Reporting** tab.

Validating Assessment Questionnaires

To access the list of assessment questionnaires completed by respondents:

1. In the **My Questionnaires** navigation tree, expand the **Questionnaire Management** folder and select **My Questionnaires in Validation**.
   The list of questionnaires of which status is "To Be Validated" appears.
2. Select the questionnaire that interests you and click **Display Questionnaires**.
   Content of the questionnaire appears in a new tab. You can view answers.
3. Close the questionnaire display window.
4. If you consider that the questionnaire has been correctly completed, click its icon and select **Assessment Questionnaire (To Be Validated) > Validate**.
   The questionnaire is closed and results are automatically calculated.

Asking a respondent to modify answers

If the answers to a questionnaire are not suitable, you can ask the respondent to modify them.

To make a modification request:

- Click the icon of a questionnaire and select **Assessment Questionnaire (To Be Validated) > Ask For Modification**.

  ☛ *The respondent can modify his/her answers. See* *"Completing Questionnaires", page 651*.

Reassigning questionnaires

If a respondent has made a transfer request, you must reassign the questionnaire.

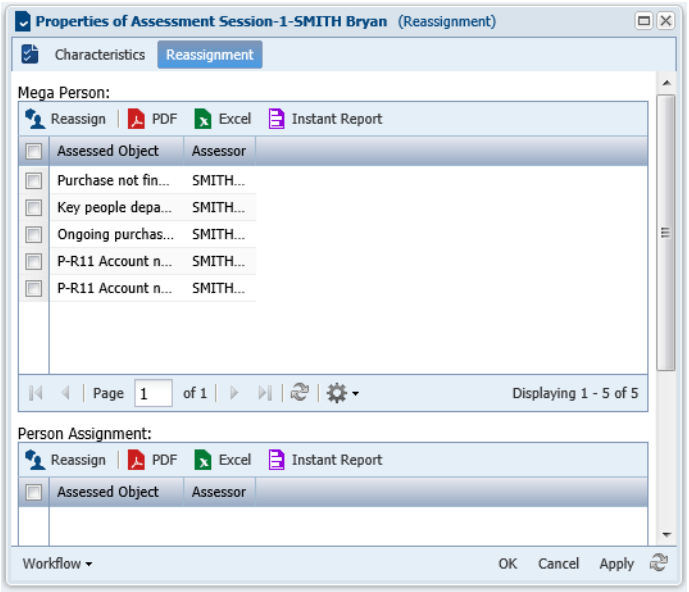
To reassign a questionnaire:

1. From the list of questionnaires sent, select a questionnaire.

   ☛ *The questionnaires are accessible from different menus according to the desktop used:*

   - *With the **MEGA** solution, you can access the questionnaires using the **Campaign Management** navigation tab.*
   - *On the assessment questionnaire laptop, the questionnaires are accessible from the **My Questionnaires** navigation pane.*

2. Open the properties dialog box of the questionnaire concerned and select the **Reassignment** tab.



   ☛ *This tab only appears when the questionnaire has "To Reassign" status.*

3. Select all nodes to be assessed and click the **Reassign** button.
4. Using the search page that opens, select a questionnaire and click **OK**.

   ☛ *If person assignments have been specified (for example, the questionnaire should be sent to a person in the context of a business role in particular), you can reassign the questionnaire in the section provided for this purpose.*

   The new respondent appears in the **Correspondent** column.

5. Select the icon of the questionnaire and select **Assessment Questionnaire (To be Reassigned) > Reassign**.

The new respondent receives an e-mail. He/she can complete the questionnaire, status of which is again "In Progress", then submit answers.

Closing the assessment session

You can close an assessment session at any time, whether or not the respondents have completed their questionnaires.

To close an assessment session:

1. In the **Assessments Follow-Up** navigation tree, select **Assessments Started > Assessments Started**.
   The list if sessions of status "In Progress" appears in the edit area.
2. Click the session that interests you, then click **Assessment Session > Close**.
   All questionnaires are automatically closed. This operation can take several minutes.

   ☛ *Results are valid only if the session is closed.*

The effective end date is automatically updated.

Calculation of the value of each assessed characteristic is carried out from the answer given by each person consulted.

Execution of aggregation enables consolidation of results obtained taking account of the aggregation schema.

Managing Questionnaires Sent

The Respondents Manager can access questionnaires sent and distinguish the different stages of their processing.

Accessing questionnaires

HOPEX enables access to questionnaires:

- sent in the context of a session

  ☛ *This session should be in progress so that questionnaires appear here.*
- already completed by respondents
- not yet completed

  ☛ *Access to these menus can vary depending on the solution used. For more details, see the corresponding user guide.*

Questionnaire statuses

There are two types of questionnaire status:

- a specific non-technical attribute
- a generic technical attribute

  ☛ *For more details on these workflow statuses, see **HOPEX Power Studio** - "Customizing Workflows", paragraph "Configuring Workflows".*

Questionnaire specific attribute

The specific non-technical attribute enables grouping of several technical statuses. It allows the end user not to distinguish between different technical statuses (Closed, Closed with validation, Closed automatically, etc.).

The specific attributes available are the following:

- Canceled
- Closed
- Delegated
- In progress
- To reassign
- To send
- To be validated

Questionnaire technical attribute

To supply lists of questionnaires (for example "Questionnaires Sent"), technical status of the questionnaire is checked.

> ☛ *If you duplicate the questionnaire workflow, confirm that you have specified the possibility of updating the technical attribute, even if this is not visible to the user.*

USING ASSESSMENT CAMPAIGNS

📖 *An assessment campaign enables creation and planning of several assessment sessions over a given time period.*

☛ *For more details on assessment session processing steps, see "Assessment Campaign Generic Workflow", page 110.*

Creating Assessment Campaigns

You can create an assessment campaign:

- ***From a template***
  Creating a campaign from a template allows:
  - factorization and application of the same template to all assessment sessions
  - campaign planning and distribution of elements to be controlled between the different assessment sessions
- ***without a template***
  Creation of a campaign without a template offers greater flexibility and enables definition of a different template in each session.

To create a campaign:

1. In the **Assessment Definition** tree, select **Assessment Campaign > New**.
   The campaign creation page appears.
2. In this page, indicate:
   - the **Campaign Owner**
   - the **Assessment Template**
   - a **calendar**

     ☛ *A calendar comprises calendar periods, which are necessary for creation of campaign scope. Use of a calendar is therefore mandatory if you want to define campaign scope for self-assessment of controls.*
   - a **Begin Date** and **End Date**
3. Click **Next**.
4. If you have selected an assessment template, select the **Assessed Parameter** that corresponds to the object from which the object list to be assessed will be established.

   ☛ *Depending on the assessment template selected, there may be no parameter to be assessed to define the scope.*

5. In the preview window, click **Refresh the Report**.
   Elements that will be assessed appear.
   In particular, you can view:
   - assessed characteristics (defined in the assessment template)
   - assessed objects (controls)
   - the context objects (processes or entities, for example)
   - assessment nodes, corresponding to objects to be assessed placed in different context objects, associated with respondents.
   - respondents
6. Click **OK**.

Deploying Assessment Campaigns

Campaign deployment consists of creating assessment nodes with a view to planning campaign sessions.

> 🕮 *An assessment node is associated with values calculated from answers given in questionnaires by respondents for each of the assessed characteristics. It is created at the time of deployment of the assessment session, or at aggregation. Objects created at deployment are owned by the session and enable determination of the object that will be evaluated, by whom and in which context.*
>
> ☛ *The deployment of an assessment campaign is not mandatory. You can validate the campaign directly. For more details, see "Validating Assessment Campaigns", page 660.*

To deploy a campaign:

1. In the list of campaigns, click the icon of the campaign you created and select **Assessment Campaign (In Preparation) > Deploy**.
2. In the deployment window, indicate that you want to deploy the campaign **Now**.

   > ☛ *This choice means that the campaign takes status "To Be Planned" immediately.*

   The other choices are:
   - as soon as possible (after dispatch)
   - at a later date
3. Click **OK**.
   The assessment nodes are created.

You can now define assessment campaign scope. See "Defining assessment campaign scope", page 659.

Defining assessment campaign scope

Having deployed the assessment campaign, you must validate the scope, that is, select the assessment nodes you want to include in your campaign.

To access the campaign scope and validate the assessment nodes:

1. In the properties of the campaign, select the **Effective Scope** tab.
   The list of assessment nodes from your deployment appears.

2. Select the values you want to remove from the campaign and click the **Validate** button.

You must also specify respondents.

☛ *For more details on scope modification, see "Modifying effective scope", page 648.*

Planning Assessment Campaigns

When campaign scope has been defined and validated, the session is in "To Be Planned" status. You can then plan campaign sessions.

This consists of distributing assessments between the different assessment sessions.

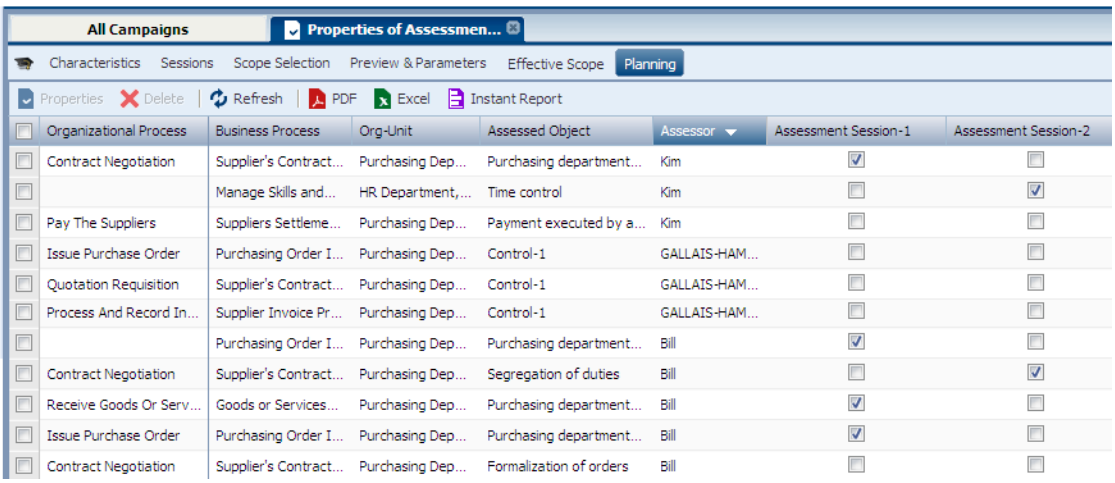
To plan the campaign:

1. In the properties of the assessment campaign, select the **Planning** tab.

   ☛ *The **Planning** tab is visible only when assessment sessions have been created.*

2. In the right pane, select the assessment sessions in which you want to assess which object in its context (process or entity for example).

   ☛ *If you don't see the previously created assessment sessions, click the **Refresh** button.*



☛ *Respondents are specified at step "Defining assessment campaign scope", page 659.*

Validating Assessment Campaigns

When you have planned the assessment campaign, you must validate it.

☛ *You must validate the campaign even if you have not deployed and scheduled it.*

The effect of assessment campaign validation is to freeze its parameters (for example scope or planning).

To validate the campaign:

- Click the campaign icon and select **Assessment Campaign (In Preparation) > Validate**.

You can now prepare start of assessment sessions. See "Creating a Session From a Campaign", page 661.

> ☛ *When the assessment campaign has been validated, you can no longer create assessment sessions. You can however validate the scope of assessment sessions after campaign validation.*

Creating a Session From a Campaign

You can create an assessment session from a campaign if the campaign is not started automatically.

> 🕮 *An assessment campaign enables creation and planning of several assessment sessions over a given time period.*
>
> ☛ *For more details, see: "Using Assessment Campaigns", page 658*

If an assessment template is connected to the campaign, the session is created from this template. Otherwise, you must specify the creation mode of the assessment session.

To create an assessment session from a campaign connected to an assessment template:

1. Open the properties page of the campaign and select the **Sessions** tab.
   A report on planning of sessions in progress appears at the top of the edit area.
2. In the **Assessment Session** section, click **New**.
   The session creation page appears.
3. Indicate the **Name** of the session.
4. The **Session Manager** is initialized with the name of the user that created the session, but this value can be modified.

   > ☛ ***Assessment Planned Begin Date*** *is fixed at today's date*
   >
   > ☛ ***Assessment Planned End Date*** *is fixed at the campaign end date*
5. Click **Next**.
6. Select the name of the entity (or process, depending on the assessment template used) from which the list of objects was established.
7. Click **Next**.
   A preview report of scope calculated for the session is presented for information.

   > ☛ *This window presenting the list of assessment session parameters remains accessible from the* ***Parameters and Preview*** *tab of assessment session properties.*
8. Click **OK**.

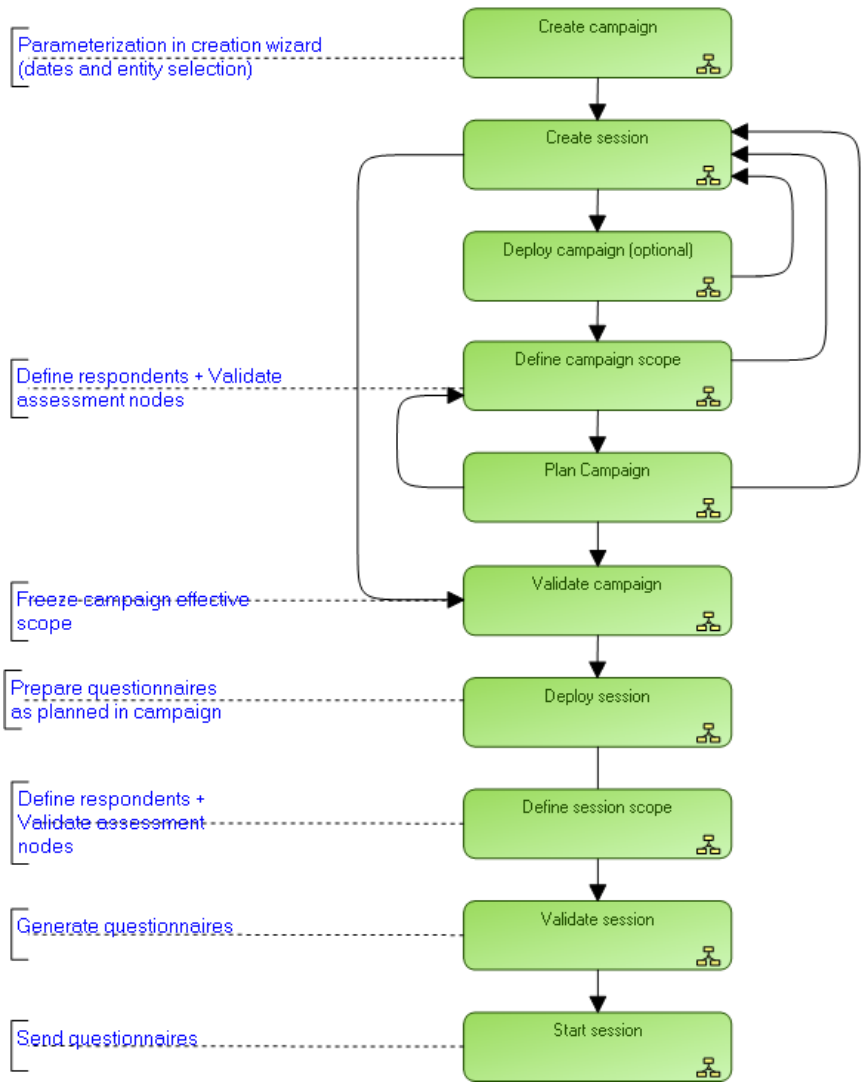
Having planned and validated your campaign, you can deploy assessment sessions created from the campaign.

Session deployment consists of preparing creation of questionnaires to users.

Steps of assessment workflow with campaign

Below is an example of progress of an assessment workflow in the context of starting sessions via a campaign.

It is the "step-by-step" workflow. There are other possibilities for assessment session workflow. For more details, see "Variations in the Launch of Assessment Sessions", page 639.



Standard Assessment Workflow

DIRECT ASSESSMENT

Direct assessment is an "expert view" assessment. It does not use the assessment sessions mechanism.

☛ *For configuration of direct assessment, see* *"Aggregation Schemas", page 100*.

Direct assessment context objects

Direct assessment is carried out for all context objects available in the **Scope** section of properties of the object to be assessed (for example an entity).

Assessing objects

To directly assess an object:

1. Open the properties of the object to be assessed.
2. Select the **Assessment** tab, then click **Assess**.
3. In the wizard that appears, select nodes to be assessed.

   📖 *An assessment node comprises:*

   - *an object to assess*
   - *one or several context objects (entity for example)*
4. Click **Next**.
   You can select values that characterize this contextualized object.

   ☛ *Other questions can be asked if your administrator has configured the questionnaire supplied as standard. For more details, see* *"Aggregation Schemas", page 100*.
5. Specify the measure date in the calendar.
   By default this is today's date.

   ☛ *You can select a date earlier than today's date.*
6. Click **OK**.
   Measures are created for each assessment node (ie. the object to be assessed in a particular context).

You can create several measures on different dates in the same way. As you create measures, the list can become lengthy. In this case, it can be useful to group measures by date in order to easily find those that interest you.

☛ *To group by date, click the arrow at extreme right of the header of the* ***Date*** *column and select* ***Group by this field***.

Modifying values specified at object assessment

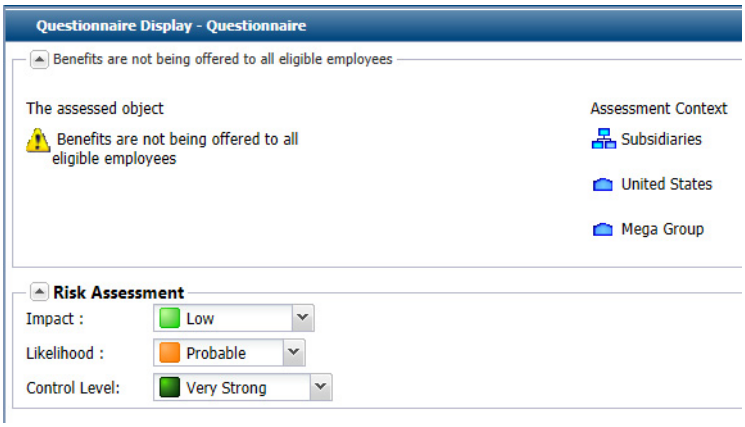
The manager can view answers entered by the respondent when performing direct assessment. He/she can also decide to modify values calculated from these answers if he/she considers them inappropriate.

To view answers used to calculate assessed characteristics values:

- In the **Assessment** tab of the assessed object properties, right-click the measurement that interests you and select **Display Node**.

  ☛ *This menu is not available in the context of multiple assessment.*

  Answers used as the basis for calculation of values appear. They are in read-only only.

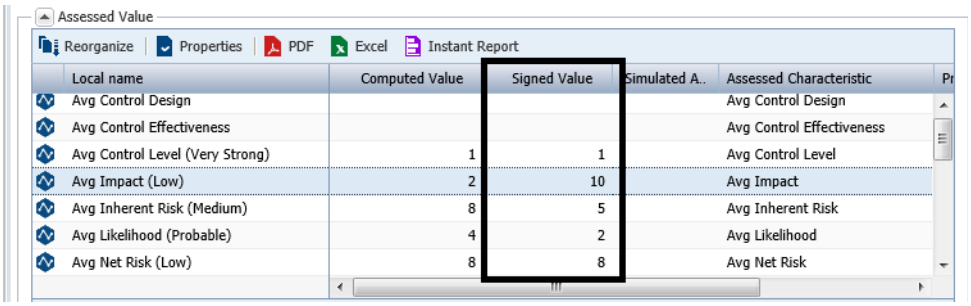


The responsible/manager can decide to modify values resulting from answers.

To modify assessed characteristics values:

1. Open the properties of the assessment you want to modify.
2. Modify values in the **Signed Value** column for each assessed characteristic value.
   These values replace values calculated from answers given by the respondent.

   ☛ *Initial values are visible in the **Calculated Value** column.*



☛ *The values specified in the **Signed Value** column are not used in reports supplied by default. You can however call a **MEGA** professional to include these values in your questionnaires.*

Assessing several objects simultaneously

If you have to assess several objects, it can be quicker to use the multiple assessment table. This table allows you to assign the same value to several assessment nodes of different objects.

An assessment node comprises:

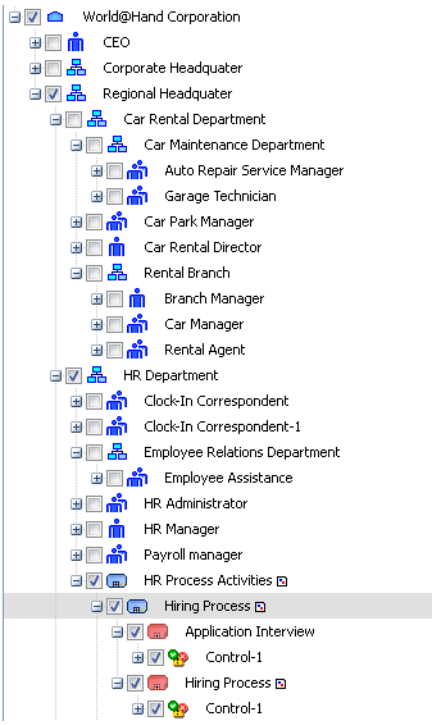
- *an object to assess*
- *one or several context objects (entity for example)*

Assessing several objects simultaneously

To assess several objects simultaneously:

1. In the solution concerned, click **Direct Assessment > Multiple Assessment Table**.
2. Click **Connect objects to evaluate**.
   The wizard that appears proposes for example a tree of entities to which are attached the assessed objects.

3. Select an entity.
   The tree expands automatically and allows you to select objects assessed ***in their context***.
   An object is assessed in the context of elements of the branch from the object up to the root.



*Example of tree proposed in **HOPEX Internal Control***

`In the above example, if you select the "Manage Human Resources" process, all controls and context objects located at a lower level are selected, as well as all parent context objects up to the tree root.`

> ☛ *If you deselect a node of a branch, only the child elements of this branch are deselected.*

4. Click **OK**.
   The list of objects to be assessed in a particular context appears.
5. Answer the questions asked.
6. When values have been specified, select the assessed nodes and click **Validate Assessment**.
7. Modify the effective measure date if necessary and click **OK**.

> ☛ *By default the measure date is today's date. You can select a date earlier than today's date.*

The effect of validation is to automatically create an assessment in the **Assessment** tab of the properties of the object to be assessed.

Assessing objects on different dates

You can at any time decide to assess objects that have already been assessed.

To reassess the objects in their context:

1. In the solution of the product concerned, select **Direct Assessment > Multiple Assessment Table**.
2. Click **Connect objects to evaluate**.
3. Select the same assessment nodes as those previously assessed.

   ☛ *For more details, see "Assessing several objects simultaneously", page 665.*

   A dialog box invites you to proceed with a new selection of objects to be assessed
4. Select **Yes**.
   The previous values corresponding to each assessment node are proposed.
5. Keep these previous values or modify them as required, then click **Validate**.
6. Enter a date for the new measure and click **OK**.
   The most recent measure values appear in the multiple assessment table.

The different measures appear in the **Assessment** tab of the properties of each assessed object.

Other Features

ENTERPRISE ARCHITECTURE (EA) PROJECTS IN HOPEX

HOPEX is used to define an enterprise architecture project and draw its scheduling diagram. A methodological framework for controlling enterprise architecture (EA) projects is provided.

> 🕮 *An EA project consists of a set of tasks entrusted to a team, which transforms a system or part of a system with the aim of achieving a given objective.*
>
> ☛ *The EA project is to be distinguished from the enterprise project, which has a wider scope. For more details on enterprise projects, see "Defining Enterprise Projects", page 589.*

The following points are covered here:

- ✓ "The Project Scheduling Diagram", page 672
- ✓ "Enterprise Architecture (EA) projects", page 676
- ✓ "Project Type and Methods", page 682
- ✓ "EA Project Creation Wizard", page 688

THE PROJECT SCHEDULING DIAGRAM

A scheduling diagram for enterprise architecture (EA) projects shows the sequencing of the different steps or the sequencing of projects with respect to each other.

The scheduling diagram is available with all the products in the **HOPEX** suite. It allows you to describe the sequencing of your organization, architecture, integration or development projects in conjunction with a formalized framework with a method.

Accessing Enterprise Architecture (EA) projects

To access the list of projects in the repository:

- With **HOPEX**, in the menu bar, select **View >Navigation Windows > Projects**.
- With **HOPEX Web Front-End** (EA desktop), from the main navigation window, select the **Repository** navigation pane, then **Projects.**
  The list of projects is accessible.

Opening a Project Scheduling Diagram

☛ *See "Accessing Enterprise Architecture (EA) projects", page 672.*

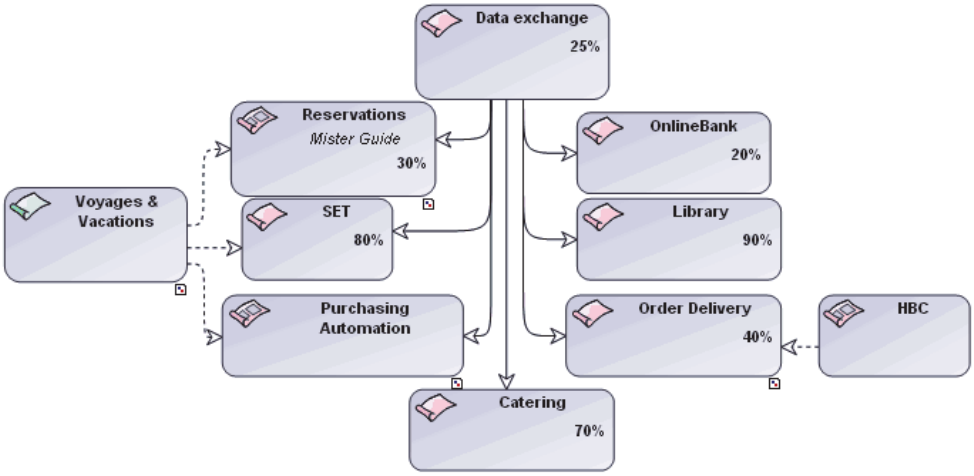
Open a diagram in the workspace

To access the diagram that describes an EA project:

- In the Projects navigation window, right-click the repository name and select **Scheduling Diagram**.

The project scheduling diagram appears.

Display an example



"Voyages and Vacations" project scheduling diagram

The sequencing order of projects is represented by solid lines.

In the example above, the "Data exchange" project is a prerequisite for the other projects.

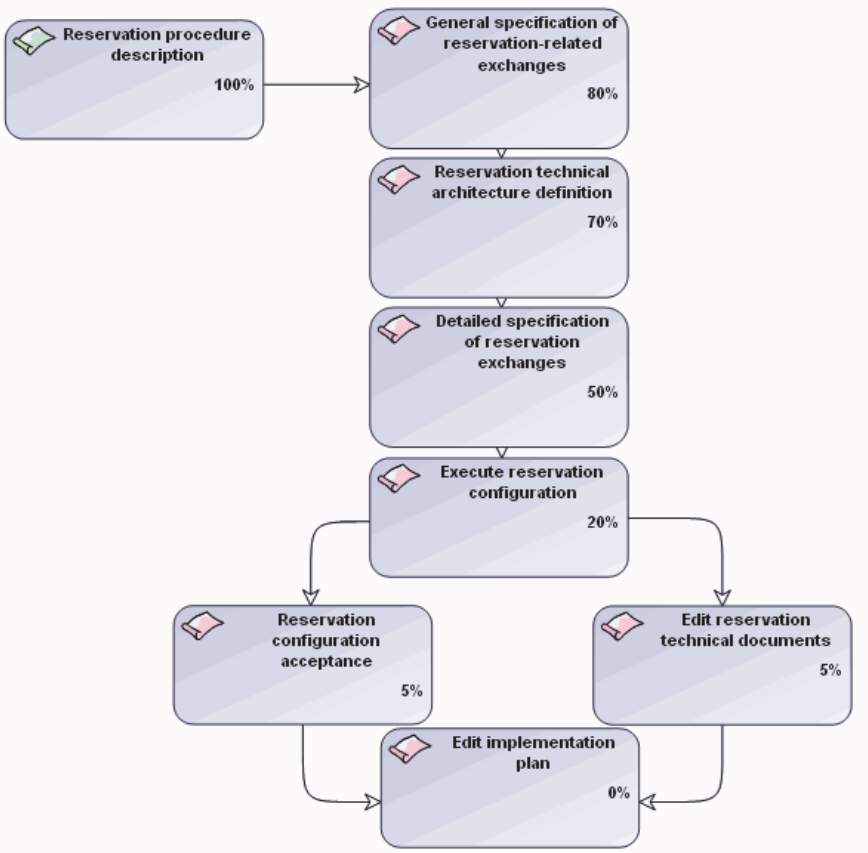
Splitting of a project into sub-projects is represented by dotted lines.

The "Voyages and Vacations" project comprises three sub-projects: "Reservations", "SET" and "Purchasing Automation".

Opening a diagram from another diagram

The "Reservations" EA project is itself described by a diagram. You can open the diagram from the pop-up menu of the project.

The "Reservations" project scheduling diagram appears.



"Reservations" project scheduling diagram

This diagram presents the various phases of the "Reservations" EA project with their progress percentage.

This diagram specifies that:

- description of reservation procedures is completed
- essentials of definition of technical architecture and general and detailed specifications have been carried out
- configuration has begun

Still to be carried out are acceptance and the editing of technical documents and deployment plan.

Creating a New Project Diagram

To create a new EA project diagram:

1. See "Accessing Enterprise Architecture (EA) projects", page 672.

2. Right-click the EA project icon and select **New > Project Scheduling Diagram**.
   An empty diagram opens.

ENTERPRISE ARCHITECTURE (EA) PROJECTS

An EA project consists of a set of tasks entrusted to a team, which transforms a system or part of a system with the aim of achieving a given objective.

Creating EA Projects

Creating an EA project from the navigator

*The **My Projects** folder presents projects linked to the user. You can drag-and-drop a project from the **Projects** folder to the user folder. A project created directly in the user folder will also automatically be created in the **Projects** folder.*

To create a project:

1. See "Accessing Enterprise Architecture (EA) projects", page 672.
2. Right-click the **Projects** folder and select **New**.
   The **Create an EA Project** dialog box appears.
3. Enter the **Name** of the project.
4. Click **OK**.
   The project is created and added to the list of projects in the menu tree.

*In the project creation wizard, you can choose to base your project on a project type and on a method. To do this, select **Next** instead of **OK**. For more details on the project creation wizard, see "EA Project Creation Wizard", page 688.*

A method represents a series of actions carried out to achieve a goal. A method is described by a series of phases.

Creating an EA project in a diagram

To create an EA project in a diagram:

1. In the insert toolbar, click **EA Project** .
2. Click in the diagram.
   The **Create an EA Project** dialog box appears.
3. Enter the name of the project.
4. Click **OK**.

Links Between Enterprise Architecture (EA) projects

Interconnecting EA projects

In a project scheduling diagram, you can easily interconnect different EA projects.

To interconnect EA projects

1. See "Accessing Enterprise Architecture (EA) projects", page 672.

2. In the insert toolbar of a project scheduling diagram, click the reel.
3. Click on the first EA project and, keeping the mouse button pressed down, draw a line to the second.

☛ *If the "Composition" view is activated, an intermediate dialog box appears in which you must select a link type. For more details, see "Splitting an EA project", page 677.*

The direction of the link is important. In the case above, the link indicates that "EA Project 1" precedes "EA Project 2".

If you draw the arrow in the wrong direction, you must delete the link.

To delete the link:

1. Right-click the link.
2. Click **Delete**.

Creating an EA project by linking it with other EA projects

To create a project linking it with two other projects:

1. Click **EA Project**.
2. Click on the first EA project and, keeping the mouse button pressed down, draw a line to the second.

The new EA project is created and connected to the two others.

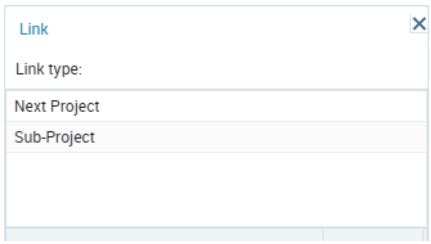
Splitting an EA project

To split a project:

1. Click .
2. In the dialog box that opens, select the **Splitting** check box then click **OK**.

☛ *See also "Resizing Objects in a Diagram", page 96, for more details on display of views.*

3. Draw a link between two sub-projects.
The **Create Link** page appears.



This offers a choice between a "Next Project" link which indicates a sequence between two projects, and a "Sub-Project" link which indicates splitting.

4. Select the "Sub-Project" link. A dotted arrow line is displayed between the two EA projects.

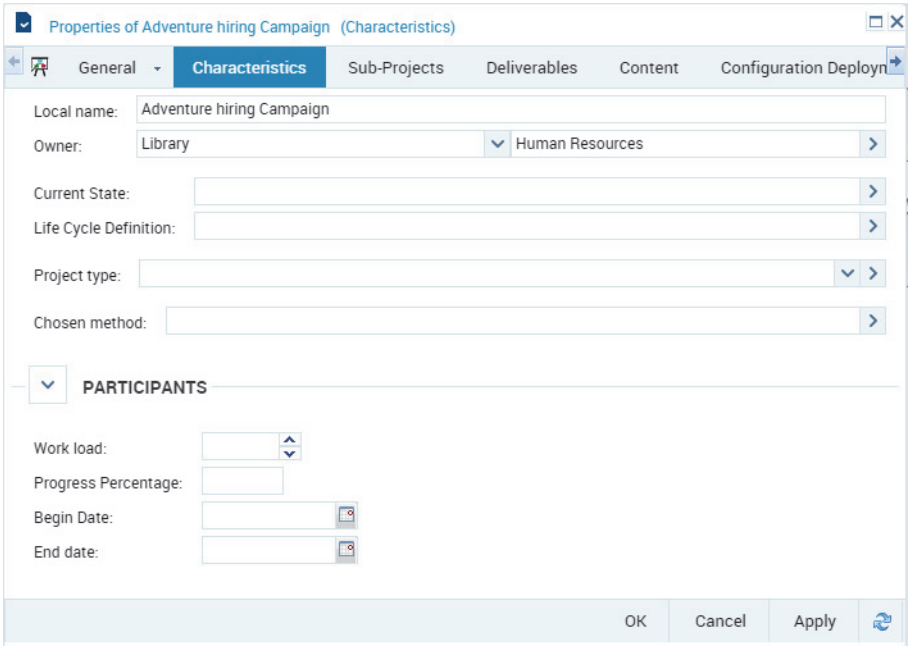
Describing an Enterprise Architecture (EA) Project

EA Project Characteristics

To specify the characteristics of an EA project:

1. See "Accessing Enterprise Architecture (EA) projects", page 672.

2. In the properties dialog box, select the **Characteristics** tab/page.



3. In the **Characteristics** tab you can modify the **Name** of the project and define:
   - the *project type* to which the project corresponds.

     An EA project type defines project typology such as description of a business process, mapping or development of applications, etc. A project type can be implemented using one or several methods.

     For more details on project types and methods, see "EA Project Creation Wizard", page 688.
   - The **Workload** necessary for execution of the project and its **Progress Percentage**.
   - Project start and end dates.

EA Project Content

In the EA project properties dialog box, from the **Content** tab/page, you must declare all objects that will be impacted by the EA project. These are objects that will be presented to the different project participants as the project progresses.

EA Project Participants

In the EA project properties dialog box, you can specify information concerning project participants.

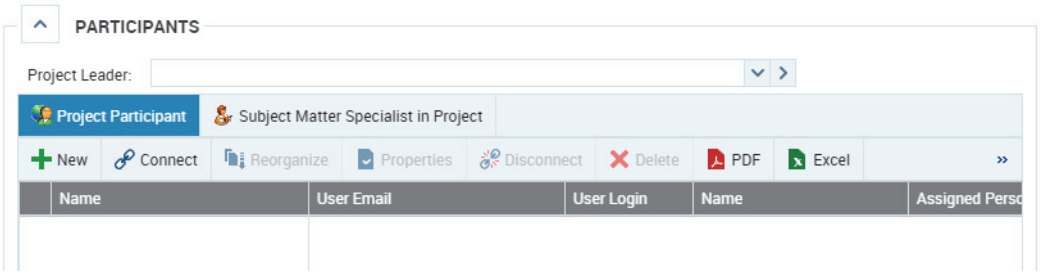
Participants are the project head, modeling participants and business specialists, who will validate modeled objects (such as capabilities or processes).

To specify main participants of the EA project:

1. In the properties page of the project, select the **Characteristics** tab/ page and expand the **Participants** section.

There are three types of participant:

- The **Project Head**, who is responsible for the project and executes the following tasks:
  - Identifies the different project org-units: **project participants**, **owners**, **business specialists**.
  - Assignment of participants in project steps.
  - The project head is responsible.
  - Project status management.
  - Evolution project creation.
- The **Project Participant** is a generic role enabling assignment of a user to a project.
- The **Business Specialist** assigned to the project is the main user of the solution. Intervenes on the process architecture at each project phase.



EA Project Objectives and Requirements

Project objectives are specific to a project, for example: "Project duration must not exceed six months" or "Project must implement an Agile method".

> 🕮 *An objective is a goal that a company or organization wants to achieve, or is the target set by a process or an operation. An objective allows you to highlight the features in a process or operation that require improvement.*
>
> ☛ *For more details on the use of project objectives and requirements, see report "Objectives and Requirements", page 693.*

Project requirements are the constraints imposed, for example: "Project must be executed using new version of Visual Studio" or "Project must be executed without intervention of external company".

> 🕮 *A requirement is a need or expectation explicitly expressed, imposed as a constraint to be met within the context of a project. This project can be a certification project or an organizational project or an information system project.*

The objectives and requirements assigned to a project should be distinguished from objectives and requirements assigned to capabilities, processes and applications handled by the project (which appear in the project **Content** tab).

To specify objectives and requirements assigned to an EA project:

1. See "Accessing Enterprise Architecture (EA) projects", page 672.

2. Ensure that the **Objectives and requirements modeling** option is selected.

   ☛ *You can access this via:*

   - *(**Windows Front-End**) **Tools > Options > Business Process and Architecture Modeling**)*
   - *(**Web Front-End**) **Main Menu > Settings > Options > Business Process and Architecture Modeling**)*

3. In the project properties dialog box, select the **Objectives and Requirements > Objectives and Requirements** tab/page
4. Specify the links **Assigned Objective** and **Imposed Requirement**.

PROJECT TYPE AND METHODS

HOPEX proposes functions simplifying the management of enterprise process and architecture modeling projects.

An EA project can be built based on a project type. Each project type is connected to at least one method, which describes the phases of project implementation.

> 🕮 *An EA project type defines project typology such as description of a business process, mapping or development of applications, etc. A project type can be implemented using one or several methods.*
>
> 🕮 *A method represents a series of actions carried out to achieve a goal. A method is described by a series of phases.*
>
> 🕮 *A phase is an operational activity that participates in production of the deliverables of the approach. It can be an activity related to production, verification, delivery, etc.*
>
> ☛ *For more details on the creation of projects from a project type and method, see "EA Project Creation Wizard", page 688.*

Accessing EA project types and methods

To access enterprise architecture (EA) projects

- (**Windows Front-End**) In the **View** menu, click **Navigation Windows > Methodology**.
- (**Web Front-End**, enterprise architecture desktop) From the navigation window, select **Repository** then **Methodology**.

The Phase Scheduling Diagram

A phase scheduling diagram describes sequencing of the different phases of a method.

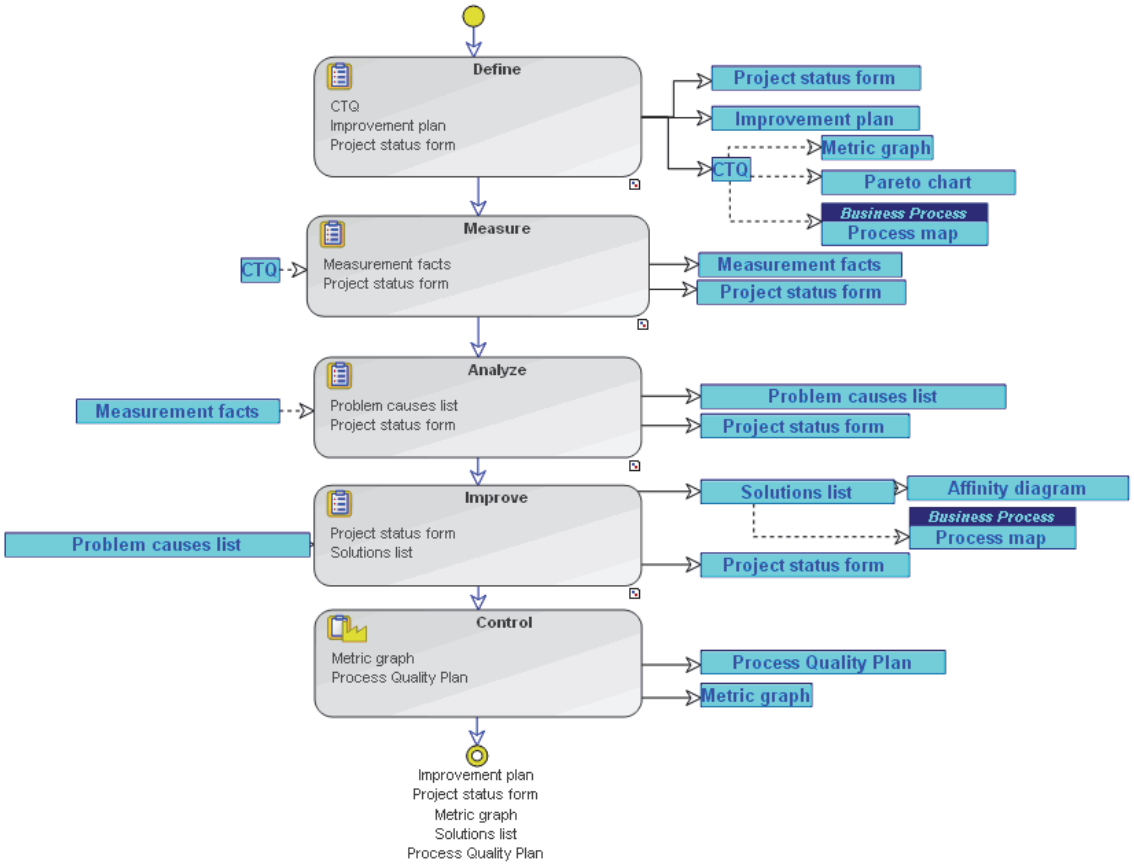
> 🕮 *A method represents a series of actions carried out to achieve a goal. A method is described by a series of phases.*
>
> 🕮 *A phase is an operational activity that participates in production of the deliverables of the approach. It can be an activity related to production, verification, delivery, etc.*

Accessing the Phase Scheduling Diagram

To access the diagram that describes a method:

1. See "Accessing EA project types and methods", page 682.
2. Expand the "Methods" folder.

3. Right-click the "Six Sigma" method for example, and in its pop-up menu, select **Phase Scheduling Diagram**.
The phase scheduling diagram opens.



"Six Sigma" Method Phase Scheduling Diagram

It presents the sequencing order of phases and the deliverables expected at input and output of each of these phases.

```
In the example above, the first phase of the method is
"Define" and the output deliverables of this phase are
"Project Status Form", "Improvement Plan" and "CTQ".
```

☛ *A phase sequencing diagram can be represented in standard notation or in BPMN notation, depending on the **Method Graphical Notation** defined in the **Characteristics** tab/page of a method.*

Phase Properties

📖 *A phase is an operational activity that participates in production of the deliverables of the approach. It can be an activity related to production, verification, delivery, etc.*

To access phase properties:

1. In its properties dialog box, click the **Characteristics** tab/page.
   The following appears:
   - the **Phase Type** (for example, "Production"),
   - the optional character of the phase,
   - the **Implementing Method** list, used to provide the project manager, at project creation, with a list of implementation methods for this phase.

     ☛ *You can for example consult the list of methods implemented in the "Business Process Mapping" phase. For more details on phase splitting, see "Splitting phases", page 686.*
2. Select the **Details** tab/page to determine the list of sub-phases making up the phase.

   ☛ *For more details on phase splitting, see "Splitting phases", page 686.*
3. Select the **Resources** tab/page to determine the list of resources required to execute the phase.

   ☛ *For more details, see "Phase Resource", page 684.*
4. Select the **Deliverables** tab/page to determine the list of deliverables used and produced by the phase.

   ☛ *For more details, see "Phase Deliverable", page 684.*

Phase Resource

In **HOPEX**, phase resources can be of different types: "Skill", "Software", "Documentation" or "Training", for example.

To specify phase resource type:

1. Open the properties dialog box of the phase and select the **Resources** tab/page.
   The list of resources required for execution of the phase is displayed.
2. Right-click a resource and open its properties dialog box.
3. Select the **Characteristics** tab/page and select the **Resource Type**.
4. Click **Finish**.

Phase Deliverable

🕮 *A deliverable is an element produced, modified or used by a phase or method (example:*

A *deliverable* enables specification of the list of elements expected at input or output of a phase. In **HOPEX**, these deliverables can be represented by objects of different types:

- a **Report Template**
- a **Report Template (MS Word)**
- a **Book**
- a **Diagram**
- an **External Reference**
- a **Business Document**

☛ *The list of deliverables expected at phase input or output is accessed from the **Deliverables** tab of the phase properties dialog box.*

For more details on phase properties, see "Phase Properties", page 683.

Methods

A *method* is described by a phase scheduling diagram, but also by links between these *phases*, by *deliverables* and resources.

> 🕮 *A method represents a series of actions carried out to achieve a goal. A method is described by a series of phases.*
>
> 🕮 *A phase is an operational activity that participates in production of the deliverables of the approach. It can be an activity related to production, verification, delivery, etc.*
>
> 🕮 *A deliverable is an element produced, modified or used by a phase or method (example:*

Creating a method from the navigator

To create a method from the navigator:

1. See "Accessing EA project types and methods", page 682.
2. In the **Methodology** navigation window, right-click the "Methods" folder and select **New > Method**.

   > ☛ *The "Methods" folder contains all methods included in the repository.*

   The **Creation of Method** dialog box appears.
3. Enter the **Name** of the method.
4. Click **OK**.
   The method is created and added to the list of methods.

Creating a phase in a method

You can create a phase in a method from the navigator:

- In the **Methodology** navigation window, right-click the method and select **New > Phase**.

To create a phase in a method from the phase scheduling diagram:

1. Depending on the type of phase you want to create, click one of the following buttons in the objects toolbar: **Begin** , **Production** , **End** , **Verification**, **Delivery** or **Milestone**.
2. Click in the diagram.
   The **Creation of Phase** dialog box appears.
3. Enter the name of the phase.
4. Click **Finish**.

Links between phases

In a phase scheduling diagram, you can easily interconnect different phases.

To connect projects:

1. In the insert toolbar of a phase scheduling diagram, click the reel.

2. Click the first phase and, keeping the mouse button pressed down, draw a line to the second.

> ☛ *If the "Sub-Phases" view is activated, an intermediate dialog box appears in which you can select a link type. For more details, see "Splitting phases", page 686.*

Splitting phases

To split a phase:

1. In the phase scheduling diagram, click .
2. In the dialog box that opens, select the **Sub-phase** check box, then click **OK**.
3. Draw a link between two phases.
   The **Create Link** page appears.
   It prompts you to choose between:
   - the "Next Phase" link that specifies a sequence between two phases
   - the "Sub-Phase" link that specifies a sub-phase.
4. Select the "Sub-Phase" link. A dotted arrow line is displayed between the two phases.

> ☛ *The list of sub-phases of a phase is accessed from the **Details** tab/ page of the phase properties dialog box.*
>
> ☛ *For more details on creating projects from a method, see "EA Project Creation Wizard", page 688.*

Adding a participant to a method

To graphically specify the participants in phase implementation, you can insert participants in the diagram.

To create a participant:

1. In the phase scheduling diagram, click and click in the diagram.
   The participant appears in the diagram.
2. Click the name "Participant", press key <F2> and change the name of the participant.

To assign a phase to a participant:

- Position a phase within the frame of the participant.
  The frame of the participant is highlighted.

> ☛ *When positioned, the phase is connected to the participant, which indicates that this participant executes this phase.*

Enterprise Architecture (EA) Project Types

A *method* can be implemented in an EA project by using a *project type*.

> 🕮 *An EA project type defines project typology such as description of a business process, mapping or development of applications, etc. A project type can be implemented using one or several methods.*
>
> ☛ *For more details on creation of projects from a project type and a method, see "EA Project Creation Wizard", page 688.*

Accessing an EA project type

To access properties of a project type:

1. "Accessing EA project types and methods", page 682
2. In the **Methodology**navigation window, expand the "EA Project Type" folder.
3. Display the properties of an EA type project and click on the **Methods** tab/page.
   The list of methods proposed to implement this EA project is displayed.
4. Select the **Complements** tab/page to view the list of AE project contexts.

   *An **EA project context** can be an EA project type, a method or an EA deliverable.*

Creating an EA project type

To create a project type from the navigation window:

1. In the **Methodology** navigation pane, right-click the "EA Project Type" folder and select **New > EA Project type**.
   The **Creation of an EA Project Type** dialog box appears.
2. Enter its name.
3. Click **OK**.
   The project type appears in the list.

EA Project Creation Wizard

HOPEX offers an enterprise architecture project creation wizard, making the best working method possible available to project teams.

Creating an EA Project with the Wizard

Use the EA project creation wizard to:

- select the *method* adapted to your needs.

  > 🕮 *A method represents a series of actions carried out to achieve a goal. A method is described by a series of phases.*

- automatically initialize the structure of your project from *phases* specified in the method, associated resources and deliverables to be produced.

  > 🕮 *A phase is an operational activity that participates in production of the deliverables of the approach. It can be an activity related to production, verification, delivery, etc.*

This wizard can be of particular value for deployment of the EA projects in your enterprise.

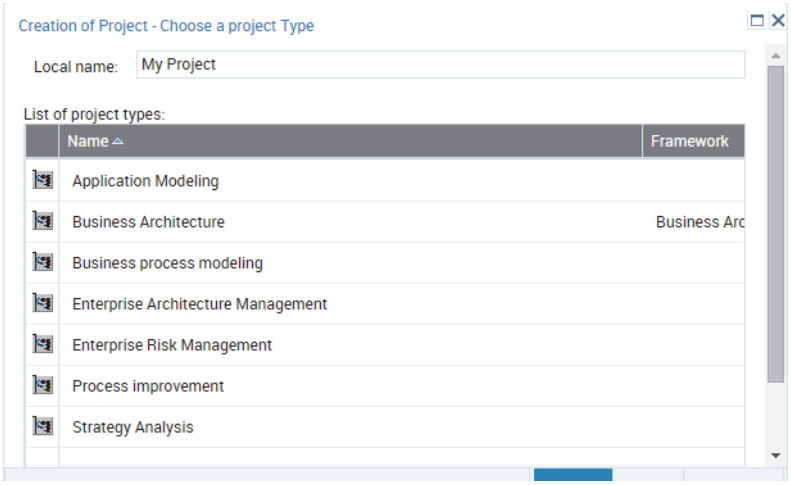
To benefit from assistance in creation of your project:

1. See "Accessing Enterprise Architecture (EA) projects", page 672.
2. From the **Projects** navigation pane, create a project.
   A wizard starts. This lets you create the project menu tree and a project sequence diagram. It links the project and its sub-projects to the corresponding *methods* and *phases*.

3. Indicate a **Name** for the project and click **Next**.

   ☛ *If you do not wish to take advantage of assistance in creation of your project, click directly on **OK**.*

   The next dialog box allows you to select a **project type**.



4. For example, select "Business Process Modeling".

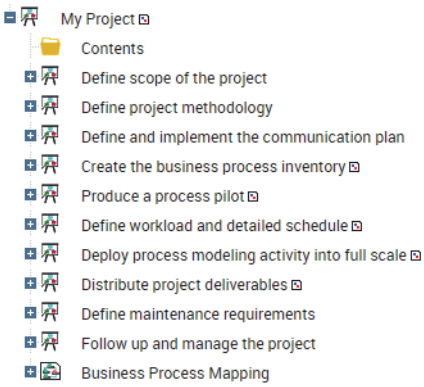
   ☛ *You need not necessarily select a project type.*

5. Click **Next**.
   The next dialog box proposes a list of methods. This list is restricted depending on the previously selected project type.

   ☛ *For more details on the list of methods implemented in a dictionary graph diagram, see "Accessing an EA project type", page 687.*

6. For example, select "MEGA::Business Process Mapping".

7. Click **OK**.
   The wizard creates as many sub-projects as there are phases in the selected method. If a phase is supported by just one method, the sub-project structure is also created.
   For each phase supported by several methods, the wizard automatically proposes the selection of possible methods.
   When the project has been created, it contains as many sub-projects as there are phases in the method.



Using the Wizard on an EA Sub-Project

If a sub-project is associated with a phase that can be implemented by several methods, you can use the wizard to initialize the sub-project.

To run the wizard on a sub-project:

1. Select **New > Create sub-projects from a method**.
   The wizard proposes methods available at this stage.
2. Select a method and click **Finish**.

Modifying EA Projects

To modify an EA project:

1. Open the project properties dialog box and select the **Sub-project** tab.
   The list of sub-projects appears.
2. You can delete or add sub-projects.

Accessing Help at Each EA Project Stage

In the project editor or in the project properties dialog box, you can obtain help at any time when this is linked to a phase and/or method.

Explanations are provided as a function of the method and/or phase indicated in the project properties dialog box. These explanations appear in the **Method** tab. Example of information given: what deliverables should be produced, what skills are required?

When you modify methodological type information concerning the project (its method or phase for example), this tab is automatically updated.

OBJECTIVES AND REQUIREMENTS

HOPEX is used to define objectives for each enterprise architecture or modeling project. Indicators grouped in a dashboard enable evaluation of the extent to which these objectives are achieved. Project requirements can also be specified.

☛ *To access the features offered for objectives and requirements, you must ensure that the **Objectives and requirements modeling** option is checked (**Options > Business process and architecture modeling**).*

✓ "Objectives, Indicators and Requirements", page 694

✓ "Objective and Requirement Diagram", page 698

✓ "Cause-and-Effect Diagram", page 701

OBJECTIVES, INDICATORS AND REQUIREMENTS

Reminder: Objective, Indicator and Requirement

An objective is a goal that a company or organization wants to achieve, or is the target set by a process or an operation. An objective allows you to highlight the features in a process or operation that require improvement.

☛ *The objective is to be distinguished from the enterprise object, which is a quantifiable result that a company or organization wishes to achieve for a given enterprise phase.*

An indicator is a measure of achievement of an objective, impact of a risk factor, frequency and impact of a risk, effectiveness of a control, etc.

A requirement is a need or expectation explicitly expressed, imposed as a constraint to be met within the context of a project. This project can be a certification project or an organizational project or an information system project.

Objectives

📖 *An objective is a goal that a company or organization wants to achieve, or is the target set by a process or an operation. An objective allows you to highlight the features in a process or operation that require improvement.*

An objective can be quantitative (directly measurable), or it can be qualitative.

- Reduce order delivery time (quantitative objective)
- Improve product quality (qualitative objective)
- Improve customer satisfaction (qualitative objective)

To specify the objective(s) of the EA project:

1. In the properties dialog box of the project, select the **Objectives and Requirements** tab and select the **Objectives and Requirements** sub-tab.
   You can define:
   - **Achieved Objective**: objective(s) achieved by the project, without necessarily having been initially assigned. Can be owned by another object, for example a process improvement objective.
   - **Assigned Objective**: objective to which the project must respond, specific to the project.

Indicators

☛ *An indicator is a measure of achievement of an objective, impact of a risk factor, frequency and impact of a risk, effectiveness of a control, etc.*

For the quantitative objectives, the indicator(s) are generally easy to find.

To assess to what extent qualitative objectives are achieved, specific indicators may need to be created.

Indicators are used to ensure that the solution proposed meets set objectives and is viable in the long term.

Examples of indicators

Objective	Type	Indicators
Reduce order delivery time	Quantitative	Order delivery time
Improve quality of the product	Qualitative	Number of anomalies indicated by customers
Improve customer satisfaction	Qualitative	Percentage renewal of maintenance associated with products Return rate of products on loan

Accessing indicators

To specify the indicators associated with a project:

- In the properties dialog box of the project, select the **Supervision > Supervision** tab.

  ☛ *To display the indicators in the properties window of an objective: open the **HOPEX** options window, select the **Business Process and Architecture Modeling** folder, to the right of the window, select **Supervision**.*

To specify indicators associated with an objective:

- In the properties dialog box of the objective, select the **Indicators** tab.

Dashboard

To ensure control of the enterprise, it is necessary to group the relevant indicators in a dashboard.

A dashboard enables preparation of a list of objectives and indicators required for control of an enterprise business process, application or org-unit such as a service.

The dashboard concept can be accessed in the properties dialog box of the main objects used in project control:

- Business Processes and Organizational Processes
- Org-unit
- Application.

Requirements

> ☛ *A requirement is a need or expectation explicitly expressed, imposed as a constraint to be met within the context of a project. This project can be a certification project or an organizational project or an information system project.*

Requirement management is the set of activities enabling confirmation that the specifications and therefore the requirements of the client are satisfied.

Requirements are constraints that significantly influence the EA project. Any solution proposed to achieve the objective must satisfy the imposed requirements.

Creating a requirement from a Project

To create a requirement:

1. In the properties dialog box of the project, select the **Objectives and Requirements** tab and select the **Objectives and Requirements** sub-tab.
2. Right-click the **Imposed requirement** folder and select **New**.
3. In the creation of requirement dialog box, enter the name of the requirement and click **OK**.

Defining properties of the requirement

Requirement type

There are several types of requirement:

- Organizational
- Client expectation
- System
- Technical
- Business
- Legal or regulatory

> ☛ *According to standard ISO 9000: 2015, "a requirement is a stated need or expectation, normally implicit, or imposed". Standard ISO 9000 highlights "client expectations" but in the context of a project, other requirements should be considered.*

In a diagram, the type is indicated in the form of requirement.

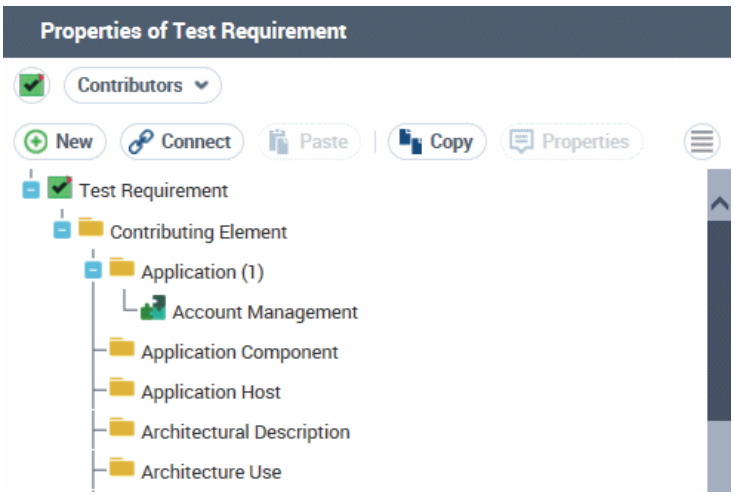
Requirement priority

Priority can be:

- Low
- Medium
- High

Satisfaction of the requirement

A process, operation, application, service, etc., can ***contribute*** to satisfaction of a requirement.



OBJECTIVE AND REQUIREMENT DIAGRAM

The objective and requirement diagram explains the connection between:

- elements concerned by an objective or constrained by a requirement.
- elements that contribute to achievement of an objective or satisfaction of a requirement.

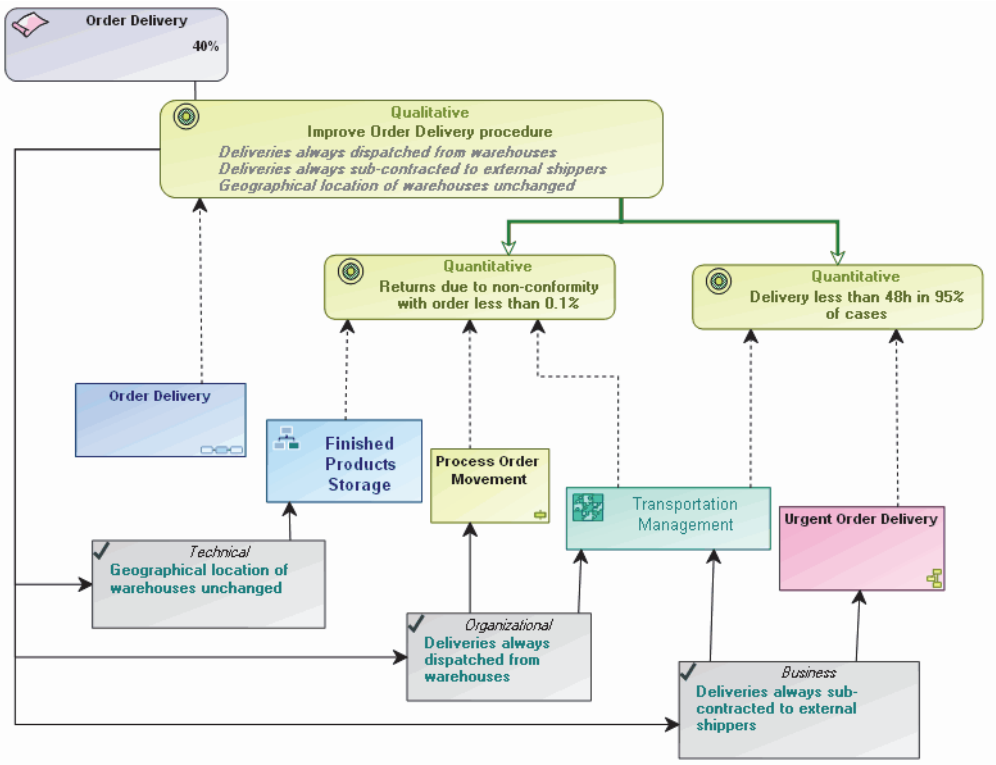
Creating a project objective and requirement diagram

To create a project objective and requirement diagram with **HOPEX Web Front-End** :

1. In the pop-up menu of the project, select **New >Project Objective and Requirement Diagram**.

   ☛ *To create the objective and requirement diagram of a project with**HOPEX Windows Front-End,** open the pop-up menu of the project and select **New > Diagram**. Select "Project Objective and Requirement Diagram" and click **Create**.*

Here is an example of a diagram:



The objective of the Order Delivery project is to improve the order delivery procedure. This qualitative objective is

too vague to be operational. So it is split into two sub-objectives that have the advantage of being quantifiable.

The first objective is to ensure delivery in less than 48 hours in 95% of cases.

The "Urgent Order Delivery" organizational process and the "Transportation Management" application are the main potential contributors to achievement of this first objective.

The second objective is concerned with preserving the operational quality of the order-delivery procedure. Finished Products Storage must assure conformity of the delivery with respect to the order, particularly when processing movement orders. The indicator used to verify efficient operation is the rate of returns due to non-conformity with the order. The aim is to contain the return rate at below 0.1%.

The Project Manager's room for maneuver is restricted by a certain number of requirements that were assigned at the start of the project.

geographical distribution of warehouses cannot be modified for this project. This requirement applies to finished products stores located in the warehouses.

The second requirement is an organizational choice: deliveries always leave from depots. This should be taken into account when processing movement orders using the Transportation Management application.

The third is an enterprise choice: delivery is always sub-contracted to outside shippers since the company wishes to concentrate on its core business and does not want to disperse its energies in related activities. This requirement should be respected in reorganization of the "Urgent Order Delivery" organizational process and in modifications to the Transportation Management application.

Creating the requirement diagram of an objective

To create the requirement diagram of an objective:

- In an objective and requirement diagram, right-click an objective and select **New > Objective Requirement Diagram**.

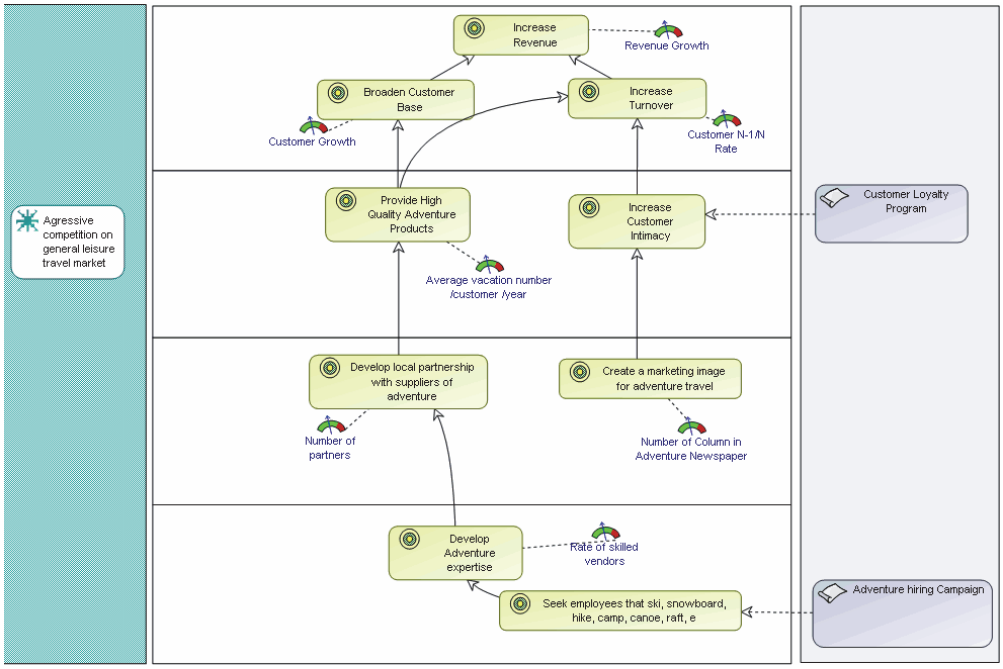
Issues

The *objectives* can be connected to issues to indicate the reason for which they are implemented in the organization strategy.

> 🕮 *An issue is an event or a difficulty encountered within the context of a process, an application or an enterprise strategy. Issues are dealt with in the framework of projects according to objectives aimed at resolving them.*

Perspectives

Perspectives enable classification of objectives by type, and representation of the sequencing of these objectives.



Example of diagram with Balanced ScoreCard perspectives

HOPEX provides a library (in file BSC.mol) that includes the four strategic perspectives proposed by the balanced scorecard. New perspectives can be created, for example "Regulatory" or "Environmental", according to requirements of the enterprise.

> *A perspective is one of the dimensions on which an enterprise bases its vision and strategy. The Balanced Scorecard includes four perspectives that should be balanced: Financial, Customer, Internal Business Process and Learning and Growth.*

To view perspectives:

- In the properties dialog box of the project, select **Objectives and Requirements**.

A perspective can be placed in a swimlane to improve diagram graphical presentation.

For more details on swimlanes, see "Using Swimlanes", page 103.

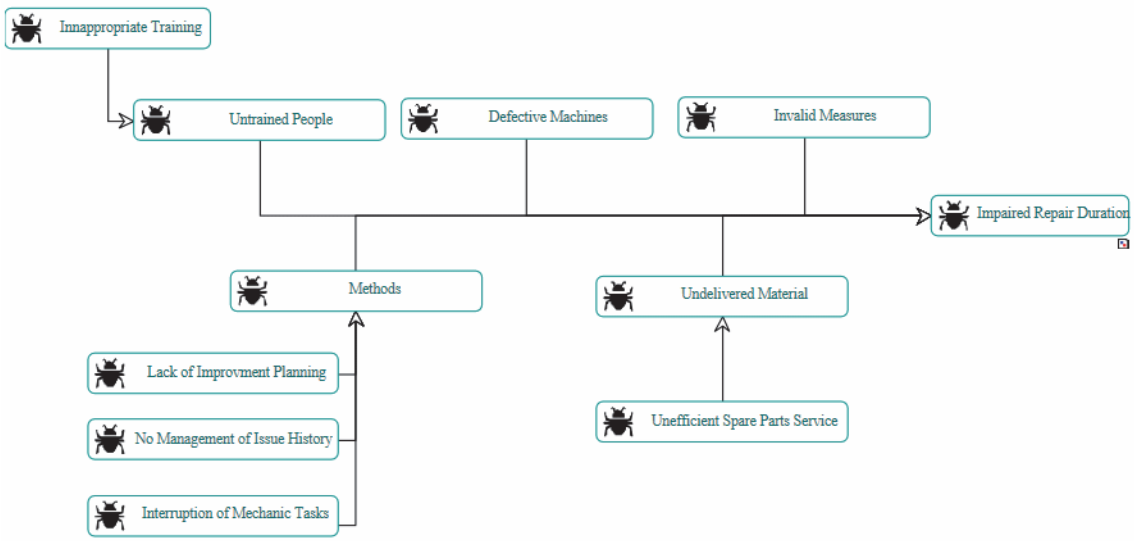
CAUSE-AND-EFFECT DIAGRAM

To facilitate decisions in a strategic analysis context or in the case of business process improvement, it is necessary to go back to the source of the issues we are seeking to solve.

The cause-and-effect diagram (also called Ishikawa diagram or fishbone diagram) is a tool that enables identification of the possible causes of an observed effect and therefore determination of a means of solving the issues.

The cause-and-effect diagram is particularly useful for displaying the results of brainstorming sessions.

Having drawn a cause-and-effect diagram, it is possible to determine objectives and to carry out projects to solve the identified issues.



Example of cause-and-effect diagram

Creating an Issue From an EA Project

To create an issue from an enterprise architecture project:

1. In the **Projects** navigation pane, right-click the repository name and select **New > Issue**.
   The issue creation page appears.
2. Enter the **Name** of the problem.
3. Click **OK**.

Properties of an Issue

❱ Open an issue properties dialog box.

You can best define the problem using its characteristics.

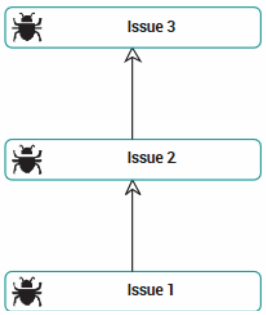
Issue type

Issue can be classified by **Issue type**:

- Machine
- Material
- Measurement
- Method
- Person

Issue causes and effects

Consider the sequencing of the following issue:



"Issue 2" has "Issue 1" as its cause and "Issue 3" as its effect.

Issue repercussions and solutions

The **Repercussion** tab of the issue properties dialog box allows you to view which objects are affected by the issue.

The **Solution** tab of the issue properties dialog box allows you to specify objectives to be set as well as the projects that will enable solution of identified issues.

Creating a Cause-Effect Diagram from a Problem

To create a cause-and-effect diagram:

1. In the **Projects** navigation pane, right-click the repository name and select **New > Issue**.
   The issue creation page appears.
2. Enter the **Name** of the problem.

3. Click **OK**.
4. In the workspace, select **View > Navigation Windows > Diagrams**.
5. In the **Diagrams** navigation window, right-click the "Cause-and-Effect Diagram" folder and select **New > Diagram**.
   The **Create Cause-and-Effect Diagram** dialog box opens.
6. In the "Described object" text box, select or create an **Issue** using the arrow.
7. Click **OK**.
   To open the diagram, you can double-click the newly created diagram icon.

Three object types are available by default in a cause-and-effect diagram: Issue, Objective and Requirement.

> ☛ *Issues can be attached to most objects: processes, activities, operations, applications, services, etc.*

In this type of diagram, the issues are sequenced by cause to effect links.

Defining the Environment for Solutions

This chapter describes how to define the environment used in the following solutions: **HOPEX Enterprise Risk Management**, **HOPEX LDC**, **HOPEX Internal Audit**, **HOPEX Internal Control**, **HOPEX Compliance.**

☛ *Certain types of environment objects or characteristics presented cannot be used in all solutions.*

The **environment** structures how risks are viewed and addressed by organization collaborators, more particularly risk management philosophy and risk appetite, and the environment in which the organization operates. At this stage it is possible to determine:

- ✓ an inventory of what exists in the enterprise (processes, entities, control systems, responsibilities, applications)
- ✓ the list of strategic objectives of the organization and the associated requirements
- ✓ internal environment data assuring risk management.

Elements associated with the **Environment** desktop offer all users a global view of the organization. However, only certain profiles have the right to create or modify elements presented.

- ✓ "Libraries", page 706
- ✓ "Organization", page 707
- ✓ "Risks and Controls", page 713
- ✓ "Regulatory Environment", page 719
- ✓ "Financial Data", page 723
- ✓ "Enterprise Assets", page 725
- ✓ "RACI", page 728

LIBRARIES

Libraries are collections of objects used to split MEGA repository content into several independent parts. Two objects owned by different libraries can have the same name.

To manage libraries:

- Depending on the HOPEX solution, select the desktop or the **Environment** navigation tab then **Libraries**.

☛ *For more details on libraries, see "Enterprises and libraries".*

ORGANIZATION

Organization of the enterprise is based on its major components, which are:

- processes

  A business process represents a system that offers products or services to an internal or external client of the company or organization. At the higher levels, a business process represents a structure and a categorization of the business. It can be broken down into other processes. The link with organizational processes will describe the real implementation of the business process in the organization. A business process can also be detailed by a functional view.

  An organizational process describes how to implement all or part of the process required to make a product or handle a flow.

- entities

  An entity can be internal or external to the enterprise: an entity represents an organizational element of enterprise structure such as a management, department, or job function. It is defined at a level depending on the degree of detail to be provided on the organization (see org-unit type). Example: financial management, sales management, marketing department, account manager. An external entity represents an organization that exchanges flows with the enterprise, Example: customer, supplier, government office.

- business lines

  A business line is a skill or grouping of skills of interest for the enterprise. It corresponds for example to major product segments, to distribution channels or to business activities.

- sites

  A site is a geographical location of an enterprise. Examples: Boston subsidiary, Seattle plant, and more generally the headquarters, subsidiaries, plants, warehouses, etc.

  ☛ *the sites are described in **HOPEX IT Risk Management** for information purposes only. They are used in **HOPEX IT Portfolio Management**.*

These components are presented in trees.

To access these components:

1. Select **Environment > Organization > Hierarchical View**.
   Trees enable access to:
   - process
   - entities
   - organization business lines
2. Select an object in the tree that interests you.
   The properties dialog box of the object appears on the right.
3. Specify properties or connect context objects.

Processes

To access the business processes tree:

- In the **Environment** desktop, select **Organization > Hierarchical View > All processes**.
  If you expand the folder of a process, you can display the sub-processes owned by the current process.

  ☛ *The list of processes owned by a process is accessible in the properties page of the process, in the **Characteristics** tab, section **Sub-Processes**.*

Process types

Available process types are:

- Business processes
- organizational process

The type is requested at creation of the process. The two types are distinguished by different icons in the trees and lists.

Business process

A business process enables description of what an enterprise does, ie. its business. It answers the question, "What?". It is essentially described by flow exchanges between the various activities of the enterprise.

Organizational process

An organizational process describes how to implement all or part of the process required to make a product or handle a flow.

Process characteristics

To access characteristics of a process:

- Expand the **Characteristics** section of the properties pane of the of the process that interests you.

Business process control is the responsibility of persons with different functions.

- the **Owner** is responsible for global operation of the process in terms of effectiveness, profitability and security,
- the **Responsible** person takes decisions concerning evolution of the process, and informs on progress,
- the **Risk Assessor** is consulted when an action relating to risks is planned or executed on the process.

  ☛ *The **Risk Assessor** field is available only with the solutions **HOPEX Enterprise Risk Management** and **HOPEX Internal Control**.*

To specify business process control responsibilities:

1. In the properties dialog box of a business process, select the **Characteristics** tab.
2. Position the mouse on the **Owner** field for example and enter the first letters of the name.

3. Click the arrow at the right of the field and select **List Persons**.
The name of the selected person appears in the field.

   A person is defined by his/her name and electronic mail address. The person can access an application after assignment of a connection identifier. One or several business roles can also be assigned.

4. When completed, click **Save** or select another tab in the properties dialog box to carry out further modifications.

Scope section of a process

A process can be linked to different component types.

- **Entities** that intervene in the process framework. For more details, see "Entities", page 709.
- **Business Lines** that use the process services. For more details, see "Organization Business Lines", page 711.
- **Risks** that relate to the process. For more details, see "Risks", page 713.
- **Controls** that relate to the process. For more details, see "Controls", page 716.
- **Incidents**
- **Action Plans**
- **Regulations** For more details, see "Regulations", page 719.
- **Control Systems**

Other sections of a process

The properties page of a process presents the following sections:

- **RACI**: to present the persons responsible for the process. For more details, see "RACI", page 728.
- **Objectives and Requirements**: for more details, see "Objectives and Requirements", page 720.
- **IT**: IT resources are made available to processes to execute the operations necessary for their implementation. For more details, see "Enterprise Assets", page 725.

Entities

An entity can be internal or external to the enterprise: an entity represents an organizational element of enterprise structure such as a management, department, or job function. It is defined at a level depending on the degree of detail to be provided on the organization (see org-unit type). Example: financial management, sales management, marketing department, account manager. An external entity represents an organization that exchanges flows with the enterprise, Example: customer, supplier, government office.

Accessing organization entities

To define the list of entities of your organization, **HOPEX** allows you to create the enterprise organizational chart.

To access the different organization entities:

1. In the **Environment** desktop, select **Organization > Hierarchical Views > Entities**.
2. Expand the root entity.
   The list of entities making up the organization is displayed.

   ☛ *The list of entities owned by an entity is accessible in the properties page of the entity, in the **Characteristics** tab, section-**Sub-Entities**.*

Creating an entity

To create a new entity:

1. In the **Environment** desktop, select **Organization > Hierarchical Views > Entities**.
2. Open the properties page of the entity that owns the entity to be created.
3. In the **Sub-Entities** section, click **New**.
   The entity creation page appears.
4. Enter the entity **Name** and click **OK**.
   The new entity appears in the list.
5. Open the properties page of the entity created.
6. If necessary, modify the **Parent Entity**, which corresponds to the level in the tree at which you wish to create your entity.

   ☛ *The **Parent Entity** field is automatically calculated according to the position of the entity in the tree.*
7. Specify the **Level** of the entity in the organization:
   - "Division"
   - "Department"
   - "Service".
8. Specify the **Status**, "Active" or "Inactive"of the entity.
9. When completed, click **Save** or select another tab in the properties dialog box to carry out further modifications.

Risk assessor

To indicate the person responsible for risk assessment on the entity:

- In the **Risk Assessor** field of the entity property page, select the person concerned.

  ☛ *You must specify this field in the context of risk assessment by campaigns with **HOPEX Enterprise Risk Management**.*

  ☛ *This field is available only with the solutions **HOPEX Enterprise Risk Management** and **HOPEX Internal Control**.*

Scope section

An entity can intervene in the framework of a process. It can be broken down hierarchically.

An entity can be connected to different component types.

- **Entities**: you can specify the entity responsible for a service or management, as well as functional dependency between two entities.
- **Business Processes** and **Organizational Processes** for which the entity intervenes. For more details, see "Processes", page 708.
- **Risks**, whose management is assigned to the entity. For more details, see "Risks", page 713.
- **Controls**, whose management is assigned to the entity. For more details, see "Controls", page 716.
- **Objectives and Requirements** assigned to the entity. For more details, see "Objectives and Requirements", page 720.

  ☛ *Certain key documents, such as strategic plans, the business plan, annual reports, economic analyses and other relevant documentation related to the organization and its aims may be consulted to define its **objectives** and **requirements**.*
- **Business Lines** for which the entity intervenes. For more details, see "Organization Business Lines", page 711.

  ☛ *Depending on your rights, you may also see the **Action Plan** or incidents owned by the entity.*

Organization Business Lines

The business lines overview presents the different businesses carried out by the enterprise.

🕮 *A business line is a skill or grouping of skills of interest for the enterprise. It corresponds for example to major product segments, to distribution channels or to business activities.*

Accessing Business Lines

To access the different organization business lines:

1. In the **Environment** desktop, select **Organization > Hierarchical Views > Business Lines**.
   From this page you can view trees of business lines of the organization, consult their properties and create new objects.

   ☛ *The list of business lines owned by a business line is accessible in the properties page of the business line, section **Sub-Business Lines**.*

To access characteristics of a business line:

1. Expand the **Characteristics** section of the properties pane of the business line that interests you.

Scope of Business Lines

A business line can be implemented by:

- **Org-Units**: for more details, see "Entities", page 709.
- **Applications**: for more details, see "Applications", page 725.

  ☛ *Applications are not available in the **HOPEX Compliance** solution.*
- **Risks**

A business line can be connected to different component types by, for example, **Business Processes** and **Organizational Processes**, which use services of the business line. For more details, see "Processes", page 708.

☛ *In **HOPEX IT Risk Management**, the **Scope** section is provided for reference terms only.*

RISKS AND CONTROLS

To access risks of the organization:

1. In the **Environment** desktop, select **Risk Universe**.

   ☛ *In **HOPEX** solutions, you can also access risk universe by selecting the **(Risk) Library** tab.*

Risks

Accessing risks

To access risks:

1. In the **Environment** desktop, click **Risk Universe > Risks > All Risks**.

   ☛ *The risks covered by a control system can be viewed in the **Scope** section of the control system page. For more details, see "Controls", page 716.*

To access the most important risks:

1. In the **Environment** desktop, click **Risk Universe > Risks > Key Risks**.

Risk characteristics

To access characteristics of a risk:

1. Select a risk form a list of risks or key risks and click the **Properties** button.
   The properties page of the risk appears in the right pane.

On this page you can specify for the control:

- the risk identification **Code**
- the risk **Name**
- the fact that the risk is high level by selecting the **Key Risk** check box
- the risk **Owner**
- the risk **Identification Mode**
  The risk could have been identified from:
  - an "incident database"
  - a "workshop"
  - a "survey"
  - an "audit"
- the risk **Description**

  ☛ *the **Risk Status** appears grayed and cannot be modified since it is managed by the workflow associated with the risk. For more information, see **HOPEX Enterprise Risk Management**.*

Risk scope

Risk scope enables definition of risk location. It relates to several component types:

- **Entities** concerned by the risk. For more details, see "Entities", page 709.

  An entity can be internal or external to the enterprise: an entity represents an organizational element of enterprise structure such as a management, department, or job function. It is defined at a level depending on the degree of detail to be provided on the organization (see org-unit type). Example: financial management, sales management, marketing department, account manager. An external entity represents an organization that exchanges flows with the enterprise, Example: customer, supplier, government office.

- **Business Processes** and **Organizational Processes** exposed to the risk. For more details, see "Processes", page 708.

  A business process represents a system that offers products or services to an internal or external client of the company or organization. At the higher levels, a business process represents a structure and a categorization of the business. It can be broken down into other processes. The link with organizational processes will describe the real implementation of the business process in the organization. A business process can also be detailed by a functional view.

  An organizational process describes how to implement all or part of the process required to make a product or handle a flow.

- **Objectives and Requirements** expected related to risk management. For more details, see "Objectives and Requirements", page 720.

  An objective is a goal that a company or organization wants to achieve, or is the target set by a process or an operation. An objective allows you to highlight the features in a process or operation that require improvement.

  A requirement is a need or expectation explicitly expressed, imposed as a constraint to be met within the context of a project. This project can be a certification project or an organizational project or an information system project.

- **Applications**: for more details, see "Applications", page 725.

  An application is a set of software tools coherent from a software development viewpoint.

- **Business Lines**: for more details, see "Organization Business Lines", page 711.

  A business line is a skill or grouping of skills of interest for the enterprise. It corresponds for example to major product segments, to distribution channels or to business activities.

Risk analysis

The aim of risk analysis is to obtain a good understanding of risks.

Analysis of the risk should take into account:

- risk causes
- positive or negative risk consequences

The risk analysis phase associates a risk with:

- risk types
- risk factors
- consequences
- other risks

To analyze a risk:

1. Select a risk and open its properties.
2. In the **Characteristics** tab, expand the **Analysis** section.
   A risk is characterized by:
   - **Risk Types**: for more details, see "Risk types", page 715.

     A risk type defines a risk typology standardized within the context of an organization.
   - **Risk Factors**: for more details, see "Risk factors", page 716.

     A risk factor is an element which contributes to the occurrence of a risk or which triggers a risk. Several risks can originate from the same risk factor. Examples: the use of a hazardous chemical product, the complexity of an application, the size of a project, the number of involved parties, the use of a new technology, the lack of quality assurance, the lack of rigor in requirement definition, etc.
   - **Risk Consequences**: for more details, see "Risk consequences", page 716.

     A risk consequence can be positive or negative. It is associated with a type, which enables its characterization, for example: image, environment, employees.
   - **Related Risks**
   - **Incidents**

     An incident is an event occurrence, internal or external, that has an impact on the organization. It is the basic element for collection of data concerning operational risk.

Risk types

A risk type defines a risk typology standardized within the context of an organization.

A risk type enables risk characterization. For example, a risk type can be regulatory, legal, technical, etc.

Breakdown of risk types will be specific to activities and will depend on the particular business line or activity. Generic risk types can be broken down to a greater or lesser extent into specific risk type levels.

It is important to have a risk type definition framework that is identifiable, measurable and manageable, and to limit the number of levels to assure usable nomenclature.

Validation of nomenclature should ensure that a risk defined in two different entities or activities will have the same definition and the same sense, therefore ensuring system consistency.

In that the system installed should also meet regulatory requirements, it will also be necessary to define a second nomenclature to meet declaration aspects and to enable exchanges with control authorities.

To create your own risk types:

1. In the **Environment** desktop, click **Risk Universe > Risks > Risk Types**.
2. In the pop-up menu of the "Risk Type" folder, select **New**.
3. Enter the name of the risk type and click **OK**.
   The new risk type appears in the navigator menu tree.

   ☛ *Similarly, you can create a sub-risk type from a risk type.*

Risk factors

Many risk factors are defined within the framework of international, national or inter-professional regulations, or within the enterprise itself.

> 🕮 *A risk factor is an element which contributes to the occurrence of a risk or which triggers a risk. Several risks can originate from the same risk factor. Examples: the use of a hazardous chemical product, the complexity of an application, the size of a project, the number of involved parties, the use of a new technology, the lack of quality assurance, the lack of rigor in requirement definition, etc.*

With each risk, you can associate one or more risk factors, sources of risks that have intrinsic potential to endanger organization operation. For example, dangerous chemical products, competitors, governments, etc.

Risk consequences

To define consequences associated with a risk:

- In the risk page, **Analysis** section, **Risk Consequences** tab, click **New**.
  The consequence creation page appears.

  ☛ *Since a risk consequence can relate only to a single risk, the **Risk** field is already entered with the current risk.*

In the **Risk Consequences** section, you can specify the consequence identification Code

The consequence created appears in the list of consequences associated with the risk.

RACI on a risk

A risk properties page includes an **RACI** section to define the different persons responsible for risk management. For more details, see "RACI", page 728.

Controls

To access controls:

- In the **Environment** desktop, select **Risk Universe > Controls**.

Control characteristics

To access characteristics of a control:

1. Select the control that interests you and click the **Properties** button. The properties page appears in the right pane.

   ☛ *The fields present can vary according to the solution used.*

On this page you can specify for the control:

- its **Code** enabling unique identification of the control
- **Name**
- **Objective**
- **Owner**
- control importance if required, by selecting the **Key Control** check box.
- the **Control Nature**: you can choose from among the following:
  - Corrective
  - Detective
  - Preventive
- **Operational Cost** of control implementation.
- **Execution Mode** enabling specification of how the control is executed:
  - "Automatic": the control is executed automatically by an IT application.
  - "Manual": the control is executed manually by an organization entity.
  - "Semi-automatic": the control is executed by an organization entity using an IT application.
- **Status**
  - "Draft"
  - "Validated"

    ☛ *You can fill in this field manually for information purposes. In **HOPEX Enterprise Risk Management**, there is no workflow on controls.*

RACI on a control

A control properties page includes an **RACI** section to define the different persons responsible for control management. For more details, see "RACI", page 728.

Control scope

Control scope enables definition of control location. It relates to several component types:

- **Business Processes** and **Organizational Processes** exposed to risks covered by the control. For more details, see "Processes", page 708.
- **Entities** concerned by controls. For more details, see "Entities", page 709.
- **Risks** covered by controls. For more details, see "Risks", page 713.
- **Requirements** expected related to risk management. For more details, see "Objectives and Requirements", page 720.
- **Control Types**: For more details, see "Control Types", page 718.
- **Operations**

  An operation is an elementary step in an organizational process executed by an org-unit.
- **Accounts** : see "Financial Accounts", page 723.
- **Incidents**: depending on the solution, you can also view incidents (without being able to modify these).

  An incident is an event occurrence, internal or external, that has an impact on the organization. It is the basic element for collection of data concerning operational risk.

Control Types

Control types enable specification of regulations that apply to a given control.

Controls can be defined by referencing the control types defined in the risk and control system concerned.

A control nomenclature frequently used is that defined by the COBIT.

COBITS stands for "Control Objectives for Information and related Technologies".

COBIT is a framework of best practices that now integrates numerous other frameworks and has the support of a large number of world experts. Of the 34 processes defined in COBIT there are 318 corresponding control objectives for which detailed control practices have been identified. The proposed verification guide describes elements necessary for correct understanding of each process, specifies controls to be carried out, provides elements for assessment of conformity to best practices and assessment of risk of non-achievement of objectives.

To access control types:

1. In the **Environment** desktop, click **Risk Universe > Controls > Control Types**.
   A list of control types appears.

   A control type allows the classification of controls implemented in a company in accordance with regulatory or domain specific standards (Cobit, etc.).

REGULATORY ENVIRONMENT

The regulatory environment of the enterprise can comprise:

- regulations
- objectives
- requirements

To access components of the regulation environment:

1. In the Environment desktop, select **Regulatory Environment > Regulations**.

Regulations

Regulations to be considered can be:

- financial (SOX, LSF)
- sectorial (Basel II, Solvency II, Seveso II)
- linked to protection of persons for example.

> *A regulation or policy is a set of directives, compulsory or not, defined by a government in a law, by standard bodies as "best practices" or as an internal policy in an organization.*
>
> *There can also be organization internal policies serving as a guide to governance.*
>
> *In this documentation, the term "Regulation" is used, whether it relates to an internal or an external regulation.*

Accessing organization regulations

To access the list of regulations:

1. In the Environment desktop, select **Regulatory Environment > Regulations**.
   The list of organization regulations is displayed.

Regulation Characteristics

To access general characteristics of a regulation:

1. In the page listing regulations, select that which interests you and click **Properties**.
   You can consult or modify the characteristics of the regulation:
   - **Regulation Code**
   - **Application Begin Date** of the regulation
   - **Application End Date** of the regulation

You can also:

- specify RACI elements: see "RACI", page 728.
- define regulation scope:
  - Requirement

    A requirement is a need or expectation explicitly expressed, imposed as a constraint to be met within the context of a project. This project can be a certification project or an organizational project or an information system project.
  - Risk types

    A risk type defines a risk typology standardized within the context of an organization.
  - Risk factors

    A risk factor is an element which contributes to the occurrence of a risk or which triggers a risk. Several risks can originate from the same risk factor. Examples: the use of a hazardous chemical product, the complexity of an application, the size of a project, the number of involved parties, the use of a new technology, the lack of quality assurance, the lack of rigor in requirement definition, etc.
  - Risk consequences

    A risk consequence can be positive or negative. It is associated with a type, which enables its characterization, for example: image, environment, employees.
  - Control systems

    A control system is a set of controls that ensure risk prevention and management, application of internal operating rules, respect a law or regulation, or work towards achievement of an objective as defined by company strategy. Examples: quality control system, management control system, internal audit system.
  - Business lines

    A business line is a skill or grouping of skills of interest for the enterprise. It corresponds for example to major product segments, to distribution channels or to business activities.
  - Business and organizational processes

    A business process represents a system that offers products or services to an internal or external client of the company or organization. At the higher levels, a business process represents a structure and a categorization of the business. It can be broken down into other processes. The link with organizational processes will describe the real implementation of the business process in the organization. A business process can also be detailed by a functional view.

    An organizational process describes how to implement all or part of the process required to make a product or handle a flow.
  - Sub-regulations: within the **HOPEX IT Risk Management** framework.

Objectives and Requirements

To assure that evolutions of your organization meet strategic expectations of the enterprise, the main **HOPEX** concepts can be connected to requirements.

A requirement is a need or expectation explicitly expressed, imposed as a constraint to be met within the context of a project. This

project can be a certification project or an organizational project or an information system project.

The first task is to inventory objectives involved and requirements imposed, and to connect these to the main organizational and technical components.

📖 *An objective is a goal that a company or organization wants to achieve, or is the target set by a process or an operation. An objective allows you to highlight the features in a process or operation that require improvement.*

Accessing objectives and requirements

To access the objectives tree:

1. In the **Environment** desktop, select **Regulatory Environment > Objectives**.
   The hierarchy of organization objectives is displayed.
   If you expand the folder of an objective, you can display the sub-objectives owned by the current objective.

   ☛ *The list of objectives owned by an objective is accessible in the properties page of the objective, in the **Characteristics** tab, section **Sub-Objectives**.*

To access the requirements tree:

1. In the **Environment** desktop, select **Regulatory Environment > Requirements**.
   The hierarchy of organization requirements is displayed.
   If you expand the folder of a requirement, you can display the sub-requirements owned by the current requirement.

   ☛ *The list of requirements owned by a requirement is accessible in the properties page of the requirement, in the **Characteristics** tab, section **Sub-Requirements**.*

Objective Characteristics

An objective can be quantitative (directly measurable), or it can be qualitative.

- Reduce order delivery time (quantitative objective)
- Improve product quality (qualitative objective)
- Improve customer satisfaction (qualitative objective)

You can associate an objective with different component types.

- **Entities**: for more details, see "Entities", page 709.
- **Business Processes** and **Organizational Processes**: for more details, see "Processes", page 708.
- **Risks**: For more details, see "Risks", page 713.
- **Controls**: for more details, see "Controls", page 716.
- **Business Lines**: for more details, see "Organization Business Lines", page 711.

Requirement Characteristics

To access characteristics of a requirement:

1. See "Accessing objectives and requirements", page 721.

2. In the page listing requirements, select that which interests you and click **Properties**.
   You can consult or modify the characteristics of the requirement:

   ☛ *According to the 9000 standard, "a requirement is a stated need or expectation, normally implicit, or imposed". Standard ISO 9000 highlights "client expectations" but in the context of a project, other requirements should be considered.*

Priority can be:

- Low
- Medium
- High

Requirement scope

You can associate a requirement with different object types.

☛ *The Object types that can be connected depend on the solution used.*

To access the objects of a requirement scope:

❱ In the requirement properties dialog box, select the **Scope** tab.
Business and organizational processes, entities and applications appear in the **Scope** tab in two different sections depending on the role played:

- **Constrained Elements**: objects that must meet the requirement

  `The "Segregation of duties" requirement must be met by the "Call for bids management" process.`

- **Contributing Elements**: objects that help meet the requirement.

  `The "Call for bids" application can automate a control to check the process meets the requirement.`

- **Incidents**: incidents that occurred and for which the requirement has not been met.
- **Sub-requirements**

  ☛ *Sub-requirements are not used in **HOPEX IT Risk Management**.*

Risks and controls

To access risks and controls associated with the requirement:

❱ In the properties of the requirement, expand the **Risks and Controls** section.

☛ *For more details, see "Risks", page 713 and "Controls", page 716.*

FINANCIAL DATA

To access organization products and accounts:

❱ In the **Environment** desktop, select **Financial Data**.

✓ "Products", page 723

✓ "Financial Accounts", page 723

☛ *This navigation tab is not available in the **HOPEX IT Risk Management** solution.*

Products

A business line is associated with products proposed by the enterprise to each of its markets. These products constitute a link between a business line and the processes that assure production.

📖 *A product represents commodities offered for sale, either goods or merchandise produced as the result of manufacturing, or a service, ie. work done by one person or group that benefits another.*

☛ *A product can be split into component products from its properties page.*

To create a new product from an existing product:

1. In the **Environment** desktop, select **Financial Data**.
2. Display the products tree.
3. Click the product that interests you.
   The properties dialog box of the object appears on the right.
4. In the **Sub Product** section, click the **New** button.
   The name of the new product appears in the list of products in the described product.
5. Select the product you have created, press <F2> and modify its name.

To specify the product type:

1. Open the properties of the product that interests you.
2. In the **Product Type** field, select a value:
   - Goods
   - Complex
   - Services

In a dedicated section you can also create and view the incidents that have happened and are related to the product.

☛ *This object type is not available in the **HOPEX IT Risk Management** solution.*

Financial Accounts

HOPEX enables definition of accounts connected to an entity.

To access accounts:

1. In the **Environment** desktop, select **Financial Data**.
2. Display the tree of accounts.

   ☛ *This object type is not available in the **HOPEX IT Risk Management** solution.*

Characteristics available on the account are:

- **Account type**
  The profits and losses account presents a description of profits and losses of the enterprise during the fiscal period. You can specify if the account is:
  - "Profits"
  - "Losses"
- **Total Value**: you can enter a total for this account.

  ☛ *An order of magnitude is sufficient.*
- **Status**
  - "Open": the account is active
  - "Closed": the account is inactive

  ☛ *The account can comprise sub-accounts.*

  ☛ *You can connect an entity to an account in the **Scope** section of the account.*

ENTERPRISE ASSETS

Global description of an enterprise information system can be limited to presenting servers used and applications and databases sending and receiving information exchanges.

☛ *This navigation tab is not available in **HOPEX IT Risk Management**. In this solution, for defining applications, see the **Library** navigation tab..*

Description of the context in which a risk management project is carried out can be supplemented by description of:

- IT applications

  🕮 *An application is a set of software tools coherent from a software development viewpoint.*

- databases

  🕮 *A database enables specification of data logical or physical storage structure.*

- servers that host them

  🕮 *A computer which provides a service to the users connected to it via a network. This computer can have a database or run applications.*

Accessing IT assets

To access IT assets:

❱ In the **Environment** desktop, select **Assets**.

To view for example characteristics of an application:

1. Click **Application** in the assets tree on the left in the edit area.
   The applications tree appears in the Edit Area.
2. Expand the **Applications** folder.
   The list of applications appears.
3. Select an application.
   Its properties appear on the right of the edit area.

   ☛ *Similarly, you can view characteristics of **Server** and **Database** type.*

Applications

See "Accessing IT assets", page 725.

You can attach numerous objects in the **Scope** section of the application properties:

- Business line

  A business line is a skill or grouping of skills of interest for the enterprise. It corresponds for example to major product segments, to distribution channels or to business activities.

- Business process

  A business process represents a system that offers products or services to an internal or external client of the company or organization. At the higher levels, a business process represents a structure and a categorization of the business. It can be broken down into other processes. The link with organizational processes will describe the real implementation of the business process in the organization. A business process can also be detailed by a functional view.

- Risk

  A risk is a hazard of greater or lesser probability to which an organization is exposed.

- Control

  A control is a set of rules and means enabling the assurance that a legal, regulatory, internal or strategic requirement is respected.

- Control system

  A control system is a set of controls that ensure risk prevention and management, application of internal operating rules, respect a law or regulation, or work towards achievement of an objective as defined by company strategy. Examples: quality control system, management control system, internal audit system.

  ☛ *This is not available in **HOPEX IT Risk Management**.*

- Action plan

  An action plan comprises a series of actions, its objective being to reduce risks and events that have a negative impact on company activities.

- Incidents

  An incident is an event occurrence, internal or external, that has an impact on the organization. It is the basic element for collection of data concerning operational risk.

Objects of the following type are accessible in read-only:

- Issue
- Business capability
- Implemented functionality

You can indicate which IT application is available for an entity or used in execution of a process.

Databases and Servers

See "Accessing IT assets", page 725.

You can specify:

- on which servers the databases are installed
- the entities that use them
- which processes consult or update them

```
When entering an order, an account manager queries the
customer database at headquarters, and updates the sales
database at the LA office.
```

☛ *These object types are not available in the **HOPEX IT Risk Management** solution.*

RACI

HOPEX Solutions enable definition of those responsible for some of the objects via the RACI matrix.

☛ *RACI is the acronym of Responsible, Accountable, Consulted, Informed.*

Responsibility levels

The proposed responsibility levels are as follows:

Scope of responsibility	Meaning
Responsible	Persons responsible for execution of required actions.
Accountable	Persons reporting on progress of planned actions and making decisions. There is only one "Accountable" for each action.
Consulted	Persons consulted as first priority before an action or decision.
Informed	Must be informed after an action or decision.

HOPEX enables specification of the responsibility level of the various persons:

- on a business or organizational process,
- on a risk,
- on a control.

Specifying Responsibilities

One or various persons can take responsibility for a specific object.

To specify the persons concerned by a specific object:

1. In the object properties page, expand the **RACI** section.

2. Connect the persons or person assignments in each of the following tabs:
   - **Responsible**
   - **Accountable**
   - **Consulted**
   - **Informed**.

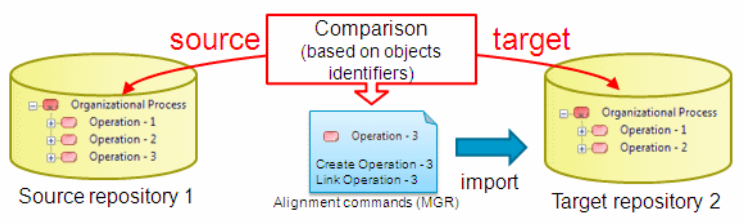
   ☛ *In some solutions, RACI information can be redundant with roles defined in the object property dialog box or can supplement them.*

   For example, in **HOPEX Enterprise Risk Management**, the process responsible user can be specified directly in the **Responsible** field of the process property dialog box and not in the RACI section. In this case, it is important to specify one responsible user only.

MANAGING REPOSITORY TRANSFERS

Presented here are use cases of the alignment functionality, as well as modes of transfer to a production repository.

HOPEX enables transfer of objects from their original repository (source) to a destination repository (target).



☛ *For more details on the Compare and Align feature underlying the alignment feature, see the **HOPEX Administration - Supervisor** guide.*

✓ "Alignment Use Case", page 732
✓ "Modes of Transfer to a Production Repository", page 734
✓ "Transfering Objects", page 738

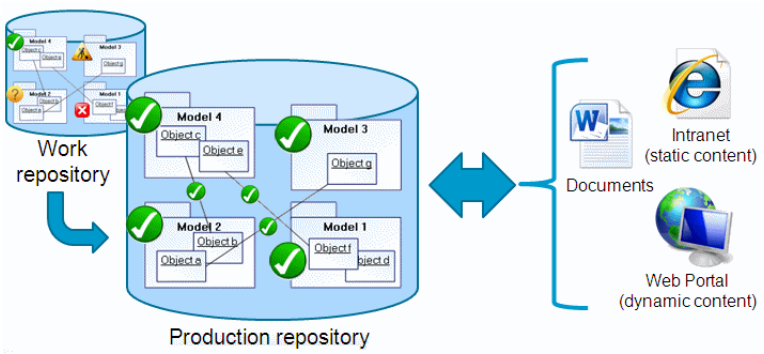
ALIGNMENT USE CASE

In teamworking, it can be difficult to work on a single repository, projects and diagrams not all having the same production cycles. Certain diagrams are in course of creation, while others can be already validated or requiring update.

Implementing a Production Repository

It may be necessary to install a production repository so as to have permanently available models ready for dispatch.

This production repository is supplied by work carried out in the work repository when it is ready for dispatch.



Transfering Objects Between Repositories

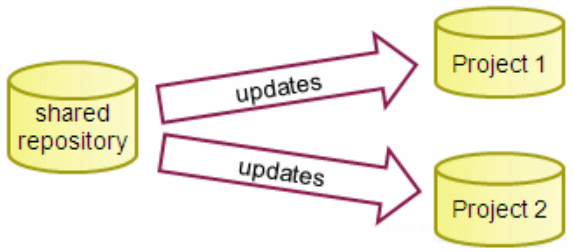
It can sometimes be necessary to transfer objects between repositories in a context other than that of the production repository.

☛ *In these contexts, it can be necessary to define strict modeling rules to avoid conflicts.*

Some examples:

- Distinct projects and integration repository
  Modeling projects are initiated in distinct repositories. They are then transferred to an integration repository.

- Shared models
  Models are created in a single repository. They are then used in projects, each of which results in creation of a repository.



Modes of Transfer to a Production Repository

There are several possible modes of transfer of objects to a production repository.

Organizational and Technical Choices

Organizational choices impose constraints and influence the choice of transfer mode. Certain questions should be asked:

- Are modelers responsible for dispatch of their work?
- Is validation necessary before dispatch of models?
  Large teams generally require a validation step, which is not necessarily required by small teams.
- Which event triggers object transfer or validation?
- Who triggers transfer (modeler or validator)? From which repository (source repository or target repository)?

Depending on the selected organization, use of Compare and Align can be supplemented by:

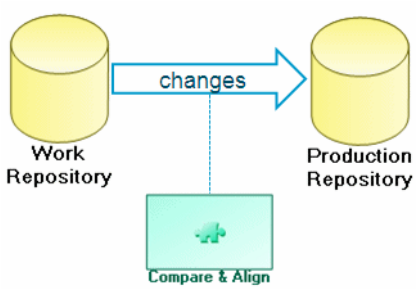
- design tasks
- validation workflow
- definition of perimeters, using the **HOPEX Power Studio** technical module.

  ☛ *For more details, see the technical article "Customizing Perimeters".*
- import/export files

Transfering Objects in Push Mode

"Push" mode allows the user to transfer modifications from the work repository. It is not necessary to connect to the production repository.

"Push" mode without validation

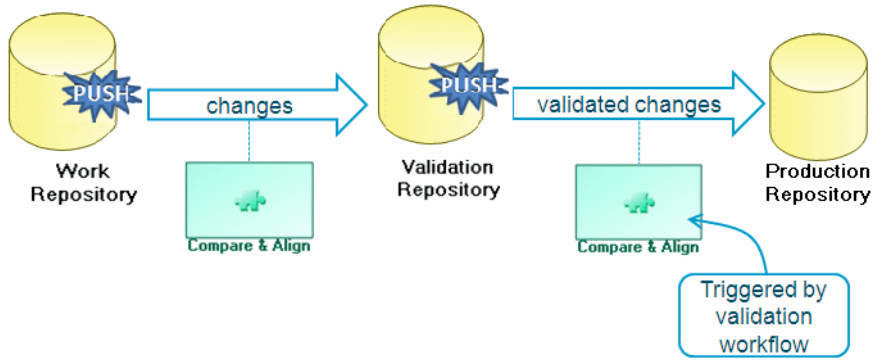


Variants are possible:

- transfer triggered at dispatch
- transfer with simultaneous dispatch

"Push" mode with validation

Data transfer by compare and align can be automatically triggered with installation of a validation workflow



Transfering Objects in Pull Mode

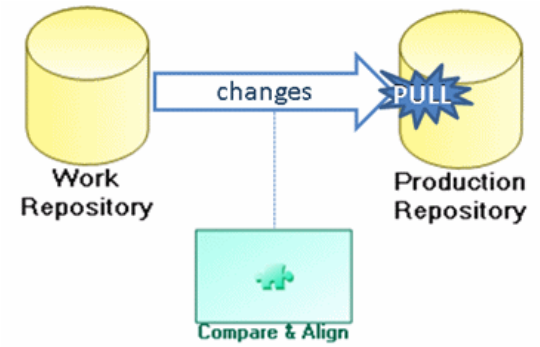
"Pull" mode requires connection to the production repository. Modifications are imported in a private workspace from the target repository.

If transfer is under the responsibility of users working in the source repository, this mode can prove to be restrictive. In this context, users connected to the source repository must:

- dispatch their private workspace in the work repository (source repository) and exit **HOPEX**
- open a private workspace in the target repository
- import objects from the target repository
- dispatch the private workspace in the target repository
- open a new private workspace in the work repository (source repository) to continue modeling work

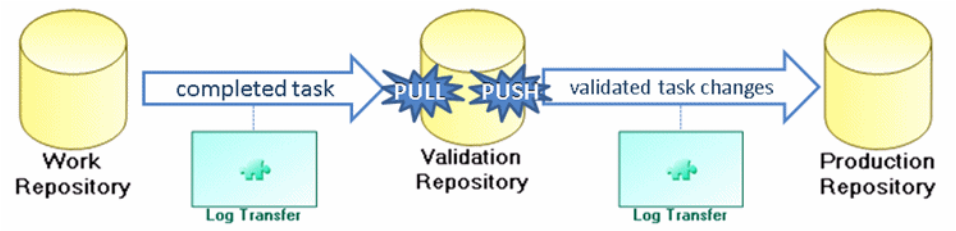
If however the transfer is under the responsibility of users controlling the transfer result before dispatch, "pull" mode has the advantage of allowing private workspace discard if necessary.

"Pull" mode with validation



- A model cannot be modified while it is awaiting validation
- These modifications are saved in the private workspace. The private workspace is dispatched if the model is validated.

"Pull" mode with use of design tasks

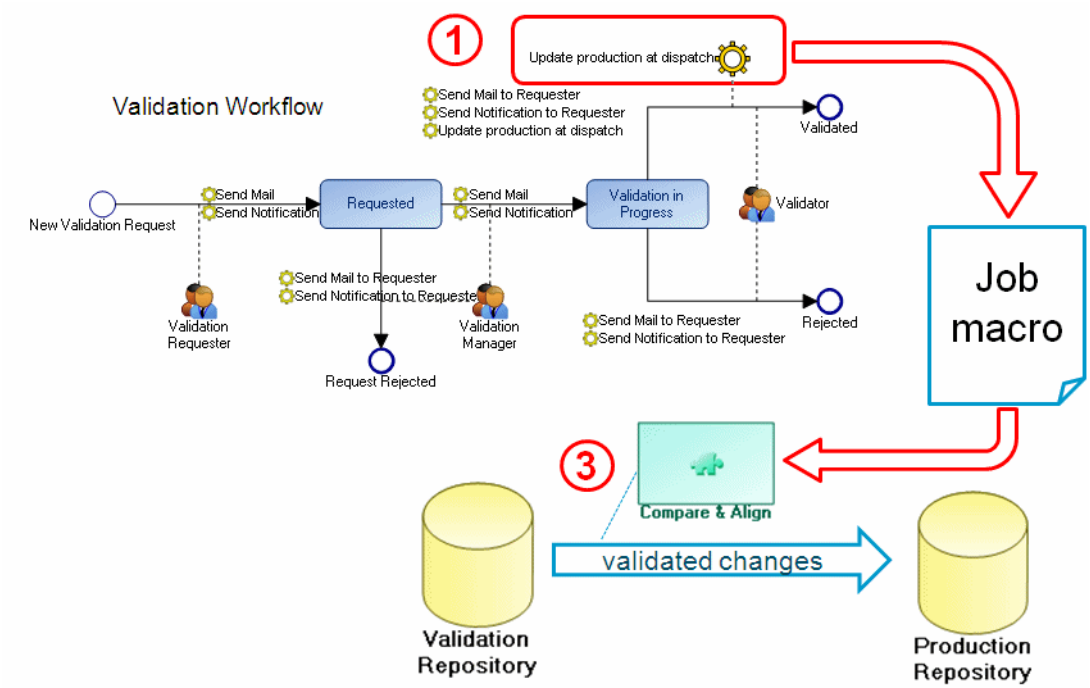


It may be necessary to check dependencies between tasks before export/import of the logfile.

Automatic alignment

The production repository is updated at the time of dispatch (1).

A "job" macro (2) automatically triggers alignment (3)



TRANSFERING OBJECTS

HOPEX allows you to transfer validated objects from one repository to another.
By default, only libraries can be transferred.

> ☛ *Other object types can however be transferred. To do this, you must first connect the corresponding MetaClass to the "Transfer Candidate Object" abstract MetaClass.*

Principle

Validated objects can be automatically transferred to another repository.

> ☛ *For more details on validation, see "Using the Validation Request Workflow", page 534.*

To be able to automatically transfer validated objects, you must first:

- create a transfer
- add the object to the transfer

Creating a Transfer

To create a transfer:

1. In the **Repository Activity** navigation window, expand the **Transfer Management** folder then the **Transfer Folder** sub-folder.
2. Right-click the **Not Scheduled Transfers** sub-folder and select **New Transfer**.
3. In the creation of transfer dialog box, select a transfer template if required and click **Next**.
4. In the transfer definition dialog box, enter the necessary elements if the transfer template has not already specified these.
   - source repository
   - target repository
   - transferred object
5. Click **Next**.
6. If required, select a person to be informed in the **Informed User** frame.
7. Click **Finish**.
8. In the final dialog box, select the transfer execution mode:
   - Execute at scheduled date (specifying date/time in the **Scheduled Transfer Date Time** field)
   - Execute as soon as possible

   > ☛ *You can schedule transfer later. See "Scheduling a Transfer", page 739.*
9. Click **OK**.

Scheduling a Transfer

When the transfer has been created, you must schedule it.

To schedule a transfer (if not scheduled at the time of its creation):

1. In the **Repository Activity** dialog box, expand the sub-folder **Transfer Management > Transfer Folder > Not Scheduled Transfers**.
2. Right-click the transfer concerned and select **Schedule Transfer**.
3. In the dialog box that appears, select:
   - execution mode "Execute at Scheduled Date and Time"
   - the date and time concerned
4. Click **Finish**.
   When scheduled, the transfer appears under the **Scheduled Transfers** sub-folder.

Adding an Object to a Transfer

To add an object to a transfer:

1. Right-click the object to be transferred and select **Add to Transfer**.
2. In the list that appears, select the required transfer and click **OK**.

☛ *You can schedule the transfer at object validation.*

Transfering the Object

The object can be transferred:

- if it has been validated
- if it has been added to a transfer

The object is transferred:

- immediately if the transfer has not been scheduled
- at a time specified in transfer scheduling

☛ *The transfer is executed in the name of the person who saved the transfer.*

Managing Transfers and Transfer Templates

To view the transfers:

1. In the **Repository Activity** navigation window, expand the **Transfer Management** folder.
2. In the **Transfer Folder** sub-folder, you can view:
   - not scheduled transfers
   - scheduled transfers
   - executed transfers

To create a transfer template:

1. In the **Repository Activity** navigation window, expand the **Transfer Management** folder.
2. Right-click the **Transfer Templates** folder and select **New > Transfer Template**.
3. Indicate:
   - a source repository
   - a target repository
   - the object to be transferred
4. Click **Finish**.

☛ *You can now use this transfer template when creating a transfer.*

REPOSITORY SNAPSHOTS

A repository snapshot identifies an archived state of the repository. The repository administrator or functional administrator may need to create snapshots to record important states in the repository life cycle.

Repository Snapshots are necessary for use of certain functionalities such as the comparison of diagrams and the transfer of objects.

- ✓ "Managing Repository Snapshots", page 742
- ✓ "Repository Snapshots Use Case", page 746

MANAGING REPOSITORY SNAPSHOTS

See:

- "Repository Snapshot Prerequisites", page 742
- "Creating Repository Snapshots", page 742

Repository Snapshot Prerequisites

To be able to use repository snapshots, you must:

- have an RDBMS format repository

  ☛ *For more details on creation of an RDBMS format repository, see "Repository - RDBMS Installation Guide".*

  The repository log must be activated (default case for an RDBMS repository).

  ☛ *For more details on repository log activation, see the administrator guide, "Managing Repositories", "Managing Logfiles".*

- select the "Authorize management of repository snapshots in the workspace" (**Options > Collaborative Environment**)

  ☛ *This option is not necessary if you have used the Administration application to create repository snapshots.*

- set up a procedure for taking account of repository snapshots before deletion of historical data.
  A repository snapshot identifies an archived state of the repository. When an archived state of the repository has been deleted, it is no longer possible to create a repository snapshot corresponding to this state. It is therefore important to take management of repository snapshots into account when deleting historical data (in the repository contextual menu, **RDBMS Administration > Deletion of historical data for repository**).

  ☛ *For more details, see "Repository - RDBMS Installation Guide", "HOPEX Historical Data Cleanup".*

  ☛ *You do not require the Administration application to create repository snapshots. Your associated profile must have the option "Enable repository snapshots management in the workspace" (**Options > Collaborative Environment**).*

Creating Repository Snapshots

☛ *You can create a repository snapshot for RDBMS format repositories.*

You can create repository snapshots from:

- **Administration** applications (Windows Front-End and Web Front-End)
- **HOPEX** (Windows Front-End)
  The "Authorize management of repository snapshots in the workspace" option must be selected (**Options > Collaborative Environment**)

Creating a repository snapshot from the Administration application

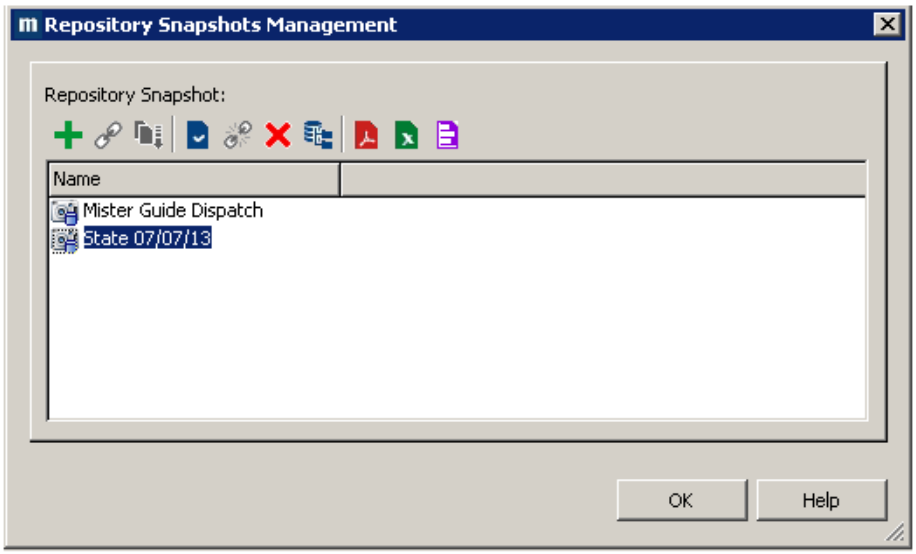
Windows Front-End

To create a repository snapshot from **HOPEX Administration**:

1. Launch **HOPEX Administration** application ("Administration.exe").
2. Connect to the environment with a user that has an Administrator profile.

   ☛ *See the "Connecting to an Environment" procedure in the **HOPEX Administration - Supervisor** guide.*
3. Expand the **Repositories** folder.
4. Expand the repository folder concerned (RDBMS format).
5. Right-click the **Repository Snapshots** folder and select **Manage**.
6. In the repository snapshots management window, click **New** .
   A creation wizard appears.
7. Select the criterion to be used to find the state of the repository to be captured:
   - Design tasks
   - Dispatches
8. Click **Next**.
9. In the **Local Name** field, enter the repository snapshot name.
10. Select the task/dispatch
11. Click **Finish**.

12. (Optional) Add other repository snapshots, repeat steps 6 to 11.
You obtain a list of snapshots, irrespective of the criterion selected for snapshot creation (design task or dispatch).



☛ *In all cases, repository states correspond to the moment data is dispatched.*

☛ *In the snapshot management dialog box, you can delete snapshots or view their properties.*

Web Front-End

To create a repository snapshot from the **HOPEX** Administration desktop:

1. Connect to the **HOPEX Administration** desktop.

   ☛ *See the "Connecting to the Administration desktop" procedure in the **HOPEX Administration - Supervisor Web** guide.*
2. Click **Repository Management> Snapshot Management > Snapshots**.
3. In the edit area, in the **Snapshots** tab, click **New** .
   A creation wizard appears.
4. Select the criterion to be used to find the state of the repository to be captured:
   - design tasks
   - Dispatches
5. Click **Next**.
6. In the **Local Name** field, enter the repository snapshot name.
7. Select the task/dispatch
8. Click **Finish**.

Creating a repository snapshot from HOPEX

☛ *To create a repository snapshot, the "Authorize management of repository snapshots in the workspace" option must have been selected*

*(**Options > Collaborative Environment**) It is recommended that this option be selected at profile level.*

To create a repository snapshot from **HOPEX**:

1. Connect to **HOPEX**.

   ☛ *See the "Accessing HOPEX Windows Front-End in the **HOPEX Common Features** guide.*

2. In the **HOPEX** menu bar, select **Tools > Manage > Manage Snapshots**.
   In the dialog box that appears, you can create and delete repository snapshots as explained in the procedure "Creating a repository snapshot from the Administration application", page 743.

REPOSITORY SNAPSHOTS USE CASE

Repository snapshots are used in::

- Comparison of diagrams

  ☛ *For more details, see "Comparing Two Diagram States", page 746.*

- The Compare-Align function

  ☛ *For more details, see "Comparing and Aligning Two Objects States Over Time", page 748.*

- Transfer of objects

  ☛ *For more details, see the guide concerning use of workflows.*

Comparing Two Diagram States

HOPEX allows you to compare several states of the same diagram in time. The diagram has been photographed at different moments at creation of repository snapshots.

☛ *This functionality is available with an RDBMS format repository only. You must first have created repository snapshots. For more details, see "Managing Repository Snapshots", page 742.*

🕮 *A repository snapshot identifies an archived state of the repository.*

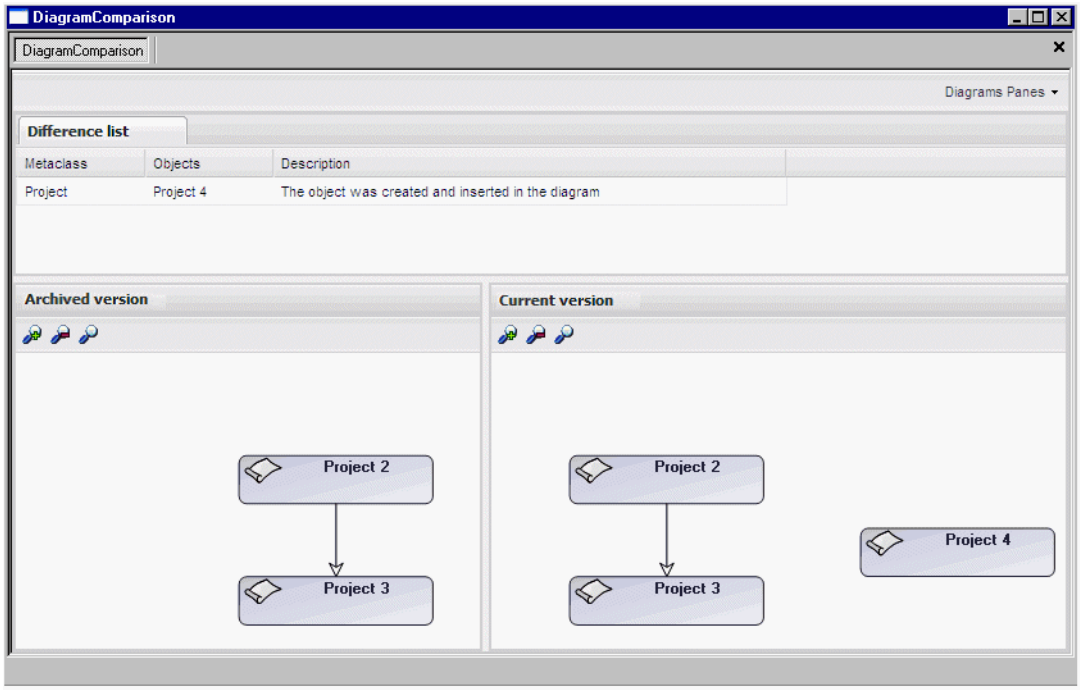
This functionality provides an interface enabling, for example, viewing of certain objects that have been added or deleted in a diagram since a given repository state. It consists of time navigation applied to diagrams.

To run diagram comparison:

1. In the pop-up menu of a diagram, select **Manage > Compare with an archived state**.
   The repository archived state selection tool opens.
   You must select a repository state associated with an object of one of the following types:
   - a repository snapshot
   - a dispatch
   - a design task

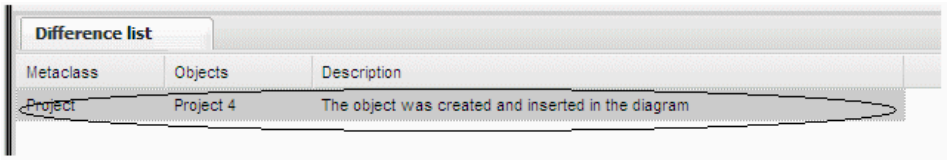
2. Click **Next** then **Finish**.
   A comparison dialog box opens:
   - The left pane presents the archived version of the diagram
   - The right pane presents the current version of the diagram

     ☛ *You can modify arrangement of panes (position them at the side or at the bottom).*

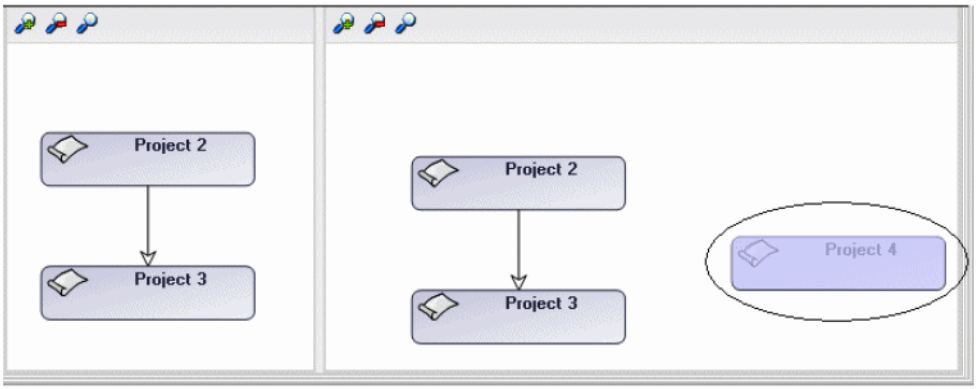


3. Double-click a difference title

   Example: double-click the title indicating that an object has been created between two repository states.



Modifications carried out in the diagram blink (in this example, the object created).



☛ *You can zoom in/zoom out or request view of the complete diagram in a window by clicking one of the following buttons:* .

☛ *If you wish to return to an earlier diagram state, you must use the "Compare and Align" functionality (see "Comparing and Aligning Two Objects States Over Time", page 748).*

Comparing and Aligning Two Objects States Over Time

Repository snapshots also enable determination of what has changed on an object, other than a diagram, related to an earlier state of the same object.

☛ *The compare and align functionality allows you to reverse certain object modifications.*

To compare and align two versions of the same object:

1. Right-click the object and select **Manage > Compare and Align**.

   ☛ *You can also access this functionality from menu **Tools > Manage > Compare and Align**.*

2. In the **Select the comparison method** dialog box, select **Two archived states from the current repository**.
3. Click **Next**.

4. In the **Source Repository Archived State** field, click the arrow and select **Archived State**.

   ☛ *The source repository serves as reference for comparison and alignment.*

5. Using the archived state selection mode wizard, select a repository state associated with an object of the following type:
   - repository snapshot
   - dispatch
   - design task
6. In the **Target Repository Archived State** field, select **Current State**.

   ☛ *You can also select **Current Transaction Initial Archived State** to select the repository state at the moment you opened the transaction.*

   ☛ *To compare all objects of a repository, select the **Compare All Repository Objects** check box.*

7. Click **Next** until reaching **Finish**.

The destination state is aligned with the archived origin state: the object has returned to its earlier state.

FREQUENTLY ASKED QUESTIONS (FAQ)

Here you will find common questions that you may ask concerning the use of **HOPEX**.

- ✓ "Customizing Reports (MS Word)", page 753
- ✓ "Drawing Objects", page 754
- ✓ "Other Questions", page 757
- ✓ "Useful Keyboard Shortcuts", page 759

THE WINDOWS FRONT-END DESKTOP

How can I easily move objects in the various navigation windows?

To move objects between navigation windows:

1. Select an object in a window.
2. Holding the mouse button down, drag-and-drop the object onto the tab of the window to which you wish to copy the object.
   This target window then becomes active.
3. Drop the object into the appropriate folder in the window.
   The selected object is copied in this folder and is connected to the selected object type.

   ☛ *You can also connect an object to another object by cut and paste from the object pop-up menu.*

CUSTOMIZING REPORTS (MS WORD)

How do I customize the logo in generated reports (MS Word)?

To customize the logo in generated reports (MS Word):

1. Double-click the icon of the report (MS Word) of which you want to change the logo.
2. In the opened report (MS Word), select **ViewHeader and footer**.
3. Use the Word header and footer toolbar to select the header containing the logo.
4. Click the default logo and then select **Insert > Picture**.
5. A dialog box appears. Select the image you want and then click **OK**.

The initial logo is replaced by the one you selected.

☺ *If you customize the logo in a report template (MS Word), the reports (MS Word) that you generate from this template will automatically present your logo. This means you avoid having to insert your logo in every report (MS Word) you create.*

☛ *Note that standard report templates (MS Word) are read-only. To make changes to them, you must first make copies of them. To do this, create a report template (MS Word) based on the desired standard template.*

How do I replace the company name with the name of my own organization in the report (MS Word) cover page?

The name that appears in the report (MS Word) is the one indicated when the product was installed.

To modify the company name:

1. Run the **Administration** application by double-clicking the corresponding icon.
2. In the pop-up menu of the site (navigation tree root, named "HOPEX"), select **Options > Modify**.
3. In the Options window, expand the **Installation** folder and double-click the **Company information** icon.
4. Type the name of your organization in the **Company Name** text box. This name will now appear in your reports (MS Word).
5. Click **OK** and close the **Administration** application.

Why is the order of objects specified in my diagram not reproduced in the generated report (MS Word)?

So that the order of objects will be reproduced in the generated report (MS Word), the descriptors used as a basis for the document template must respect certain rules.

For more details, see **HOPEX Power Studio - Publisher**, chapter "Advanced Features of RTF Descriptors".

DRAWING OBJECTS

How do I insert text into a diagram?

To insert text in a diagram:

1. In the insert toolbar, click then **Text**.
2. Click in the diagram.
3. Type your text in the rectangle that appears. When you have entered your text, click outside the rectangle.

To change fonts:

- by means of the dialog box opened by command **Format > Font**.

How do I insert a title in a diagram?

You can insert a field containing the diagram title. It is updated automatically.

To insert a title:

1. In the insert toolbar, click then click **Field**.
2. In the dialog box that opens, select the **Title** field.
   - "Short title" displays only the diagram name.
   - "Title" displays the diagram name preceded by that of the described object.
3. Select the desired format (case) at the right in the dialog box and click **OK**.

To change fonts:

- Right-click the title and select **Font**.

> ☛ *The **Insert field** dialog box also enables you to insert the **Date/time** or the **Page number**.*

How do I insert a background in a diagram?

In **HOPEX Windows Front-End**, an image can be used as a background for your diagram:

To do this:

1. Select **View > Background**.
2. Indicate the **Image** to be displayed as background. You can use the **Browse** button to browse folders and find the file (MGS, MGD, BMP, DIB and WMF extensions or **HOPEX** shape) containing the image to be used as the background for your drawing.

   > ☛ *You can also select a background color.*

3. Select the type of background display: **On screen**, **In printed document**, **In reports (MS Word) and Web sites**.

   > ☛ *You can remove the background without deleting it by clearing all three options.*

4. Select the **Position** of the background: coordinates of the upper left corner (**X**, **Y**), and dimensions (**Width** and **Height**) in the drawing, by selecting values or by manually positioning the background in the view.

How do I move around quickly in a diagram?

For more details, see "Zooming and Moving Around in Diagrams", page 131.

Is there a quick way to find an object in a diagram?

An object in a diagram can be located graphically. This function in **HOPEX Windows Front-End** is useful when your entire diagram cannot be displayed on the screen.

To do this:

1. In a diagram, select **Edit > Search in diagram**.
2. In the dialog box that appears, double-click the object type to which the object you are searching for belongs.
3. A list of objects is displayed. Select the one you want and click **Next**.

The desired object is selected and appears in the center of the window.

How to change the appearance of a line?

To modify the appearance of a line:

1. Select **Colors and Borders** from the pop-up menu of the line.
2. The dialog box that opens allows you to define the appearance of the line (simple, orthogonal, arc, etc.) and of its ends.

Is there a quick way to divide a link into segments or create a broken line?

To create a joint in a line in order to segment the line, for example:

1. Select the line by clicking it, making sure not to click on a handle.
2. Position the pointer on the line and press the Ctrl key until the pointer changes to form +.
3. Holding the <Ctrl> key down, left-click and move the pointer to where you wish to segment the line.

A joint represented by a handle is added to the line.

To delete a joint (except at the two ends):

- Point on the joint and hold down the <Ctrl> key (the pointer shape changes to +) and click to delete the joint in the line.

The joint is deleted.

I can't draw a link or I can't see a link in my diagram

This may be because you have not selected the view you need to draw or see this link. Carry out the following check:

1. In the flowchart, click .
2. In the dialog box that appears, check that all link types are correctly selected.

> ☛ *If you have the same problem with other object types, check that the view corresponding to the object type is selected.*

Objects that I insert into my diagram are covering other objects

For more details, see "Bringing Objects to Front/Sending Them to Back", page 117.

I would like to modify the default shape of messages in my diagrams.

This is possible in **HOPEX Windows Front-End**. To do this, you must duplicate the standard shape and copy it in the "Mega_Usr" folder before modifying it.

To change the shape of a message:

1. In a diagram, create a message.
2. In the pop-up menu of the message, select **Shapes and Details** to view the name of the shape file and its location.
3. Start the shapes editor by selecting **Tools > Shapes Editor** from the desktop and open the default shape of the message.
4. In the **File** menu, select **Save as** and save the shape in the user folder of the environment (/Mega_Usr) keeping the same name.
5. Modify the file (for example its color).
6. Open a diagram that contains messages.
7. In the diagram **Drawing** menu, select **Reinitialize shapes**.

> ☛ *It is necessary to activate this command when you have changed elements of the shape that are stored in the diagram, as is the case for color of the text.*

Messages that have the default shape are automatically modified.

> ☛ *You can select another shape as required by selecting **Shapes and Details** in the pop-up menu of the object.*

OTHER QUESTIONS

Is there a quick way to rename an object in a diagram?

To rename an object in a diagram without opening its properties dialog box:

1. Click on the name of the object inside the object shape.
   A box with a dotted border appears, defining the text area to be modified.
2. Press the <F2> key.
3. Enter the new object name in the box that appears.
4. Click outside the box to validate your modification.

How to change diagram type?

The diagram type can be changed after creation. To do this:

1. In the diagram pop-up menu, select **Change Diagram Type**.

   ☛ *This command only appears in the menu if the diagram can change type. It appears for example in a flowchart. It is available only in **HOPEX Windows Front-End**.*
2. In the **Diagram Type Change** dialog box, select the **New type**.
   The diagram types proposed depend on current diagram and described object types.
3. Click **OK**.

How to create a report (MS Word)?

For more details, see "Managing MS Word Reports in HOPEX (Windows Front-End)", page 312.

How to manage options concerning business persons and (system) persons?

HOPEX proposes two types of persons:

- **Business persons**: designates persons in the organizational charts, the properties pages of certain objects such as projects or for document reviewing.

  📖 *A business person holds a position in an organization. It is designated by its name. Example: Mr. Smith.*

  ☛ *For more details on a use example of business persons, see the section "Distributing a Report (MS Word) for Review or Validation" in **HOPEX Common Features**.*
- **Persons (System)**: used for example in **HOPEX** solutions to enable users connected to **HOPEX** to be declared owners or managers of objects used in the solutions.

  📖 *A person (System) represents a person in the enterprise. This person can be assigned a login and a role (or a profile depending on the connection mode). The login provides access to the HOPEX Application. The role (or the profile) defines the access to product functions and repositories. A system person, if assigned a login, has a specific desktop*

in each database, and can connect to this desktop from any workstation in a given environment.

☛ *For more details on a use example of business persons (system), see the section "Threads of Posts and Alerts on Objects" in **HOPEX Common Features**.*

An option is available for using **HOPEX persons (System)** as **business persons** in the properties pages of objects in the same way as for business persons.

To activate this option:

1. In the workspace, select **Tools > Options**.
2. Double-click the **Business Process and Architecture Modeling** icon.
3. Select the check box in the **System Person Management** field.

In addition, a second option is used to continue to use the business persons in **HOPEX** applications:

1. In the workspace, select **Tools > Options**.
2. Double-click the **Business Process and Architecture Modeling** icon.
3. Select the check box in the **Business Person Management** field.

☺ *To more easily replace your business persons with persons (system), you can select the following two options: **Business Person Management** and **System Person Management**.*

USEFUL KEYBOARD SHORTCUTS

Keys or key combinations constitute shortcuts, allowing access to functions without using menus.
These shortcuts can also be grouped by function type.

Desktop/diagrams/shape editor

Undo	Ctrl + Z
Redo	Ctrl + Y
Select ALL	Ctrl + A
Cut	Ctrl + X
Copy	Ctrl + C
Duplicating	Ctrl + D
Print	Ctrl + P
Save	Ctrl + S
Refresh	F5
Exiting	Alt + F4
Find objects in a diagram	Ctrl + F
Bring to front	Ctrl + "+ " (numeric keypad)
Open pop-up menu	Shift + F10
Bold	Ctrl + G
Italics	Ctrl + I
Underline	Ctrl + U
Align right	Ctrl + Shift + R
Align left	Ctrl + Shift + L
Justify	Ctrl + J
Center	Ctrl + Shift + M
Reduce font size	Ctrl + <
Increase font size	Ctrl + Shift + >

Shape editor

New	Ctrl + N
Open	Ctrl + O

Query tool

Position the cursor in the target object types list of the query bar.	<Ctrl> + <Q>
Open the query tool	<Ctrl> + <Cap> + <Q>
Open the candidate words list (Registered Queries mode)	<Ctrl> + <Space>
Select the query code (Registered Queries mode)	<Ctrl> + <A>
Select all result objects (in results dialog box)	<Ctrl> + <A>

Add a component

Query	Ctrl + Q
List	Ctrl + L
New	Ctrl + N

Comment of object

Line break	<Ctrl + Enter>

Import and Export (EN)

VISIO IMPORT TOOL

Microsoft Visio® is a diagramming application used to describe a broad scope of projects and concepts, including those related to Enterprise Architecture.

The Visio import tool allows you to import and customize in **HOPEX** diagrams created in Visio®.

VISIO IMPORT PRINCIPLES

Visio diagrams are drawings on one or several pages that offer a static view of a business process or a technical diagram.

Each type of Visio diagram has associated predefined shapes that you can use to build your diagram. Importing a Visio drawing consists of matching its shapes with **HOPEX** objects. The objects created can be MetaClasses, links or paths.

Compatibility

The Visio import tool is compatible:

- with versions 2010 and 2015 of Visio
- with .VSD and .VSDX Format.

Importing a Visio file does not require installation of Visio on your machine.

Application Scope

The Visio import tool reproduces diagrams describing the processes of an organization in **HOPEX**. It is therefore optimized for the **HOPEX Business Process Analysis** product.

The Visio import tool is a generic import assistant; it is not suitable for the restitution of interactive creations made by the users. For example, initialization macros for diagrams are not executed. A data check and an update of the diagram drawings may be necessary.

In diagrams linked to **HOPEX IT Architecture**, a number of Visio shapes such as servers, firewalls and printers are represented by nodes in **HOPEX**. Their type must be redefined once they are imported in **HOPEX**.

In the case of a database model, **HOPEX** retrieves the names of entities, their attributes and primary keys, but characteristics such as cardinality, datatypes and foreign keys cannot be imported.

Visio import is not suitable for UML modeling.

Visio Concepts

The main Visio concepts are:

- **Page**: A page contains the description of a diagram. A Visio file can contain one or more description pages.
- **Template**: This is the default model provided when you initialize a diagram. Templates guide users in describing a diagram by identifying

the purpose of the diagram and displaying the stencils necessary for creating diagrams.

- **Stencil**: These zones contain the shapes available to create a diagram. A stencil is made up of masters.
- **Master**: This is a shape representing a concept that can be created in a diagram. In HOPEX, a master gives rise to a MetaClass.
- **Shape**: A shape represents the use of a master class in a page. In HOPEX, this corresponds to the instance of a MetaClass.
- **Connector**: This represents a link in a diagram used to connect two shapes graphically.
- **Property**: A property attached to a shape in a diagram is used to provide additional information to a diagram description. Properties entered by the user in Visio are imported as comments in **HOPEX**.

Mapping Visio and HOPEX concepts

Importing Visio diagrams consists of mapping Visio diagrams, shapes, connectors and properties with **HOPEX** objects (Metaclasses, links, paths, etc.), and creating the diagrams in the **HOPEX** repository.

When a Visio diagram is imported, a mapping is established between the Visio concepts and **HOPEX** objects. This mapping can be saved as **Configuration files** for subsequent use.

IMPORTING A VISIO DRAWING

Importing a Visio diagram is guided by a wizard to help you define the objects to be imported and their mappings in **HOPEX**. Mappings can be saved for subsequent use.

- ✓ "Running Visio Import", page 10
- ✓ "Visio Import Options", page 13
- ✓ "Visio Import Example", page 15

RUNNING VISIO IMPORT

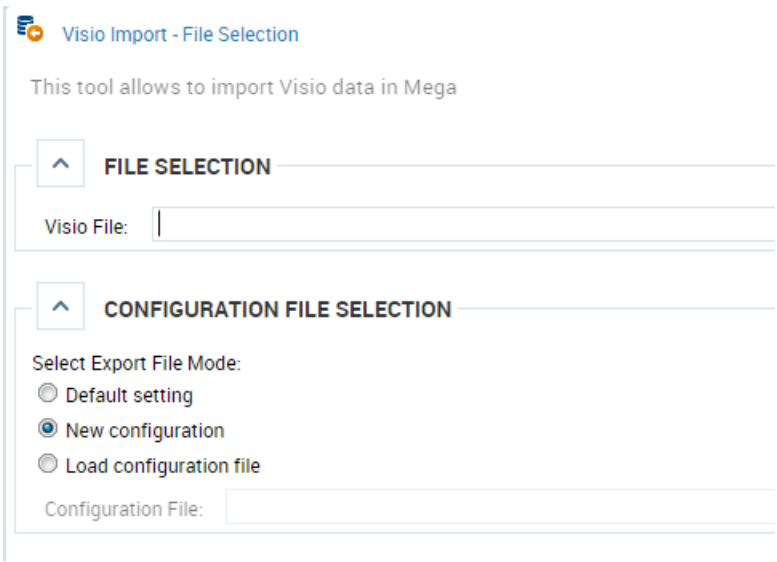
To import a Visio diagram, follow this procedure:

1. Select the Visio file and the configuration file
2. View and select the pages to be imported
3. For each page, define the mapping between Visio and **HOPEX** objects.

Step 1: Select a Visio file and a configuration file

To import a diagram created in Visio into **HOPEX**:

1. From the **Tools** menu bar, select **Import** > **Visio (*.vsd)**.
   The file import wizard window opens.



2. In the **File Selection** frame, select the Visio file to be converted.
3. In the **Configuration File Selection** frame, select the export file mode:
   - **Default settings**: this option applies the mapping file that has been defined in the environment options. See "Defining a Default Configuration File", page 13.
   - **New configuration**: does not load a predefined map file.
   - **Load configuration**: this option is used to select a mapping file on a computer or network.
4. Click **Next**.

Step 2: View and select pages to be imported

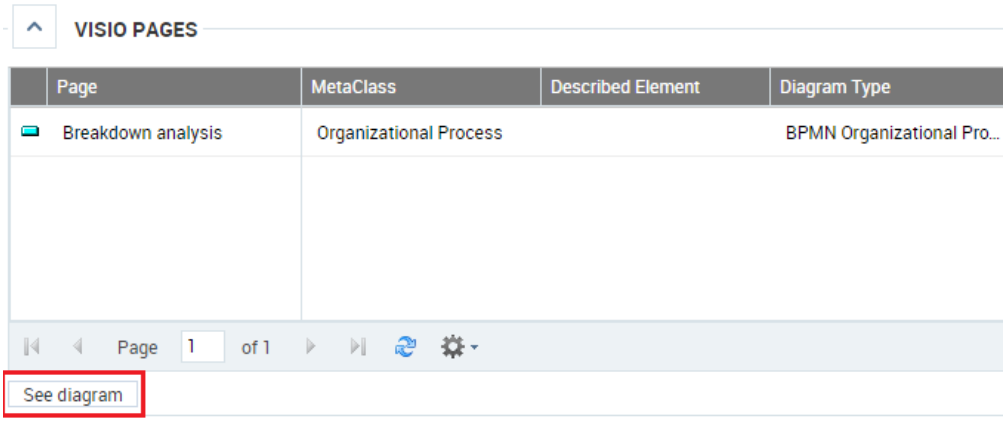
This step displays the contents of the Visio pages so you can select the pages to be imported.

For each page to import you must define:

- the **MetaClass** to which the diagram created in HOPEX will be attached
- the **Described Element** (instance of the MetaClass)
- the **Diagram Type** to create

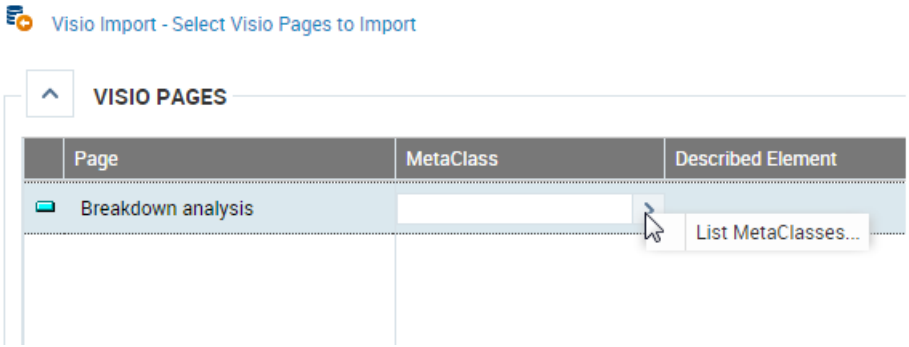
> ☛ *If a configuration file has been defined, the values of the **MetaClass** and **Diagram Type** columns may appear automatically.*

When selecting a page, press **See Diagram** to view the corresponding drawing.



To define the object and diagram to create from a Visio page:

1. Under **Visio Pages**, select the relevant page.
2. Click in the **MetaClass** column and click **List MetaClasses**.



3. Search and select the HOPEX MetaClass.

   `For example Organizational Process.`
4. Indicate the **Described Element**.

   `For example the "Breakdown analysis" Organizational Process.`
5. You can select an existing object in HOPEX or enter the name of the object to create.
6. Select the **Diagram Type** to create.

   `For example BPMN Organizational Process.`

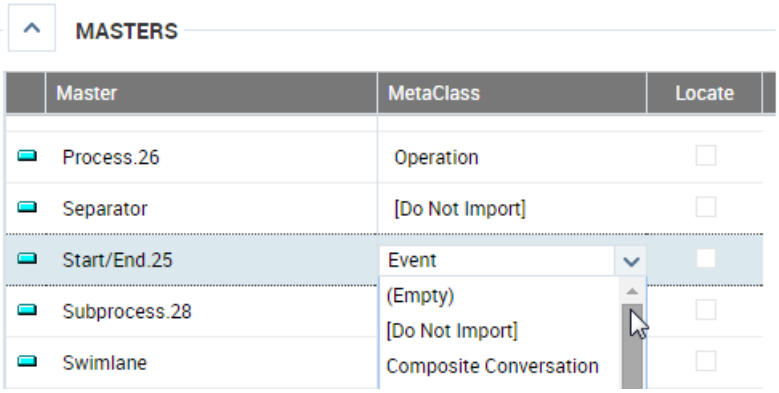
7. In the **Import** column, select the box to import the page.
8. Do the same with the other pages.
9. Click **Next**.

Step 3: Define the mapping of objects of each Visio page

In this step you specify the mapping to be done for each item of the Visio pages selected in the previous step. See also "Mapping Visio and HOPEX concepts", page 3.

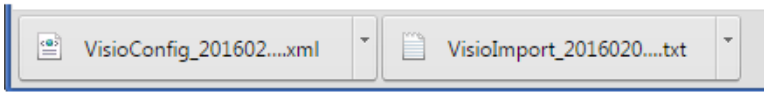
To create mappings between Visio et HOPEX concepts:

1. Under **Visio Pages**, select the appropriate page.
   The list of **Masters** and **Shapes** for the page appears.
   You can view objects of this list in the diagram by checking the **Locate** box associated with the objects in question. Selected objects are highlighted in red in the diagram.
2. For each Visio master, indicate the corresponding HOPEX MetaClass.



When selecting a master, the list of associated shapes appear.
In the **Attribute/Link** column of each shape, you can specify the shape properties. See also "Visio Import Example", page 15.

3. When mappings are defined, click **Next**.
   The report of created objects appears. You can save the report in one of the available formats.
4. Click **OK** to validate and finish the import.
   At the end of the import, the configuration file of the mappings you created is downloaded automatically (.xml file). You can back up this configuration file in order to retrieve mappings for subsequent imports.



VISIO IMPORT OPTIONS

Accessing Visio Import Options

To access options related to Visio Import:

1. In the **HOPEX** desktop, click **My Account** > **Options**.
2. Click **Data Exchange** > **Import/Export Synchronization** > **Tools/ Third Party Formats**.
   The right pane displays the options related to Visio import.

Defining a Default Configuration File

Mappings between Visio and **HOPEX** objects can be saved in a configuration file.

You can define a configuration file to apply by default when importing a Visio file.

To define a default configuration file:

1. Access the Visio import options.
2. In **Visio Import: Configuration file path**, specify the file path.

Defining the Shape Size of Imported Items

You can apply to imported items the size of the shapes defined in Visio or the default size of standard elements in **HOPEX**.

To define the option regarding shape size:

1. Access the Visio import options.
2. Select the value of **Visio Import: shape size** via the drop-down menu.
   By default, the Visio shape size is applied.

Replacing existing diagrams

An imported element can have different diagrams.

When the option is unchecked, **HOPEX** creates a new diagram.

When the option **Visio import: Replace existing diagrams** is selected, **HOPEX** replaces the existing diagram by the imported diagram. If there is more than one diagram, use the import wizard to choose which diagram to replace.

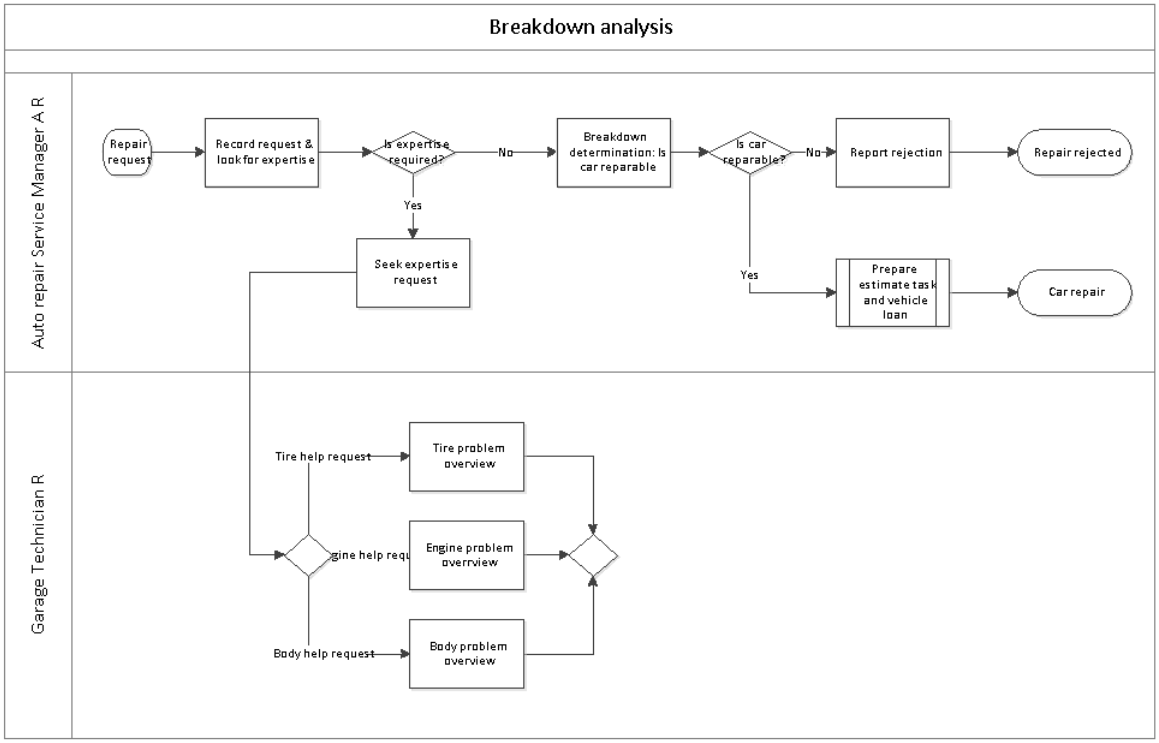
Importing Elements in the Current Library

When the option **Visio Import: Import to the current library** is selected, elements imported are automatically linked to the current library.

VISIO IMPORT EXAMPLE

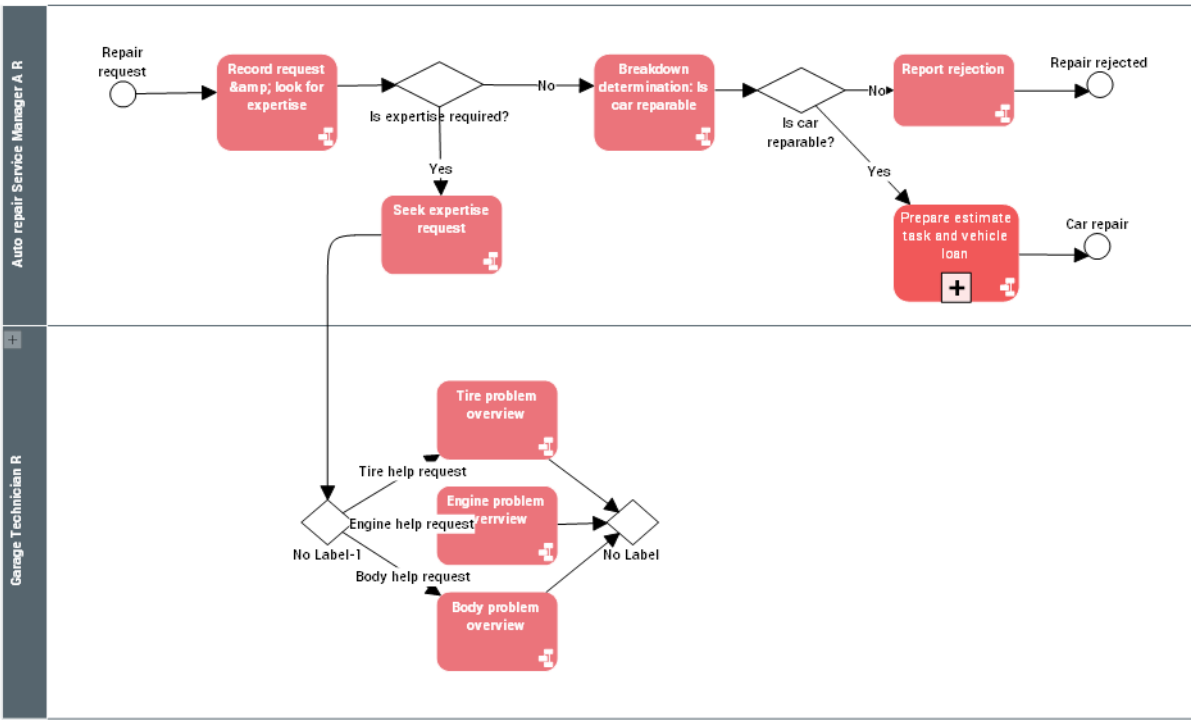
As an example of a drawing to be imported, take the simple flow diagram "Vehicle Breakdown Analysis", which describes steps in vehicle repair.

Visio Diagram



This diagram can be reproduced as the diagram of an organization process in **HOPEX**.

Result in HOPEX



Example of Masters and corresponding MetaClasses

Master (VISIO)	MetaClass (HOPEX)
Page	Organizational Process
Decision	Gateway
Dynamic Connector	Sequence flow
Process	Operation
Start/End	Event
Subprocess	Organizational Process
Swimlane	Participant

Once you have mapped the Visio Masters with the HOPEX MetaClasses, you can define the properties of the related shapes (MetaClass instances).

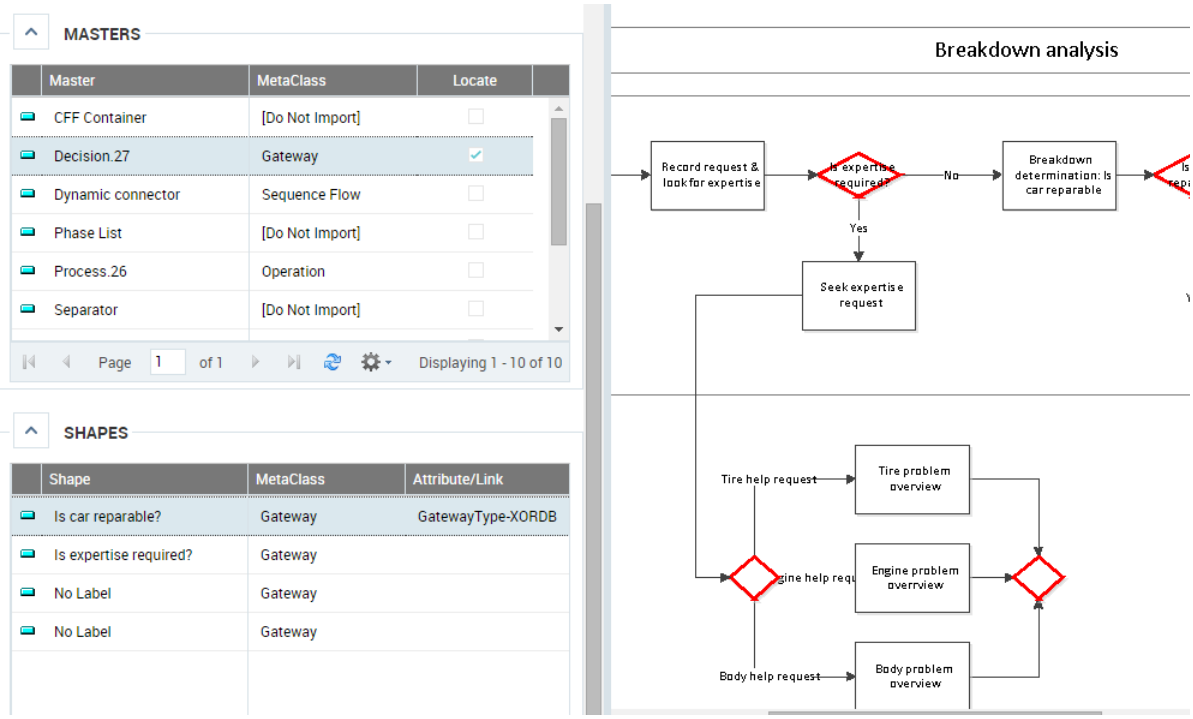
See "Step 3: Define the mapping of objects of each Visio page", page 12.

Example of Shape Properties

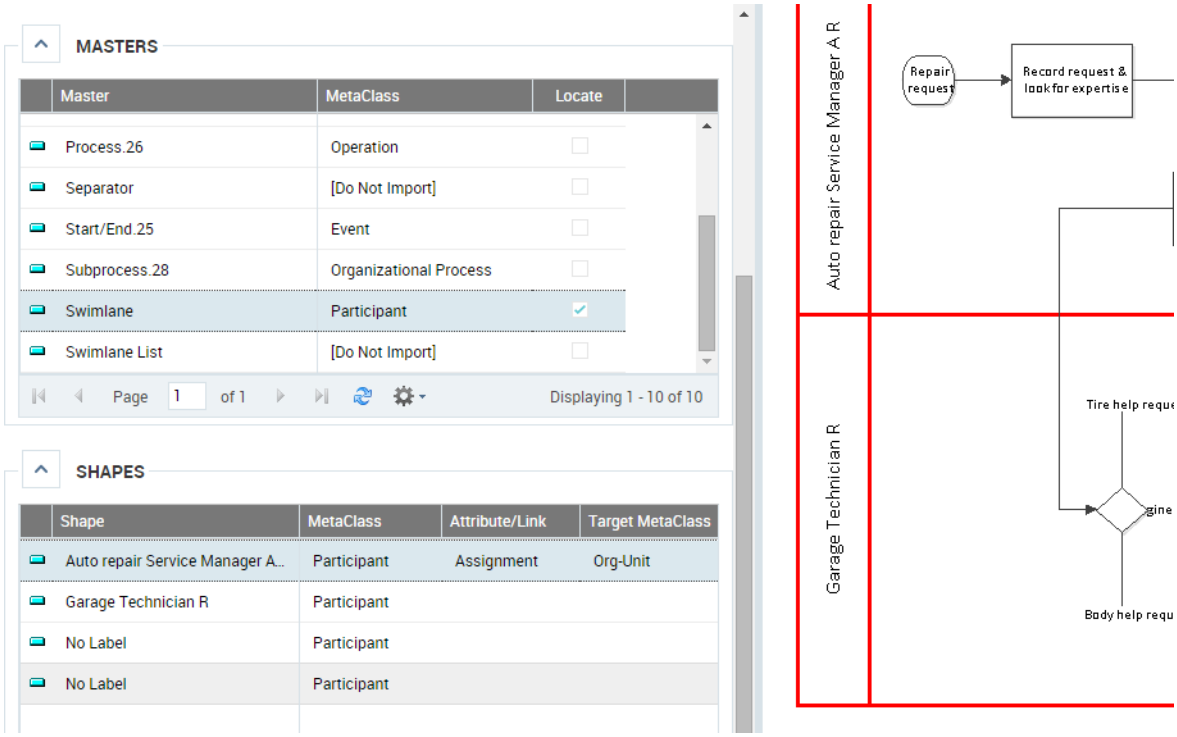
Visio Shape and corresponding HOPEX MetaClass	Property
If Decision = Gateway	Gateway type: exclusive, inclusive, parallel, etc.
If Start/End = Event	Event category: end, start, timer, etc.
If Swimlane = Participant	Participant assignment (target MetaClass)

In the example, the "Decision" master, which corresponds to the "Gateway" MetaClass in **HOPEX**, has four occurrences in the diagram.

In the **Attribute/Link** column associated with each occurrence, you can define the type of gateway to create in HOPEX (exclusive, inclusive, parallel, etc.).



As for the "Swimlane" master which correspond to participants, you can define the type of object to connect to each participant (Application, Org-Unit, etc.) and even connect a HOPEX object to a participant.



To connect an Org-Unit to a participant:

- In the Visio import wizard, select the shape corresponding to the participant, for example "Garage Technician".
- In the **Attribute/Link** column, select "Assignment".
- In the TargetMetaClass, select "Org-Unit".

If the "Garage Technician" Org-Unit already exists in HOPEX, the import wizard does not recreate it but connects it to the participant. If it does not exist in HOPEX, the import wizard creates the corresponding Org-Unit while connecting it to the participant.

OPTIMIZING VISIO IMPORT RESULTS

Import results mainly depend on the source file. For optimum results, check that the Visio drawing meets the following conditions:

- Use model shapes to represent diagram objects

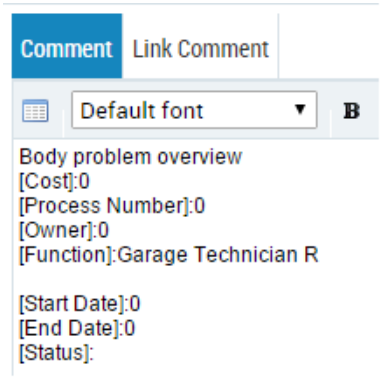
  For example, use the **Business Process** type shape and not the **Rectangle** drawing object.

- Customized shapes and properties are ignored at import. Do not use customized properties to name drawing objects.

Object Names and Properties

Object names are limited to 255 characters in **HOPEX**. If the Visio object name contains more than 255 characters, the full name appears in the **HOPEX** object comment, under the **Texts** Tab.

The **HOPEX** object comment also contains the properties specified on the Visio shape. Shape properties are listed in brackets.



☛ *Properties specific to the corresponding HOPEX Objects may be defined directly in the import wizard. See "Step 3: Define the mapping of objects of each Visio page", page 12.*

BPMN Export

BPMN EXPORT OVERVIEW

The Business Process Modeling and Notation (BPMN) is a graphical representation for specifying processes. This design can be serialized into an xml file that supports the BPMN objects and diagrams. Each process is serialized into a bpmn file.

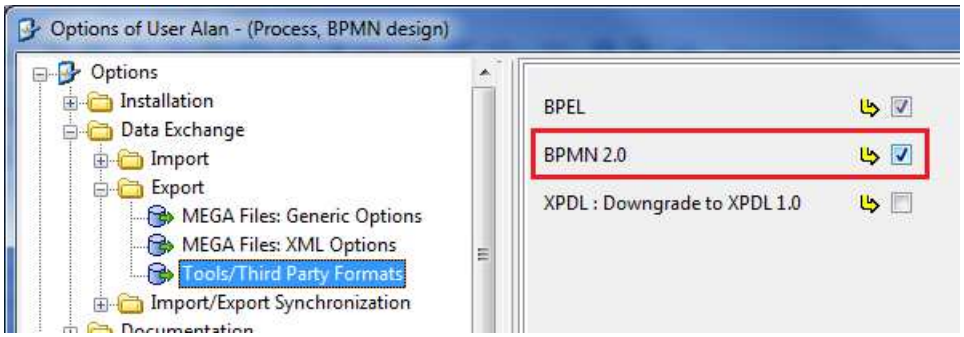
The MEGA BPMN export project aims at exporting workflow definitions as BPMN files so that workflows modeled in MEGA can be used by other BPMN modeling tools or workflow engines.

Prerequisites

The BPMN export feature is available with **MEGA Process BPMN and MEGA System BluePrint**, and supports BPMN version 2.0.

Activate/Deactivate BPMN export

The BPMN export feature can be activated or deactivated for a user, a profile, an environment, or a site. This can be done using the corresponding option:



Scope of BPMN export

The purpose of BPMN export is to export a MEGA Process into a BPMN file.

The tool handles translation of the following processes:

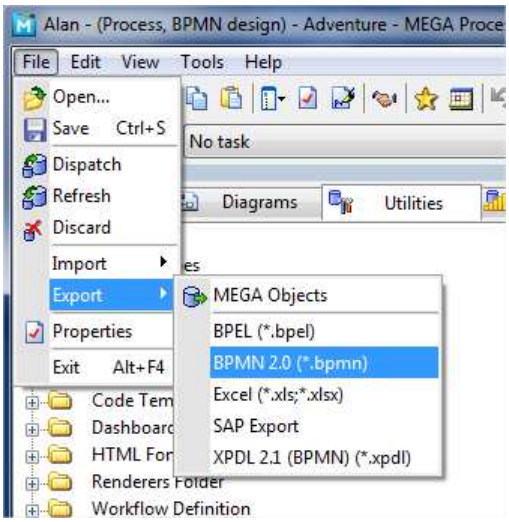
- System Processes
- Organizational Processes
- Business Processes
- Functional Processes

The list of supported mappings is detailed below. See Object correspondences.

Exporting BPMN Files

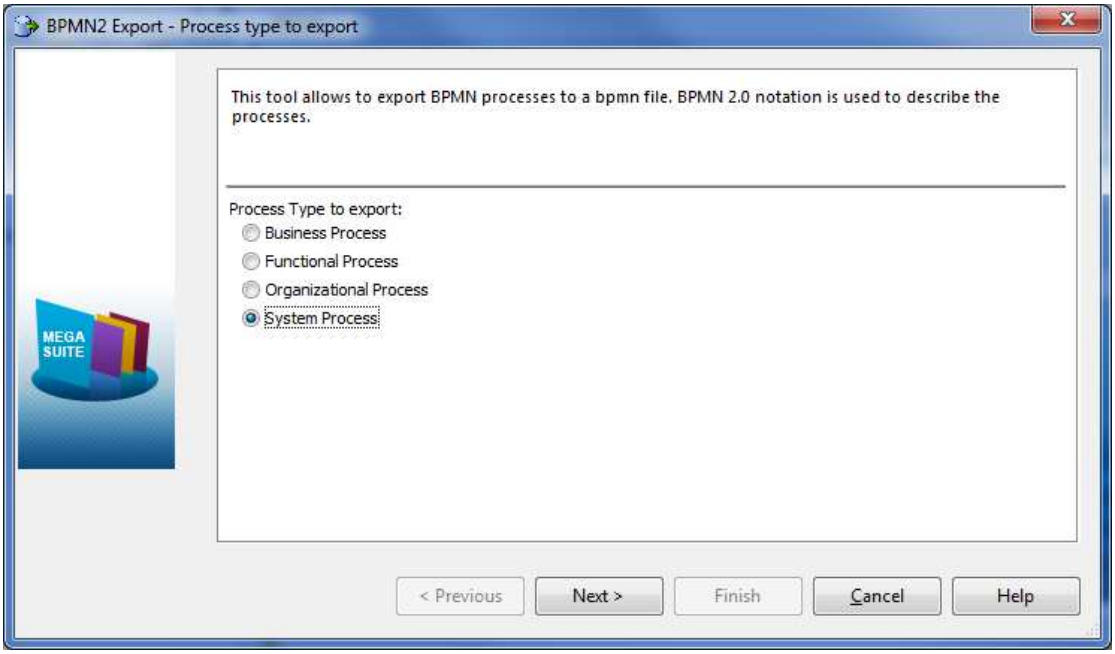
To export a BPMN file from MEGA:

1. In MEGA, select **File > Export > BPMN 2.0 (*.bpmn).**

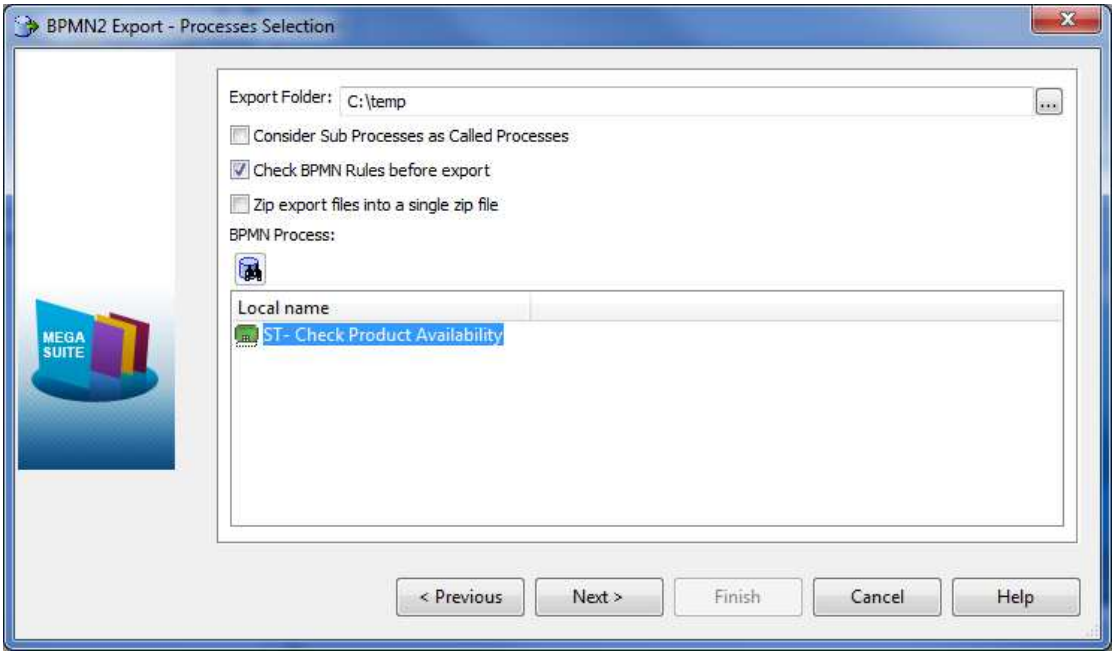


The export dialog box appears.

2. Select the type of object you want to export, for example System Process, and click **Next**.



3. Specify the path of the files to be created.

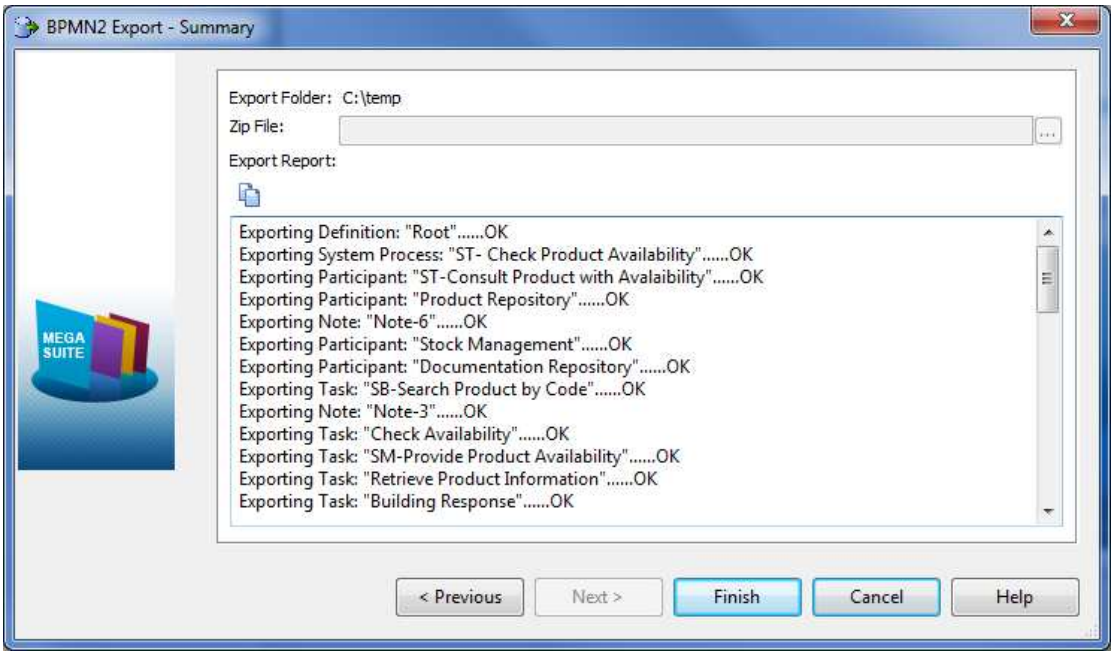


Three options are available:

- **Consider Sub Processes as Called Processes**: In BPMN a sub process is embedded into the parent process, so when exporting the parent process the sub processes will be exported in the same file as embedded processes. This option allows to consider these sub processes as call process tasks.
- **Check BPMN Rules before export**: this option checks whether processes you want to export conform to BPMN modeling rules. If not, a message asks if you want to continue with the export. Click **Yes** to continue or **No** to stop the export.
- **Zip export files into a single zip file**: this option enables to add all exported bpmn files into a single archive file (zip file). Some BPMN modeling tools accept only zip files as import BPMN file.

4. Select one or several processes to be exported.
5. Click **Next**.

   A window shows progression and report of the export.



6. Click **Finish**.

MEGA/BPMN OBJECT CORRESPONDENCE

The BPMN export feature translates a BPMN element specification in MEGA into a BPMN-compliant output file. It is based on a set of mappings between the MEGA BPMN Process metamodel (including diagrams) and BPMN version 2.0.

Conventions

MEGA concept names start with uppercase. Example: Task.

BPMN elements are delimited by <..>.

BPMN attributes are prefixed by ::.

BPMN concepts relate to the following OMG Specification document: “Business Process Model and Notation (BPMN), formal/2011-01-03”.

Object correspondences

The following table indicates concepts managed by the export tool:

MEGA Concepts	BPMN Concepts
Organizational Process	**<process>**
Short Name	name
_Hexaidabs	id
Comment	<documentation>
Owned Operation	<task>
Owned Element	
Gateway	<gateway>
Event	<event>
Sequence Flow	<sequenceFlow>
Data Object	<dataObject> and <dataObjectReference>
Message Flow	<messageFlow>
Participant	<participant> or <lane>
Internal Participant	<laneSet> and <lane>
Owned Organizational Process	<callActivity> or <subProcess>
Note	<textAnnotation> and <text>
Description	<BPMNDiagram>
Operation	**<task>** (*See Table 1)*
Short Name	name

MEGA Concepts	BPMN Concepts
_Hexaidabs	id
Comment	<documentation>
Compensation	isForCompensation
Loop	<standardLoopCharacteristics>
Loop Condition	<loopCondition>
Multiple	<multiInstanceLoopCharacteristics>
Called Organizational Process	calledElement
Data Object Used	<dataInput> and <dataInputAssociation>
Produced Data Object	<dataOutput> and <dataOutputAssociation>
Note	<textAnnotation> and <text>
Gateway	**<gateway>** (*See Table 2)*
Short Name	name
_Hexaidabs	id
Comment	<documentation>
Note	<textAnnotation> and <text>
Event	**<event>** (*See Table 3)*
Short Name	name
_Hexaidabs	id
Comment	<documentation>
Interrupting	isInterrupting or cancelActivity
Bounded Activity	attachedToRef
Note	<textAnnotation> and <text>
Sequence Flow	**<SequenceFlow>**
_Hexaidabs	id
Comment	<documentation>
Predicate	<conditionExpression>
Predecessor	sourceRef
Successor	targetRef
Data Object	**<dataObject> and <dataObjectReference>**
Short Name	name
_Hexaidabs	id

MEGA Concepts	BPMN Concepts
Collection	isCollection
Comment	<dataObjectReference> and <documentation>
Data Object Status	<dataObjectReference::name>
Data Store	**<dataStore> and <dataStoreReference>**
Short Name	name
_Hexaidabs	id
Message Flow	**<messageFlow>**
_Hexaidabs	id
Comment	<documentation>
Source Element	sourceRef
Target Element	targetRef
Internal Participant	**<lane>**
Short Name	name
_Hexaidabs	id
Assignment	name
BPMN Element	<flowNodeRef>
External Participant	**<participant>**
Short Name	name
_Hexaidabs	id
Assignment	name
Note	<textAnnotation> and <text>
Note	**<textAnnotation> and <association>**
_Hexaidabs	id
Comment	<text>
System Process	**<process>**
Short Name	name
_Hexaidabs	id
Comment	<documentation>
Owned Task	<task>
Owned Element	

MEGA Concepts	BPMN Concepts
Gateway	<gateway>
Event	<event>
Sequence Flow	<sequenceFlow>
Data Object	<dataObject> and <dataObjectReference>
Message Flow	<messageFlow>
Participant	<participant> or <lane>
Internal Participant	<laneSet> and <lane>
Owned System Process	<callActivity> or <subProcess>
Note	<textAnnotation> and <text>
Description	<BPMNDiagram>
Task	**<task>** (*See Table 1)*
Short Name	name
_Hexaidabs	id
Comment	<documentation>
Compensation	isForCompensation
Loop	<standardLoopCharacteristics>
Loop Condition	<loopCondition>
Multiple	<multiInstanceLoopCharacteristics>
Called Organizational Process	calledElement
Data Object Used	<dataInput> and <dataInputAssociation>
Produced Data Object	<dataOutput> and <dataOutputAssociation>
Note	<textAnnotation> and <text>
Functional Process	**<process>**
Short Name	name
_Hexaidabs	id
Comment	<documentation>
Owned Functional Activity	<task>
Owned Element	
Gateway	<gateway>
Event	<event>
Sequence Flow	<sequenceFlow>
Data Object	<dataObject> and <dataObjectReference>

MEGA Concepts	BPMN Concepts
Message Flow	<messageFlow>
Participant	<participant> or <lane>
Internal Participant	<laneSet> and <lane>
Owned Functional Process	<callActivity> or <subProcess>
Note	<textAnnotation> and <text>
Description	<BPMNDiagram>
Functional Activity	**<task>** (*See Table 1)*
Short Name	name
_Hexaidabs	id
Comment	<documentation>
Compensation	isForCompensation
Loop	<standardLoopCharacteristics>
Loop Condition	<loopCondition>
Multiple	<multiInstanceLoopCharacteristics>
Called Organizational Process	calledElement
Data Object Used	<dataInput> and <dataInputAssociation>
Produced Data Object	<dataOutput> and <dataOutputAssociation>
Note	<textAnnotation> and <text>
Business Process	**<process>**
Short Name	name
_Hexaidabs	id
Comment	<documentation>
Owned Functional Activity	<task>
Owned Element	
Gateway	<gateway>
Event	<event>
Sequence Flow	<sequenceFlow>
Data Object	<dataObject> and <dataObjectReference>
Message Flow	<messageFlow>
Participant	<participant> or <lane>
Internal Participant	<laneSet> and <lane>
Owned Functional Process	<callActivity> or <subProcess>

MEGA Concepts	BPMN Concepts
Note	<textAnnotation> and <text>
Description	<BPMNDiagram>

Table 1:

Task Type	BPMN
Task Type	**<task>**
User	<userTask>
IT-Service Call	<serviceTask>
System Process Call	<callActivity>
Script	<scriptTask>
Send	<sendTask>
Receive	<receiveTask>
Manual	<manualTask>
Business Rule	<businessRuleTask>

Table 2:

Gateway Type	BPMN
Gateway Type	**<gateway>**
Inclusive	<inclusiveGateway>
Complex	<complexGateway>
Parallel	<parallelGateway>
Exclusive (Data)	<exclusiveGateway>
Exclusive (Event)	<eventBasedGateway> and ::eventGatewayType=Exclusive and ::instantiate=false
Exclusive (Instantiate)	<eventBasedGateway> and ::eventGatewayType=Exclusive and ::instantiate=true
Parallel (Instantiate)	<eventBasedGateway> and ::eventGatewayType=Parallel and ::instantiate=true

Table 3:

		Event Nature				Bounded Activity
		Start	End	Throw	Catch	
		<startEvent>	*<endEvent>*	*<intermediateThrowEvent>*	*<intermediateCatchEvent>*	*<boundaryEvent>*
Event Type	Generic					
	Message	<messageEventDefinition>	<messageEventDefinition>	<messageEventDefinition>	<messageEventDefinition>	<messageEventDefinition>
	Timer	<timerEventDefinition>	*	*	<timerEventDefinition>	<timerEventDefinition>
	Error	<errorEventDefinition>	<errorEventDefinition>	*	*	<errorEventDefinition>
	Cancel	*	<cancelEventDefinition>	*	*	<cancelEventDefinition>
	Compensation	<compensateEventDefinition>	<compensateEventDefinition> and ::waitForCompletion=true	<compensateEventDefinition> and ::waitForCompletion=true	*	<compensateEventDefinition> and ::waitForCompletion=true
	Conditional	<conditionalEventDefinition> and <condition>	*	*	<conditionalEventDefinition> and <condition>	<conditionalEventDefinition> and <condition>
	Link	*	*	<linkEventDefinition>	<linkEventDefinition>	*
	Signal	<signalEventDefinition>	<signalEventDefinition>	<signalEventDefinition>	<signalEventDefinition>	<signalEventDefinition>
	Terminate	*	<terminateEventDefinition>	*	*	*
	Escalation	<escalationEventDefinition>	<escalationEventDefinition>	<escalationEventDefinition>	*	<escalationEventDefinition>
	Parallel Multiple	::parallelMultiple=true	*	*	::parallelMultiple=true	::parallelMultiple=true

		Event Nature				Bounded Activity
		Start	End	Throw	Catch	
		<startEvent>	*<endEvent>*	*<intermediateThrowEvent>*	*<intermediateCatchEvent>*	*<boundaryEvent>*
	Multiple					

* = Combinaison not possible

BPMN Import Specification

BPMN Import Overview

The Business Process Modeling and Notation (BPMN) is a graphical representation for specifying processes. This design can be serialized into an xml file that supports the BPMN objects and diagrams. Each process is serialized into a bpmn file.

The MEGA BPMN import aims at importing workflow definitions from BPMN files so that workflows modeled in other BPMN modeling tools or workflow engines can be used by MEGA.

Prerequisites

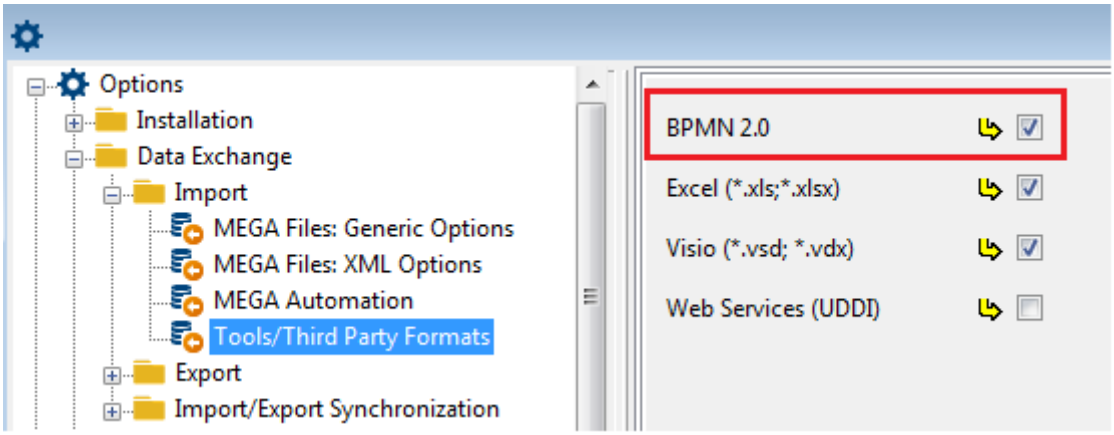
The BPMN import feature is available with **MEGA Process BPMN and MEGA System BluePrint**, and supports BPMN version 2.0.

Source BPMN Tools

It should be possible to import BPMN data and diagrams from Tibco, Bonita, Yaoqiang BPMN, Joinwork Process and IBM BlueWorks.

Activate/Deactivate BPMN Import

The BPMN import feature can be activated or deactivated for a user, a profile, an environment, or a site. This can be done using the corresponding option:



Scope of BPMN Import

The purpose of BPMN import is to import a MEGA Process into a BPMN file.

The tool handles translation of BPMN processes into the one of the following process types in MEGA:

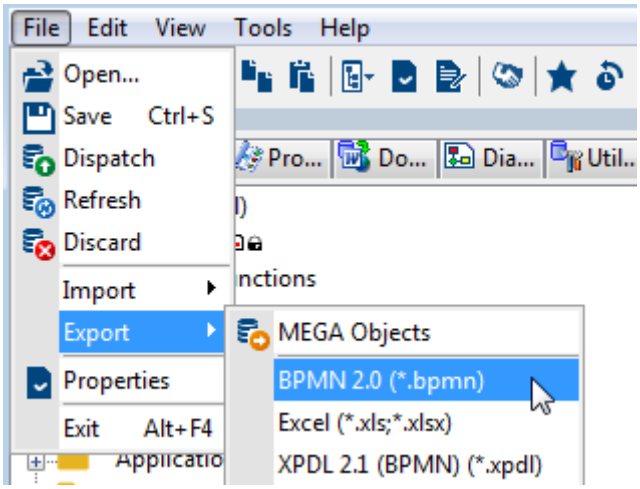
- System Processes
- Organizational Processes
- Functional Processes

The list of supported mappings is detailed below. See Object Correspondences.

Importing BPMN Files

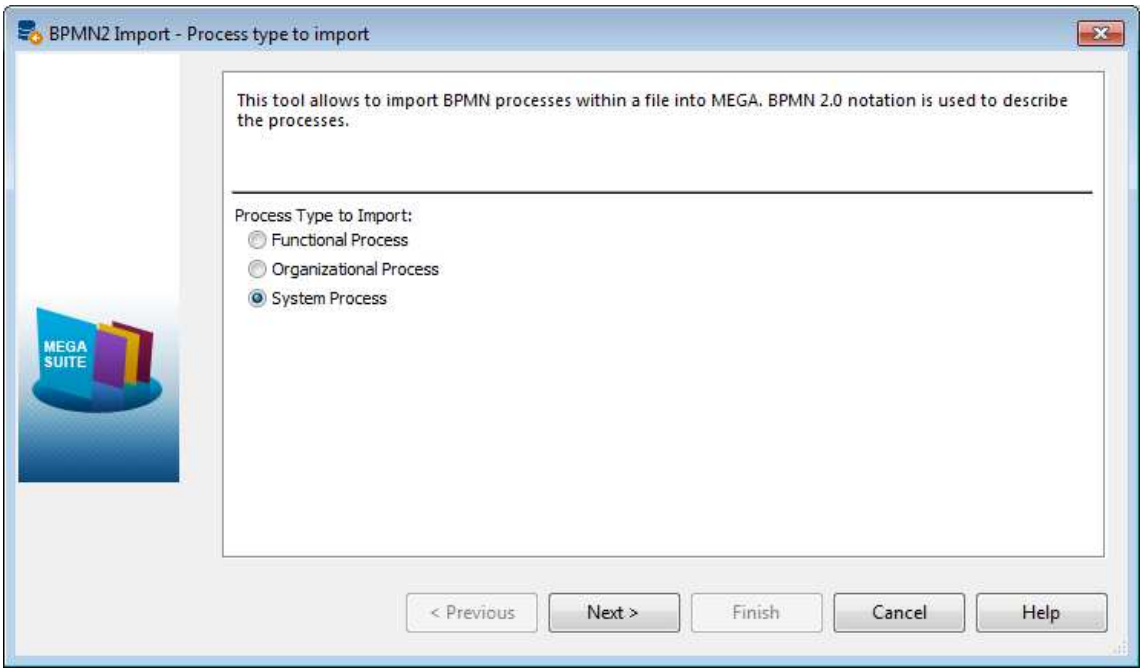
To import a BPMN file from MEGA:

1. In MEGA, select **File > Import > BPMN 2.0 (*.bpmn).**



The import dialog box appears.

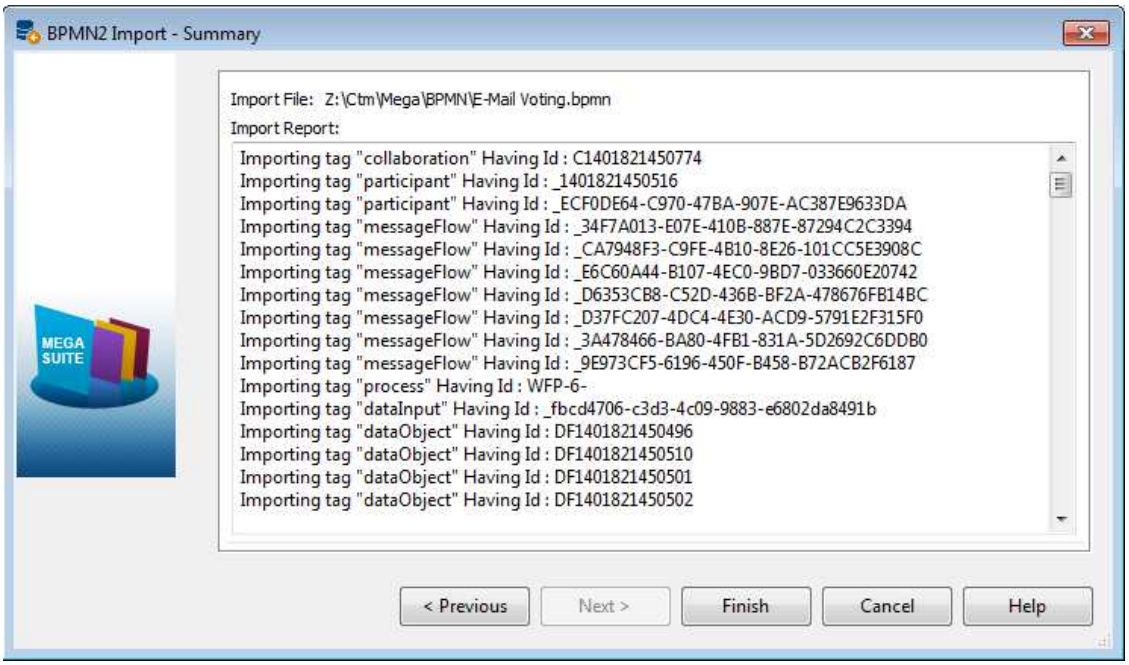
2. Select the type of object you want to import, for example System Process, and click **Next**.



Nb : System Process is the default value.

3. Specify the path of the file to be imported.
4. Click **Next**.

A window shows progression and report of the import.



5. Click **Finish**.

   The diagram containing the description of the BPMN concepts opens.

BPMN/MEGA Object Correspondence

The BPMN import feature translates a BPMN-compliant output file into a BPMN element specification in MEGA. It is based on a set of mappings between BPMN version 2.0 and the MEGA BPMN Process metamodel (including diagrams).

Conventions

BPMN concepts relate to the following OMG Specification document: “Business Process Model and Notation (BPMN), formal/2011-01-03”.

BPMN elements are delimited by <..>.

BPMN attributes are prefixed by ::.

MEGA concept names start with uppercase. Example: Task.

Object Correspondences

The following table indicates concepts managed by the import tool:

The mapping of BPMN Processes and Tasks depends on the type of process selected in BPMN import wizard (Functional Process, Organizational Process or System Process).

Nb: Business processes are not proposed as a target.

BPMN Concepts	MEGA Concepts
<process> (if Organizational Process)	**Organizational Process**
name	Short Name
id	_Hexaidabs
<documentation>	Comment
<task>	Owned Operation
	Owned Element
<gateway>	Gateway
<event>	Event
<sequenceFlow>	Sequence Flow
<dataObject> and <dataObjectReference>	Data Object
<messageFlow>	Message Flow
<participant> or <lane>	Participant
<laneSet> and <lane>	Internal Participant
<callActivity> or <subProcess>	Owned Organizational Process

BPMN Concepts	MEGA Concepts
<textAnnotation> and <text>	Note
<BPMNDiagram>	Description
<task> (*See Table 1)* **(if Organizational Process)**	**Operation**
name	Short Name
id	_Hexaidabs
<documentation>	Comment
isForCompensation	Compensation
<standardLoopCharacteristics>	Loop
<loopCondition>	Loop Condition
<multiInstanceLoopCharacteristics>	Multiple
calledElement	Called Organizational Process
<dataInput> and <dataInputAssociation>	Data Object Used
<dataOutput> and <dataOutputAssociation>	Produced Data Object
<textAnnotation> and <text>	Note
<gateway> (*See Table 2)*	**Gateway**
name	Short Name
id	_Hexaidabs
<documentation>	Comment
<textAnnotation> and <text>	Note
<event> (*See Table 3)*	**Event**
name	Short Name
id	_Hexaidabs
<documentation>	Comment
isInterrupting or cancelActivity	Interrupting
attachedToRef	Bounded Activity
<textAnnotation> and <text>	Note
<SequenceFlow>	**Sequence Flow**
id	_Hexaidabs
<documentation>	Comment
<conditionExpression>	Predicate
sourceRef	Predecessor

BPMN Concepts	MEGA Concepts
targetRef	Successor
<dataObject> and <dataObjectReference> name id isCollection <dataObjectReference> and <documentation> <dataObjectReference::name>	**Data Object** Short Name _Hexaidabs Collection Comment Data Object Status
<dataStore> and <dataStoreReference> name id Link Input and Output to DataStore	**Data Store** Short Name _Hexaidabs **Message Flow** into the Data Store or out of the data store
<messageFlow> id <documentation> sourceRef targetRef	**Message Flow** _Hexaidabs Comment Source Element Target Element
<lane> name id name <flowNodeRef>	**Internal Participant** Short Name _Hexaidabs Assignment BPMN Element
<participant> name id name <textAnnotation> and <text>	**External Participant** Short Name _Hexaidabs Assignment Note
<textAnnotation> and <association> id <text>	**Note** _Hexaidabs Comment

BPMN Concepts	MEGA Concepts
<process> (if System Process)	**System Process**
name	Short Name
id	_Hexaidabs
<documentation>	Comment
<task>	Owned Task
	Owned Element
<gateway>	Gateway
<event>	Event
<sequenceFlow>	Sequence Flow
<dataObject> and <dataObjectReference>	Data Object
<messageFlow>	Message Flow
<participant> or <lane>	Participant
<laneSet> and <lane>	Internal Participant
<callActivity> or <subProcess>	Owned System Process
<textAnnotation> and <text>	Note
<BPMNDiagram>	Description
<task> (*See Table 1)* **(if System Process)**	**Task**
name	Short Name
id	_Hexaidabs
<documentation>	Comment
isForCompensation	Compensation
<standardLoopCharacteristics>	Loop
<loopCondition>	Loop Condition
<multiInstanceLoopCharacteristics>	Multiple
calledElement	Called Organizational Process
<dataInput> and <dataInputAssociation>	Data Object Used
<dataOutput> and <dataOutputAssociation>	Produced Data Object
<textAnnotation> and <text>	Note
<process> (if Functional Process)	**Functional Process**
name	Short Name
id	_Hexaidabs

BPMN Concepts	MEGA Concepts
<documentation>	Comment
<task>	Owned Functional Activity
	Owned Element
<gateway>	Gateway
<event>	Event
<sequenceFlow>	Sequence Flow
<dataObject> and <dataObjectReference>	Data Object
<messageFlow>	Message Flow
<participant> or <lane>	Participant
<laneSet> and <lane>	Internal Participant
<callActivity> or <subProcess>	Owned Functional Process
<textAnnotation> and <text>	Note
<BPMNDiagram>	Description
<task> (*See Table 1)* **(if Functional Process)**	**Functional Activity**
name	Short Name
id	_Hexaidabs
<documentation>	Comment
isForCompensation	Compensation
<standardLoopCharacteristics>	Loop
<loopCondition>	Loop Condition
<multiInstanceLoopCharacteristics>	Multiple
calledElement	Called Organizational Process
<dataInput> and <dataInputAssociation>	Data Object Used
<dataOutput> and <dataOutputAssociation>	Produced Data Object
<textAnnotation> and <text>	Note

Table 1:

BPMN	Task Type
<task>	**Task Type**
<userTask>	User

BPMN	Task Type
<serviceTask>	IT-Service Call
<callActivity>	System Process Call
<scriptTask>	Script
<sendTask>	Send
<receiveTask>	Receive
<manualTask>	Manual
<businessRuleTask>	Business Rule

Table 2:

BPMN	Gateway Type
<gateway>	**Gateway Type**
<inclusiveGateway>	Inclusive
<complexGateway>	Complex
<parallelGateway>	Parallel
<exclusiveGateway>	Exclusive (Data)
<eventBasedGateway> and ::eventGatewayType=Exclusive and ::instantiate=false	Exclusive (Event)
<eventBasedGateway> and ::eventGatewayType=Exclusive and ::instantiate=true	Exclusive (Instantiate)
<eventBasedGateway> and ::eventGatewayType=Parallel and ::instantiate=true	Parallel (Instantiate)

Table 3:

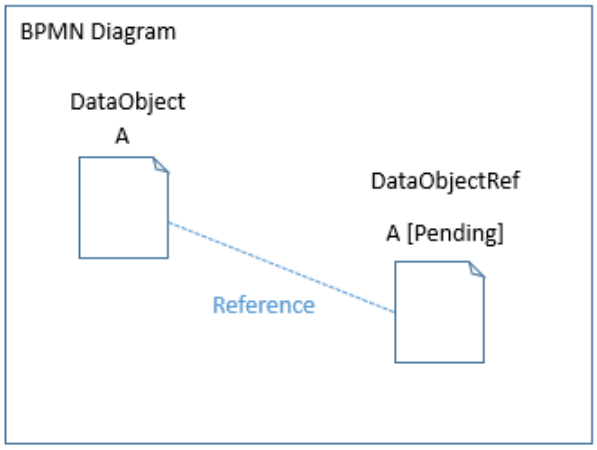
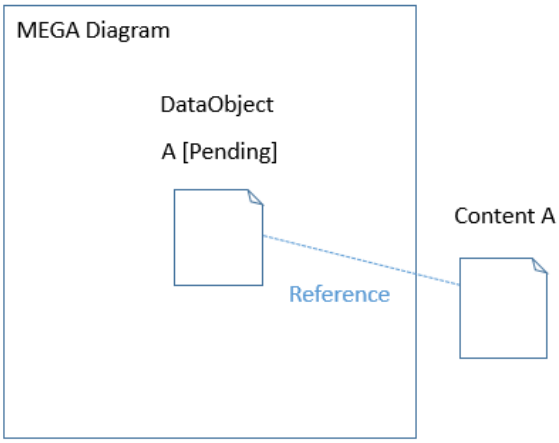
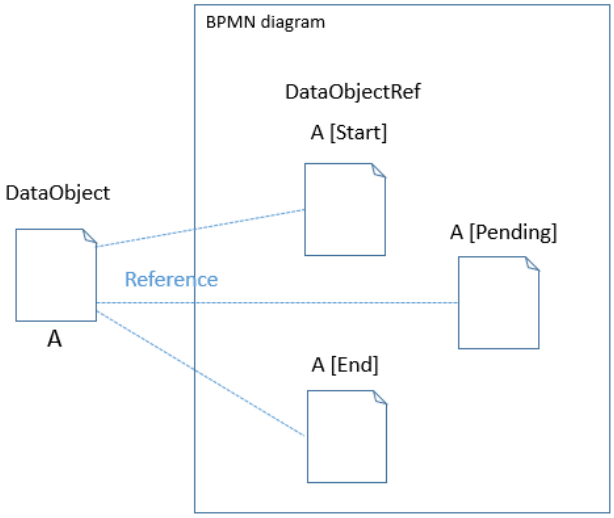
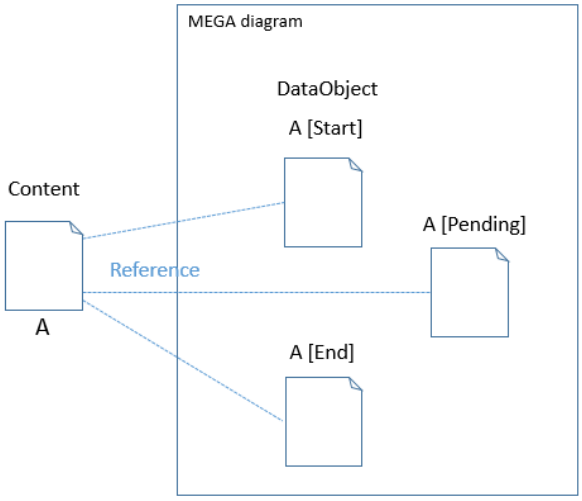
		Event Nature				Bounded Activity
		Start	End	Throw	Catch	
		<startEvent>	*<endEvent>*	*<intermediateThrowEvent>*	*<intermediateCatchEvent>*	*<boundaryEvent>*
Event Type	Generic					
	Message	<messageEventDefinition>	<messageEventDefinition>	<messageEventDefinition>	<messageEventDefinition>	<messageEventDefinition>
	Timer	<timerEventDefinition>	*	*	<timerEventDefinition>	<timerEventDefinition>
	Error	<errorEventDefinition>	<errorEventDefinition>	*	*	<errorEventDefinition>
	Cancel	*	<cancelEventDefinition>	*	*	<cancelEventDefinition>
	Compensation	<compensateEventDefinition>	<compensateEventDefinition> and ::waitForCompletion=true	<compensateEventDefinition> and ::waitForCompletion=true	*	<compensateEventDefinition> and ::waitForCompletion=true
	Conditional	<conditionalEventDefinition> and <condition>	*	*	<conditionalEventDefinition> and <condition>	<conditionalEventDefinition> and <condition>
	Link	*	*	<linkEventDefinition>	<linkEventDefinition>	*
	Signal	<signalEventDefinition>	<signalEventDefinition>	<signalEventDefinition>	<signalEventDefinition>	<signalEventDefinition>
	Terminate	*	<terminateEventDefinition>	*	*	*
	Escalation	<escalationEventDefinition>	<escalationEventDefinition>	<escalationEventDefinition>	*	<escalationEventDefinition>
	Parallel Multiple	::parallelMultiple=true	*	*	::parallelMultiple=true	::parallelMultiple=true

		Event Nature				Bounded Activity
		Start	End	Throw	Catch	
		<startEvent>	*<endEvent>*	*<intermediateThrowEvent>*	*<intermediateCatchEvent>*	*<boundaryEvent>*
	Multiple					

* = Combinaison not possible

Specific Mapping Cases

BPMN Concepts imported	Result in MEGA
Process	
One process per file	The process is described in the resulting diagram.
One process with external participants (that do not refer processes)	The process is described in the resulting diagram.
Several processes per file	A new “container” process is created in MEGA. It is the object of the resulting diagram and it contains the different processes imported.
Dataobject/Dataobjectreference (Datainput/Dataoutput)	
(Reminder) DataObject DataObjectReference	 Content DataObject
DataObject without Reference	As a content can not be represented graphically on its own in MEGA, a DataObject is created with a content.

DataObjectReference + DataObject in the diagram 	References resulting in DataObjects are represented in the diagram. The content is also created but not represented in the diagram. 
DataObjectReferences in the diagram + DataObject outside the diagram 	References resulting in DataObjects are represented in the diagram, with their status. A content is also created, not represented in the diagram. 
Cases of DataInput/DataOutput	Links between DataInput/DataOutput and Events are not handled. Indeed, in MEGA you can not create links between DataObject and Event.

Comments on TextAnnotations

If the “textAnnotation” tag contains a “text” tag, anf if the latter contains a chain, this chain is included in the comment of the Note object. If the chain contained in the “text” tag is empty or if the

“text” tag does not exist, the chain contained in the “documentation” tag, under the “textAnnotation” tag, is taken.

XPDL Export

XPDL EXPORT OVERVIEW

The XML Process Definition Language (XPDL) is a standard format to interchange Business Process definitions between different workflow products such as modeling tools and workflow engines.

The MEGA XPDL export project aims at exporting workflow definitions as XPDL files so that workflows modeled in MEGA can be executed by workflow engines such as FileNet and TIBCO.

Prerequisites

The XPDL export feature is available with **MEGA Designer, MEGA Process BPMN and MEGA System BluePrint**, and supports XPDL version 2.1.

Scope of XPDL export

The purpose of XPDL export is to translate MEGA Processes into XPDL.

The tool handles translation of the following processes:

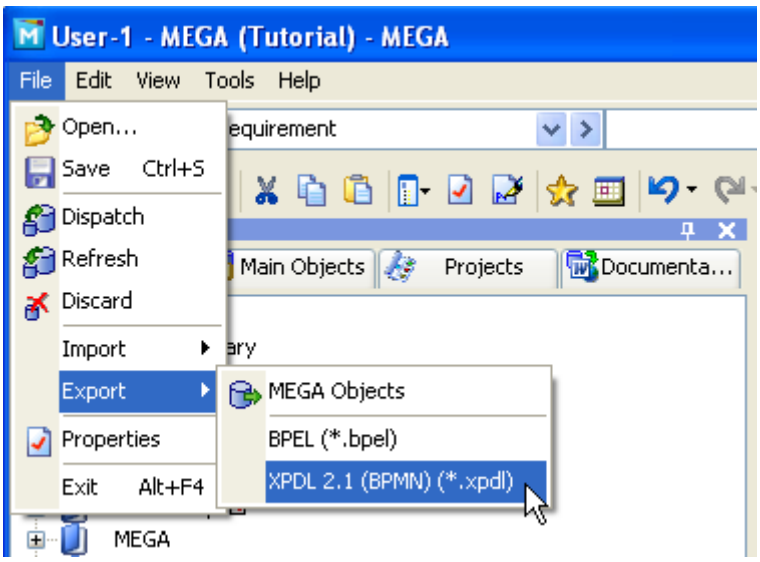
- System Processes
- Organizational Processes
- Business Processes
- Functional Processes

The list of supported mappings is detailed below. See Object correspondences.

Exporting XPDL Files

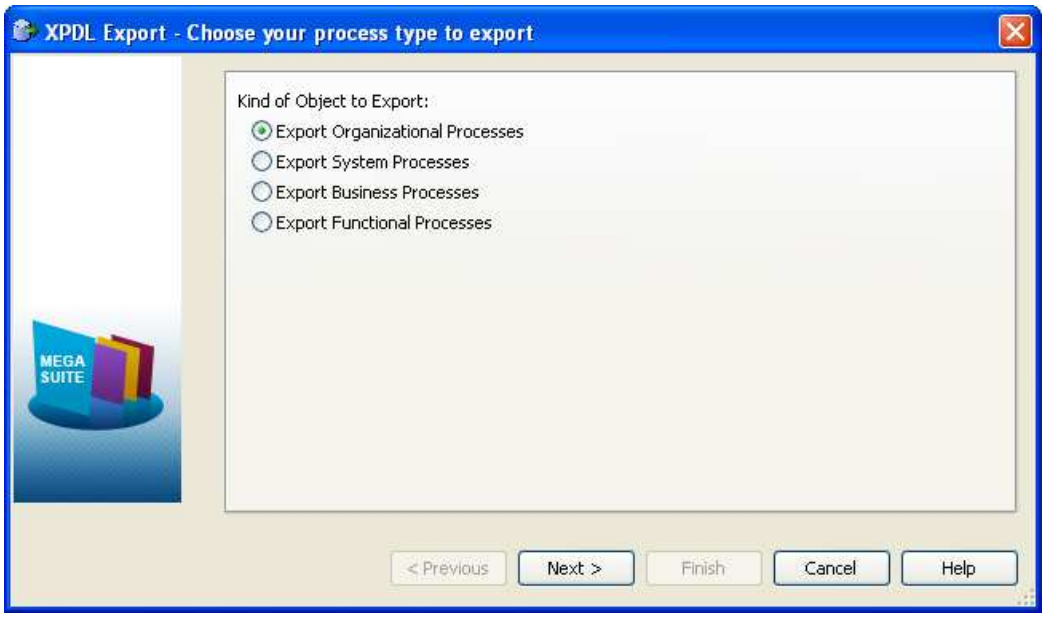
To export an XPDL file from MEGA:

1. In MEGA, select **File > Export > XPDL 2.1 (*.xpdl).**

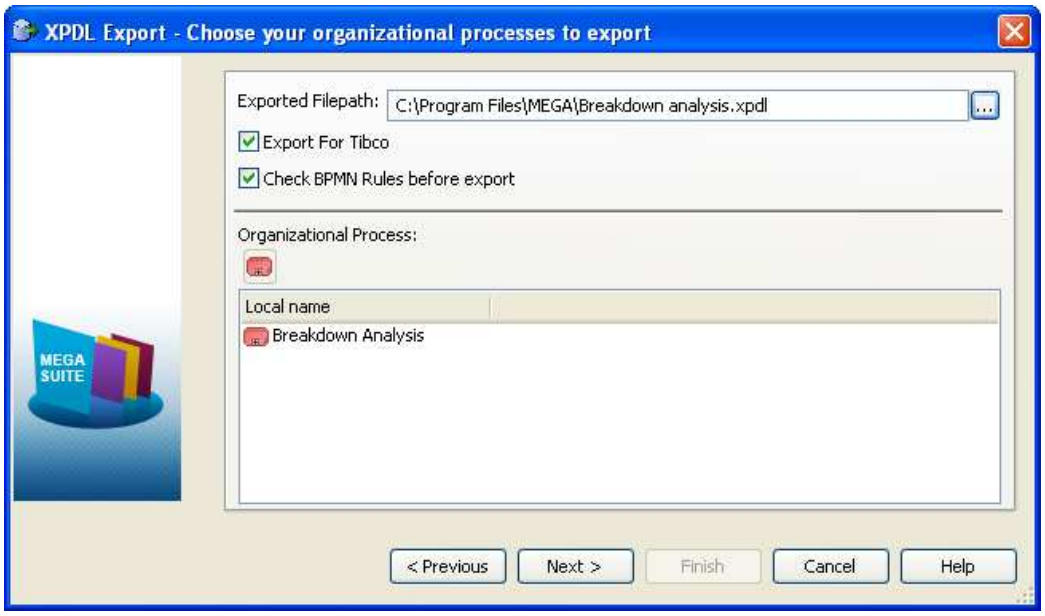


The export dialog box appears.

2. Select the type of object you want to export, for example Organizational Process, and click **Next**.



3. Specify the name and path of the file to create, and select the Object to export.



Two options are available:

- **Export for Tibco**. See Export To TIBCO Business Studio.
- **Check BPMN Rules before export**: this option checks whether processes you want to export conform to BPMN modeling rules. If not, a message asks if you want to continue with the export. Click **Yes** to continue or **No** to stop the export.

4. Click **Next**.

   The window that follows shows progression of the export.

5. Click **Finish**.

MEGA/XPDL OBJECT CORRESPONDENCE

The XPDL export feature translates a Workflow specification in MEGA into a XPDL-compliant output file. It is based on a set of mappings between the MEGA System Process and Organizational Process metamodel and XPDL version 2.1.

Conventions

MEGA concept names start with uppercase. Example: Task.

XPDL elements are delimited by <..>.

XPDL attributes are prefixed by ::.

XPDL concepts relate to the following WfMC Specification document: “Process Definition Interface – XML Process Definition Language, WFMC-TC-1025, Version 2.1a”.

Special Behaviors

Each exported Workflow will generate a default <Pool> and a default <Lane>.

The internal participants will be exported as <Artifact> typed Group for graphical layout purpose and as <Participant> which will perform the tasks.

The external participants will be exported as <Pool>and as <Participant>.

Only graphical Sequence Flows, Message Flows and Notes are exported.

Application, IT Service and User Interface objects are exported as Extended Attributes. Its name, id and comment are concerned.

The export tool considers objects and links using the rules detailed in the object correspondence table. The diagrams are only used to retrieve graphical information of exported objects. One possible consequence is that in the result you can have, after import in another tool, more objects appearing in the result diagram.

Object correspondences

The following table indicates concepts managed by the export tool:

MEGA Concepts	XPDL Concepts
Organizational Process	**<WorkflowProcess>**
Name	Name
_Hexaidabs	Id
Comment	Description
Owned Operation	<Activities>
Owned Element	

MEGA Concepts	XPDL Concepts
Gateway	
Event	<Activities>
Sequence Flow (*)	<Activities>
Data Object	<Transitions>
Message Flow (*)	<Artifacts>
Participant	<MessageFlows>
Content	<Participants>
Internal Participant	<DataFields>
Owned Organizational Process	<Participants>
Organizational Process Used	<WorkflowProcess>
	<WorkflowProcess>
Operation	**<Activity>**
Name	Name
_Hexaidabs	Id
Comment	Description
Compensation	IsForCompensation
Transaction	IsATransaction
Loop	<Loop>
Multiple	<Loop :: LoopType>
Loop Condition	<LoopCondition>
User Interface	<Task::TaskUser>
Name	<ExtendedAttribute :: GuiName>
_Hexaidabs	<ExtendedAttribute :: GuiId>
Comment	<ExtendedAttribute :: GuiDescription>
IT Service	<Task::TaskService>
Name	<ExtendedAttribute :: ServiceName>
_Hexaidabs	<ExtendedAttribute :: ServiceId>
Comment	<ExtendedAttribute :: ServiceDescription>
Application	<Task::TaskService>
Name	<ExtendedAttribute :: ServiceName>
_Hexaidabs	<ExtendedAttribute :: ServiceId>
Comment	<ExtendedAttribute :: ServiceDescription>

MEGA Concepts	XPDL Concepts
System Used	
System Specification	
IT Service	<Task::TaskService>
Application	<Task::TaskService>
Name	<ExtendedAttribute :: ServiceName>
_Hexaidabs	<ExtendedAttribute :: ServiceId>
Comment	<ExtendedAttribute :: ServiceDescription>
Participant	<Performer>
Called Organizational Process	<Implementation :: SubFlow>
Note (*)	<Artifact :: Annotation>
Content	**<DataField>**
Name	Name
_Hexaidabs	Id
Gateway	**<Activity :: Route>**
Name	Name
_Hexaidabs	Id
Comment	Description
Gateway Type	*See Table 1*
Note (*)	<Artifact :: Annotation>
Event	**<Activity :: Event>**
Name	Name
_Hexaidabs	Id
Comment	Description
Event Nature	*See Table 2*
Event Type	*See Table 2*
Triggered Sequence Flow	<Transition>
Bounded Activity	Target
Note (*)	<Artifact :: Annotation>
Sequence Flow	**<SequenceFlow>**
Predicate	Name
_Hexaidabs	Id

MEGA Concepts	XPDL Concepts
Comment	Description
Sequence Type	*See Table 3*
Predecessor	<Transition :: From>
Successor	<Transition :: To>
Data Object	<Artifact :: DataObject>
Note (*)	<Artifact :: Annotation>
Data Object	**<Artifact :: DataObject>**
Name	Name
_Hexaidabs	Id
Data Object Status	State
Producer of Data Object	<Association :: Source>
Consumer of Data Object	<Association :: Target>
Sequence Flow	<Association :: Object>
Message Flow	**<MessageFlow>**
_Hexaidabs	Id
Content	
Name	Name
Source Element	<MessageFlow :: Source>
Target Element	<MessageFlow :: Target>
Note (*)	<Artifact :: Annotation>
Participant	**<Participant> & <Artifact :: Group>**
Name	Name
_Hexaidabs	Id
Comment	Description
Assignment	
Name	<Artifact :: Description>
MetaClass Name	*See Table 4*
Note	**<Artifact :: Annotation>**
Name	Name
_Hexaidabs	Id
Comment	TextAnnotation

MEGA Concepts	XPDL Concepts
System Process Name _Hexaidabs Comment Owned Task Owned Element Gateway Event Sequence Flow (*) Data Object Message Flow (*) Participant Content Internal Participant Owned System Process Organizational Process within Model	**<WorkflowProcess>** Name Id Description <Activities> <Activities> <Activities> <Transitions> <Artifacts> <MessageFlows> <Participants> <DataFields> <Participants> <WorkflowProcess> <WorkflowProcess>
Task Name _Hexaidabs Comment Compensation Transaction Loop Multiple Loop Condition Task Type User Interface Name _Hexaidabs Comment IT Service Name	**<Activity>** Name Id Description IsForCompensation IsATransaction <Loop> <Loop :: LoopType> <LoopCondition> *See Table 5* <Task::TaskUser> <ExtendedAttribute :: GuiName> <ExtendedAttribute :: GuiId> <ExtendedAttribute :: GuiDescription> <Task::TaskService> <ExtendedAttribute :: ServiceName>

MEGA Concepts	XPDL Concepts
_Hexaidabs	<ExtendedAttribute :: ServiceId>
Comment	<ExtendedAttribute :: ServiceDescription>
Participant	<Performer>
Called System Process	<Implementation :: SubFlow>
Note (*)	<Artifact :: Annotation>
Functional Process	**<WorkflowProcess>**
Name	Name
_Hexaidabs	Id
Comment	Description
Owned Functional Activity	<Activities>
Owned Element	
Gateway	<Activities>
Event	<Activities>
Sequence Flow (*)	<Transitions>
Data Object	<Artifacts>
Message Flow (*)	<MessageFlows>
Participant	<Participants>
Internal Participant	<Participants>
Owned Functional Process	<WorkflowProcess>
Functional Process Used	<WorkflowProcess>
Functional Activity	**<Activity>**
Name	Name
_Hexaidabs	Id
Comment	Description
Compensation	IsForCompensation
Transaction	IsATransaction
Loop	<Loop>
Multiple	<Loop :: LoopType>
Loop Condition	<LoopCondition>
Application	<Task::TaskService>
Name	<ExtendedAttribute :: ServiceName>
_Hexaidabs	<ExtendedAttribute :: ServiceId>

MEGA Concepts	XPDL Concepts
Comment	<ExtendedAttribute :: ServiceDescription>
IT Service	<Task::TaskService>
Name	<ExtendedAttribute :: ServiceName>
_Hexaidabs	<ExtendedAttribute :: ServiceId>
Comment	<ExtendedAttribute :: ServiceDescription>
Participant	<Performer>
Called Functional Process	<Implementation :: SubFlow>
Note (*)	<Artifact :: Annotation>
Business Process	**<WorkflowProcess>**
Name	Name
_Hexaidabs	Id
Comment	Description
Owned Element	
Gateway	<Activities>
Event	<Activities>
Sequence Flow (*)	<Transitions>
Data Object	<Artifacts>
Message Flow (*)	<MessageFlows>
Participant	<Participants>
Internal Participant	<Participants>
Owned Business Process	<WorkflowProcess>
Organizational Process	<WorkflowProcess>
System Process	<WorkflowProcess>
Functional Process	<WorkflowProcess>

(*) Only if the object is represented on a diagram

Table 1:

MEGA Gateway Type	XPDL
Gateway Type	**<Route>**
Exclusive Event	:: GatewayType = Exclusive & :: ExclusiveType = Event
Exclusive Data	:: GatewayType = Exclusive & :: ExclusiveType = Data

MEGA Gateway Type	XPDL
Parallel	:: GatewayType = Parallel
Inclusive	:: GatewayType = Inclusive
Complex	:: GatewayType = Complex

Table 2:

		MEGA Event Nature			
		Start	**End**	**Throw**	**Catch**
		<StartEvent>	***<EndEvent>***	***<IntermediateEvent>*** ***CatchThrow = Throw***	***<IntermediateEvent>*** ***CatchThrow = Catch***
MEGA Event Type	**Generic**	:: Trigger = None	:: Result = None	:: Trigger = None	:: Trigger = None
	Message	:: Trigger = Message	:: Result = Message	:: Trigger = Message	:: Trigger = Message
	Timer	:: Trigger = Timer	:: Result = None *	:: Trigger = None *	:: Trigger = Timer
	Error	:: Trigger = None *	:: Result = Error	:: Trigger = None *	:: Trigger = Error
	Cancel	:: Trigger = None *	:: Result = Cancel	:: Trigger = None *	:: Trigger = Cancel
	Compensation	:: Trigger = None *	:: Result = Compensation	:: Trigger = Compensation	:: Trigger = Compensation
	Conditional	:: Trigger = Conditional	:: Result = None *	:: Trigger = None *	:: Trigger = Conditional
	Link	:: Trigger = None *	:: Result = None *	:: Trigger = Link	:: Trigger = Link
	Signal	:: Trigger = Signal	:: Result = Signal	:: Trigger = Signal	:: Trigger = Signal
	Terminate	:: Trigger = None *	:: Result = None *	:: Trigger = None *	:: Trigger = None *
	Multiple	:: Trigger = Multiple	:: Result = Multiple	:: Trigger = Multiple	:: Trigger = Multiple

* = Default behavior because the combination is not possible

Table 3:

MEGA Sequence Type	XPDL
Sequence Type	**<Condition>**
Conditioned	:: Type = CONDITION & :: <Expression>
Standard	-
Default	:: Type = OTHERWISE

Table 4:

MEGA Assignment	XPDL
Assignment	**<ParticipantType>**
Org-Unit	:: Type = ORGANIZATIONAL_UNIT
Application	:: Type = SYSTEM
IT Service	:: Type = SYSTEM
System Process	:: Type = SYSTEM
Others	:: Type = ROLE

Table 5:

MEGA Task Type	XPDL
Task Type Task With GUI IT Service Call System Process Call Manual Task Script Task Send Task Receive Task	**<Task>** <TaskUser> <TaskService> <SubFlow> <TaskManual> <TaskScript> <TaskSend> <TaskReceive>

EXPORT TO TIBCO BUSINESS STUDIO

The XPDL export tool of MEGA enables the export of workflows modeled in MEGA and their import into TIBCO Business Studio®.

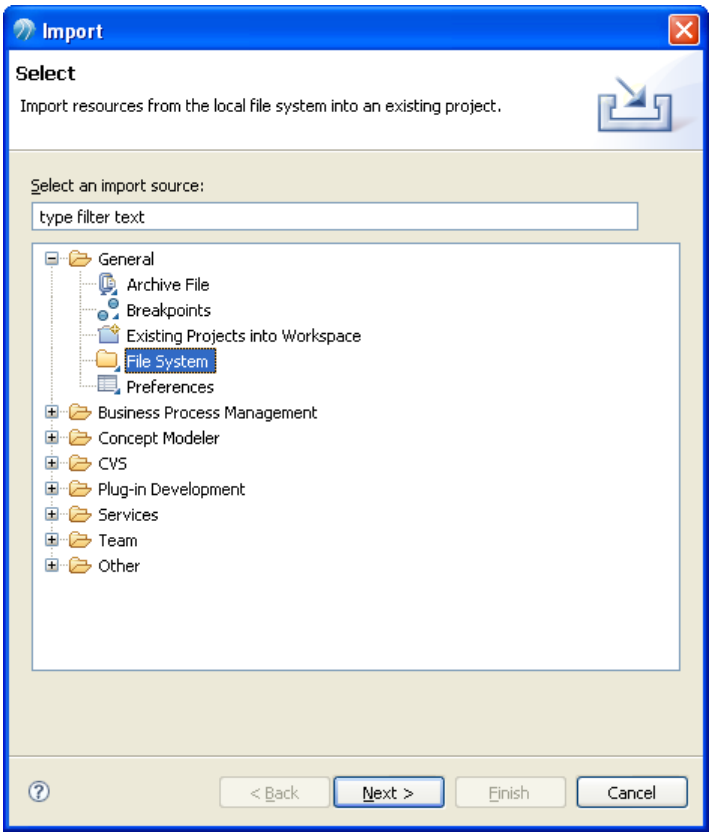
To obtain workflow that can be used in TIBCO Business Studio, simply export the description of this workflow in XPDL format.

To do this:

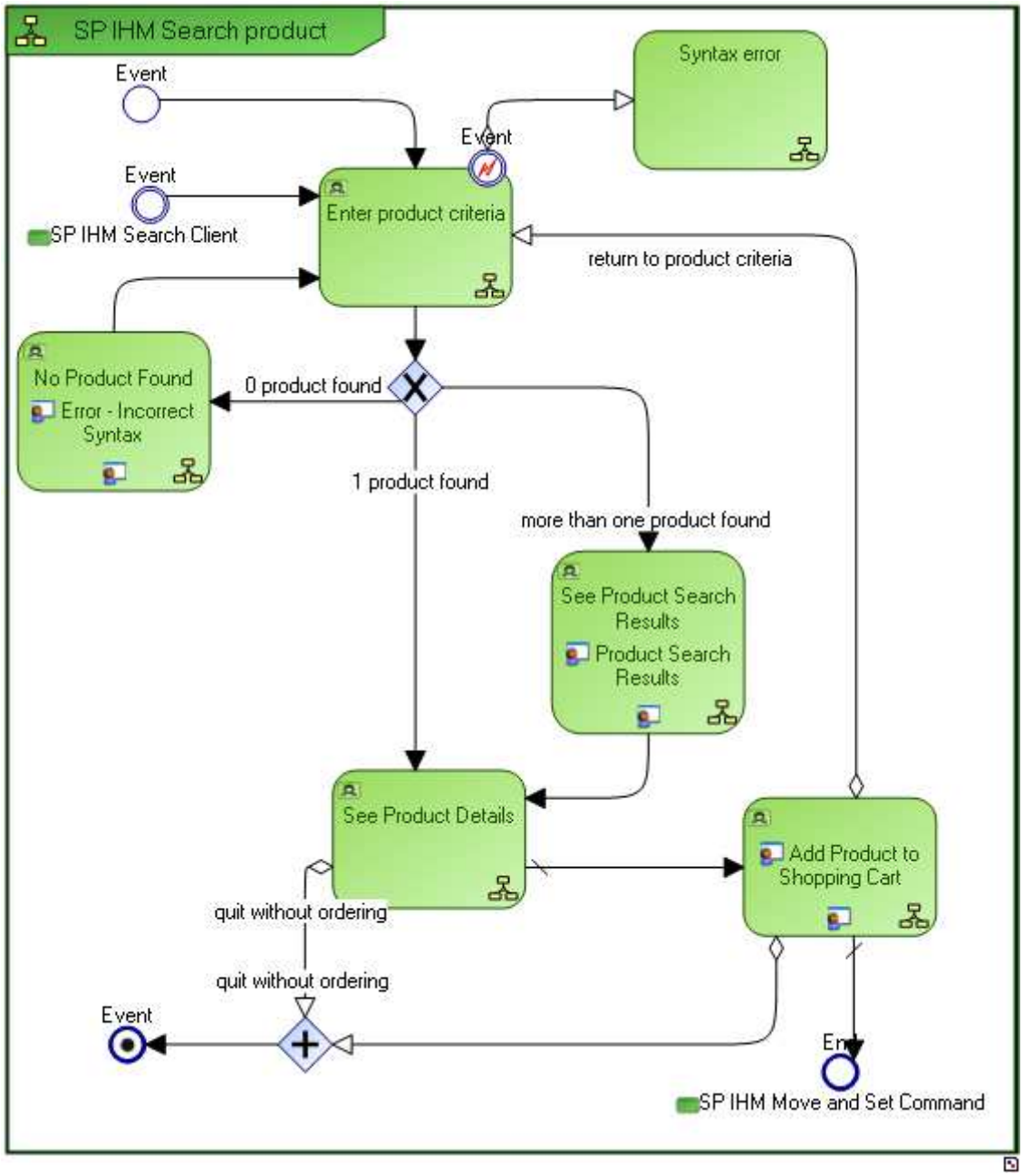
1. In MEGA, select **File** > **Export** > XPDL **2.1 (*.xpdl)**.

   The export dialog box appears.

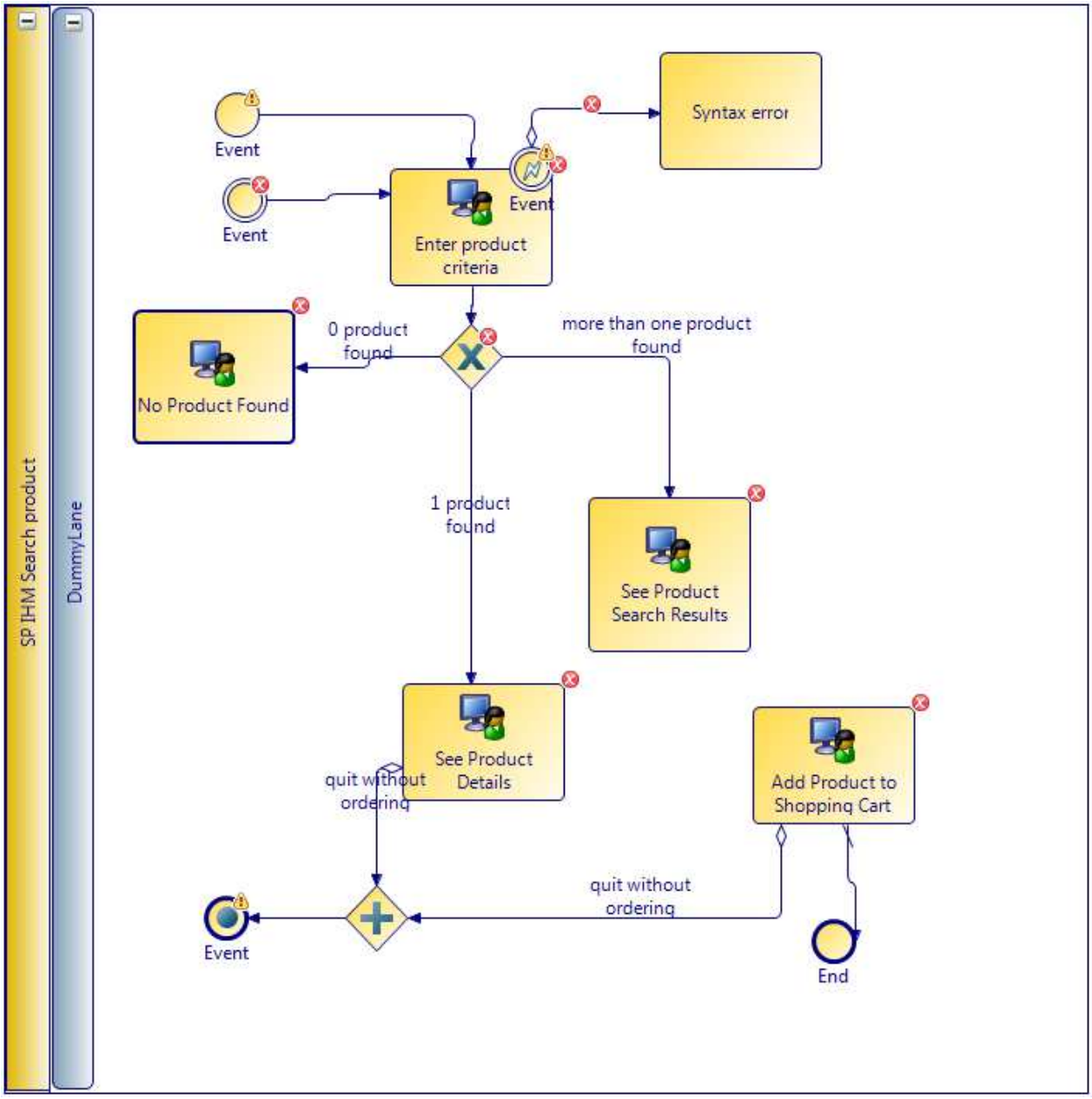
2. Select the system processes or the organization processes to be exported.
3. Specify the name of the file to be exported.
4. Check the option “Export for Tibco” (if available)
5. Click **Next**.
6. Click the **Export** button.
7. In TIBCO Business Studio, import the XPDL file in a “Process Packages Folder” by using the “File System” import source:



Example of workflow in MEGA:



Example of the workflow imported into TIBCO Business Studio:



HOPEX XMI 2.1 Import for UML2

XMI IMPORT OVERVIEW

The XML Metadata Interchange XMI is an OMG standard for exchanging UML Models between different UML products such as modeling tools and UML Design.

The XMI Import project aims at importing the content of .xmi and .uml files into HOPEX so that users can reproduce diagrams from other platforms. Only the data (the objects) are imported, not the drawings.

Prerequisites

The XMI Import feature supports UML versions from 2.3 to 2.5. A file with a version lower than 2.3 or higher than 2.5 can be imported, without guarantee of full success.

However, any URI not corresponding to one of the ones provided by the OMG (see links down below) does not allow the import.

http://schema.omg.org/spec/XMI/index.htm

http://schema.omg.org/spec/UML/index.htm

Scope of XMI Import

The purpose of the XMI Import tool is to import XMI data into HOPEX repository. The objects imported are those belonging to the Class Diagram, Use Case Diagram, Component Diagram, Composite Structure Diagram, Activity Diagram, Communication Diagram, Sequence Diagram, State Machine Diagram, Interaction Overview Diagram, Object Diagram, Deployment Diagram, etc.

Only objects are imported, not the drawings.

The exact list of the supported objects and their properties is detailed below.

IMPORTING XMI AND UML FILES

Depending on the source tool, the XMI import tool can import .xmi or .uml files.

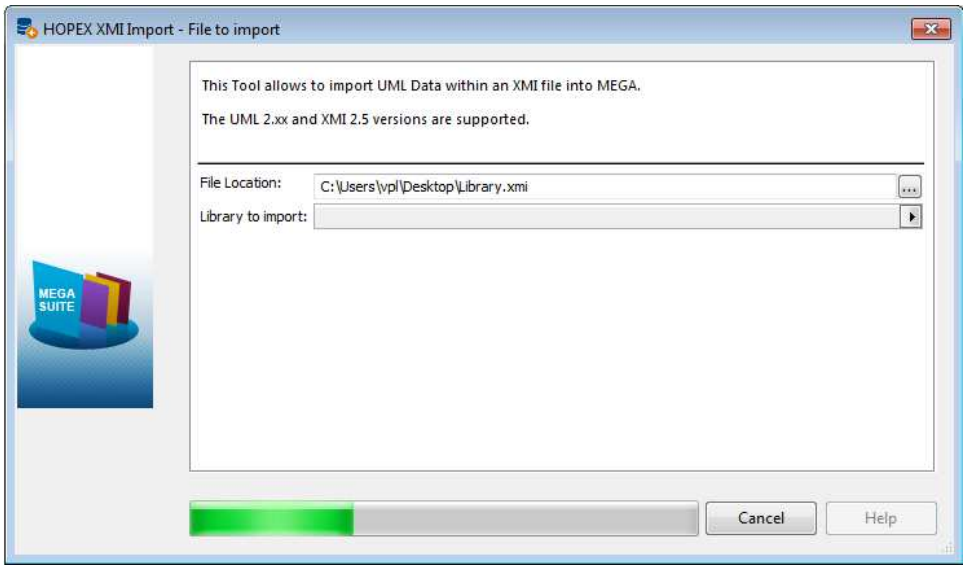
To import a file:

1. In HOPEX, select **File > Import > XMI 2.1 UML 2.3 (*.uml; *.xmi)**

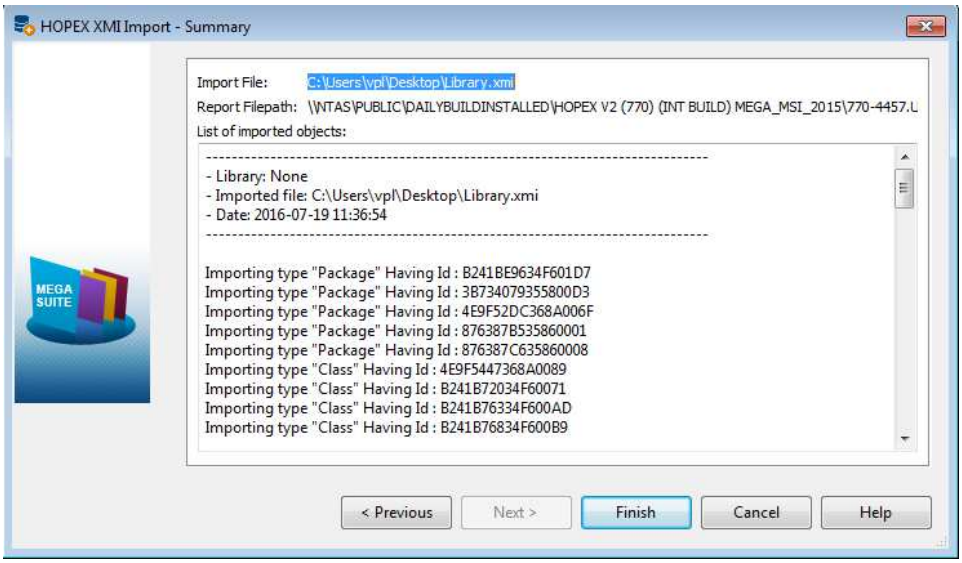
   The import wizard appears.

2. In **File Location**, select the file to be imported.
3. Select the library in which you want to import the data (optional).
4. Click **Next**.

   The wizard shows the import process progression.



   Then it shows the report of imported data.


HOPEX XMI Import - Summary
Import File: C:\Users\vpl\Desktop\Library.xmi
Report Filepath: \\NTAS\PUBLIC\DAILYBUILDINSTALLED\HOPEX V2 (770) (INT BUILD) MEGA_MSI_2015\770-4457.L
List of imported objects:
- Library: None
- Imported file: C:\Users\vpl\Desktop\Library.xmi
- Date: 2016-07-19 11:36:54
Importing type "Package" Having Id : B241BE9634F601D7
Importing type "Package" Having Id : 3B73407935580D3
Importing type "Package" Having Id : 4E9F52DC368A006F
Importing type "Package" Having Id : 876387B535860001
Importing type "Package" Having Id : 876387C635860008
Importing type "Class" Having Id : 4E9F5447368A0089
Importing type "Class" Having Id : B241B72034F60071
Importing type "Class" Having Id : B241B76334F600AD
Importing type "Class" Having Id : B241B76834F600B9
MEGA SUITE
< Previous
Next >
Finish
Cancel
Help

HOPEX/XMI OBJECT MAPPING

The following paragraph indicates what kinds of objects are imported by UML2 diagram types. Only objects belonging to the selected package are imported.

All objects that do not belong to a package are attached to a package called “Default Package”.
A package “UML Primitive Types” is imported by default if not already.

Class Diagram

Classes, attributes, associations, association ends, generalizations, generalization sets, operations, parameters, data types, primitive types, interfaces, enumerations, etc.

Use Case Diagram

Use cases, actors, packages, constraints, extension points (text), participations, extensions (link), inclusions (link), generalization, dependencies, etc.

State Machine Diagram

State machines, regions, states, pseudo states, transitions, constraints, etc.

Protocol State Machine Diagram

Protocol state machines, regions, states, pseudo states, transitions, constraints, etc.

Activity UML Diagram

Actions, control nodes, Input Pins, Output Pins, Exchange Pins, central buffer nodes, data store nodes, activity partitions, control flows, object flows, exception handlers, activities uml, activity parameter nodes, structured activity nodes, expansion regions, expansion nodes, interruptible activity regions, etc.

Component Diagram

Components, ports, packages, interfaces, required interfaces, provided interfaces, classes, Connectors, realized elements, etc.

Composite Structure Diagram

Collaborations UML, collaboration uses, parts, dependencies, connectors, interfaces, classes, provided interfaces, required interfaces, etc.

Sequence Diagram

Life lines, combined fragments, interaction uses, gates, states invariant, UML messages, constraints, etc.

Messages include those exchanged directly between lifelines as well as messages exchanged through execution specification.

Communication Diagram

Life lines, connectors, UML messages, etc.

Deployment Diagram

Packages, components, artifacts UML, nodes UML, devices, execution environments, interfaces, deployment specifications, deployments, manifestations, deployment configurations, component instances, device instances, node instances, execution environment instances, communication paths, etc.

Only objects owned by the selected package or its sub-packages are exported.

Objects that are linked to objects contained in the selected export package but owned by another package are also exported in order to ensure links. However, they will be owned by the exported package.

The following table indicates concepts managed by the export tool:

Class Diagram

MEGA Concepts	MetaAttribute	MetaAssociation(End)
Class	Name	Class Target Dependency
	xmi_id	Realization Class
	Visibility	Nested Class
	Comment	Association
	Abstract	Connector
	IsLeaf	Association Class
	IsActive	Attribute
	Client Dependency	Operation (UML)
		Generalization
		Required Interface
		Provided Interface
		Constraint
		Port
		AssociationEnd
		Owned Part
		Behavior: State Machine
		Behavior: Activity Uml
		Behavior: Interaction Uml
		Behavior: Collaboration Uml
		Protocol: ProtocolStateMachineDiagram
		Source Dependency
Data Type	Name	Class Target Dependency

MEGA Concepts	MetaAttribute	MetaAssociation(End)
	xmi_id Visibility Abstract IsLeaf IsActive Client Dependency	Nested Class
Interface	xmi_id Name Visibility Comment Abstract IsLeaf Client Dependency	Class Target Dependency Nested Class Association Attribute Operation (UML) Generalization RequiredInterface SpecificationInterface
Enumeration	_Hexaidabs Name Visibility Comment Client Dependency	Class Target Dependency Attribute Operation (UML) Literal Value RequiredInterface Specification Interface
LiteralValue	_Hexaidabs Name	Value Slot

MEGA Concepts	MetaAttribute	MetaAssociation(End)
Expression	xmi_id Name Visibility Comment Client Dependency	Class Target Dependency Specification Interface
Primitive Type	Name xmi_id Visibility Abstract IsLeaf IsActive	Class Target Dependency Nested Class
Association	xmi_id Name Visibility Comment IsAssociationDerived IsNavigable	Connection Dependency (Target Association) Class via AssociationEnd
Association End	xmi_id Name Aggregation: Composite/Shared	Association Dependency
Association Class	xmi_id	Class Target Dependency

MEGA Concepts	MetaAttribute	MetaAssociation(End)
	Name Visibility Comment IsLeaf Abstract IsActive IsAssociationDerived IsNavigable	Nested Class AssociationEnd Association Association Class Class via AssociationEnd Attribute Operation (UML)
Attribute	xmi_id Name Visibility Comment IsLeaf IsOrdred Uniqueness ReadOnly IsDerived InitialValue Multiplicity: UpperValue, LowerValue	Dependency (Target Attribute) AttributType
Operation (UML)	xmi_id Name Visibility Comment	Precondition Postcondition Parameter ReturnType

MEGA Concepts	MetaAttribute	MetaAssociation(End)
	Abstract IsQuery	Target Dependency
Dependency	_Hexaidabs Name Visibility Comment	Class Source Class Target Stereotype
Generalization	xmi_id Name Comment	Super Class UML constraint
GeneralizationSet	xmi_id Name Comment IsComplete IsDisjoint	Generalization
Constraint	xmi_id Name Comment MaxInt MinInt Specification	ConstrainedClass ConstrainedGeneralization ConstrainedElement Actor (UML) Package UseCase UseCaseParticipation

MEGA Concepts	MetaAttribute	MetaAssociation(End)
Parameter	_Hexaidabs Name Comment	Parameter Type
Behavior (UML)	_Hexaidabs Name	

Use Case Diagram

MEGA Concepts	MetaAttribut	MetaAssociation(End)
UseCase	xmi_id Name Visibility Comment	UsesUseCase OwnedExtension ExtensionPoint Behavior: State Machine Behavior: Protocol State Machine Behavior: Interaction UML Behavior: Activity UML Behavior: Collaboration UML Constraint Generalization
Actor (UML)	xmi_id Name Visibility Comment	Participation Constraint Generalization
Participation	xmi_id	UseCase

	Name Comment Multiplicity	Actor (UML) Constraint
Extension	xmi_id Name Comment	Extended Use Case Extension Location

Composite Structure and Communication Diagram

MEGA Concepts	MetaAttribut	MetaAssociation(End)
Collaboration uml	xmi_id Name Comment IsAbstract IsLeaf	CollaborationRole OwnedConnector OwnedCollaborationUse
Collaboration use	xmi_id Name Comment	Type
Part	xmi_id Name Visibility Client Dependency IsLeaf IsUnique	ConnectorEnd (of the LifeLine who represents the part) Dependency

	IsOrdered Multiplicity Aggregation: Composite/Shared Comment	
Connector	xmi_id Name Connector Kind IsLeaf	OwnedConnectorEnd
ConnectorEnd	xmi_id Name Multiplicity	Connector

State Machine

MEGA Concepts	MetaAttribut	MetaAssociation(End)
State Machine	xmi_id Name Comment Reentrant	DetailedState Region
Region	xmi_id Name Comment	State PseudoState Transition
State (UML)	xmi_id	Detailing Behavior

	Name Comment	Outgoing Incoming OwnedRegion DoActivity ExitActivity EntryActivivity ConnectionPoint (Entry Point/ Exit Point)
Pseudo State	xmi_id Name Comment PseudoStateKind	Outgoing Transition Incoming Transition
Transition (UML)	xmi_id Name Comment	Source Target Source Pseudo State Target Pseudo State Trigger Effect (Behavior) Constraint
Event (UML)	xmi_id Name Comment	EventKind
Protocol State Machine	xmi_id Name Visibility	Region

	Comment	
Trigger (UML)	xmi_id Name Comment	Event (UML)

Sequence, Communication and Interaction Overview Diagram

MEGA Concepts	MetaAttribut	MetaAssociation(End)
Interaction UML	xmi_id Name Comment	Gate Fragment (Combined Fragment, State Invariant, ...) LifeLine Message Action Parameter Operation (UML) OwnedInteraction (UML) OwnedInteractionOperand
Interaction Operand	xmi_id Name Comment	Fragment (Combined Fragment, State Invariant, ...) OwnedInteraction (UML) OwnedInteractionOperand
OccurrenceSpecification	xmi_id Name Comment	Event (UML) Message
ExecutionSpecification	xmi_id Name	start finish

	Comment	
LifeLine	xmi_id Name Comment	ElementRepresentedByALifeline ElementCoveringLifeline OwnedSelector
Combined Fragment	xmi_id Name InteractionOperatorKind Comment	InteractionOperand CoveredLifeLine
Interaction Use	xmi_id Name Comment	RefersTo CoveredLifeLine
State Invariant	xmi_id Name Comment	InvariantConstraint CoveredLifeLine
Gate	xmi_id Name Comment	
Message UML	xmi_id Name MessageKind MessageSort Comment	Receiver Sender Connector

Activity and Interaction Overview Diagram

MEGA Concepts	MetaAttribut	MetaAssociation(End)
Action	xmi_id	OutgoingControlFlow
	Name	OutgoingObjectFlow
	IsLeaf	IncomingControlFlow
	ActionKind	IncomingObjectFlow
	Comment	OwnerGroup
		RequestOperation
		CalledBehavior
		StructuralFeatureElementManagedByAnAction
		RequestSignal
		Association
		ClassManagedByAnAction
		Variable
		InputPin
		OutputPin
		ProtectingExceptionHandler
		Trigger
		LocalPostCondition
		LocalPreCondition
		Constraint
Control Node	xmi_id	OutgoingControlFlow
	Name	OutgoingObjectFlow
	IsLeaf	IncomingControlFlow
	Comment	IncomingObjectFlow
	ControlNodeType	OwnerGroup

Input Pin	xmi_id Name IsLeaf InputPinKind ControlType OrderingKind Comment	OutgoingControlFlow OutgoingObjectFlow IncomingControlFlow IncomingObjectFlow Constraint
Output Pin	xmi_id Name IsLeaf OutputPinKind ControlType OrderingKind Comment	OutgoingControlFlow OutgoingObjectFlow IncomingControlFlow IncomingObjectFlow Constraint
Exchange Pin	xmi_id Name IsLeaf ControlType OrderingKind Comment	OutgoingObjectFlow IncomingObjectFlow OwnerGroup
Central Buffer Node	xmi_id Name IsLeaf	OutgoingObjectFlow IncomingObjectFlow OwnerGroup

	ControlType OrderingKind Comment	
Data Store Node	xmi_id Name IsLeaf ControlType OrderingKind Comment	OutgoingObjectFlow IncomingObjectFlow OwnerGroup Constraint
Activity Partition	xmi_id Name IsDimension IsExternal Comment	ContainedElement Constraint
Object Flow	xmi_id Name IsLeaf Comment	Guard Weight SourceElement TargetElement Constraint
Control Flow	xmi_id Name IsLeaf Comment	Guard Weight SourceElement TargetElement

		Constraint
Exception Handler	xmi_id Name Comment	ProtectedNode ExceptionInput Constraint
Activity UML	xmi_id Name Reentrant SingleExecution IsLeaf Comment	ElementOwnedByAnActivityUML Constraint
Activity Parameter Node	xmi_id Name IsLeaf ControlType OrderingKind Comment	OutgoingObjectFlow IncomingObjectFlow Constraint
Structured Activity Node	xmi_id Name IsLeaf MustIsolate Comment	OutgoingControlFlow OutgoingObjectFlow IncomingControlFlow IncomingObjectFlow OwnerGroup ContainedElement InputPin

		OutputPin Constraint
Expansion Node	xmi_id Name IsLeaf ControlType OrderingKind Comment	OutgoingControlFlow OutgoingObjectFlow IncomingControlFlow IncomingObjectFlow Region Constraint
Expansion Region	xmi_id Name IsLeaf MustIsolate ExpansionKind Comment	OutgoingControlFlow OutgoingObjectFlow IncomingControlFlow IncomingObjectFlow OwnerGroup ContainedElement ExpansionNode InputElement OutputElement
Interruptible Activity Region	xmi_id Name Comment	OwnerGroup ContainedElement Constraint
Loop Node	xmi_id Name IsLeaf	OutgoingControlFlow OutgoingObjectFlow IncomingControlFlow

	MustIsolate TestedFirst Comment	IncomingObjectFlow OwnerGroup ContainedElement InputPin OutputPin Constraint Test
Conditional Node	xmi_id Name IsLeaf MustIsolate Assured Determinate Comment	OwnerGroup ContainedElement InputPin OutputPin Constraint OutgoingControlFlow OutgoingObjectFlow IncomingControlFlow IncomingObjectFlow
Sequence Node	xmi_id Name IsLeaf MustIsolate Comment	OutgoingControlFlow OutgoingObjectFlow IncomingControlFlow IncomingObjectFlow OwnerGroup ContainedElement InputPin OutputPin Constraint

Package Diagram

MEGA Concepts	MetaAttribut	MetaAssociation(End)
Package	Name	Client Dependency
	xmi_id	Package Target Dependency
	Visibility	Owned Class
	Comment	Owned Package
		Owned Association
		Association Class
		Owned Dependency
		Owned Element (UML): Generalization
		Owned Use Case
		Owned Actor (UML)
		Constraint
		Behavior: State Machine
		Behavior: Protocol State Machine
		Behavior: Activity Uml
		Behavior: Interaction Uml
		Behavior: Collaboration Uml
		Owned Component
		Owned Event

Component Diagram

MEGA Concepts	MetaAttribut	MetaAssociation(End)
Component	xmi_id	required Interface
	Name	provided
	Comment	Port

	Isleaf Visibility Client Dependency	OwnedPart
Port	xmi_id Name Comment Client Dependency	
Interface	xmi_id Name Visibility Comment Abstract IsLeaf Client Dependency	Class Target Dependency Nested Class Association Association Class Attribute Operation (UML) Generalization RequiredInterface SpecificationInterface

Deployment Diagram

MEGA Concepts	MetaAttribut	MetaAssociation(End)
Artifact UML	xmi_id Name Comment Client Dependency	Target Dependency OwnedAttribute OwnedOperation NestedArtifact
Node UML	xmi_id	Deployment

	Name Comment Client Dependency	
Device	xmi_id Name Comment Client Dependency	Deployment
Execution Environment	xmi_id Name Comment Client Dependency	Deployment
Deployment Specification	xmi_id Name Comment Client Dependency	Target Dependency
Instance (Node UML/Device/Execution Specification/Component)	xmi_id Name Comment Client Dependency	Instantiated Element Target Dependency
Communication Path	xmi_id Name Comment	Communication Path End

Deployment	xmi_id Name Comment	Deployed Element Deployment Configuration
Manifestation	xmi_id Name Comment	Multiplicity Deployed Element Deployment Configuration

Object Diagram

MEGA Concepts	MetaAttribut	MetaAssociation(End)
Instance	xmi_id Name Comment	
Link	xmi_id Name Comment	LinkEnd
LinkEnd	xmi_id Name Comment	Instance

HOPEX XMI 2.1 Export for UML2

XMI EXPORT OVERVIEW

The XML Metadata Interchange XMI is an OMG standard for exchanging UML Models between different UML products such as modeling tools and UML Design.

The XMI 2.1 Export project aims at exporting the content of HOPEX Diagrams as .xmi files so that models modeled in HOPEX can be imported by UML tools such as Eclipse EMF.

Prerequisites

The XMI 2.1 export feature is available with HOPEX UML, and supports XMI version 2.1 with UML 2.3.

Scope of XMI Export

The purpose of XMI export is to translate the specification of HOPEX Class Diagrams, Use Case Diagrams, Component Diagram, Composite Structure Diagram, Activity Diagram, Communication Diagram, Sequence Diagram and State Machine Diagrams into XMI. Diagrams and diagrams drawings are not considered except with UML2 plugin for Eclipse.

The tool handles translation of the concepts of the above HOPEX diagrams that have a correspondence in UML 2.0. The list of supported mappings is detailed below.

EXPORTING XMI FILES

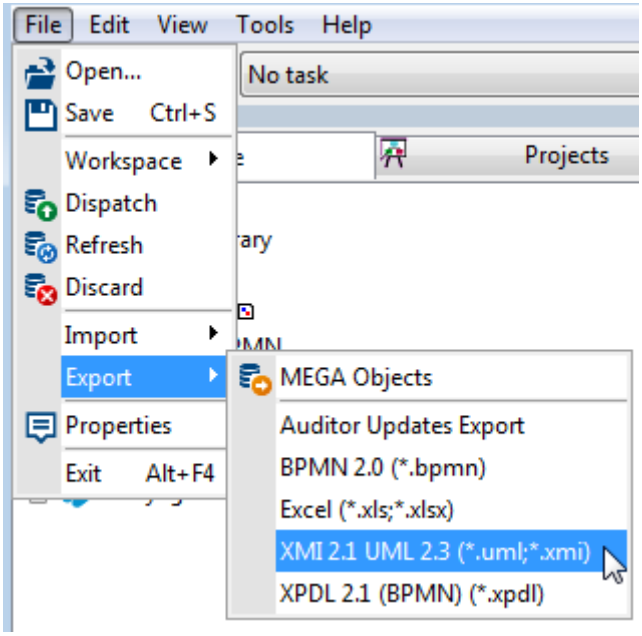
Depending on the destination tool, the XMI export tool produces two types of file. For Eclipse with UML plugin, the export will produce one .uml file for data and some .umlclass, .umlusc and/or .umlstm files for diagrams (each file represents an HOPEX diagram).

For other modeling tools, as Enterprise Architect or MagicDraw UML, the export will produce one .xmi file for data but no diagram description files will be generated.

Export for Eclipse with UML2 plugin

To export HOPEX data for Eclipse with UML2 plugin:

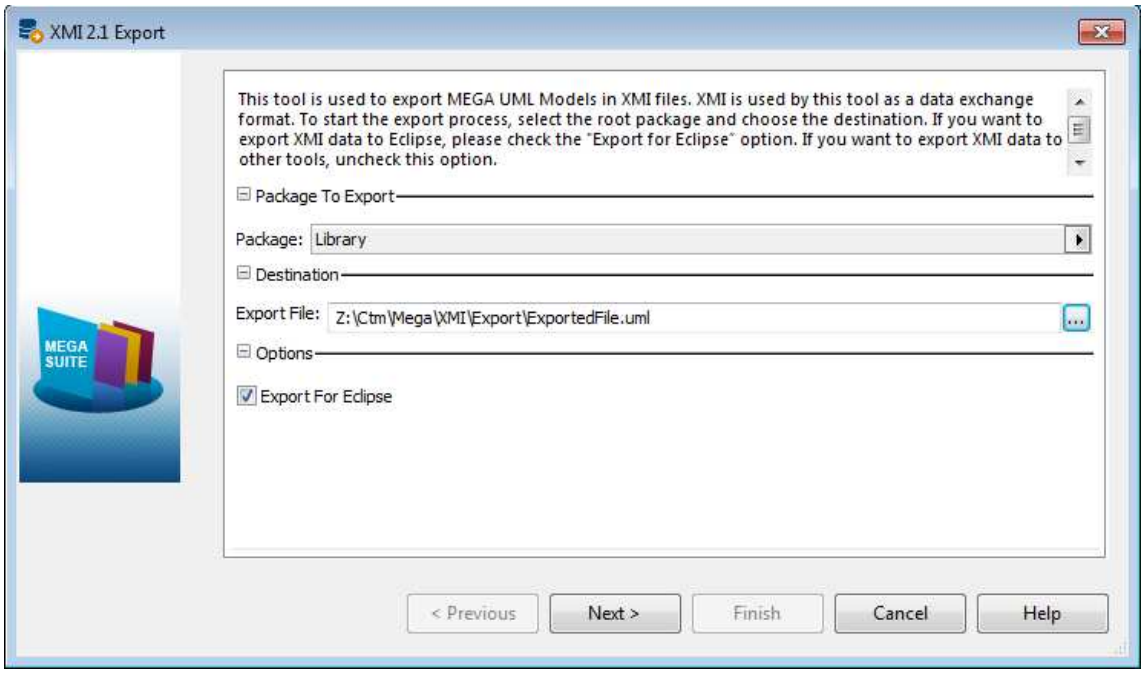
1. In HOPEX, select **File > Export > XMI 2.1 UML 2.3 (*.uml; *.xmi)**



The export dialog box appears.

2. Select the **Package** to be exported.

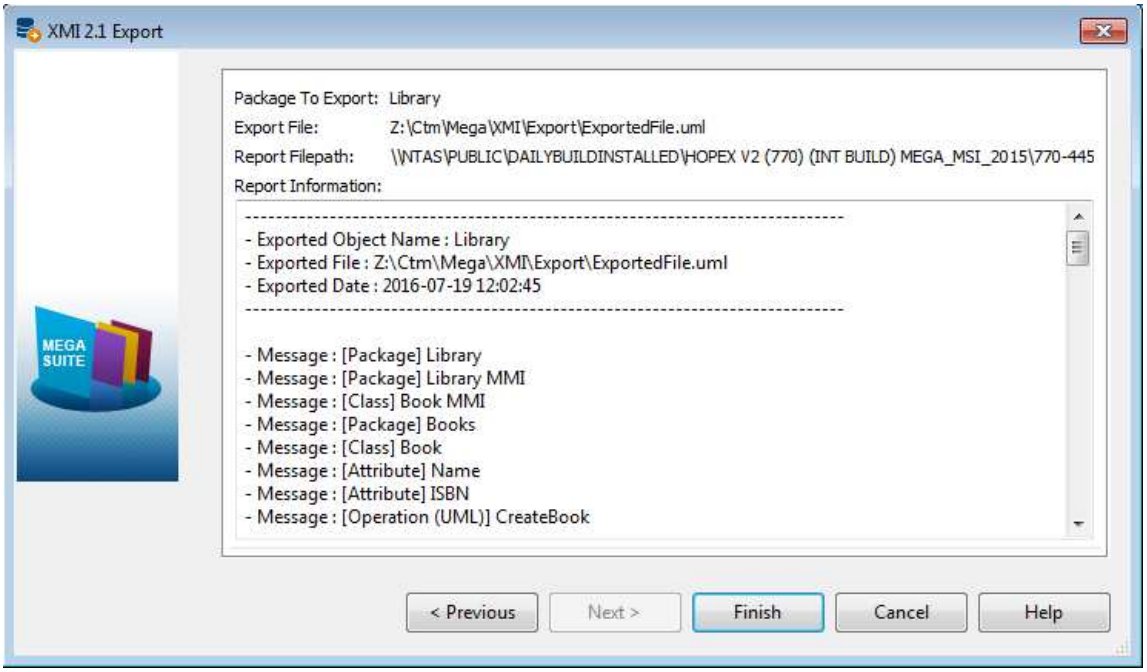
3. Specify the name and path of the file to be exported.
4. **Check the Export for Eclipse** parameter.



5. Click **Next >**

The window shows the export process progression.

Then the window showing the report of all exported data appears:



Export for other tools

Because many modeling tools do not support the UML Diagram Interchange Specification, the MEGA XMI 2.1 Export feature exports .xmi file for data but no diagram description files for other tools than Eclipse.

To export HOPEX data for modeling tools such as Enterprise Architect or MagicDraw UML:

1. In HOPEX, select **File > Export > XMI 2.1 UML 2.3 (*.uml; *.xmi).**

   The export dialog box appears.

2. Select the **Package** to be exported.

3. Specify the name and path of the file to be exported.

4. **Uncheck the Export for Eclipse** parameter.

5. Click **Next >.**

   The window that appears shows the export process progression.

   Then the window showing the report of all exported data appears.

HOPEX/XMI OBJECT MAPPING

The XMI export feature translates a class diagram or use case diagram or state machine diagram or even protocol state machine diagram specified in HOPEX into an XMI compliant output file.

The following paragraph indicates what kinds of objects are exported by UML2 diagram types. Only objects belonging to the selected package are exported.

Class Diagram

Packages, classes, interfaces, enumerations, literal strings (expression text), associations, association roles, generalizations, constraints, required interfaces (link), provided interfaces (supported interface link), data types (class stereotype), primitive types (class stereotype), attributes, operations.

Use Case Diagram

Use cases, actors, packages, constraints, extension points (text), participations, extensions (link), inclusions (link), generalization, dependencies.

State Machine Diagram

State machines, regions, states, pseudo states, transitions, constraints

Protocol State Machine Diagram

Protocol state machines, regions, states, pseudo states, transitions, constraints

Activity UML Diagram

Actions, control nodes, Input Pins, Output Pins, Exchange Pins, central buffer nodes, data store nodes, activity partitions, control flows, object flows, exception handlers, activities uml, activity parameter nodes, structured activity nodes, expansion regions, expansion nodes, interruptible activity regions.

Component Diagram

Components, ports, packages, interfaces, required interfaces, provided interfaces, classes, Connectors, realized elements.

Composite Structure Diagram

Collaborations UML, collaboration uses, parts, dependencies, connectors, interfaces, classes, provided interfaces, required interfaces.

Sequence Diagram

Life lines, combined fragments, interaction uses, gates, states invariant, messages UML, constraints.

Messages include those exchanged directly between lifelines as well as messages exchanged through execution specification.

Communication Diagram

Life lines, connectors, messages UML.

Deployment Diagram

Packages, components, artifacts UML, nodes UML, devices, execution environments, interfaces, deployment specifications, deployments, manifestations, deployment configurations, component instances, device instances, node instances, execution environment instances, communication paths.

Only objects owned by the selected package or its sub-packages are exported.

Objects that are linked to objects contained in the selected export package but owned by another package are also exported in order to ensure links. However, they will be owned by the exported package.

The following table indicates concepts managed by the export tool:

HOPEX Concepts
Package
Name
_Hexaidabs
Visibility
Comment
Client Dependency
Package Target Dependency
Owned Class
Owned Package
Owned Association
Association Class
Owned Dependency
Owned Element (UML): GeneralizationSet
Owned Use Case
Owned Actor (UML)
Constraint
Behavior: State Machine
Behavior: Protocol State Machine
Behavior: Activity Uml
Behavior: Interaction Uml

HOPEX Concepts
Behavior: Collaboration Uml
Owned Component
Owned Event
Class
Name
_Hexaidabs
Visibility
Comment
Abstract
IsLeaf
IsActive
Client Dependency
Class Target Dependency
Realization Class
Nested Class
Association
Connector
Association Class
Attribute
Operation (UML)
Generalization
Required Interface

HOPEX Concepts
Provided Interface Constraint Method Port AssociationEnd Owned Part Behavior: State Machine Behavior: Activity Uml Behavior: Interaction Uml Behavior: Collaboration Uml
Data Type Name _Hexaidabs Visibility Abstract IsLeaf IsActive Client Dependency Class Target Dependency Nested Class
Interface _Hexaidabs

HOPEX Concepts
Name Visibility Comment Abstract IsLeaf Client Dependency Class Target Dependency Nested Class Association Association Class Attribute Operation (UML) Generalization RequiredInterface SpecificationInterface
Enumeration _Hexaidabs Name Visibility Comment Client Dependency Class Target Dependency

HOPEX Concepts
Attribute Operation (UML) Literal Value RequiredInterface Specification Interface
Expression _Hexaidabs Name Visibility Comment Client Dependency Class Target Dependency Specification Interface
Primitive Type Name _Hexaidabs Visibility Abstract IsLeaf IsActive Class Target Dependency Nested Class

HOPEX Concepts
Association _Hexaidabs Name Visibility Comment IsAssociationDerived IsNavigable Connection Dependency (Target Association) Class via AssociationEnd
Association Class _Hexaidabs Name Visibility Comment IsLeaf Abstract IsActive IsAssociationDerived IsNavigable Class Target Dependency Nested Class

HOPEX Concepts
AssociationEnd Association Association Class Class via AssociationEnd Attribute Operation (UML)
Attribute _Hexaidabs Name Visibility Comment IsOrdred Uniqueness ReadOnly IsDerived InitialValue Multiplicity : UpperValue, LowerValue Dependency (Target Attribute) AttributType OverloadedAttribute
Operation (UML) _Hexaidabs

HOPEX Concepts
Name Visibility Comment Abstract IsQuery Precondition Postcondition Method Parameter ReturnType Target Dependency
Dependency _Hexaidabs Name Visibility Comment Class Source Class Target
Generalization _Hexaidabs Name Comment

HOPEX Concepts
Super Class UML constraint
GeneralizationSet _Hexaidabs Name Comment IsComplete IsDisjoint Target Dependency Generalization
Constraint _Hexaidabs Name Comment MaxInt MinInt ConstrainedClass ConstrainedGeneralization ConstrainedElement Actor (UML) Package UseCase

HOPEX Concepts
UseCaseParticipation
Parameter _Hexaidabs Name Comment Parameter Type
Behavior (UML) _Hexaidabs Name Specification
UseCase _Hexaidabs Name Visibility Comment UsesUseCase OwnedExtension ExtensionPoint Behavior: State Machine Behavior: Protocol State Machine Behavior: Interaction UML Behavior: Activity UML

HOPEX Concepts
Constraint
Generalization
Actor (UML)
_Hexaidabs
Name
Visibility
Comment
Participation
OwnedExtension
Constraint
Generalization
Participation
_Hexaidabs
Name
Comment
Multiplicity
UseCase
Actor (UML)
Constraint
Extension
_Hexaidabs
Name

HOPEX Concepts
Comment Extended Use Case Extension Location
State Machine _Hexaidabs Name Comment Reentrant DetailedState Region
Region _Hexaidabs Name Comment State PseudoState Transition
State (UML) _Hexaidabs Name Comment Detailing Behavior

HOPEX Concepts
Outgoing Incoming OwnedRegion OwnedRegion DoActivity ExitActivity EntryActivivity
Pseudo State _Hexaidabs Name Comment PseudoStateKind Outgoing Transition Incoming Transition
Transition (UML) _Hexaidabs Name Comment Source Target Source Pseudo State Target Pseudo State

HOPEX Concepts
Trigger Effect (Behavior) Constraint
Event (UML) _Hexaidabs Name Comment
Protocol State Machine _Hexaidabs Name Reentrant Comment Region
Action _Hexaidabs Name IsLeaf ActionKind Comment OutgoingControlFlow OutgoingObjectFlow

HOPEX Concepts
IncomingControlFlow IncomingObjectFlow OwnerGroup RequestOperation CalledBehavior StructuralFeatureElementManagedByAnAction RequestSignal Association ClassManagedByAnAction Variable InputPin OutputPin ProtectingExceptionHandler Trigger LocalPostCondition LocalPreCondition
Control Node _Hexaidabs Name IsLeaf Comment OutgoingControlFlow

HOPEX Concepts
OutgoingObjectFlow IncomingControlFlow IncomingObjectFlow OwnerGroup
Input Pin _Hexaidabs Name IsLeaf ControlType OrderingKind Comment OutgoingControlFlow OutgoingObjectFlow IncomingControlFlow IncomingObjectFlow
Output Pin _Hexaidabs Name IsLeaf ControlType OrderingKind Comment

HOPEX Concepts
OutgoingControlFlow
OutgoingObjectFlow
IncomingControlFlow
IncomingObjectFlow
Exchange Pin
_Hexaidabs
Name
IsLeaf
ControlType
OrderingKind
Comment
OutgoingControlFlow
OutgoingObjectFlow
IncomingControlFlow
IncomingObjectFlow
OwnerGroup
Central Buffer Node
_Hexaidabs
Name
IsLeaf
ControlType
OrderingKind

HOPEX Concepts
Comment OutgoingObjectFlow IncomingObjectFlow OwnerGroup
Data Store Node _Hexaidabs Name IsLeaf ControlType OrderingKind Comment OutgoingObjectFlow IncomingObjectFlow OwnerGroup
Activity Partition _Hexaidabs Name IsDimension IsExternal Comment ContainedElement
Object Flow

HOPEX Concepts
_Hexaidabs Name IsLeaf Comment Guard Weight SourceElement TargetElement
Control Flow _Hexaidabs Name IsLeaf Comment Guard Weight SourceElement TargetElement
Exception Handler _Hexaidabs Name Comment ProtectedNode

HOPEX Concepts
ExceptionInput
Activity UML
_Hexaidabs
Name
Reentrant
SingleExecution
IsLeaf
Comment
ElementOwnedByAnActivityUML
Activity Parameter Node
_Hexaidabs
Name
IsLeaf
ControlType
OrderingKind
Comment
OutgoingObjectFlow
IncomingObjectFlow
Structured Activity Node
_Hexaidabs
Name
IsLeaf

HOPEX Concepts
MustIsolate Comment OutgoingControlFlow OutgoingObjectFlow IncomingControlFlow IncomingObjectFlow OwnerGroup ContainedElement
Expansion Node _Hexaidabs Name IsLeaf ControlType OrderingKind Comment OutgoingControlFlow OutgoingObjectFlow IncomingControlFlow IncomingObjectFlow Region
Expansion Region _Hexaidabs

HOPEX Concepts
Name IsLeaf MustIsolate ExpansionKind Comment OutgoingControlFlow OutgoingObjectFlow IncomingControlFlow IncomingObjectFlow OwnerGroup ContainedElement ExpansionNode
Interruptible Activity Region _Hexaidabs Name Comment ContainedElement
Collaboration uml _Hexaidabs Name Comment IsAbstract

HOPEX Concepts
IsLeaf CollaborationRole OwnedConnector OwnedCollaborationUse
Collaboration use _Hexaidabs Name Comment Type Dependency
Part _Hexaidabs Name Visibility Client Dependency IsUnique IsOrdered Multiplicity Comment ConnectorEnd (of the LifeLine who represents the part) Dependency
Connector

HOPEX Concepts
_Hexaidabs Name Connector Kind IsLeaf Comment OwnedConnectorEnd
LifeLine _Hexaidabs Name Comment ElementRepresentedByALifeline ElementCoveringLifeline OwnedSelector
Combined Fragment _Hexaidabs Name InteractionOperatorKind Comment InteractionOperand CoveredLifeLine
Interaction Use _Hexaidabs

HOPEX Concepts
Name InteractionOperatorKind Comment RefersTo CoveredLifeLine
State Invariant _Hexaidabs Name Comment InvariantConstraint CoveredLifeLine
Gate _Hexaidabs Name Comment
Message UML _Hexaidabs Name MessageKind Comment Receiver Sender

HOPEX Concepts
Connector
Artifact UML _Hexaidabs Name Comment Client Dependency Target Dependency
Node UML _Hexaidabs Name Comment Client Dependency Deployment
Device _Hexaidabs Name Comment Client Dependency Deployment
Execution Environment _Hexaidabs Name

HOPEX Concepts
Comment Client Dependency Deployment
Deployment Specification _Hexaidabs Name Comment Client Dependency Target Dependency
Instance (Node UML/Device/Execution Specification/Component) _Hexaidabs Name Comment Client Dependency Instantiated Element Target Dependency
Communication Path _Hexaidabs Name Comment Communication Path End Target Dependency

HOPEX Concepts
Communication Path _Hexaidabs Name Comment Multiplicity Deployment Target
Deployment _Hexaidabs Name Comment Multiplicity Deployed Element Deployment Configuration