HOPEX Common Features

User Guide

HOPEX V4

MEGA
SEE THE BIGGER PICTURE

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HOPEX DESKTOP

This section presents the **HOPEX** interface and explains how to navigate in desktops.

The points covered are:

- Accessing HOPEX
- Working in HOPEX
- Interface Presentation
- Customizing Your HOPEX Desktop
- Common Actions on Repository Objects

ACCESSING HOPEX

See:

- Activating Your HOPEX Account
- Connecting to HOPEX
- Switching Between Profiles
- Resetting Your Password

Activating Your HOPEX Account

To connect to **HOPEX**, you must first activate your **HOPEX** account, i.e.:

- define your password
  - Your password must include at least 8 characters, one uppercase letter, one lowercase letter, one digit, and one special character.
  - Your password must be complex enough to meet your enterprise security requirements.

    J *Avoid using usual words (dictionary or HOPEX vocabulary), your name, your first name, your login, a series of letters (abc) or numbers (123), which do not increase the complexity.*
- choose a security question and answer it.

To activate your **HOPEX** account:

1. Access your **HOPEX** activation email and click the link included.

   * *If you did not receive any email, contact your HOPEX administrator for your account activation, see HOPEX Administration - Supervisor (Web) > Initializing the user Web account.*
2. In the **New Password** field, enter your password.
   A colored progress bar (red, orange, green) indicates your password complexity level as you type.
3. In the **Confirm Password** field, confirm your password.

   * *If needed, to view your password, click .*
4. In the **Security question** field, select a security question.
5. In the **Answer to question** field, answer the selected security question.

   * *Click to check your answer.*
6. Click **Apply**.

   * *If a message informs you that your password is not complex enough, click **OK** and go back to step 2.*

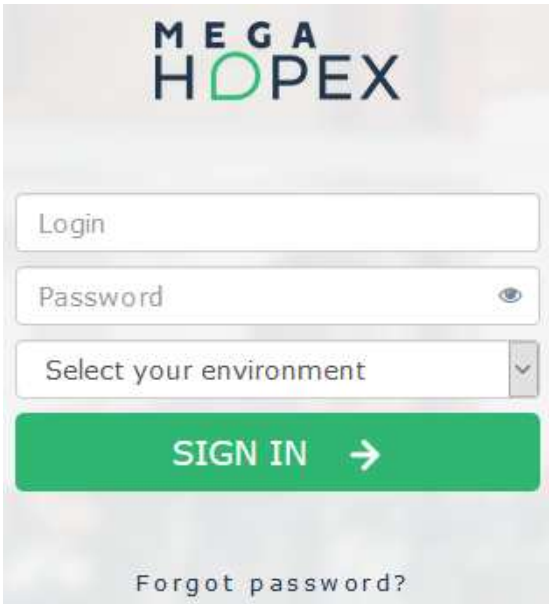
   Your **HOPEX** account is activated and you can connect to **HOPEX**.

Connecting to HOPEX

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 connection identifier.
3. In the **Password** field, enter your password.
   * *To view your password, click .*
   * *If you have forgotten your password, click **Forgot password**, see Resetting Your Password.*
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 drop-down menu for groups, 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.*

   * *Your profile defines your desktop, which defines the workspace type in which you are going to work.*

   The "Create a private workspace" message indicates you are going to work in a private workspace, see Workspace Types and Updates.

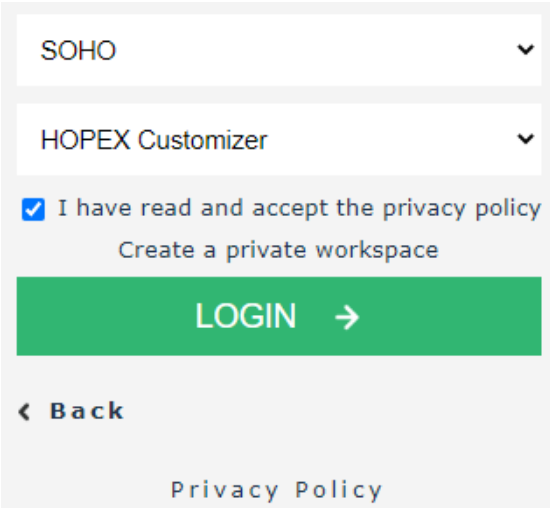
   * *The profile you select defines the applications you can access.*

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 anymore.*



11. Click **LOGIN**.

    * *Click **Back** if you want to return to the authentication window.*

    Your desktop home page appears and a session is opened.

    * *See Home Page.*

    * *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.*

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 your **HOPEX** desktop, click **Main Menu** .
2. Click **Switch profile** and select another profile.
3. Select your desktop exit mode:
   - **Yes**
     Modifications you have made in your private workspace are saved in the repository.

     J *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.

     M **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.

Resetting Your Password

* *To modify your password, see Modifying your Password:*

If you lost your password to access a **HOPEX** application on the Web, you can reset it.

To reset your password:

1. Open the connection page.
   * *See Connecting to HOPEX.*
2. Click **Forgot Password**.
   The **Lost password** page appears.
3. In the drop-down list, 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 your password** window appears.
9. In the **New password** field, enter your password.
   * *For more details on the password, see Activating Your HOPEX Account.*

   A colored progress bar (red, orange, green) indicates your password complexity level as you type.
   * *Attention: by default your last five passwords cannot be reused.*
10. In the **Confirm Password** field, confirm your password.
    * *If needed, to view your password, click .*
11. In the **Security question** field, select a security question.
12. In the **Answer to question** field, answer the selected security question.
    * *Click to check your answer.*
13. Click **Apply**.
    * *If a message informs you that your password is not complex enough, click **OK** and go back to step 2.*

WORKING IN HOPEX

See:

- Workspace Types and Updates
- Saving Your Work
- Customizing Your Personal Parameters
- Resetting Your Desktop Customizations
- Setting a Current Library
- Consulting Your Licenses
- Displaying Scheduled Jobs

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

What is your workspace type?

Your profile defines the desktop in which you are working. This desktop defines the type of workspace in which you are working.

At connexion, when you select your profile:

- the "Create a private workspace" message indicates that you are going to work in a private workspace.
- nothing is indicated when you select a profile with which you are going to work in a public workspace.

Public workspace

In most of the desktops you work in a public workspace. You can perform modifications. Your modifications are automatically saved and dispatched in the repository as soon as the window on which you are working is closed and no longer active.

* *In case of modifications performed in an object property pages, the modifications are dispatched in the repository only once the property page window is closed, i.e. for example when you select another object in the interface or when you navigate via the navigation panes.*

***Attention**: hiding the property window does not make it inactive.*

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).

You can anticipate this automatic save.

* *See Saving your work (public workspace).*

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.
```

M **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 Saving Your Work.**

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 (navigation mode)
```

Saving Your Work

How you save your work depends on the type of workspace in which you are working.

Saving your work (public workspace)

In a public workspace your work is automatically saved and dispatched in the repository as soon as the window on which you are working is closed and no longer active.

* *The last saving date and time are indicated in your **HOPEX** desktop toolbar, see Toolbar.*

There might be a 30 second delay in the time display update.

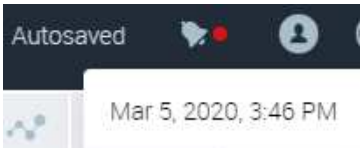
You can save (and dispatch) the modifications you are performing on the current page, i.e. anticipate the automatic save.

To save (and dispatch) your work performed on the current page:

1. In your **HOPEX** desktop, click **Main Menu** .

2. Select **Save**.
Your modifications are saved and published in the repository.

* *Roll the mouse over **Autosaved** to see the update. Note that there might be a delay in the time display update.*



Saving your work (private workspace)

In a private workspace, you can regularly save your modifications in your workspace. These modifications are not saved in the repository. To save your modifications in the repository, you must dispatch your work.

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

To save the modifications you have made in your private workspace since the last save:

1. In your **HOPEX** desktop, click **Main Menu** .
2. Select **Save**.
Your modifications are saved in your workspace.

Customizing Your Personal Parameters

In your HOPEX desktop, you can customize your personal parameters:

- modify your password
- modify the image of your avatar

Modifying your Password

Your password must contain at least 8 characters and be complex enough to meet your enterprise security requirements.

* *For more details on the password, see Activating Your HOPEX Account.*

A colored progress bar (red, orange, green) indicates your password complexity level as you type.

J *In your home page, you can add the **Modify your password** generic tile.*

To modify your password:

1. In your **HOPEX** desktop, click **Main Menu** .
2. Select **Settings > Modify Password**.
The **Change password** window is displayed.

3. Enter your former password.
   * *To view the password, click .*
4. Enter and confirm your new password.
   * *Attention: by default your last five passwords cannot be reused.*
5. In the **Security question** field, select a security question.
6. In the **Answer to question** field, answer the selected security question.
   * *Click to check your answer.*
7. Click **Apply**.
   Your modified password is saved but is not taken into account until you dispatch your work.
   * *If you do not dispatch your current work, the modified password is not taken into account.*

Modifying your avatar

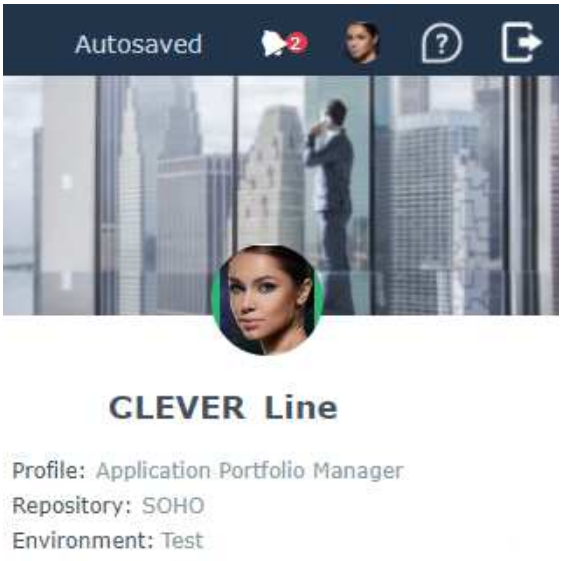
The **Main menu** is represented by your avatar. You can modify it by downloading an image in ico, bmp, gif, or png format up to a size of 30 MB.

To modify your avatar:

1. In your **HOPEX** desktop, click **Main Menu** .
2. Roll the mouse over your avatar.
   Your avatar appears in edit mode .
3. Click your avatar.
   The selection of a file dialog box opens.
4. Click ···.
   The selection dialog box of the file opens.
5. Click **Browse** and select your image.
6. Click **Upload**.
   The image file to be downloaded is defined.

7. Click **OK**.

   The **Main Menu** icon is replaced by your image .
   Your avatar is updated.



Resetting Your Desktop Customizations

In your HOPEX desktop, you can reset your personal parameters. This includes customization of your desktop, such as for example:

- your home page customization:
  - addition of tiles
  - size of tiles
  - arrangement of tiles
- your dashboard customization:
  - addition of widgets
- your customization of columns in lists:
  - column display or not
  - column width
  - column order
  - column grouping
  - column locking
- your customization of windows in the desktop:
  - window size
  - navigation panel size

This does not impact customizations that concern the repository, such as for example:

- your avatar
- your alerts
- your data language and interface language
- your password
- your options

To reset your customizations:

1. In your **HOPEX** desktop, click **Main Menu** .
2. Select **Parameters > Reset personal parameters**.
   Your customization of your desktop will be reset on the next connection.

Setting a Current Library

A library is used to represent a work context.

* *For a detailed description on the use of libraries, see Enterprises and libraries.*

* *This is useful in particular when exporting an object.*

In your **HOPEX** desktop, when you set a current library, by default all the objects that you have created are contained in this library.

When a library is set, if needed, on creation of the object you can modify the library that contains it.

Defining a current library prevents the existence of isolated objects and facilitates exporting objects in a given context.

If the administrator has defined a default library for you (user level), this also defines your current library.

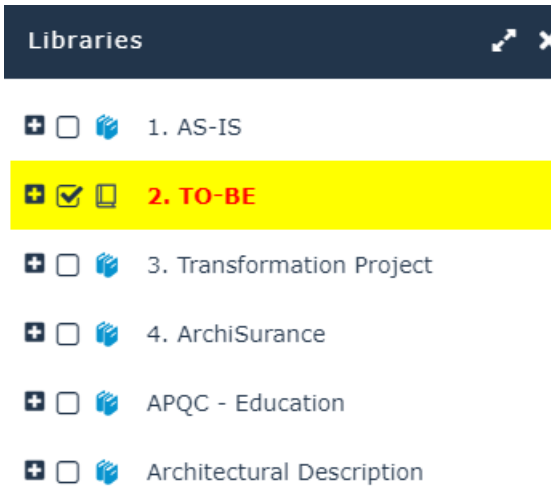
* *The **HOPEX** administrator can define a default library at user level (see the HOPEX Administration documentation (Web) > Defining a Person).*

To set a current library:

1. In your **HOPEX** desktop, click **Main Menu** .
2. Select **Set Current Library**.
   The library tree window appears.

3. Select a library or a sub-library.

   The current library is highlighted and indicated by .



Consulting Your Licenses

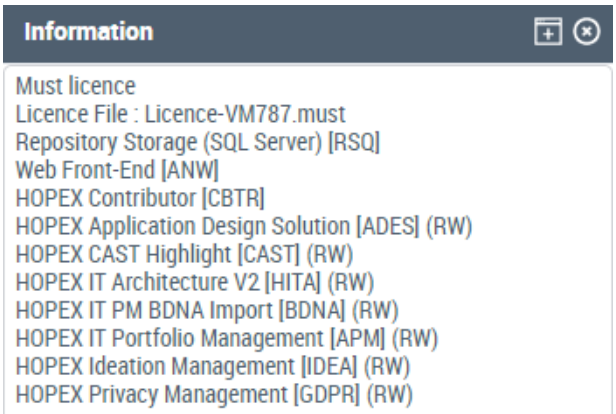
According to your licenses, you have access to certain products.

Each product defines the metamodel, the parameterization (technical data) and the features you have access to.

To consult your license list:

1. In your **HOPEX** desktop, click **Main Menu** .

2. Select **Settings > License information**.



For information regarding a product (e.g.: associated profiles, available objects (MetaClasses), report templates, and diagram types), see the online documentation: **Concepts > Products**.

Displaying Scheduled Jobs

According to your profile (e.g.: HOPEX Customizer, functional Administrator), in your **HOPEX** desktop, you have access to the dashboard for scheduled Triggers (of jobs):

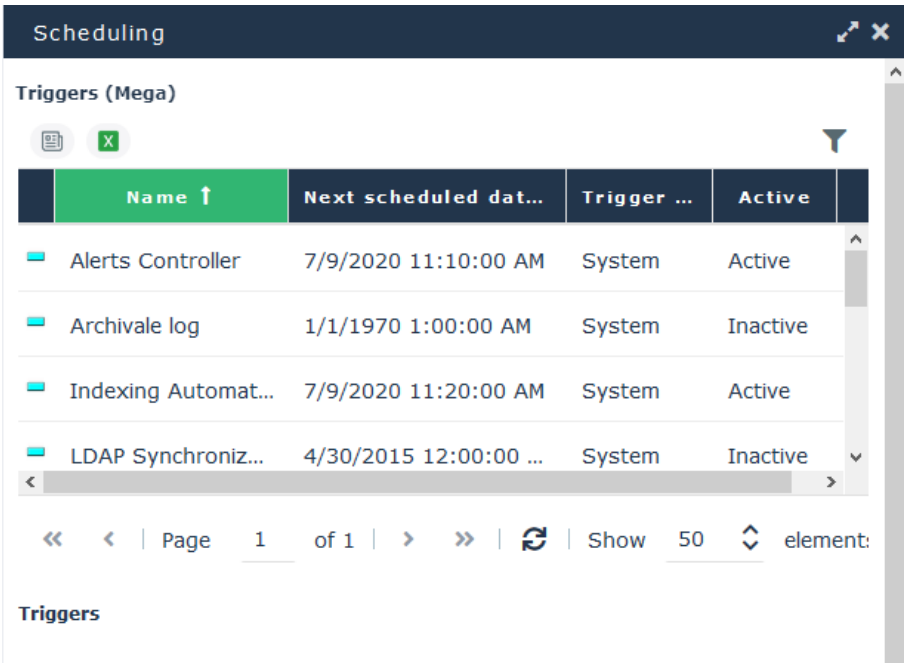
- Triggers created by MEGA
- your Triggers

* *For information on the Scheduler, see HOPEX Administration > Managing the Scheduling (Scheduler) documentation.*

To display the dashboard for scheduled Triggers:

1. In your **HOPEX** desktop, click **Main Menu** .

2. Select **Scheduling Management > Scheduling**.
The list of scheduled triggers is displayed.



For each scheduled Trigger, it indicates:

- its next execution date and time
- its status (active or inactive)

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.

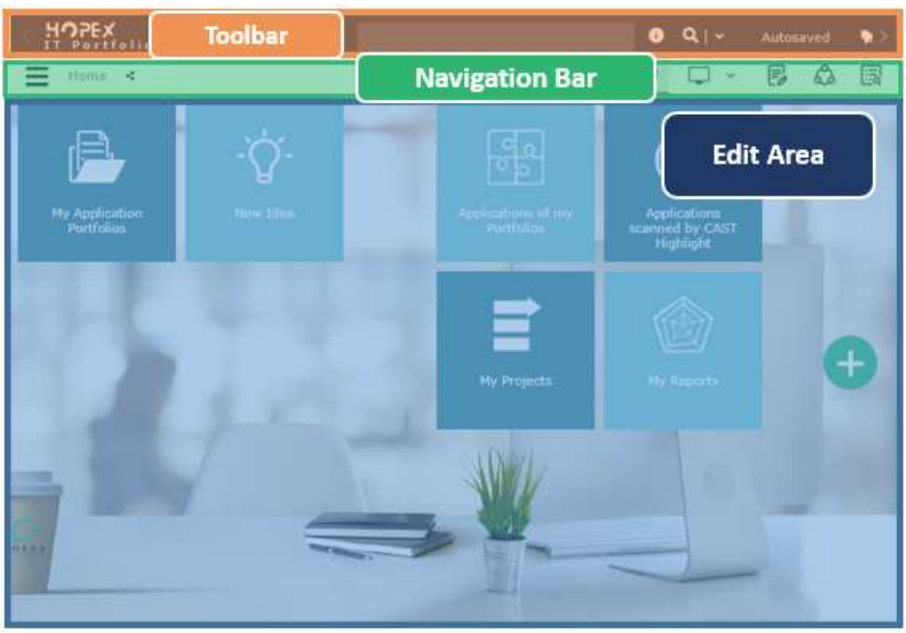
See:

- HOPEX Desktops
- Home Page
- Interface Elements
- Managing Windows and Panes
- Managing Lists

HOPEX Desktops

HOPEX desktops include:

- a ***toolbar*** common to all **HOPEX** desktops
- a ***navigation bar*** (and window arrangement), common to all **HOPEX** desktops
- an ***edit area***

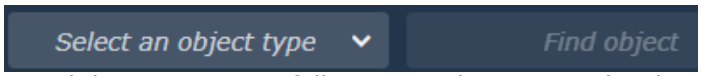


Toolbar

The toolbar is common to all **HOPEX** desktops and available in all pages of the **HOPEX** desktops.

The toolbar contains:

-

the name of the solution used.
It enables to return to the home page.
    * *See Home Page.*
- to switch the quick search bar.
- 

the quick search bar to carry out full-text searches or searches by object type in the entire **HOPEX** repository. It also enables to define in which window you want to display your search results, according to your needs.
    * *See Quick Search.*
- (In a public workspace) **Autosaved** indicates in a tooltip the date and time your desktop was last saved.
    * *For information on:*
    - workspaces, see Working in HOPEX,
    - saving, see Saving your work (public workspace).
- **Notifications** to access your notifications.
The red dot indicates that you have unread notifications.
    * *See Managing my notifications.*
- **Main menu** to access your connection information and main actions.
    * *See Main menu.*
    * *See Modifying your avatar.*
- **Help** to access the **HOPEX** online documentation.
    * *This (user and technical) documentation includes a search tool.*
- **Logout** to disconnect from **HOPEX**.
    * *See Exiting a Session.*

Navigation bar

The navigation bar is common to all **HOPEX** desktops and available in all pages of the **HOPEX** desktops.

The navigation bar contains:

- a navigation menu to access the navigation panes.
  - *See Navigation menu and panes.*
- ... Applications of my Portfolios / Accounting / Cost Line 2020 a breadcrumb to return to a previously displayed page.
  - *See Breadcrumb.*
- a **Refresh** button, to immediately update all the open windows in your desktop when you modify the name or value of an object attribute (trees, lists, property pages, diagrams).
- **Undo**/**Redo** buttons to undo or redo the last action(s) performed.
  - *See Undoing or Redoing Actions on Objects.*
- a group of buttons associated with the edit area to display or hide windows in the edit area.
  - enabled button
  - disabled button
    - *See Managing Windows and Panes.*

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, for example, the list of objects, the detail of objects, their diagrams, analysis reports, etc.

- *See also: Arranging windows in the edit area.*

On first connection to **HOPEX**, the edit area displays the home page.

Home Page

Accessing the Home page

To access the Home page:

â In your **HOPEX** desktop, click the name of the Solution to which you are connected.

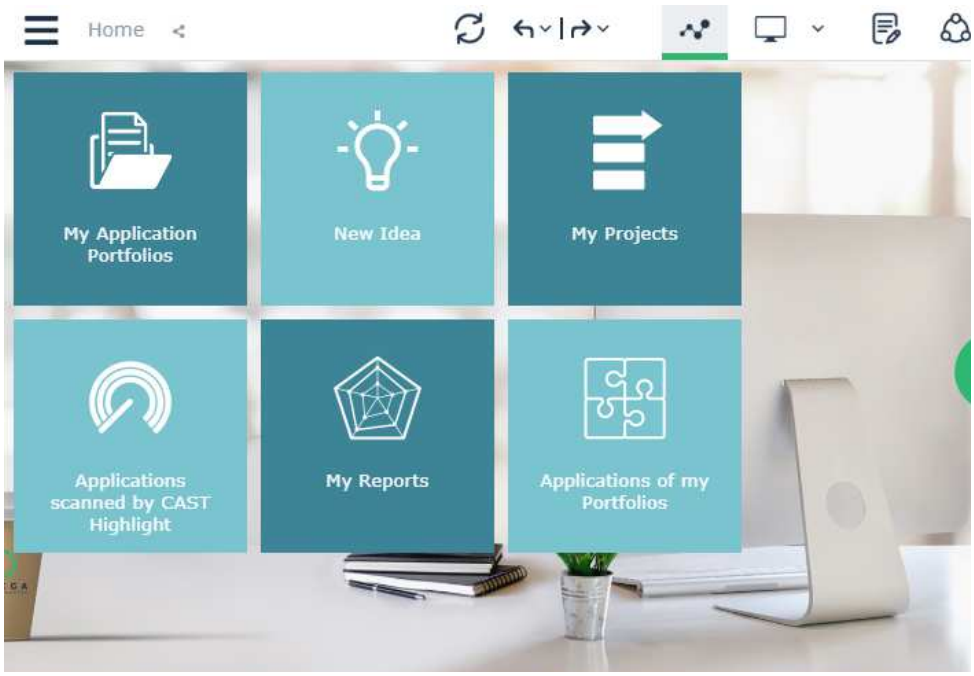
* *Alternative: click the navigation menu* ☰ *and select* ***Home****.*

Your home page is displayed in the edit area.

* *To customize your Home page, see Customizing the Home Page of Your Desktop.*

Home page description

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



Example: Home Page for the HOPEX IT Portfolio Management Solution desktop.

According to the Solution, your desktop home page includes:

- tiles specific to your profile.

* *To modify the size of a tile, see Modifying the size of a tile.*

Example: the HOPEX IT Portfolio Management home page for the application Portfolio Manager includes, by default, tiles that provide access to the list of all his/her application

portfolios as well as the list of applications of his/her portfolio.

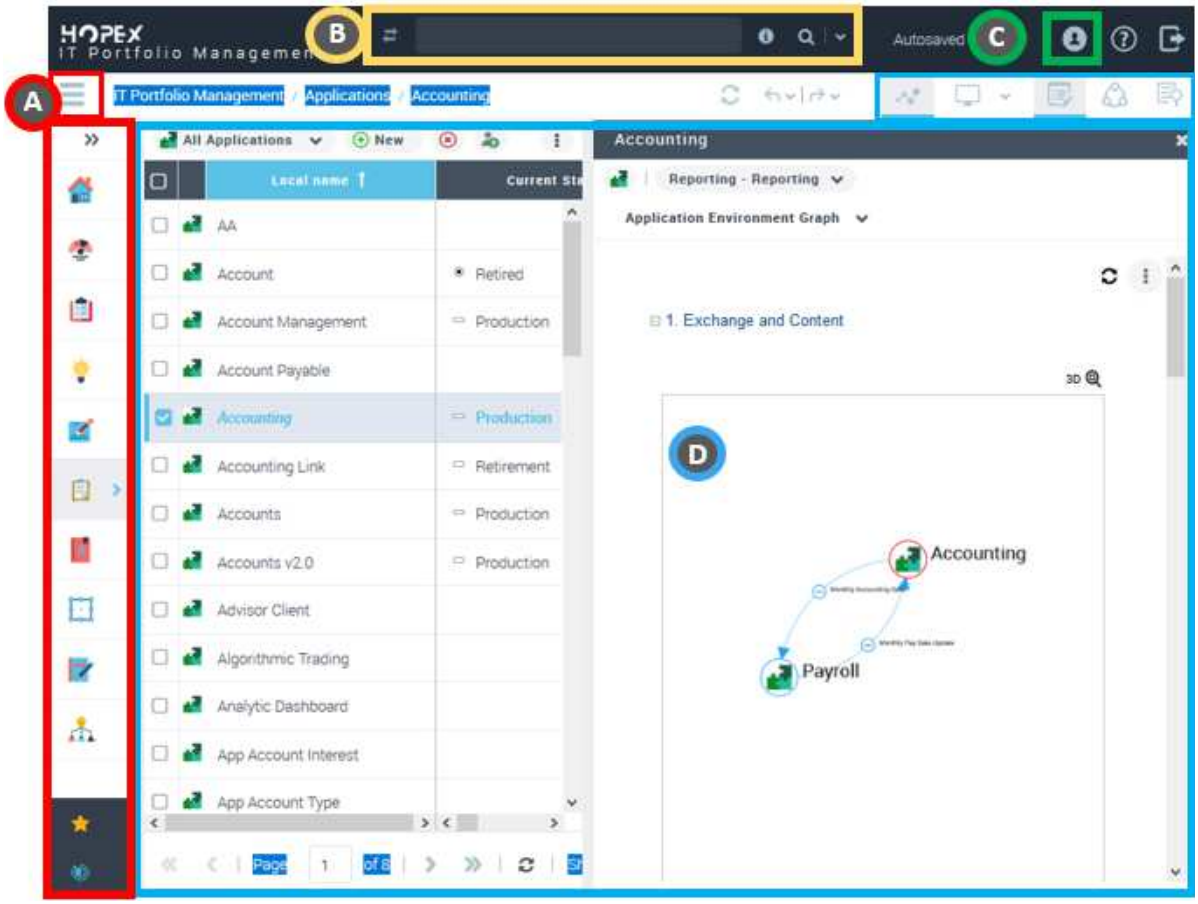
- generic tiles like:
  - **Help** to access the **HOPEX** online documentation.
  - **Options** to access your option management.

    * *See HOPEX Administration - Supervisor (Web) guide, Available Option Groups (User Level).*
- to add tiles.

  * *See Customizing the Home Page of Your Desktop.*

Interface Elements

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



A/ Navigation menu and panes, B/ Quick Search, C/Main menu, D/ Edit Area and associated group of buttons

Navigation menu and panes

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

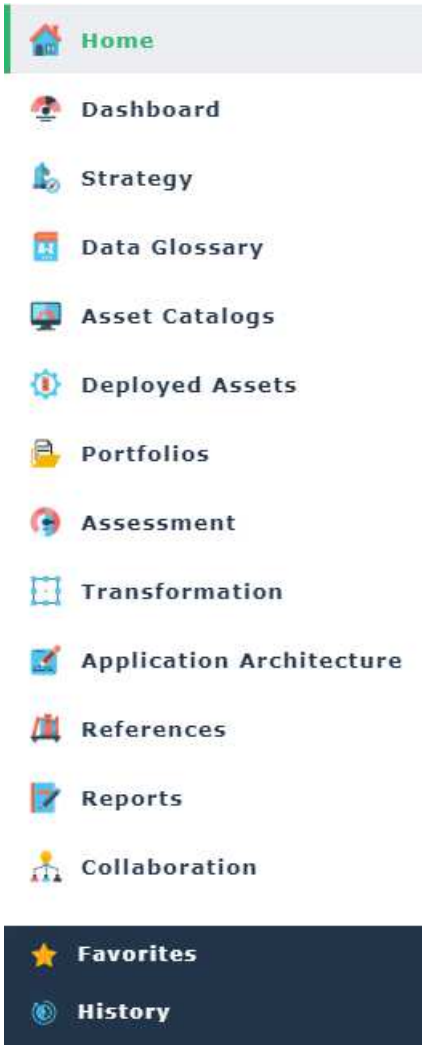
The navigation panes correspond to the various types of objects or various steps of a project.

Most of HOPEX profiles have access to the following navigation panes:

- **Home**: provides quick access to user objects.
  - *See Customizing the Home Page of Your Desktop.*
- **Dashboards**: displays the list of indicators required to steer objects such as processes, applications, or org-units.
  - *See Customizing Your Dashboard.*
- **Reports**: presents a set of dynamic reports that enable repository data analysis according to different perspectives.
- **Collaboration**: gives quick access to all of the collaboration features.
  - *See Accessing a Collaboration Feature.*
- **Favorites**: gives quick access to your favorites and to shared favorites.
  - *See Managing Favorites.*
- **History**: gives quick access to all of the objects you have accessed.
  - *See Using the History.*

Example

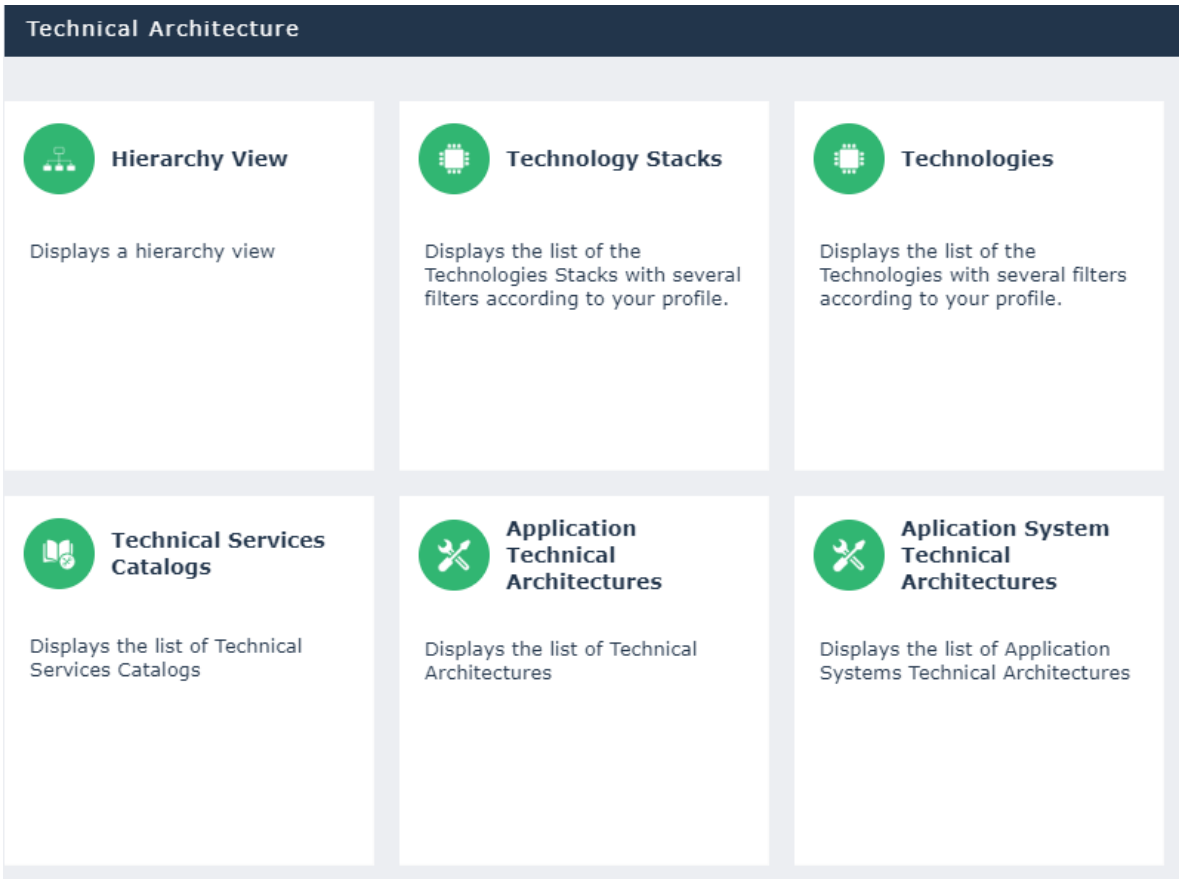
In **HOPEX IT Portfolio Management**, the desktop of the application portfolio manager displays the following navigation panes:



Roll the mouse over a navigation pane to access its specific object list.

Rolling the mouse over the **Application Architecture** pane gives access to **Functional Architecture** and **Technical Architecture**. Each classification is shown as tiles, which

give access to the objects they comprise (e.g.: with the **Technical Architecture** classification you can access **Application Technical Architectures**).



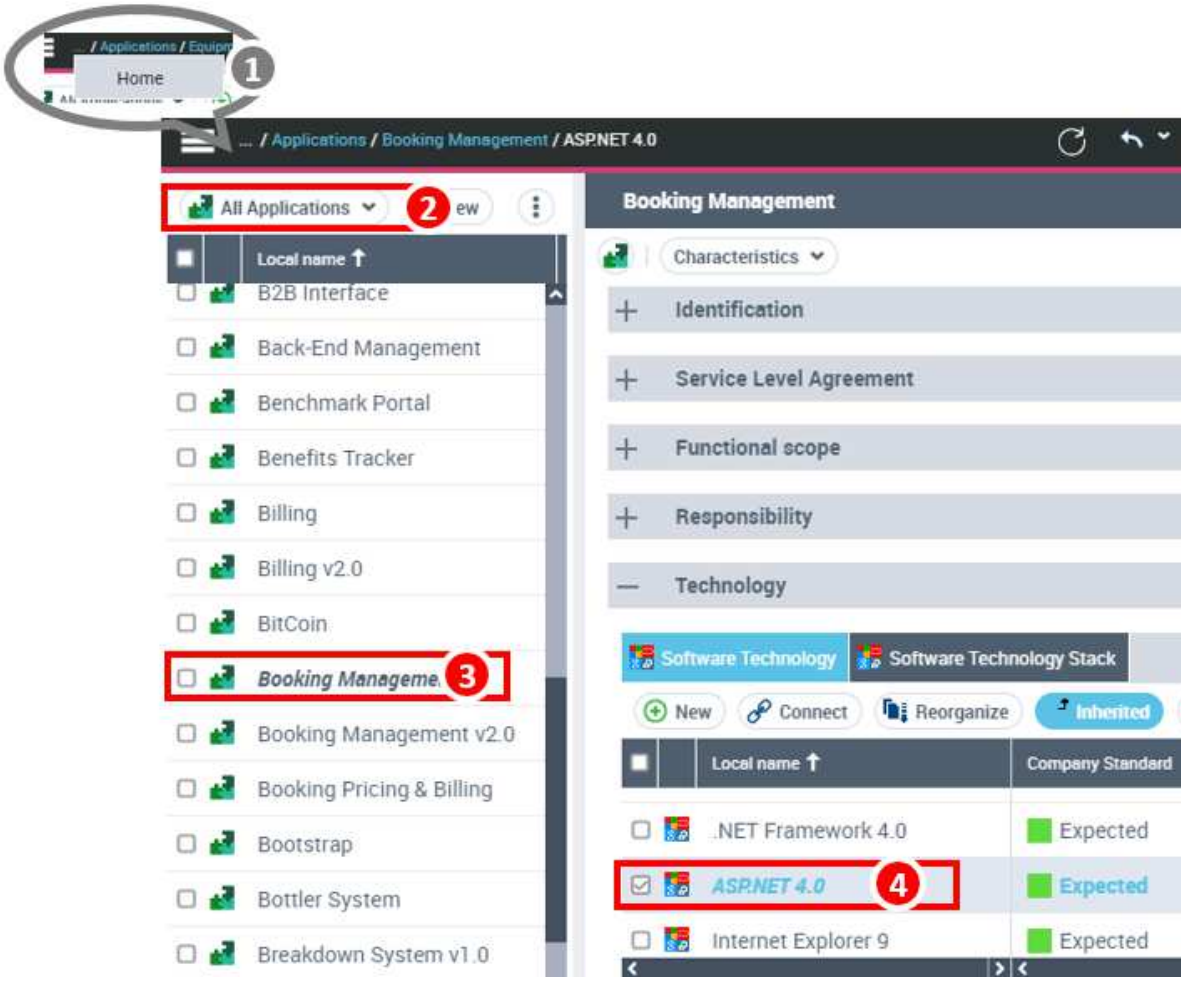
Breadcrumb

* *To share your breadcrumb (i.e. your navigation) with other users, see Sharing your breadcrumb.*

A breadcrumb is available on all **HOPEX** desktops. It keeps the last pages that you viewed so you can reopen them easily if needed. It is reset on each change of navigation page.

J *The breadcrumb trail is especially useful when you display an object properties from another object property pages With the*

breadcrumb trail you can easily return to the property pages of the first object.



For example: In the home page (**Home** navigation pane), you click the **"Applications"** tile (1). In the **list of applications** (2), you display the **properties of an application** (3). In the properties of the application, you select a **Technology** (4).

The breadcrumb then appears: **.../Applications/<name of the application selected>/<name of the technology selected>**.

To access an older page in the same navigation pane:

â In the breadcrumb, click **...** then select the page you want to access.

Main menu

The **Main Menu** , represented by your avatar, gives access to:

- your connection information:
  - name
  - Profile
  - Repository
  - Environment
    - *You can modify your avatar, see Modifying your avatar.*
- your **HOPEX** connection and use parameters:
  - password modification
    - *See Modifying your Password.*
  - options (user level)
    - *See the **HOPEX Administration - Supervisor (Web)** guide, "Managing options".*
  - alert management
    - *See Managing my notifications.*
  - detail of your licenses
    - *See Consulting Your Licenses.*
  - HOPEX version installed

The **Main Menu** allows you to:

- change profile, without disconnecting
  - *See Customizing Your Personal Parameters.*
- save your work underway
  - *See Saving Your Work.*
- change data language.
  - *See Modifying the Data Language.*
- define or modify your current library
  - *See Setting a Current Library.*
- reset your personal parameters
  - *See Resetting Your Desktop Customizations.*
- change the theme (style sheet) of your desktop
  - *See Modifying the Theme of Your Desktop.*
- (certain profiles) display the dashboard of jobs scheduled
  - *See Displaying Scheduled Jobs.*
- access the community

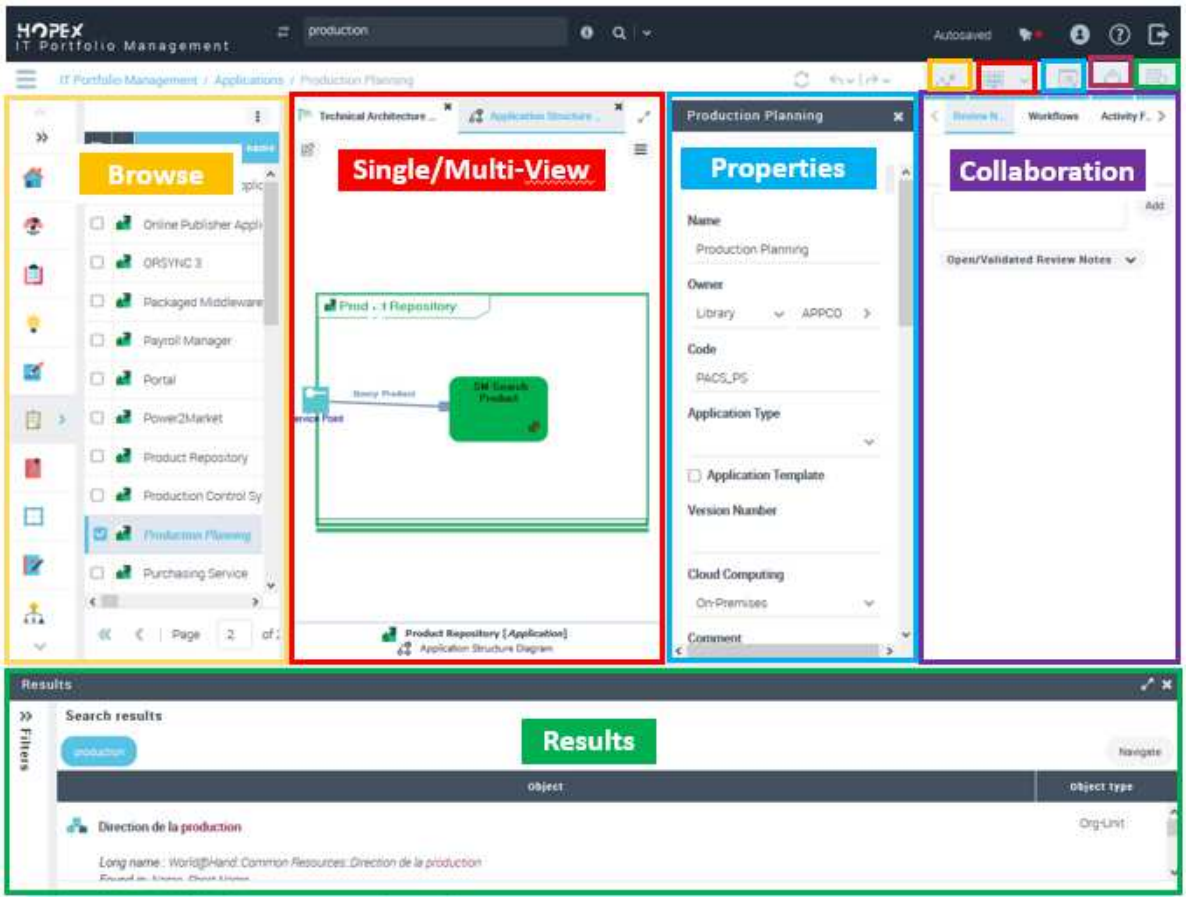
The **Main Menu** gives you access to actions that concern:

- (Private workspaces) collaborative work
  - *See Working in a Collaborative Workspace.*
- (Private workspaces) dispatching
  - *You can dispatch, refresh or abandon your work at any time. For more details on dispatching and refreshing, see Managing Workspaces.*
- import/export tools
  - *See the documentation related to each of them.*
- the mapping editor
  - *See Data Model Mapping.*
- the advanced search
  - *See Advanced Search.*

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

Navigation		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 the selected object
Collaboration		Displays the window furthest to the right that contains the **Review Notes**, **Workflows**, **Activity Feed**, **Social** and **Ideation** tabs
Results		Displays the bottom window of the desktop. This windows displays the search results or the content of a report chart part.

Maximizing/Reducing a window

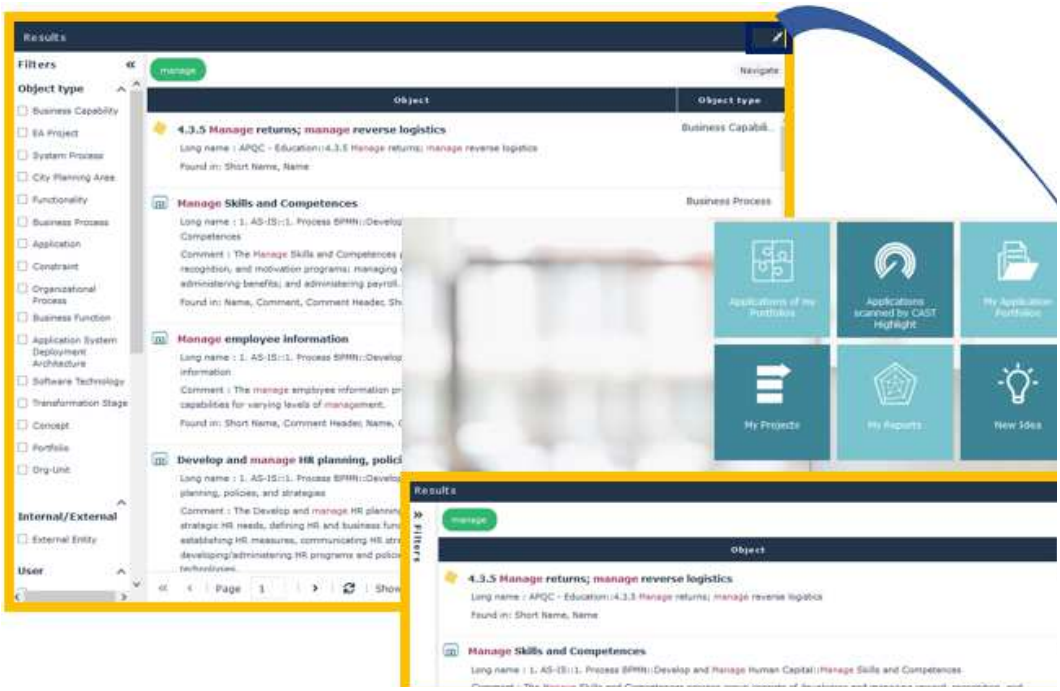
For a better readability you can enlarge certain windows:

- **Single-view / Multi-view**
  Useful, for example, to display a crowded diagram.
- **Results**
  Useful, for example, with a search with numerous results.

To display the window in full page for a better readability:

1. In the window bar, click **Maximize** .
   The window fills the entire desktop.

2. To display the window back to its place, click **Reduce** .
The window is back to its previous size and place.



Folding and expanding navigation panes

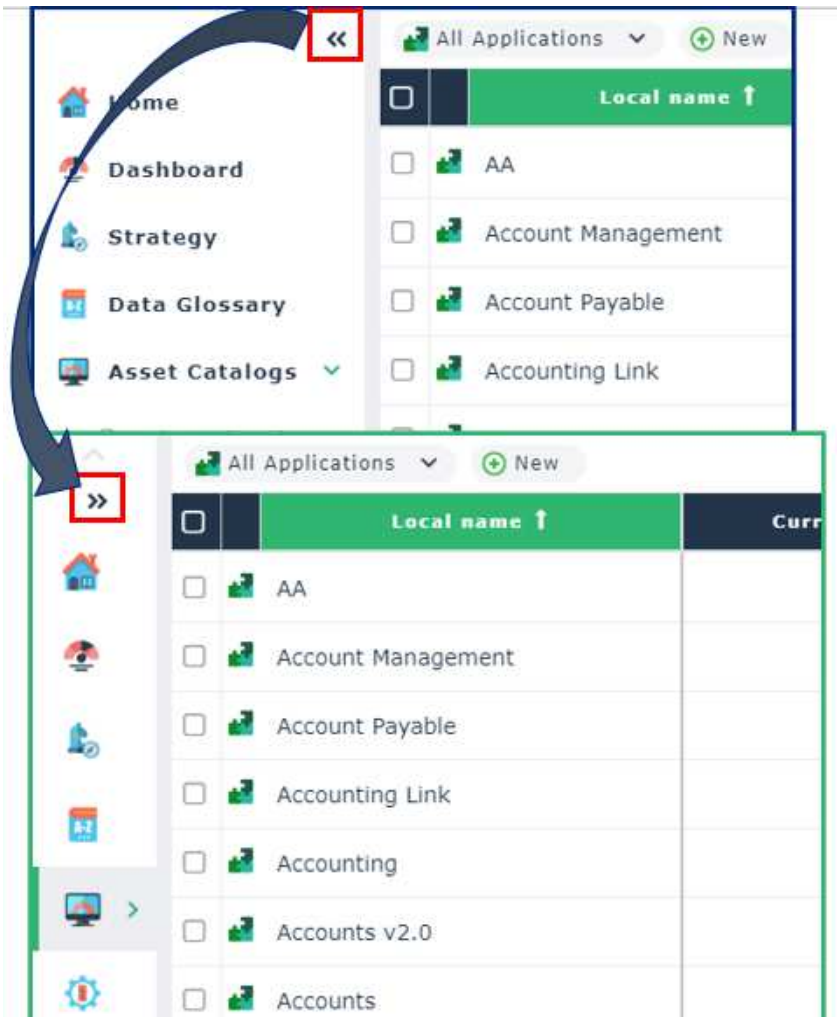
You can reduce the navigation pane panel to icon size to declutter your workspace.

By default, the panel is expanded.

To fold the navigation pane panel:

â In the navigation pane panel, click **Collapse window** « .
This configuration is kept in your personal settings and the navigation panes are still displayed in the form of icons.

* *To return to an unfolded display, click the icon again.*
* *See also Resetting Your Desktop Customizations.*



Managing Lists

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

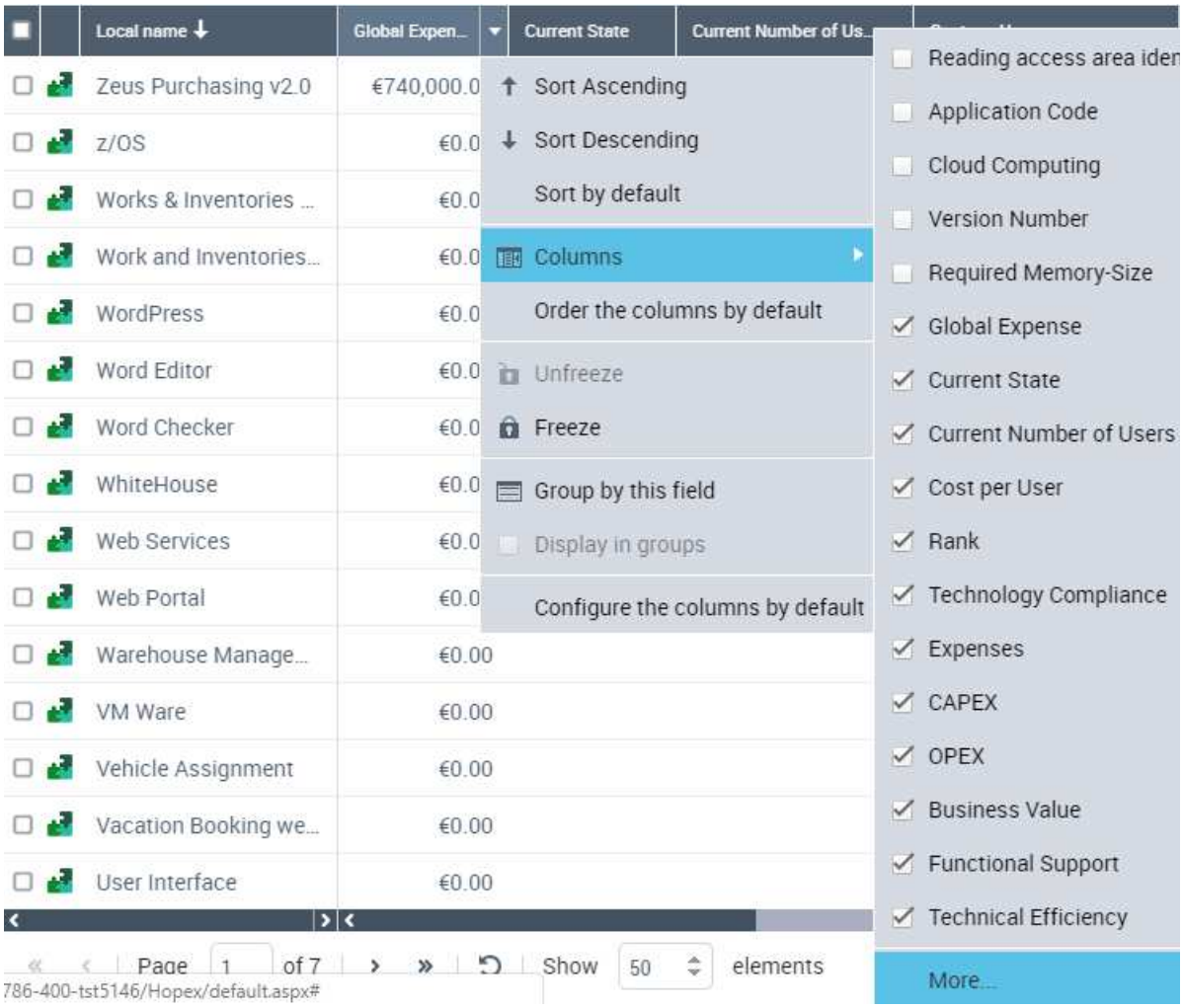
In the lists, you can configure the columns and define filters on the columns.

Defining the columns to be displayed

Each column corresponds to an object characteristic. You can add or delete display columns.

To display or hide one or several columns:

1. In your **HOPEX** desktop, access the list of objects.
   * *See Managing Windows and Panes.*
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.
   * *If needed, at the bottom of the list, click **More** to access all available columns.*



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

Modifying the width of a column

Each column has a predefined width that adapts to the width of the window that contains it.

When you modify the width of a column:

- the width of the column is saved in your customization parameters.
- the width of the column is fixed.

> **Careful: if you modify the width of the Local Name column and then reduce the width of the window that contains the list, you may no longer see the list of buttons accessible in this column.**
>
> * *See Actions on an object from the Local Name of a list.*

To modify the width of a column:

1. In your **HOPEX** desktop, access the list of objects.
   * *See Managing Windows and Panes.*
2. Click one of the column header separators and drag the separator to the desired width.
   The width of the column is modified and saved.
   * *To return to the default value, see Resetting column configuration or Resetting Your Desktop Customizations.*

Modifying the column order

To modify the column order:

1. In your **HOPEX** desktop, access the list of objects.
   * *See Managing Windows and Panes.*
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.
   The order of the columns is modified and saved for your next connections.
   * *To return to the initial display order of columns, see Resetting the column order.*

Resetting the column order

If you have modified the column order, you can return to the default order.

* *See also: Resetting column configuration.*
* *See also: Resetting Your Desktop Customizations.*

To reset the column order:

1. In your **HOPEX** desktop, access the list of objects.
   * *See Managing Windows and Panes.*
2. Roll the mouse over the header of a column.
   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 to select **Reset column order**.
   The columns are displayed in their default order.

Resetting column configuration

In a list, when you perform a customization at the level of the columns of a list, it is saved, even after disconnection.

You can reset all the customizations that you have performed on columns, that is:

- displaying/hiding columns
- column width
- column order
- column locking

To reset the column configuration:

1. In your **HOPEX** desktop, access the list of objects.
   * *See Managing Windows and Panes.*
2. Roll the mouse over the header of a column.
   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 select **Reset column configuration**.

Filtering a list 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:

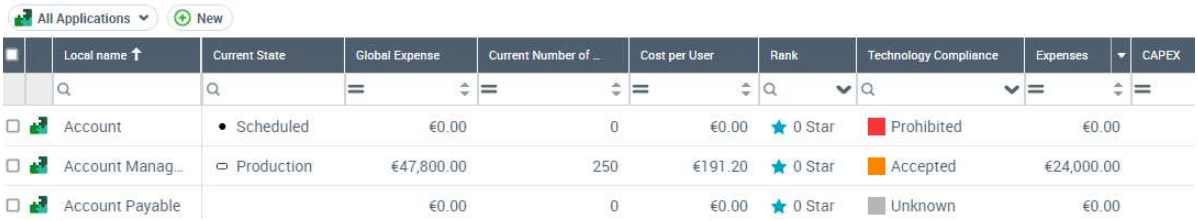
- : to show values including the character string
- : to show values that do not include the character string
- : to show empty values only
- : to show non empty values only

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



   A default operator is displayed in the filtering field 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.

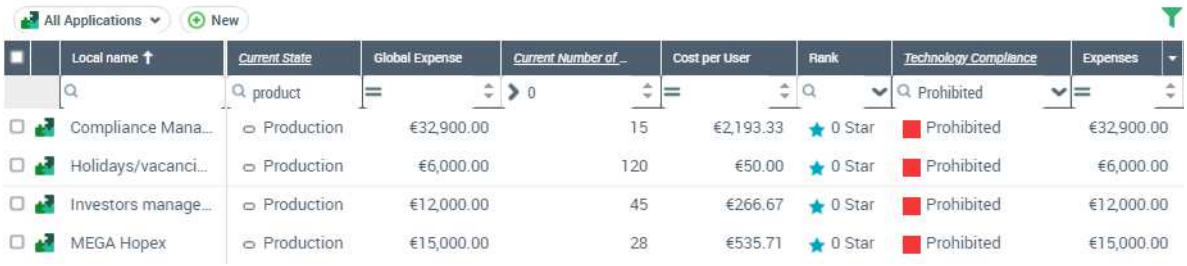
   The list of objects is automatically filtered according to the filtering criterion defined for the column.

   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, roll the mouse over the filter field and 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.

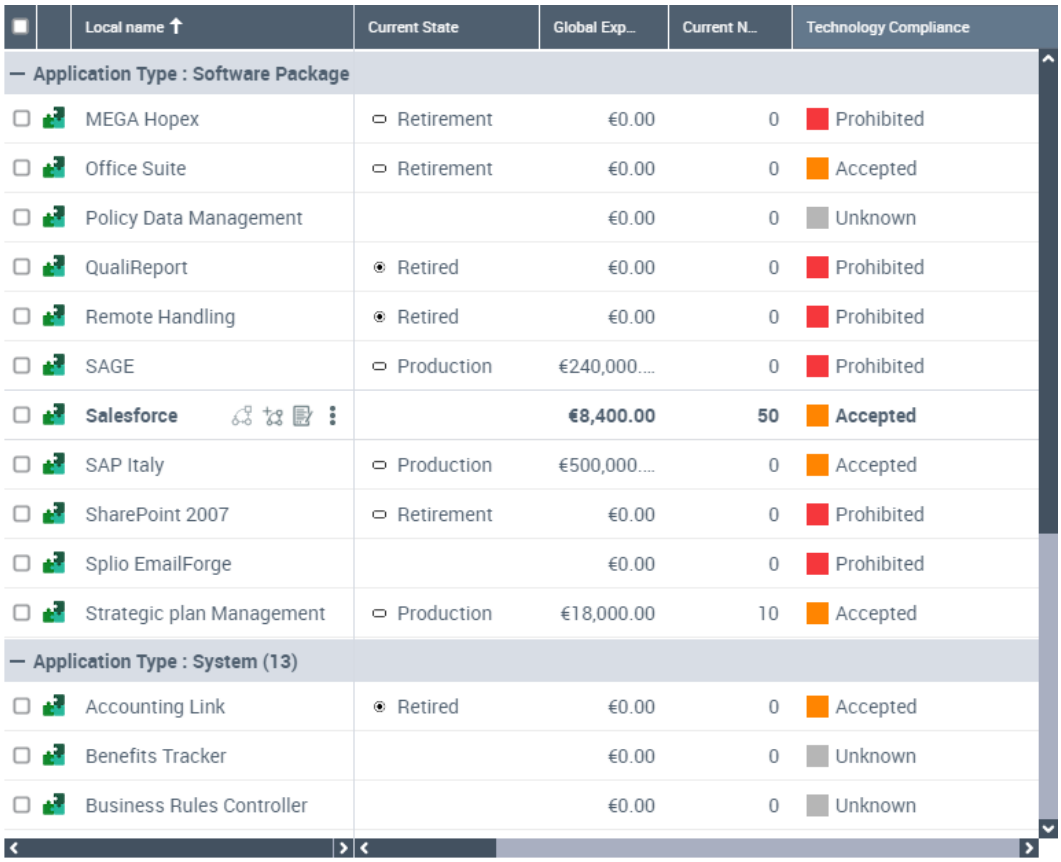
   * *See Managing Windows and Panes.*

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.
In the drop-down menu for all columns, **Display in groups** is selected.

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

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



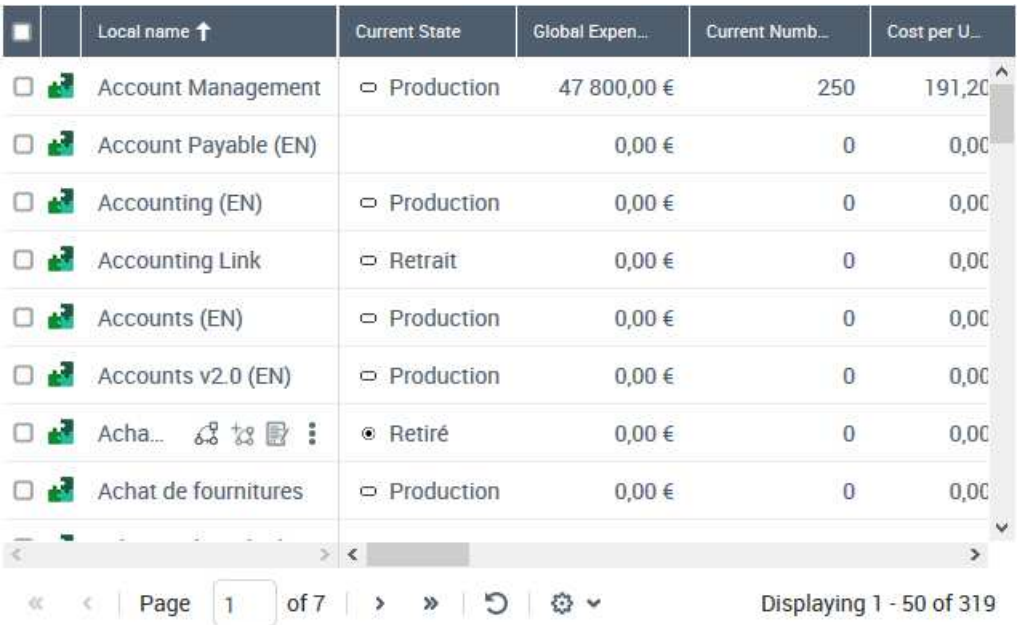
Local name	Current State	Global Exp...	Current N...	Technology Compliance
Application Type : Software Package				
MEGA Hopex	Retirement	€0.00	0	Prohibited
Office Suite	Retirement	€0.00	0	Accepted
Policy Data Management		€0.00	0	Unknown
QualiReport	Retired	€0.00	0	Prohibited
Remote Handling	Retired	€0.00	0	Prohibited
SAGE	Production	€240,000....	0	Prohibited
Salesforce		**€8,400.00**	**50**	**Accepted**
SAP Italy	Production	€500,000....	0	Accepted
SharePoint 2007	Retirement	€0.00	0	Prohibited
Splio EmailForge		€0.00	0	Prohibited
Strategic plan Management	Production	€18,000.00	10	Accepted
Application Type : System (13)				
Accounting Link	Retired	€0.00	0	Accepted
Benefits Tracker		€0.00	0	Unknown
Business Rules Controller		€0.00	0	Unknown

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**).



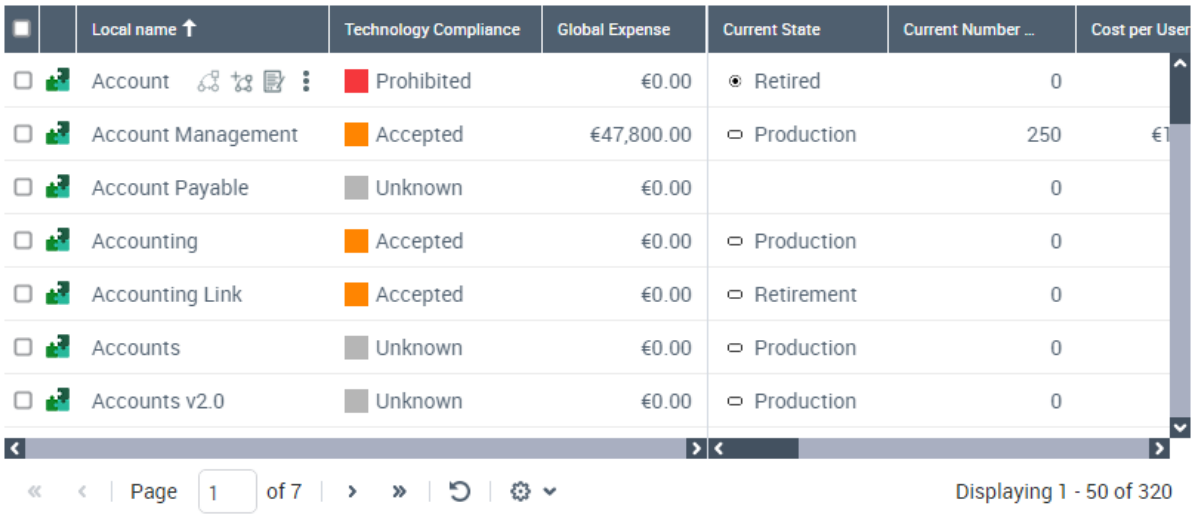
If necessary, you can position one or more columns directly to the right of the **Local Name** column. To do this, you must freeze the column.

To freeze a column:

1. In your **HOPEX** desktop, access the list of objects.
   * *See Managing Windows and Panes.*
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**).

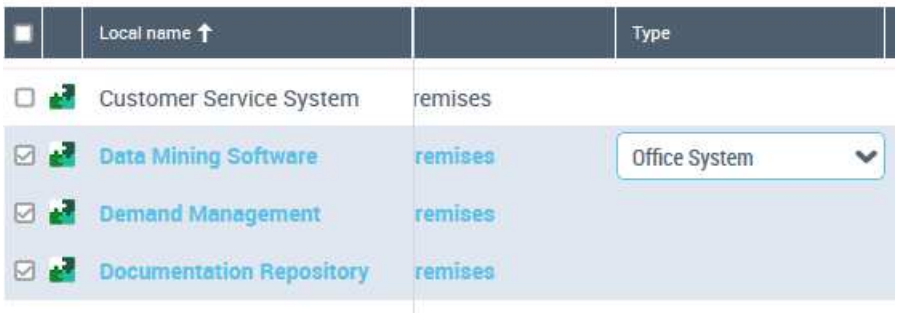


Mass modification of the data in a list

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.*
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.

CUSTOMIZING YOUR HOPEX DESKTOP

Customization can vary depending on the interface of your solution.

See:

- Modifying the Theme of Your Desktop
- Modifying the Data Language
- Modifying the Language of Your Desktop
- Customizing the Home Page of Your Desktop
- Customizing Your Dashboard
- Common Actions on Repository Objects

Modifying the Theme of Your Desktop

You can modify the default style sheet for your HOPEX desktop.

To modify the theme of your HOPEX 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 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:

1. In your **HOPEX** desktop, click **Main Menu** .
2. Select **<current language>** > **<new language>**.
   The data (translated) appear 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, click **Main Menu** .
2. Select **Parameters > Options**.
3. In the options tree, expand the **Installation** folder and select **Web Application**.

4. 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.*

You can customize your home page.

J *You can, for example, add a tile to access the **History**. For more details on options, see Using the History.*

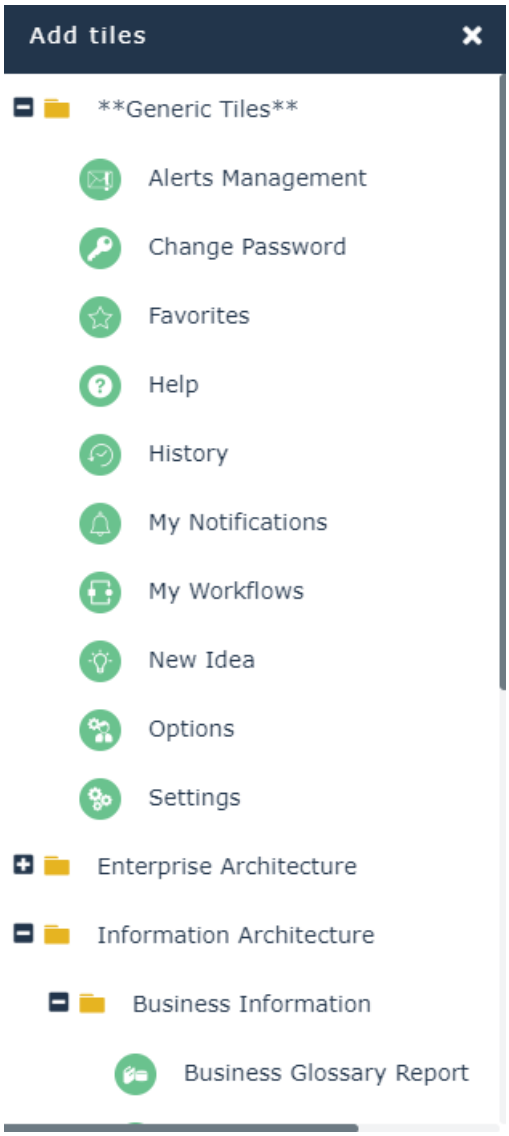
Adding a tile to your home page

To add a tile to your home page:

1. Access the Home page.
   * *See Accessing the Home page.*

2. In the Home page, click .

   The **Add tiles** 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.*

Deleting a tile from your home page

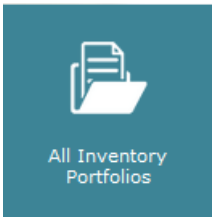
To delete a tile from your home page:

1. Access the Home page.
   * *See Accessing the Home page.*
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.*

Modifying the size of a tile

Generic tiles are small. The other tiles can be:

- **Medium**



- **Large**
  A larger tile displays more text.

To modify the size of a tile:

1. Access the Home page.
   * *See Accessing the Home page.*
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 it.
   - **Medium** to reduce it.

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:

â 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 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:

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

Widget types

A widget can be of type:

- private mode
  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.*
- public mode
  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.*

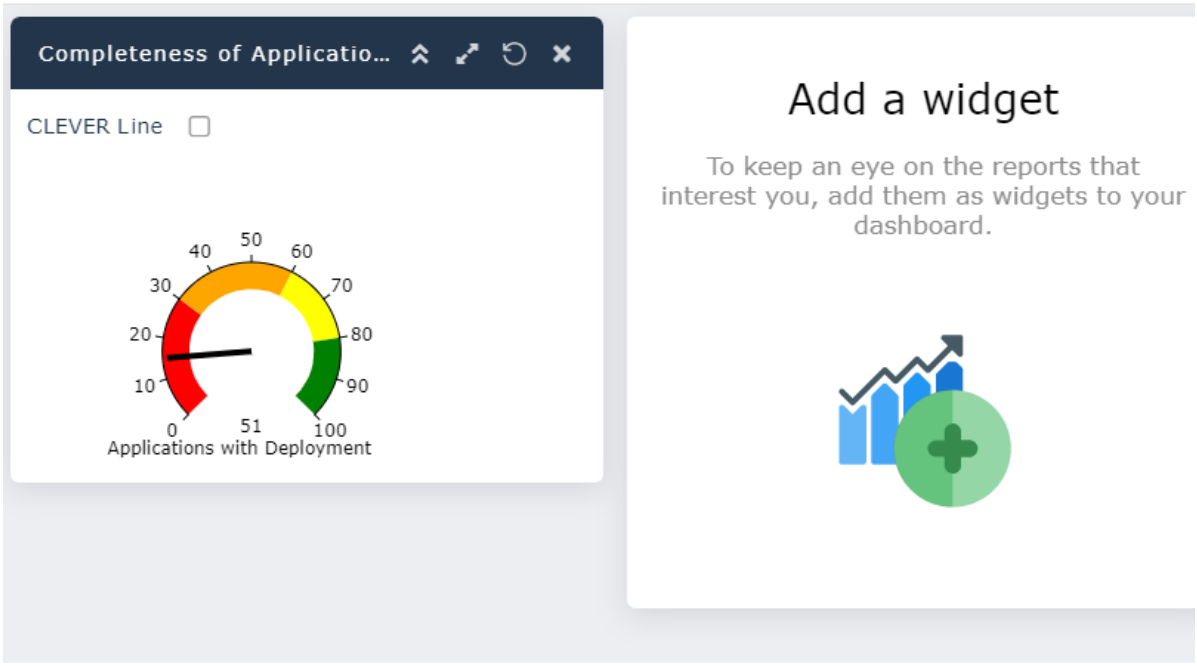
To add a widget to your dashboard:

1. In you **HOPEX** desktop, click the navigation menu then click **Dashboard**.
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.

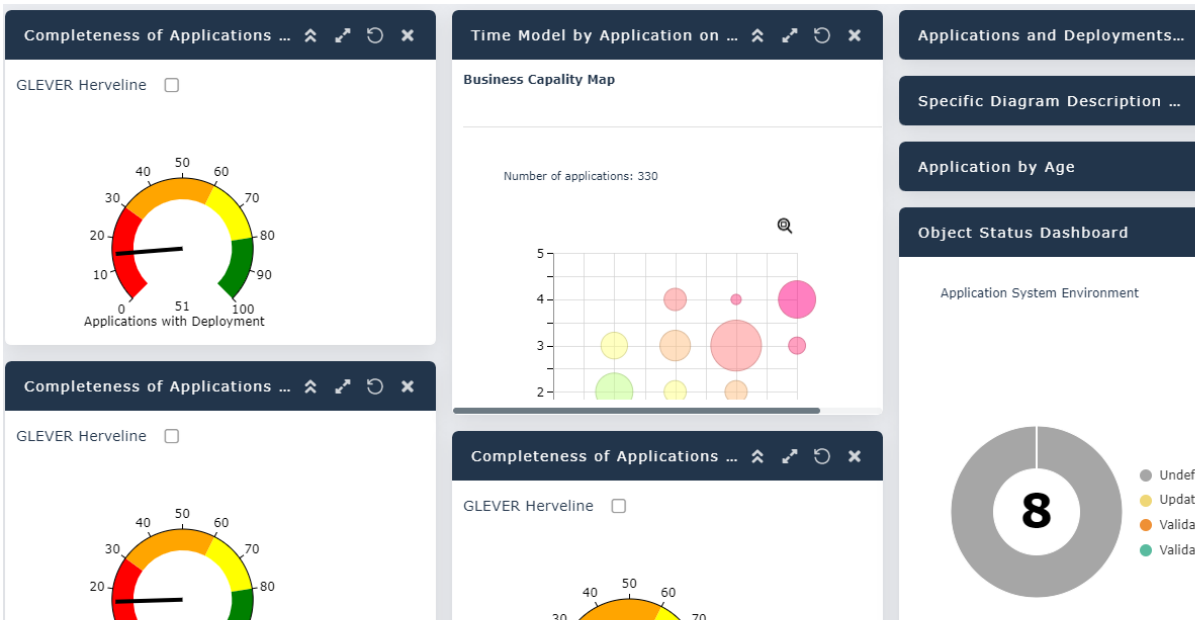
   Example: IT Portfolio Management, then the **Report**s sub-folder.

4. Click the report concerned.
The report is displayed as a widget in your dashboard.



You can add several widgets to your dashboard.

J *If you add many widgets, you can reduce the display of some of them, see Managing your widget display.*



Handling a widget

Some widgets include reports with a lot of information. They may need to be displayed in full page for a better readability.

To display a widget content in full page:

â In the widget title bar, click **Maximize** .
The widget content is displayed in full page.

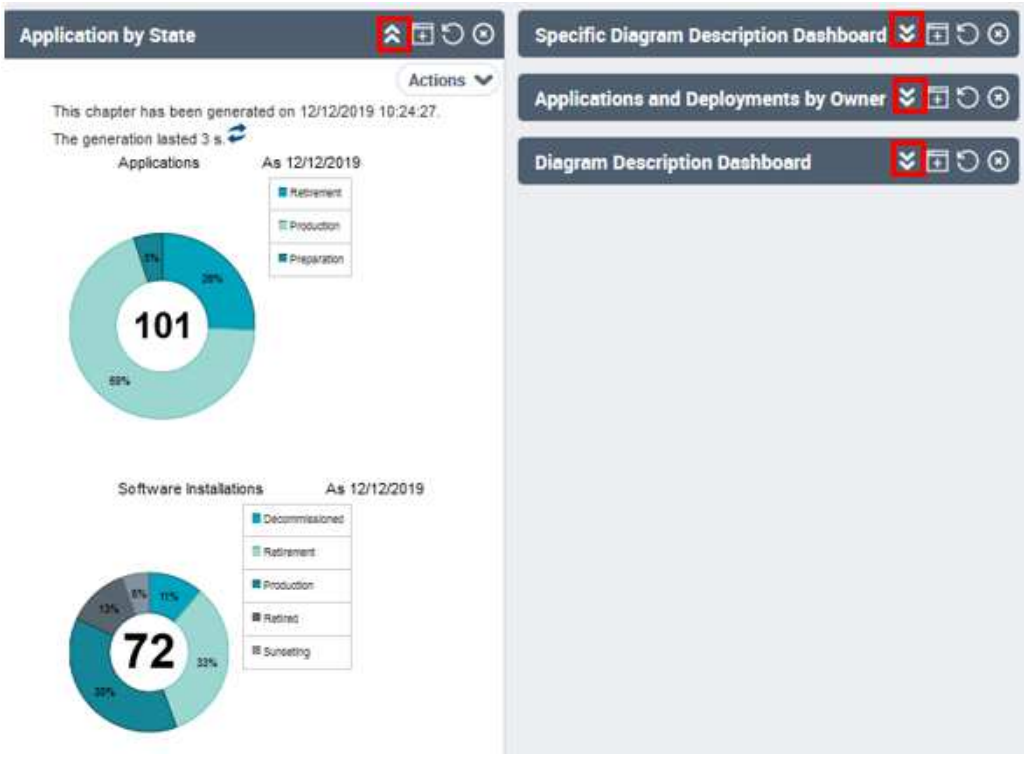
* *To return to your dashboard, in the breadcrumb trail, click **Dashboard**.*

Managing your widget display

Enlarging/Folding a widget window

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

* *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:

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

Managing Your Options

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

To modify your options (user level user):

1. In your **HOPEX** desktop, click **Main Menu** .
2. Select **Parameters > Options**.
   The window with your options (user level) appears.

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

   J *For a quick access to your options, you can add the **Options** generic tile to your home page.*

COMMON ACTIONS ON REPOSITORY OBJECTS

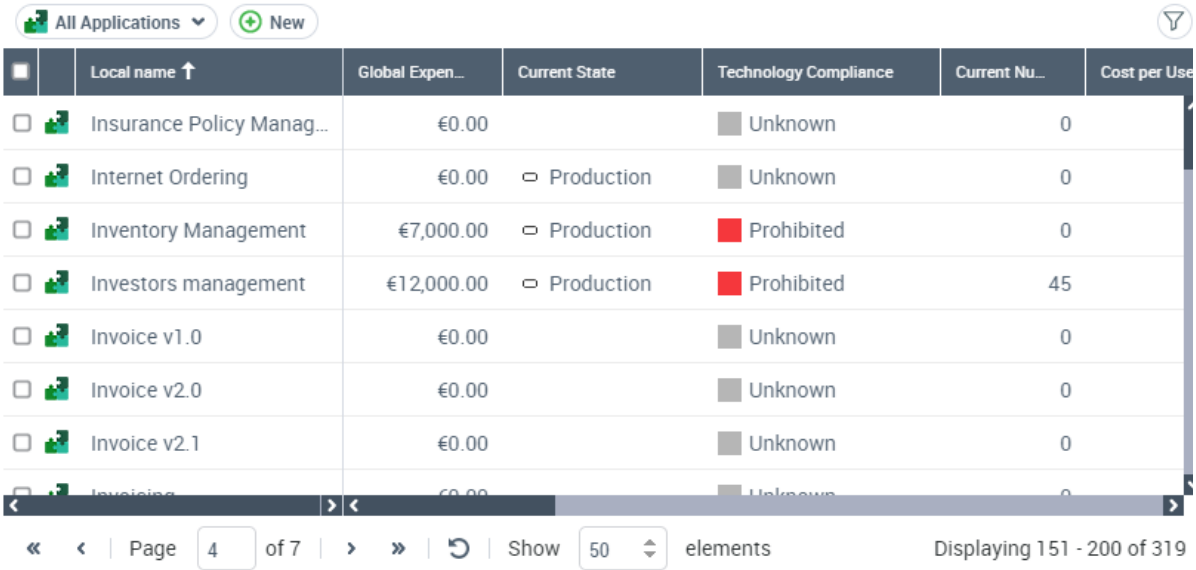
In your **HOPEX** desktop, the objects in a list are useful entry points to perform actions on objects of the same type.

See:

- Actions on a List of Objects
- Actions on Several Objects in a List
- Actions on an Object in a List
- Actions on an Object in a Diagram

Actions on a List of Objects

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



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:
	Create an object matching the object list	
	Display/Hide the filters on the columns	Filtering a list data

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

In this list, you can create a new application and filter the list.

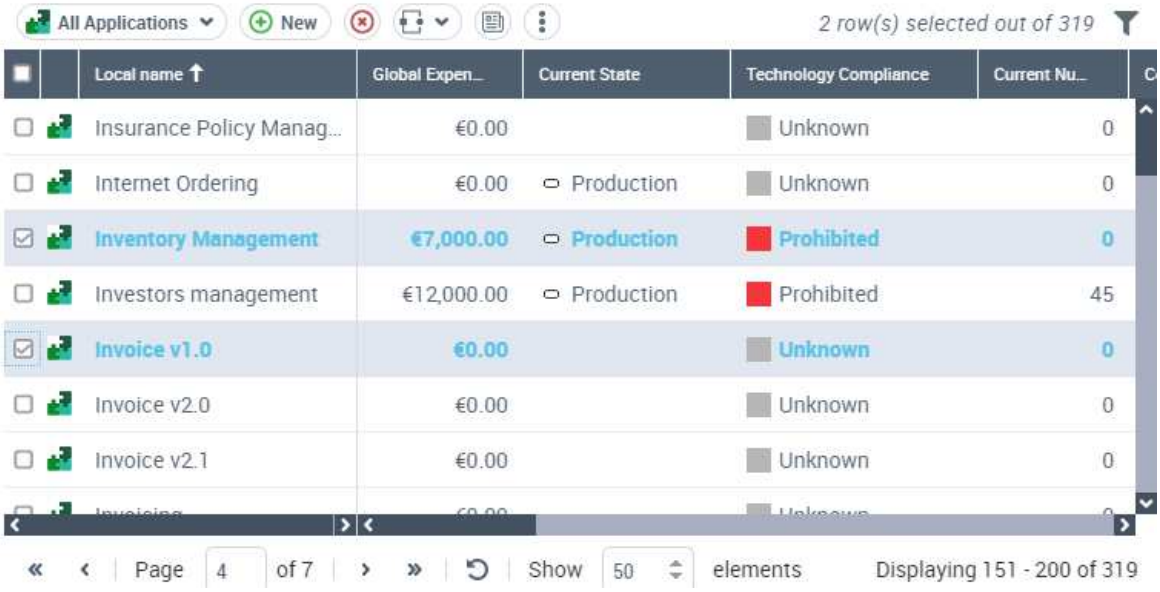
Actions on Several Objects in a List

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

* *The objects selected in a list appear in bold and blue.*

When you select more than one object from the list:

- additional actions are available
- the number of objects selected in all the pages (from the total number of objects) is specified in the upper right of the list.



* *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:
	Create an object matching the object list	
	Delete the selected objects from the **HOPEX** repository	
	Launch a mass workflow transition on the selected objects	Participating in a Workflow
	Generate an instant report on the selected objects	Managing Instant Reports
	Export the selected objects in Excel format	Exporting an object List in Excel Format
	Display/Hide the filters on the columns	Filtering a list data

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

In this list, after selecting elements, 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).

Actions on an Object in a List

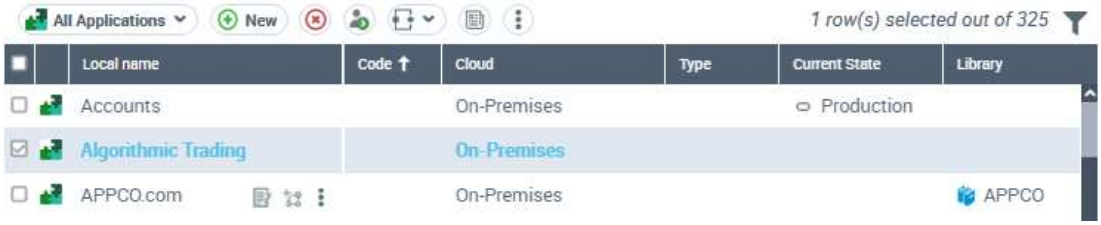
In a list of objects, the actions that you can perform are available:

- after selecting the object in the menu bar of the list
  - *When you select an object in a list, it is highlighted in bold blue.*
- when you roll the mouse over the **Local Name** column of the object
- when you right-click in an object row, in the context menu of the object.

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.*



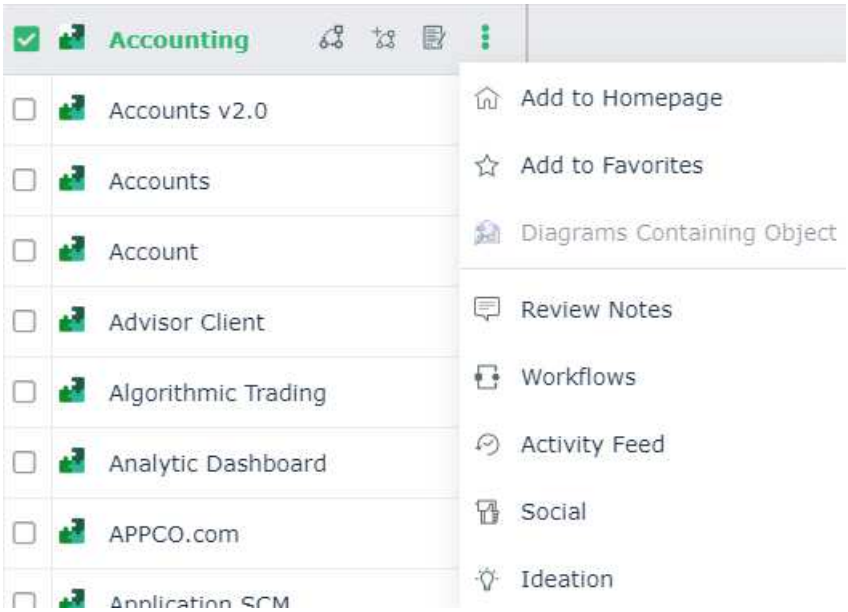
Icon	Actions on the object	For more details, see:
	Delete the object from the **HOPEX** repository	
	Follow the object to be informed of all the modifications performed on this object	Sharing with other users (social)
	Assign the object to a business role (certain desktops)	The **HOPEX Administration - Supervisor (Web)** guide, "Managing Business Roles" chapter.
	Access the object Workflows and launch a workflow transition on the object	Participating in a Workflow
	Create an instant report on this object	Managing Instant Reports
	Like the object	Sharing with other users (social)
	Export the selected object in Excel format	Exporting an object List in Excel Format

* *Click **More** to access hidden actions.*

Actions on an object from the Local Name of a list

In a list of objects, when you roll the mouse over the **Local Name** of an object, a list of buttons appears:

- In the first part of the list, you can perform current actions on the object.
- The second part of the list gives you direct access to the collaboration features relating to this object.
    - *See Accessing Collaboration Information on an Object.*
    - *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:
	Open or preview the diagram(s) describing the object in the edit area (**View** window)	Handling Diagrams
	Create a diagram in the edit window (**View** window)	Introduction to diagrams
	Display the properties of the object in the edit area (**Properties** window)	Defining Object Properties

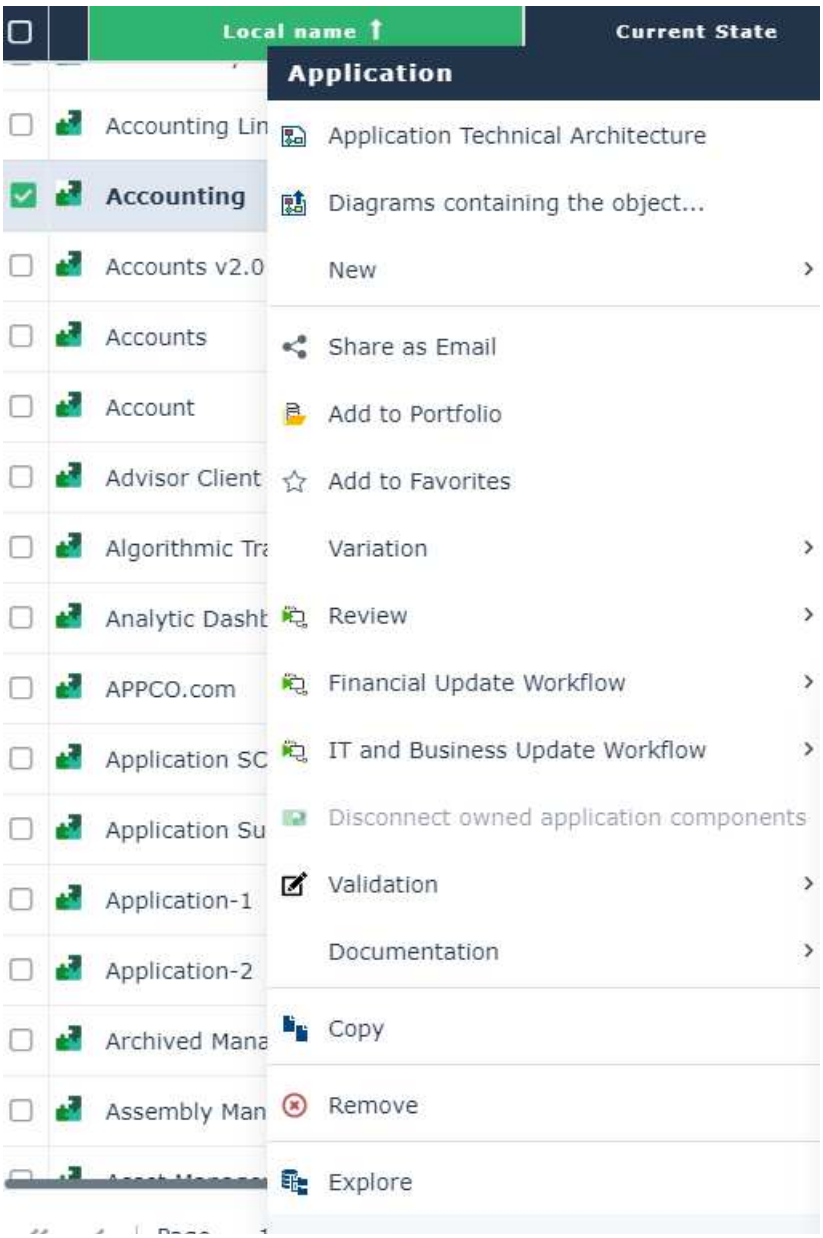
Icon	Action on the object	For more details, see:
	Add the object to your home page	Customizing the Home Page of Your Desktop
	Add the object to your favorites	Managing Favorites
	Open the diagram(s) containing the object in the edit area (**View** window)	Handling Diagrams

Icon	Action/Collaboration on an object	For more details, see:
	Access the **Review Notes** on the object	Managing Review Notes
	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
	Access the **Social** theme of the object	Sharing with other users (social)
	Access the management of ideas (**Ideation**) on the object	Managing Ideas

Pop-up menu for an object

To access all the commands specific to an object using a list:

â Right-click in the object row and in its pop-up menu select the action.



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.

  - to access the object properties.
  - to generate a report on the object
  - to access the diagrams describing the object
  - to access the diagrams containing the object

    * *See Using the pie menu in a diagram preview.*

- in edit mode, you access:
  - the object pop-up menu
  - the object specific toolbar

    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:

- Editing a Diagram.
- Displaying Diagram Previews

See also: Managing Objects in Diagrams.

SEARCHING OBJECTS

3 Introduction to Searches
3 Quick Search
3 Advanced Search

INTRODUCTION TO SEARCHES

Search Types

To perform searches on objects in the repository, **HOPEX** 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.*
- ***the advanced search tool***, by using the wizard or by entering a query using a repository query language.
    - *See Advanced Search.*

Search Results

In some Solutions, your search results are filtered according to your navigation (breadcrumb trail).

QUICK SEARCH

Presentation of the Quick Search Tool

* *To perform advanced queries, see Accessing advanced search.*

The quick search tool is available in all of your **HOPEX** desktop pages.

* *To locate the quick search tool, see Interface Elements.*

The quick search tool includes two search types:

- the full-text search.
- the search by object type.

Full-text search bar

* *To display the search by object type bar, see Changing the quick search type.*

In all **HOPEX** desktops you can perform full-text quick searches.

* *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 Full-text Search.

Search by object type bar

* *To display the full-text search bar (if your repository is indexed), see Changing the quick search type.*

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 Search by Object Type.

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. In your **HOPEX** desktop, to the left of the search bar, click **Switch search bar** to switch to:
   - the object type search.
     * *See Search by Object Type.*
   - the full-text search.
     * *See Full-text Search.*

Changing the display window for your search results

According to your needs you can modify the window where you want to display your search results:

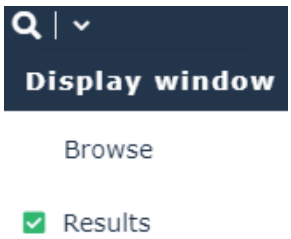
- **Results** (by default), or
- **Browse**

  * *To define the more suitable window, see Defining Where to Display the Search Results.*

To change the display window for your search results:

1. To the right of the search bar, click the arrow.
   The **Display window** indicates the window selected to display the search results.

   Example: **Results**.

2. Select the window where you want the search results to be displayed.

   Example: **Browse**.

   This setting is kept (even after logout) as long as you do not change the display window or reset your personal settings.

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.

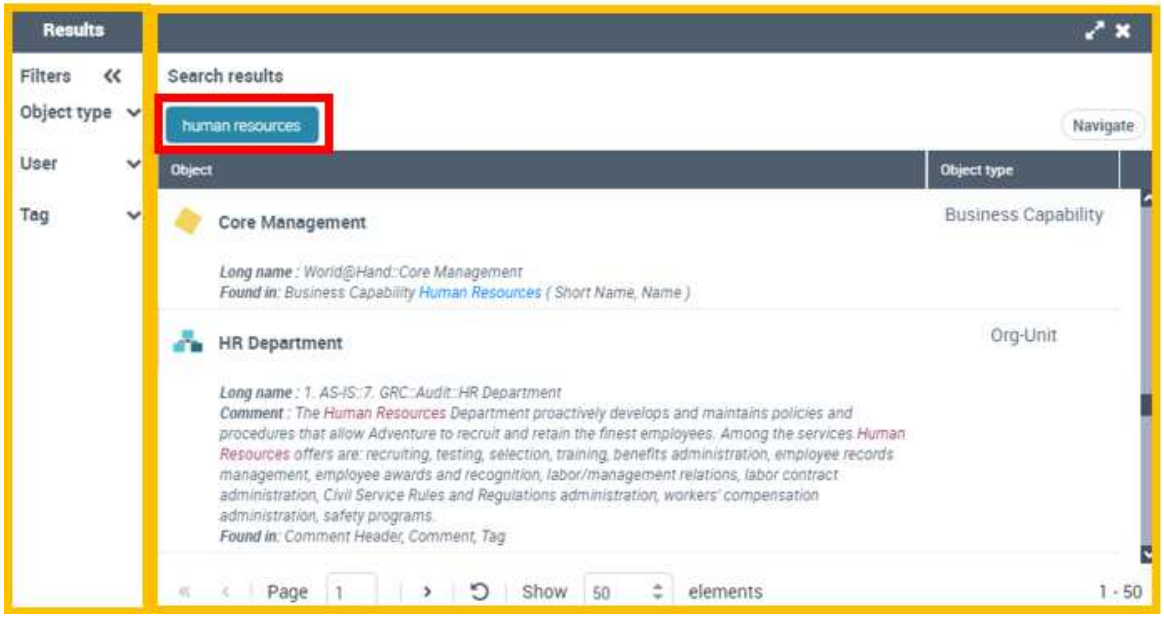
* *If the repository is not indexed, the search by object type is available only; see Search by Object Type.*

Full-text search result description

The full-text search result includes two panes:

- **Filters**, which enables to refine the existing search results.
  Filters are calculated dynamically according to the search results.
- **Search results**, which indicates the string searched for as well as the filters used (if any), and displays the search results.

  `E.g.: string searched for "human resources", no filter used.`



* *By default, results are displayed in the **Results** window. You can display the results in the **Browse** window, to access all of the functionalities available on objects in a list (e.g.: diagram creation). See Changing the display window for your search results.*

Search results

In the **Search results** pane, for each full-text search result, are indicated:

- below the name of the object:
  - the **Long name** of the object
  - where the text entered was found (**Found in**)

    E.g.: name, short name, comment, tag.
- in columns:
  - the **Object type**
  - the **Relevance** (not displayed by default), which takes into account the number of times the text was found and the weighting attributed to the attribute concerned.

    * *To add the column, see Defining the columns to be displayed.*

    For example, the search for "human resources" string was found in the "Manage the timetable" object of type **Functionality**, in its Name, Tag, and Review Note.

Filters

In the **Filters** pane, for each full-text search result, specific filters are associated with this search result:

- **Object type** concerns the type of the object searched for.
- **User** concerns any person linked to the object searched for:
  - person to which the object is assigned to
  - person who modified the object
  - person who created the object
  - person who created a review note linked to the object, or an answer to a review note linked to the object
  - person who subscribed to the object modifications
- **Tag** concerns any tag added to the object searched for.

The elements of these three filter types are calculated dynamically according to the search results. Thus, as soon as an element of a filter type is selected, the elements of the other filter types are updated accordingly.

The search of results is performed according to the following rules:

- within the same filter type, the OR operator is applied

  Example: display the org-units or libraries that include "human resources" string

  Search: "Human resources"

  Object type filter: "Org-unit" and "Library"

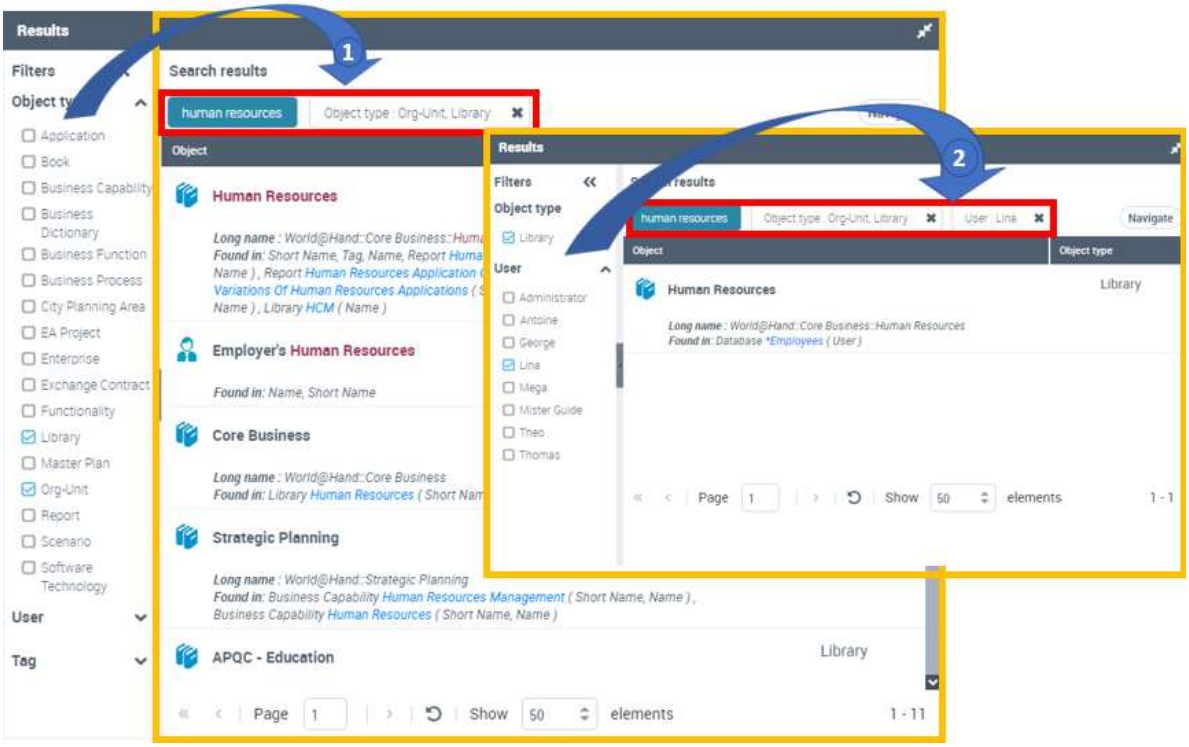
- between filter types, the AND operator is applied

  Example: display the org-units OR libraries that contain "human resources" string AND that are linked to "Lina" user.

  Search: "Human resources"

  Object type filter: "Org-unit" and "Library"

  User filter: "Lina".



Performing a full-text search

Prerequisite: the repository is indexed. Repository indexing is performed by your administrator.

* *See the **HOPEX Administration - Supervisor** guide, the "Managing Repositories > Using Repositories > Enabling and Disabling Repository Indexing" chapter.*

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.

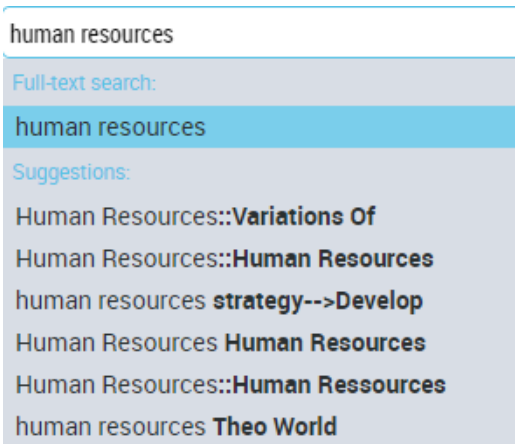
   * *See Full-text search bar.*

   As soon as you enter a character, suggestions (associated with autocompletion) are proposed.

   You can add several terms to your search, included tags and persons.

   M **When you add several terms: be careful to the word order of the character string, enter the exact phrase you are searching for or add operators if needed. See Full-text search syntax.**

   For example, enter "human resources".



2. By default the research is positioned on the text you entered, if needed, press the down navigation key to select one of the **Suggestions** or select it with the mouse.
3. (If needed) By default the search results are displayed in the **Results** window.

   * *See Defining Where to Display the Search Results.*

   To display the results in the **Browse** window, click the drop-down menu linked to and select **Display window > Browse**.

   The default window to display the search results is now the **Browse** window.

4. Press [Enter] or click .

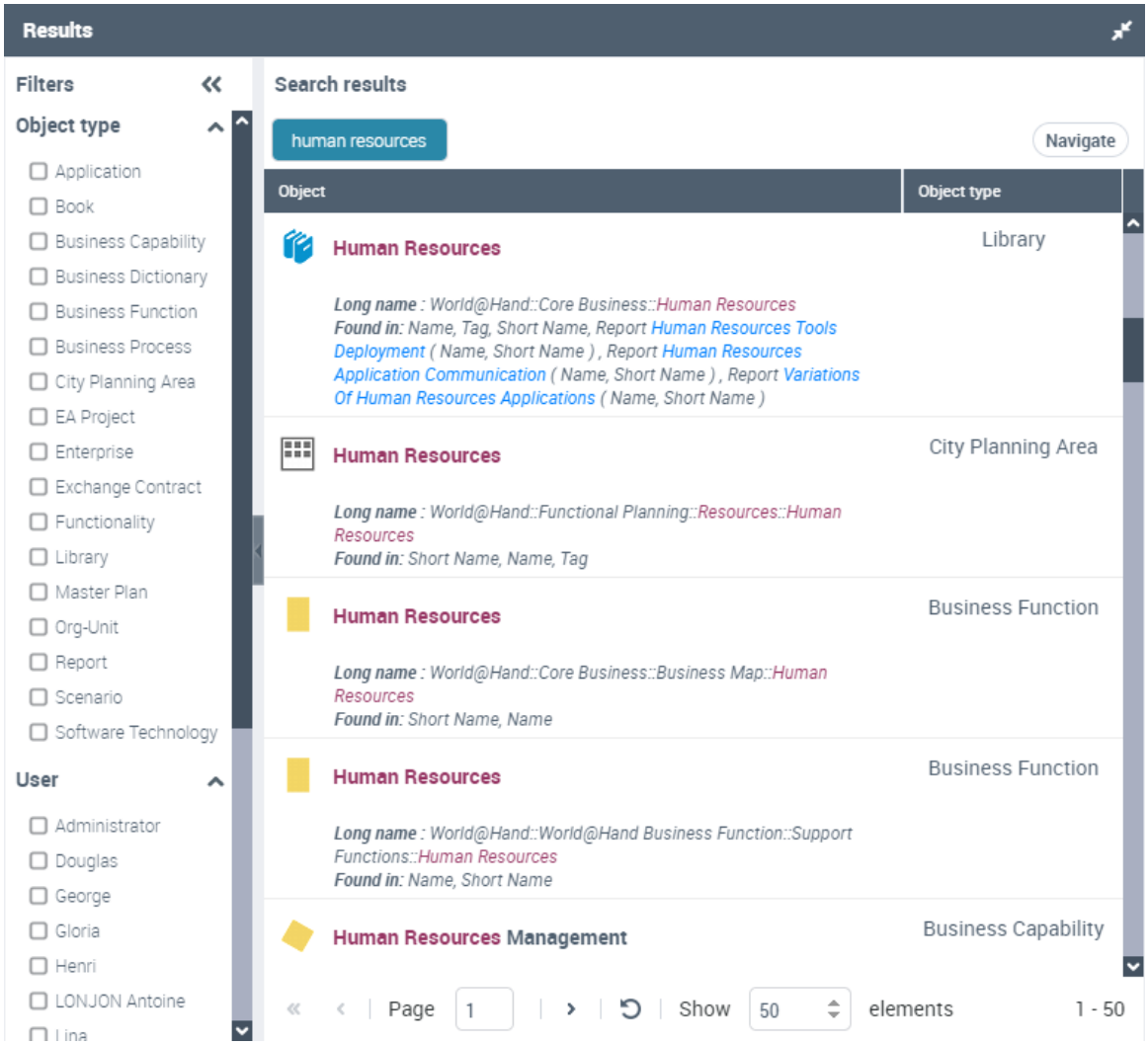
   The search results are displayed in the selected window and include:

   - the **Search results** pane with the string searched for and the results ordered by relevance.
   - the **Filters** pane, which is associated with the search results and which enables to filter the results.

     * *Filters are calculated dynamically with the search.*

5. If the search returns too many results, a message indicates you to refine your search.

   E.g.: refine the character string you are looking for.



6. (If needed) Use the **Filters** pane to refine your search.
   - In the **Object type** section, select an object type.
     * *You can select several object types.*

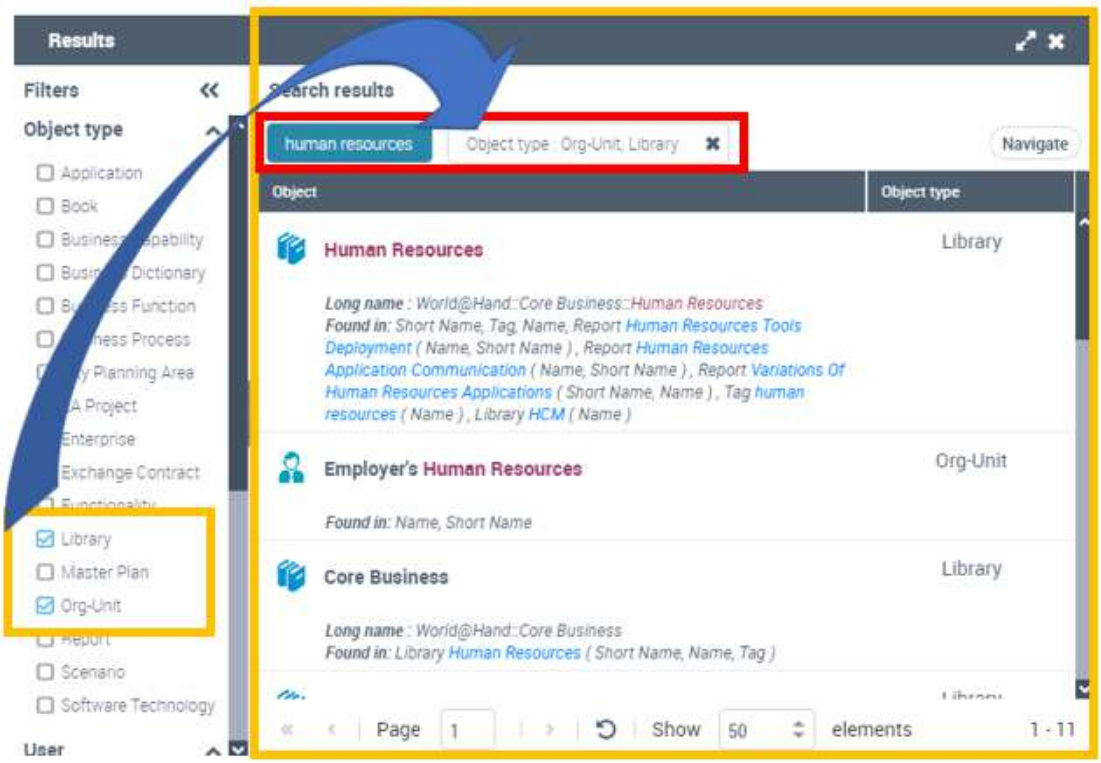
   Beside the searched string, the **Type** filter is displayed with the selected object types.

     * *To remove the filtering on **Type**, in the **Search results** pane, click the ✖ of the **Type** filter.*
     * *To remove an object type from the **Object type** filter: in the **Filters** pane, clear the object type.*

   For example, in the **Object type** section, select "Org-Unit" and "Library".

   The **Type: Org-Unit, Library** filter is added to the search.

   Only the "org-unit" or "Library" type objects are displayed.



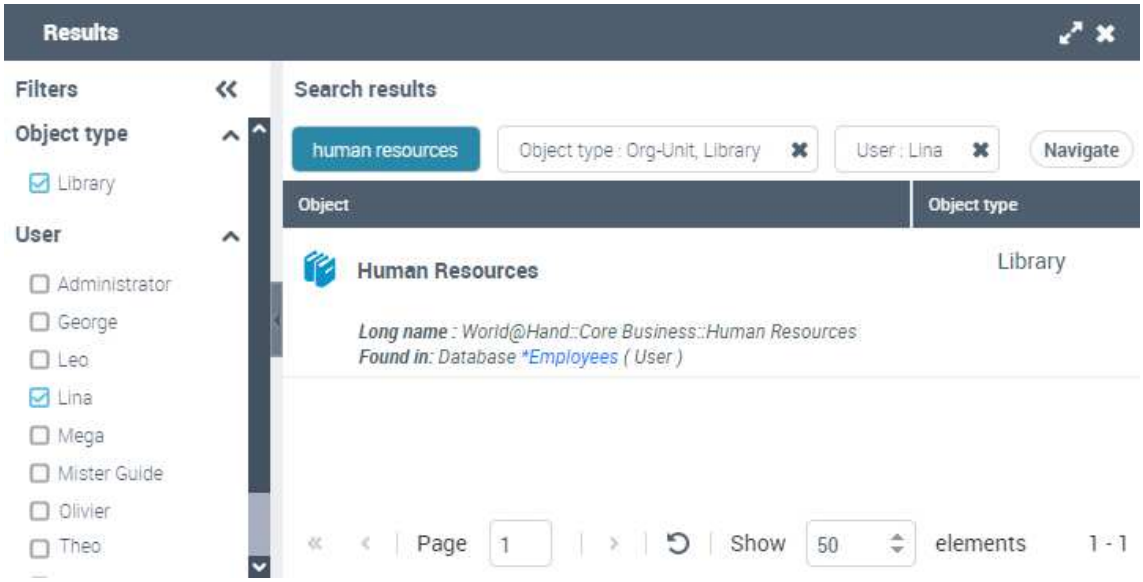
   - In the **User** section, select a person.
     * *You can select several persons.*

   Beside the searched string (and the **Object Type** filter, if any) the **User** filter is displayed with the selected persons.

     * *To remove the filtering on **User**, in the **Search results** pane, click the ✖ of the **User** filter.*
     * *To remove a person from the **User** filter: in the **Filters** pane, clear the person.*

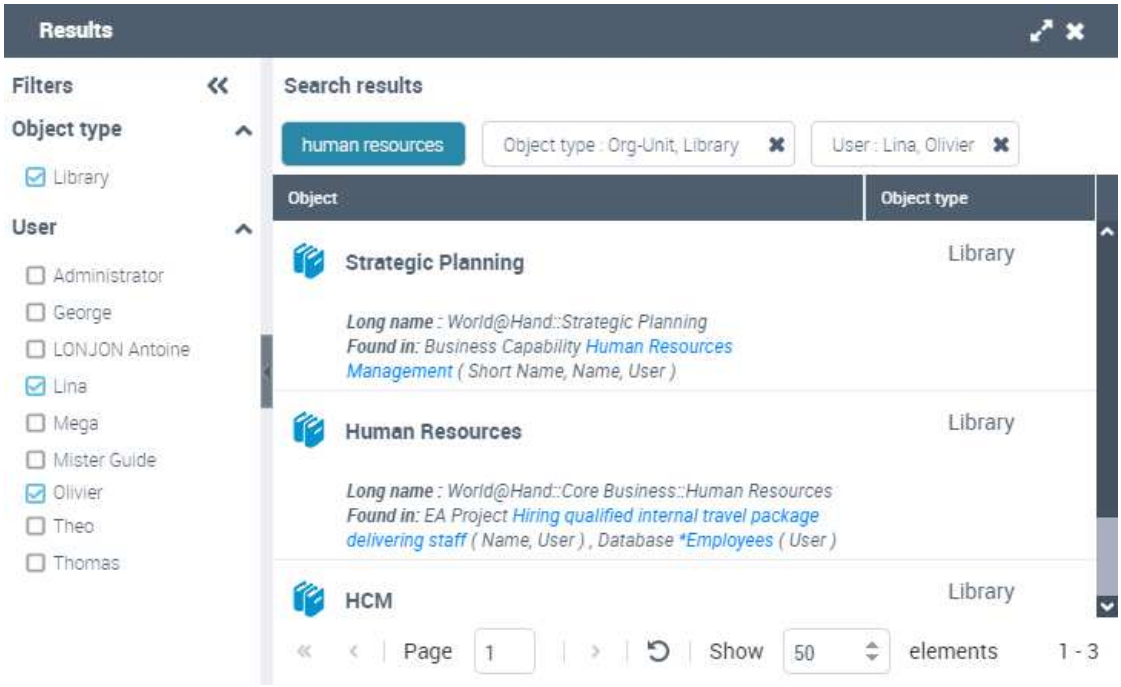
   For example, in the **User** section, select "Lina".

Only the libraries linked to "Lina" are displayed.



For example, in the **User** section, select "Lina" and "Olivier".

Only the libraries linked to "Lina" OR "Olivier" are displayed.



Handling the search results window

By default the search results are displayed in the **Results** window.

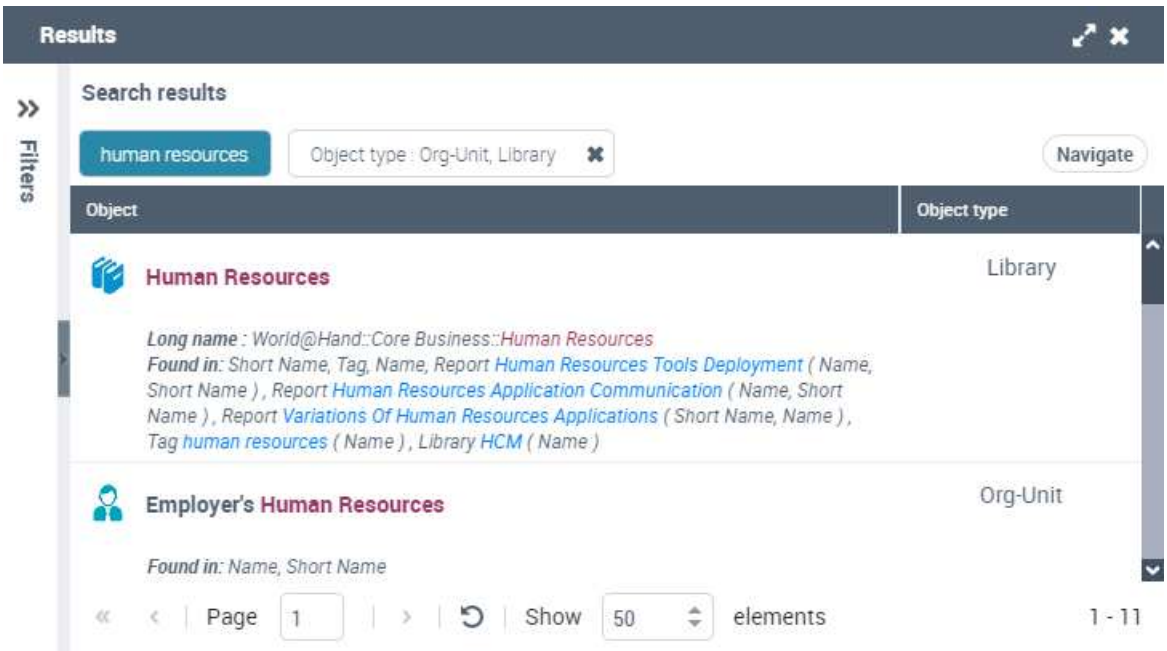
* *To display the search results in the **Browse** window, see Changing the display window for your search results.*

The search results include two panes:

- **Search results**
- **Filters**

You can:

- hide the Filters pane: in the **Filters** pane bar, click **Collapse window** «.
  * *To display the pane again, click **Expand window** ».*



- display your search result as a list in the **Browse** window and thus benefit from the features available on object lists (e.g.: diagram creation): in the **Search results** pane, click **Navigate**.
  * *See Managing Lists.*
  * *see Defining Where to Display the Search Results.*
- handle the **Results** window
  * *see Defining Where to Display the Search Results.*

Full-text search syntax

By default, searches relate to the objects of which one of the indexable attributes includes all of the terms entered, in the order entered.

The search is performed on the exact terms (be careful with plural).

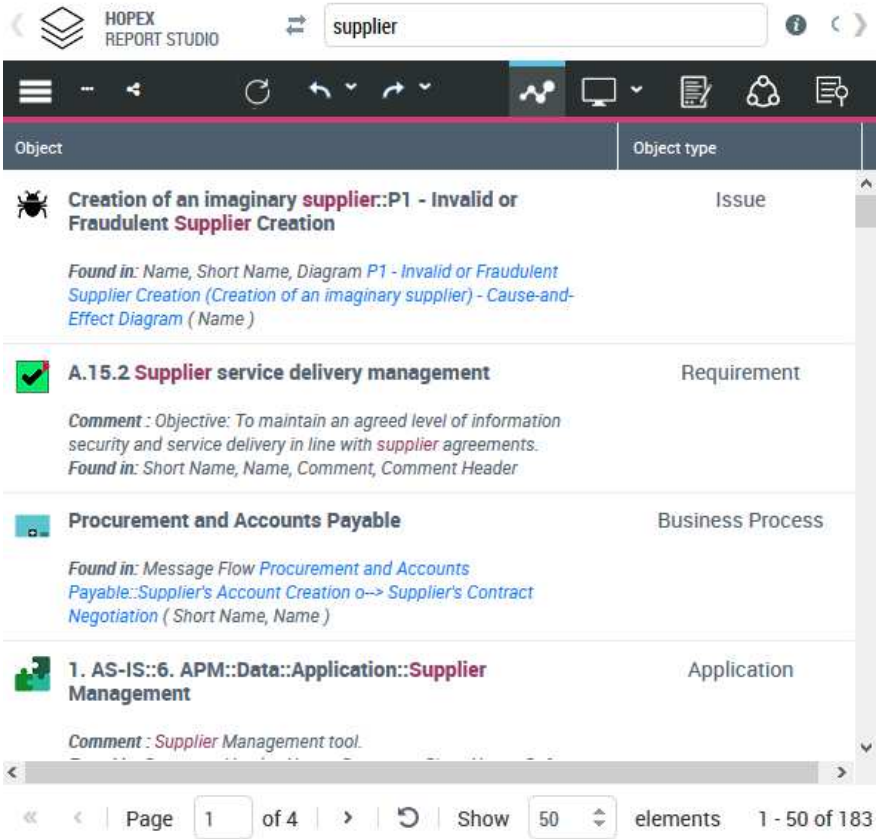
> For example a search for “journey” or “journeys” does not return the same result.

To refine your search, you can use operators. You can use several operators and mix them.

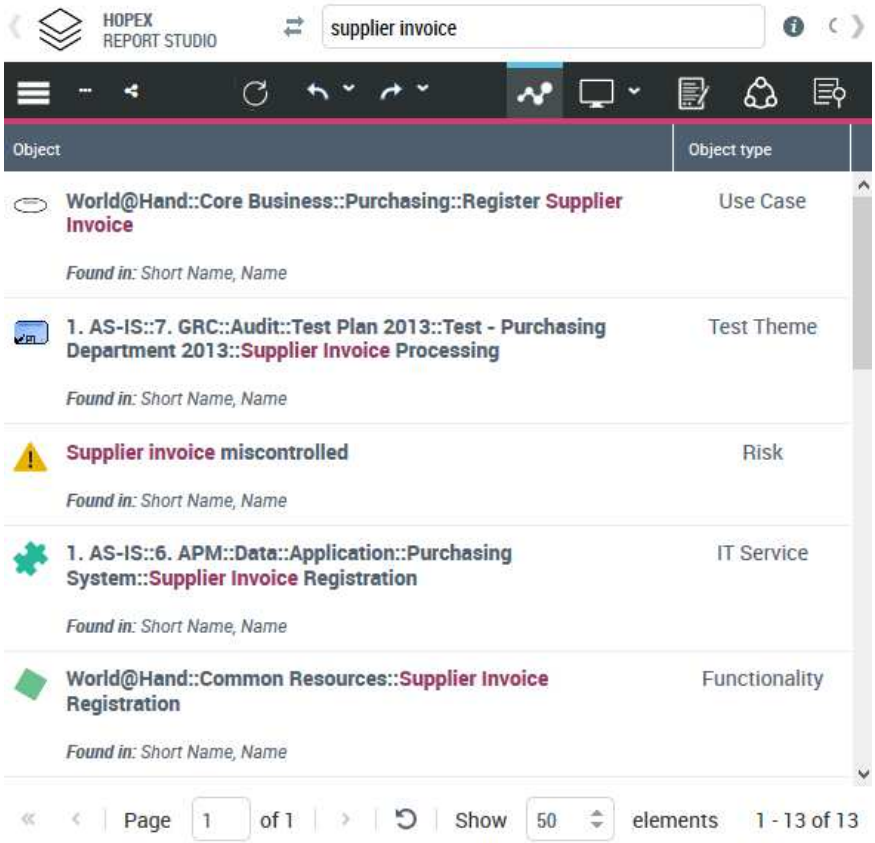
Without operator

Without operator, the search is performed on all of the terms, in the order entered.

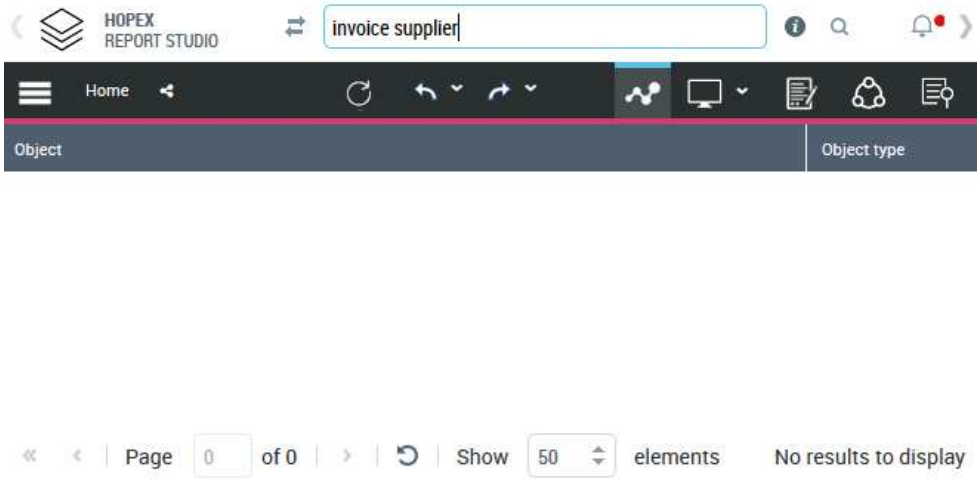
Example 1: The search ***supplier*** returns 183 results.



Example 2: The search ***supplier invoice*** returns 13 results.



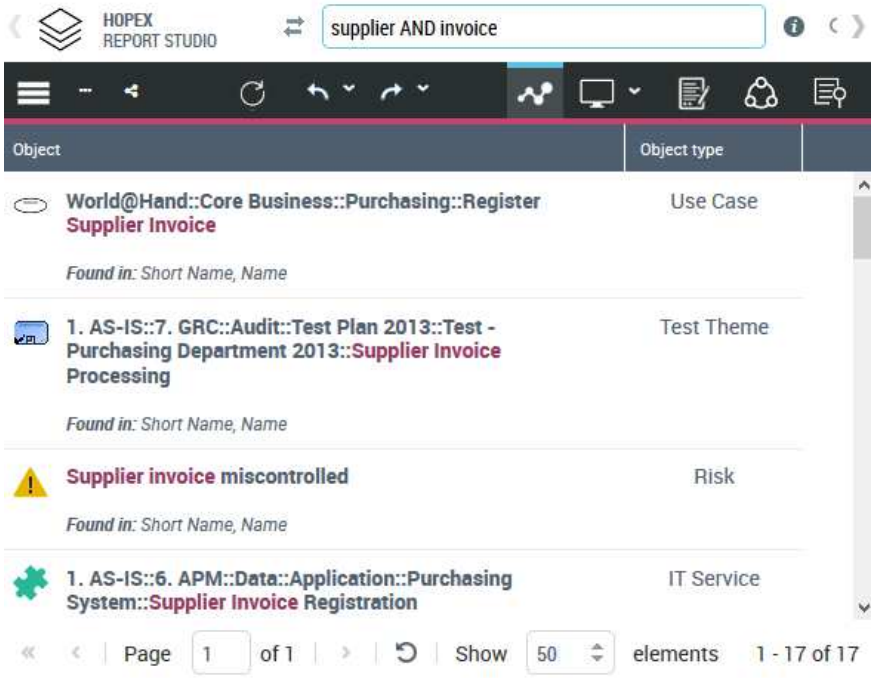
Example 3: The search ***invoice supplier*** returns no result.



AND operator

The AND operator enables to include all of the terms in the search regardless their order.

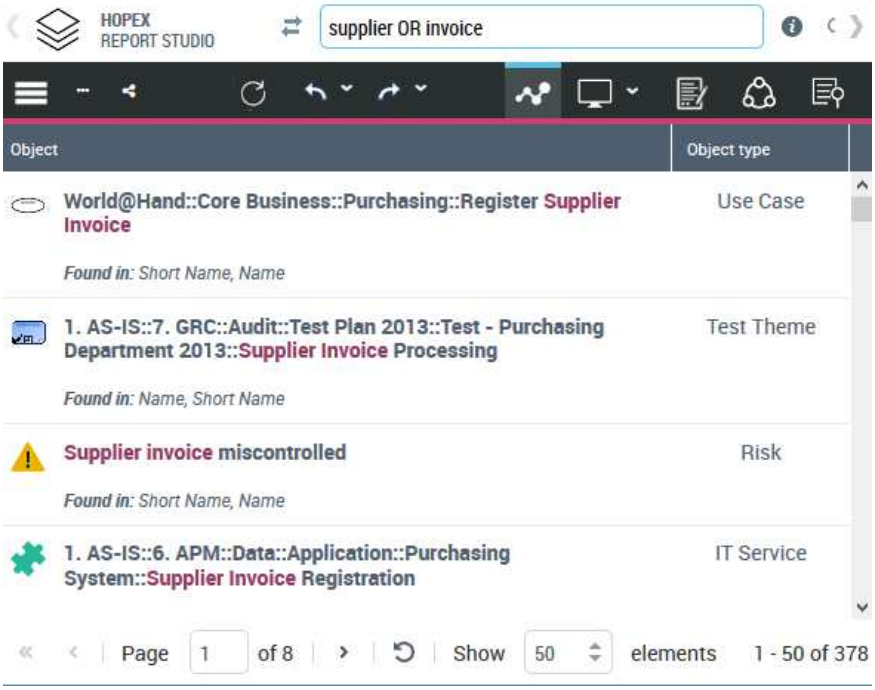
The search ***supplier AND invoice*** returns 17 results.



OR operator

The OR operator enables to include at least one of the terms in the search.

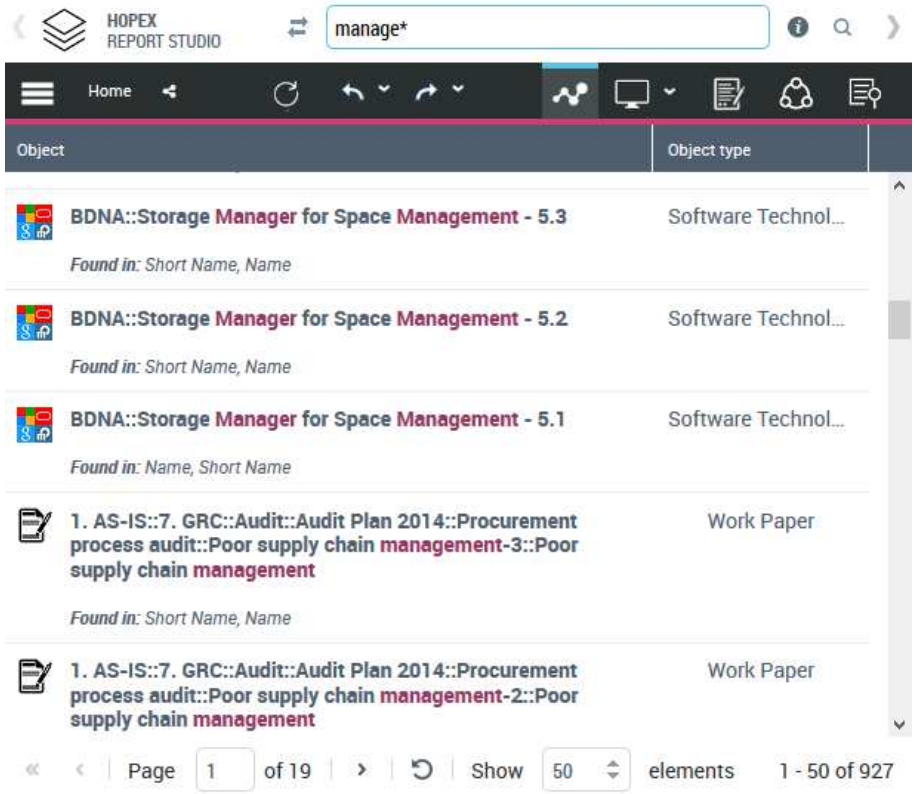
The search ***supplier OR invoice*** returns 378 results.



* *operator*

The * operator enables to replace one or several characters.

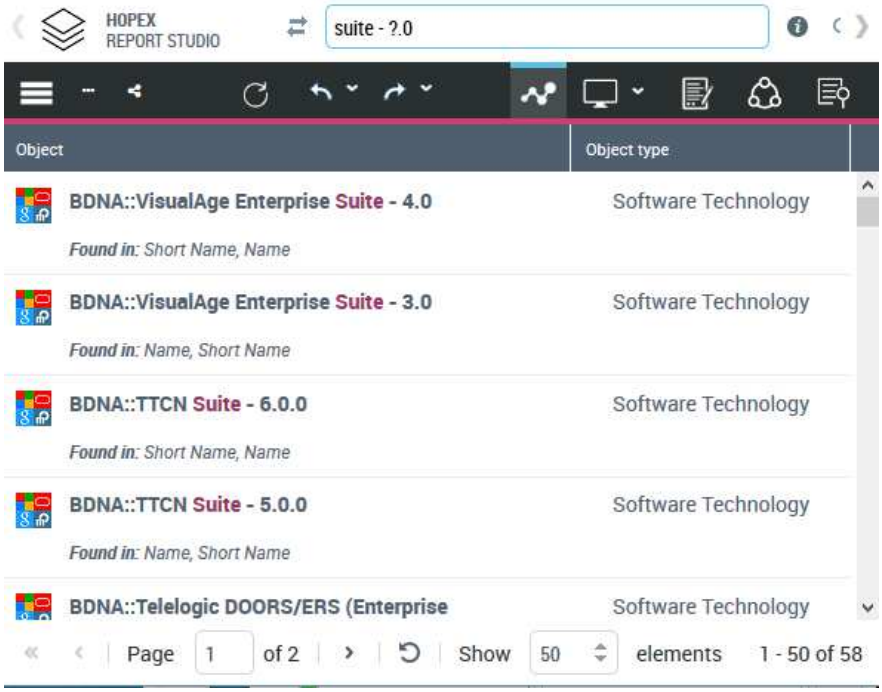
E.g.: manage*



? operator

The ? operator enables to replace a single character.

E.g.: suite - ?.0



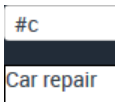
 # operator

The # operator enables to include one or several tags in the search.

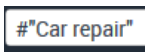
To add a tag to the search:

1. Enter the # character followed by at least the first letter of the tag.

   Example: #c, #cat



2. Select the tag in the list of tags that begin with this letter.



@ operator

The @ operator enables to include one or several persons in the search.

To add a person to the search:

1. Enter the @ character followed by at least the first letter of the person's name.

   Example: @m, @me

2. Select the person in the list of persons whose name begins with this letter.

Search by Object Type

* *If your repository is indexed, you can perform a full-text search; see Full-text Search.*

Accessing the search by object type

You can access the search by object type from:

- the toolbar on your **HOPEX** desktop.
  - * *See Search by object type bar.*
- the properties page of an object to connect objects
  - * *See Using the Search Tool to Connect an Object.*
- the advanced searched tool
  - * *See Advanced Search.*

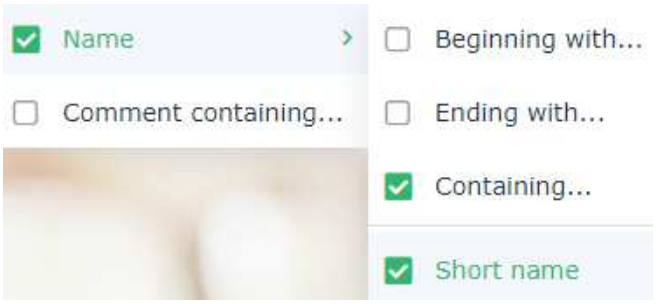
Searching for an object type

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.*

- The **Find object** field if you want to refine the search by adding a string of characters to be searched.



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 (**Beginning with**)
  - at the end (**Ending with**)
  - without specifying (by default) (**Containing**).
- the object comment (**Comment containing**).
- the object name and its comment.

To perform a search on an object type:

1. On your **HOPEX** desktop, in the search by object type bar, in the **Select an object type** drop-down list, select an object type.

   * *See Search by object type bar.*

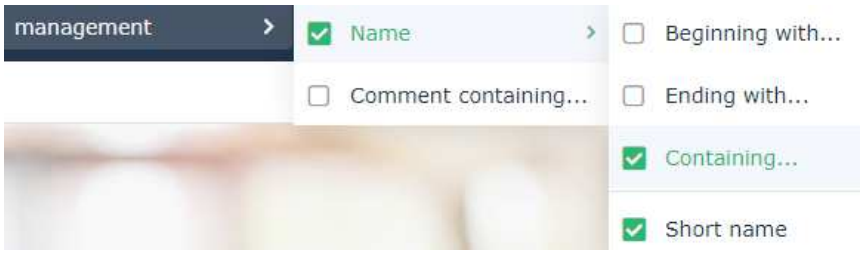
   `Example: Application`

2. (If necessary) To refine your search:
   - In the **Find object** field, enter the character string to be searched.

     Eg.: management

     * *By default, the search deals with the objects of the selected type and whose short name includes 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 search result is displayed as a list in the selected window.

   * *See Defining Where to Display the Search Results.*

Defining Where to Display the Search Results

* *To see or modify the window in which you want to display the search results, see Changing the display window for your search results.*

Depending on your needs, you can choose the window where the search results are displayed:

- **Results** (by default)
  In that case, the search is rather a secondary action.

  It enables, for example, to find the object you want to add in another window and particularly in a diagram.
- **Browse**
  In that case, the search is rather a primary action.

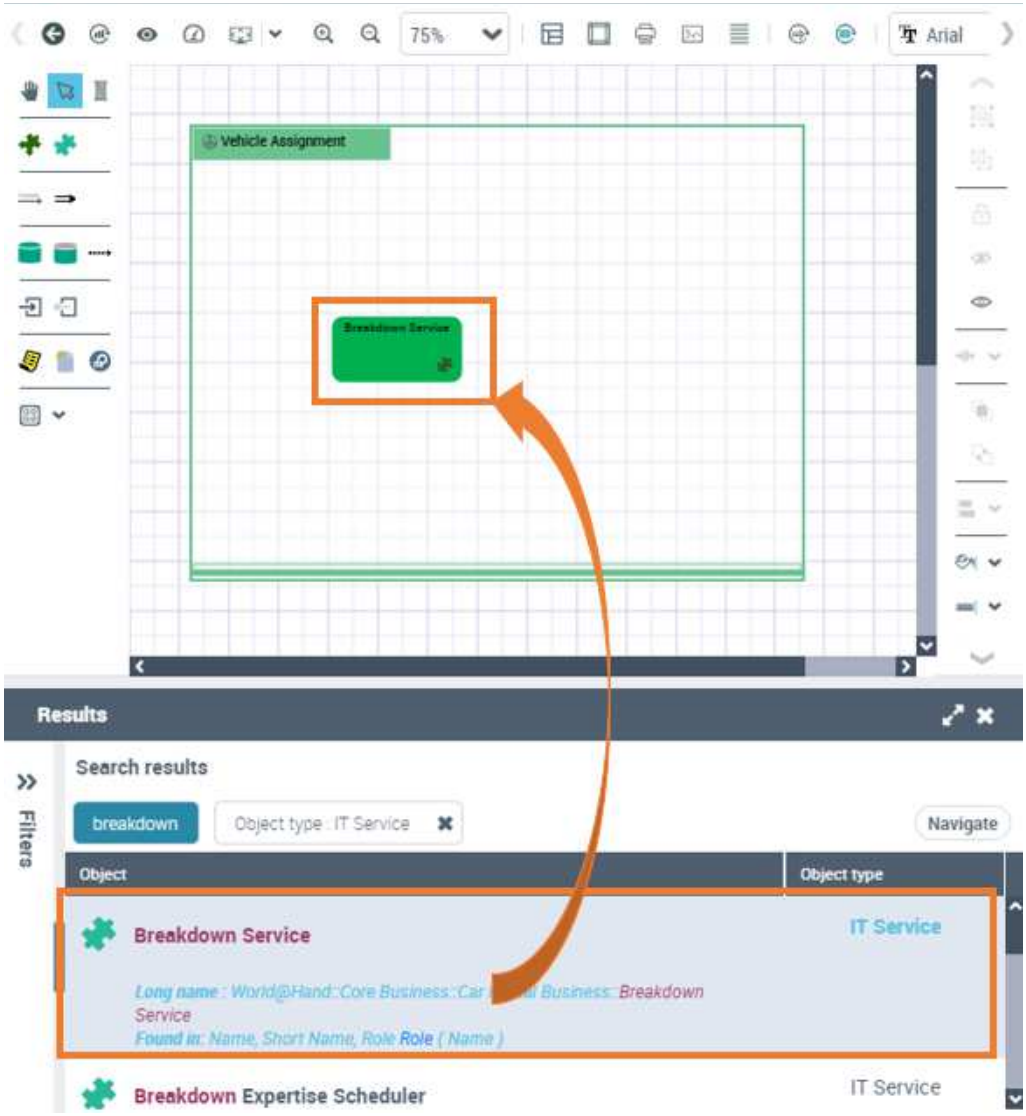
  It enables, for example, to find the object with which you need to work (e.g.: modification of its properties, creation of a diagram, access to Collaboration features).

Using the Results window

When you display your search results in the **Results** window, you can:

- drag and drop the objects found, from the **Results** window into another window.

  Example: when you are creating or updating a diagram, you can drag and drop objects from the **Results** window into the diagram.



- right-click an object of the search results, to access its pop-up menu.

You can also:

- display the **Results** window in full page for a better readability and ease the filtering if needed: in the **Results** window bar, click **Maximize** .
  To leave the full page display of the **Results** window, click **Reduce** .

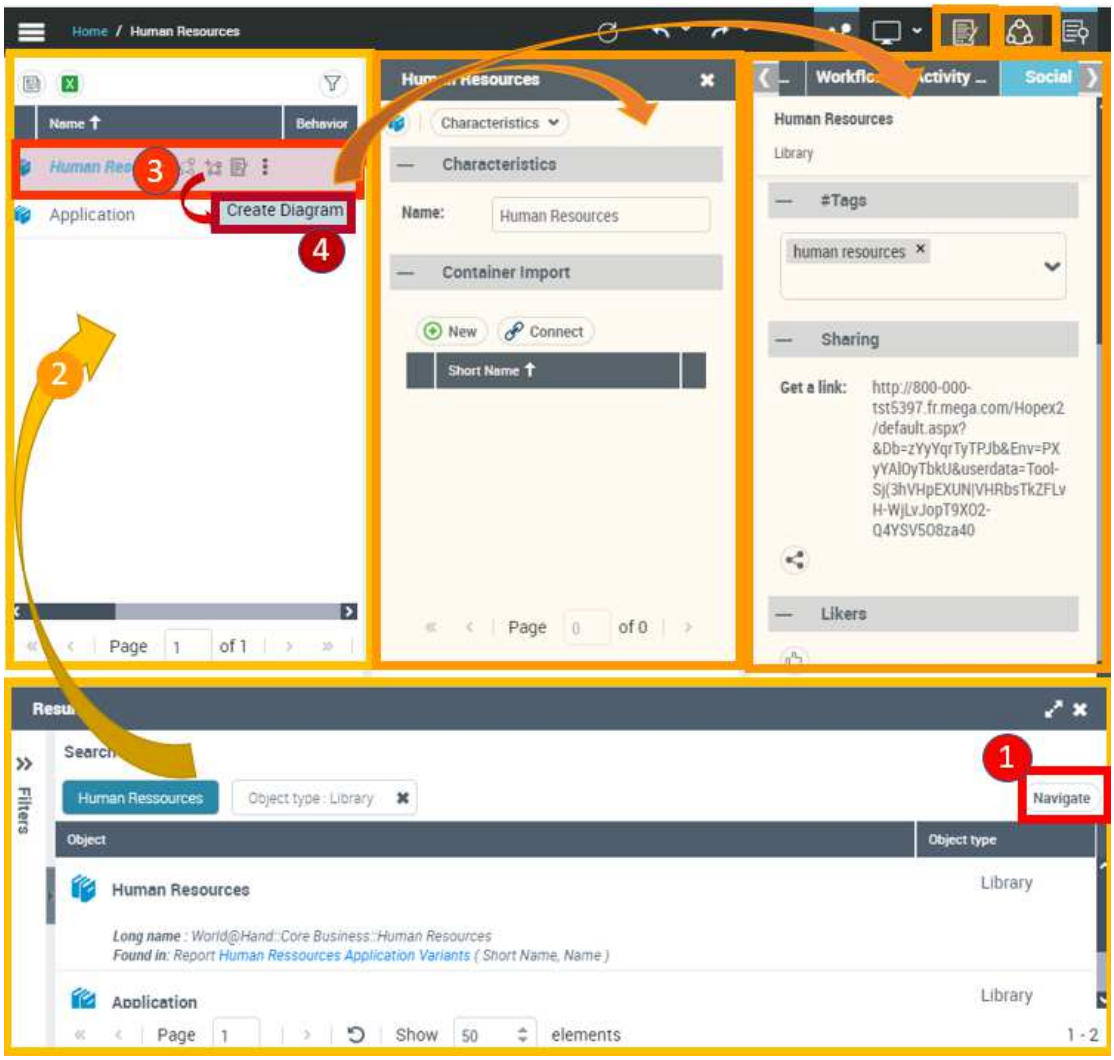
- hide the **Results** window, in the group of buttons associated with the edit area, click **Results** .
  Your search result is kept as long as you do not perform another search.

  * *To display the Results window again, click **Results** .*

- close the **Results** window, in the **Results** window bar, click **Close window** .
- ***(Full text search)*** display the results as a list in the **Browse** window and benefit from all the functionalities available on lists (e.g.: diagram

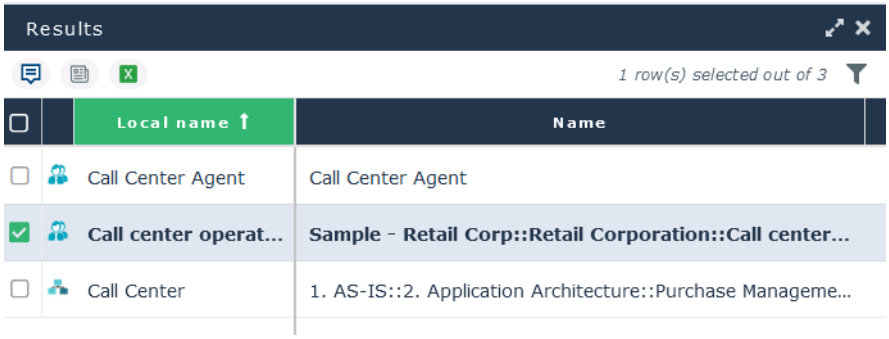
creation, access to properties and collaboration features): in the **Search results** pane, click **Navigate**.

* *See Actions on a List of Objects.*



* *See also Handling the search results window.*

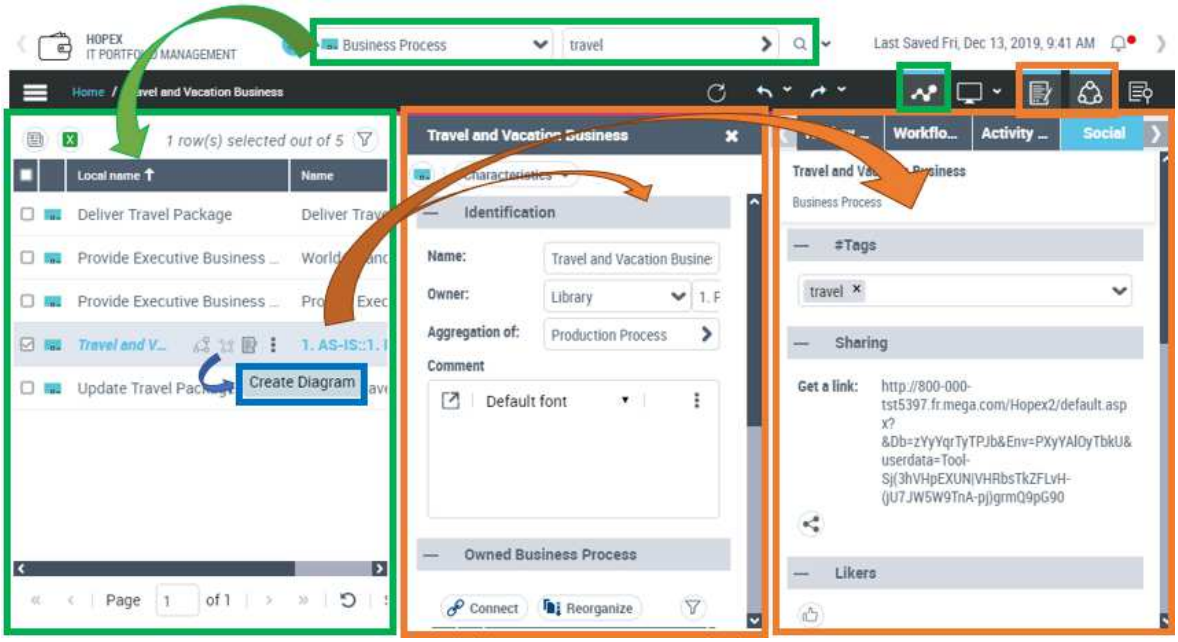
- ***(Search by object type)*** access the properties of object found or generate instant reports.


Results
1 row(s) selected out of 3
Local name
Name
Call Center Agent
Call Center Agent
Call center operat...
Sample - Retail Corp::Retail Corporation::Call center...
Call Center
1. AS-IS::2. Application Architecture::Purchase Manageme...

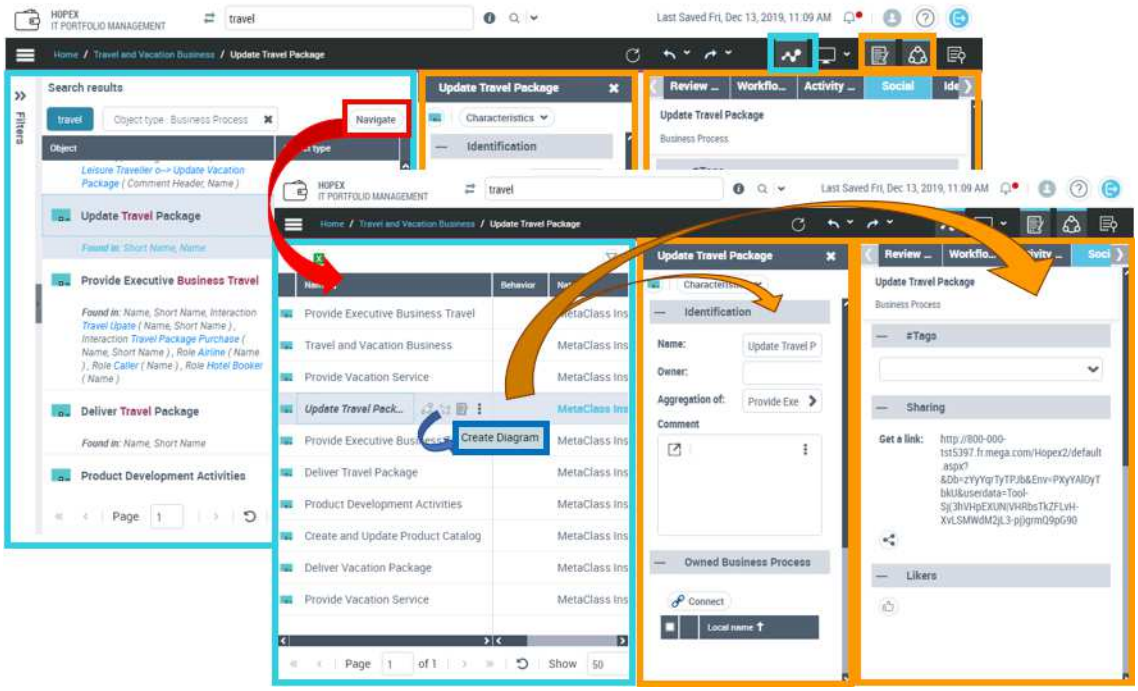
Using the Browse window

You can display your search results in the **Browse** window.

- ***Search by object type***
  You benefit from all the functionalities available on lists of objects (e.g.: Excel export, instant report generation, diagram creation, property access and Collaboration features).
  * *See Actions on a List of Objects.*
  * *See Launching an instant report from a list.*



- ***Full-text search***
  As with the search by object type, you have access to the object properties and to the collaboration features.
  To benefit from all the functionalities available on a list of objects (e.g.: Excel export, instant report generation, diagram creation), in the **Search results** pane, click **Navigate** to display the results as 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 (by default),
  - name that begins with a given character string,
  - name that ends with a given character string,

To connect an object:

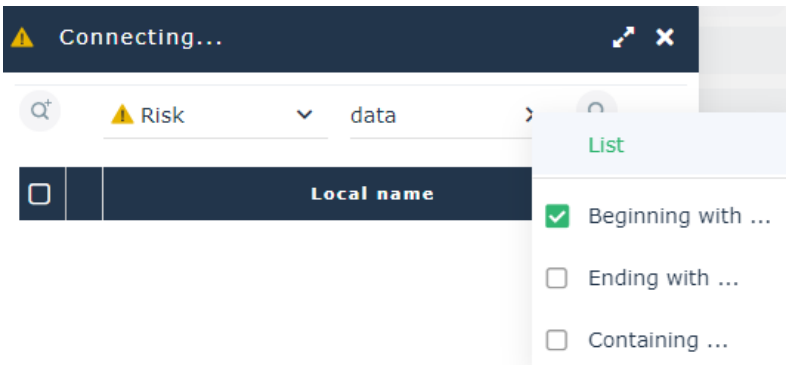
1. In the object properties page, expand a section or select a page in which you can connect objects.
2. Click **Connect** 🔗.

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.*

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 **Containing** the character string you entered.

5. (If necessary) Click on the arrow of the second field and select another criterion to refine your search:
   - **Beginning with**: to list objects containing the character string entered.
   - **Ending with**: to list the objects ending with the character string entered.



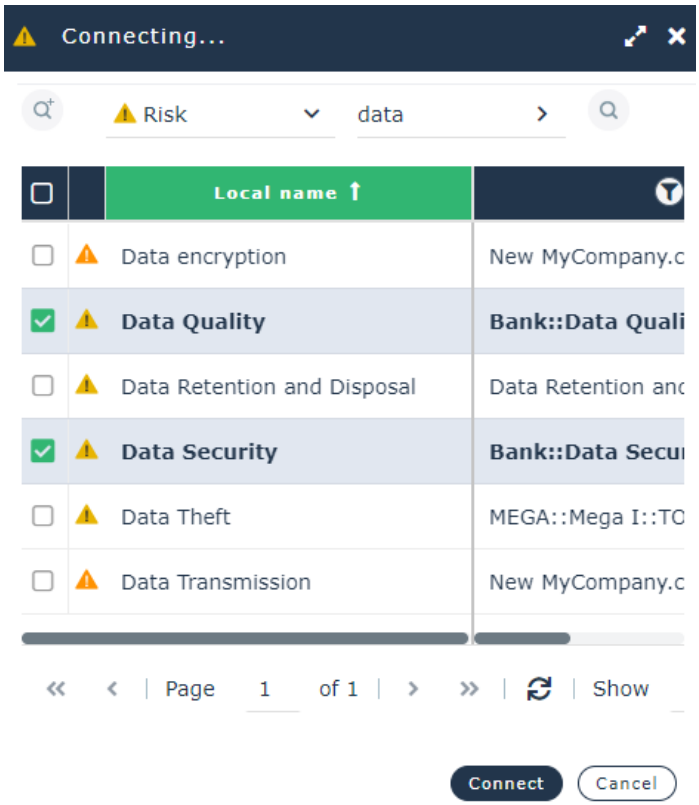
   * *The last option selected becomes the default option.*

6. Click **Find** to run the search.

7. Select the object that interests you.

   * *You can select several objects.*

   J *You can use the list filtering tool Filtering a list data.*



   * *Whenever the result contains many objects, you can use the vertical scrollbar and/or the page arrow.*

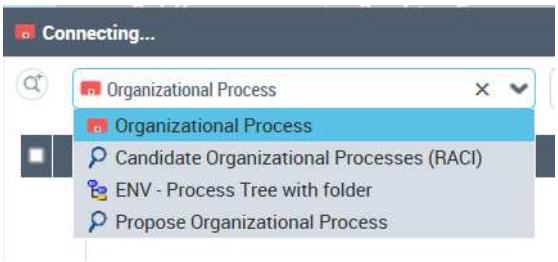
8. Click **Connect**.
   The selected objects appear in the properties window.

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

With **HOPEX** you can perform advanced searches on repository objects.

Advanced Search Tool Introduction

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.*
- a registered query
  - * *See Performing an Advanced Search on a Registered Query.*
- a query in ERQL language
  - * *See Performing an Advanced Search in ERQL Mode and Query Syntax.*

Query type

Queries are sorted by type:

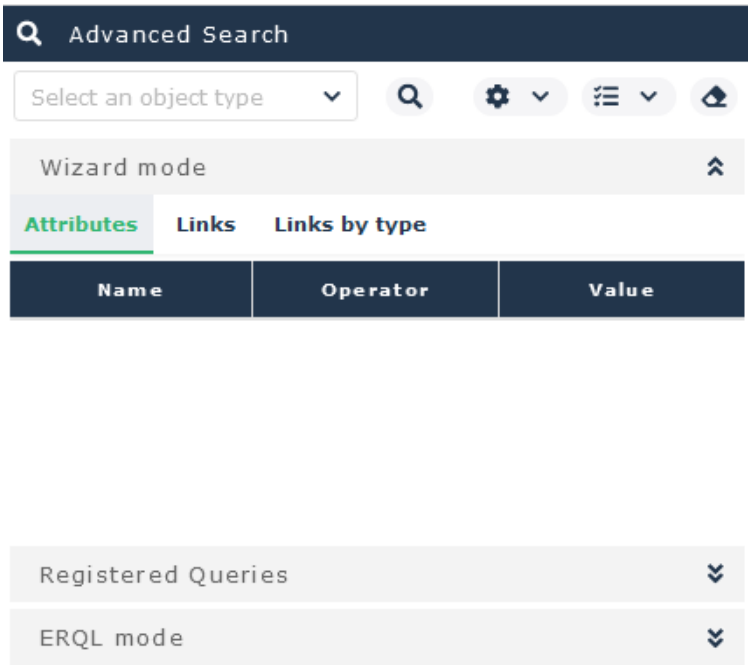
- ***internal query***: includes “technical” queries used in standard supplies (e.g.: descriptors, report templates (MS Word), matrices, etc.), “Name” and "*".
- ***usual query***: includes queries defined by users (by default), as well as the "*" and “Name” queries.

Accessing advanced search

To access the advanced search:

1. On your **HOPEX** desktop, select **Main Menu > Advanced Search**.
   * *See Interface Elements.*

   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.*

Configuring the Search Tools

In **HOPEX**, 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.*

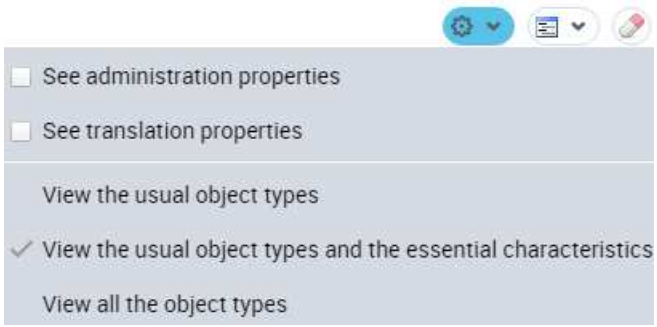
    Abstract objects are prefixed with the / character and are first listed in the IntelliSense tool.

To extend or restrict the scope of the query:

1. On your **HOPEX** desktop, check that you are in "expert" metamodel access mode (**Main Menu > Settings > Options > Repository**).
2. Access advanced search.

   * *See Accessing advanced search.*

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.*

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.*
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.*
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

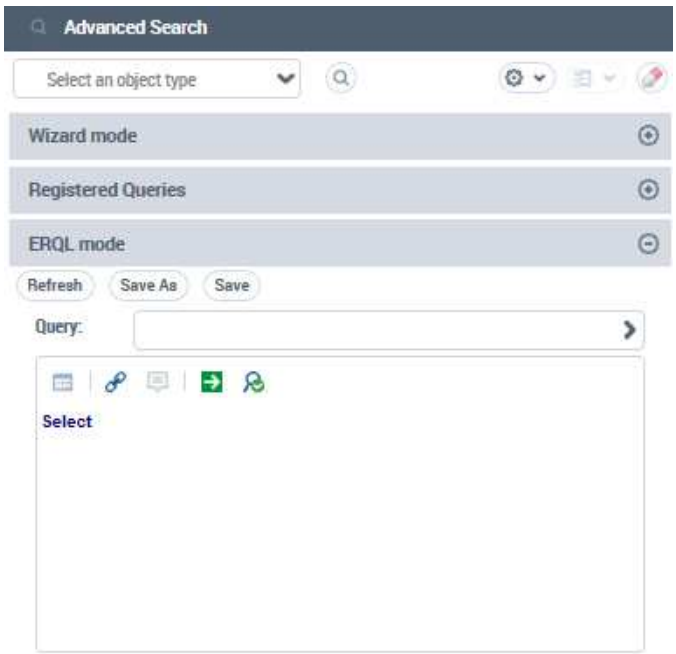
With **Wizard Mode**, you can run more detailed searches. Details can relate to:

- object attributes and/or
- object links.

To perform an advanced search with the search wizard:

1. Access advanced search.
   * *See Accessing advanced search.*

   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.*

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.*

   - Click in the **Operator** field of the attribute to which the search relates and select the required operator.

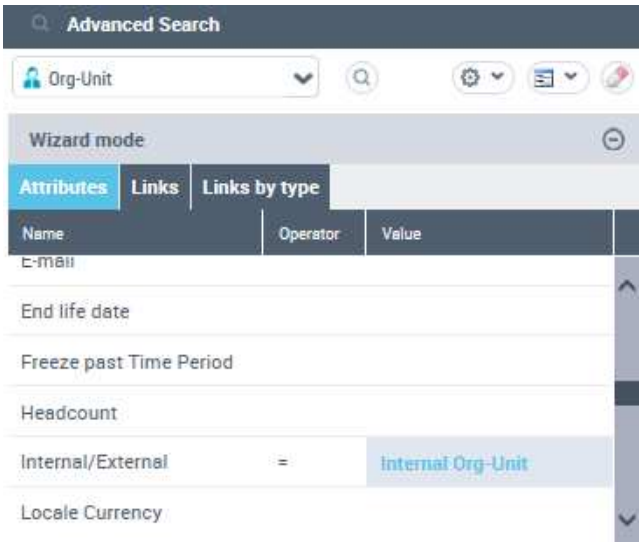
     `Example: "="`

     * *See List of Query Operators.*

     * *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"`



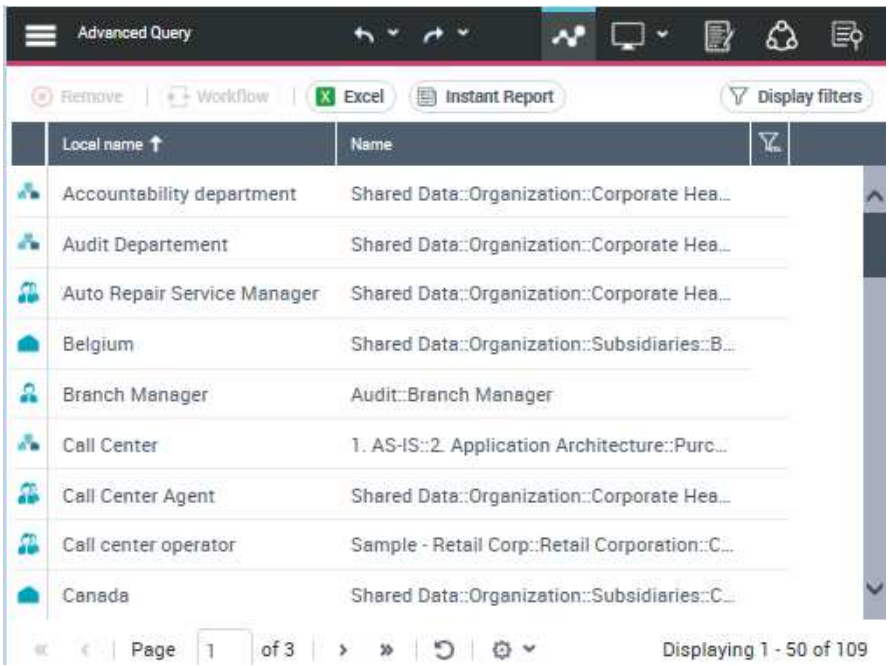
   * *Repeat this step 4 for each attribute to search for.*

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** 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.*

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

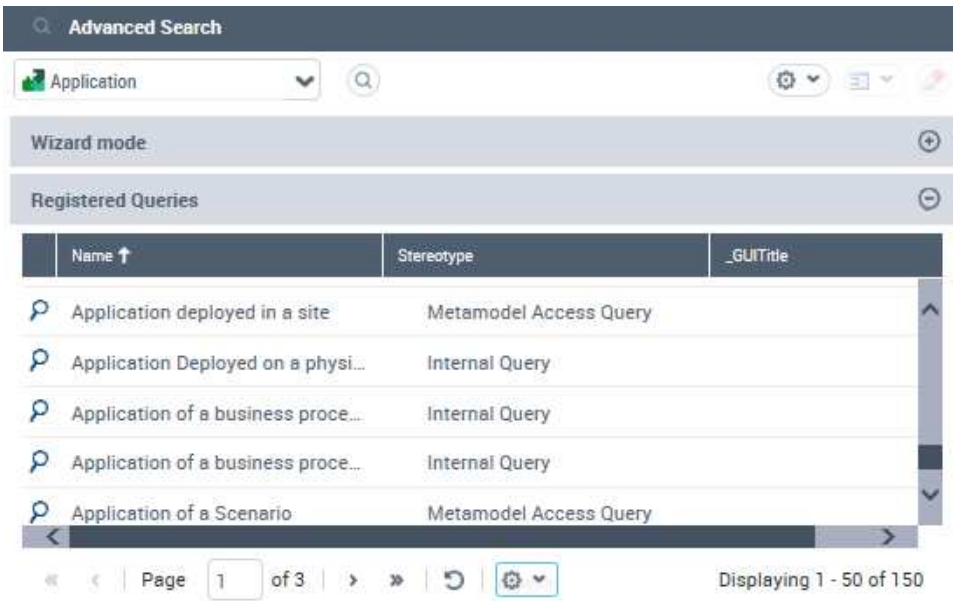
You can perform a search based on registered queries linked to an object, and run the query. **Registered Queries** mode facilitates access to queries by target object type and update.

* *To make a query entered in ERQL mode available in the list of registered queries, see Saving an ERQL query.*

To perform an advanced search from a registered query:

1. Open the advanced query tool.
   * *See Accessing advanced search.*

   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.

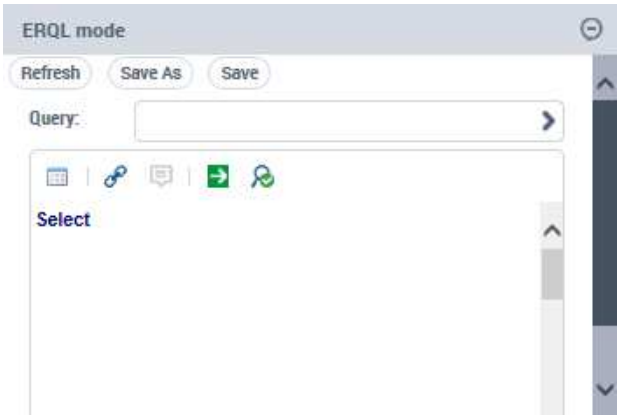
6. (If necessary) enter the required parameters.
   The result list is displayed.
   * *You can export the list in Excel format*
   * *You can launch an instant report from the list, see Common Features: Launching an instant report from a list.*
   * *To return to your search, in the breadcrumb trail, 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.*

   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.*
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:

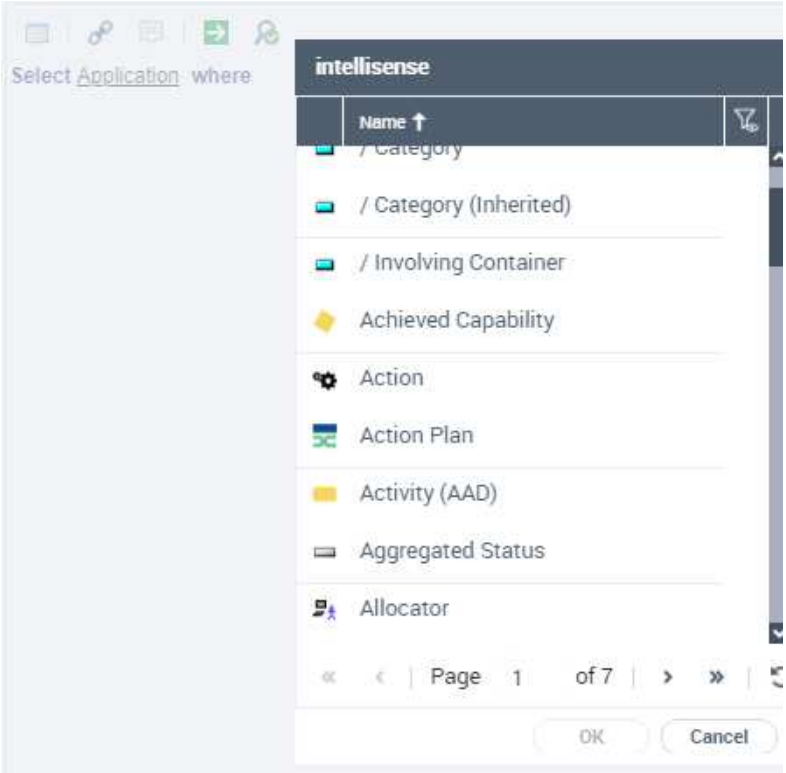
   - Press <Ctrl> + <Space> to display the list of eligible object types.

     * *To extend/restrict the object types displayed in the list, see Extending/Restricting the object types queried.*

   - 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.*

     Computed links 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.*

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.

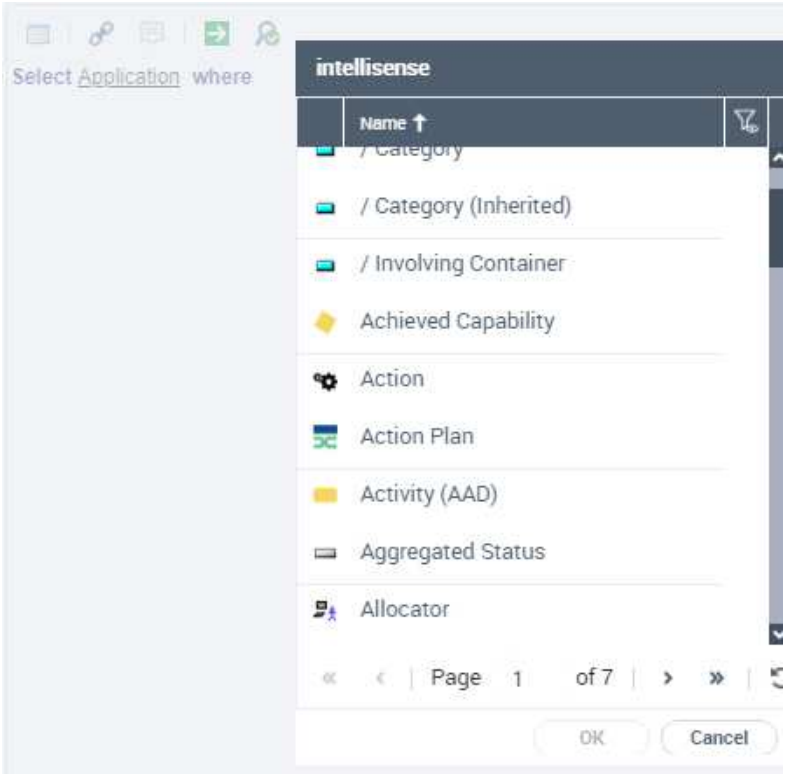
To perform an advanced search in ERQL Mode with the help of the wizard mode:

1. Open the advanced query tool.
    * *See Accessing advanced search.*

    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.*
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.*
   - 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.*

     Computed links are prefixed with the / character and are first listed in the IntelliSense tool.



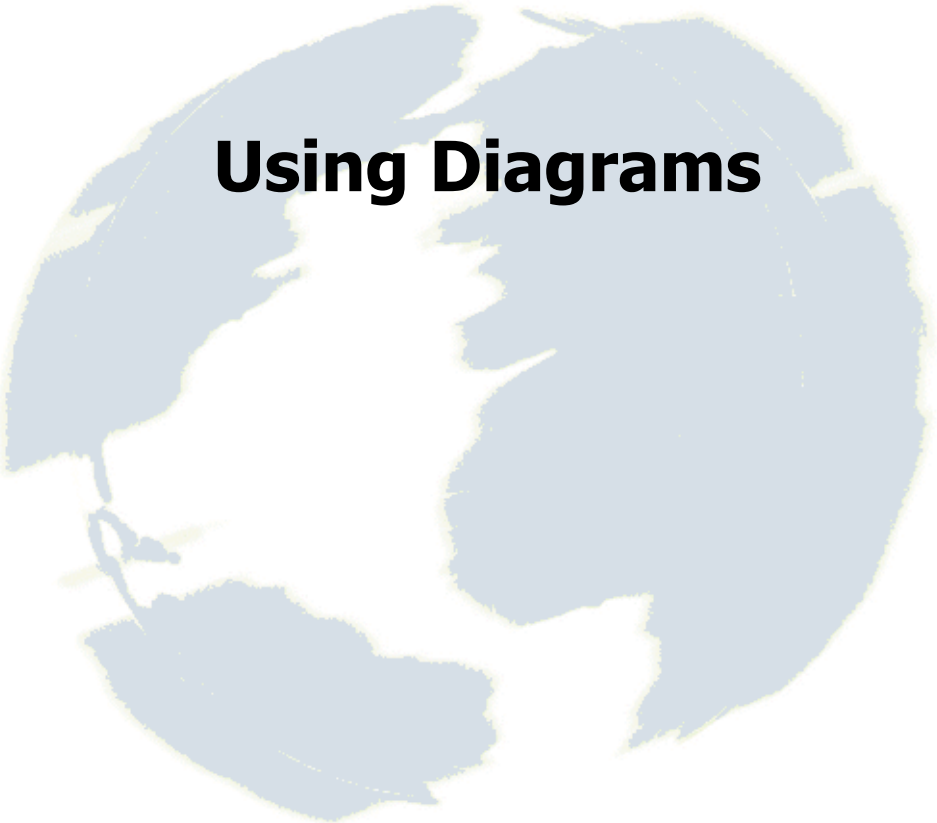
7. (Optional) Click **Analyze** to test the syntax of your request.
     * *To save your request, click **Save As**; see Saving an ERQL query.*
8. Click **Process** to run the search.
The result list is displayed.
     * *You can export the list in Excel format*
     * *You can launch an instant report 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.*
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.*
5. Click **Next** to reread the code of your query.
6. Click **OK**.
   Your query is available in the **Registered Queries** pane.



Using Diagrams

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.

* *You can also define the content of your diagrams using tables. For more details, see Building a diagram in tabular entry.*

- Introduction to diagrams
- Managing Objects in Diagrams
- Managing Texts
- Managing Graphic Objects
- Handling Elements
- Handling Lines
- Handling a Diagram

INTRODUCTION TO DIAGRAMS

You can:

- create a diagram from an object
  - *See Creating Diagrams.*
- update a diagram
  - manually using the diagram editor
    - *See Editing a Diagram.*
  - in tabular input mode
    - *See Building a diagram in tabular entry.*
- display the diagrams relating to an object
  - the diagrams describing the object
  - the diagrams containing the object.
    - *See Displaying Diagram Previews.*

Editing a Diagram

You can access a diagram in edit mode from:

- the pop-up menu of the object described by the diagram
- a diagram preview
  - *With some diagram types, you can open the diagram in tabular mode, see Building a diagram in tabular entry.*

Opening a diagram in edit mode

To open a diagram in edit mode:

1. Access the object described by the diagram.
2. Right-click the object and select the **diagram type** to open the diagram describing the object.
   The diagram is displayed in the **View** window, in edit mode.
   - *If no diagram describes the selected object, see Creating Diagrams.*

   J *To facilitate the diagram editing, click **Maximize** , to display the diagram in full page.*

Switching from diagram preview mode to edit mode

From a diagram preview, you can switch to diagram edit mode.

To switch to diagram edit mode:

1. Display a diagram preview.
   - *See Displaying Diagram Previews.*
2. In the diagram toolbar, click **Edit this diagram** .
   The diagram is displayed in edit mode.

Diagram Toolbars in Edit Mode

In edit mode, the diagram bars are:

- at the top:
  - a diagram toolbar
  - a text editing bar
- to the left
  - a diagram editing bar
  - an object inserting bar
- to the right
  - a shape editing bar

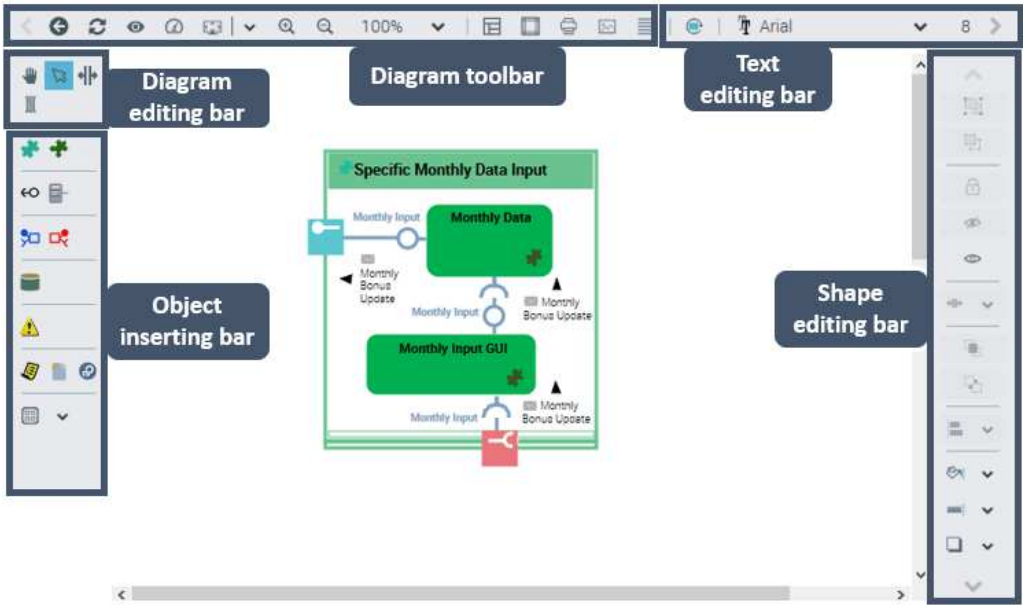


Diagram toolbar (top left)

The diagram main toolbar includes diagram tool buttons.

Icon	Description
	Return to the preview of the diagram See Displaying Diagram Previews.
	Refresh diagram
	Views and Details Enables to define the types of objects to be displayed in diagrams See Configuring the Object Types (Views) and Details of a Diagram.

Icon	Description
	Quality and performance settings Enables to change the image format: SVG (by default), PNG (for a better quality), or GIF (to improve performance) format
	Fit to page Fits diagram to the page: - Fit to height - Fit to width
	Zoom in/Zoom out Performs a zoom in / zoom out
100%	**Zoom value** Enables to define the zoom percentage, or to display the full diagram See Zooming.
	Display page limits Enables to display the diagram pages
	Diagram layout Enables diagram layout See Defining the Diagram Layout.
	Print diagram Displays the diagram as a PDF file, which enables to print it See Printing a Diagram.
	Save the picture as Enables to save the diagram as a picture in *.png, *.svg, *.emf, or *.jpg format
	Diagram properties Displays the diagram properties in a pop-up window
	Reinitializing components Adds the components created during the diagram initialization

Diagram text editing bar (top right)

The diagram text editing bar enables to edit each text included in the diagram. It includes the standard text editing buttons and the following other buttons:

Icon	Description
	Increase font size
	Reduce font size
	Rotate left 90° See Displaying a text vertically.

Icon	Description
	Rotate right 90° See Displaying a text vertically.
	Word-wrap text Enables 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

Diagram editing bar (left)

The toolbar to the left of the diagram includes diagram editing buttons.

Icon	Description
	Move Enables to move the diagram in the page See Moving a Diagram. Enables to zoom using the mouse wheel See Zooming.
	Select Enables to select an object in the diagram, then perform actions on this object See Selecting Elements.
	Add/Remove space Enables to modify the space between objects See Adding Space between Elements.
	Link Enables to link objects

Diagram object inserting bar (left)

The toolbar to the left of the diagram includes:

- diagram specific objects that you can insert in the diagram
- objects common to all the diagrams

Icon	Description
	Note Enables to add a note to the diagram See Inserting a Note in a Diagram.
	External reference Enables to add an external reference to the diagram See Inserting External References in a Diagram.
	Title Enables to add a title to the diagram See Adding a title to a diagram.
	Graphical object Enables to add shapes, texts, fields, a title block See Creating Graphic Objects.

Diagram shape editing bar (right)

The diagram shape editing bar enables to:

- define the position between elements (i.e.: grouping, moving front, aligning)
- customize the line style (i.e.: orthogonal line, color)

Icon	Description
	Group Enables grouping selected elements See Selecting Elements.
	Ungroup Cancels the grouping
	Freeze Prohibits moving the selected element
	Hide Enables to hide the selected element
	Show all Displays all hidden elements
	Front See Ordering Elements.
	Back See Ordering Elements.
	Align Enables to align selected elements (i.e.: left-center-right, top-middle-bottom, perspective, on grid) See Aligning Elements.

Icon	Description
	Fill color Enables to set the color of a shape See Modifying a Shape Fill.
	Line color Enables to set the color of a line or shape outline See Modifying a Shape Border.
	Shadow Enables to add shadow to a shape corner (top or bottom, right or left)
	Simple line See Modifying a Line Style.
	Perspective line Technical architecture diagram See Modifying a Line Style.
	Orthogonal line See Modifying a Line Style.
	Line style See Modifying a Line Style.
	Curved line See Modifying a Line Style.
	Double line See Modifying a Line Style.
	Rounded angles See Modifying a Line Style.
	Arrow style Enables to define the line extremities See Modifying a Line Style.
	Style of bridges Enables to define the default bridge style or to modify the bridge of a specific line See Modifying the appearance of bridges in a diagram.

Creating Diagrams

To create a diagram, you must first initialize the diagram from an object, then you can:

- insert objects
  - *See Managing Objects in Diagrams.*
- insert shapes
  - *See Managing Graphic Objects.*
- insert text
  - *See Managing Texts.*
- position objects and shapes
  - *See Handling Elements.*
  - *See Handling Lines.*

Initializing 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.

Initializing a diagram from an object in a list

To create a diagram from an object list:

1. Access the object list.
2. Roll the mouse over the **Local name** of the object you want to describe.
   A list of buttons appears.
3. Click **Create Diagram** .

4. Select the diagram type you want to create.
5. Click **OK**.
   The diagram describing the object is initialized with object concerned.

MANAGING OBJECTS IN DIAGRAMS

Described here are the actions you can perform on objects modeled in **HOPEX**.

See:

- Adding Objects to Diagrams
- Handling Links Between Objects
- Removing and Deleting an Object from a Diagram
- Object Status Indicators
- Inserting a Note in a Diagram
- Modifying the Shape of an Object
- Using the Pools
- Configuring the Object Types (Views) and Details of a Diagram

---

Adding Objects to Diagrams

You can add an already existing object to a diagram:

- from a navigation tree by drag and drop in the diagram,
- with the object inserting bar,
- from the insert toolbar available on each object.

Adding an object from the diagram inserting bar

To add an object in a diagram from the object inserting bar:

1. In the object inserting bar, click the icon corresponding to the object wanted.

   * *If you cannot find the appropriate object type, see Configuring the Object Types (Views) and Details of a Diagram.*

   `Example: Application Service` .

   The object ghost and your mouse pointer stick together.

   * *Smart guides or the grid helps you to properly position the object in the diagram, see Using smart guides and Using the Grid.*

2. Click in the diagram.
   The window to add an object appears.

3. You can:
   - insert an object of the repository: in the **Name** field drop-down list select an object.
     * *If the object list is too long, click the right-oriented arrow (**Connect**) and use the object search tool.*
   - create an object: in the **Name** field, enter the object name, then click **Next** and modify the object owner if needed.
4. Click **OK**.
   The object is added (and connected) to the diagram.
   * *The same object can appear several times in the same diagram.*

Adding an object from an object inserting toolbar

The inserting toolbar available on each object makes it easy to add an object to the diagram:

- It proposes only the objects that can be connected to the current object.
- The added object is automatically connected to the current object.

To create an object from an object of a diagram:

1. Click the object of the diagram.
   The object inserting toobar appears. It includes the object types that you can link to it.

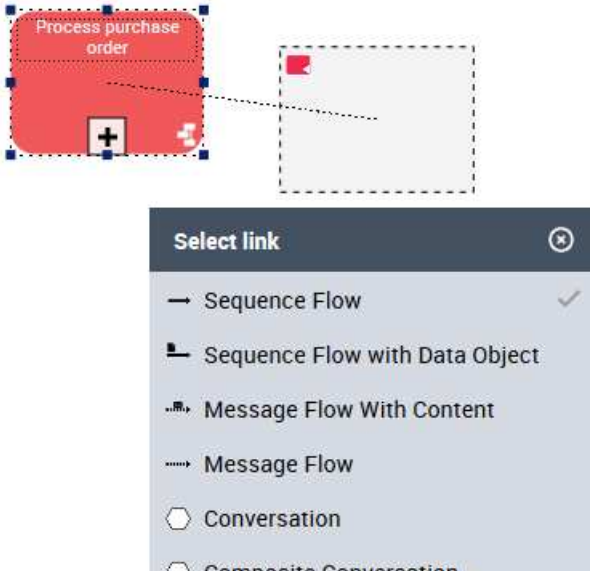
2. (If needed) In the object inserting toolbar, click **More** to display other object types.

3. Click the icon that represents the object you want to add in the diagram.

   `For example:` **`Operation`** .
   The **Select link** window appears.
   The ghost of the object that will be added, as well as its link to the previous object are displayed.

4. In the **Select link** window, select the type of link that links both objects.

   For example: **Sequence Flow** in a BPMN organizational process diagram.

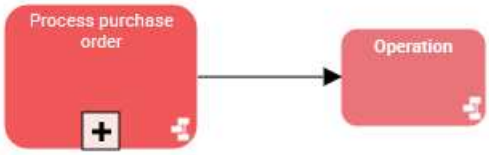


   * *To cancel the action, click the <Esc> key.*

5. Click in the diagram, where you want to place the object.

   * *If the **Select link** window hides the place where you want to position the object, click to close it).*

   The object is added, as well as its link to the previous object.



Adding several objects of the same type

You can add several objects of the same type, with no need to select each time the object in the object inserting bar.

To add several objects of the same type:

1. In the object inserting bar, double-click the icon corresponding to the object wanted.
2. Add the first object.

   * *See Adding an object from the diagram inserting bar.*

   The ghost of the second object of the same type and your mouse pointer stick together.
3. Repeat the action to add as many objects as you want.

   The object type remain selected as long as you do not press the <Esc> key or **Select** or another object type.

Inserting an object in a sequence flow

In the particular case of a sequence flow of Organizational Processes and/or Operations, you can insert an Organizational Process or an Operation directly into the sequence flow. The source sequence flow is split into two sequence flows, which avoid creating and deleting or moving the link.

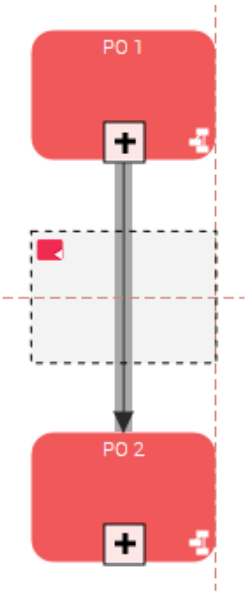
```
Example: you can insert an operation in an organizational process
sequence flow.
```

To insert an object in a sequence flow:

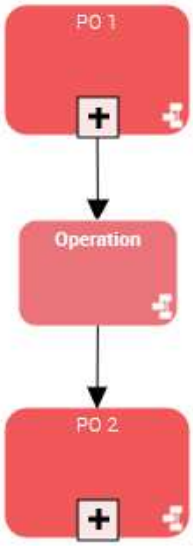
1. In the object inserting bar, click the icon representing the object type you want to insert.

   ```
   Example: an operation.
   ```

2. Roll the mouse over the sequence flow where you want to insert the object.
   The sequence flow is highlighted in gray.



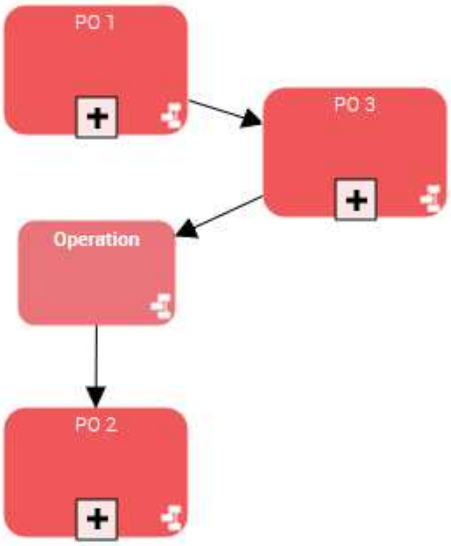
3. Release the mouse button.
   The object is inserted in the sequence flow.



The source sequence flow is automatically split into two sequence flows.

Note:

If you do not have enough space between both objects, the object is placed above the others. You must then move it.



J *To ease the insertion when there is not enough space to insert the object, you can add space beforehand, see Adding Space between Elements.*

Handling Links Between Objects

Creating links

To connect objects:

1. In the object inserting bar, click **Link** .
2. Click the first object.

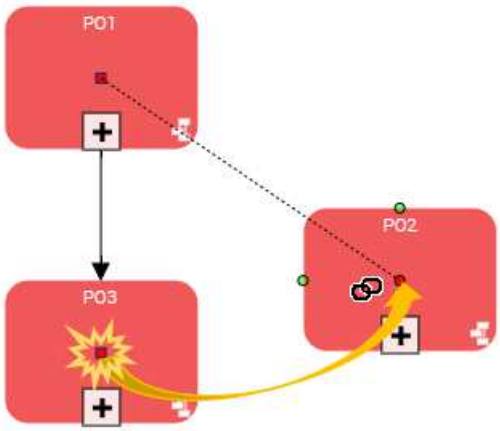
   The mouse pointer shape turns into a link .
3. Hold down the mouse button and drag the mouse towards the target object.
4. Release the mouse button.

Changing target of a link

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

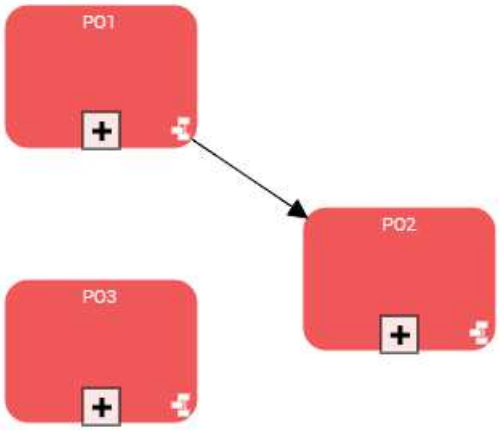
To change the target of an object:

1. Press the <SHIFT> key.
2. Hold down the <SHIFT> key, click the end of the link to be moved and drag the mouse towards the other target object.



3. Release the <SHIFT> key.

4. Release the mouse button.



* *This action allows you to keep the characteristics of the link.*

Modifying a link appearance

Links are attached to the objects that they connect. In diagrams, links behave as lines. You can modify, for example, their shape or their appearance.

* *For more details, see Handling Lines.*

Moving a link text

For certain links, text zones can be displayed.

```
Example: cardinalities.
```

To modify the position of the text with respect to the line:

1. Select the text zone.
2. Keep the selection and drag the mouse along the line.
3. Release the mouse button.
   Possible movements are limited so that the text remains attached to the link. This 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 exists in the repository and can be present in any, a single, or several diagrams.

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

* *To view diagrams containing a particular object: right-click the object and select **Diagrams Containing Object**.*

Deleting an object from the diagram and from the repository

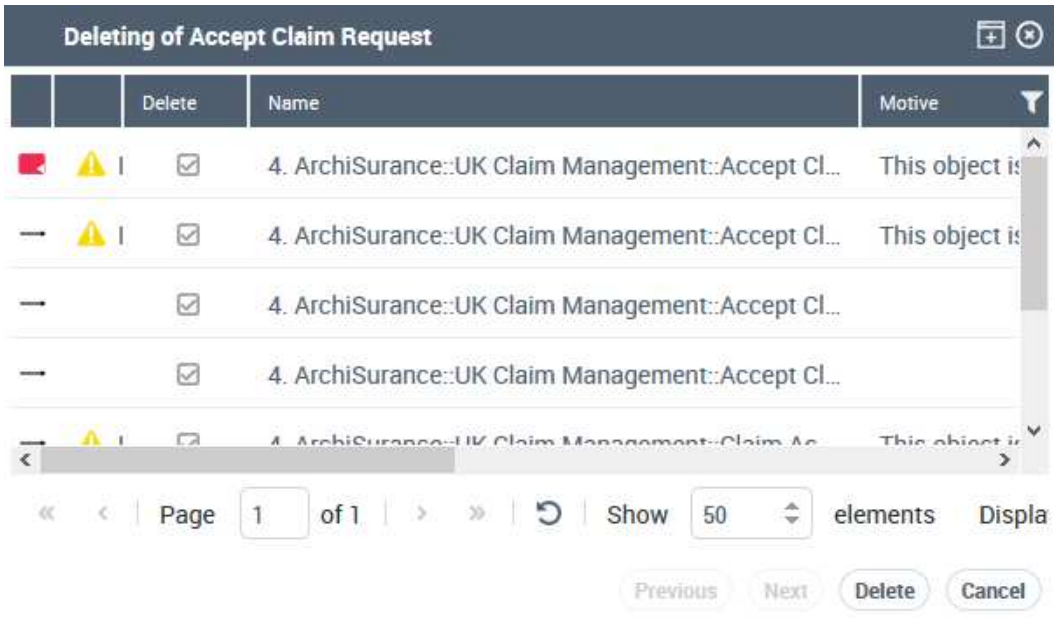
To delete an object from the diagram and from the repository:

1. Right-click the object and select **Remove**.
   * *Alternative: select the object and press the <Del> key.*

   The **Deleting of <object name>** windows appears.
   It indicates the object you want to delete together with its dependent objects if these exist.

   `Example: the operations of an organizational process.`

   By default all of the objects in the list are selected to be deleted.



2. (If needed) In the **Delete** column, clear the objects you want to keep.
3. Click **Delete**.
   Selected objects are deleted from both the diagram and the repository.

If you deleted an object by mistake, you can restore it using the **Undo** tool.

* *See Undoing or Redoing Actions on Objects.*

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

Removing an object from a diagram

To remove an object from a diagram:

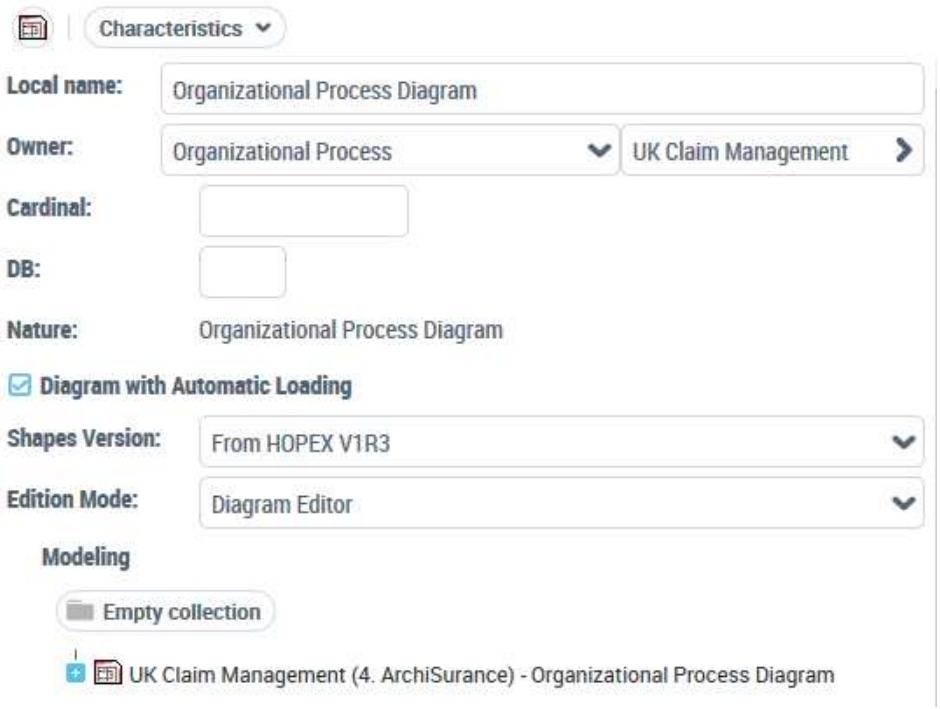
1. Right-click the object and select **Cut**.
   The object no longer appears in the diagram, but still exists in the repository.

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. Access the **General > Description** properties of the object.
2. Open the **Characteristics** property page of the diagram that interests you.
3. Select **Diagram with Automatic Loading**.



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

Object Status Indicators

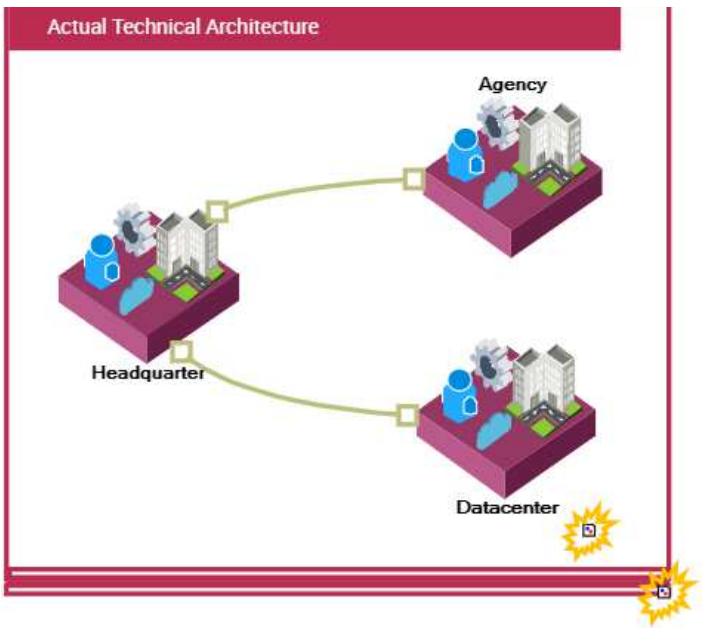
In diagrams, below some objects, icons give information regarding the object status.

For example:

- 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 report (MS Word)
- 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.

Example:

When an object in a diagram is described by one or several other diagrams, the status indicator appears below the object shape.



You can click the status indicator **Object described by a diagram** :

- below "Datacenter" to open the diagram describing "Datacenter" object in a pop-up window.

```
- below "Actual Technical Architecture" to open the diagram in a pop-up
window and zoom in the window.
```

To configure the display of these icons:

1. Access **Options**.
2. In the Options tree, select **Status indicators**.
3. In right pane, select (or clear) the required options.

Modifying the Shape of an Object

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 content displayed on the object shape
- the text characteristics of the object shape
- the position of the object text field

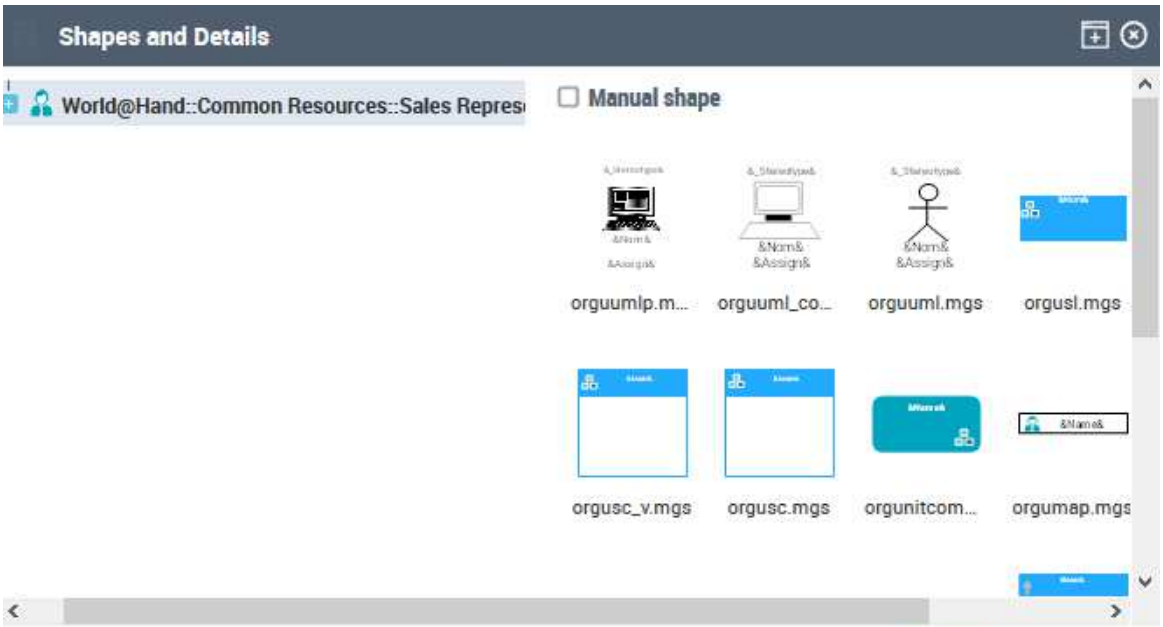
Modifying an object shape

To modify the object shape in a diagram:

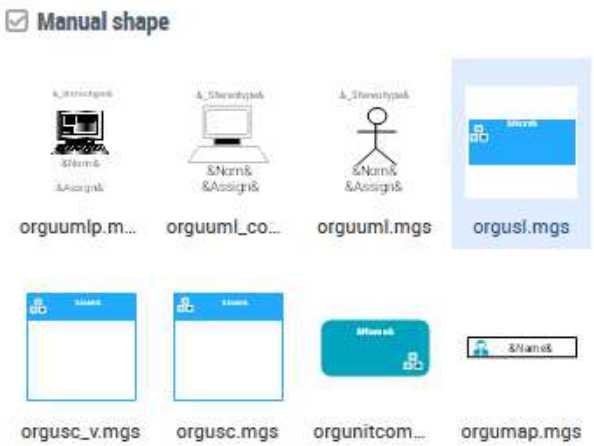
1. In the diagram, right-click the object and select **Shapes and Details**.

   `Example: Org-Unit.`

   The **Shapes and Details** window appears.



2. Select the required shape.
   Manual shape is automatically selected.



3. Click **OK**.
   The selected object shape is modified.

Changing Shape Sets

In HOPEX the following shape sets are available:

- version HOPEX V1R3 and higher (current version included)
  By default, new diagrams use these shapes.
  - *These shapes are stored in MEGA_Std\Pictures.7600 folder.*
- version 2009
  - *These shapes are stored in MEGA_Std\Pictures.7220 folder.*

  For compatibility, old diagrams always use the old shapes. You can update them with the new shapes.

To modify the shapes version used in a diagram:

1. Open the **Characteristics** page of the diagram properties.
2. In the **Shapes Version** field, select a value.

   Example:

   "From HOPEX V1R3" to update an old diagram.

   By default, new diagrams use the new shapes. If you want to use old shapes, select the corresponding value.
3. Click **OK**.
   Shapes are changed in the diagram.

Modifying the content displayed on an object shape

A shape:

- usually displays the object short name

  Example: the "View Product List" operation.
- can display other (text and/or graphic) characteristics.

  E.g.: the "View Product List" operation displays , which represents the "Receive" value of its **Task Type** characteristics.

For a same object type, according to the shape selected, characteristics displayed might be different.

To modify the content displayed on a shape:

1. Right-click the shape concerned and select **Shapes and Details**.
2. In the left pane, expand the tree.
3. Select the content you want to configure.

   Example: **Task Type** of an organizational process.

4. In the right pane, in the **With** section:
   - select the characteristics you want to display.
   - clear the characteristics you do not want to display.

   E.g.: clear **Task Type**. The Task Type graphical representation is no longer displayed.

Modifying the text characteristics of an object shape

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

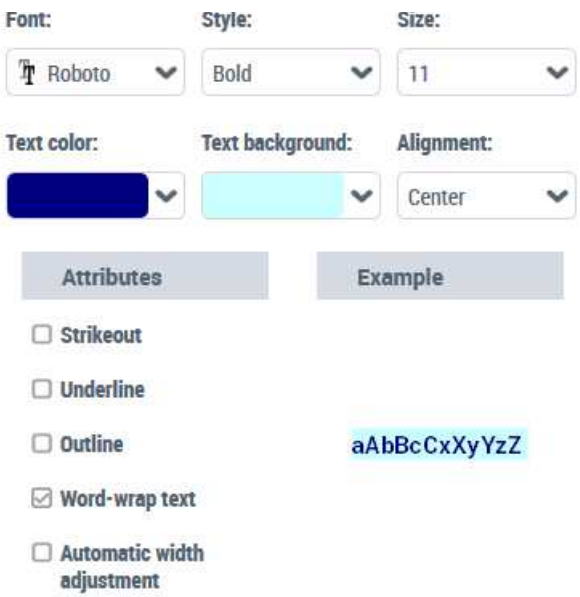
By default the shape usually displays the object short name.

To access the text characteristics of a shape:

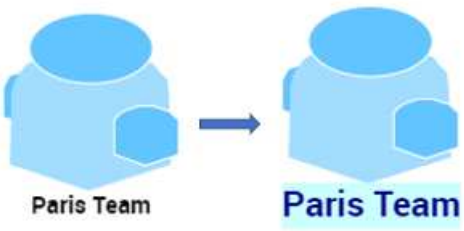
1. Right-click the shape concerned and select **Shapes and Details**.
2. In the left pane, expand the tree.
3. Select a text characteristics.

   Example: **Short name**
4. In the right pane modify the font.

   Example: **Text color**, **Background color**, **Size**.



5. Click **OK**.
the text characteristics of the selected object shape are modified.



* *If you have customized the size or the font of the text associated with the shape, these options remain unchanged on shape modification.*

Updating the text of shapes

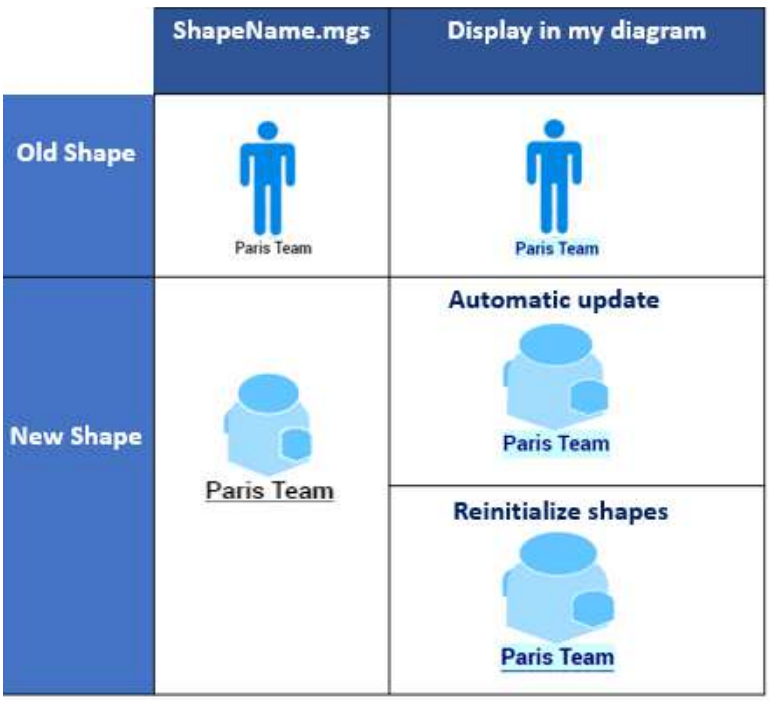
If the shape (.mgs file) of an object type has been modified, when opening the diagram that uses this shape:

- ***Shapes***
  All of the shapes of this object type are automatically updated.
- ***Text of the shapes***
  Texts of the shapes are not updated.
  You can update the texts of the shapes with the new shapes (.mgs file). In this case:
  - the characteristics (e.g.: font, color) you modified in the diagram are kept.
  - the characteristics you did not modified in the diagram are updated.

  Example: you have customized the text of a shape (text color modified and background color added).

  When the shape is updated (.mgs file): the shape is automatically updated in your diagram and your text customization is kept (text color and background color)

  The **Reinitialize shapes** action updates only the characteristics you have not modified (underlined text).



To update the texts of the shapes in a diagram:

â Right-click in the diagram and select **Initialize Shapes**.
All of the texts of all of the shapes are updated (according to the defined rules).

Modifying the position of the text field of an object

You can modify the position of text fields of objects.

* *In this way, the position is no longer defined as static in the .mgs file.*

`E.g.: bottom right instead of bottom centered.`

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

1. Right-click the object text field and in the **Shape** section, select **Position** then the desired position.

   `E.g.: Bottom Right`

Using the Pools

Swimlane and pool

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

`E.g.: organizational process diagram.`

The zone including several swimlanes is called **pool**.

Operating principle

Objects inserted in a pool have identical size.

`Object example: a participant (organizational process diagram).`

When a diagram includes several objects of different dimensions, you can insert these objects in a pool. Thus, they automatically take identical dimensions and are automatically aligned.

The objects can be automatically arranged in:

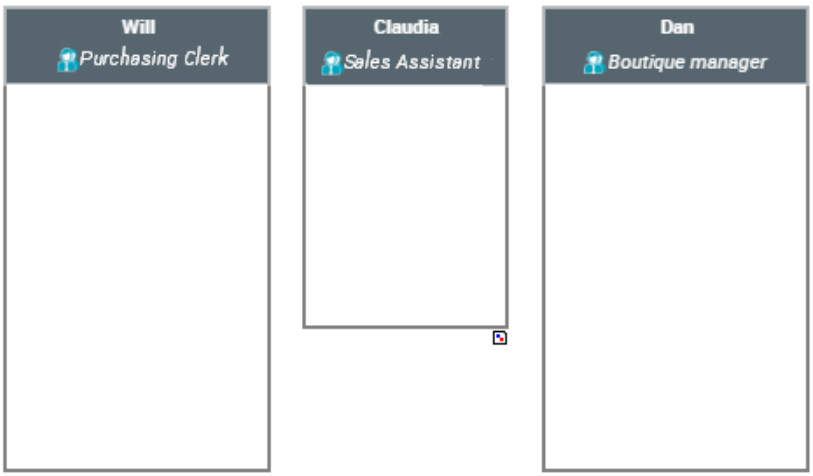
- vertical swimlanes, or
- horizontal swimlanes.

When creating a new participant in a diagram including a pool, you can add it:

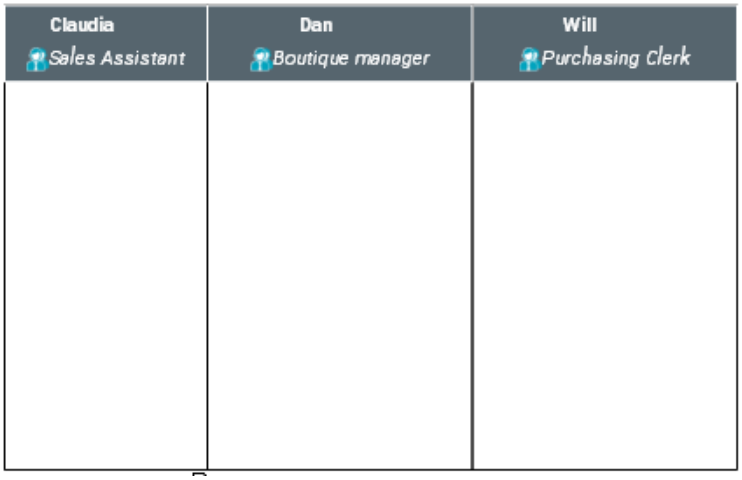
- inside the pool
- outside the pool

Example:

3 participants in a diagram.



3 participants in a pool of a diagram.



Creating a pool

To create a pool:

1. In the diagram inserting bar, click:
   - **Verticale Pool** to create vertical swimlanes.
   - **Horizontal Pool** to create horizontal swimlanes.

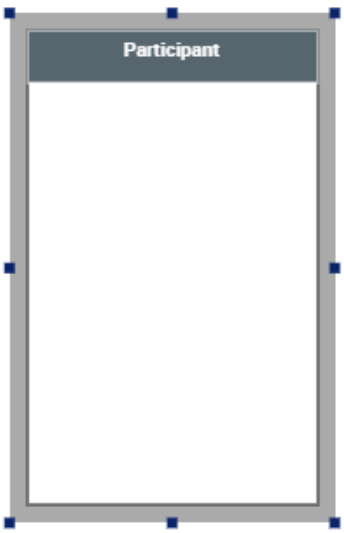
2. Click in the diagram.
   The pool is inserted in the diagram.

3. In the diagram inserting bar, click **Participant** .

   * *According to your needs, you can choose **Participant (Org-unit)** or **Participant (Position type)**.*

   * *If the participant is already in the diagram, select the participant and drag and drop it in the pool.*

4. Click in the pool.
   The pool includes a single swimlane. The participant adapts to the swimlane size.

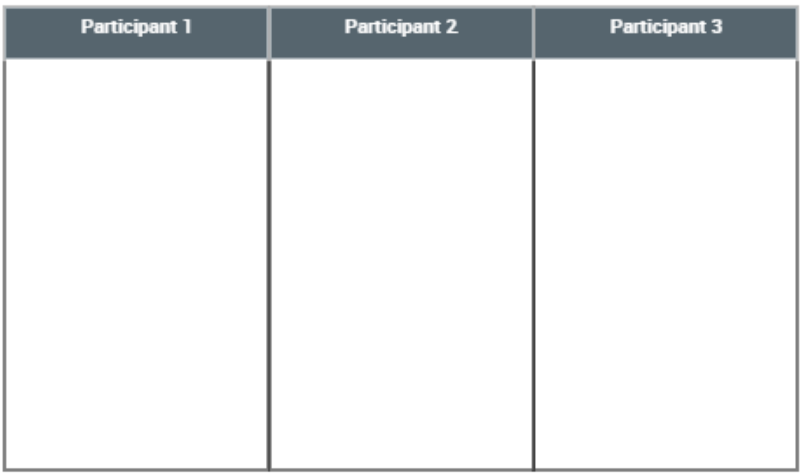


   * *If other objects are linked to the participant (e.g.: org-units, operations, organizational processes), these will remain attached to the participant during its moving.*

Adding an object to a pool

To add an object to a pool:

1. In the diagram inserting bar, click **Participant** .
   * *According to your needs, you can choose **Participant (Org-unit)** or **Participant (Position type)**.*
   * *If the participant is already in the diagram, select the participant and drag and drop it in the pool.*
2. Click in the pool.
   The pool includes two swimlanes of same size. Each participant adapts to the swimlane size.
3. Add as many participants as needed.

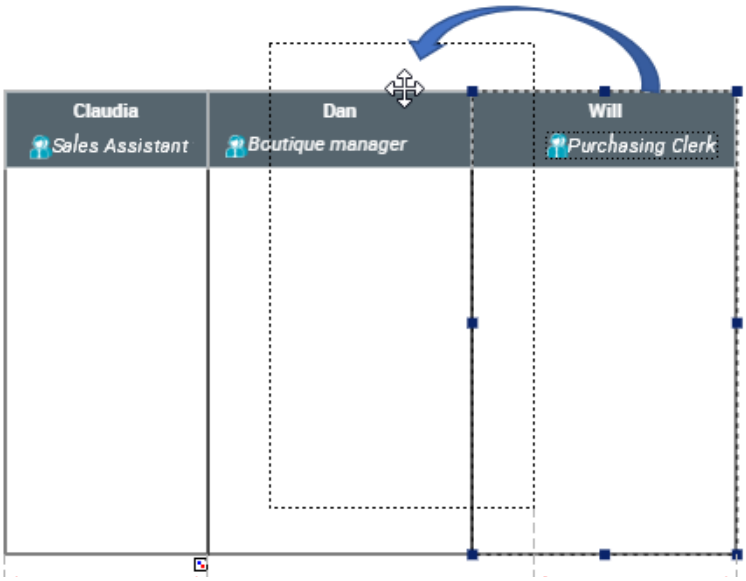


Modifying the order of objects in a pool

To modify the object order in a pool:

1. Select the object you want to move.

2. Hold the mouse button down and move the object to the required position.



The object is moved and the order modified.

Removing an object from a pool

To remove an object from a pool:

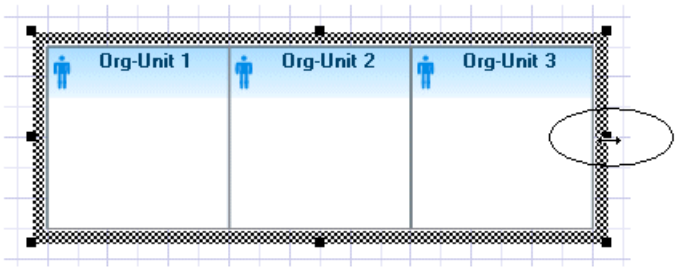
1. In the pool, select the object.
2. Hold the mouse button down and drag and drop the object outside the pool.

Globally modifying size of objects in a pool

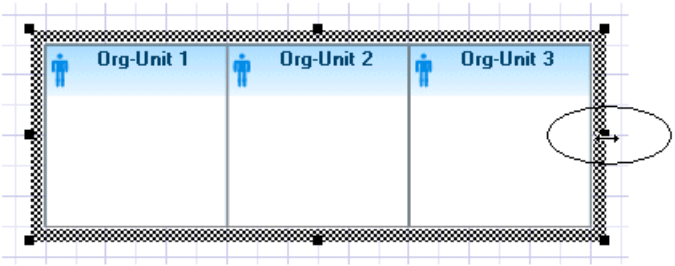
You can modify the size of all objects placed in a pool in a single operation.

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, and wait for the cursor shape to turn into a small arrow.



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

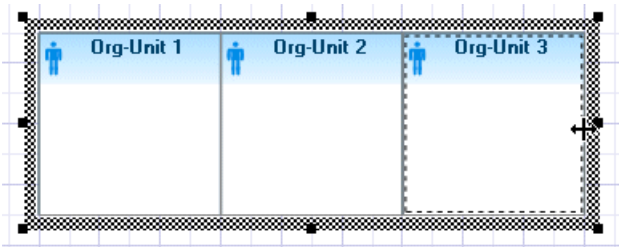


The size of all objects in the pool is modified in identical proportion.

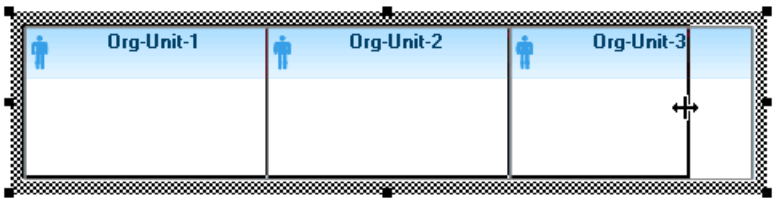
Modifying the size of a single object in a pool

To modify the size of a single object in a pool:

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



3. Hold the mouse button down and modify your selection size.



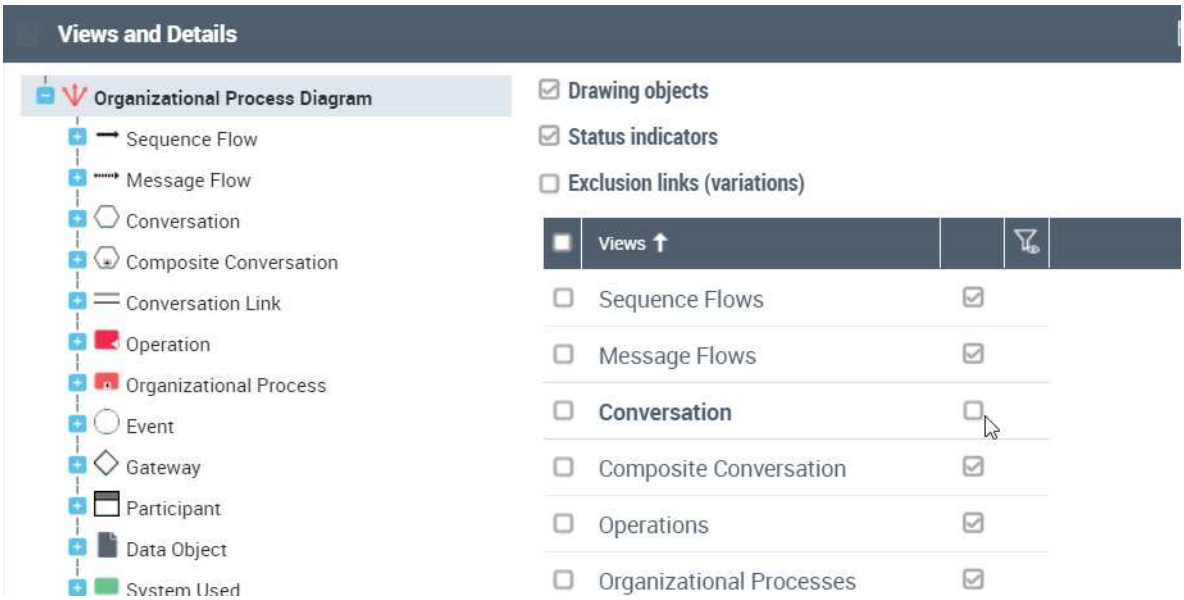
Only the selected object is modified.

Configuring the Object Types (Views) and Details of a Diagram

The **Views and Details** window presents an extended list of object types (views) that can be displayed in the diagram. This list depends on the diagram type.

To configure the views window:

1. In the diagram, click **Views and Details** .
   The list of views (object types to be displayed) appears.
2. Select or clear the views you want to display or not.



* ***Drawing objects*** *enables to show or hide purely graphical elements representing neither object nor link.*

3. Click **OK**.
   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.

See:

- Inserting a Text in a Diagram
- Inserting a Field in a Diagram
- Inserting a Note in a Diagram
- Inserting a Title or a Title Block

Inserting a Text in a Diagram

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

* *To insert, in the diagram, variable data (e.g.: page number, date) whose update is automatically performed, see Inserting a Field in a Diagram.*

Creating a text

To insert a text in a diagram:

1. In the diagram object inserting bar, click **Graphical object** > **Text**.
2. Click in the diagram.
   The text frame is displayed.
3. Enter the text you want to insert in the diagram.
4. Click in the diagram, outside the text frame.
   The text is inserted in the diagram.

Modifying a Text

To modify a text:

1. Select the text.
2. Press the <F2> key.
   * *Alternative: double-click the text*
   The text frame is displayed and the text is highlighted.
3. Click in the frame, or in the text where you want to position the cursor.
   * *You can also move the cursor using the keyboard arrow keys.*
4. You can:
   - enter text: the characters are inserted where the cursor is positioned.
   - use the <Backspace> and <Delete> keys to delete characters.
   - use **Copy**, **Cut** and **Paste** after selecting text.
   - press <Enter> key to insert a line break.

Modifying the text style

You can modify the text style:

- the character font and size

  `By default: Arial 8.`
- the text alignment

  `By default: Center.`
- the font color

  `By default: Black.`
- the text background color

  `By default: none.`

You can also select the options:

- **Word-wrap text** to automatically wrap the text to a new line if it does not fit on one line.

  `Option selected by default.`
- **Automatic width adjustment** to resize the text frame according to the actual size of the text.

  `Option selected by default.`

  * *If you do not select this option, you may have to resize the text frame in order to display all of your text.*

To modify the text style:

1. In the diagram, select the text.
2. Use the text editing bar to modify the text style.

   * *Alternative: in the pop-up menu of the text, click **Font** and in the **Font** window modify the parameters. The **Example** section shows the text rendering.*

Displaying a text vertically

To display a text vertically:

1. Select the text.
2. In the text editing bar, click **Rotation left 90°** or **Rotation right 90°** .

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

Inserting a Field in a Diagram

Fields enable to easily insert date, title, and page number in a diagram. Fields are updated automatically: when printing your diagram, you do not need not manually update it to view the updated printing date.

To insert a field in a diagram:

1. In the diagram inserting bar, click **Graphical object** > **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.

3. Select the **Format**.
4. Click **OK**.
5. Click in the diagram.
   The field is inserted in the diagram.

Field formats

Formats appear as follows:

- ***Date and time***
  - DD: 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 Note in a Diagram

If you want to highlight a particular point in your diagram, you can:

- add a note to an object of the diagram
- add a note to the diagram, then link it to one or several objects of the diagram.

Adding a note to an object of the diagram

To add a note to an object of the diagram:

1. In the diagram, select the object to which you want to add a note.
2. In the object inserting bar, select **Note** .

   * *If **Note** is not displayed, click **More** to access it.*

3. In the **Note** field, enter a name for the note, or keep 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 is added to the object of the diagram.

Adding a note to one or several objects of the diagram

To add a note to one or several objects of the diagram:

1. In the diagram object inserting bar, click **Note** .
   * *To add **Note** to the insert bar: in the diagram toolbar, select **Views and Details** and select **Notes**.*
2. Click in the diagram.
   The **Creation of Note** window appears.
3. in the **Note** field, enter the name of the note or keep 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 is created and appears in the diagram.
7. In the diagram editing bar, to link the note:
   - Click **Link** and connect the note to an object of the diagram.
   - Click **Link** and connect the note to another object of the diagram.
   - Repeat the action as many times as objects to be linked to the note.

   Your note is added to the objects of the diagram.

Inserting a Title or a Title Block

Adding a title to a diagram

A title is an area that displays information regarding the diagram:

- diagram short name and long name
- diagram type
- diagram creation and modification date
- diagram creator and modifier names

To add a title to a diagram:

1. In the diagram object inserting bar, click **Title** .
2. Click in the diagram, where you want to insert the title.
   The title is added to the diagram.

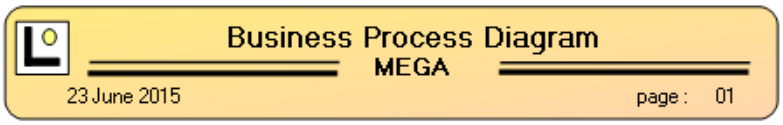
Adding a title block to a diagram

A title block is an area that displays information regarding the diagram:

- diagram type
- diagram update date
- diagram page number

To add a title block to a diagram:

1. In the diagram object inserting bar, click **Graphical object** **> Title block**.
2. Click in the diagram, where you want to place the title block.
   The title block is added to the diagram.



Inserting External References in a Diagram

To add an external reference to a diagram:

1. In the diagram object inserting bar, click **External reference** .
   * *To add **External reference** to the insert bar: in the diagram toolbar, click **Views and details** and select **External references**.*
2. Click in the diagram.
   The **Add an External reference** window appears.
3. In the **Name** field, click the arrow and select **List**/**Query** to find the existing external reference.
   * *If the external reference does not exist, select **New** and go to Creating an External Reference.*
4. Select the external reference and click **OK**.
   The name of the external reference appears in the **Add External Reference** window.
5. Click **Add**.
   The external reference is added to the diagram.

MANAGING GRAPHIC OBJECTS

In a diagram, you can add and customize graphic objects.

You can:

- add a graphic object
- customize the graphic object (e.g.: apply a fill color)
- customize the graphic object border (e.g.: modify its style, color, thickness)

See:

- Creating Graphic Objects
- Cut, Copy, Paste
- Modifying a Shape Fill
- Modifying a Shape Border

Creating Graphic Objects

You can insert basic graphic objects in the diagram.

`Example: rectangle, square, circle, polygon.`

* *To create a line or a text, see Handling Lines, and Managing Texts sections.*

To create a graphic object:

1. In the object inserting bar, click **Graphical object** .
2. Select the graphic object type.

   * *An icon follows the mouse pointer, indicating the type of graphic object selected* .

   J *To create a graphic object whose height is equal to its width (e.g.: circle, square): hold down the <Shift> key while dragging the mouse.*

   J *To create a graphic object based on its center: hold down the <Ctrl> key while dragging the mouse.*

   * *Hold down the <Shift> and <Ctrl> keys to create a graphic object with a regular shape from its central point.*
3. Click where you want to anchor one of the angles of the graphic object.
4. Holding the mouse button down, drag the mouse to where you want the opposite angle to be:

5. Release the mouse button.
The graphic object is created. The handles around a graphic object indicate that it is selected.

The pointer returns to its standard shape. You can modify (e.g.: select, move) the graphic object.

Cut, Copy, Paste

You can use the following commands on elements:

- **Cut**
Removes from the diagram the selected elements and place them on the clipboard (the previous clipboard content is overwritten).
    * *Only graphic objects and links are actually deleted with the **Cut** command. If you delete object, it is no longer displayed in the diagram, but still exists in the repository.*
- **Copy**
Copies your selection on the clipboard (the previous clipboard content is overwritten).
- **Paste**
Pastes the content of the clipboard in the diagram at the position you clicked last. Note that the clipboard is not emptied: you can paste its content again.

To perform actions on one or several graphic objects:

1. Select one or several elements.
    * *See Selecting Elements.*
2. Right-click the selection and select **Copy** or **Cut**.
    * *You can use <Ctrl> + <C> or <Ctrl> + <X> keys.*
3. Right-click in the diagram (it can be another diagram) where you want to paste the elements and select **Paste**.
    * *You can use <Ctrl> + <V> keys.*

Modifying a Shape Fill

You can:

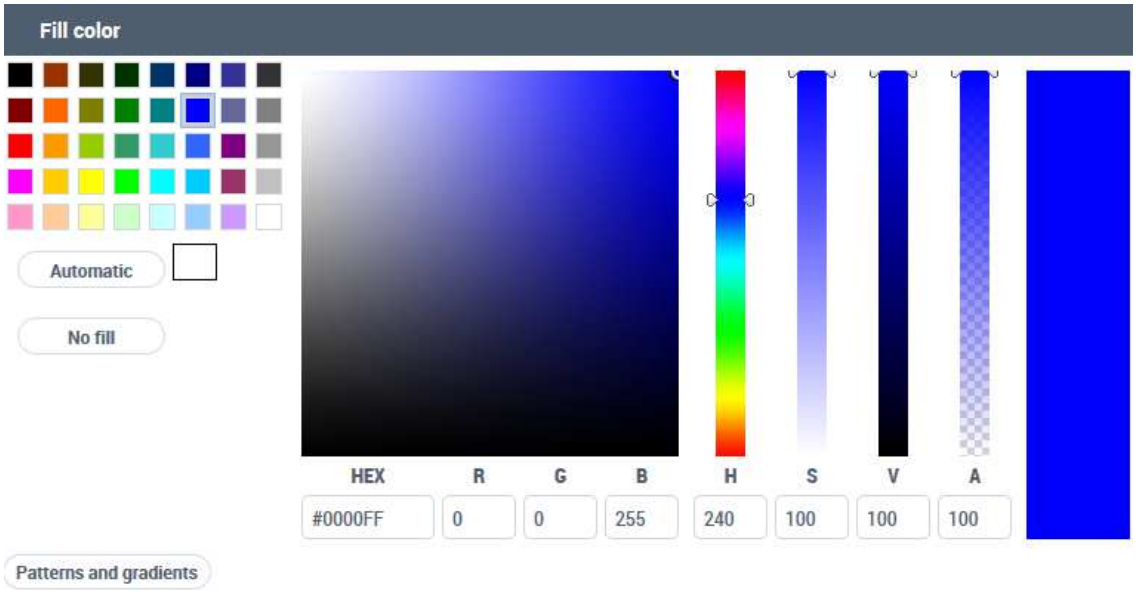
- fill your shapes with a solid color
- apply a color gradient or a pattern
- apply transparency

Defining the color of a shape

To define the color of a shape:

1. Right-click the shape and select **Colors and borders**.

2. In the **Fill** section, in the **Color** field, click the arrow.
   * *Quick access: Select the shape and in the diagram shape editing bar, click **Fill color** .*



3. Select one of the suggested colors.
   * *When elements cover other elements, the **No fill** color enables to view elements in the background.*
4. (If needed) Adjust the color with the range sliders to the right, or with the hexadecimal, RGB (Red, Green, Blue) or HSV (Hue, Saturation, Lightness) values.
5. (If needed) Add a pattern or a color scale.

Defining a color gradient or a pattern to a shape

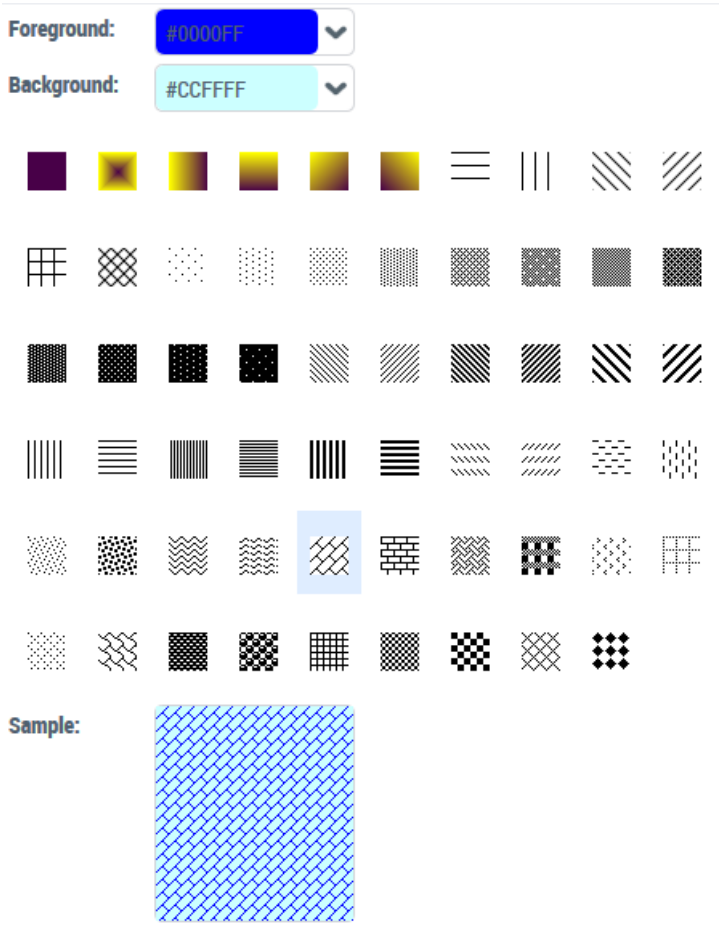
You can define two colors to a shape and apply:

- a color scale
  The shape color gradually moves from one color to the other one.
- a pattern

To apply a color gradient or a pattern to a shape:

1. Right-click the shape and select **Colors and borders**.
2. In the **Fill** section, in the **Color** field, click the arrow.
   * *Quick access: Select the shape and in the shape editing bar of the diagram , click **Fill color** .*
3. Click **Patterns and gradients**.
   The color of the **Foreground** field is predefined with the shape color.
4. (If needed) Modify the color of the **Foreground** field.
5. In the **Background** field, set the color of the background (or second color for a pattern with a color gradient).

6. Select a pattern.
   A sample of the rendering is shown.



7. Click **OK**.

Managing transparency

To apply transparency to a shape:

1. Right-click the shape and select **Colors and borders**.
2. In the **Fill** section, in the **Transparency** field, select or enter a value.
   The value indicates the fill transparency level.

   ```
   Example: 0%, by default, indicates that the shape is opaque.
   ```

Modifying a Shape Border

By default the shape border is black, thickness 0.25 pt, solid line style.

You can make the border invisible or modify its rendering:

- its color
- its style (solid or dash line)
- its thickness

To modify the shape border:

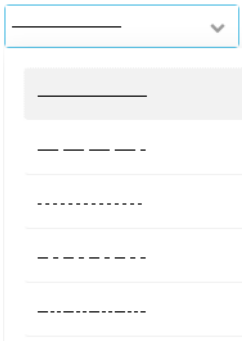
1. Right-click the shape and select **Colors and borders**.
2. In the **Line** section, in the **Color** field, click the arrow.
3. (If needed) Select a color.

   `Default color: black.`

   You can adjust the color with the range sliders to the right, or with the hexadecimal, RGB (Red, Green, Blue) or HSV (Hue, Saturation, Lightness) values.

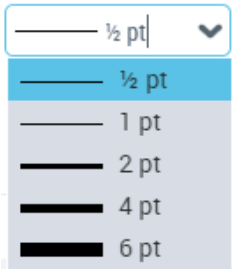
   To make the border invisible, select "No fill".
4. (If needed) In the **Style** field, click the arrow and select another style.

   `Default style: solid line.`



5. (If needed) In the **Thickness** field, click the arrow and select another thickness.

   `Default thickness: 0.25 pt. You can increase it.`



HANDLING ELEMENTS

See:

- Adding Space between Elements
- Selecting Elements
- Moving Elements
- Ordering Elements
- Aligning Elements
- Equally Spacing Elements
- Resizing Elements in a Diagram
- Using the Grid
- Using smart guides

Adding Space between Elements

In a diagram, you can move a set of elements with respect to:

- a vertical line
- a horizontal line

Moving a set of elements horizontally

You can move a set of elements with respect to a vertical line, i.e. all of the elements positioned entirely:

- to the right of the line to the right
- to the left of the line to the left

If you move the set of elements beyond the right page, a page is automatically added to the right.

* *See Moving elements outside the diagram area.*

To move a set of elements horizontally:

1. Display the diagram in edit mode.

   * *See Editing a Diagram.*

2. In the diagram editing bar, click **Add/Remove space**.
   Two lines appear under your mouse pointer.
3. Position the pointer so as all of the objects you want to move are positioned to the right side of the vertical line, i.e. in the direction you want to move them.

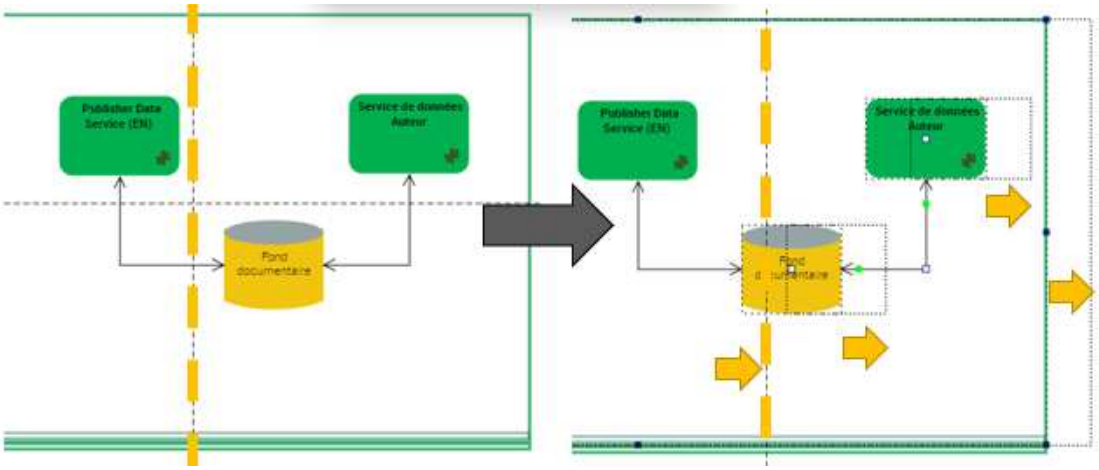
   ```
   Example: the objects to be moved are positioned to the right of the
   vertical line.
   ```

4. Click.
   The lines disappears.

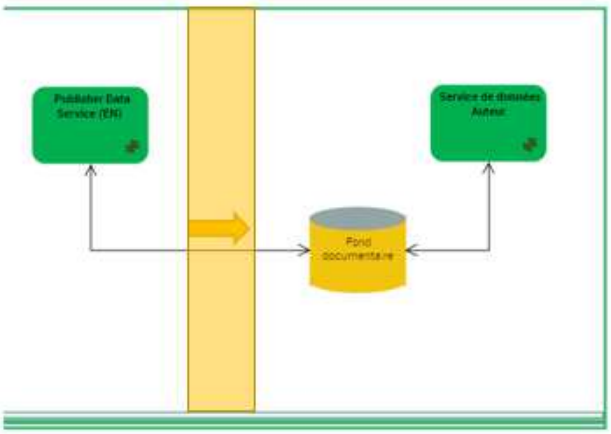
5. Hold down the mouse button and drag the mouse to the right (or the left), in the direction you want to move the objects.
   The vertical line reappears and moves as you drag the mouse.

   `E.g.: move the line to the right.`

   Each object ghost is displayed as you move the line. Only the objects entirely positioned to the moving side are moved.



6. Release the mouse button once the desired position is reached.
   The objects are moved. Their container is enlarged, if needed, so as all of the objects remain contained.



Moving a set of elements vertically

You can move a set of elements with respect to a horizontal line, i.e. all of the elements positioned entirely:

- above the line to the top
- bellow the line to the bottom

If you move the set of elements beyond the bottom page, a page is automatically added to the bottom.

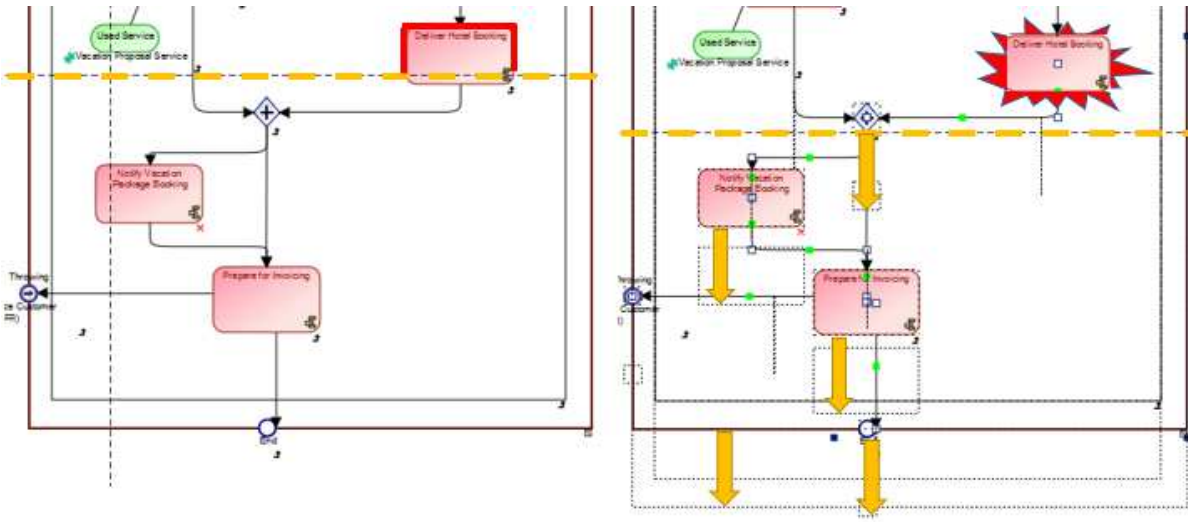
* *See Moving elements outside the diagram area.*

To move a set of elements vertically:

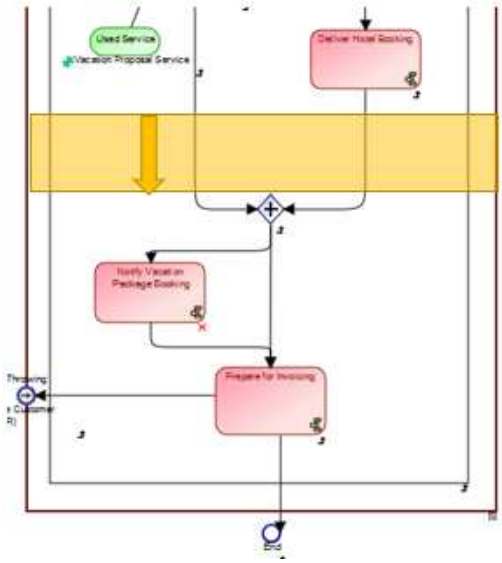
1. Display the diagram in edit mode.
   * *See Editing a Diagram.*
2. In the diagram editing bar, click **Add/Remove space**.
   Two lines appear under your mouse pointer.
3. Position the pointer so as all of the objects you want to move are positioned to the right side of the horizontal line, i.e. in the direction you want to move them.

   `Example: the objects to be moved are positioned bellow the horizontal line.`
4. Click.
   The lines disappears.
5. Hold down the mouse button and drag the mouse up (or down), in the direction you want to move the objects.
   The horizontal line reappears and moves as you drag the mouse.

   `E.g.: move the line to the bottom.`
   Each object ghost is displayed as you move the line. Only the objects entirely positioned to the moving side are moved.



6. Release the mouse button once the desired position is reached.
   The objects are moved. Their container is enlarged, if needed, so as all of the objects remain contained.



Selecting Elements

Selecting an element

To select an element:

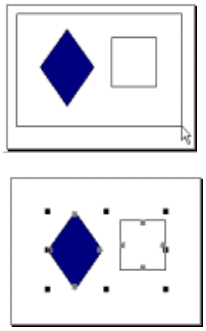
1. In the diagram editing bar, click **Select** .
2. Position the pointer on the element.
3. Click.
   A shape is drawn around the element, with squares (the handles). These handles allow you to modify dimensions of the element.

   * *See Resizing Elements in a Diagram.*

If the drawing object selected is a line or a link, then the little squares are called "joints". Joints are found at the ends of each segment of lines.

* *See Handling Lines.*

Selecting several elements one by one



With the <Ctrl> key, you can select elements one by one.

To select several elements:

1. In the diagram, click an element to select it.
2. Press the <Ctrl> key.
3. Hold the <Ctrl> key down and click another element to be added to your selection.
4. Repeat the action on each element you want to add.

* *To unselect one of the elements, hold the <Ctrl> key down and click the element.*
* *To select all of the elements of the diagram, press <Ctrl> and <A> keys simultaneously.*

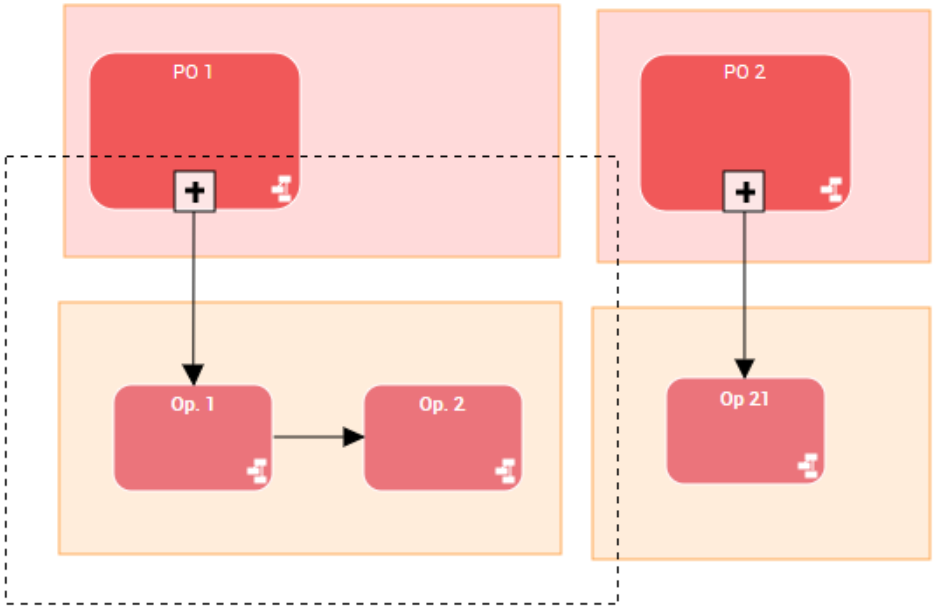
Selecting all of the elements of an area

With the mouse you can draw an area over the elements you want to select.

To select all of the elements of an area:

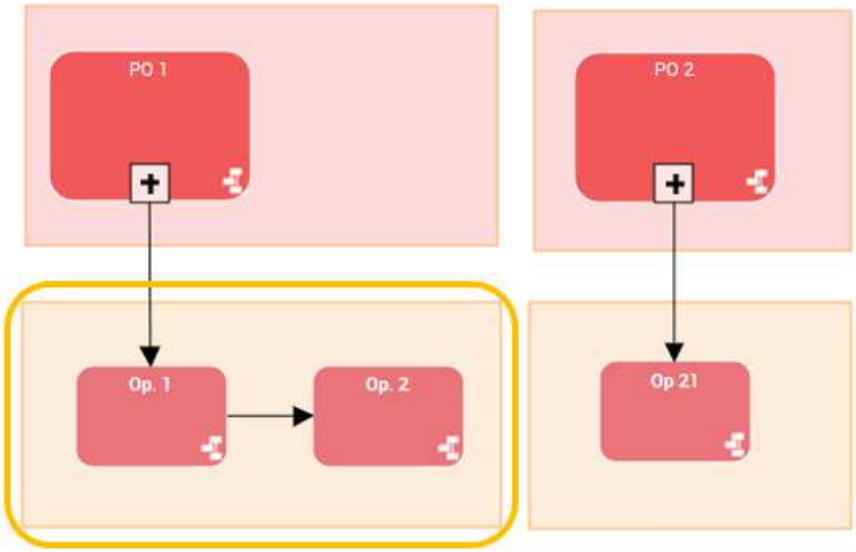
1. In the diagram, click a corner of the area you want to draw.

2. Hold down the mouse button and drag the mouse so as to draw a rectangle that includes entirely all of the elements.



3. Release the mouse button.
4. The elements entirely included in the rectangle are selected.

Example: both "Op. 1" and "op.2" operations and the rectangle at the botom left.



Moving Elements

* *While moving elements, if you cannot position them where you want, check that the grid is not active. As the grid can be hidden, but active. See Using the Grid.*

See:

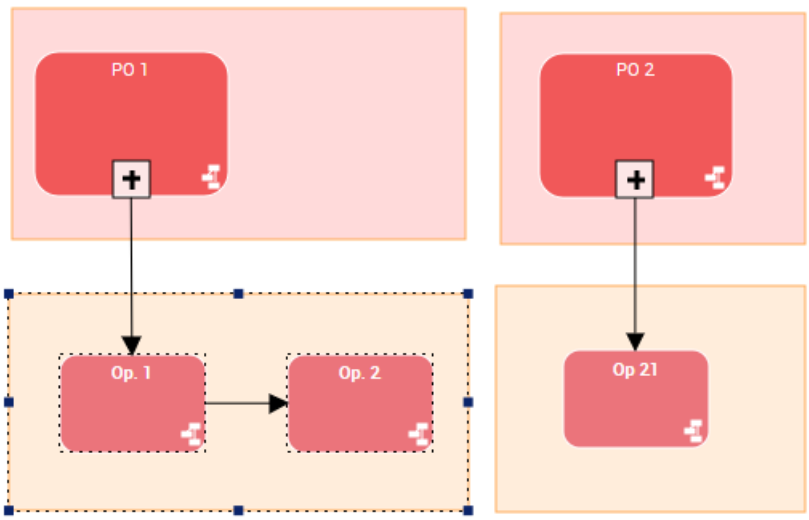
- Moving elements
- Moving nested elements
- Moving elements outside the display area
- Moving elements outside the diagram area

Moving elements

You can move one or several elements within the diagram.

To move an element or a set of elements:

1. Select the element or the set of elements.
   * *See Selecting Elements.*



2. Click an element of the selection, avoiding a handle.

3. Hold down the mouse button and move the selection towards the desired position.

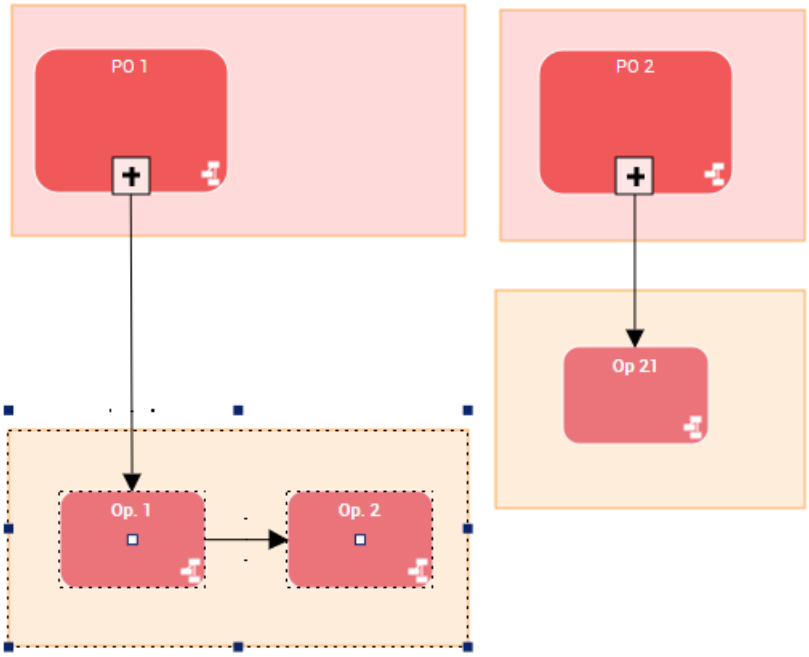
    * *When the grid is enabled (see Using the Grid), elements you move are aligned with the grid.*

    If you move the selection outside the display area, the display area automatically scrolls to keep it in view.

    * *See Moving elements outside the display area.*

    If you move the selection outside the diagram area, the required number of pages are automatically added.

    * *See Moving elements outside the diagram area.*



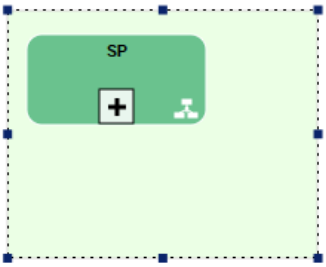
Moving nested elements

When an element is positioned inside another element, you can:

- move the element and all the elements it contains
- move the element without the elements it contains

To move the elements together:

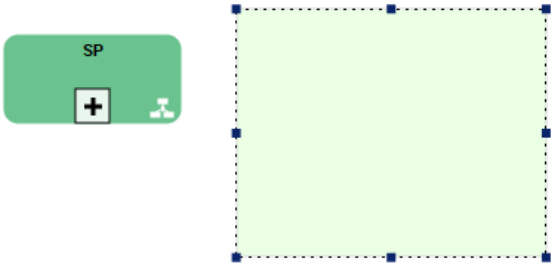
1. Click the element that contains the others.



2. Hold down the mouse button and move it.
   The element and all the elements it contains are moved together.

To move the containing element without moving its contained elements:

1. Press the <Shift> key.
2. Hold the <Shift> key down and select the containing element.
3. Move it.
   The elements that were contained are not moved.



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

Moving elements outside the display area

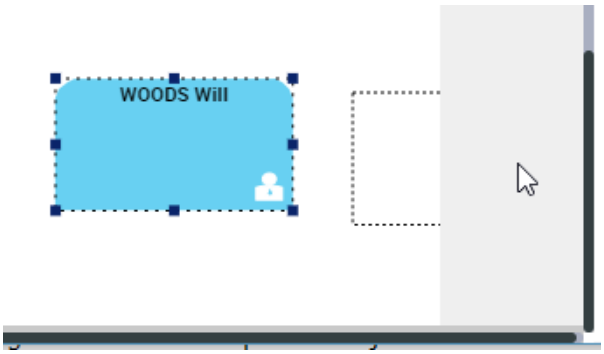
It may happen that you move elements outside the display area.

To move the display area while moving elements:

1. Select the elements to be moved.
2. Click the selection.
3. Hold down the mouse button and drag the cursor to the visible edge.

4. Keep the cursor stationary a few moment.

The display area starts scrolling automatically.



5. Release the mouse button once the required position is reached.

* *If the position is outside the diagram area, a page is automatically added, see Moving elements outside the diagram area.*

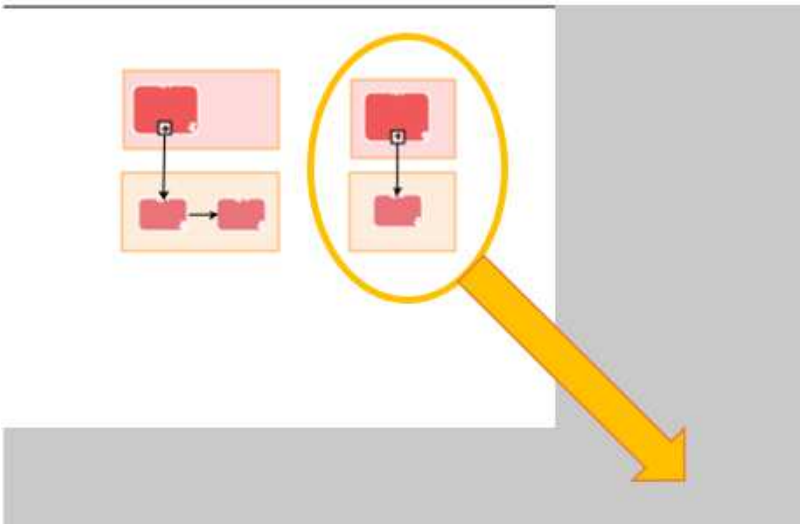
Moving elements outside the diagram area

When you move elements outside the diagram area, one or several pages are automatically added so as to include all of the elements.

To move elements outside the diagram area:

1. Select the elements and move them.

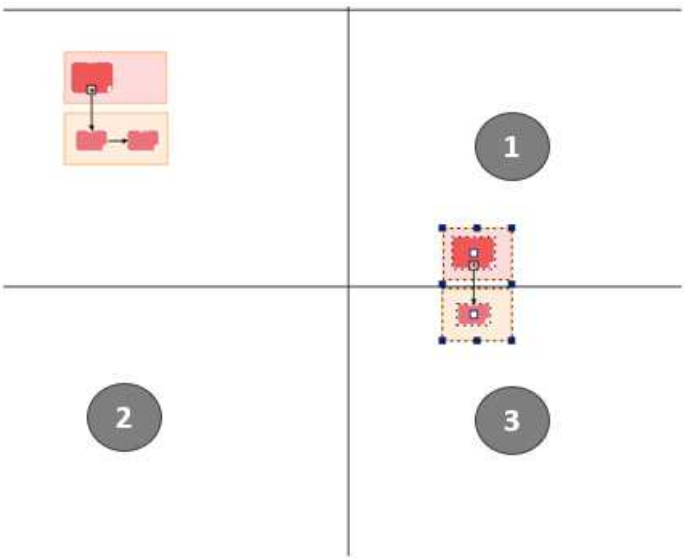
   E.g.: move both of the objects and both of the shapes to the bottom right.



   As soon as you move outside the diagram area, it enlarges the diagram area.

2. Release the selection where you want the selection to be.
   Required pages are automatically added.

   E.g.: in this example three pages are added.



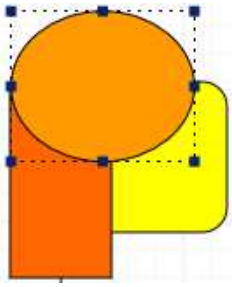
Ordering Elements

When several elements are positioned at the same place, they are overlaid on each other. The last element created is on top of the others. You can modify this order.

To send a graphic object behind an element

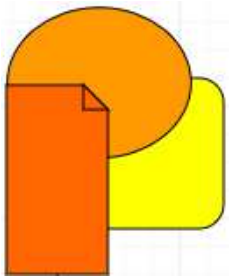
To send a graphic object behind an element:

1. Select the graphic object.



2. Right-click and select:
   - **Order > Bring Forward** to bring the graphic element before the first element that overlays it.
   - **Order > Send Backward** to send the graphic element behind the first element it overlays.

   E.g.: select **Send Backward** to send the circle behind the sheet.



Bringing an element to front

To bring an element to front (in front of all the others):

1. Select the element.
2. In the shape editing bar of the diagram, click **Front** .

Sending an element back

To send an element back (behind all the others):

1. Select the element.
2. In the shape editing bar, click **Back** .

Aligning Elements

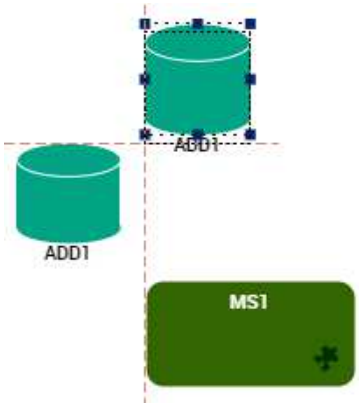
To position or align elements in a diagram, you can use:

- smart guides
  The smart guides indicate the spacings and alignments between elements in the diagram.
  Smart guides are active by default.
  - *See Using smart guides.*
- the feature of alignment of selected elements:
  - left, right, or center
  - top, bottom, middle
  - perspective
    - *See Aligning elements included in an area.*
    - *See Aligning elements selected one by one.*
  - on grid
    - *See Aligning elements on grid.*
- the grid
  The grid is displayed by default. The grid is also active by default, but smart guides take precedence over it.
  You can configure the grid, before drawing your diagram, so as to align each new element with the grid.
  - *See Using the Grid.*

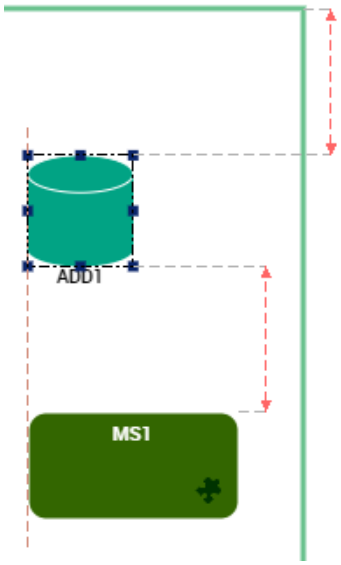
Using smart guides

As soon as you move an element, smart guides appear and indicate:

- vertical and horizontal alignments between the selected element and the other elements.



- equidistances between the selected element and the other elements.



Smart guides take precedence over the grid (if activated). If you want the grid to take precedence over the smart guides, you must hide the smart guides.

To hide the smart guides:

1. Right-click in the diagram and select **Grid**.
   The **Grid and Guides** window opens.
2. In the **Grid parameters** section, clear **Display smart guides when shapes are aligned**

Aligning elements included in an area

You can align elements included in an area:

- left, right, or center
- top, bottom, middle
- perspective

Objects are aligned:

- with the most top, bottom, right, left element, or with a vertical or horizontal median (for centering), or
- with a reference element that you define.

To align drawing objects:

1. Select the objects to be aligned.
   * *See Selecting all of the elements of an area.*
2. (If needed) Define the reference element:
   - Press the <Shift> key.
   - Hold down the key and click the element.
3. In the shape editing bar, click **Align** .
4. In the list proposed, select the alignment mode
   If you did not define a reference element, the top (bottom, left, right) edge of the most top (bottom, left, right respectively) element is used as reference in the **Top** (**Bottom**, **Left**, **Right**) alignment you chose

Aligning elements selected one by one

You can align elements selected one by one:

- left, right, or center
- top, bottom, middle
- perspective

The last item selected is used as the reference. The selection is aligned on the top (bottom, right, left respectively) edge of the element.

Centering is made with respect to the last element selected.

To align drawing objects:

1. Select the objects to be aligned.
   * *See Selecting several elements one by one.*
2. In the shape editing bar, click **Align** .
3. In the list proposed, select the alignment mode
   Centering is made with respect to the border of the last element selected.

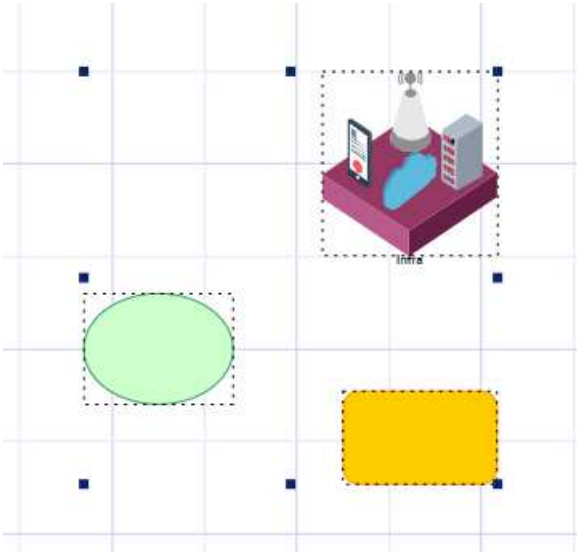
Aligning elements on grid

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).

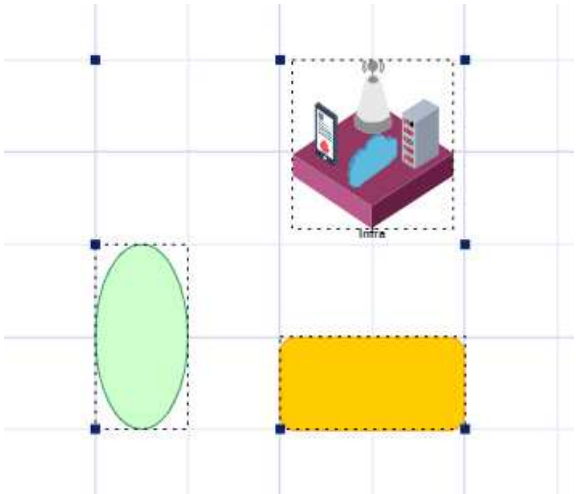
To align elements on grid:

1. Activate and configure the grid
   * *See Using the Grid.*

2. (If needed) Deactivate the smart guides.
   * *See Using smart guides.*
3. Select the element(s) to align on grid.
   * *See Selecting Elements.*



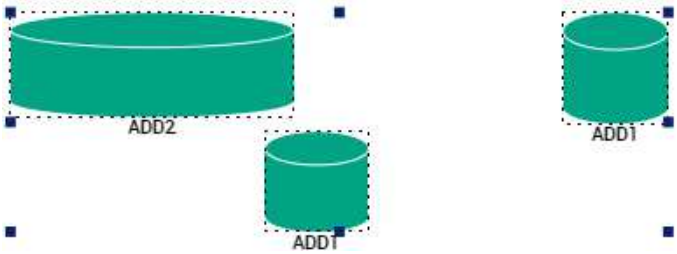
4. In the shape editing bar, click **Align** **> On Grid** .
   Each selected element is modified.



Equally Spacing Elements

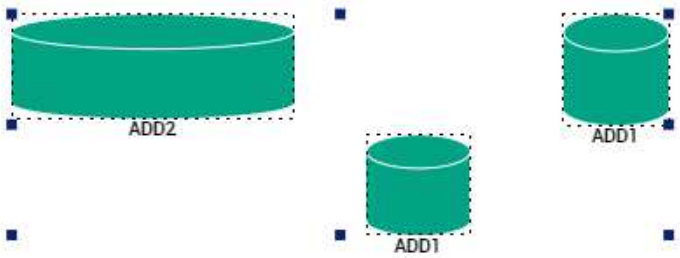
To equally space elements:

1. Select the elements.
   * *See Selecting Elements.*

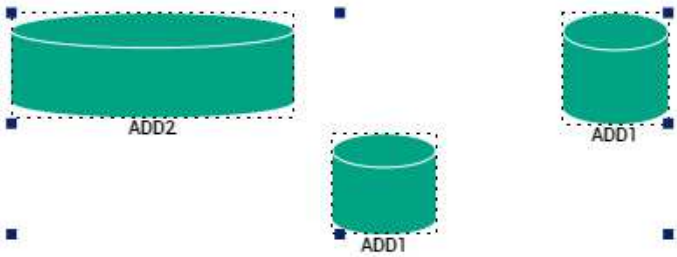


2. Click the element selection and according to the direction required, select:
   * *So that these commands are available, you must select at least three elements.*

- **Space > Horizontally** (or **Vertically**): the distance between the three elements is identical.



- **Space > Horizontal Centers** (or **Vertical Middles**): the distance between the three element centers is identical.



Resizing Elements in a Diagram

Resizing an element

To resize an element:

1. Select the element concerned.
2. Point to a handle.
   The pointer shape turns into a double-headed arrow. The direction of the arrow indicates whether you can resize the element vertically, horizontally, or both: ↕↔⤡⤢.
3. Hold down the mouse button and drag the mouse.
   The element ghost displays the element new size.

4. Release the mouse button once the required size is reached.

Resizing with proportions

To resize proportionally both height and width of an element:

1. Select the element to be resized.
2. Press the <SHIFT> key.
3. Hold down the <Shift> key and drag one of the handles at the element corner.

To enlarge and reduce an element from its center point:

1. Select the element to be resized.
2. Press the <Ctrl> key.
3. Hold down the <Ctrl> key while dragging the mouse.

Resizing with comparison to another element size

To resize one or more elements to the size of a reference element:

1. Select the elements to be resized.
   * *See Selecting Elements.*
2. Press the <SHIFT> key.
3. Hold down the <SHIFT> key and right-click the reference element and select **Make same size > Height**, **Width**, or **Both** (height and width).
   The drawing objects now have the same height and/or width as the reference object.

Using the Grid

Showing the grid

By default, at diagram creation, the grid is hidden.

* *The grid can be hidden, but active.*

To show the grid:

1. Right-click in the diagram and select **Grid**.
   The **Grid and Guides** window opens.
2. Select **Display grid**.
3. Click **OK**.
   The grid is displayed in the diagram.

M **The grid display does not mean that it is active. To activate the grid, Align objects on grid must be selected.**

Activating the grid

When the grid is activated, the new elements are automatically aligned with the grid lines. The element size is a multiple of grid spacing. When you move elements, they move by increments equal to grid spacing.

M **By default, smart guides are activated and take precedence over the grid.**

To align already created elements with the grid, see Aligning elements on grid.

To activate the grid:

1. Right-click in the diagram and select **Grid**.
   The **Grid and Guides** window opens.
2. Select **Align objects on grid**.
   The grid is active.

* *The grid can be activated even if it is not displayed.*

* *When you hold down the <Alt> key while manipulating objects, the grid is temporarily deactivated if previously activated, and vice-versa.*

Configuring the grid display

You can configure:

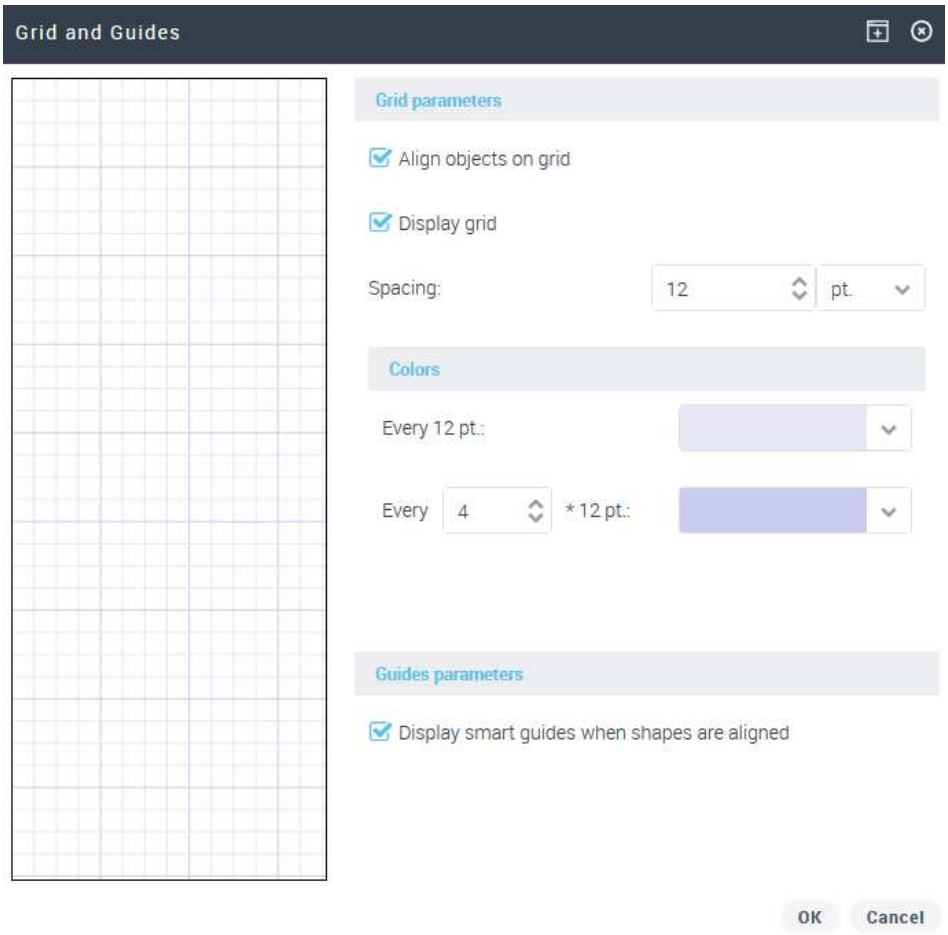
- spacing of grid lines.
- color of grid lines.

To configure the grid display:

1. Right-click in the diagram and select **Grid**.
   The **Grid and Guides** window opens.

2. In:
   - the **Grid parameters** section, in the **Spacing** field, select the line spacing value and unit (mm, in., pt.).
   - the **Colors** section, you can define the line color and a grid pattern not as sharp.

     `E.g.: display a darker line every 4 lines.`



HANDLING LINES

In diagrams, links behave as lines: You can modify, for example, their shape or their appearance. Links are attached to the objects they connect.

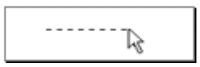
* *For more details on links, see Handling Links Between Objects.*

Drawing Lines

Tracing a line

To trace a line:

1. In the object inserting bar, click **Graphical object** .
2. In the drop-down menu, select **Line**.
3. In the diagram, click where you want the line to begin and, holding the mouse button down, drag the mouse.



4. 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.

5. (If needed) Modify its style with the shape editing bar of the diagram.

Creating a joint

You can segment a line to create a jagged line for example.

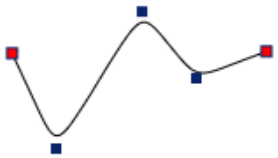
To segment a line:

1. Select the line.
2. Position the mouse pointer on the line.
3. Press the <Ctrl> key.
   The pointer turns into a + shape.

4. Holding down the <Ctrl> key, click and move the pointer to where you want to segment the line.
   A joint represented by a handle is added.

5. Holding down the <Ctrl> key, click and move the mouse outside the line to break it.

6. Release the <Ctrl> key.
   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 both ends):

- Right-click the joint and select **Delete Joint**.
  The joint is deleted.

Delete all Joints

You can turn a broken line into a straight line.
To delete all the joints:

- Right-click a joint and select **Delete all Joints**.
  The line turns straight.

Moving Line Segments

To change the shape of a line:

1. Point on a joint.
   It changes shape.
2. Click the handle.
3. Hold down the mouse button and move the handle towards the desired position.
4. Release the mouse button.

Moving Lines

To move a line:

1. Select the line.
2. Click the line (taking care not to click a handle).
3. Hold down the mouse button and move the line towards the desired position.

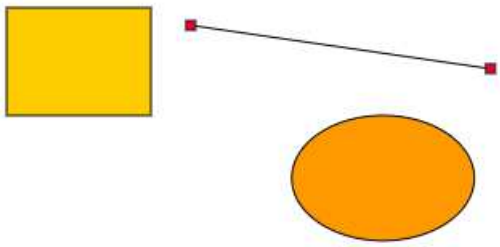
   * *If you perform the above steps by selecting a handle, you will change the shape of the line and not its position.*

Connecting a Line to an Element

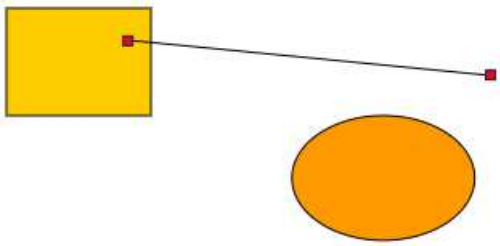
You can connect the end of a line to an element, so that if the element moves, the line moves with it.

To attach a line to an element:

1. Select the handle at the end of the line.



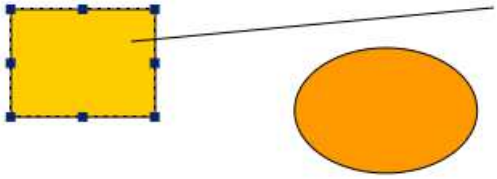
2. Holding the mouse button down, drag the handle inside the element.



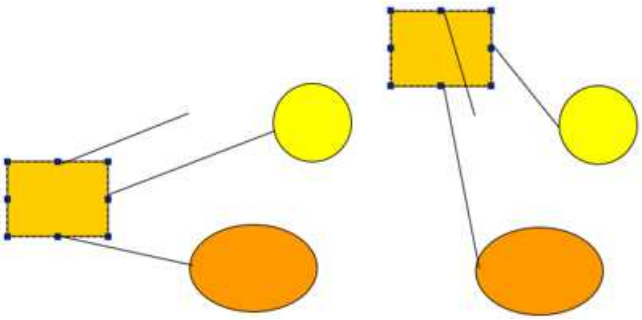
3. Release the mouse button.

4. Right-click the line handle and select **Connect to Object**.
   * *You can also double-click the handle to connect or disconnect the line.*

The handle is connected to the element. When the element is moved, the handle follows it.



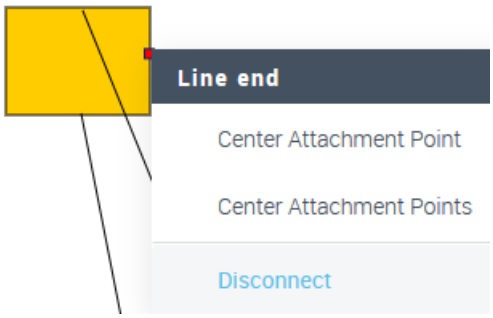
In this example, the three lines are connected to the rectangle and follow its movements.



To disconnect a line from an element:

1. Position the pointer over the connected end of the line.

2. In the pop-up menu, select **Disconnect**.



Centering Attachment Points

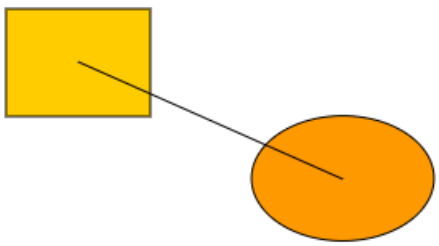
When a line is attached to an object, or in the case of links in diagrams, you can center the attachment points.

* *For more details on how to attach a line to an object, see Connecting a Line to an Element.*

To center attachment points:

â Right-click an attachment point and select **Center Attachment Point**.

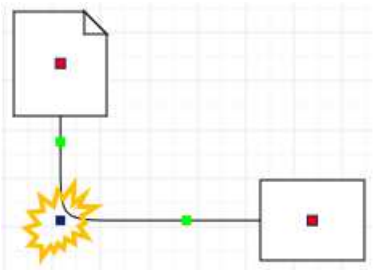
To center both attachment points simultaneously, select **Center Attachment Points**.



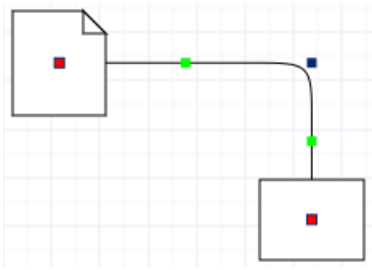
Reversing the Angle Position of an Orthogonal Line

To reverse the angle position of an orthogonal line:

- Double-click the handle of the angle of the line:



The orthogonal line angle reverses to the opposite side.



Modifying a Line Style

In a diagram, you can modify the style of each line.

You can also modify the style of several lines at once.

For each line, you can modify:

- its style:
  - free or orthogonal
  - closed: enables to draw an irregular polygon, which can be filled with a color or a pattern.
  - perspective: enables to adjust the right angle in diagram with object in perspective.
- its appearance:
  - curved or straight
  - rounded or right angles
  - simple or double
  - weight
  - dashed or solid
- its color
- its extremities:
  - line ends covered or not by connected elements
  - with or without shapes
  - (with shape) each shape color

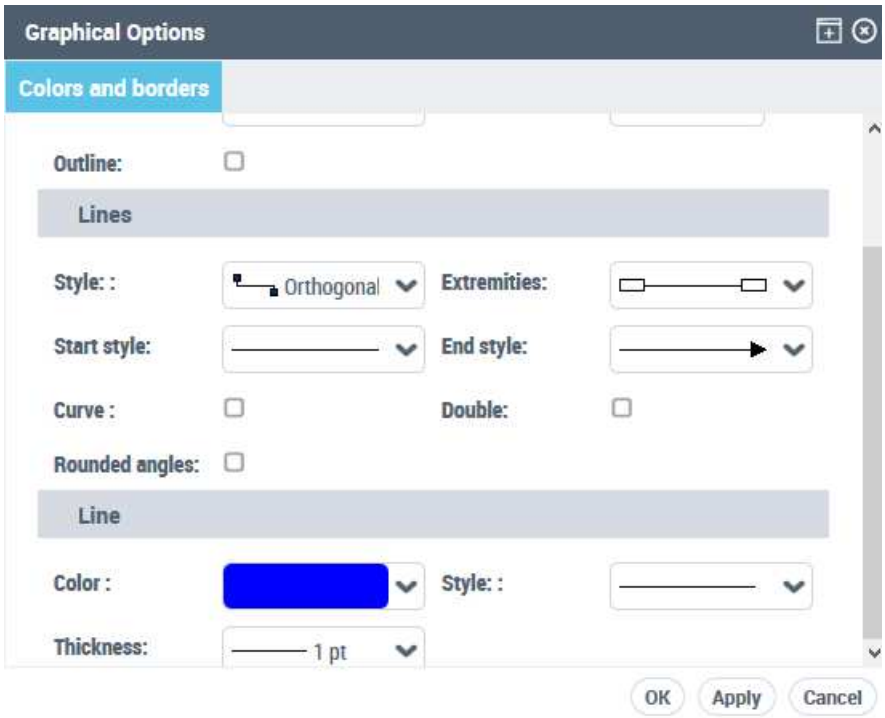
To modify a line:

1. To modify several lines at once, use the [Ctrl] key to select the lines.

2. Right-click the line and select:
   - the line style for a simple style modification
   - **Colors and Borders** for an advanced modification

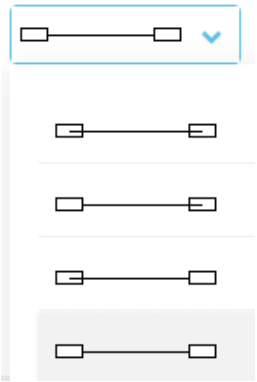
   The **Graphical Options** window opens.

   * *To modify a single aspect of the line, you can use the quick access of the shape editing bar of the diagram.*

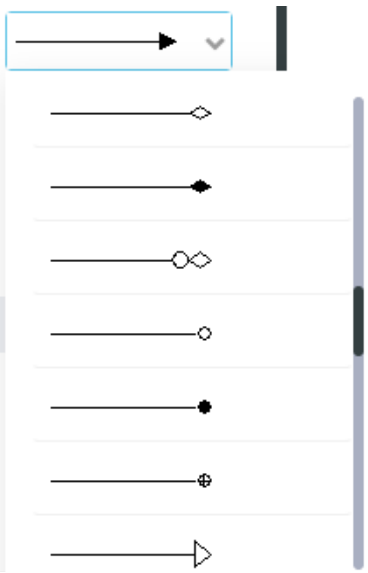


3. In the **Lines** section, use the drop-down lists to modify the line:
   - its **Style**

   - its **Extremities**



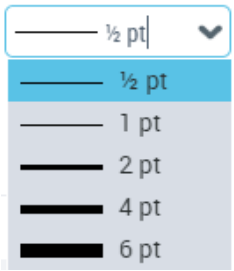
   - its extremity style (**Start style** and **End style**)



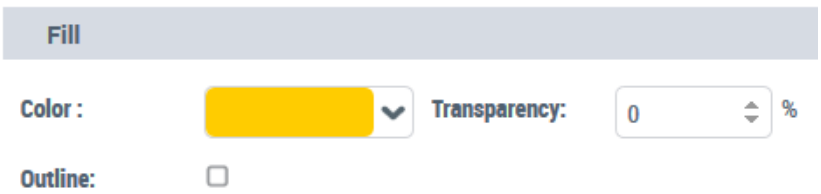
* *If you do not want a shape at the end of the line, select the straight line.*

4. (if needed) In the **Lines** section, select:
   - **Rounded angles**
   - **Curve**
   - **Double** lines
5. In the **Line** section, use the drop-down list to modify the line:
   - its **Color**
   - its **Style**

   - its **Thickness**

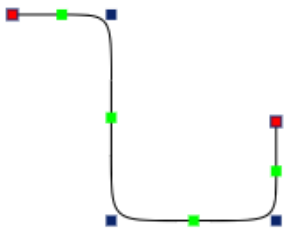


6. (Line extremity with solid shape style or closed line style) In the **Fill** section, define the shape color.

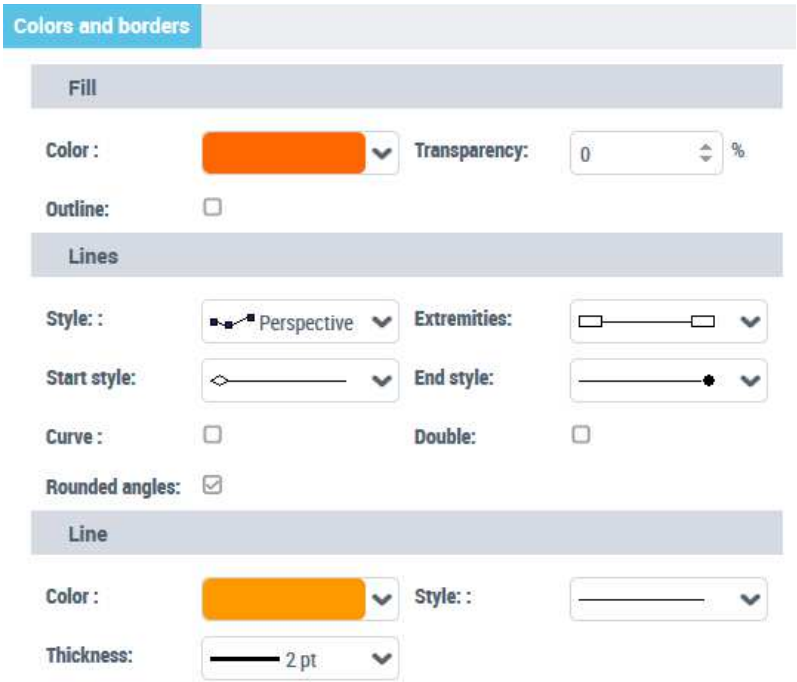


Examples of lines

- Orthogonal line, rounded angles

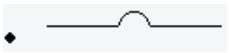
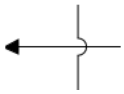
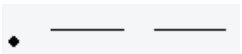


- Perspective line, rounded angles, start style: empty diamond, end style: circle filled with orange



Configuring Bridges

In a diagram, bridges can help you improve the readability of diagrams when several lines cross each other. Those lines can be, for example, drawing lines, links, sequences.

Style of bridge option value	Display in the shape editing bar of the diagram	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.

* *See Parameterizing the default appearance of bridges.*

You can define a diagram specific style.

* *See Modifying the appearance of bridges in a diagram.*

Parameterizing the default appearance of bridges

To modify the default appearance of bridges in diagrams:

1. Access your options (**Main Menu > Settings > Options**).
   * *See Managing Your Options.*
2. In your options, select **Diagrams/Edit Shapes**.
3. In the right pane, modify the **Style of bridges** option value.
   This style is applied by default in new diagrams.
   * *Diagrams already created keep their bridge style.*

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.

You can modify the bridge style for each line of the diagram.

To modify the default appearance of bridges in a diagram:

1. In the shape editing bar of the diagram, select **Style of bridges** .
2. Select a style of bridge.
   This style applies to new bridges created in the diagram.

To change the bridge of a specific line:

1. Select the line concerned.
2. In the shape editing bar of the diagram, select **Style of bridges** .
3. Select a style of bridge.
   The bridge style of the selected line is modified.

HANDLING A DIAGRAM

See:

- Zooming
- Moving a Diagram
- Displaying Diagram Previews
- Handling a Diagram Preview
- Displaying Diagram Thumbnail in a Diagram
- Defining the Diagram Layout
- Printing a Diagram

Zooming

Zoom functions enable, for example, to move easily in the diagram or to get an overview of the diagram.

Zooming in a diagram

To zoom in (or out) a diagram:

1. In the diagram editing bar, click **Move** .
2. Roll the mouse wheel in the appropriate direction.

   * *Press the <Ctrl> key and simultaneously roll the mouse wheel to zoom in the full page (this is a Web navigator feature).*

Precise zooming in a diagram

To perform a precise zoom in a diagram:

1. In the diagram editing bar, use the 100% field to precise the zoom.
2. You can:
   - enter a precise zoom value in the field
   - select in the drop-down list:

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

Moving a Diagram

After zooming in a diagram, it may be useful to move the diagram quickly, without using the scroll bars.

To move a diagram:

1. In the diagram editing bar, click **Move** .
2. Click in the page, in a blank area outside the diagram.
3. Hold down the mouse button, and move the page as you want.

* *To quit this moving mode, in the diagram editing bar, click **Select** .*

Displaying Diagram Previews

From an object, you can view diagrams:

- describing the object
- containing the object

J *To facilitate the diagram reading, click **Maximize** , to display the diagram in full page.*

You can navigate between diagrams and switch to edit mode if needed.

* *To view a hierarchy of diagrams within a single diagram, see Displaying Diagram Thumbnail in a Diagram.*

Viewing all the diagrams describing an object

To view all the diagrams describing an object:

1. Access the object.
2. Right-click the object and select **Preview**.
   A window displaying diagram previews appears.

To view all the diagrams describing an object:

1. Access a list of objects.
2. Roll the mouse over the **Local Name** of the object and click **View Diagram** .
   Diagrams are displayed in the **View** window.

Viewing all the diagrams containing an object

To view all the diagrams containing an object:

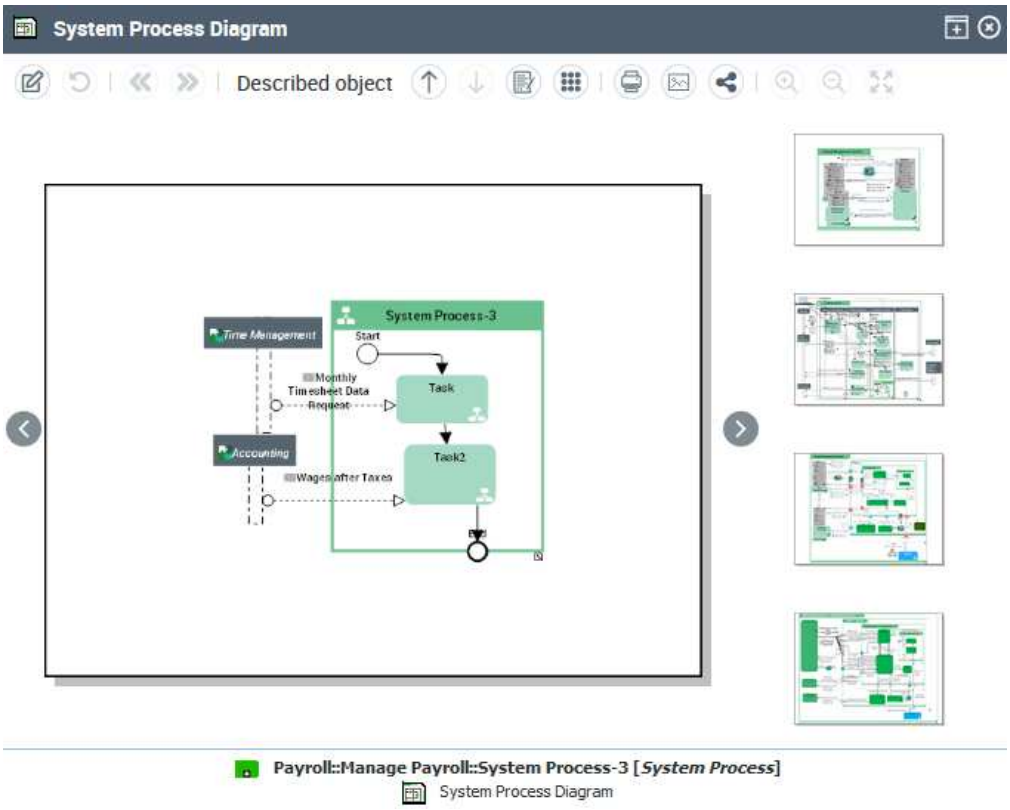
1. Access the object.
2. Right-click the object and select **Diagrams Containing Object**.
   A window displaying a diagram preview appears.

Navigating in a diagram preview

To navigate in a diagram preview:

1. Access the diagram preview.

2. Use the mouse wheel to navigate between diagrams.



3. Click the diagram you want to view.
    * *See Handling a Diagram Preview.*

Handling a Diagram Preview

In a diagram preview, you can:

- perform actions on the diagram

  `E.g.: share and print the diagram, switch to edit mode`

    * *See Diagram preview toolbar.*
- perform actions on the objects of the diagram

  `E.g.: access diagrams containing or describing an object included in the diagram.`

    * *See Using the pie menu in a diagram preview.*
- return to the preview of all the diagrams

Diagram preview toolbar

Below are the main icons available.

* *Unavailable icons are grayed.*

Icon	Description
	Edit this diagram Displays the diagram in edit mode See Diagram Toolbars in Edit Mode.
	Refresh this diagram Refreshes the diagram, for example if some components have been removed from the repository.
	Back (in a preview in a pop-up window) Enables to return to the preview of all the diagrams
	Forward (in a preview in a pop-up window) Enables to display the next diagram
	Diagrams containing described object Enables to access the diagrams containing the described object
	Diagrams describing described object Enables to access the diagrams describing the described object
	Described object properties Displays the properties of the object described by the diagram
	Menu Displays the diagram pop-up menu
	Print this diagram Displays the diagram as a PDF file, which enables to print it See Printing a Diagram.
	Save the picture as Enables to save the displayed diagram as a picture in *.png, *.svg, *.emf, or *.jpg format
	Share this diagram Enables to share the diagram by email See Sharing an Object as Email.
	Zoom in Enables zooming in the diagram The mouse wheel enables to zoom in too
	Zoom out Enables zooming out from the diagram The mouse wheel enables to zoom out too
	See All Enables to return to the original size of the image

Using the pie menu in a diagram preview

In a diagram preview, you can perform actions on objects:

- access its properties
- generate a report
- access diagrams containing the object
- access diagrams describing the object

To perform actions on an object of the diagram:

1. In the diagram preview, click the object.
   A pie menu appears over the object.

   Actions available on the object have a dark gray background.
   Actions not available on the object have a light gray background.
2. Roll the mouse over one of the available actions.
   The background of the action turns blue.

3. Click:
   - to access the object properties.
   - to generate a report on the object.
   - to access the diagrams containing the object.
   - to access the diagrams describing the object.

Displaying Diagram Thumbnail in a Diagram

Displaying the diagram describing the object as a thumbnail

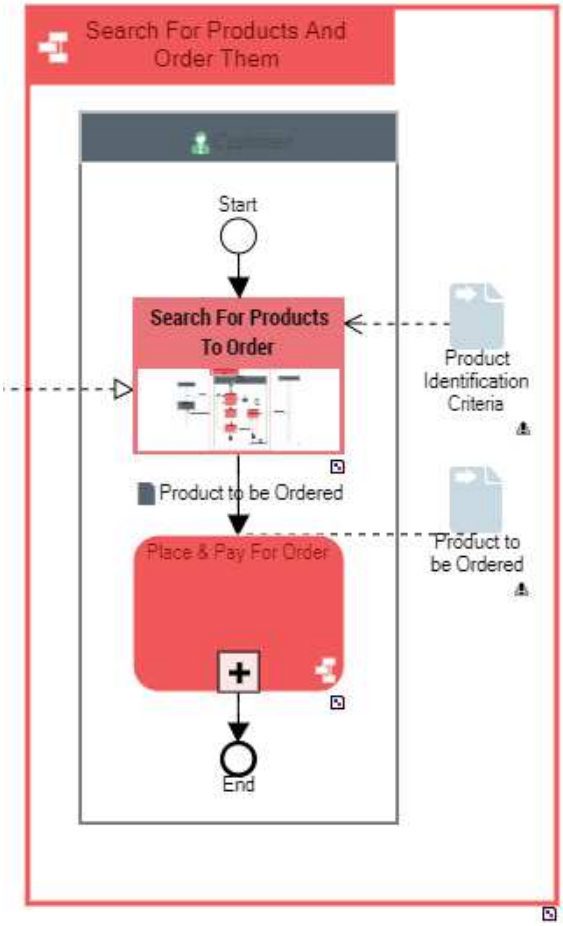
Within a diagram, you can display the diagrams of the objects, which are themselves described. The objects are displayed in the form of thumbnails, which you can be enlarged.

To view the diagram of a described object:

1. In the diagram, right-click an object itself described by a diagram

   E.g.: the ”Search for Products To Order” Organizational Process.

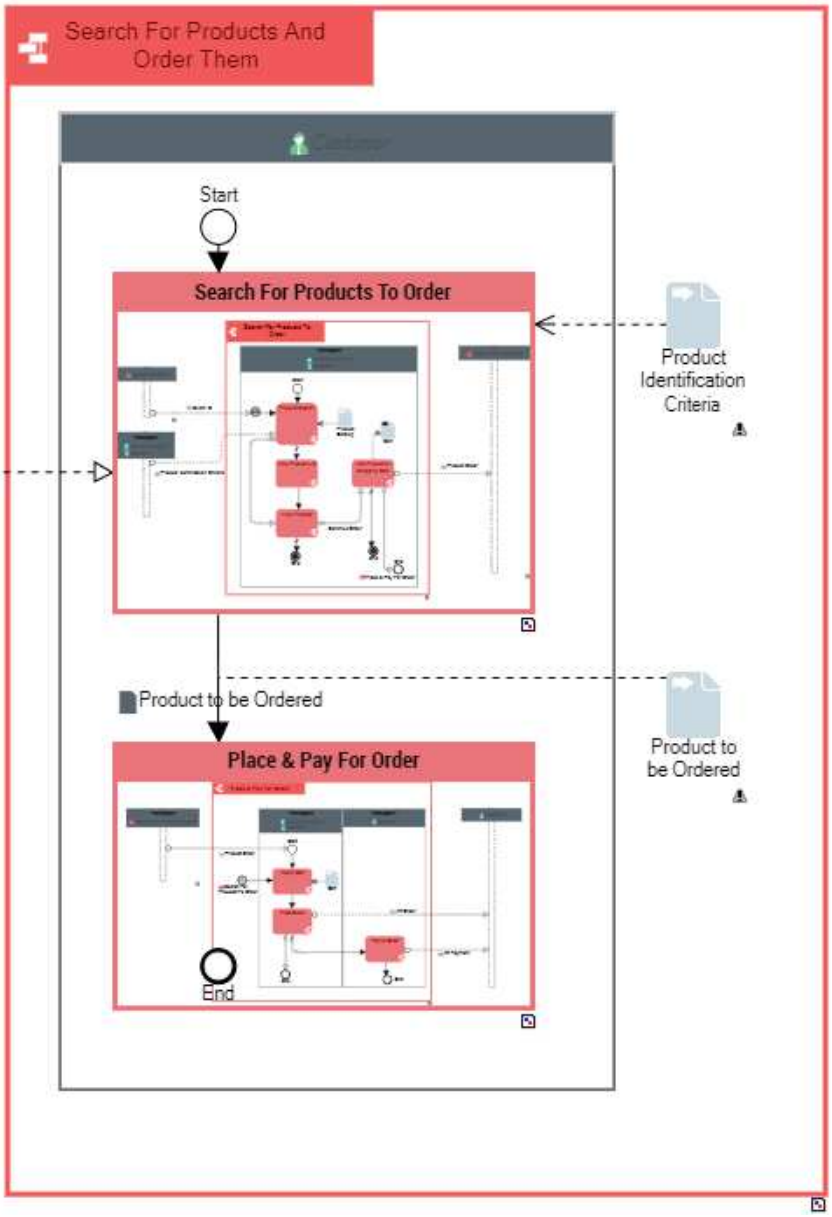
2. In the **Graphic element** section, select **Display the diagram describing the object**. The object is replaced by the thumbnail of the diagram, which describes it.



3. Repeat the action on another object described by a diagram.

   E.g.: the ”Place & Pay for Order” Organizational Process.

4. You can enlarge the objects to make the thumbnails easier to read.
   * *For help, see Adding Space between Elements.*



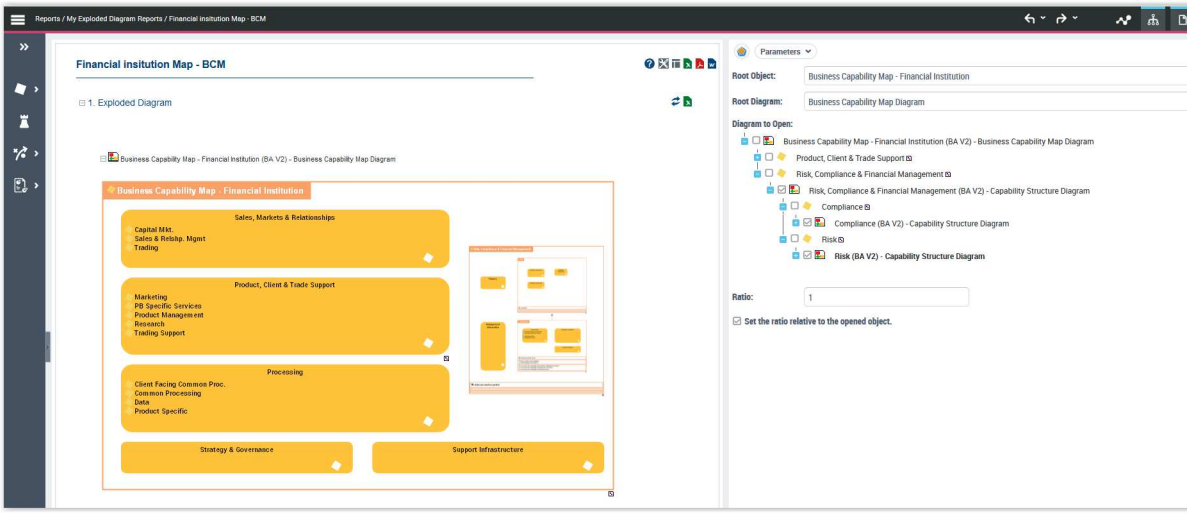
   * *To no longer display the diagram thumbnail, right-click the object concerned and in the **Graphic element** section, clear **Display the diagram describing the object**.*

Launching the exploded diagram report

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

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
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".

Parameters	Constraints
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.

Defining the Diagram Layout

You can define the diagram layout:

- number of pages on which the diagram is displayed
  - *When you move an element outside the diagram area, the page number is automatically updated.*
  - *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).*
- paper size

  `Example: A3, A4, or its Width x Height values in inches.`
- 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.*
- orientation

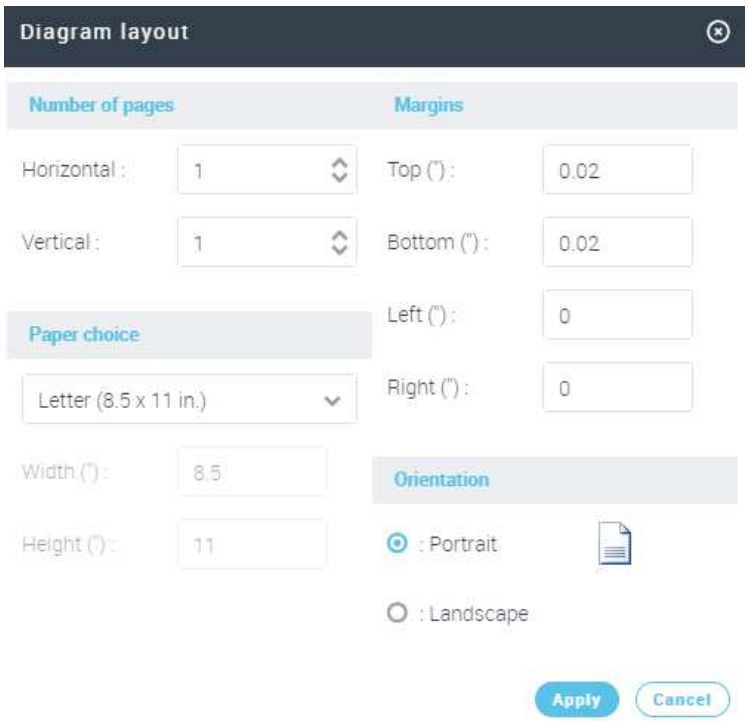
  `Example: Portrait or Landscape.`

You can also indicate a scaling percentage when printing.

To define the diagram layout:

1. Access the diagram in edit mode.

2. In the diagram toolbar, click **Diagram layout** .
   The **Diagram layout** window opens.



3. Modify the page layout parameters.
4. Click **Apply**.

Printing a Diagram

To print a diagram you need to generate a PDF format file, which you can then print.

If you need to enlarge or reduce the diagram size for printing, you must display the diagram in edit mode before printing.

To print a diagram:

1. Access the diagram in edit mode.
2. In the diagram toolbar, click **Print diagram**.
3. (If you need to enlarge/reduce the diagram size for printing) In the **Scaling** section, select the "Enlarge/reduce" **Mode**.
4. Enter the number of pages (width and height) on which you want to print the diagram.
   * *The **Zoom** value is modified as a result and previews the result of printing.*
5. Click **OK**.
   The PDF export process starts.
6. Print the PDF.

Exporting Diagrams to PowerPoint

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

To export diagrams in PowerPoint:

1. Right-click the 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.

   ```
   Example: 10.

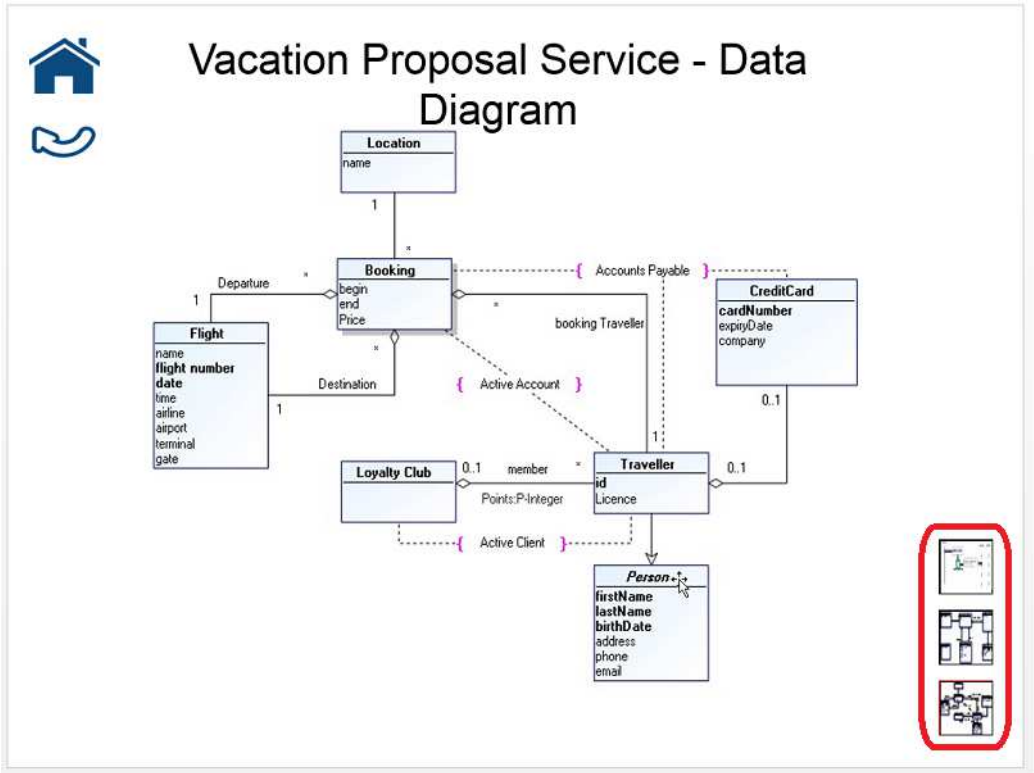
   If the summary contains 33 lines, 4 pages are created (10+10+10+3).
   ```
3. In the **PPT File Name** field, enter the name of the PowerPoint file to be generated.
4. Select the export mode:

- **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).

BUILDING A DIAGRAM IN TABULAR ENTRY

Tabular entry 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 repository object.*

* *For more details on updating a diagram with the editor, see **HOPEX Common Features**, "Handling Diagrams".*

The following points are covered here:

3 "Tabular entry principles", page 214
3 "Constructing a diagram in tabular entry mode", page 221

TABULAR ENTRY PRINCIPLES

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

- start with tabular entry mode, see "Using tabular entry mode", page 214.
- use this functionality to create a diagram, see "Overview of functionalities", page 217.
- determine the list of diagrams that have a tabular entry mode, see "Diagram types with tabular entry mode", page 220.

Using tabular entry mode

Tabular entry 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 tabular entry are saved in the snapshot repository.

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

M **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 tabular 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 entry mode

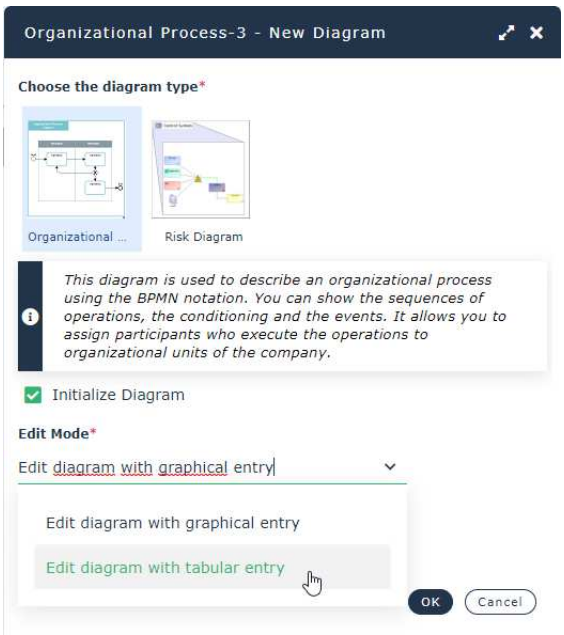
Tabular entry mode is offered for certain diagram types only.

* *See "Diagram types with tabular entry mode", page 220.*

To open a diagram using the tabular entry mode from an object list:

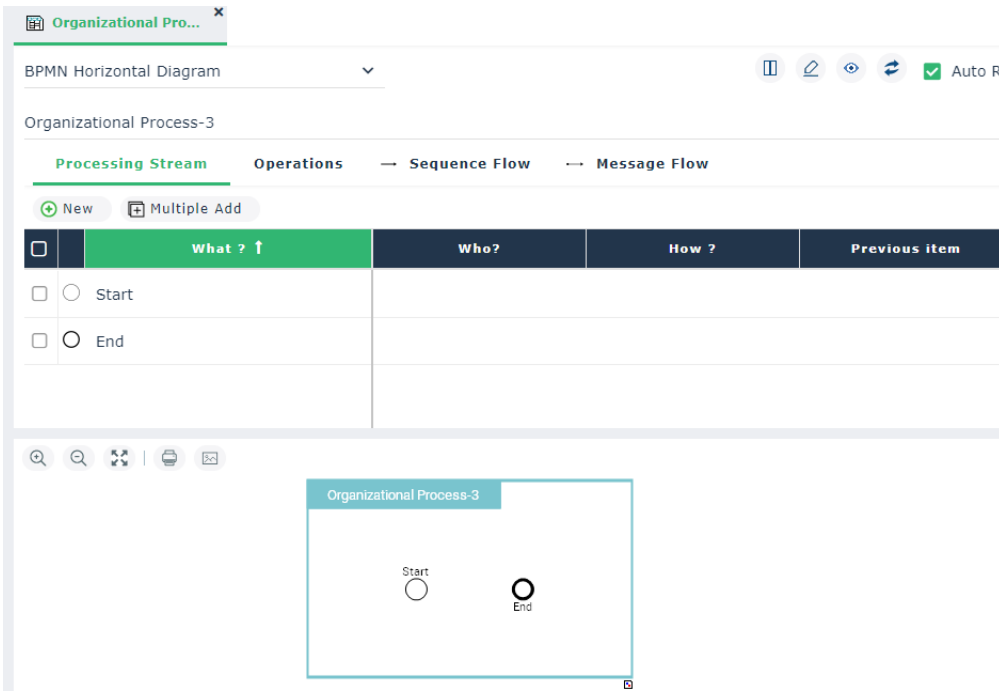
1. Roll the mouse over the **Local name** of the object you want to describe. A list of buttons appears.
2. Click **Create Diagram** .
   The Diagram type selection dialog box opens.
3. Select the diagram type you want to create.

4. (If tabular entry mode is available on the selected diagram type). In the **Edit Mode**, activate "Edit the diagram with tabular entry".



5. Click **OK**.
The UI for tabular entry mode opens in the **View** 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 information on previewing a diagram, see **HOPEX Common Features**, "Viewing all the diagrams describing an object".*



The tabular entry page is divided into two sections:

- one section contains the input table for the diagram data,
    * *See "Overview of functionalities", page 217.*
- the other section contains a preview of the diagram.
    * *See "Previewing the diagram", page 219.*

Modifying the diagram edition mode

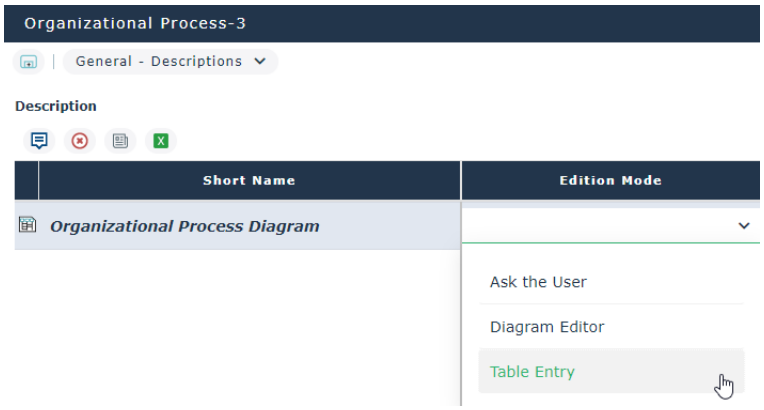
When a diagram is created, its edition mode is specified depending on the user choice.

* *For more details on the user choices, see "Opening a diagram in tabular entry mode", page 214.*

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.

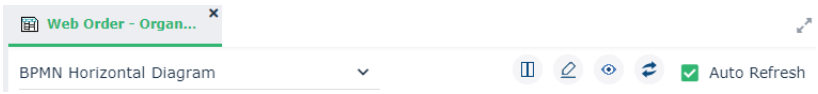


Overview of functionalities

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

* *For more details, see "Diagram types with tabular entry mode", page 220.*

Title banner



At the top of the section, a banner contains:

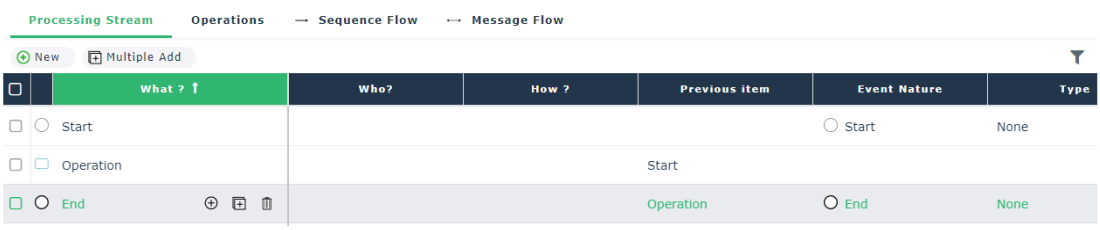
- the name of the element described,
- vertical or horizontal display mode of component display in the diagram is available for BPMN diagrams only,
- the presentation mode of the table section with respect to the diagram section:
  - presents the two section vertically ( ),
  - is used to return to the 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, **Processing Stream**, **Operations** or **Sequence Flow** 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 "Creating connections in tabular entry mode", page 221.*

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
Processing Stream 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 entry 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 all the diagrams describing an object".*

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

- Zoom in ( ).
- Zoom out ( ).
- Return to original image size (**See all**).
  * *The mouse wheel also allows you to zoom in and out.*
- print ( )
- Record the picture ( )

To move the diagram in the window:

â Click the diagram and move the mouse.

Diagram types with tabular entry mode

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

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

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

- Business capability map diagram,
- Capability structure diagram,

Tabular entry 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 entry mode.

* *For more details on configuring tabular entry mode and its tabs, see the **HOPEX Power Studio** guide.*

CONSTRUCTING A DIAGRAM IN TABULAR ENTRY MODE

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

The objects created, added and modified in the tabular entry mode are updated in the repository.

Creating connections in tabular entry mode

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

Creating a diagram in tabular entry mode

Depending on the type of object and the type of the diagram you want to create, the creation procedure is different.

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

1. Now select the **Operations** tab.
2. Click **New.**
   The add window appears.
3. Select the **Operation** type and click **OK**.
   If you are in **Synchronized** mode, the diagram is automatically updated; otherwise, click on **Refresh**.

Creating an object from a table object

When you roll the mouse over a line, several buttons appears at the end of line. These buttons enable adding objects or deleting the current one.

Creating several objects of the same type in tabular entry 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 entry mode

For BPMN diagrams in tabular entry mode, sequences are created automatically when a new element is inserted: the sequences can be accessed using the columns that characterize the **Previous item** or **Next item**.

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

1. Click **Processing Stream** 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 arrow the **Previous item** column
3. Select the event that interests you.

   * *You can select several **Previous item** objects. The list of objects then appears in the table.*

   When finished, the organization of objects in the diagram is updated automatically.

Removing and deleting an object from a tabular entry

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 diagram using the tabular entry mode:

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**.

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

Creating BPMN participants in tabular entry 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 entry mode is specific to each of the two cases.

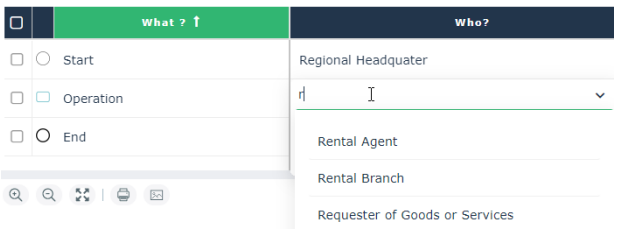
Creating a participant inside a described object

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

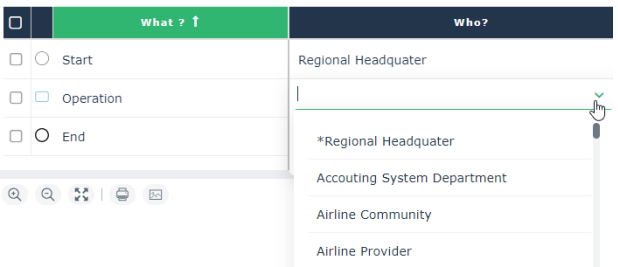
1. Click **Processing Stream** tab to have access to the list of objects in the diagram.
2. Select the line in the organizational process that you want to insert in the participant and click the **Who** column.
   A window opens prompting you to create or connect an Org-Unit to a participant.

   * *The selected org-units then appear in the header of the participant.*

   * *The name of the org-units already connected to a participant is no more proposed in the research list when you enter the first letter of its name.*



   * *The org-units name that are already connected to a participant are marked with a star "*" in the research list without criteria.*



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:

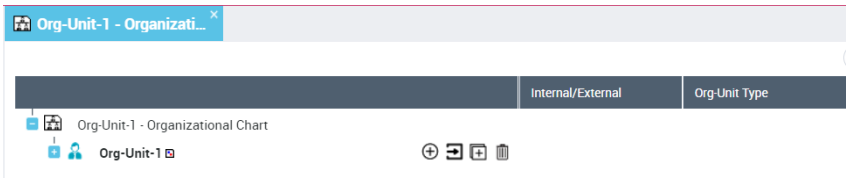
1. Click the **Message flow** tab to have access to the list of message flows in the diagram.
2. Click **New** to create a new message flow.
3. Select the line of the message flow that you have just created and click in the check box of the **Target** column, for example.
4. Click the right facing arrow and select the **Create participant**. The external participant appears in the diagram.

* *No org_unit can be associated to an external participant.*

Updating an organizational chart in tabular entry mode

Updating an organizational chart in tabular entry 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 entry mode", page 221.*
- 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.*

- Defining Object Properties
- Managing Object Comments
- Managing objects
- Managing Favorites
- Using the History
- Naming Objects
- Using HOPEX in a Multilingual Context
- Object Variations
- Object Versions

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 as and when needed.
- display the properties window on a permanent basis (for example, for mass management of objects).
  When you select an object, its properties are automatically displayed in the **Properties** window.

Accessing object properties

To access an object properties in **HOPEX**:

- ***in a diagram***

  Click the object and in the pie menu, select **Properties**.
- ***in a tree***

  Click the icon next to the name of the object and select **Properties**.
  The Properties window of the object is displayed.
- ***in an object list***

  Roll the mouse over the object name and click **Properties**.

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

Displaying the Properties window on a permanent basis

You can choose to display the Properties window 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**:

1. Click the display button for the **Properties** edit area.

   The **Properties** window appears in the edit area.

* *See Managing Windows and Panes.*

2. Select an object.

   Its properties appear in the **Properties** window.

Using Object Property Pages

To handle object properties pages:

1. Access the object properties.
   * *See Accessing object properties.*

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

Certain properties pages are made up of sections.

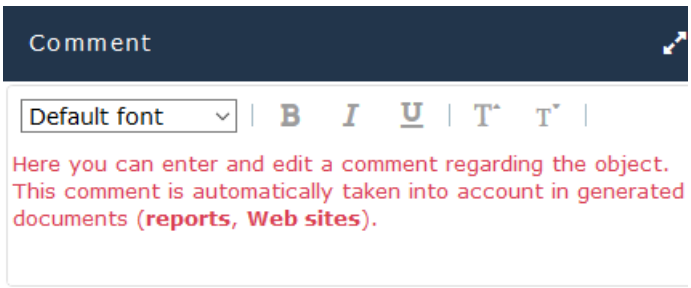
3. To hide/display a section, click — / + next to the name of the section.

MANAGING OBJECT COMMENTS

Entering Object Comments

To enter or modify a comment associated with an object:

1. Access the object properties.
   * *See Accessing Object Properties.*
2. Display its **Characteristics** page.
   * *Depending on the object (e.g.: report), display the **Comment** page.*
3. In the **Identification** section, the **Comment** pane displays the comment of the object.



4. Enter/Modify the comment.
   * *A spell check is integrated.*

   - To create a new paragraph while entering the comment: press the <Enter> key.
   - For text formatting, see Text formatting.
   - To insert an object into the text, see Inserting Object Names in Comments.
   - You can copy/paste text.
     * *The text is pasted without formatting.*

   The comment entered is automatically taken into account in the generated document.

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

Text formatting

The **Comment** toolbar includes standard text editing functions.

Authorized formatting

Only formatting available in the comment window toolbar are allowed:

- Bulleted and numbered lists
  You cannot customize the lists.
- Text: color, background color
  By default, the text can be entered without specifying a specific font.
  If you modify the font, or the font size, these are not taken into account in Reports (MS Word) that include this comment: the font used is the one defined by default in the document template.
- Character formats: bold, italic, underlined
- Paragraph formats: left or right aligned, centered

Prohibited formatting

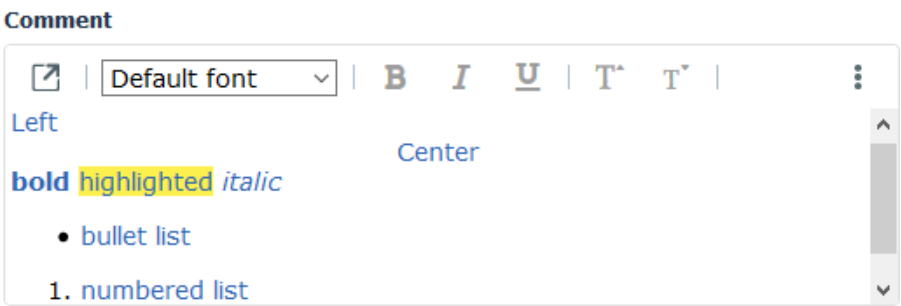
- Tables, pictures
  Tables or pictures pasted in the comment are not taken into account.
- Paragraph formats (page break, header, footer, margin, portrait/ landscape orientation)
- Links
  In Web sites, links are not reproduced except if these are derived from MetaClasses, see Inserting Object Names in Comments.

An RTF comment is not designed to store full Word documents. To do this, external references should be used.

* *See Using External References.*

The format applied will be used in generated reports (MS Word) and Web sites.

Example:



Inserting Object Names in Comments

HOPEX enables you to insert object names, as fields, in comments. This enables:

- automatic creation of links in generated Web sites.
- automatic refresh of object names in comments.

* *When you insert an object name, as a field, its name (when modified) is automatically updated in the comment.*

To insert an object in a comment:

1. Enter the comment of the object.
   * *See Entering Object Comments.*
2. In the comment pane toolbar, select **Insert object in text**.
3. Use the search tool to select the object and click **OK**.
   The name of the object is inserted in bold text (as a field).

   J *To access the inserted object properties. select the object and in the comment pane toolbar select **Field Properties**.*

Windows Front-End

In **Windows Front-End**, you can insert an object in a comment:

- by drag & drop

  ```
  Example: select an object in the explorer and drop it into
  the comment.
  ```

- with the **Insert a field** button of the comment window.

In **Windows Front-End**, to view the identifier of objects inserted in comments:

â 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 view the field.
2. Select the corresponding field code.
3. Delete the selected code.

MANAGING OBJECTS

See:

- Deleting or Removing an Object
- Connecting objects
- Managing Favorites
- Undoing or Redoing Actions on Objects
- Duplicating objects
- Sharing an Object as Email
- Editing objects (Windows Front-End)

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.

Removing Objects

To remove an object:

1. Right-click the object and in its pop-up menu, select **Remove**.
   Depending on the case, a window prompts you to:
   - (by default) simply remove the object
   - definitively delete the object.
2. Click **Remove**.
   The object is removed from the diagram, for example, but is kept in the repository.

Deleting an object

To delete an object from the repository:

1. Right-click the object and in its pop-up menu, select **Remove**.
2. (Depending on the case) A window allows you to:
   - (by default) remove simply the object
   - definitively delete the object.

   Select **Delete** and then **Next**.

   The object and its child objects are listed and selected by default.
3. Click **Delete**.
   The object and its child objects are permanently deleted from the repository.

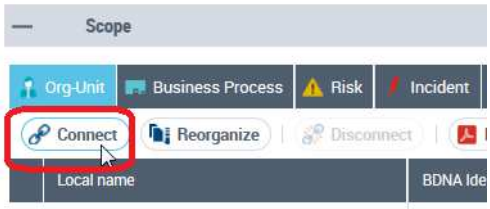
   * *When you are not authorized to delete the object, a message explains why (e.g.: objects created outside of the current private workspace, modification underway by another user, etc.)*

Connecting objects

You can connect objects, for instance through:

- the **Connect** command available in a field menu

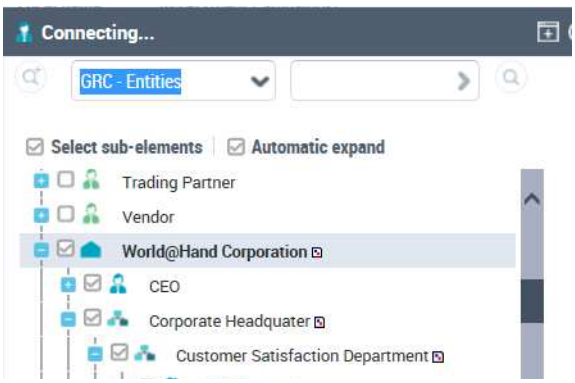
- the **Connect** button available in a property page list



* *The Connect functionality is based on the query tool. For more details, see Using the Search Tool to Connect an Object.*

- 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.*

Undoing or Redoing Actions on Objects

The undo mechanism in a diagram 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 operations 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.

Undoing/Redoing an action

To cancel the last action carried out in a diagram or in the navigator:

â In the desktop toolbar, click **Undo** .

To redo an action you canceled in a diagram or in the navigator:

â In the desktop toolbar, click **Redo** .

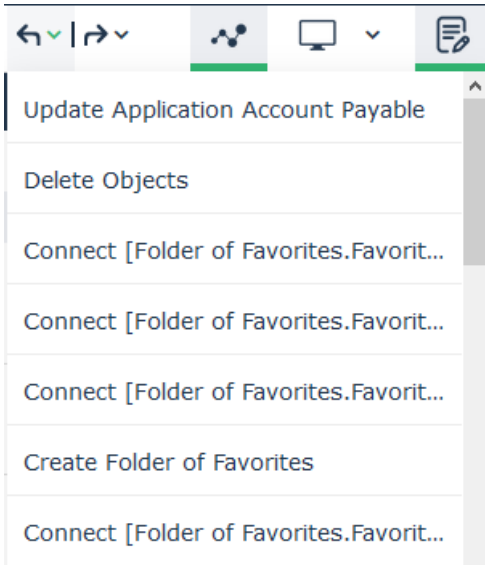
Undoing/Redoing several actions

You can undo or redo the last actions you performed in your workspace. You can only undo actions chronologically.

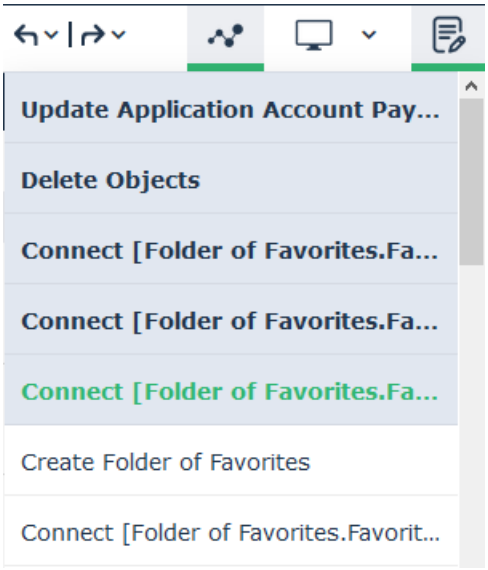
```
E.g.: object creation or deletion, object property
modification.
```

To undo one or more actions:

1. In the desktop toolbar, click the **Undo** button .
   The list of the latest actions is displayed (the most recent first).



2. Place the mouse on the last action that you wish to undo.



3. Click to undo the actions.

   J *To undo only the last action carried out, simply click **Undo**.*

To redo one or more canceled actions:

â Proceed in the same way as before, having clicked the drop-down list arrow of the **Redo** button .

J *To redo only the last action carried out, simply click **Redo**.*

Duplicating objects

Duplicating objects

To duplicate an object in the navigator:

â Right-click the object and select **Manage > Duplicate**.
The **Duplicate an Object** dialog box appears.

* *Only certain object types can be duplicated (for example, organizational and business process).*

Naming duplicated objects

There are two possibilities for naming duplicated objects (duplicate).

The duplicate can have:

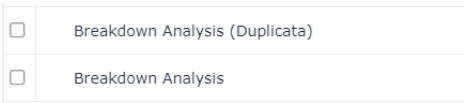
- a **Suffix** (default option)

  `Example: Vehicle Breakdown Analysis (Duplicate)`

- a **Prefix**

  `Example: Duplicate of Vehicle 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 the 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"

Duplicating in another library

For objects already stored in a library, you can store duplicates in another library.

M **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 check this 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 the repository properties.*

Editing objects (Windows Front-End)

HOPEX Windows Front-End offers 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 (i.e.: object type, accessible via the **Utilities** tab)

To run the editor 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.

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

Adding an object to favorites

To add an object to your Favorites list:

1. Depending on where you are in **HOPEX**:
   - ***Object, tree, search results***: right-click the object and select **Add to Favorites**.
   - ***list of objects***: in the **Local Name** column, roll the mouse over the object and in the button list that appears, click ***More*** > **Add to favorites**.
   - ***list of favorites***: Right-click the favorites folder concerned and select **<Name of favorites folder > Connect > Object**. Select the objects(s) in the object query dialog box and click **OK**.

   The Favorites wizard window appears.
2. Select the folder or sub-folder in which you want to add the object.
   * *If needed, create a sub-folder (right-click a folder and select **New > Folder of favorites**).*
3. Click **OK**.
   The object is added to the selected folder of favorites.

Adding several objects of a list to favorites

To add several objects to your Favorites list:

1. In **HOPEX**, display the object list.
2. Select all the objects you want to add to your Favorites list.
   J *If needed, use the filtering tool to filter the data displayed, see Filtering a list data.*
3. Right-click an object of the list and select **Add to Favorites**.
   The objects are added to the **Favorites** folder.

Mass adding objects to favorites

To mass add objects to your Favorites list:

1. Access your list of favorites.
   * *See Accessing favorites.*

2. Right-click the favorites folder concerned and select **<Name of favorites folder> > Connect > Object**.
3. In the object query window, select the objects that you want to add.
4. Click **OK**.
   The objects are added to the folder of favorites concerned.

Accessing Favorites

Favorites are sorted by type:

- your favorites
- shared favorites

If needed, you can create sub-folders of favorites, see Organizing your Favorites.

You can display your favorites in the form of:

- a tree (by default)
  You can manage and classify your favorites in sub-folders.
- a list
  You benefit from functionalities available for an object in a list (e.g.: diagram creation, property access).
  * *See Common Actions on Repository Objects.*

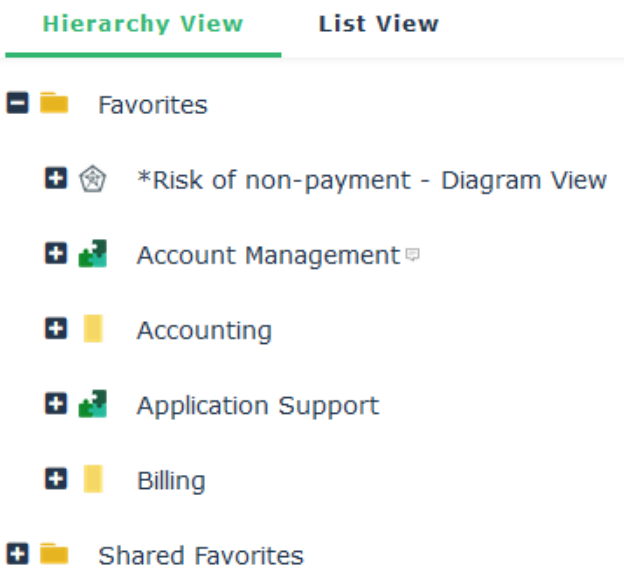
Accessing favorites

To access favorites:

1. In your **HOPEX** desktop, click the navigation menu > **Favorites**.
   * *HOPEX (Windows Front-End): in **HOPEX** toolbar, click **Favorites*** *(or in the menu bar select **Display > Favorites**).*

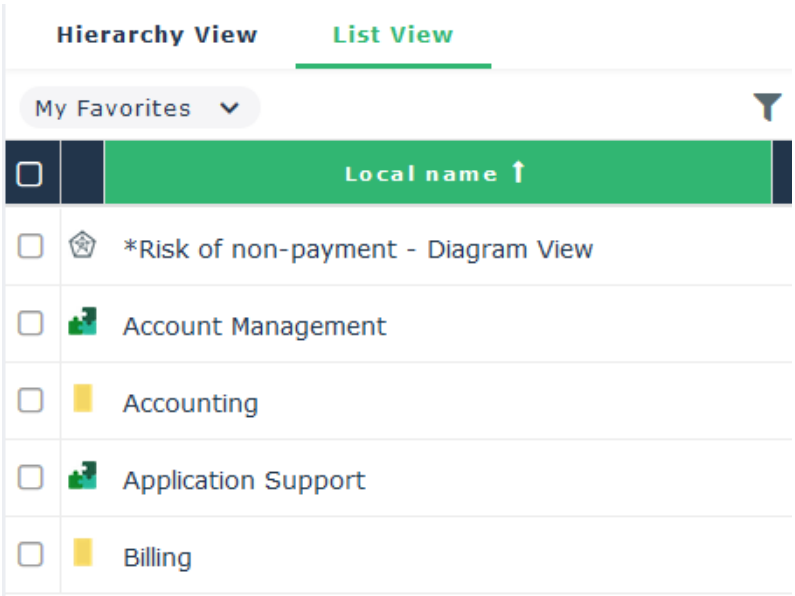
   In the edit area, the **Hierarchical view** tab displays the favorites tree.

2. Expand the folders concerned to access the favorites.



3. (If needed) To access the objects linked to a favorite, expend the favorite.
4. (If needed) To benefit from the functionalities available for an object in a list, click the **List View** tab.

* *See Actions on an object from the Local Name of a list.*



Organizing your Favorites

If needed, you can create sub-folders to organize your favorites.

* *Alternatively, you can create the sub-folder when adding the object to favorites, see Adding an Object to Favorites.*

Creating a sub-folder of favorites

To organize your favorites:

1. Access the favorites.
2. In the **Hierarchy View** tab, right-click a folder and select **New > Folder of favorites**.
3. In the **Local Name** field, enter the folder name.
4. Click **OK**.

Classifying a favorite in a sub-folder

To classify a favorite:

1. Access the favorites.
2. In the **Hierarchy View** tab, select the favorite and drag and drop it in the required folder.

Removing an Object from Favorites

To remove an object from favorites:

1. Access favorites.
2. In the **Hierarchy View** tab, right-click the object to be removed and select **Remove**.
3. Keep the **Remove from "Favorites"** selection and click **Remove**.

   * *If you select **Delete**, the object is deleted from the HOPEX repository.*

   The object is removed from your favorites.

USING THE HISTORY

The history is used to:

- obtain the list of objects which you have recently accessed
- display the latest modifications performed on each object
- compare objects modified between two dates

Prerequisites for history display

Logging must be activated so the history page appears. Logging is activated by default.

* *For more details, see the HOPEX Administration - Supervisor guide, chapter "Managing Repositories".*

Accessing the History

The history contains all the objects you have accessed (e.g.: display of their properties pages) or modified.

To access the history:

1. In your **HOPEX** desktop, click the navigation menu > **History**.
   The history tree displays the objects ordered by date.
2. Expand the folder of a date.
   Objects are classified by object type (MetaClass).
3. Expand the folder for each type of object to display the objects.

Accessing the History of an Object

The history of an object displays:

- the object creation date and its author
- the date of last modification of the object and its author
- all modifications made for the object in chronological order
  - the author of modifications
  - which attributes were modified
  - the date of each modification

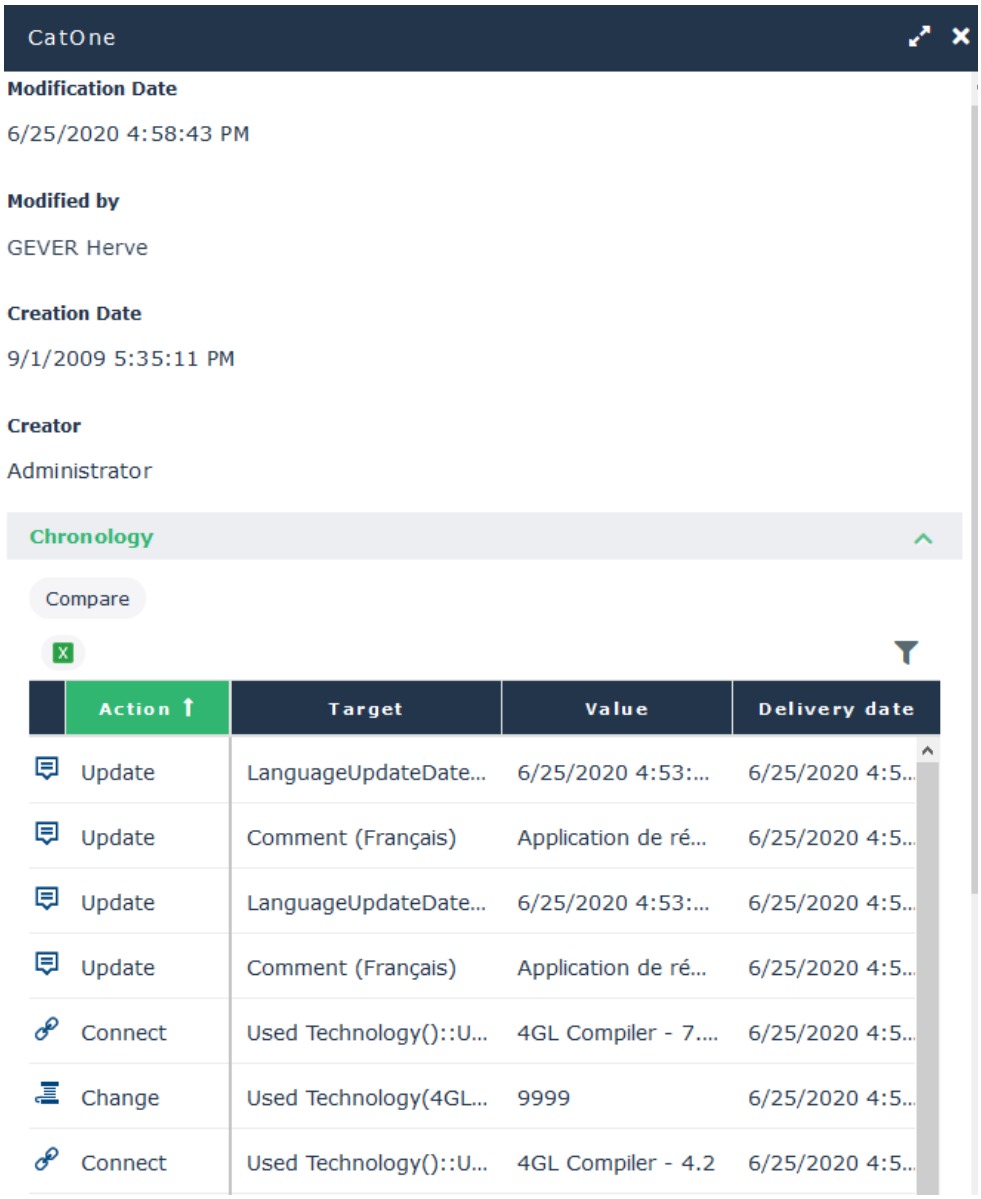
* *You can compare the attribute values and links of an object between two dates.*

To display the history of an object:

1. Right-click the object and select **Manage > History**.

   * *With the HOPEX Customizer profile, in the object properties select **General > History**.*

   The chronology of the object modifications is displayed.



2. Click **Compare** to compare the attribute values and links of an object between two dates.

   * *See Comparing the attribute/link values modified on an object.*

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 despite 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 / "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:

â In the **Properties** dialog box of the object, **Characteristics** tab, use the **Owner** field drop-down menus.

Searching for an Object Type with Local Name

When you search for an object type that has a local name, the search results show the object **Short Name** and **Name** ("long name").

For example, when several organizational processes have the same short name, you can select it according to its context.

Local name	Name
Deliver Vacation Package - Europe	Deliver Vacation Package - Europe
Deliver Vacation Package - Europe	1. AS-IS::1. Process BPMN::Deliver Vacation Package - Europe
Deliver Vacation Package - Europe	MEGA::Mega I::Deliver Vacation Package - Europe

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.

Modifying 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 configure the list of available work languages, see "Managing Options" in the **HOPEX Administration - Supervisor** guide.*

Modifying the data language

To modify the data language in HOPEX:

1. In your **HOPEX** desktop, click **Main Menu** .
2. Select **<current language>** > **<new language>**.
   The data (translated) appear directly in the selected language.

Defining the available languages

To make a language available:

1. Access the options.
2. Select **Languages**.
3. In the right pane, select the language.
4. Click **OK**.

Entering Data in Several Languages

Object characteristics in the target language

You can define the object characteristics in a target language.

```
E.g.: its name
```

To enter an object characteristics in a target language:

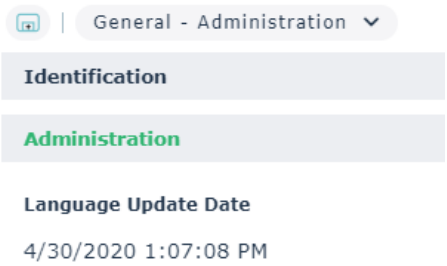
1. Access the object properties.

2. Display the **General - Translation** page.

3. In the **Translation** pane, in the **Name** field, enter the name of the object in the corresponding target language.

   * *You can enter the name of the object in all of the available languages.*

   The **Date of language update** of the modified data is then updated on the **General > Administration** page, **Administration** section.



Data whose translation in a given language has been entered manually can no longer be translated automatically per batch in this language. Only interactive automatic translation is possible.

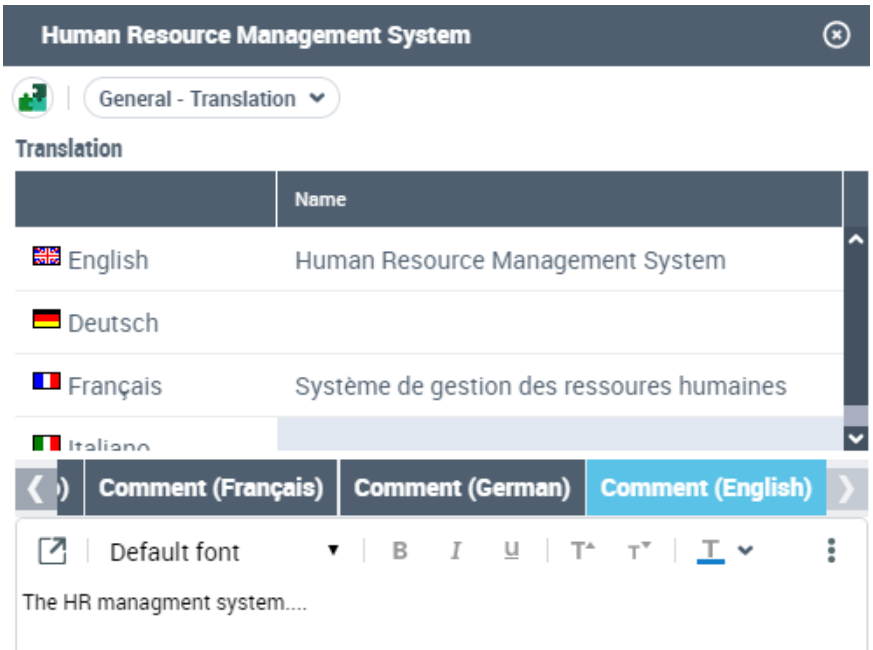
* *For more details, see Using Automatic Translation for Data.*

Object comments in the target language

To enter the object comment in another language:

1. Access the object properties.

2. Display the **General - Translation** page.
   Each target language has a **Comment (<language>)** tab.



3. Select the target language tab, i.e.: the tab of the language into which you want to translate your original text.
4. Enter your text.
   * *You can use editing tools.*

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.

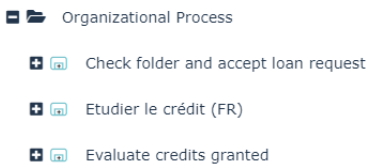
* *To determine the language of your repository, consult the repository properties.*
* *For more details on duplication, see Duplicating objects.*

Viewing Untranslated Objects

To view untranslated objects:

1. Access the **HOPEX** options.
   * *To access the options, see Managing Your Options.*
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).



In the example above, an organizational process has been created in French and has to be translated into the current language (English in this example).

Using Automatic Translation for Data

The automatic translation proposed by **HOPEX** is based on Microsoft Translator Text API.

Prerequisites for the use of automatic translation

For the commands linked to the automatic translation of data to be available, you must have acquired a **Microsoft Translator Text API** license.

* *For further details about this license, see* https://azure.microsoft.com/en-us/services/cognitive-services/translator-text-api/.

An option enables your administrator to enter the **Authentication key** number, enabling activation of the automatic translation APIs.

* *For further information about this option, see the "Prerequisites for the use of automatic translation" chapter in the **HOPEX Administration - Supervisor** guide.*

Introduction to the automatic translation of data

There are two ways of using automatic translation of the data created by the users:

- interactively, object by object:

  * *For more details, see Using interactive automatic translation of an object.*

- per batch processing by your Administrator.

  * *For more details, see Using the incremental automatic translation batch.*

Automatic translation can only be used on the repository data created by the user. All the fields defined as translatable are translated automatically. For example:

- the **Name**,
- the **Comment**.

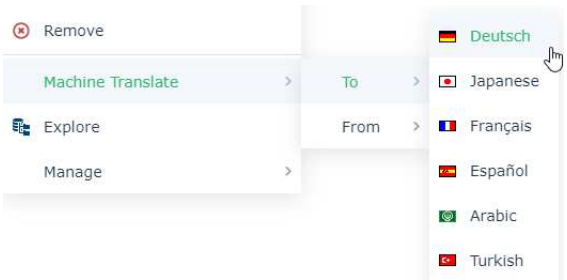
Using interactive automatic translation of an object

The automatic translation of the repository data operates from a source language to a target language.

To automatically translate an object from the data language into another language:

1. Right-click the object to open its pop-up menu.
2. Select the command **Automatic translation > To** and select the target language.

* *For more details about the list of available languages, see Defining the available languages.*



The name of the object and its comment are automatically translated.

* *If you use the command **Automatic translation > From**, you need to specify the source language. The target language is the data language.*

Using the incremental automatic translation batch

The incremental automatic translation batch makes it possible to translate all translatable data of the repository for which the source language has been entered (or modified) since the last translation into the target language.

Only your Administrator can activate the automatic translation batches. To activate automatic translation batches, the Administrator must create a trigger in the administration tool which implements the incremental automatic translation macro. When the trigger has been created, you must then plan the automatic update of the translations.

* *For further information about the triggers configuration, see the "Automatic Translation Administration" chapter in the **HOPEX Administration - Supervisor** guide.*

Summary of automatic data translation conditions

The translation date for a data item in a specific language is indicated by two attributes:

- **Language Update Date** (<Language>) (or **LinkLanguageUpdateDate** (<Language>) for a link) if the translation has been entered manually, see Entering Data in Several Languages.
- **Machine translation update date** (<Language>) if the translation has been automatic for the data item, see Using Automatic Translation for Data.

So that the automatic batch translation does not modify a translation entered by a user, if the attribute **Language Update Date** (<target language>) is completed, then automatic batch translation of the data item is not possible. The only automatic translation authorized in this case is interactive.

Incremental automatic translation of a data item is performed if:

> **Language Update Date** (<source language>) > **Machine translation update date** (<source language>) ***AND (*Language Update Date** (<target language>) is blank ***OR* Language Update Date** (<source language>) > **Language Update Date** (<target language>)***)***
>
> The value of the data item has been modified manually in the source language without the translation in the target language being updated.

In this case:

> **Machine translation update date** (<source language>)= **Machine translation update date** (<target language>)= current date

Consequently, the initialization phase of automatic batch translation consists in initializing for the current date the fields **Machine translation update date** (<source language>) and **Machine translation update date** (<target language>) for all the data items for which **Language Update Date** (<target language>) is blank.

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 track 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. Access the **HOPEX** options (***Main Menu > Settings > Options***).
   * *(Windows Front-End) via **Tools > Options.***
2. In the Options tree, click **Business Process and Architecture Modeling**.
3. In the right pane, select **Activate Variations**.
4. Click **OK**.

Once 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 Descriptors and Inherited Objects and Querying Using the Query Assistant.*
- access the **Variations** subtab in the **General** tab of the objects properties dialog box.

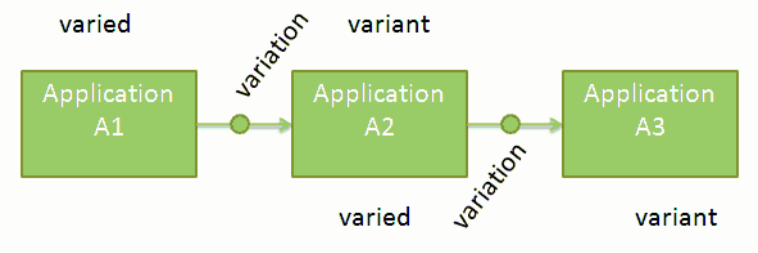
Variations

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 replication: between a variant object and a varied object, there is no replication. 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-replication 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 that can be varied

From a theoretical viewpoint, the 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.

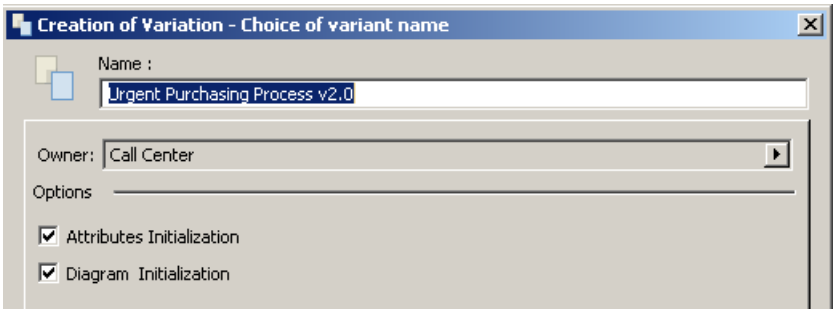
  * *To make an object variable, see technical article "How to make an object variable".*

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.

M **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 the modeling rules, you must have access to:

- an "Advanced" metamodel (**Main menu> Settings > Options > Repository**)
  - *(Windows Front-End) via **Tools > Options > Repository**.*
- the **HOPEX Power Studio** product
  Rules appear in the **MetaStudio** navigation window, under the "Repository Consistency" folder.

These rules are as follows:

- 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 is involved.
  - *For more details on substitution, see Replacing one element with another: substitution.*
- 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. Access the **HOPEX** options (***Main Menu > Settings > Options***).
   - *(Windows Front-End) via **Tools > Options.***
2. In the Options tree, select **Modeling and Methods Regulations**.
3. In the right section, in the **Active modeling regulation** field, click the arrow and select **Choose a regulation**.
   - *(Windows Front-End) click on*
4. In the dialog box that appears, select "Variation Modeling Regulation".
5. Click **OK**.

You can consult the 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.*

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 with others.

```
Let us 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.*

Replacing one element with 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 with 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 the ability to substitute a concept.*

Replacing an object

Certain elements of a variant can be replaced with others.

```
For example, in a new application you can replace an
inherited application service with any other service.
```

Other elements such as functionalities cannot be substituted. In this case, the replacement command is grayed out.

To replace an object with 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 the diagrams

Varied Object **Variant Object**

Restoring elements

To restore a substituted or excluded element:

1. In the properties dialog box, click **Excluded** to display the excluded items.
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.*

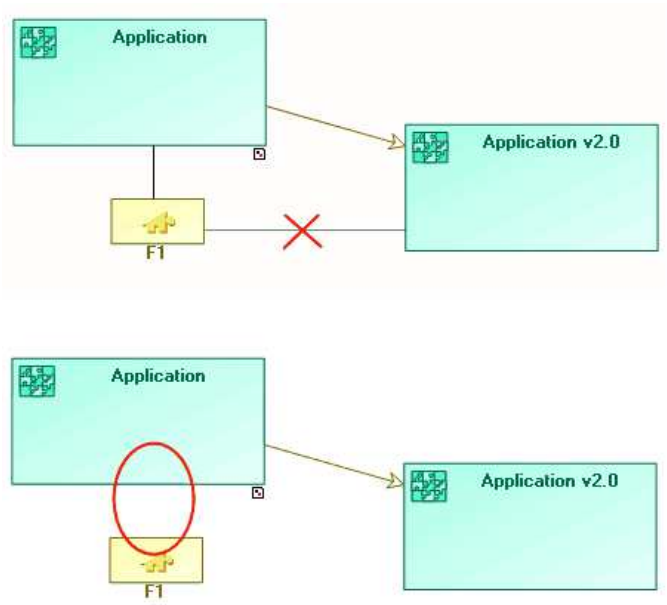
Removal of an inheritance link in a hierarchical diagram

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 following example, 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 the variants history is recommended. See Consolidating variants history 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 from an object to the new object and destruction of ancestors. The purpose is to reduce the volume of the repository and remove obsolete information.

To consolidate an application:

- Right-click the variant application and select **Consolidate**.

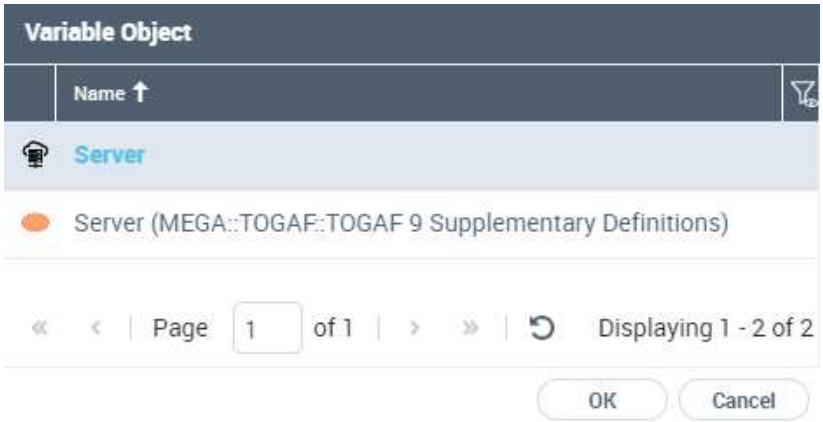
Finding variants of an object

The "Variants of an object" query lets you find all the objects derived from another object.

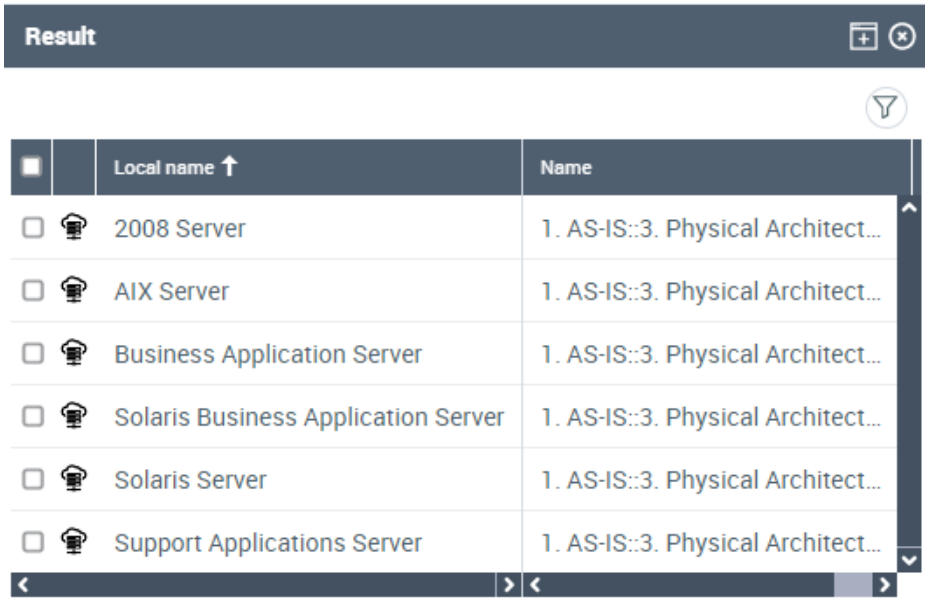
To find the variants of an object:

1. In the **HOPEX** search bar, select the **Query** object type and enter "variants".
2. Right-click the "Variants of an object" query and select **Process**.
3. In the window that appears, in the **Value** field, enter the name of the varied object, then click the right arrow in the field and select **List** to find the name of the object.

   `Example: "Server".`



4. Select the object concerned.



5. Click **OK**.

   `The list of objects derived from "Server" appears.`

   The tool displays not only direct variants but also sub-variations.

Variation Reports

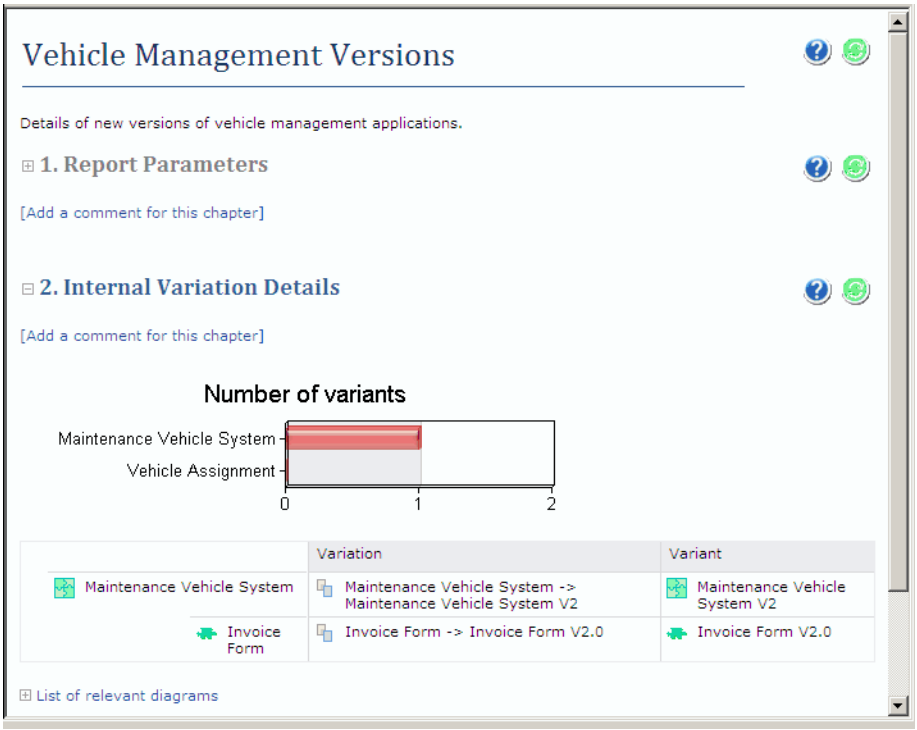
In **HOPEX** there are three report types linked to variations:

- 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 details 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 a "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.*

Accessing Object Version Management

To access object version management:

1. Open the **HOPEX** options dialog box.
   * *To access the options, see Managing Your Options.*
2. Click **Business Process and Architecture Modeling**.
3. In the right pane of the window, select the **Activate Variations** check box.

Creating an Object Version

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.*

* *Locking of the object to be versioned should not be confused with that covered in **HOPEX 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 an Object Version.*

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:

â Right-click the object and select **Manage > Unlock Object**.

* *This command appears if you are authorized to unlock protected objects.*

To remove the locks on protected objects:

1. Open the **HOPEX** options dialog box.
   * *To access the options, see Managing Your Options.*
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:

â 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 enterprise goals to be achieved as well as the strategic action plans used to achieve these goals. 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.*

3 "About Containers", page 270
3 "Using Libraries", page 277
3 "Using Enterprises", page 278

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.*

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:

â 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

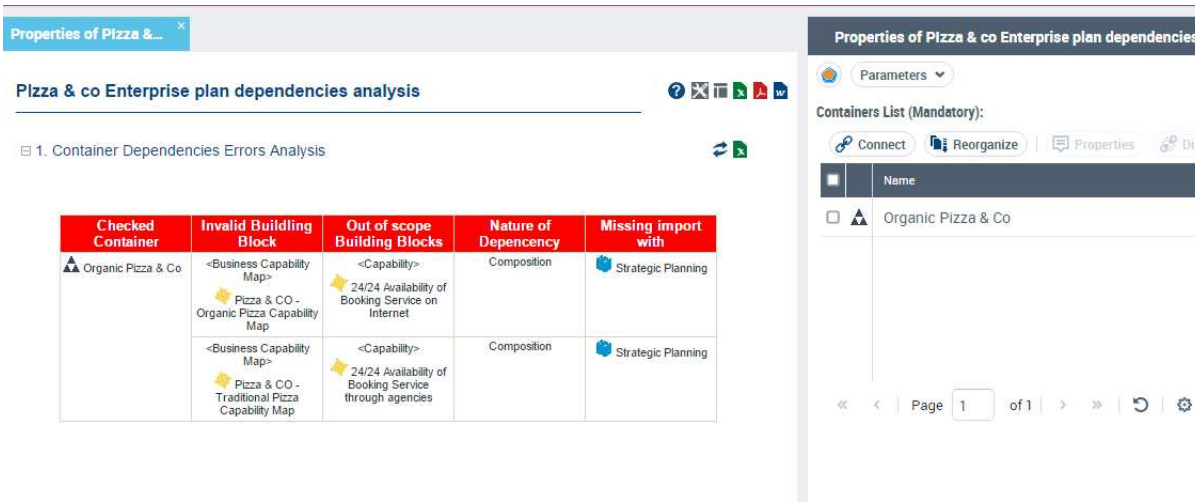
To access an analysis report for container dependency errors using a library:

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.

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".

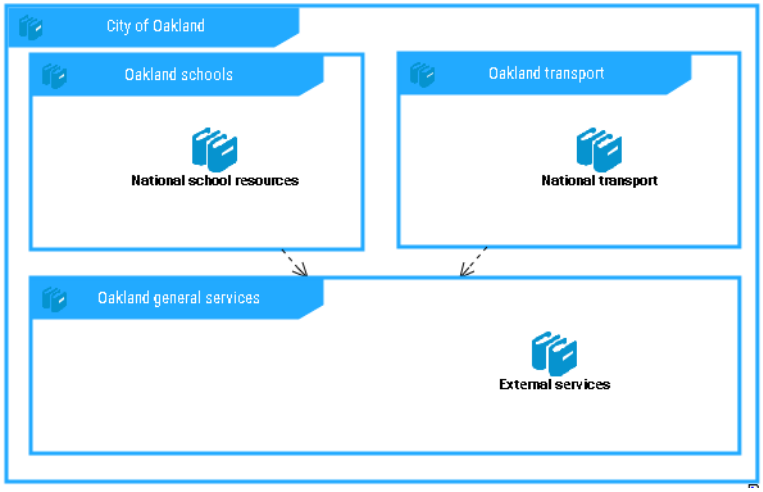
Libraries are essentially used to consolidate all objects linked by their business context. Exporting these libraries takes into account all owned objects.

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.

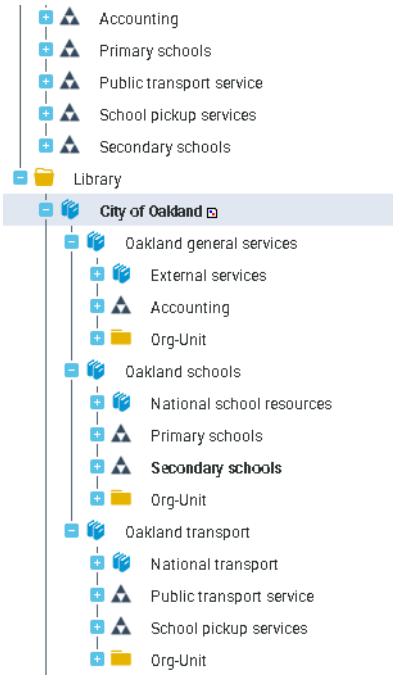
Lastly, each of the city's services call on specialized external services. These external services are represented by specific libraries owned by the library that uses

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.

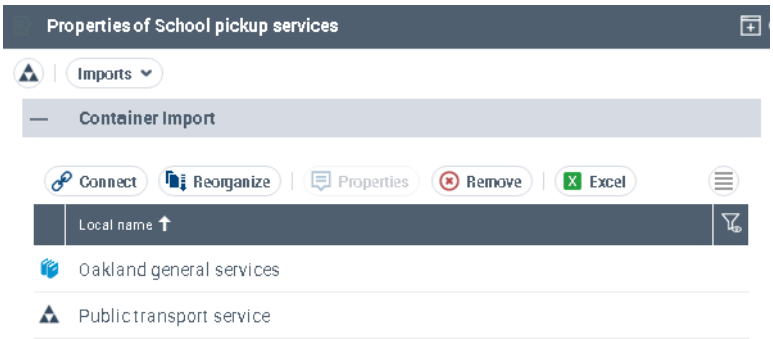
In this example, the container tree displays the objects owned by the libraries and the enterprises.



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

M **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. From the **Environment** navigation pane, select **Standard Navigation**.
2. Right-click the **Library** folder and select **New > Library**.
   The library creation dialog box opens.
3. Enter the name of the library.
4. If appropriate, enter the name of the **Owner**.
5. Click **OK**.
   The library appears in the navigation tree.

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

The Enterprise use depends on the HOPEX solution.

Creating an enterprise

To create an *enterprise* with **HOPEX IT Business Management** : solution:

1. From the **Strategy** 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. Enter the name of the **Working Environment** that you want to create and specify its **Strategic Planning**.
6. 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 277.*

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.

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, which enables you to easily browse the entire repository.
- Matrices, which provide you with a better view of the links between objects.
- Tools for Checking Objects, 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 display/hide this number in **Windows Front-End**:

- â 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:

- â 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:

- â 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, and Connecting, disconnecting and deleting objects.*

Opening a diagram from the explorer

To open a diagram from the explorer:

â 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:

â 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:

â Right-click in the tree on the left where you wish to place the objects and select **Paste**.

M **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.**

J *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.

  J *You can also indicate characteristics by entering them directly in the main explorer window.*

Comparing Objects Using the Explorer (Windows Front-End)

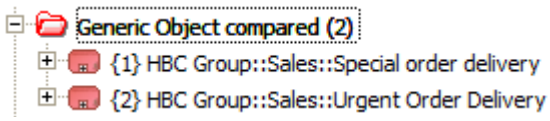
The **HOPEX** explorer allows you to compare objects.

You can, for example, compare two organizational processes: "Normal Order Delivery" and "Urgent Order Delivery".

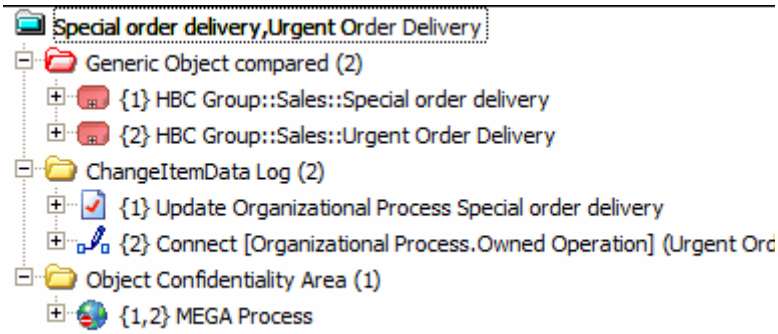
To run a comparison on objects:

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**.

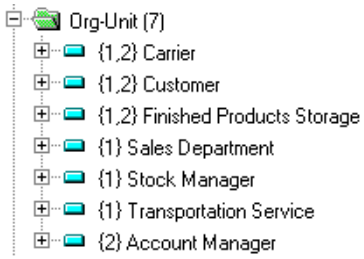
An explorer window opens. It presents the comparison of the two selected objects. The red folder contains the objects compared.



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.

In the Enterprise Architect desktop, the **Documentation** navigation window allows display of available matrices.

J *Matrices generated by **HOPEX** can be exported to Excel.*

Accessing Matrices

To access matrices from the Enterprise Architect desktop:

â (**HOPEX Web Front-End)** Click the navigation menu, then **Repository > Documentation**.

The **HOPEX** solutions offer in standard mode matrices to help you view and modify links between objects in the repository.

* *To access these matrices please refer to the relevant documentation.*

Creating a Matrix from a Matrix Template

The Enterprise Architect desktop allows you to create your own matrices.

```
We shall take the example of a matrix between object types
"Operation" and "Org-Unit". This matrix will define which
operations are concerned when an org-unit is modified, and
conversely, which org-units are affected by modification of
an operation.
```

To create a matrix:

1. See Accessing Matrices.
2. Right-click the **Matrices** folder and select **New > Matrix**.
3. In the **Create Matrix** dialog box, specify the matrix content (for example, org-units executing operations). Enter the name of the matrix, for example "Org-Units/Operations".
4. In the **Matrix template** field, select a matrix template, for example “Realization matrix”.

   * *The matrix templates predefine the object types displayed.*
5. Click **OK**.
   A new matrix appears.
6. Double-click the new matrix.
   The matrix window opens; it is empty.

   * *To specify matrix content, see Specifying Matrix Content.*

Specifying Matrix Content

To specify the content (called rows and columns) of a matrix:

1. See Accessing Matrices.
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.

- Defining Cell Content (Windows Front-End)
-

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.
2. In the matrix window, select **Cell > Define**.
   The **Definitions of Cells** dialog box opens.
3. Select a link and click **OK**.
   Cells of the matrix are filled.

J *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

* *This section is about matrices designed with the help of a matrix template.*

Modifying presentation (Windows Front-End)

If column headers are not legible, you can modify their presentation.

To display headers vertically:

1. See Accessing Matrices.
2. In the **Display** menu, select **Vertical**.

Modifying matrix content

To remove a row or column from the matrix:

â In the matrix menu bar, select:
- (Windows Front-End) **Row > Remove** or **Column > Remove**.
- (Web Front-End) **Remove**, after selecting a row or column.

for Connecting and disconnecting objects:

â Select the cell and open its pop-up menu to modify its content as appropriate.

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

To define an active regulation:

1. Access the option window.
   - (**HOPEX Windows Front-End**) From the **HOPEX** menu bar, click **Tools** > **Options**.
   - (**HOPEX Web Front-End**) In the main menu, click **Settings > Options**.
2. Select **Modeling and Methods Regulations**.
3. From the **Active modeling regulation** field, select a regulation and click **OK**.

Consulting check results on an object

To consult check results on an object:

1. Open the object properties.
2. Select the **General > Rules Application** tab.
   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.

Viewing state indicators in diagrams

In diagrams as well as in the diagram preview tool, you can display state indicators under objects not considered valid with respect to the rule selected. Errors can be pointed out this way.

M **Dagrams do not display any results by default. You must activate the rule, select result display options and choose to display state indicators in diagrams.**

To display rule results in a 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 "Apply active regulation in diagrams" option.

   * *(**Windows Front-End** only) You may choose to view state indicators in object navigators ("Apply active regulation in navigators" option).*
4. In diagrams, select the **State Indicators** view.

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.

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.

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 offers import and export wizards which simplify data exchanges with Excel. They enable you to modify attribute values or exchange data between repositories.

- "The Excel Import/Export Wizards", page 294
- "Using the Excel Import Wizard", page 297
- "Using the Excel Export Wizard", page 300
- "Creating Predefined Excel Template Files (Windows Front-End)", page 310.

THE EXCEL IMPORT/EXPORT WIZARDS

The Excel Import/Export wizard supports two file formats: XLS and XLSX.

Import Wizard

The file imported from Excel in **HOPEX** enables you to:

- create or modify a list of objects,
- connect objects by a given link.

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.

The import result file indicates anomalies encountered.

See "Using the Excel Import Wizard", page 297.

Export Wizard

The **HOPEX** export wizard generates an Excel file in which you can work before importing objects into the source repository or another repository.

HOPEX offers two types of export to Excel:

- Excel Export from a list of objects,

  * *This type of export is available from a list of objects only. See "Exporting an object List in Excel Format", page 294.*

- wizard-export based, which enables you to parameterize exported data format in order to import those data later, see "Using the Excel Export Wizard", page 300.

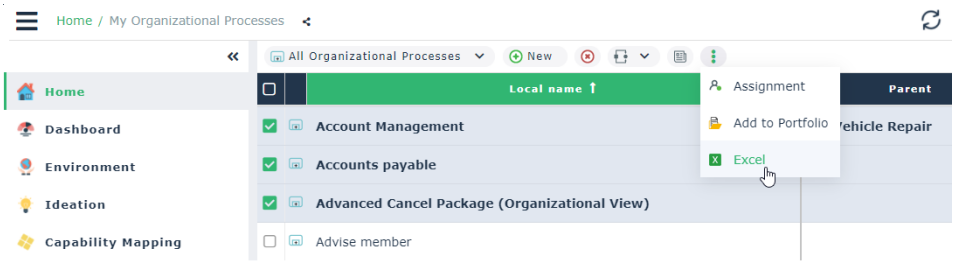
Exporting an object List in Excel Format

You can export an object list in Excel format.

For example, using the **All organizational processes** tile of the desktop home page, you can display the list of all organizational processes.

* *See "Actions on Several Objects in a List", page 72.*

To export objects and the displayed attributes:



1. Select the objects that interest you.
2. In the menu bar of the list, click **Excel** .
   The contents of the Excel file depend on the selected **HOPEX** options.

   * *For more details on these options, see "Using the import/export wizards", page 295.*

   - If the option **Export Excel**: **Availability in listviews** is not selected, the Excel file contains exported objects in rows and the displayed attributes in the initial list in columns. This file cannot subsequently be re imported into **HOPEX**.
   - If the **Export Excel** option: **Availability in listviews** is selected, the Excel file contains exported objects in rows and some of the editable attributes in columns.

     * *This file can be re imported into **HOPEX** using the import wizard. See "Using the Excel Import Wizard", page 297.*

Checking the Excel Import/Export Options

Checking the export Excel import access options

To be able to access Excel import and export features:

1. Open the options window then click one of the following folders:
   - **Data Exchange** > **Import** > **Tools/Third Party Formats**
   - **Data Exchange** > **Export** > **Tools/Third Party Formats**
2. Check that the **Excel (*.xls, *.xlsx)** check box is selected.

   * *For more details on accessing import and export features, see:*
   - *"Using the Excel Import Wizard", page 297.*
   - *"Using the Excel Export Wizard", page 300.*

Checking the Excel import/export usage options

Using the import/export wizards

To be able to use the Excel import features:

1. Open the option window and select the folder **Data Exchange** > **Import/Export Synchronization** > **Tools/Third Party Formats**.

2. Check that the option **Export Excel: Availability in Listviews** is selected.

* *For more details on the use of wizards, see:*

- *"Using the Excel Import Wizard", page 297.*
- *"Using the Excel Export Wizard", page 300.*

Managing languages in the imported or exported Excel files

Object names are by default imported or exported in the current language.

An option enables you to to process object names 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 **EXCEL Import/Export : MetaAttributes Translation Availability** and click **OK**.

Dates format

By default, dates format of files generated by Excel import/export is: yyyy/mm/dd.

To modify this format:

1. On the **HOPEX** desktop, click **Main Menu > Settings > Options**.
2. Select **Data Exchange** > **Import/Export Synchronization** > **Tools/ Third Party Formats**.
3. In the option **EXCEL Import/Excel: Dates Format** , define the format and click **OK**.

USING THE EXCEL IMPORT WIZARD

Excel import enables creation of new objects and modification of existing objects through an Excel file.

You can import:

- Either a **predefined Template File** so as to use its structure for import or export specific needs.

  & *A **Predefined Template file** is an export file template supplied as standard with **HOPEX**.*

  * *For more details on predefined template files, see "Creating Predefined Excel Template Files (Windows Front-End)", page 310.*
- Or an Excel file which has been previously exported using **HOPEX**.

Launching the Excel Import Wizard

To import Excel data in **HOPEX**:

1. Check your import options. See "Checking the Excel import/export usage options", page 295.
2. On the **HOPEX** desktop, click **Main menu > Import > Excel**.

   * *On the **Administration** desktop: in the **Tools** pane, select the **Excel > Import** sub-folder.*

   The import wizard opens. See "Importing Excel data in HOPEX", page 297.

Importing a Predefined Template File

To import a **Predefined Template File** using the import wizard:

1. Run the import wizard. See "Launching the Excel Import Wizard", page 297.
2. In the **Import Template** section, click the template that interests you. An empty xlsx file is generated in the selected format.

   * *For more details on predefined template files, see "Creating Predefined Excel Template Files (Windows Front-End)", page 310.*

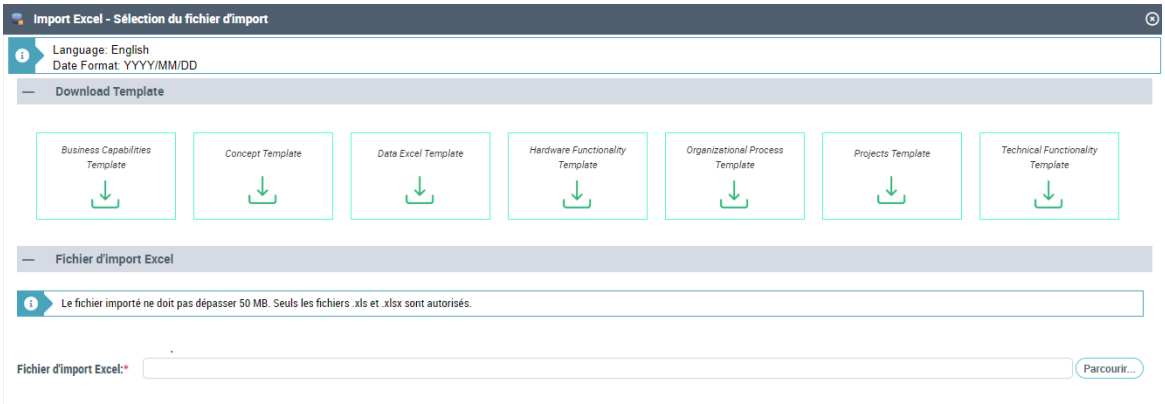
Importing Excel data in HOPEX

To import Excel data in **HOPEX** using the import wizard:

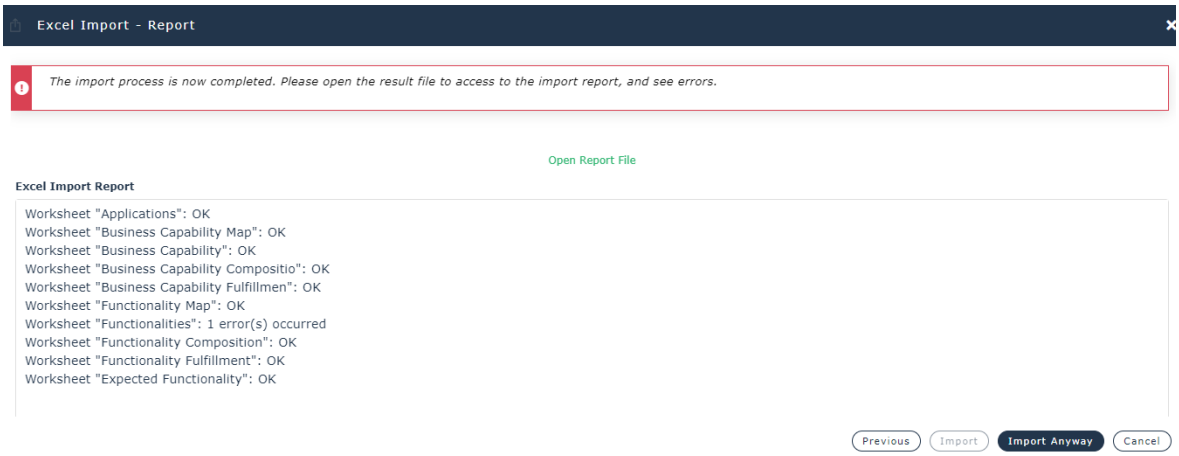
1. Run the import wizard. See "Launching the Excel Import Wizard", page 297.
2. In the **Excel Import File** section, on the right of the **Excel Import File** field, click **Browse** ....

3. Indicate the file type and file to be imported.

   * *For more information on the creation of the Excel file to be imported, see "Export Wizard", page 294.*



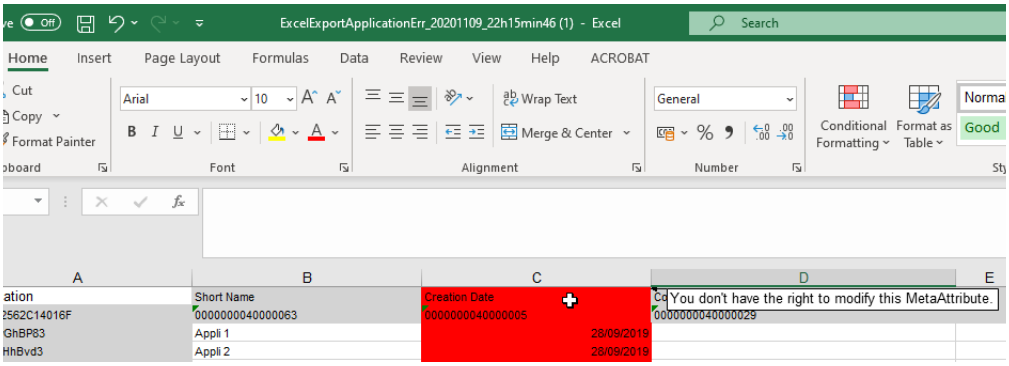
4. Click **Import**.
   The wizard provides a report of import results.



5. To obtain a detailed report of import errors, click the **Open Report** button.
   The .xls (or .xlsx) generated file opens indicating in color red the problem data. See "Import error file", page 299.
6. Click:
   - **Import anyway** to import data without error in **HOPEX**.
   - **Previous** to modify import parameters.
   - **Cancel** to discard the report.

Import error file

The imported file automatically generated opens indicating in color red the problem data. 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.

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.*

USING THE EXCEL EXPORT WIZARD

Launching the Excel Export Wizard

Accessing the Excel export wizard

You can run the Export Wizard from:

- your **HOPEX** workspace,
- the **Administration** desktop.

To access the wizard for export of data to an Excel file:

1. Check your export options. See "Checking the Excel import/export usage options", page 295.
2. On the **HOPEX** work area: click **Main menu > Export > Excel**.

   * *On the **Administration** desktop: in the **Tools** pane, select the **Excel > Export** sub-folder.*

   * *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 import wizard opens. See "Defining the export file template", page 300.

Defining the export file template

Excel export through the wizard is in three steps:

- "Defining Excel Export File Parameters", page 303
- "Selecting Objects to Export in Excel Format", page 305
- "Running an Excel Export", page 306

At each of these steps, it is possible to pass to the next step or return to the previous step.

So as to ease file parameterization and/or object selection, the **HOPEX** wizard enables you to use already structured files.

You can use:

- Either a **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 310.*

- Either a **User Template File**

  & *A **User Template File** is a file created at a previous export. You can also reuse objects of this file.*

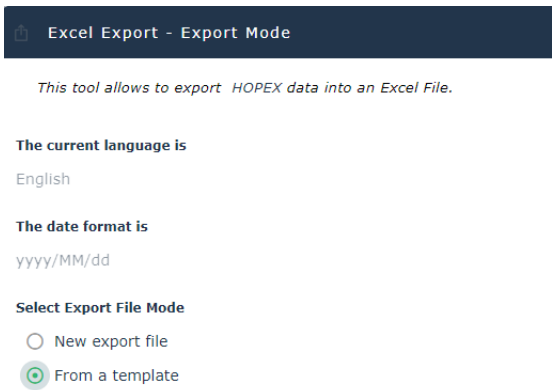
  * *Afterwards you can modify the selected structure so that the generated file will differ from the template file.*

- Or a new empty file created automatically.

  * *You then have to define the file structure.*

To select the export mode for the file:

1. Run the export wizard. See "Accessing the Excel export wizard", page 300.
   The export wizard appears.



2. Select the export mode for the file:
   - Either by selecting **New Export File**, see "Using new export file", page 301.
   - Or by selecting **From a template**, see: "Using new template file", page 302
3. Click **Next**.

Using new export file

To export data in a new file Excel:

1. In the export wizard, select the use of a new export file, see "Defining the export file template", page 300.
   The export file selection wizard appears.
2. (Option) Modify the result **Excel Export file** name or format which is initially empty.

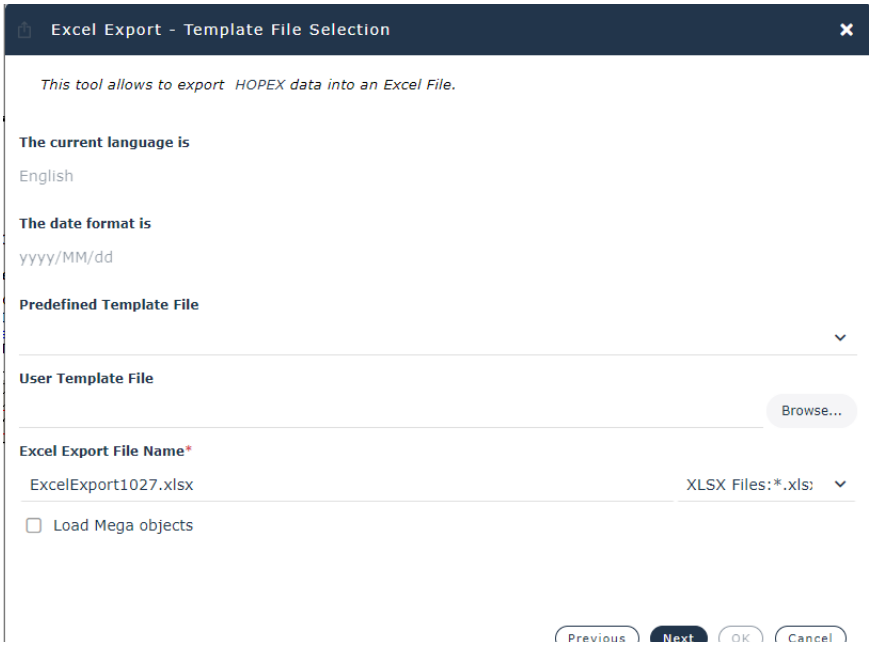
   * *By default the export file format is .xlsx.*

3. Click **Next**. See "Defining Excel Export File Parameters", page 303.

Using new template file

To export data in Excel from a template file:

1. In the export wizard, select the use of a template file, see "Defining the export file template", page 300.
   The export template selection wizard opens.



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 310.*
   - 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. (Option) Modify the result **Excel Export file** name or format.

   * *By default the export file format is .xlsx.*
4. To reuse objects of the existing template file, select the **Load HOPEX Objects** check box.
5. Click **Next**. See "Defining Excel Export File Parameters", page 303.

Defining Excel Export File Parameters

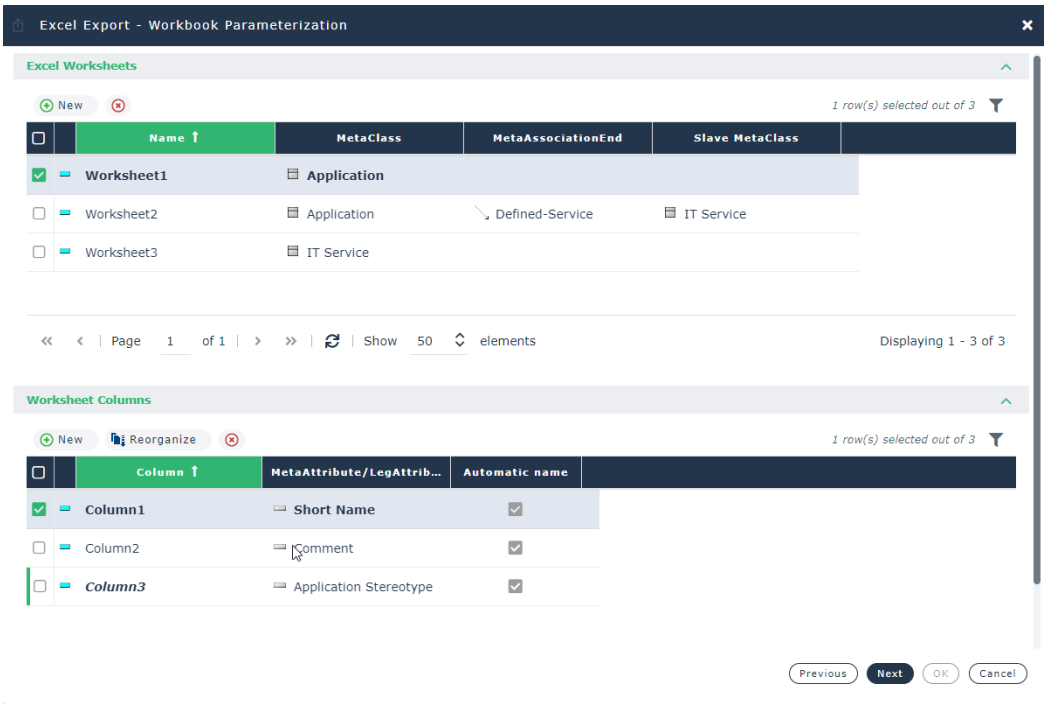
Excel file configuration example

An Excel sheet can be of two types:

- MetaClass (object list + characteristics)
- MetaAssociationEnd (links + link characteristics).

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



* *If you select a worksheet, the list of imported fields appears in the **Worksheet Columns** section. 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.

Creating an Excel worksheet

To create a worksheet (for example "Application"):

1. See "Launching the Excel Export Wizard", page 300.
   If a template file has been specified, the list of the template file sheets appear.
2. In the **Excel Worksheet** section of the Excel Export wizard, click **New** .
   A worksheet appears.
3. Modify the name of the worksheet if necessary.
4. Indicate the type of data associated to the sheet (for example "Application"). See "Worksheet datatypes", page 304.

Worksheet datatypes

In a worksheet you can define:

- a MetaClass, or
- a link type

To specify a MetaClass, (for example "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 selected in the Excel worksheet.

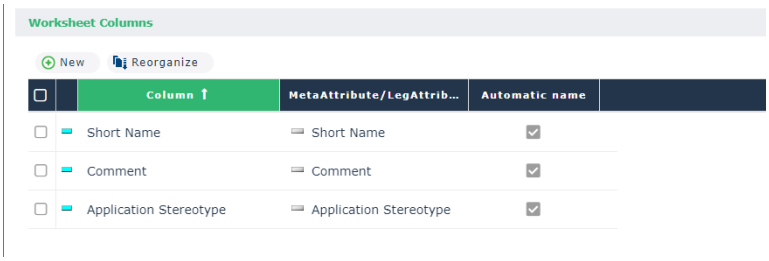
To create a column:

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 311.*
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").



Selecting Objects to Export in Excel Format

When the object types have been defined in the Excel parameterization dialog box, you can select the objects to be exported.

To indicate objects to be exported:

1. See "Defining Excel Export File Parameters", page 303.
   The list of repository sheets appears.
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 "Aplication" 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. See "Running an Excel Export", page 306.

Running an Excel Export

You can run an export from the Excel file configuration window.

To run an export:

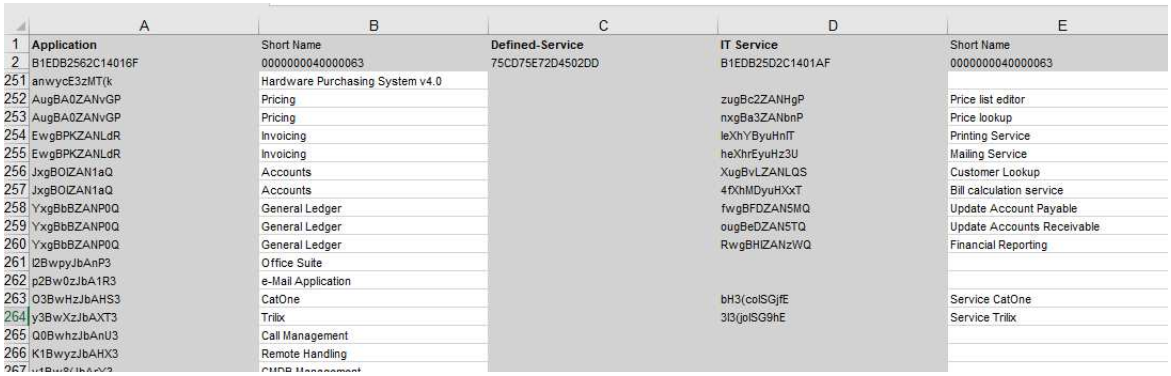
1. Indicate the list of objects to be assessed. See "Selecting Objects to Export in Excel Format", page 305.
2. Click **Next**.
3. Click **Open the Excel file** to view the export file.
   The generated Excel file is in the format expected for later import. You can save this file if you wish.
4. To modify export parameters, click **Previous**.
5. To discard export, click **Cancel**.
6. Click **OK** to finish.

Example of generated files

Below is an application 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	E
1	**Application**	Short Name	**Defined-Service**	**IT Service**	Short Name
2	B1EDB2562C14016F	0000000040000063	75CD75E72D4502DD	B1EDB25D2C1401AF	0000000040000063
251	anwycE3zMT(k	Hardware Purchasing System v4.0			
252	AugBA0ZANvGP	Pricing		zugBc2ZANHgP	Price list editor
253	AugBA0ZANvGP	Pricing		nxgBa3ZANbnP	Price lookup
254	EwgBPKZANLdR	Invoicing		leXhYByuHnIT	Printing Service
255	EwgBPKZANLdR	Invoicing		heXhrEyuHz3U	Mailing Service
256	JxgBOlZAN1aQ	Accounts		XugBvLZANLQS	Customer Lookup
257	JxgBOlZAN1aQ	Accounts		4fXhMDyuHXxT	Bill calculation service
258	YxgBbBZANP0Q	General Ledger		fwgBFDZAN5MQ	Update Account Payable
259	YxgBbBZANP0Q	General Ledger		ougBeDZAN5TQ	Update Accounts Receivable
260	YxgBbBZANP0Q	General Ledger		RwgBHlZANzWQ	Financial Reporting
261	l2BwpyJbAnP3	Office Suite			
262	p2Bw0zJbA1R3	e-Mail Application			
263	O3BwHzJbAHS3	CatOne		bH3(colSGjfE	Service CatOne
264	y3BwXzJbAXT3	Trilix		3l3(jolSG9hE	Service Trilix
265	Q0BwhzJbAnU3	Call Management			
266	K1BwyzJbAHX3	Remote Handling			

Below is a worksheet presenting links of "Defined Service" type between applications and application services: This shows that:

- 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.

Data Processed by the Excel Import/Export Wizard

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.

Managing links and link attributes

In addition to MetaClasses and MetaAttributes, the export wizard supports:

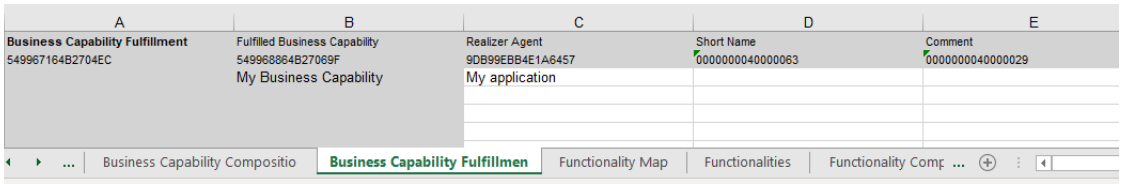
- Links and link attributes
- Tagged values
- Certain MetaAssociationEnds that present maximum cardinality of 1
    - *For more details, see "Example of how to use MetaAssociationEnds with cardinality of 1", page 308.*
- Macros
    - *For more details, see "Using Macros in Excel Import/Export Files", page 311.*

Example of how to use MetaAssociationEnds with cardinality of 1

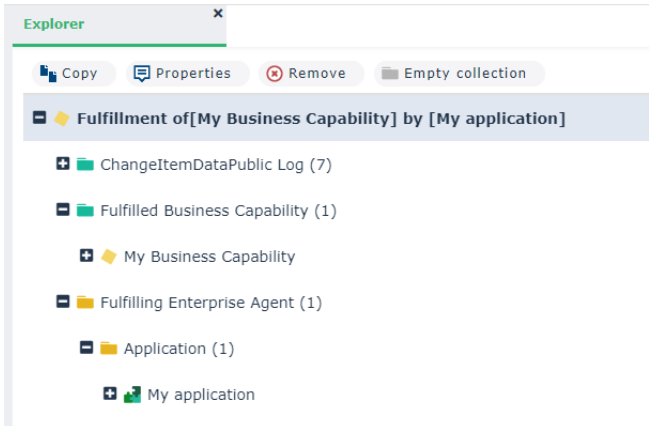
You can use some MetaAssociationEnds with cardinality equal to 1 to easily import some objects and their links.

For example, the **Predefined Template file** "Business Capabilities Template" allows you to import:

- Some applications in the "Applications" worksheet,
- Some Business Capabilities in the "Business Capabilities" worksheet,
- Some Business Capability Fulfillment by applications in the "Business Capability Fulfillment" worksheet.



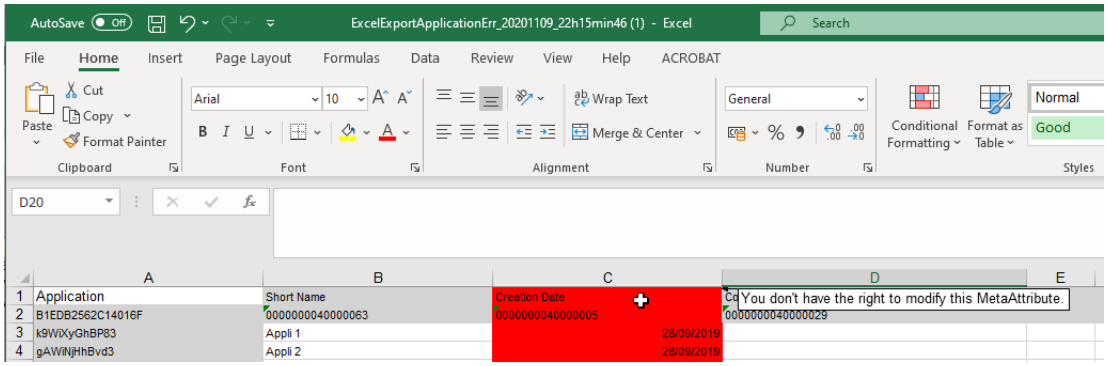
After the file import, the objects and their links are created.



Managing 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 "Creation date" MetaAttribute), but it is not possible to import these. The wizard indicates that you do not have permission to update these properties.



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.

Creating Predefined Excel Template Files (Windows Front-End)

Predefined template files are supplied with certain solutions.

Each predefined template file is associated with an Excel file. Management of this Excel file is assured by **HOPEX Windows Front-End** from system business documents.

* *For more details, see "Using Business Documents", page 467.*

Creating Excel Template Files

To creating an Excel Template File:

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. The **Document Template** field shows **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 468.*
7. Click **OK** to close the system Business Document creation window.
   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 294.*
9. In the **Excel Worksheet** section, click **New** for each Excel worksheet you want to add to your file.

   * *To fill characteristics of your template Excel sheets, see "Creating Excel Template Worksheets", page 310.*

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 304.*

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 for which you want to attach the sheet and select the **Characteristics** tab.
2. In the **Excel Template worksheet**, open the properties of the **Excel Template worksheet** of interest to you.
3. In the **MetaClass** field select the master MetaClass (for example "Application").
4. The fields **MetaAssociationEnd** and **Slave Metaclass** enable to fill in the column of an Excel worksheet with connected objects. For example, objects of the slave MetaClass "IT service" linked to the master MetaClass through the "Service defined" MetaAssociationEnd.
5. The **Excel column macro** enables to specify macros which will be run by the wizard to fill in each column of the Excel export worksheet.

   * *For more details on used macros, see "Using Macros in Excel Import/Export Files", page 311.*
6. Click **OK** to finish.

Using Macros in Excel Import/Export Files

A macro enables export to Excel and import to **HOPEX** 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 310:*

To use the 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 **Characteristics** of the Excel worksheet that interests you.
3. In the **Excel column 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":
   - "macro c#"
   - "existing macro": to use an existing macro, of which field **Reusable** is selected.
5. Click **Next**.
6. If the macro you have created can be reused for another Excel import/ export, select the **Reusable** box.
7. Click **Finish**.
   The constraint appears in the properties dialog box.
8. Modify the **Name** of the macro.

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.

Managing Documentation

GENERATING DOCUMENTATION

3 Introduction to Documentation
3 Generating Analysis Reports
3 Managing Report DataSets
3 Managing Instant Reports
3 Customizing Your Reports
3 Handling Your Reports
3 Managing Report Options
3 Managing MS Word Reports
3 Creating and Generating a Web Site

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
  - Instant reports
  - Web sites
    - *See Documents Generated From the Repository.*
    - *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 and Using Business Documents.*

Documents Generated From the Repository

HOPEX enables generation of several types of document from repository objects:

- ***reports (MS Word)***
  - *See Managing MS Word Reports.*
- ***analysis reports*** to study interactions between different repository objects
  - *See Generating Analysis Reports.*
- ***instant reports*** offering a statistical graphic analysis of the data of analyzed objects
  - *See Managing Instant Reports.*
- ***web sites*** to generate a set of HTML pages that can be published on an Intranet
  - *See Creating and Generating a Web Site.*

HOPEX enables generation of several types of document from repository objects:

- the ***Report DataSet*** from which you can create instant reports

  & A Report DataSet is an extraction of a set of repository data, displayed in tabular form.

  * *See Managing Report DataSets.*

- the **GraphSet** from which you can create reports with graph type renderings

  & A GraphSet is an extraction of a set of repository data, displayed in graph form (set of nodes and arcs grouped according to one or several analysis criteria).

  * *See Managing Report DataSets.*

- the **TreeSet** from which you can create reports with tree type renderings (Dendrogram, Breakdown map, TreeTable)

  & A TreeSet is an extraction of a set of repository data, displayed in tree form (root node and its descendants).

You can customize your reports.

* *See Customizing Your Reports.*

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.

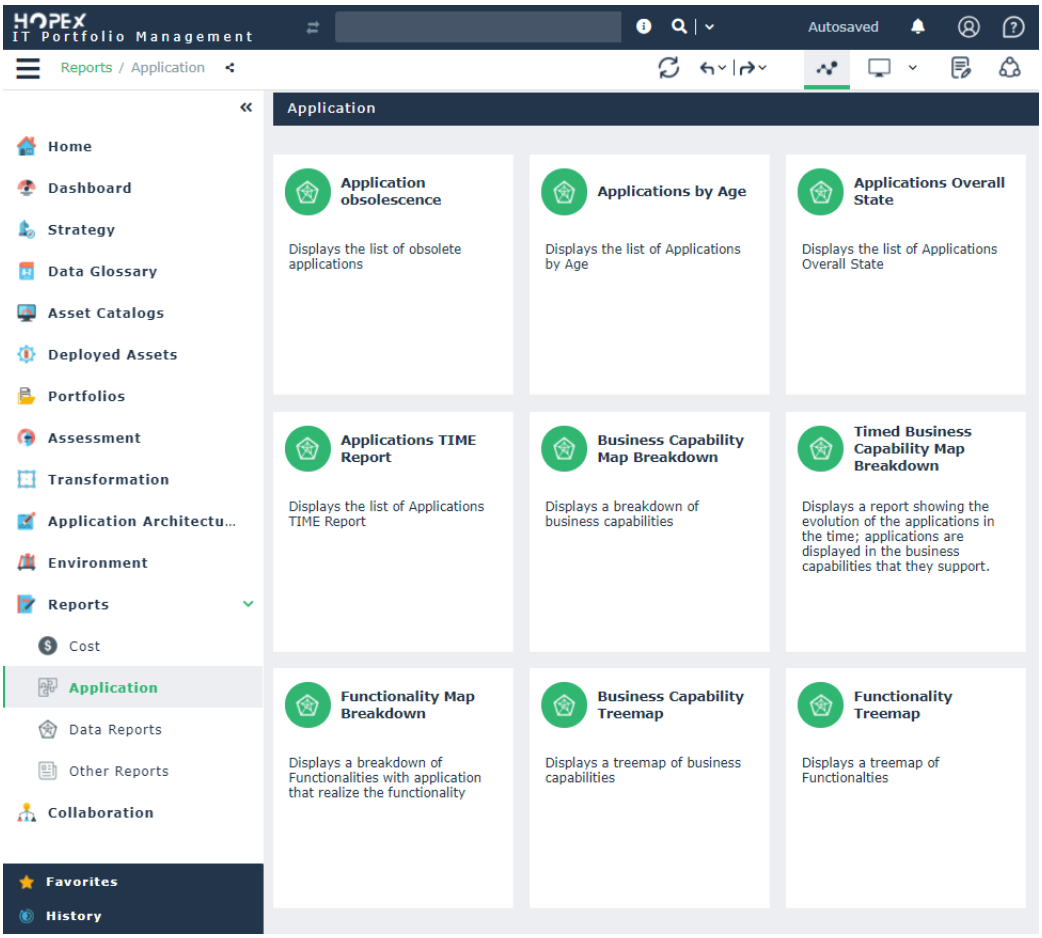
Accessing Analysis Reports

Accessing all the reports of a solution

The reports of a solution are available in the **Reports** navigation pane of each solution.

Depending on the HOPEX solutions, dynamic analysis reports are provided by default and sorted by type.

For example, in ITPM, dynamic reports are provided for the Cost and Application objects, as well as data usage reports.



Accessing reports available on an object

Specific 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:

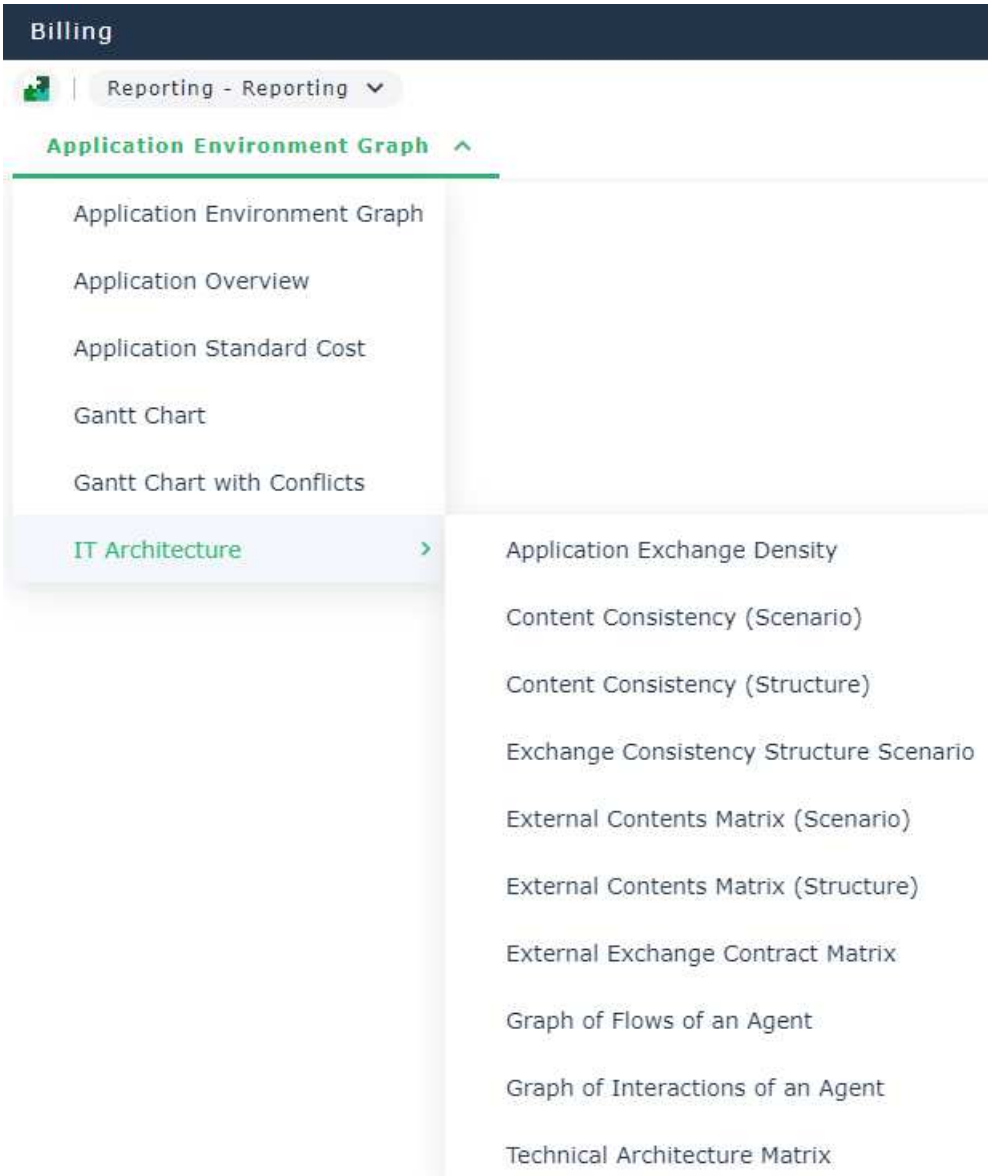
- the functional analysis of a process
- the roadmap of a project portfolio
- the cost of the applications a portfolio

* *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 complete list of reports available, see Complete list of reports available for an object*

Example: In the IT Portfolio Management solution, with the **Application portfolio manager** profile, the **Reports** page of the properties of an application provides direct access to the reports specific to the **Application portfolio manager** profile. Other reports are also accessible, here those specific to **IT Architecture**.



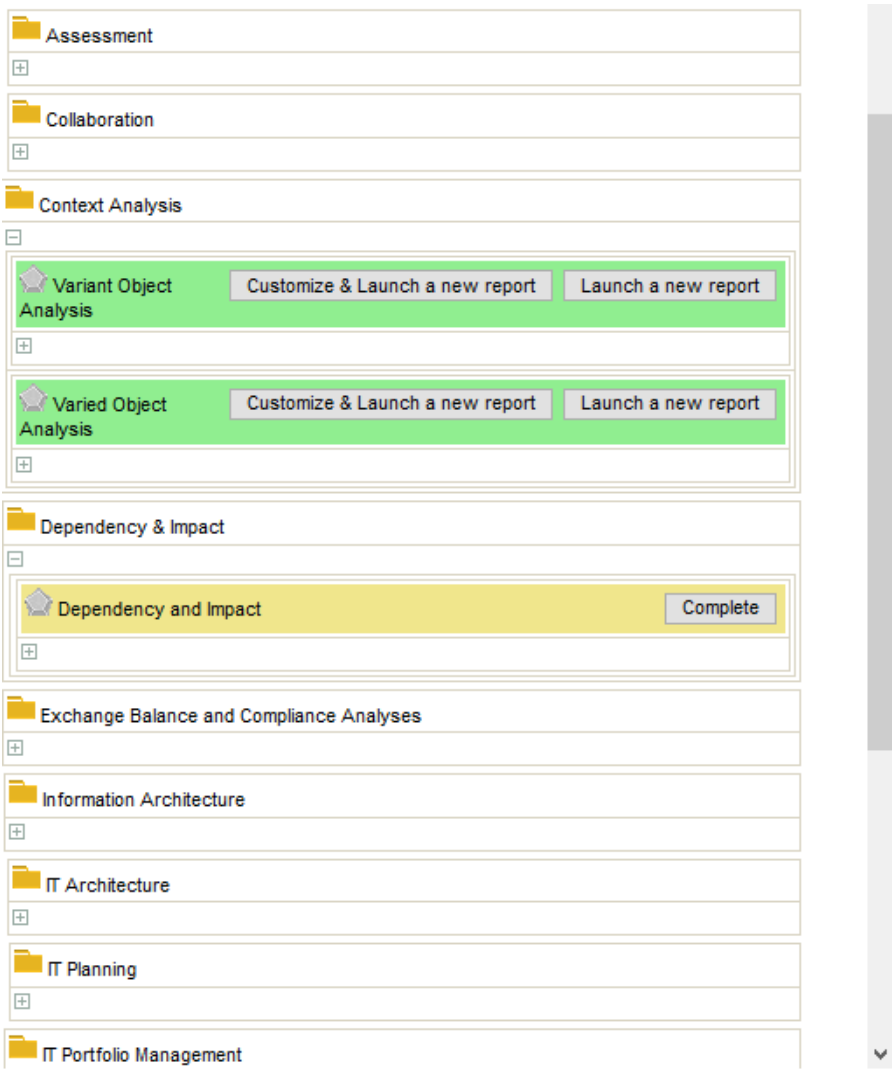
Complete list of reports available for an object

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 the reports concerning 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.

Accessing reports embedded in a dashboard

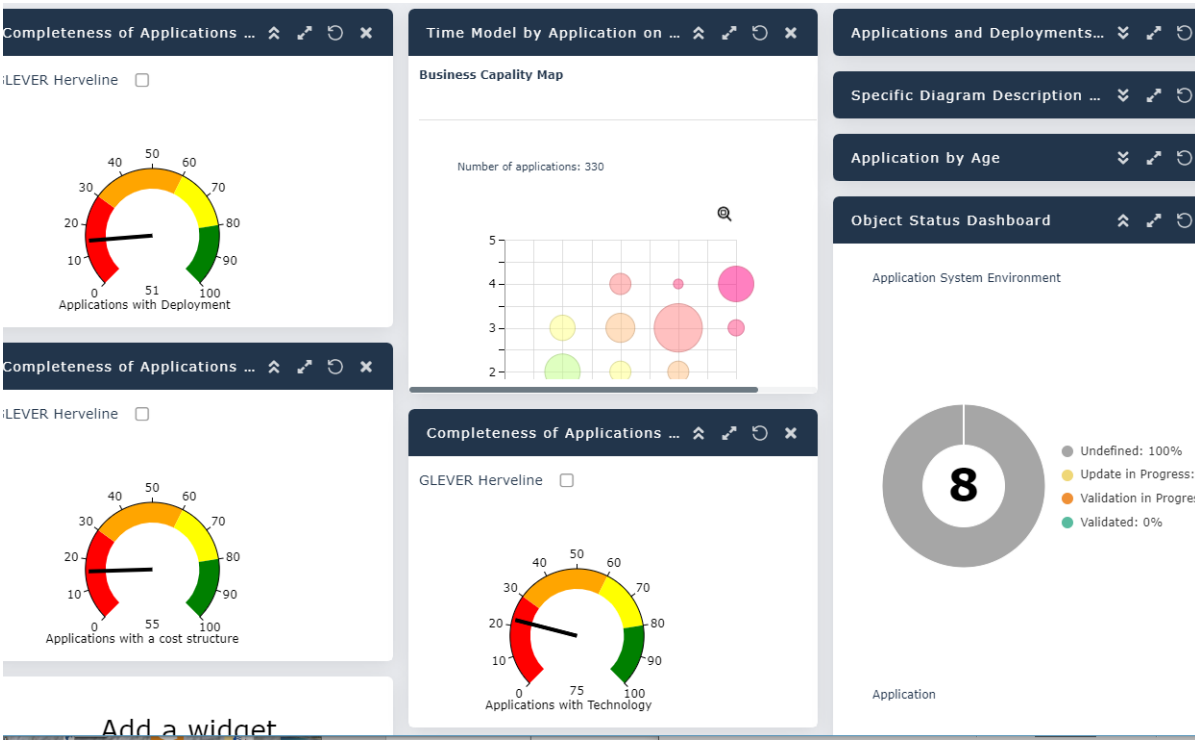
The dashboard is used to quickly access repository information. The embedded reports that you want to display in your dashboard depend on the solutions and profiles. They provide key indicators on your repository data.

You can:

- add a report as a widget in your dashboard to access it more quickly.
    * *See Adding a widget to your dashboard.*
- 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.*

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 widget and display the report.



See also Saving the content of an analysis report.

Accessing your reports in a HOPEX solution.

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.*

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.*

To access your customized reports in a HOPEX solution:

1. In 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 area, click the **Reports** tile.
   Your reports listed in **My Reports**.

J *In your home page, **My reports** tile gives direct access to your reports.*

See also:

- Structure of an Analysis Report.
- Customizing Your Reports.

Creating an Analysis Report

Some reports are embedded in the repository (Web Front-End); they are launched automatically. See Specific 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.

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**.

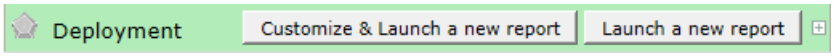
   * *You can also launch a report search for several objects of the same type, for example, a list of applications.*

   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.*
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.*

Creating your analysis reports

In addition to the dynamic analysis reports provided by default for the identified object types, you can create your own reports.

To create analysis report you must:

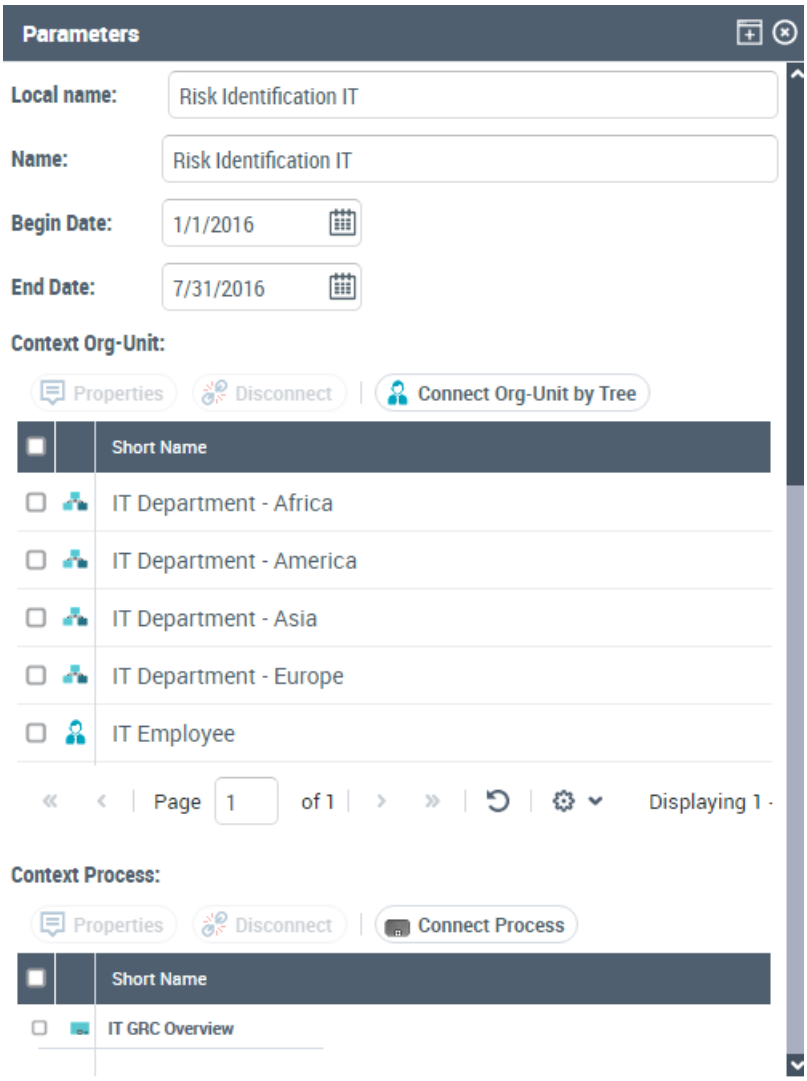
- define the report template on which the report is based.
  - *HOPEX includes predefined report templates specific to each Solution.*
- (if necessary) enter the report parameters. This consists of defining report input data.
- (optional) define the report chapters.
  - *Report chapters vary depending 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.
4. In the **Local Name** field, enter the report name.
5. (Optional) In the **Owner** field, select an owner.
6. Click **Next**.
7. 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.*

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

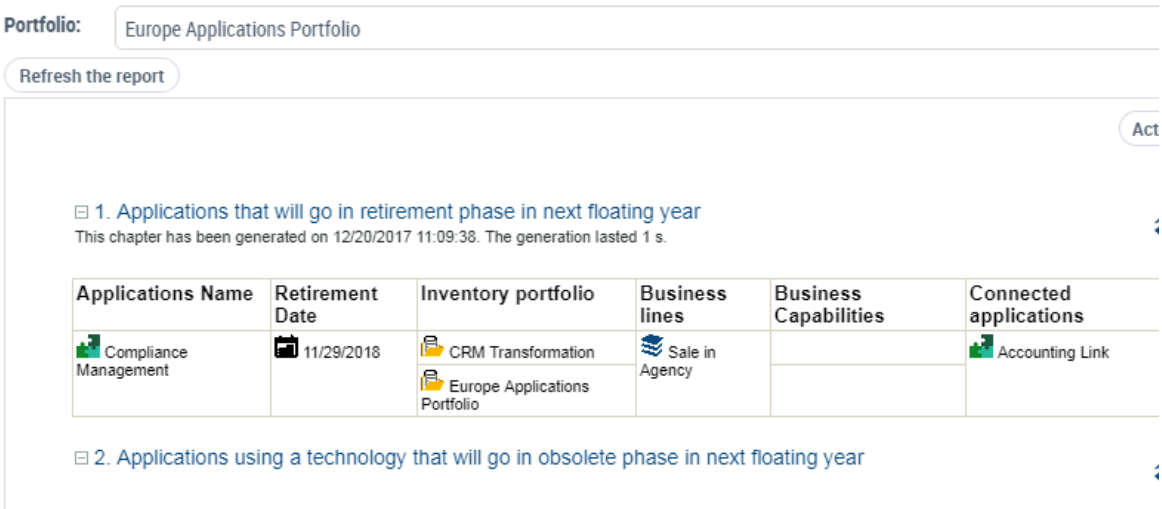
For some Web reports, you can also view the details of a part of the contents.

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 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

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 **More** **> Save As Report** .
   Once saved, the report is available in the **Other Reports** > **My Reports** folder.

   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..*
     * *You can modify the name of the report and open the report to edit and customize it; see Customizing Your Reports.*
   - **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 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..*
    * *You can modify the name of the report and open the report to edit and customize it; see Customizing Your Reports.*

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.*

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 **More** **> RTF** .
   * *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 .XLSX file. To generate the report in .XLS see Managing Report Options.

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 **More** > **Excel** 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

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:

   - **Excel** to export the elements of the series in .xlsx format.
   - **Instant Report**, to generate an instant report for the series.

     * *See Launching an Instant Report.*

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 some chapters and hide others.

To define the chapters to be displayed:

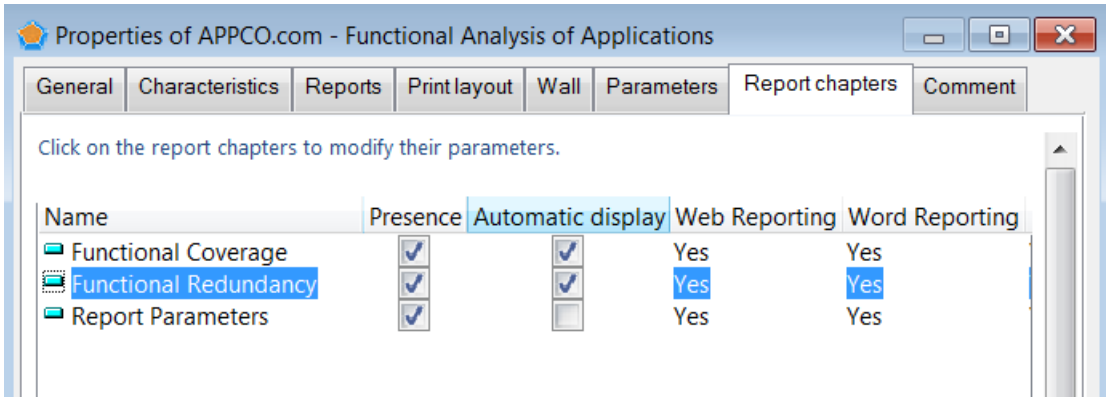
1. In the list of reports of the solution or the list of your reports, select the report in question and click the **Properties** button associated with the edit window.
2. In **HOPEX**:
   - Web Front-End: in the drop-down list, select **Report Chapters**.
   - Windows Front-End: select the **Report 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 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

See:

- Introduction to Report DataSets
- Creating a Report DataSet
- Configuring and Using a Report DataSet

Introduction to Report DataSets

Report DataSet

A **Report DataSet** is a set of data extracted from **HOPEX** repository.

This set of data is presented in a tabular form and defined by a **Report DataSet Definition**.

* *To create a Report DataSet, Report DataSet definitions are available.*

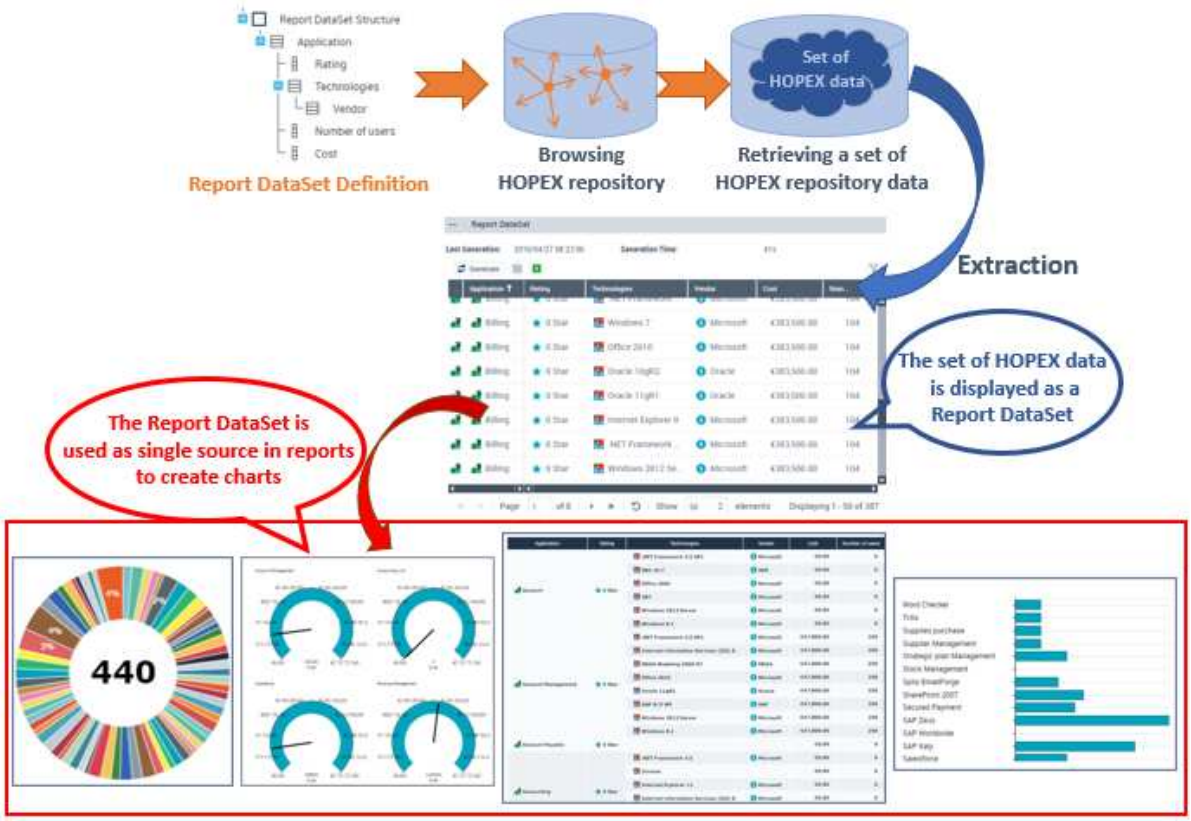
This set of data shown in a tabular form is used as a source of data in reports. Data can then be handled and shown in different graphical formats.

* *See Managing Instant Reports.*

Report DataSet Definiton

A **Report DataSet Definition** describes how to build a Report DataSet from **HOPEX** repository data.

* *For more details on **Report DataSet Definitions**, see HOPEX Power Studio > Report Studio > Report DataSet Definition documentation.*



Accessing Report DataSets

Access to Report DataSets is similar in all **HOPEX** Solutions.

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.*

To access a Report DataSet preview, see Accessing a Report DataSet properties.

To access Report DataSets:

1. In your **HOPEX** desktop, click the navigation menu .
2. Click the **Reports** navigation pane.
   The **Other Reports** category is selected.
3. In the **Navigation** edit area, click **My Report DataSets** tile.
   By default, the public Report DataSets (including yours) are listed.
4. 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.*
   * *See Accessing a Report DataSet properties.*
   * *See also Configuring and Using a Report DataSet.*

Accessing a Report DataSet properties

To access the properties of a Report DataSet:

1. Access Report DataSets.
   * *See Accessing Report DataSets.*
2. In the Report DataSet list, select the Report DataSet concerned.
3. Roll the mouse over the **Name** column and click **Properties** .
   The properties of the Report DataSet appear in the **Properties** edit area.

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.*

In the Report DataSet properties, the **Data** page contains the following sections:

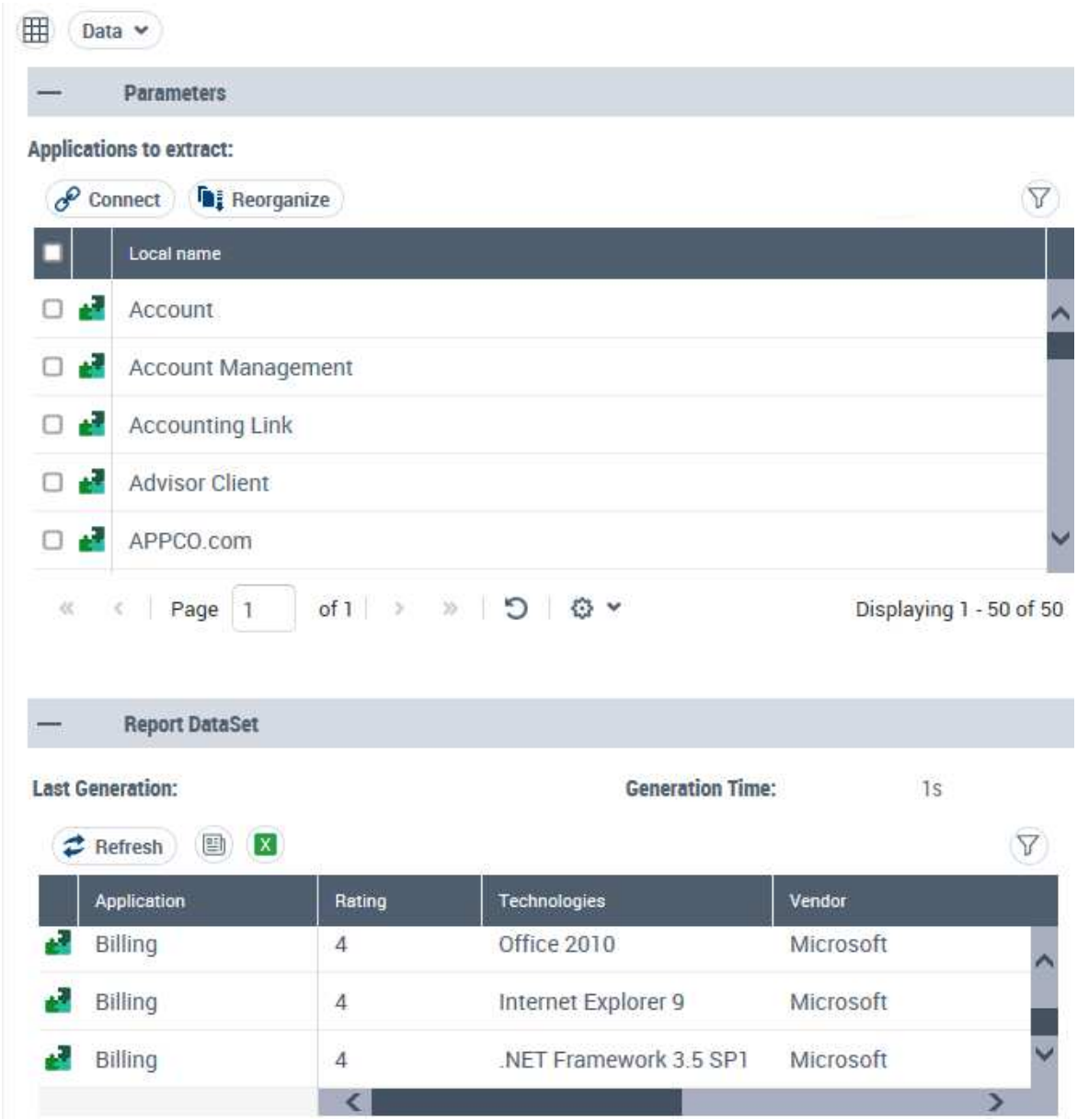
- **Parameters**, which defines the objects to be extracted from the **HOPEX** repository.
- **Report DataSet**, which shows the Report DataSet data in a tabular form.
  The data displayed is read-only.

  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” (of the technologies)
- "Cost"
- "Number of Users".

    * *See Creating a Report DataSet.*



From the **Data** properties page, you can:

- perform the following operations:
  - Making a Report DataSet confidential.
  - Refreshing Report DataSet data
  - Hiding Report DataSet column display
  - Restricting the display of Report DataSet rows (display only specified data)

* *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).

- Exporting a Report DataSet

- launch an instant report
  - *See Launching an instant report from a Report DataSet.*

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.`

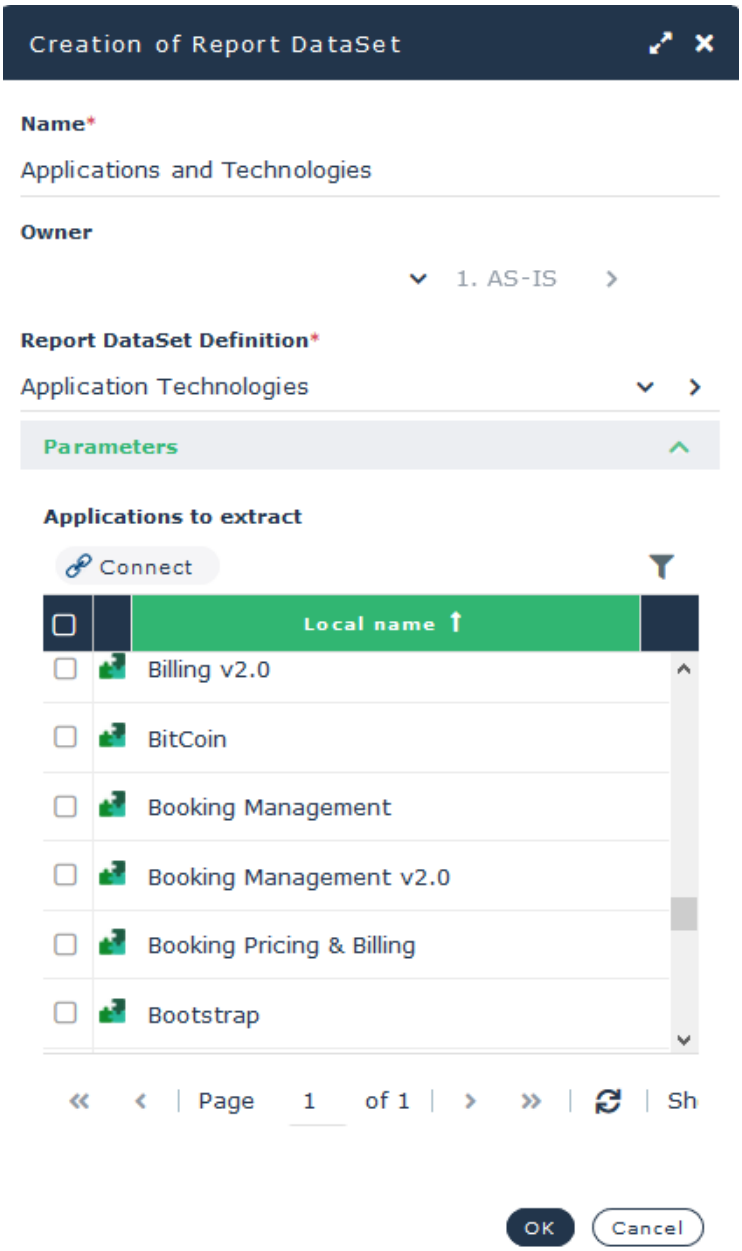
  - *This consists of defining report input data.*

    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.

To create a Report DataSet:

1. Access the Report DataSets.
   - *See Accessing Report DataSets.*
2. In the **Navigation** edit area, click **New** .
   The Report DataSet creation window opens.
3. Enter the **Name** of your Report DataSet.
4. (Optional) In the **Owner** field, select an owner.
5. 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.
The report is accessible in the list of your Report DataSets.

    * *To configure and customize your Report DataSet, see Configuring and Using a Report DataSet.*
    * *To launch an instant report from your Report DataSet, see Launching an instant report from a Report DataSet.*

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.
- Refreshing Report DataSet data
- Hiding Report DataSet column display
- Restricting the display of Report DataSet rows (display only specified data)
- Launching an instant report from a Report DataSet
- Exporting a Report DataSet

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 a Report DataSet properties.*
2. Display the **Characteristics** page.
3. In the **Report DataSet Sharing** field, use the drop-down list to select "Private".
4. (optional) Click **Connect** and select the persons with whom you want to share the Report DataSet.
5. Click **Connect**.
   The Report DataSet is confidential and accessible to the persons you have selected.

Refreshing Report DataSet data

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 a Report DataSet properties.*
2. Display the **Data** page.
   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).*

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 a Report DataSet properties.*
2. Display the **Data** page.
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).*

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 a Report DataSet properties.*
2. Display the **Data** page.
3. In the **Report DataSet** section, click **Display filters**.
4. Configure the filtering.
   * *See Filtering a list data.*

   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 a Report DataSet properties.*
2. Display the **Data** page.

3. In the **Report DataSet** section, click **Excel** .
   The Report DataSet is exported in Excel 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
- Instant Report Types and Examples
- Launching an Instant Report
- Handling an Instant Report
- Saving an Instant Report as a Report
- Adding an Instant Report to Your Dashboard

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.*
- an object
  - *See Launching an instant report from an object.*
- a Report DataSet
  - *See Launching an instant report from a Report DataSet.*

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 object characteristics to be represented
  - *Attributes available in instant reports.*

  `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.*
- (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).*

You can save an instant report:

- in your reports
  - *See Saving an Instant Report as a Report.*
- in your dashboard
  The report is recorded as a Widget and available for other users.
  - *See Adding an Instant Report to Your Dashboard.*
- in your home page (as a tile)

You can customize your instant report.

- *See Customizing Your Reports.*

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 Provider object appears in the list of
characteristics of the Technology object, with the
different attributes to which grouping can relate.
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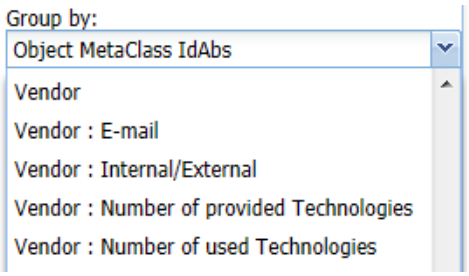


Attributes available in instant reports

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:

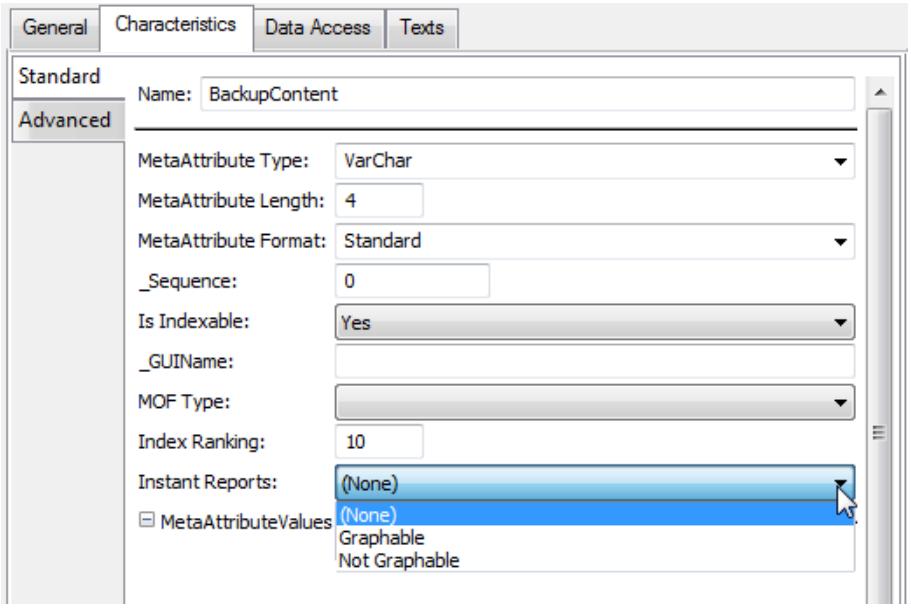
  ```
  E.g.: to create a Gantt diagram: life cycle
  ```

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:

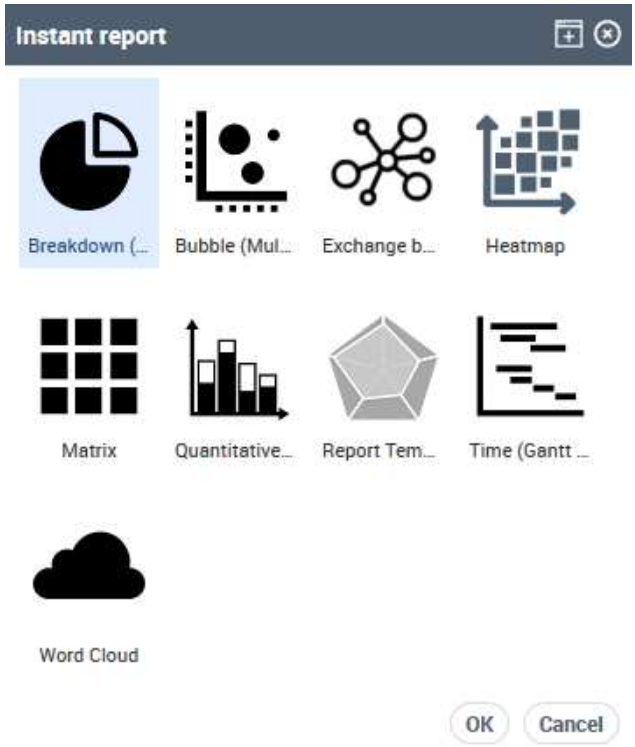
- Graphable: the attribute participates in the instant reports mechanism
- Non Graphable: the attribute is excluded from the instant reports mechanism



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.*
  - ***Quantitative***: breakdown of values in the form of a bar chart.
    - *See Quantitative-type instant report from an object list.*
  - ***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.*
  - ***Bubble (Multidimensional)***: two- or three-dimensional display, depending on the criteria chosen, in the form of a bubble chart.
    - *See Bubble chart (Multidimensional)–type instant report.*
  - ***Heatmap***: two-dimensional display in the form of a Heatmap.
    - *See Heatmap chart–type instant report.*
  - ***Time***: change in values over time (Gantt diagram).
    - *See Time type instant report.*
  - ***Word cloud***: random distribution of #tags.
    - *See Word cloud type instant report.*
  - ***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.*
  - 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) ***Environment 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.*
- ***from a Report DataSet:***
  - ***Matrix***: display in the form of a bar chart or radar chart.
    - *See Matrix-type instant report from a Report DataSet.*
  - ***Quantitative***: breakdown of values in the form of a bar chart, line chart, or radar chart.
    - *See Quantitative-type instant report from a Report DataSet.*
  - ***Breakdown***: breakdown of objects with respect to the values of a qualitative criterion in the form of a bar chart, pie chart, gauge, or word cloud.
    - *See Breakdown-type instant report using a Report DataSet.*

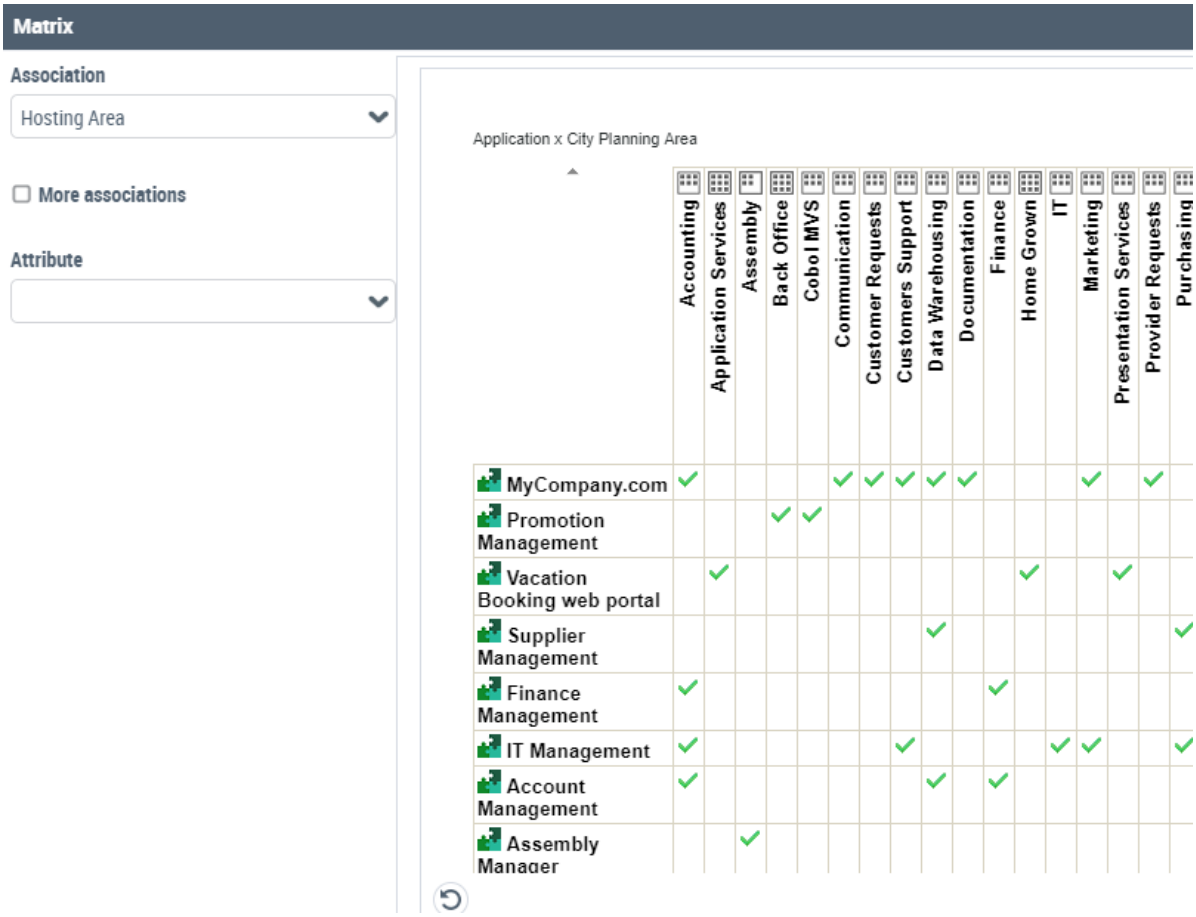
- ***Table***
    * *See Table-type instant report from a Report DataSet.*

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 following example, the matrix indicates which city planning area is responsible for 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.*



  - (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	Application Services	Assembly	Back Office	Cobol MVS	Communication	Customer Requests	Customers Support
MyCompany.com	11.11111111111%					11.11111111111%	11.11111111111%	11
Promotion Management				33.33333333333%	33.33333333333%			
Vacation Booking web portal		20%						
Supplier Management								
Finance Management	33.33333333333%							
IT Management	12.5%							12
Account Management	33.33333333333%							
Assembly			100%					

Matrix-type instant report from a Report DataSet

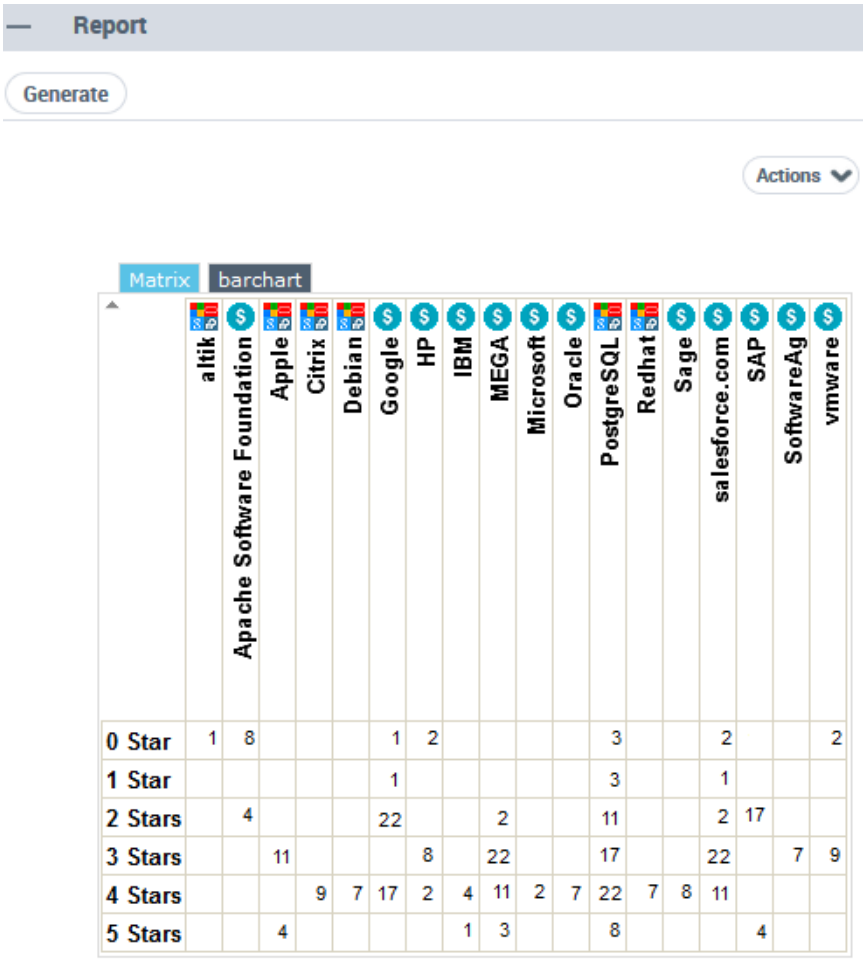
From a Report DataSet, all the Report DataSet columns are available to make up the rows and columns of the matrix.

For example, a Report DataSet with the "Application Technologies" definition contains the following information for each application selected:

- "Rating"
- "Technologies"
- "Vendor" (of the technologies)
- "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"



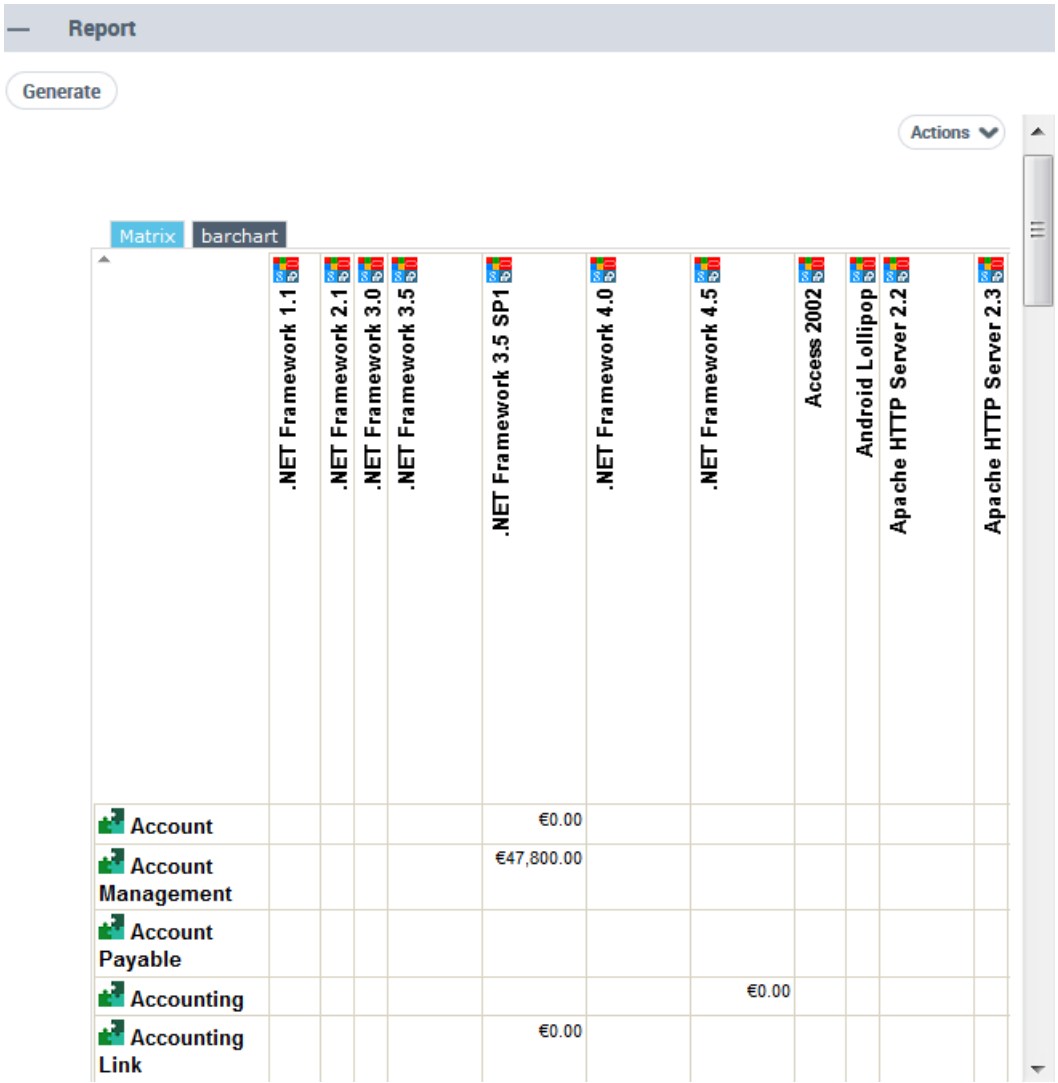
	altik	Apache Software Foundation	Apple	Citrix	Debian	Google	HP	IBM	MEGA	Microsoft	Oracle	PostgreSQL	Redhat	Sage	salesforce.com	SAP	SoftwareAg	vmware
0 Star	1	8				1	2					3			2			2
1 Star						1						3			1			
2 Stars		4				22			2			11			2	17		
3 Stars			11				8		22			17			22		7	9
4 Stars				9	7	17	2	4	11	2	7	22	7	8	11			
5 Stars			4					1	3			8				4		

You can click any 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 matrix 1 example, click in a cell. You thus obtain its content as well as other useful information such as its cost and number of users.

Application	Rating	Technologies	Vendor	Cost	Number of u...
LogiKS	2 Stars	Office 2010	Microsoft	€36,000.00	0
CMDB Management	2 Stars	SQL Server 2012	Microsoft	€120,000.00	0

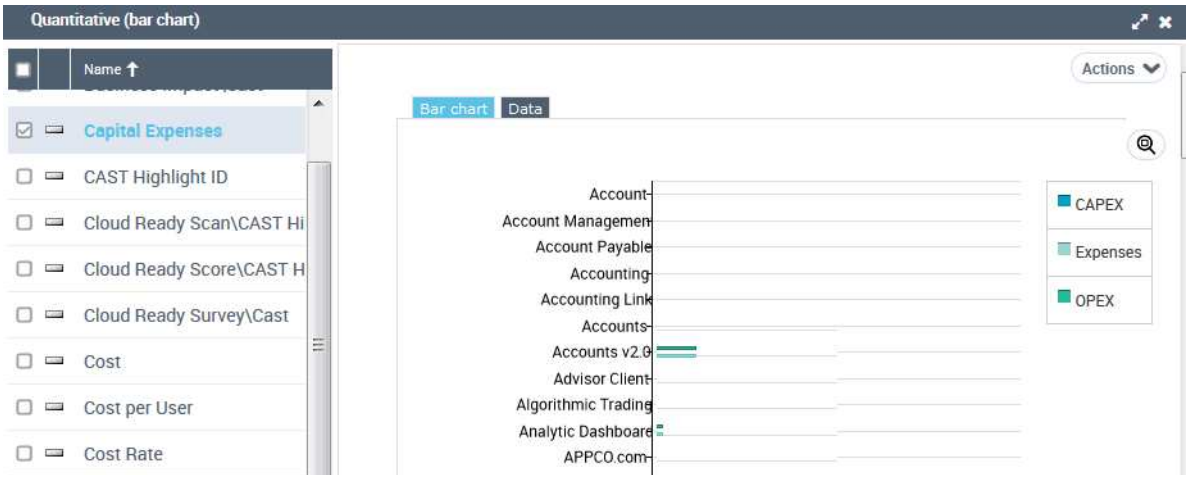
- Matrix 2: each cell of the matrix displays the sum of the costs of an application ("Cost") by technology type ("Technologies").
  - Row: "Application"
  - Column: "Technologies"
  - Apply Computation On: "Cost"
  - Compute: "Sum"



- 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"

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.

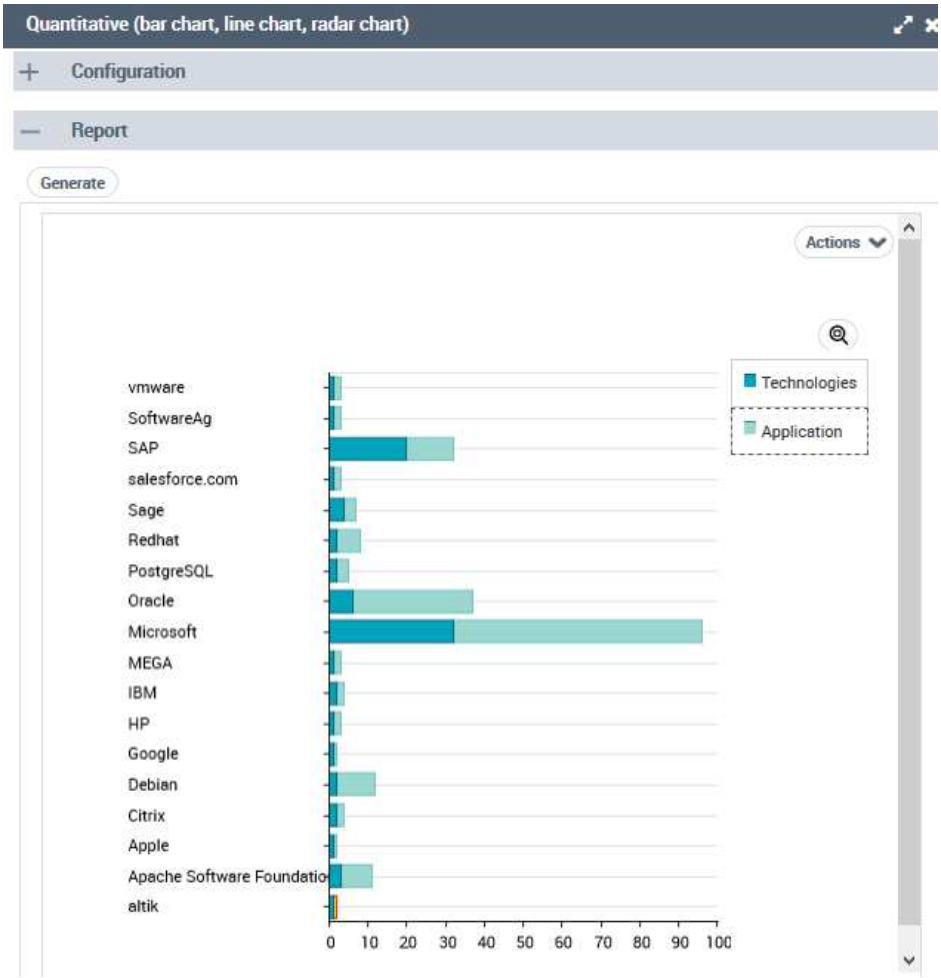
In the same graphic you can add a maximum of five data series. The bars may stack one on top of each other.

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"

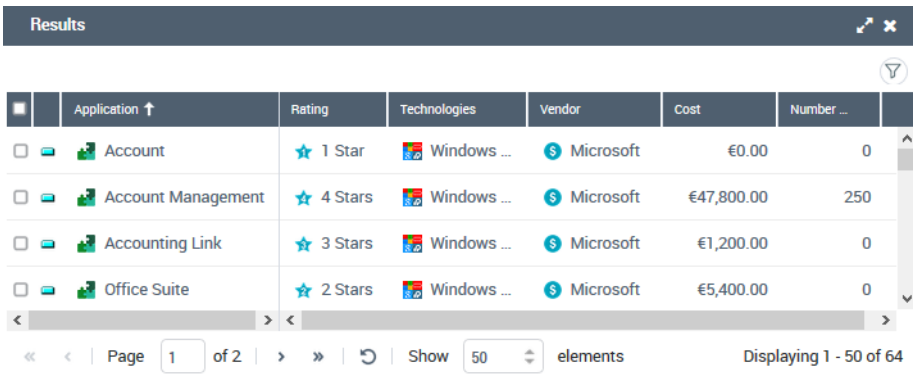
With this Report DataSet, you can for example aggregate the following bar charts distributed according to the "Vendor" parameter. The following information is displayed for each technology:

- 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 any series (bar) to obtain its content and its complete corresponding characteristics:

Example: in the example for the "Microsoft" vendor, click the "Application" series. In the **Results** window, you thus obtain other relevant information such as its cost.



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

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In the following example, the pie chart displays the
breakdown of the selected applications according to their
type (Group by: "Application type").
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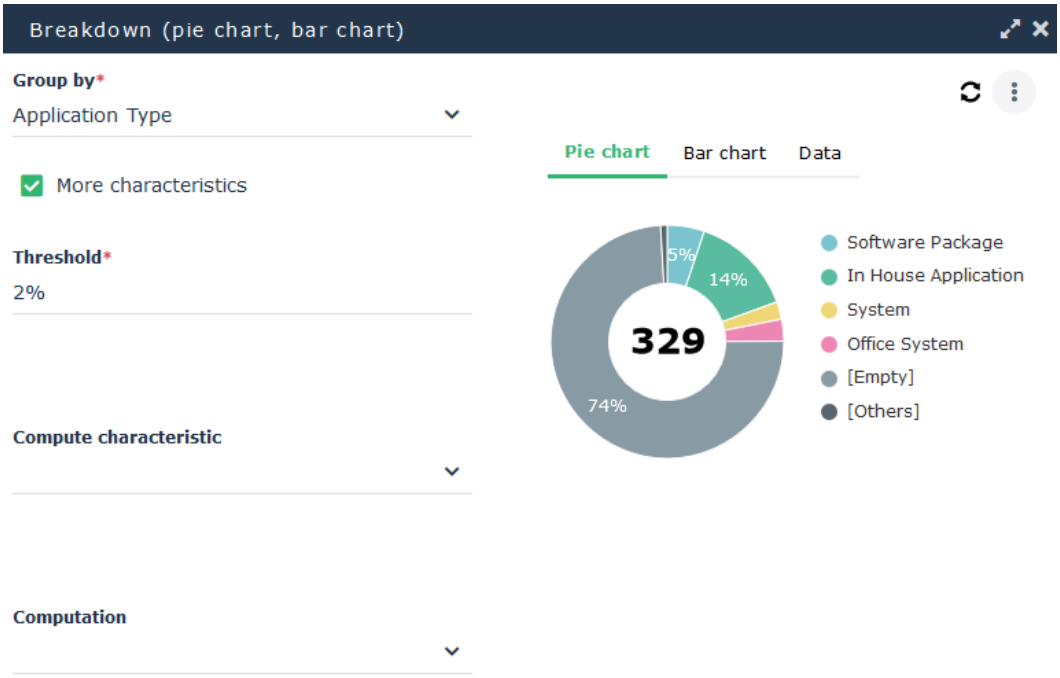


Calculations from a grouping criterion

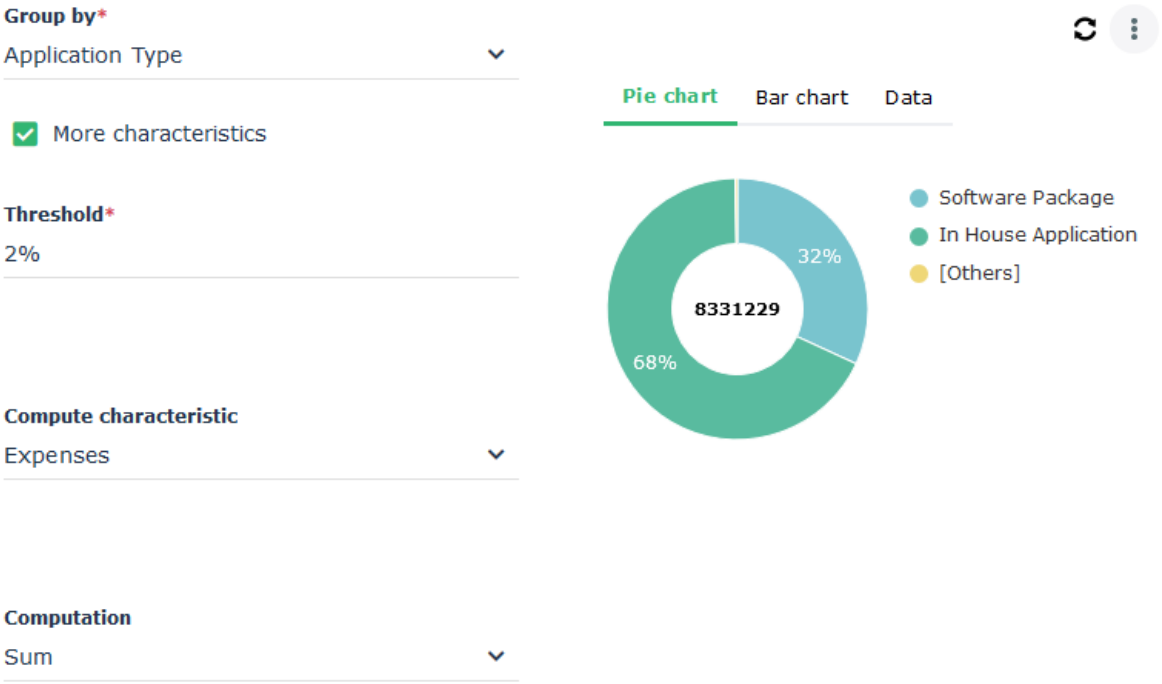
In the context of a breakdown report, when analyzed objects also include numerical value characteristics, you can associate these values with the grouping criterion and carry out simple calculations. The most common calculations are proposed (sum, average, maximum and minimum values).

In the example below, the pie chart indicates how application costs are distributed according to their type.

Group by: application type

Computed characteristic: expenses

Computation: 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 the objects of a column according 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.*
- 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:

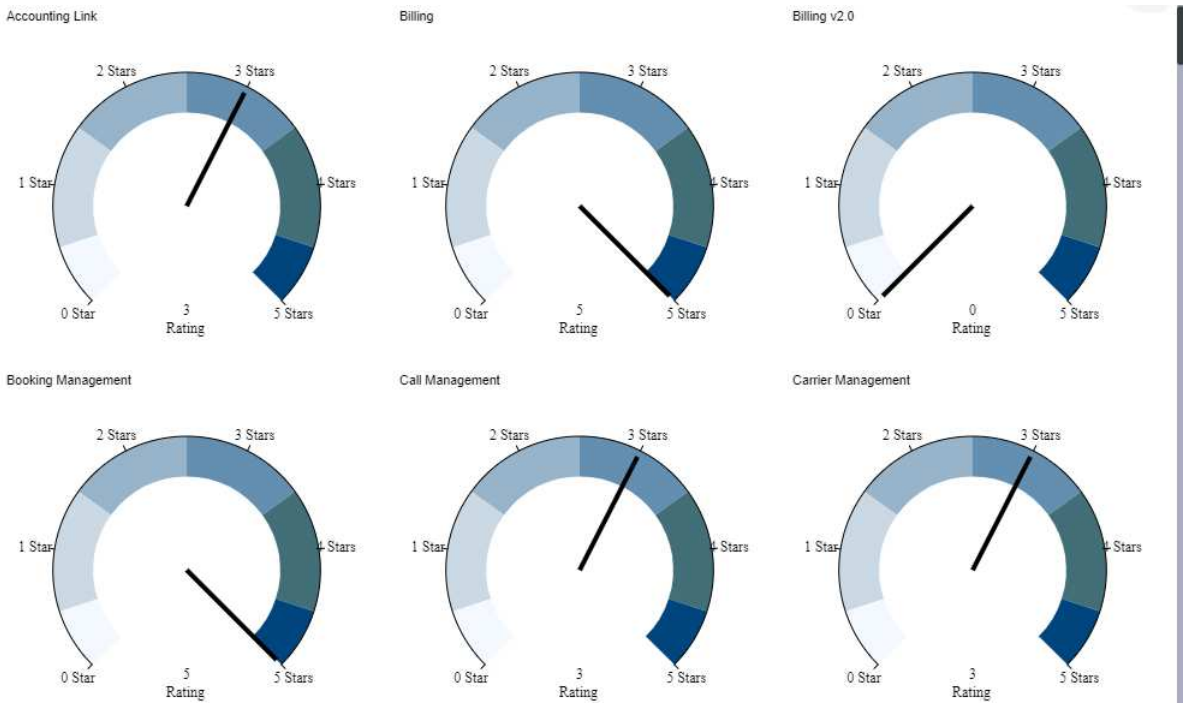
- "Rating"
- "Technologies"
- "Vendor"
- "Cost"
- "Number of Users"

Using this Report DataSet you can:

- display a gauge that specifies its rating for each technology.

  Distribution by: "Application"

  Apply Computation On: "Rating"



- display a gauge that specifies its cost for each technology.

  Distribution by: "Application"

  Apply Computation On: "Cost"

  Compute: "Sum"

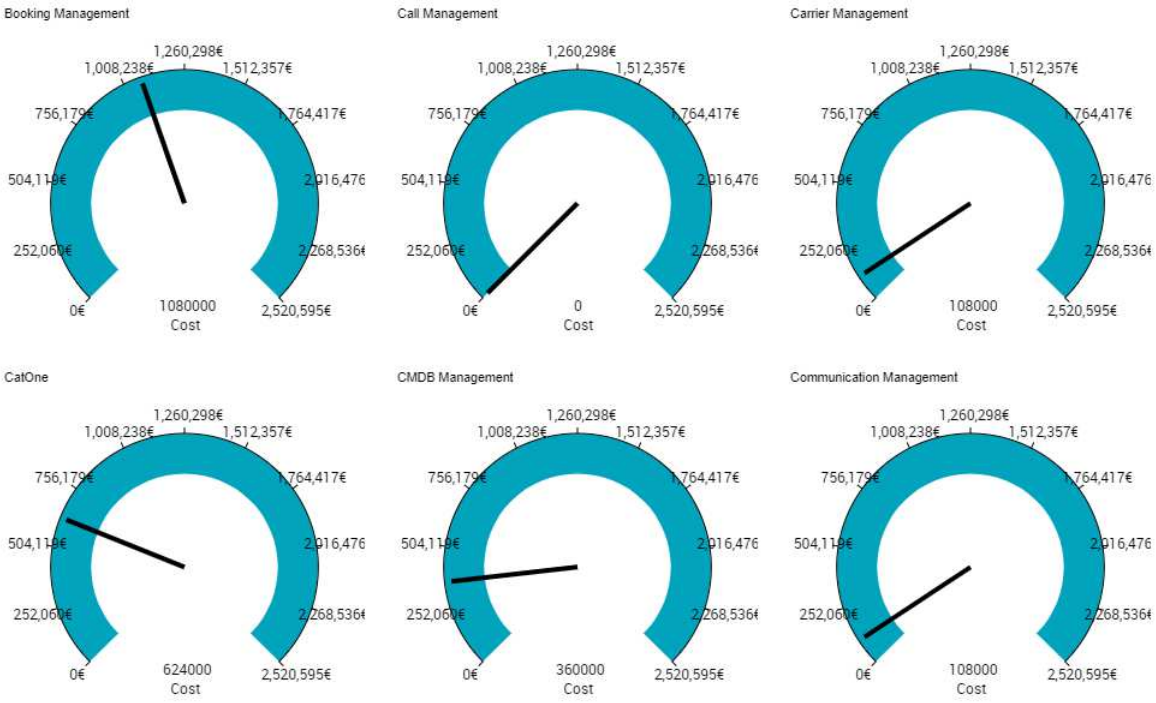


Table-type instant report from a Report DataSet

From a Report DataSet, all the Report DataSet columns are available to make up the rows and columns of the table.

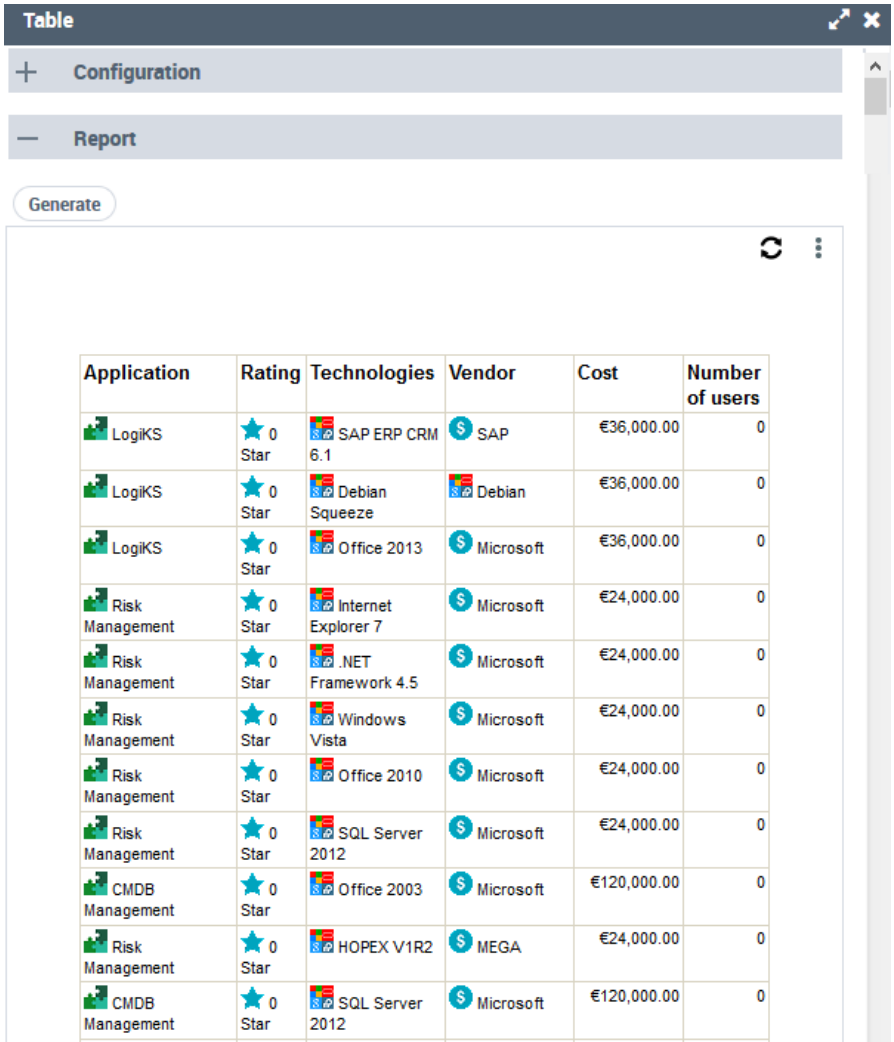
For example, a Report DataSet with the "Application Technologies" definition contains the following information (columns) for each application selected:

- "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).*



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

Bubble chart (Multidimensional)–type instant report

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**

You can also manage:

- the **Bubble Tooltips** based on an attribute
- the **Bubble colors** managed by an attribute

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.*

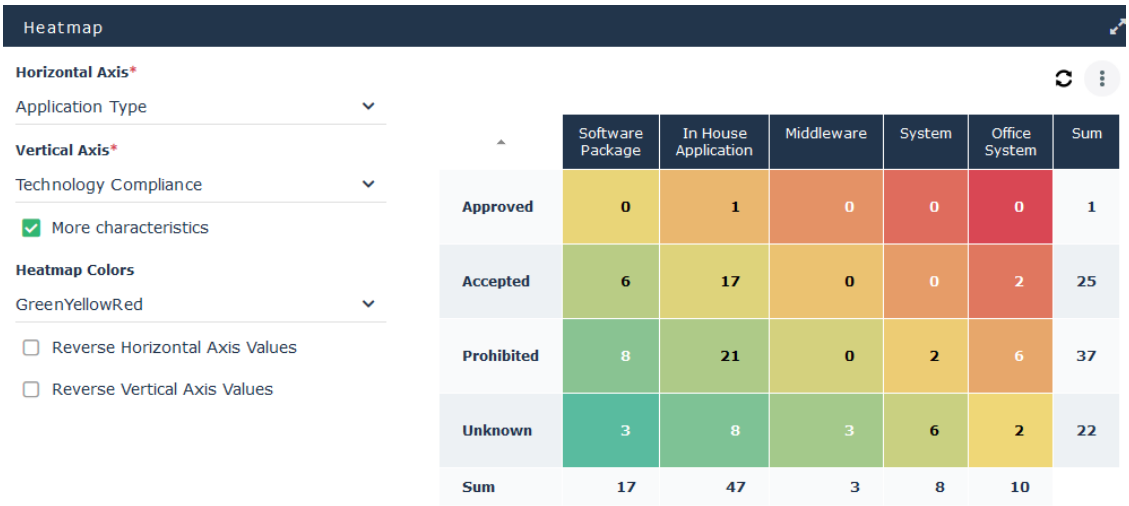
* *See Handling a Bubble Chart.*

Heatmap chart–type instant report

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 (approved, 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
Approved	0	1	0	0	0	1
Accepted	6	17	0	0	2	25
Prohibited	8	21	0	2	6	37
Unknown	3	8	3	6	2	22
Sum	17	47	3	8	10	

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 row order so as to highlight the applications of type: "Prohibited".

	Software Package	In House Application	Middleware	System	Office System	Sum
Unknown	3	8	3	6	2	22
Prohibited	8	21	0	2	6	37
Accepted	6	17	0	0	2	25
Approved	0	1	0	0	0	1
Sum	17	47	3	8	10	

From this graphic you can get the content of a cell and generate a new instant report.

Example: click in the "Prohibited" x "In House Application" cell. You obtain the list of "In House" type applications that are compliant with a "Prohibited" technology compliance.

Word cloud type instant report

With the Collaboration functionality (see Managing Tags), you can add tags to the objects. The word cloud report displays the tags with sizes weighted by their frequency.

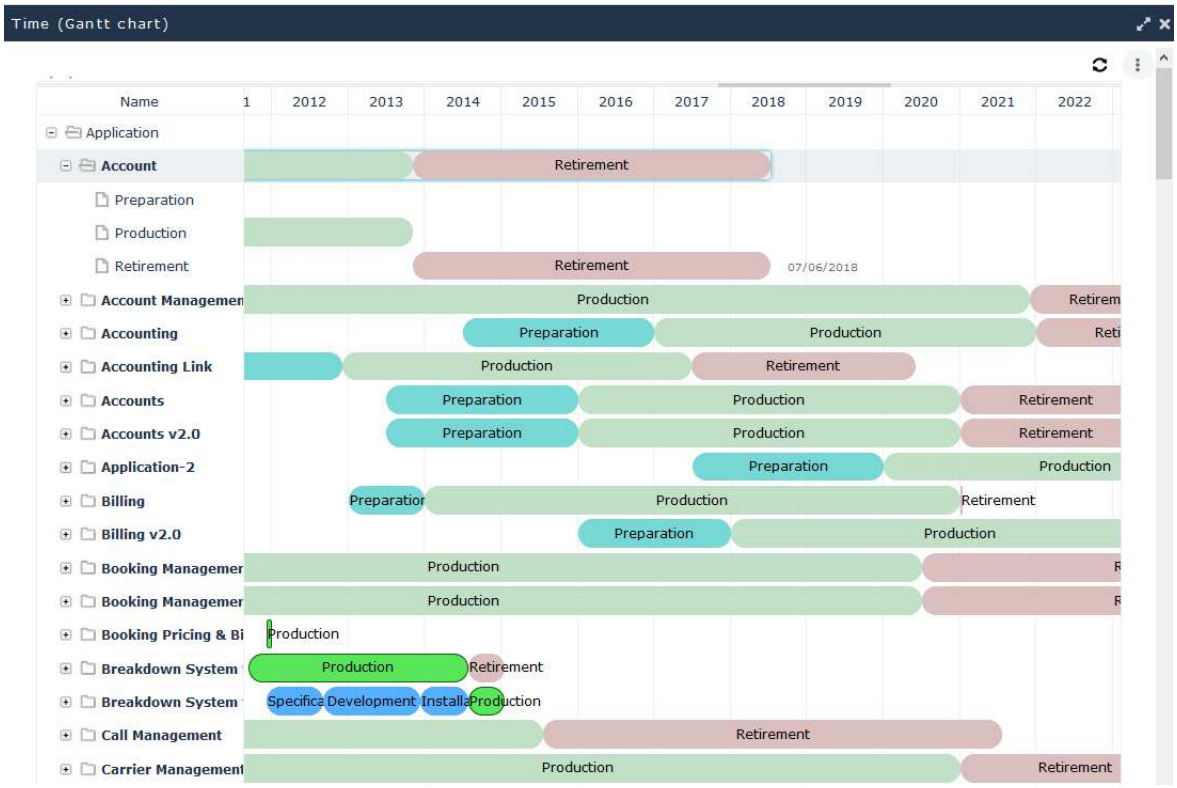
From this graphic you can generate a new instant report.

```
Example: click "management" to obtain the list of
applications that are tagged "management”.
```

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.



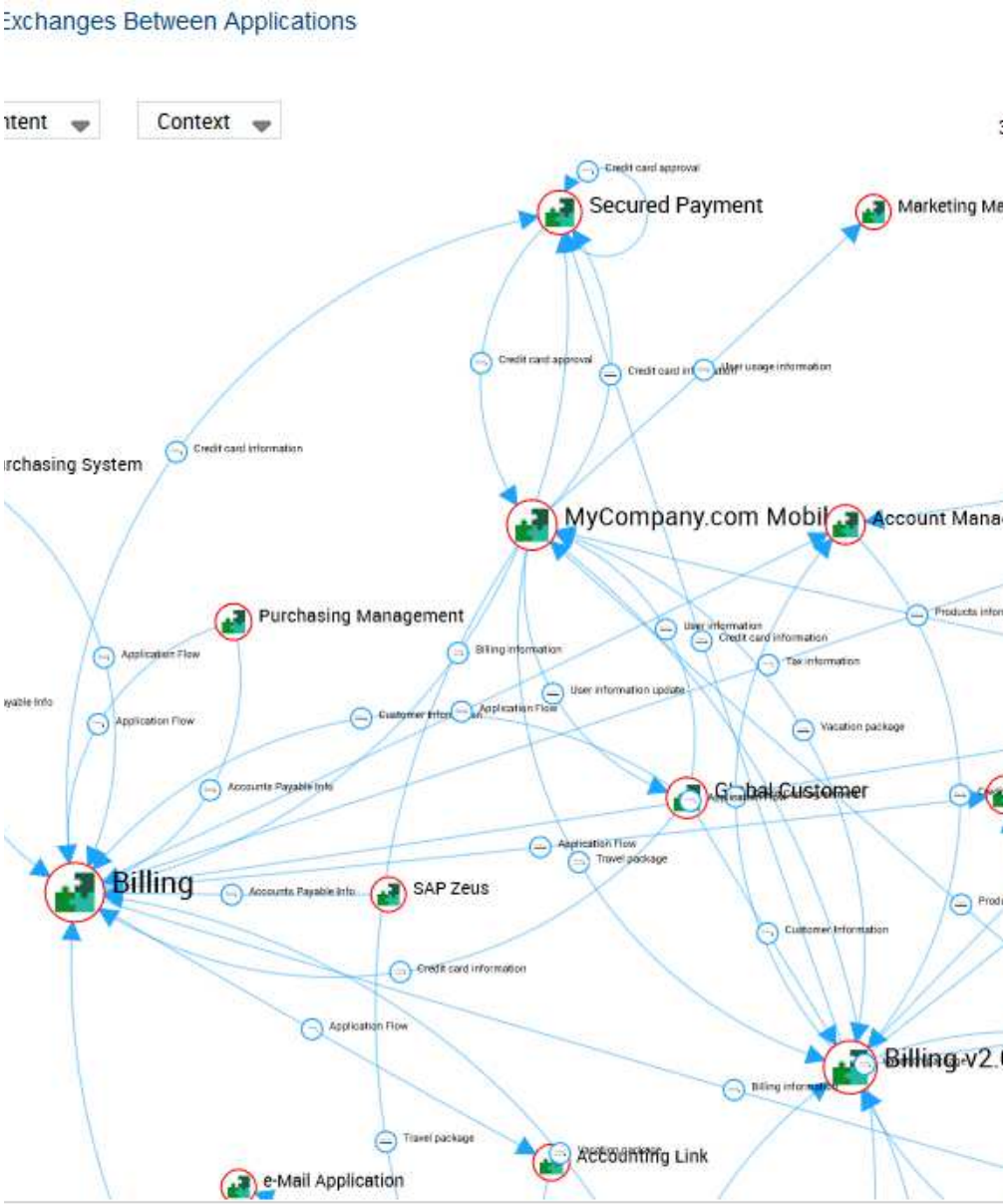
From this chart you cannot launch another instant report.

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 selected

applications for a better understanding of the data structure and the relationships that connect the data together.

Example: the exchanges between applications graph.



The graph includes facilities to optimize its readability and customize its display.

* *See Handling a Graph.*

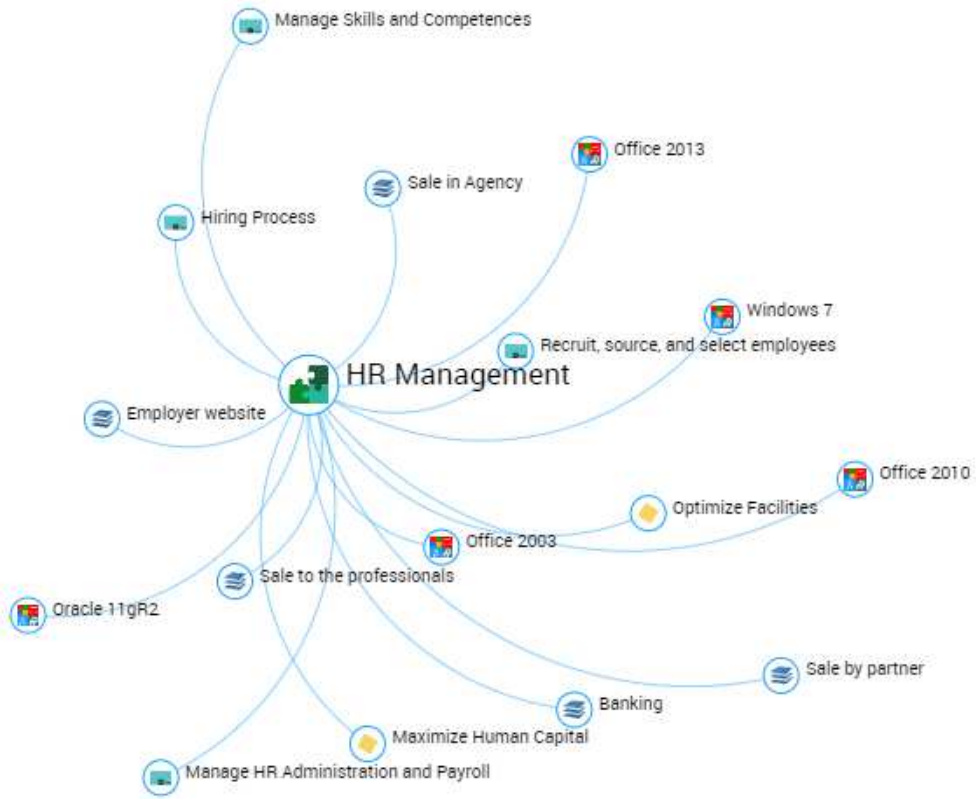
Environment graph type instant report: Application Environment Graph

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: Software Installations Graph of the application.

Example: Functional Environment Scope Graph of the application.



In these environment graphs, for a better readability, you can:

- zoom in on and move about in the graph
    - *See Zooming in on and moving about in a graph.*
- handle the graph
    - *See Handling a Graph.*

Launching an Instant Report

You can launch an instant report from:

- a list of objects
  - *See Launching an instant report from a list.*

  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*
- an object

  E.g.: the **Application Environment Graph** is available for an application.
  - *See Launching an instant report from an object.*
- a Report DataSet
  - *See Launching an instant report from a Report DataSet.*

To launch and keep several instant reports in the edit zone, see Launching several instant reports.

Launching an instant report from a list

To launch an instant report from a list:

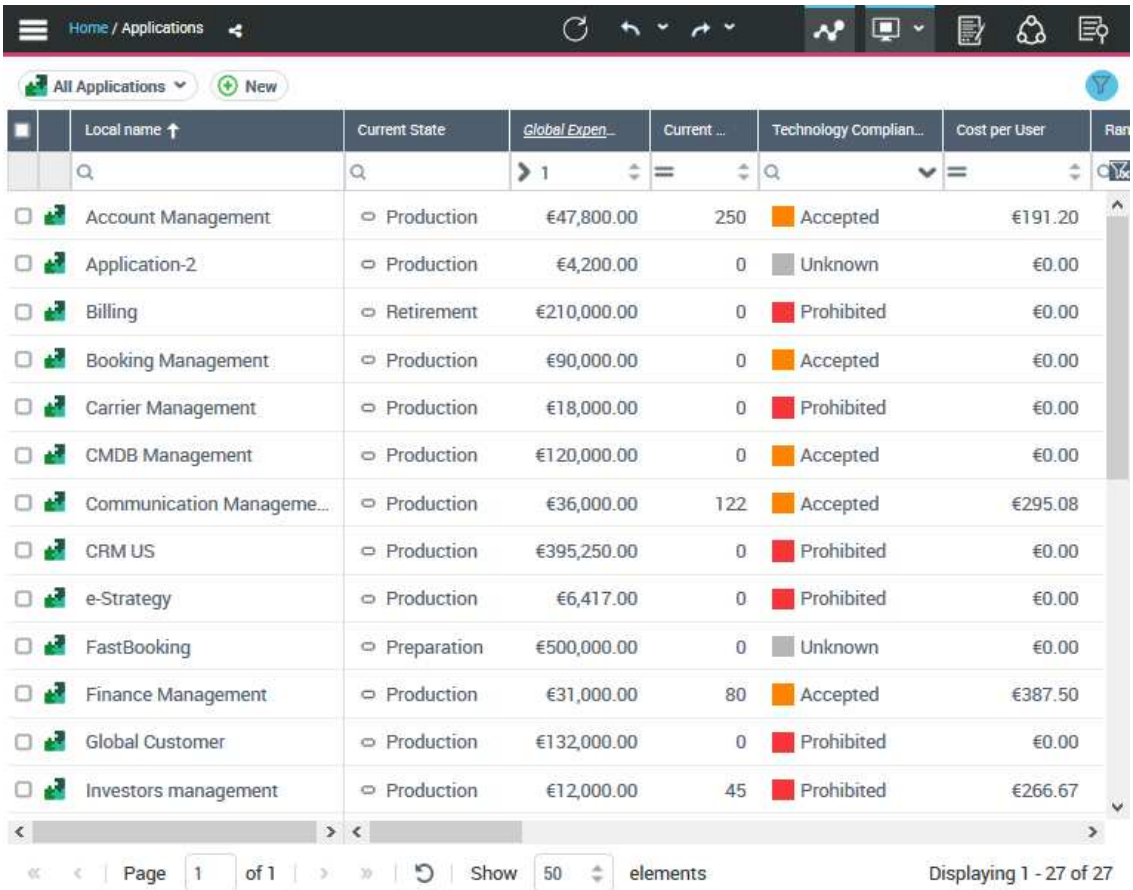
1. Display the relevant object list.

   E.g.: in your home page, with the **All applications** tile, display the list of all applications.

2. (Optional) Filter the list on the objects you are interested in.

   E.g.: applications with expenses > 1.

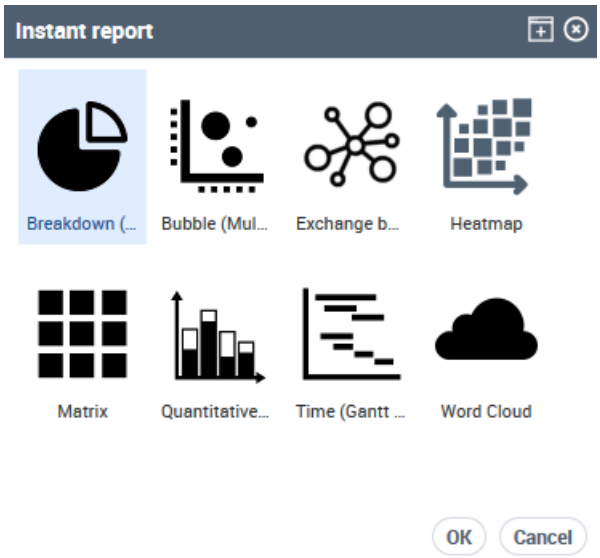
   * *See Filtering a list data.*



3. According to your needs:
   - To launch the instant report on all of the objects in the list (all the pages): select the column header checkbox.
   - To restrict the instant report to certain objects: select one or more objects.

4. Click **Instant Report**.

   * *If the button is hidden, click to access it.*



5. Select the required instant report type.

   * *See Instant Report Types and Examples.*

   `Example: breakdown (pie chart, bar chart)`

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, select a grouping characteristic from the list.

     * *Characteristics offered are those corresponding to the columns of the list (or all of the object attributes when only one column) Depending on your list content, select **More characteristics** to get more grouping characteristics.*

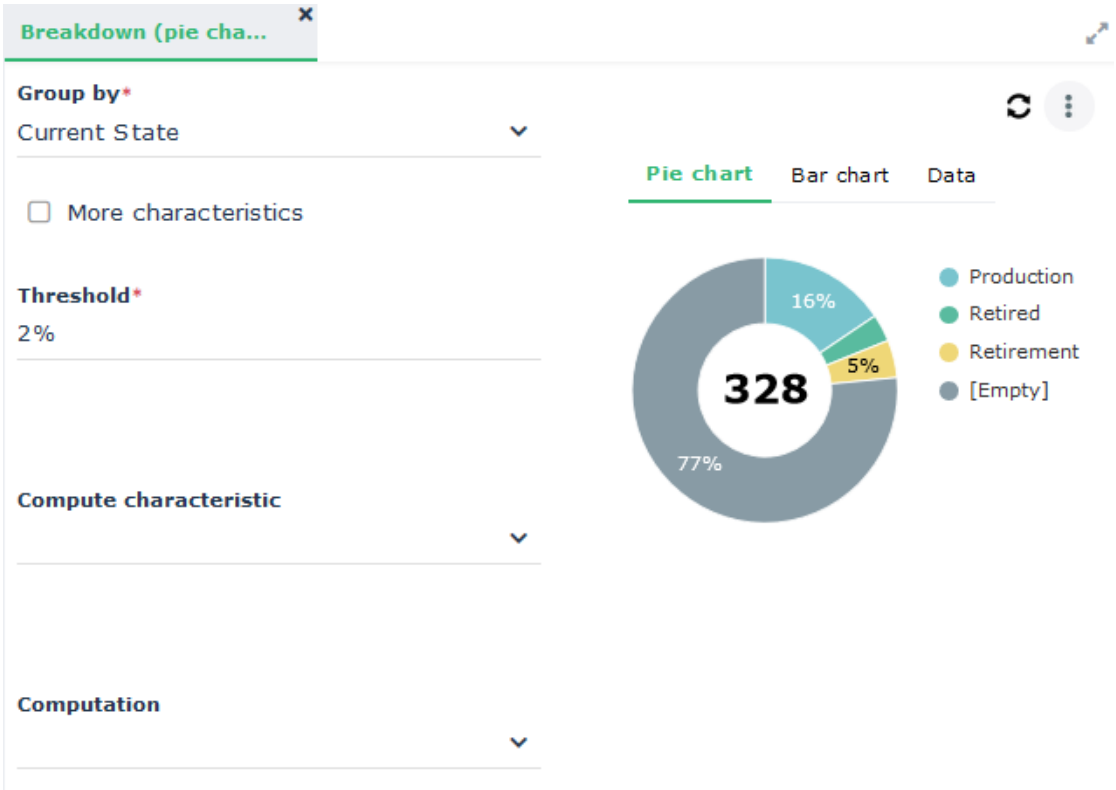
   - of quantitative type, select information to be taken into account in the graphic display.

   Objects are automatically displayed according to the selected settings.

   * *To customize your report, see Customizing Your Reports.*

   `Example: "Current State".`

   `For the set of selected applications, you get their breakdown according to their current state.`



8. (if needed, 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 contained in this part is displayed in the **Results** window.
   * *See Arranging windows in the edit area.*
   * *See also Managing Lists.*

Launching an instant report from an object

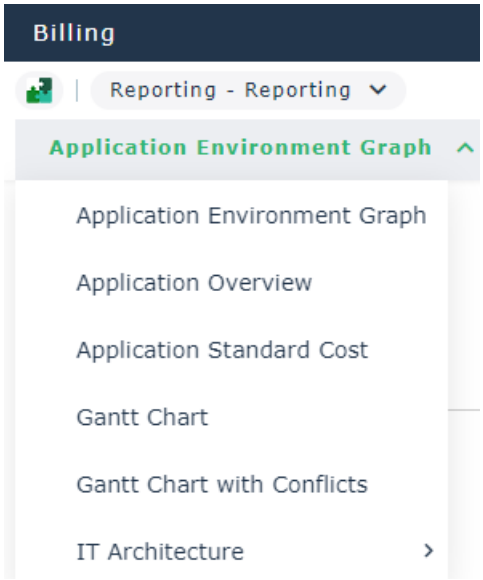
To launch an instant report from an object:

1. Access the object properties.

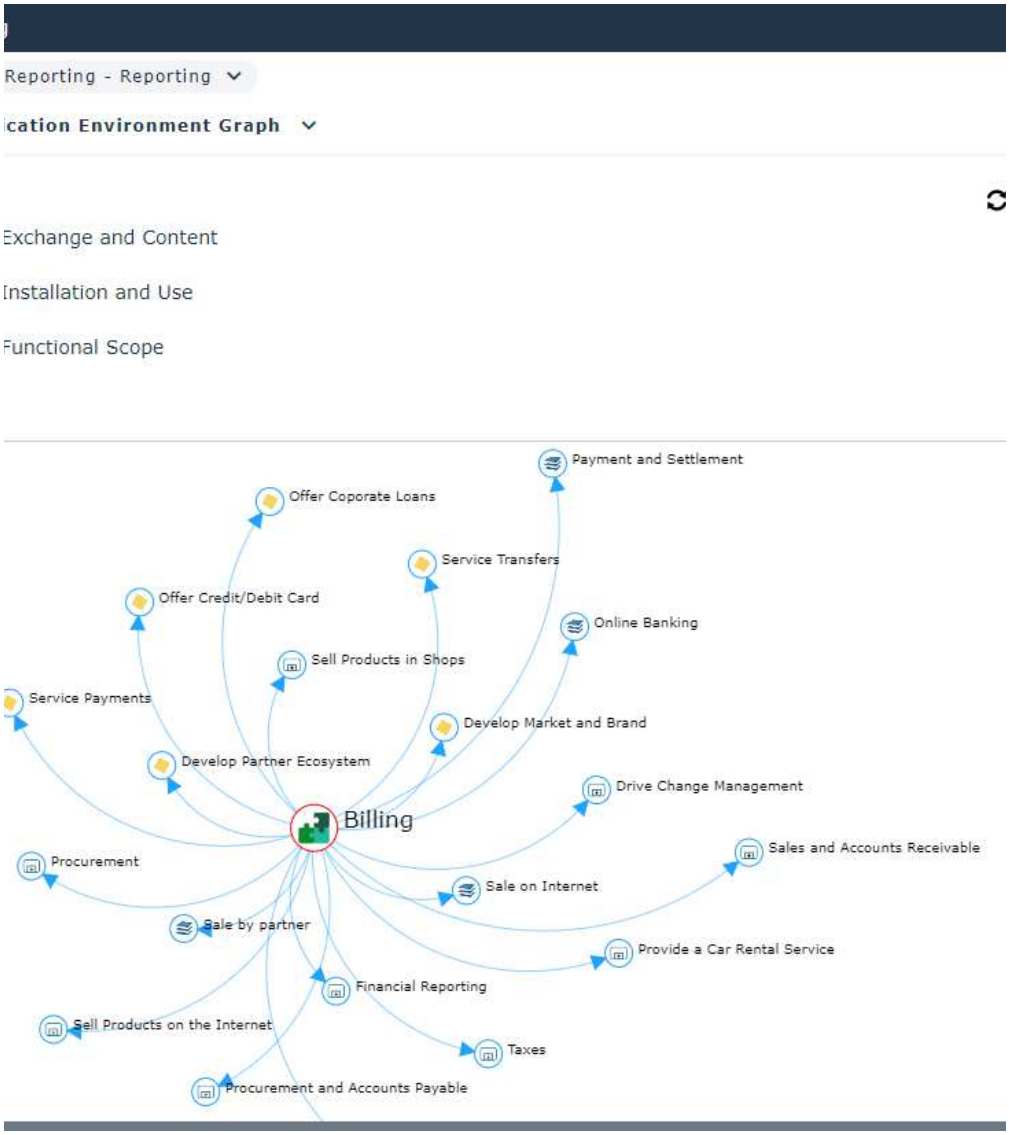
   `Example: from an object in a list or in a diagram.`
2. Display the **Reporting** page.

3. In the drop-down menu, select the report.

   E.g.: for an application, the **Application Environment Graph**.



The instant report is displayed in the property pages.



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 a Report DataSet properties.*
2. Display the **Data** page.

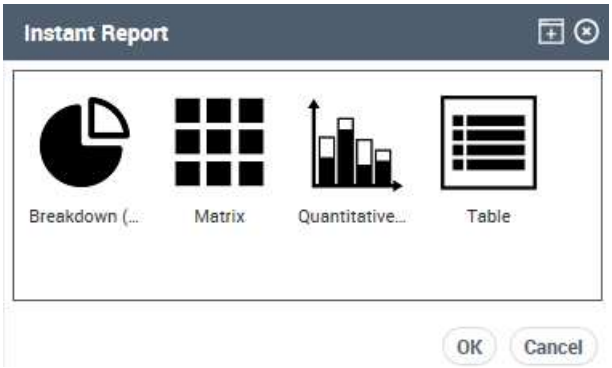
3. (If needed) In the **Parameters** section, click **Add** and select the input parameters.

   ```
   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 type.

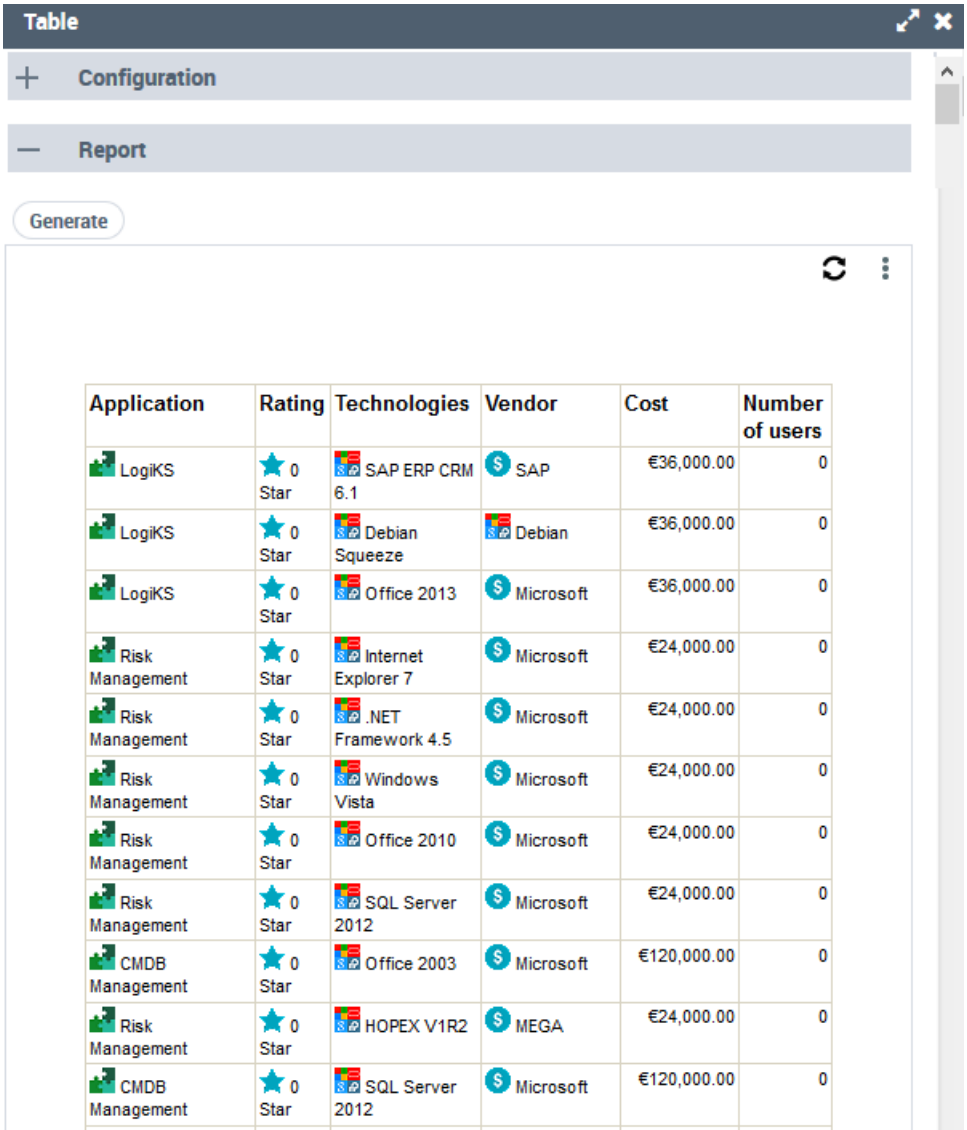
   * *See Instant Report Types and Examples.*

   ```
   Example: Table
   ```



7. Click **OK**.
The instant report is displayed in the **View** 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).*

Launching several instant reports

To display more than one instant report in your **View** edit area, you must be in **Multi-view** display mode before launching another instant report.

In **Single-view** display mode (by default), the next instant report replaces the current instant report.

* *See Arranging windows in the edit area.*

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.*

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.*
* *See Adding a filter to the columns and to the column data values (with initial values) in a table-type instant report.*

See:

- Defining the columns in a table-type instant report
- Adding a filter to the columns and to the column data values in a table-type instant report
- Adding a filter to the columns and to the column data values (with initial values) in a table-type instant report
- Example 1: column configuration with break
- Example 2: column definition (display, order) and value computation
- Example 3: filters on the table columns
- Example 4: filter on the table columns and cells (initial values)

Defining the columns in a table-type instant report

* *See the examples: Example 1: column configuration with break and Example 2: column definition (display, order) and value computation.*
* *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.*

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.

On columns, you can:

- display (/hide) one or more columns:
- modify the default column sort (ascending /descending order and priority):
  - By default, all of the columns are sorted by ascending order.
  - By default, column sort priorities are defined as the column display order at Report DataSet creation.
- modify the display order of columns (by drag-and-drop).
  If you modify the column display order, mind the column sort priority.

    * *See Example 2: column definition (display, order) and value computation.*

On rows, you can:

- define a characteristic for grouping the rows
- add breaks to the table
- add information to the break:
  - define the column considered by the information
  - define the information calculation
  - define a calculation performed on cell values
- display only the first 50 rows of the table.

    * *See Example 1: column configuration with break.*

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.*

     * *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 Series** 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 **Ascending** or **Descending** to sort the table data according to this characteristic.
   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 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 **Break On** field, select the column concerned by the computing.
   - in the **Computation** field, select the computing operator.

   Example 1: from a Report DataSet with the "Application Technologies" definition, for the grouping on the "Rating" column, at the break, in the **Break On** field select: "Technologies" and in the **Computation** 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: Example 3: filters on the table columns.*

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 and Example 4: filter on the table columns and cells (initial values).*

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.*

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.*
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.*

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).*

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.*

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.*
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" (of the application)
- "Number of users" (of the application)
- "Cost" (of the application)
- "Technologies" (of the application)
- "Vendor" (of the technology)

* *See Example 1: column configuration with break, Example 3: filters on the table columns, Example 4: filter on the table columns and cells (initial values).*

You can also:

- hide columns
- modify the order of columns.

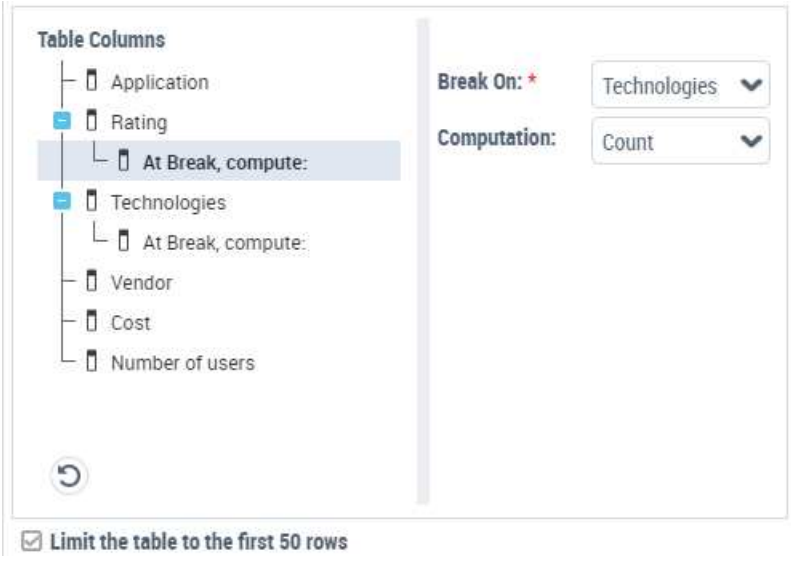
* *See Example 2: column definition (display, order) and value computation.*

Example 1: column configuration with break

* *To configure this filter, see Defining the columns in a table-type instant report.*

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
- keep the 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.

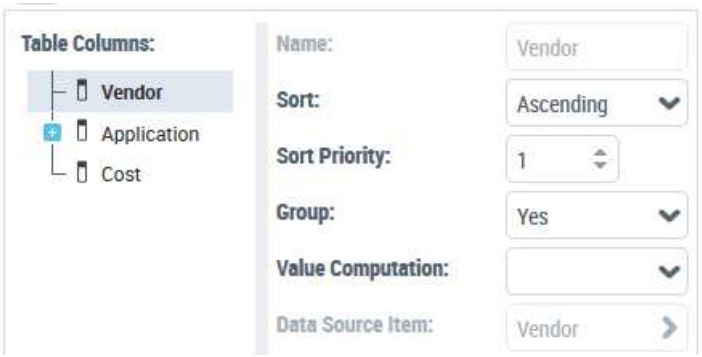
ation	Rating	Technologies	Vendor	Number of users	Cost
CRM Europe	5 Etoiles	SAP Business Objects 4.1	SAP	22	1 37
CRM Europe		SAP NetWeaver	SAP	22	1 37
CRM Europe		PostgreSQL 9.3	PostgreSQL	22	1 37
CRM Europe		Debian Squeeze	Debian	22	1 37
CRM Europe		Office 2013	Microsoft	22	1 37
		5			
Italy	4 Etoiles	Windows 8.1	Microsoft	0	500
Italy		Oracle 11gR2	Oracle	0	500
Italy		SAP ERP PLM	SAP	0	500
Italy		SAP ERP SCM	SAP	0	500
Italy		SAP Business All-in-One	SAP	0	500
Italy		SAP R/3 QM	SAP	0	500
Italy		SAP R/3 SD	SAP	0	500
Italy		SAP R/3 PM	SAP	0	500
Italy		SAP R/3 PP	SAP	0	500
Italy		SAP R/3 PS	SAP	0	500
Italy		SAP R/3 WF	SAP	0	500
Italy		SAP NetWeaver	SAP	0	500
Italy		.NET Framework 3.5 SP1	Microsoft	0	500
Italy		Windows 2012 Server	Microsoft	0	500
		14			
ierche du client	3 Etoiles	.NET Framework 4.5	Microsoft	0	
ierche du client		SQL Server 2000 SP2	Microsoft	0	

Example 2: column definition (display, order) and value computation

* *To configure this filter, see Defining the columns in a table-type instant report.*

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: Vendor
  - 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"

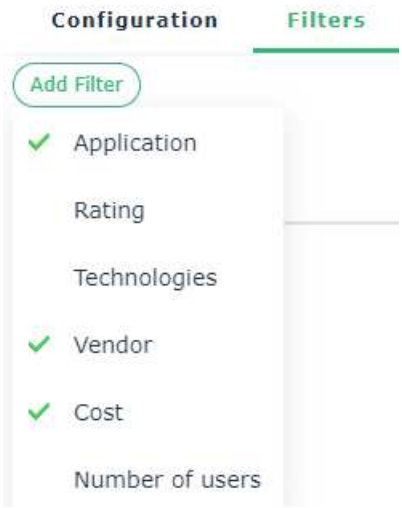
The report result presents the Vendors sorted in alphabetical order and for each vendor specifies the number of applications and their total cost

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

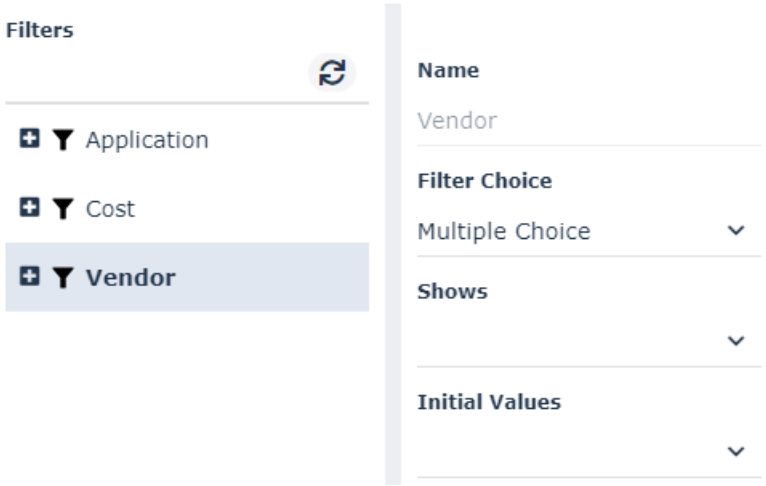
Example 3: filters on the table columns

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.

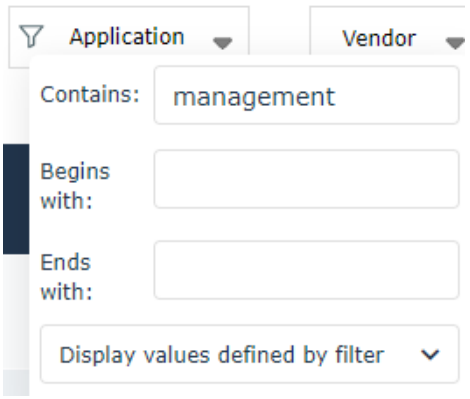
   ```
   Example: Application
   ```

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.

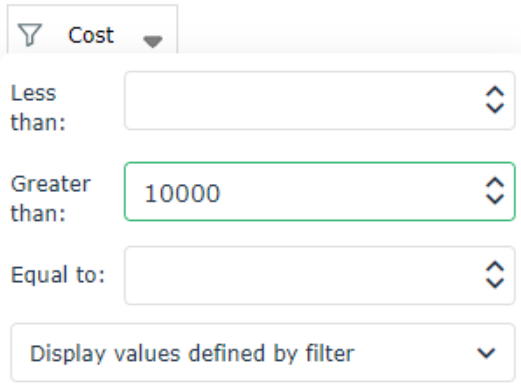
For example, you can display:

- 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*

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*

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
- Obtaining the list of objects in a data series
- Hiding a data series
- Defining and customizing the data of a table-type instant report (Report DataSet)

Updating an instant report

When an instant report is not up to date, 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 up to date, 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.*
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.*
2. Click the chart part concerned.
   * *In a bubble chart, roll the mouse over the bubble and click **Set of objects, click to view details**.*

   The list of objects contained in this part is displayed in the **Results** 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 .xlsx format.
   - **Instant Report**, to generate an instant report for the series.
     * *See Launching an Instant Report.*

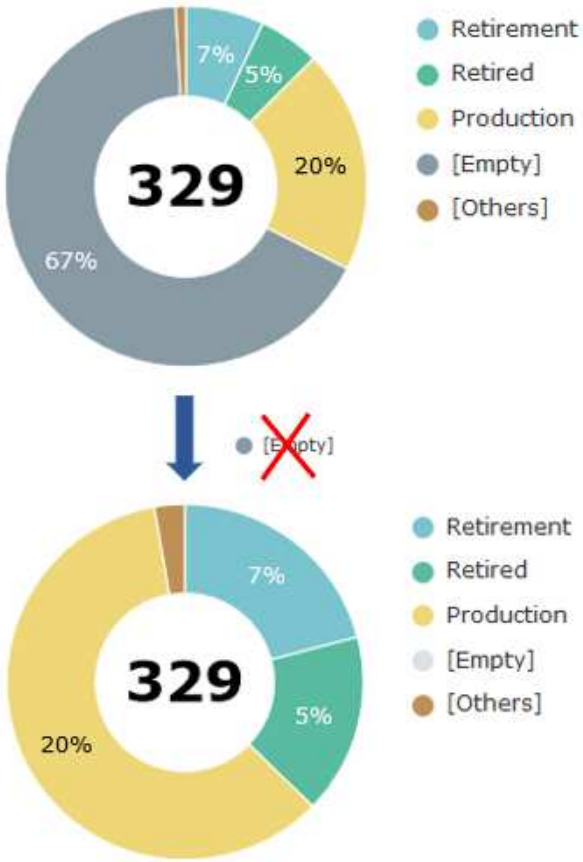
Hiding a data series

For improved visibility, you can hide data series in the report graphic.

To show/hide a data series:

1. Access the instant report.
   * *See Launching an Instant Report.*
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 legend, 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.*
- customize the report display (e.g.: display of values, legend format, titles).
  - *See Customizing Your Reports.*

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).*

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.*
2. In the report result page, click **More** > **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..*
   * *You can modify the name of the report and open the report to edit and customize it; see Customizing Your Reports.*

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.*
2. In the report result page, click **More** > **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..*

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.*

To share an instant report as a Widget:

1. Launch your instant report.
   * *See Launching an Instant Report.*
2. In the report result page, click **More** > **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.*

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.*
   The report is saved in the list of your reports.
2. Access your reports.
   * *See Accessing your reports in a HOPEX solution..*
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

In **HOPEX** (Web Front-End) you can customize your report display.

Prerequisites: before customizing a report, you must first save it in your reports.

* *See Saving the content of an analysis report.*

See:

- Customizing a Report Style
- Customizing a Report Style
- Adding a comment to a report
- Customizing the Display of a Report Graphic
- Customizing the Display of a Table or a Report Matrix
- Resetting the Customization of the Report Settings
- Managing Report Styles

Customizing a Report Style

You can customize the reports saved in **Other reports > My Reports** folder.

* *See Saving an Instant Report as a Report.*
* *See Creating your analysis reports.*

To customize a report style:

1. In the report page, click **More** **> Edit Report** .
   The edit pane appears to the right of the report.
   If your report includes several chapters, all the chapters open fold up so that you select the one you want to customize.
2. (If the report includes several chapters) Unfold the chapter you want to edit.
3. Customize the report.
   * *See Customizing the Display of a Report Graphic.*
   * *See Customizing the Display of a Table or a Report Matrix.*
   * *See Managing Report Styles.*
4. In the report page, click **Exit Report Edit Mode** .
   The edit pane to the right of the report disappears. You are no longer in report edit mode.
   Your customization is saved.

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.*

To add a comment to a report or to a report chapter:

1. Edit the report.
   * *See Customizing a Report Style.*
2. Under the chapter title, click **Add a comment** / **Add a comment to this chapter**.
   An edit window opens.
3. Enter your text.
4. (To format your text) Click **Maximize** to enlarge the text edit window and display all formatting menus.
   * *Alternative: click ⋮ to access the text 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.*
- chapter graphic style
  * *See:*

  Updating the font of a graphic of a report chapter,
  Modifying the bubble style in a bubble chart
  Modifying an object style in a graph
  Updating the style of a graph of a report chapter
  Updating the style of a graphic of a report chapter,
  Modifying the style of labels,
  Modifying the legend style.
- chapter series style level
  * *See Modifying the style of parameters in a report chapter.*
- chapter style level, for exporting
  * *See Modifying the style for export.*

  M **The values modified locally override the global values defined for all reports.**

You can reset the values configured by default at:

- parameter level
- entire chapter level
    - *See Resetting the Customization of the Report Settings.*

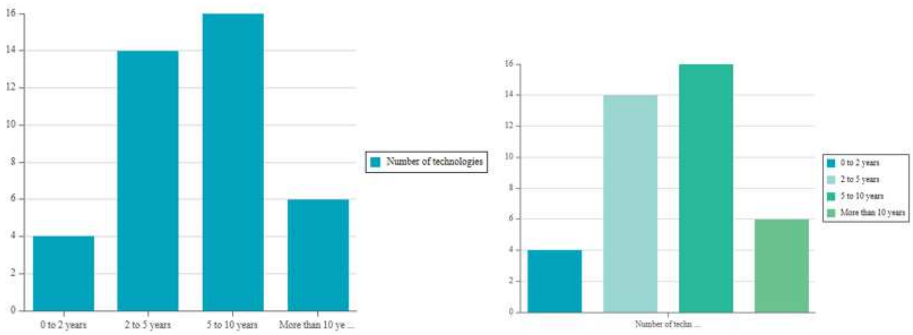
You can add comments at:

- report level
- report chapter level
    - *See Adding a comment to a report.*

Updating the content of a graphic of a report chapter

You can, for example:

- reverse the display of the series



- show/hide the values (values or percentage) in the bars.
- add a title on the horizontal and/or vertical axis

To modify the report content:

1. Edit the report.
    - *See Customizing a Report Style.*
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 reset.*
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.*

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

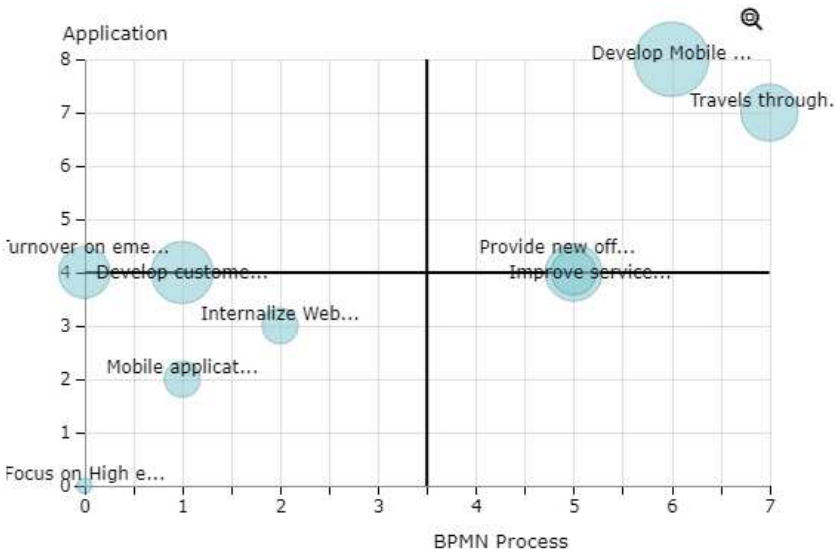
To update the font of a graphic of a report chapter

1. Edit the report.
    * *See Customizing a Report Style.*
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 reset 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 reset.*
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.*

Modifying the bubble style in a bubble chart

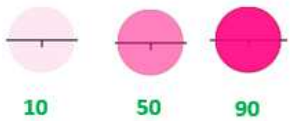
You can, for example:

- display median axes



* *To remove or modify the grid lines, see Updating the style of a graphic of a report chapter.*

- modify the bubble color
- modify the bubble opacity
  By default: 50, to increase the opacity set a value higher than 50, to decrease the opacity, set a value lower than 50.



- modify the bubble text font
- add a background image (.png format)
  You can add an image (in .png format), which is saved in HOPEX.

To modify the bubble style in a bubble graph:

1. Edit the report.
   * *See Customizing a Report Style.*
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 reset 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 reset.*
4. Click **Apply**.
   Your modifications are immediately taken into account in the report.
   * *If the modifications do not appear automatically, click .*

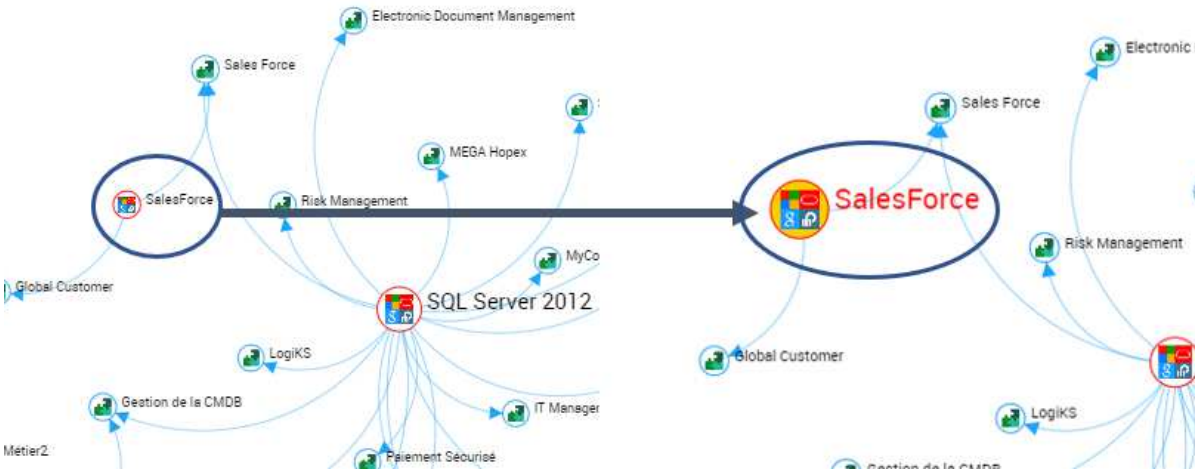
Modifying an object style in a graph

To highlight an object, you can modify for example:

- the border (color, thickness, style) of the object
- the fill color of the object
- the label color of the object
- the size of the object

To modify the size of an object:

1. Edit the report.
   * *See Customizing a Report Style.*
2. In the report page, click **Edit style parameter values** and select an object.
   The edit pane of the object appears to the right.
3. In the **Style** section, modify the object style.
4. In the **Labels Style** section, modify the label color.



Updating the style of a graph of a report chapter

You can, for example:

- define fixed size nodes
  - *By default the node size is proportional to its connections.*
- not color entry points
  - *By default entry points are highlighted with another color (e.g.: red).*
- define a background color to the graph
  - *By default the graph background is white.*

1. Exchange and Content

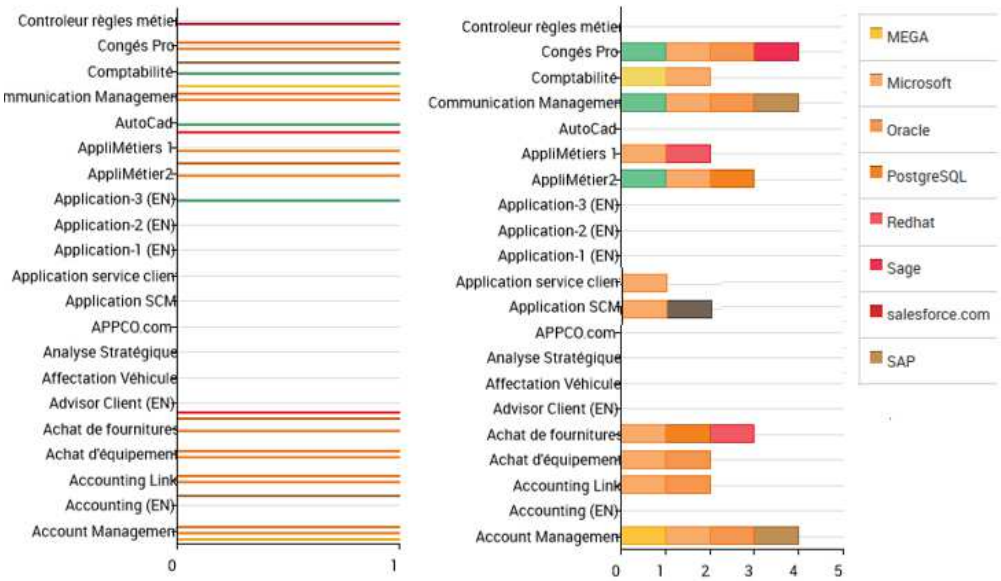
Updating the style of a graphic of a report chapter

You can, for example:

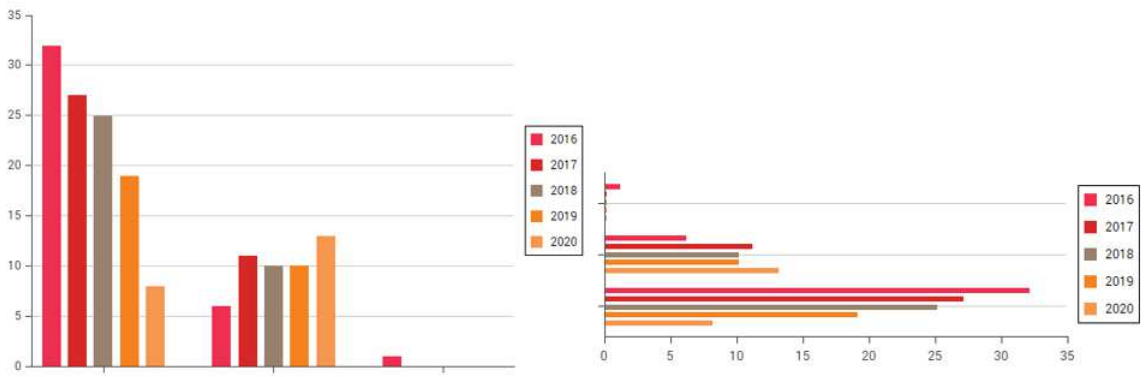
- modify the color palette of the series

  * *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
- add a horizontal and/or vertical grid spacing
- stack the bars



- reverse the bar direction (vertical or horizontal)



To modify the style of a report chapter:

1. Edit the report.

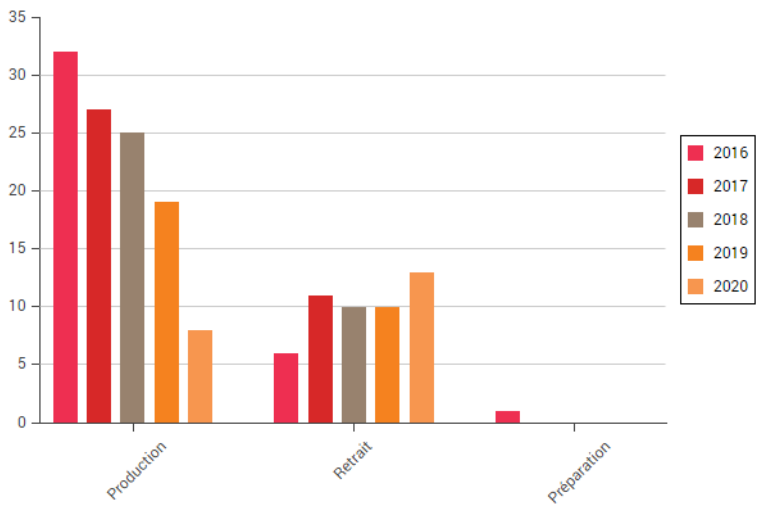
   * *See Customizing a Report Style.*

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 reset 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 reset.*
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.*

Modifying the style of labels

You can, for example:

- hide the axes
- define the maximum value of axes
- truncate the labels
- reverse the label order
- sort by value order (vertical axis)
- define a display angle for the horizontal label (in degrees)
  * *Default value: 0°, the text is horizontal.*



To modify the style of the labels of a report chapter:

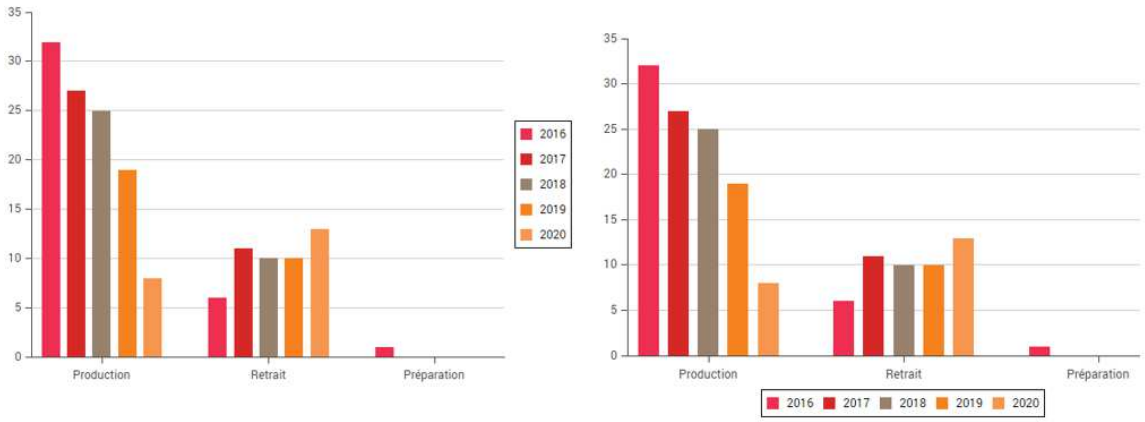
1. Edit the report.
   * *See Customizing a Report Style.*
2. In the report page, click **Edit style parameter values** and select **All Series**.
   The edit pane appears to the right.

3. In the **Labels Style** section, modify the parameters concerned.
    * *To reset 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 reset.*
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.*

Modifying the legend style

You can, for example:

- hide/show the legend
    * *Default value: yes (displayed)*
- modify the position of the legend (on the bottom or right)
    * *Default value: to the right*
- hide/show the legend frame
    * *Default value: yes (displayed)*



To modify the legend style of a report chapter:

1. Edit the report.
    * *See Customizing a Report Style.*
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 reset.*

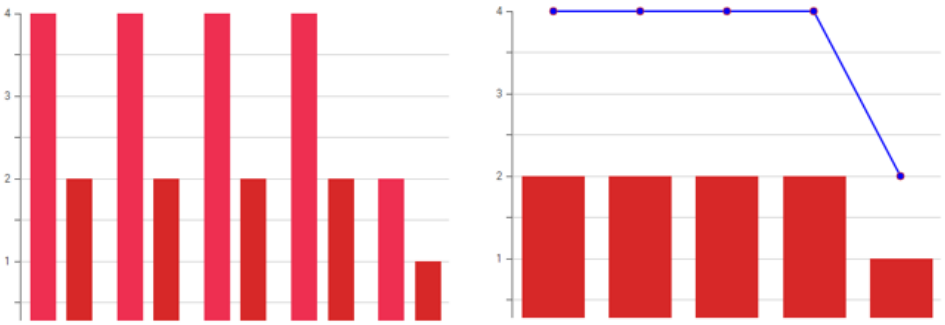
4. Click **Apply**.
   Your modifications are immediately taken into account in the report.

   * *If the modifications do not appear automatically, click or modify the configuration (see Expanding a Report Chapter Automatically on Opening).*

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 Customizing a Report Style.*
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 Customizing a Report Style.*

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.*

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:

- chapter table content level
  * *See Modifying the content of a table or a matrix of a report chapter.*
- chapter style level
  * *See: Updating the font of a graphic of a report chapter, Updating the style of a graphic of a report chapter, Modifying the style of labels, Modifying the legend style.*
- chapter series style level
  * *See Modifying the style of parameters in a report chapter.*
- chapter style level, for exporting
  * *See Modifying the style for export.*

  M **The values modified locally override the global values defined for all reports.**

You can reset the values configured by default at:

- parameter level
- entire chapter level
  * *See Resetting the Customization of the Report Settings.*

You can add comments at:

- report level
- report chapter level
  * *See Adding a comment to a report.*

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

- 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 Customizing a Report Style.*
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 reset.*

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.*

Resetting the Customization of the Report Settings

You can reset:

- the value of content or report style parameter
- all your customization applied to content and report style parameters

Resetting the parameter value of the report chapter

To reset the value of a content or report style parameter:

1. Edit the report.
   * *See Customizing a Report Style.*
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.

Resetting all the report customization

To reset all your changes:

1. Edit the report.
   * *See Customizing a Report Style.*
2. Click **Reset Parameters Values** .
3. Click **Apply**.
   Attention: all content and report style parameters return to their default value.

Managing Report Styles

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.*
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.*

Applying a Style to Your Report

To apply a style to your report:

1. Edit the report concerned.
   * *See Customizing a Report Style.*
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.*
4. Click **Apply**.
   The style is applied to your report.

HANDLING YOUR REPORTS

See:

- Updating Reports
- Getting the List of Objects in a Data Series
- Hiding a Data Series
- Zooming in on a Chart Part (bar / linear / radar chart)
- Handling a Bubble Chart
- Handling a Dendrogram
- Handling a Graph
- Handling a Treemap
- Handling a Breakdown Report
- Handling a Chord Diagram

Updating Reports

When a report is not up to date, a message (at the top of the report) specifies the date of the latest generation of the report as well the time required for generation. If the data contained in the list of objects changes, you must refresh the report to take these changes into account.

* *When the report is up to date, the message for the latest generation date of the report is not displayed.*

To update the report:

1. Access the report.
2. In the report title, click **Refresh** .
   The report is updated.

Getting the List of Objects in a Data Series

To get the list of objects making up part of the chart:

1. Access the report.

2. Click the chart part concerned.

    * *In a bubble chart, roll the mouse over the bubble and click **Set of objects, click to view details**.*

    * *In a chord diagram, roll the mouse over the chord and click **Click to view details** .*

    The list of objects contained in this part is displayed in the **Results** 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 .xlsx format.
- **Instant Report** , to generate an instant report for the series.

    * *See Launching an Instant Report.*

Hiding a Data Series

For improved visibility, you can hide data series in the report graphic.

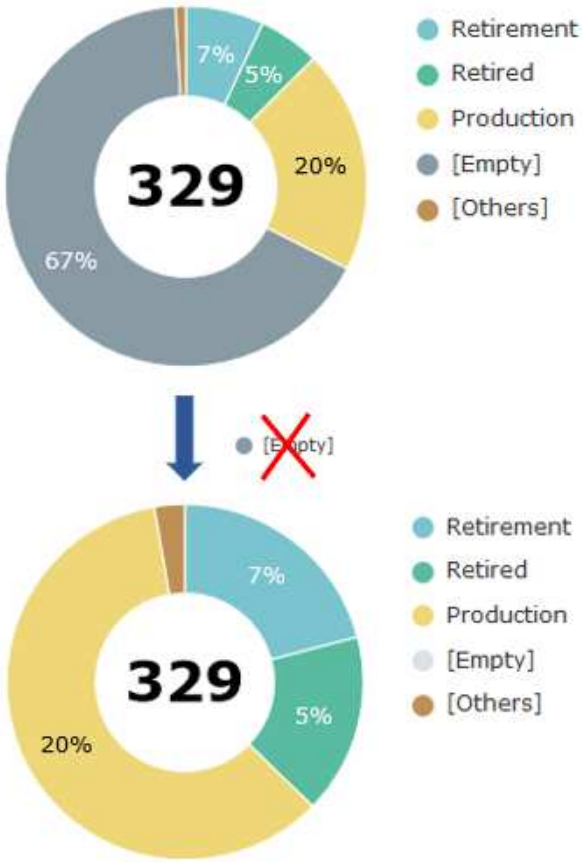
To show/hide a data series:

1. Access the report.
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 their current state, you can hide

the series "[empty]" that represents the applications whose state is not entered.

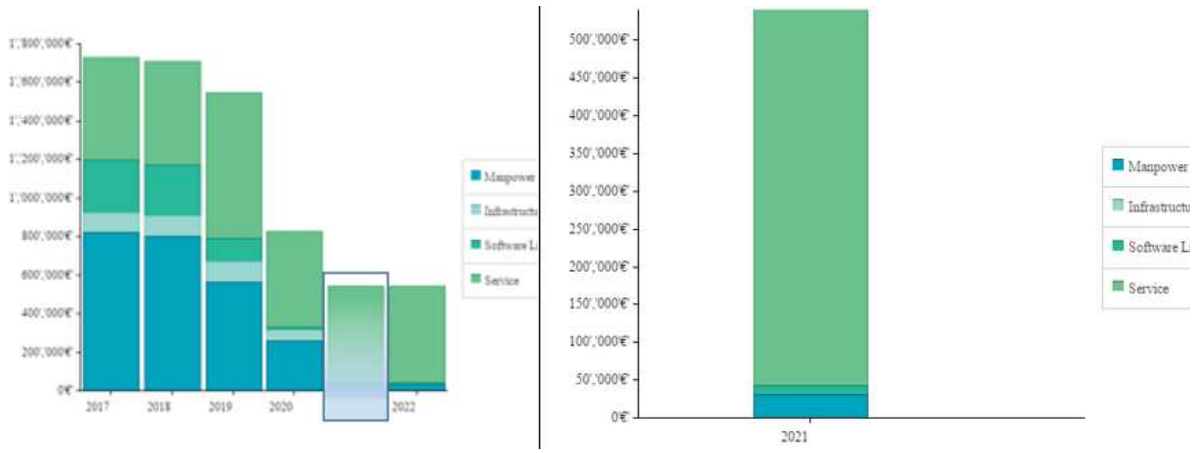


3. In the legend, click the series again to re-display it in the chart.

Zooming in on a Chart Part (bar / linear / radar chart)

For improved readability, you can zoom in on a chart part.

* *See also:*
Zooming in on and moving about in a bubble chart,
Zooming in on and moving about in a dendrogram, *and*
Zooming in on and moving about in a graph.



To zoom 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.*

Handling a Bubble Chart

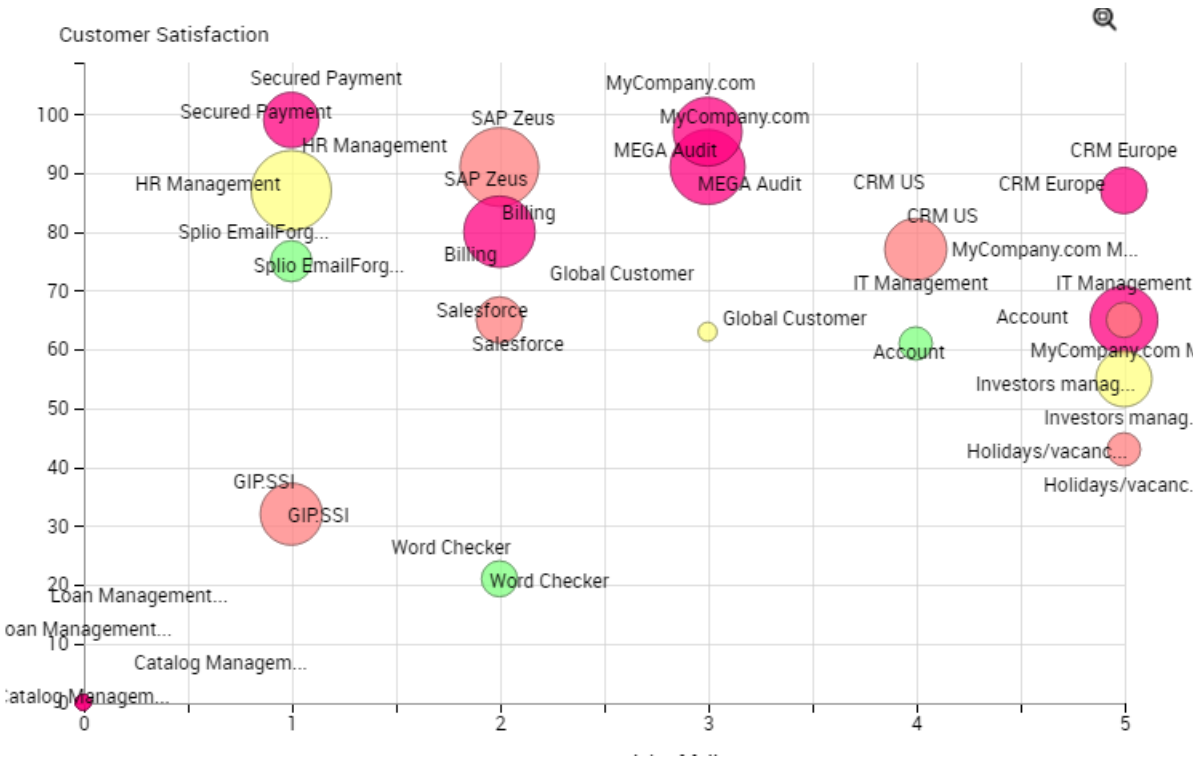
In a bubble chart, you can:

- display, hide or reduce the length of labels to lighten the chart
- display and highlight a bubble label
- display the link between each bubble and its label
- add a background image
- zoom in on and move about in the chart
- get the list of objects included in a bubble

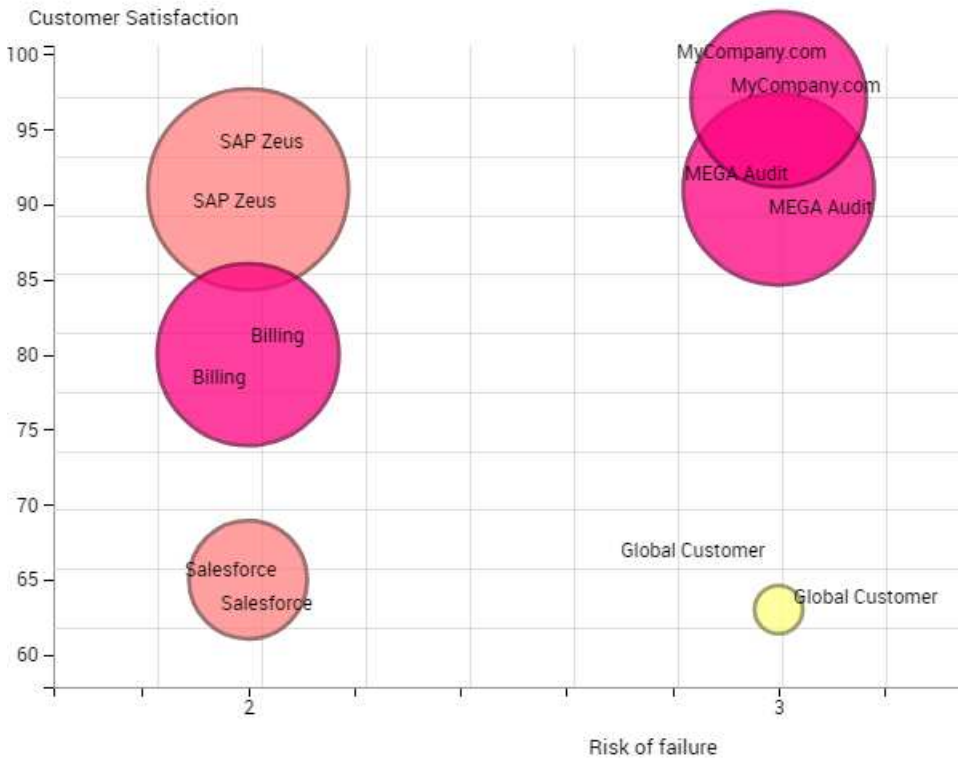
Improving a bubble chart readability

To improve a bubble chart readability:

1. Access the bubble chart.

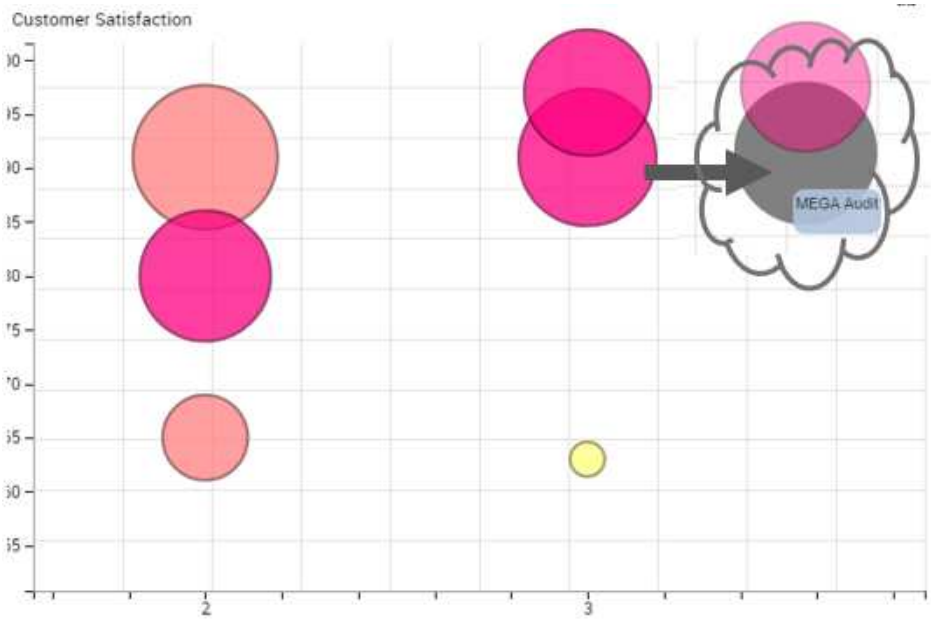


2. (If needed) Zoom in on and move about in the chart.
   * *See Zooming in on and moving about in a bubble chart.*

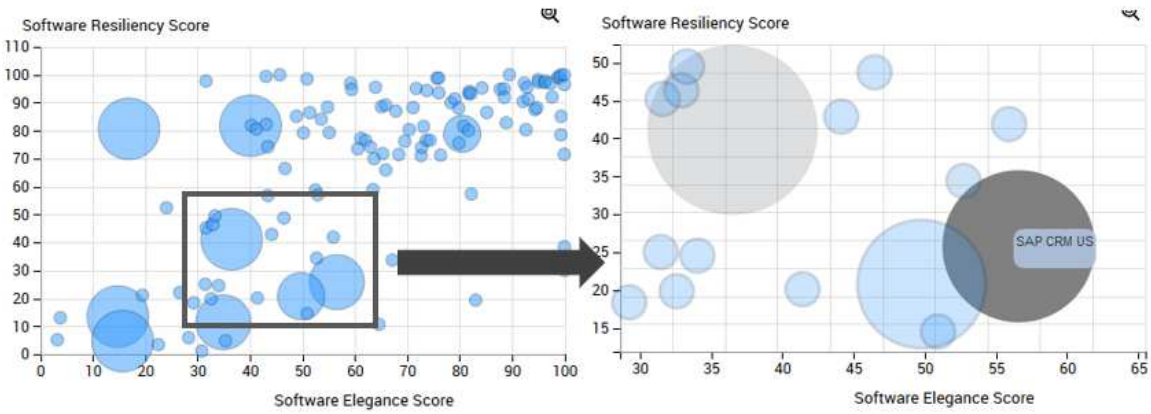


3. Modify the label style to display/hide the labels and their links.
   * *See Modifying the style of labels.*
4. (Instant Report) To quickly show/hide labels: below the chart, select **Options**, then select/clear **Display Labels**.
   You can also move the **Label Length** cursor to reduce the length of the text of the labels.
5. (If needed) Add a background image
   * *See Updating the style of a graphic of a report chapter.*

6. Roll the mouse over a bubble to highlight its label.



Zooming in on and moving about in a bubble chart



To zoom in on and move about in a bubble chart:

1. In the bubble chart, use the mouse wheel to zoom in/zoom out.
   The zoom is performed on the graph as a whole.
2. (if necessary) To move about within the chart, click the chart, keep the mouse button pressed and move the mouse.

Handling a Dendrogram

A dendrogram illustrates the environment of an object. You can improve its display:

- in the report parameters:
  - modify its display **Display** mode (circular or horizontal)
  - modify the **Number of displayed levels** by default
- in the dendrogram:
  - display an additional level of a single branch
  - modify the depth of display of a branch levels from a specific object

Example of a Report Template showing a dendrogram:

> "Environment report"
>
> With **Display** and **Number of displayed levels** parameters, this Report Template also includes the following parameters:
>
> **Subject**: defines the source object of the dendrogram.
>
> **Hierarchy**: defines the link (via a MetaAssociationEnd or a query) browsed recursively to display the objects.
>
> **Deepness**: defines the number of displayable levels of a branch.

Improving a dendrogram readability

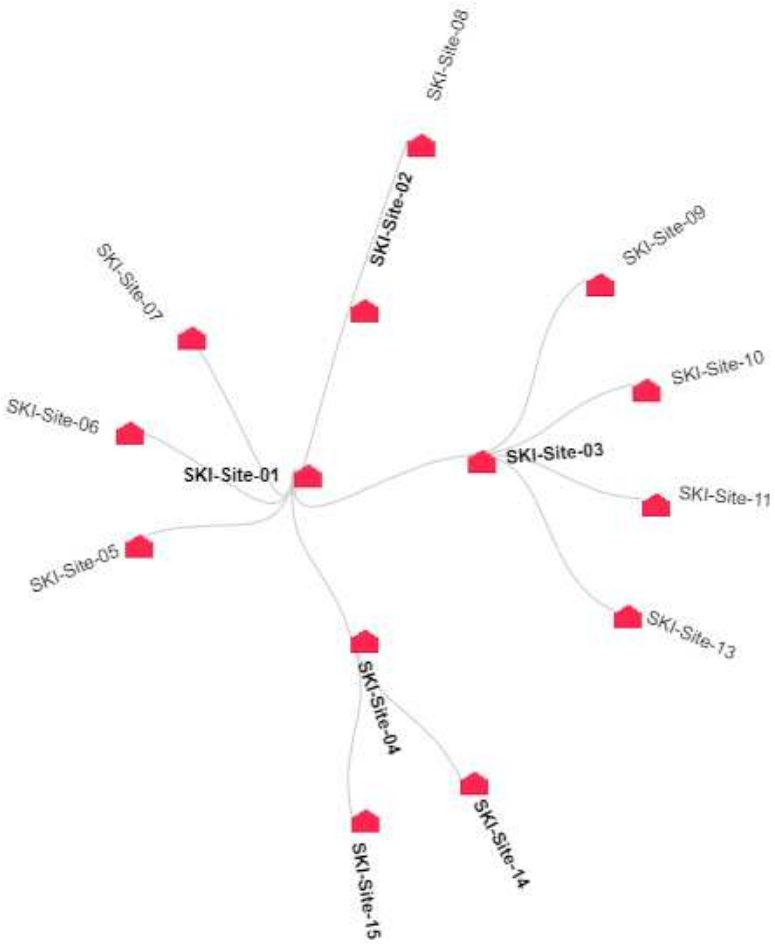
To improve a dendrogram readability:

1. (If needed) Zoom in on and move about in the dendrogram.
2. Edit the report (click **More** **> Edit Report**).

* *See Customizing a Report Style.*

3. In the edit pane, **Styles** section, modify the style parameters, then click **Apply**.
   Select, for example:
   - the most suitable **Display** mode

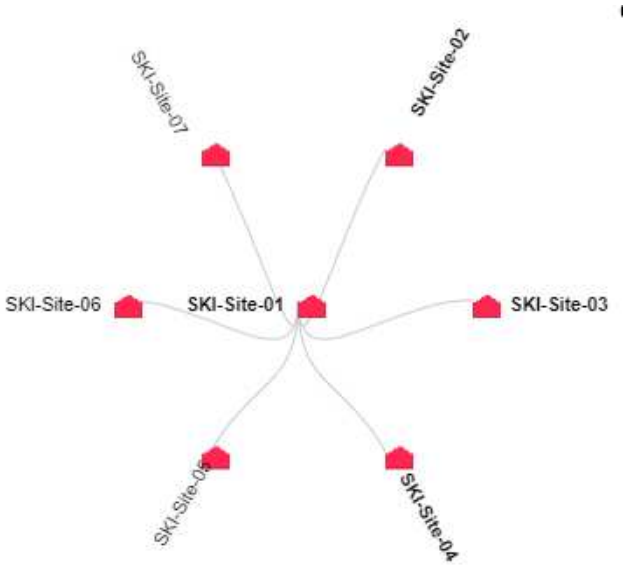
     `Circular`



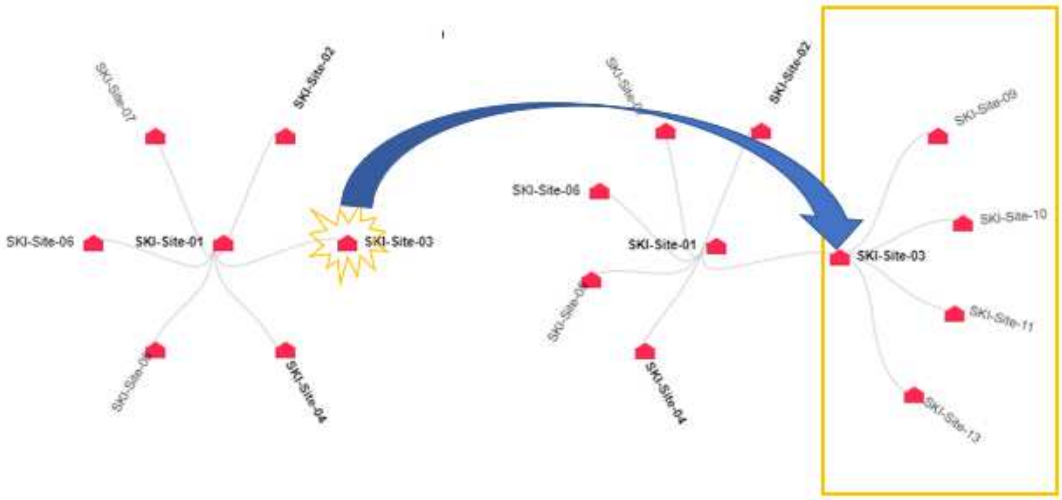
`Horizontal`

- the default **Number of displayed levels** for all of the branches

  `Example: 2 levels displayed by default`

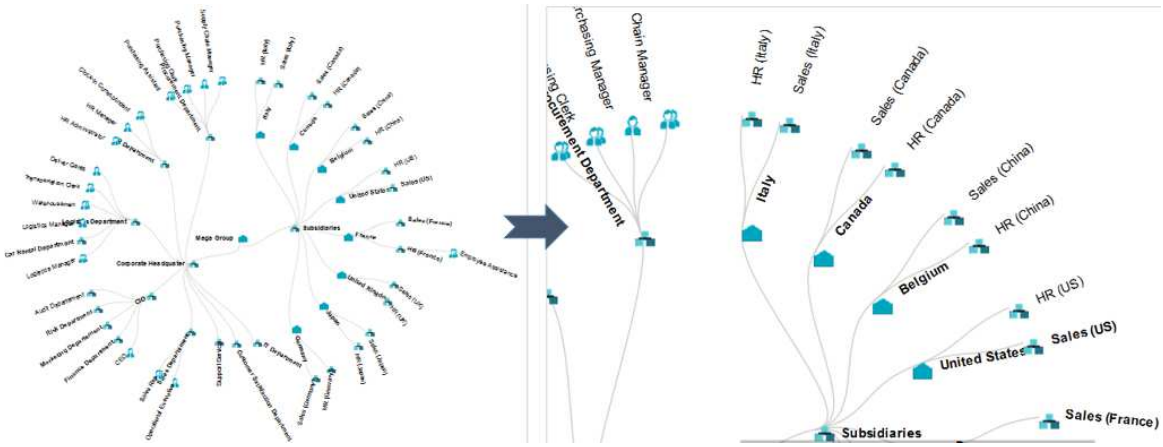


4. Click an object:
   - at the end of a branch to display an additional level (objects with bold names have additional levels)



   - within a branch to hide the deeper levels

Zooming in on and moving about in a dendrogram



To zoom in on and move about in a dendrogram:

1. Access the environment type report concerned.
2. In the dendrogram, use the mouse wheel 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.

Handling a Graph

A graph illustrates relationships between objects. These relationships can be grouped to highlight the relationship density between certain objects.

The graph includes facilities to optimize its readability and customize its display.

You can:

- improve the graph readability:
  - hide or reduce the length of labels
  - hide isolated objects
  - modify the object spacing
  - focus on an object
    - *See Improving a graph readability.*
- choose the analysis criteria (layers)
  - *See Displaying a graph analysis criterion.*
- ungroup grouped relationships
  - *See Handling a relationship grouping.*
- highlight an object (style)
  - *See Modifying an object style in a graph.*
- modify the graph style
  - *See Updating the style of a graph of a report chapter.*

You can also:

- perform searches to find objects in the graph
  - *See Finding an object in the graph.*
- zoom in on and move about in the graph
  - *See Zooming in on and moving about in a graph.*
- display the graph in 3D
  - *See Displaying a graph in 3D.*
- display the properties available in tooltips
  - *See Displaying the properties available in tooltips.*
- access object properties
  - *See Displaying an object properties.*
- access the object pop-up menu (right-clicking the object)

Improving a graph readability

To improve a graph readability:

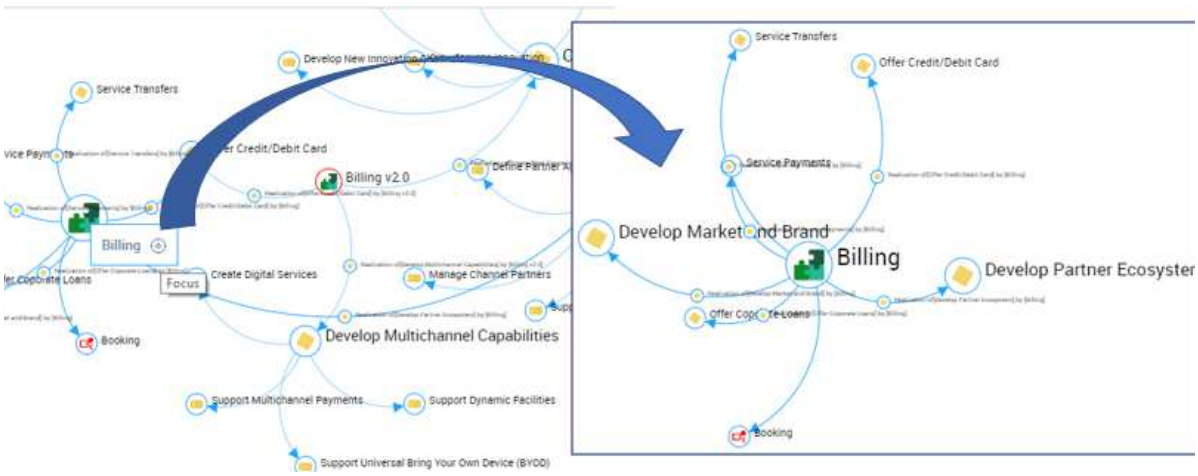
1. (If needed) Zoom in on and move about in the graph.

2. Below the graph, select **Options** and move the cursors:
   - **Label Length**, to the left to reduce or to the right to increase the character numbers of the labels.
   - **Object Spacing**, to the left to narrow the object spacing or to the right to increase the object spacing.

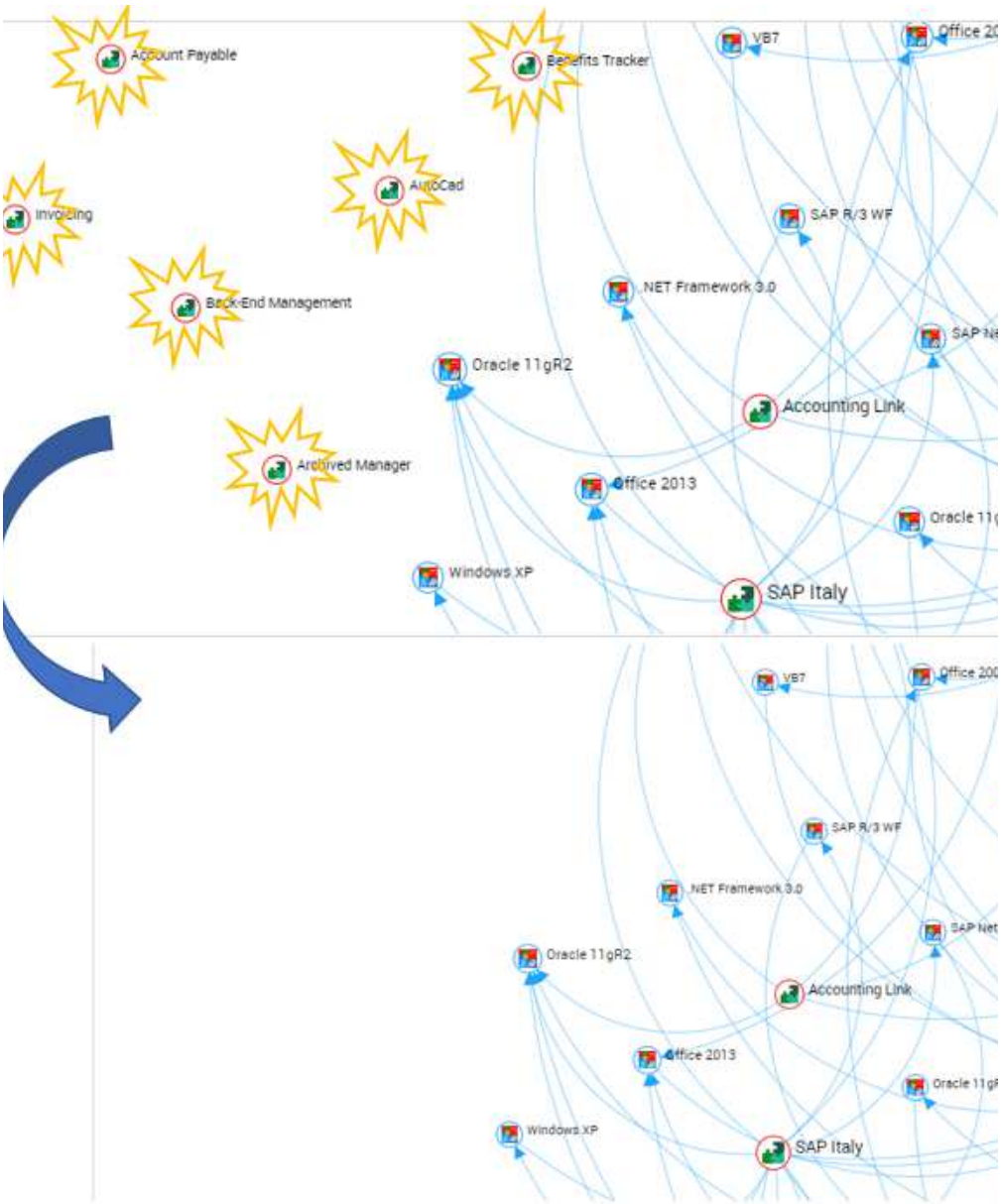
3. To isolate an object (display it with its direct relationships), roll the mouse over the object, and in the tool-tip, next to its name, click **Focus** .

   The selected object is isolated.

   * *Click in the graph to return to the entire graph display.*



4. To hide the isolated objects (nodes), below the graph, select **Options** and **Hide nodes without link**.



Displaying a graph analysis criterion

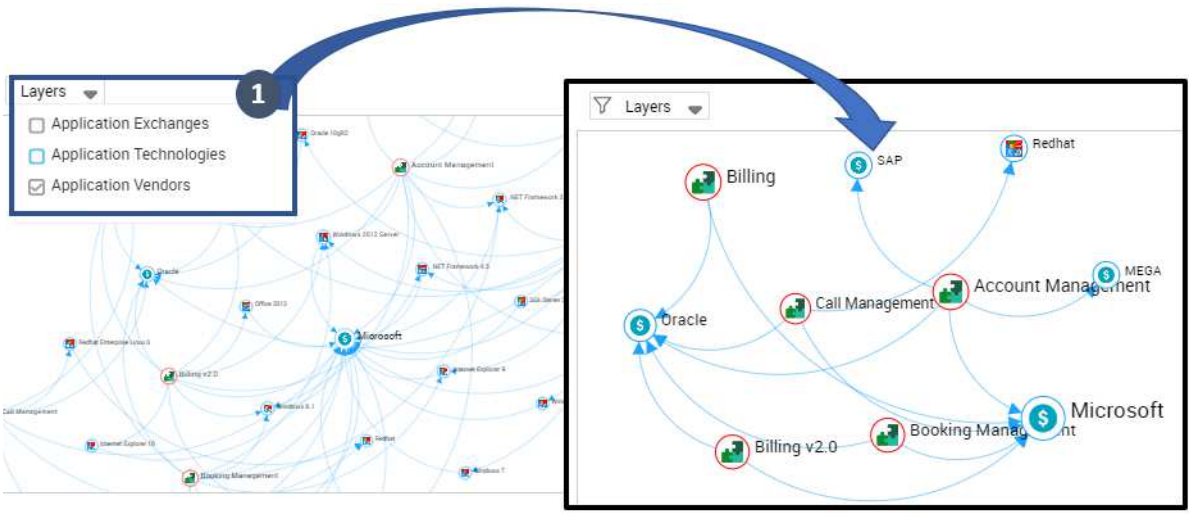
When a graph contains several analysis criteria, you can restrict its display to a single active layer.

That way, you can quickly switch from an analysis criterion to another one or overlay them.

To choose the analysis criteria to be displayed:

â Above the graph, click **Layers** and select the analysis criteria that you want to display.
The cleared analysis criteria are hidden.

Beside **Layers**, indicates that analysis criteria are filtered.



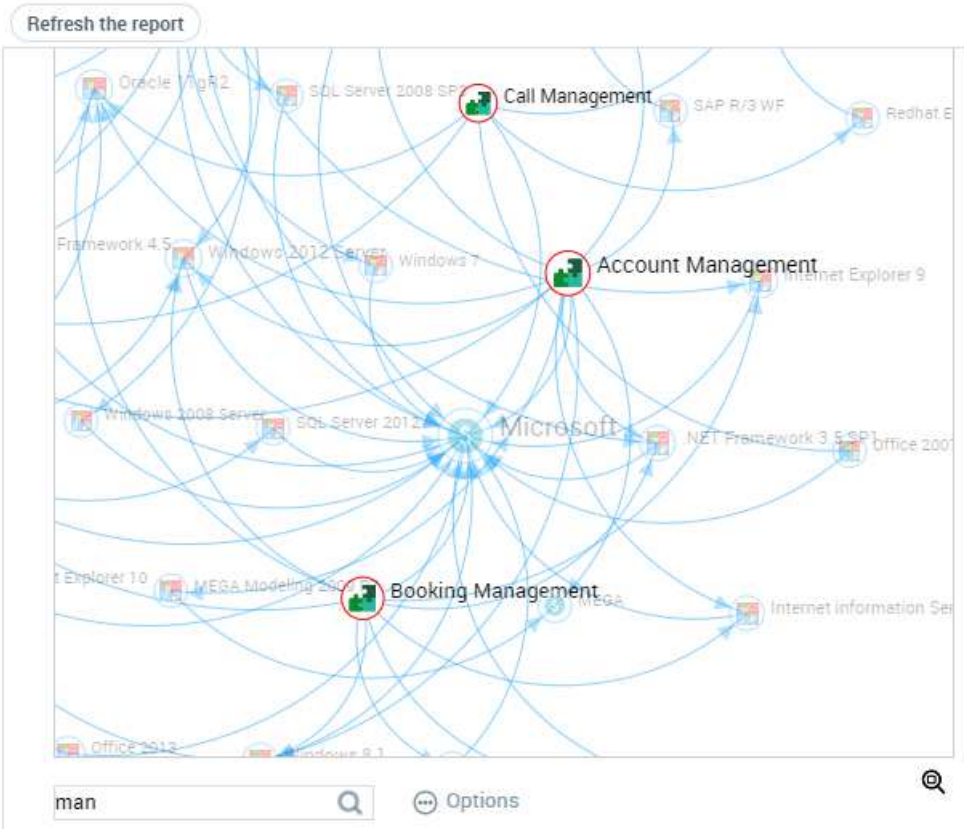
Finding an object in the graph

To find an object in the graph.

1. Below the graph, in the **Find an Object** field, enter a character string.

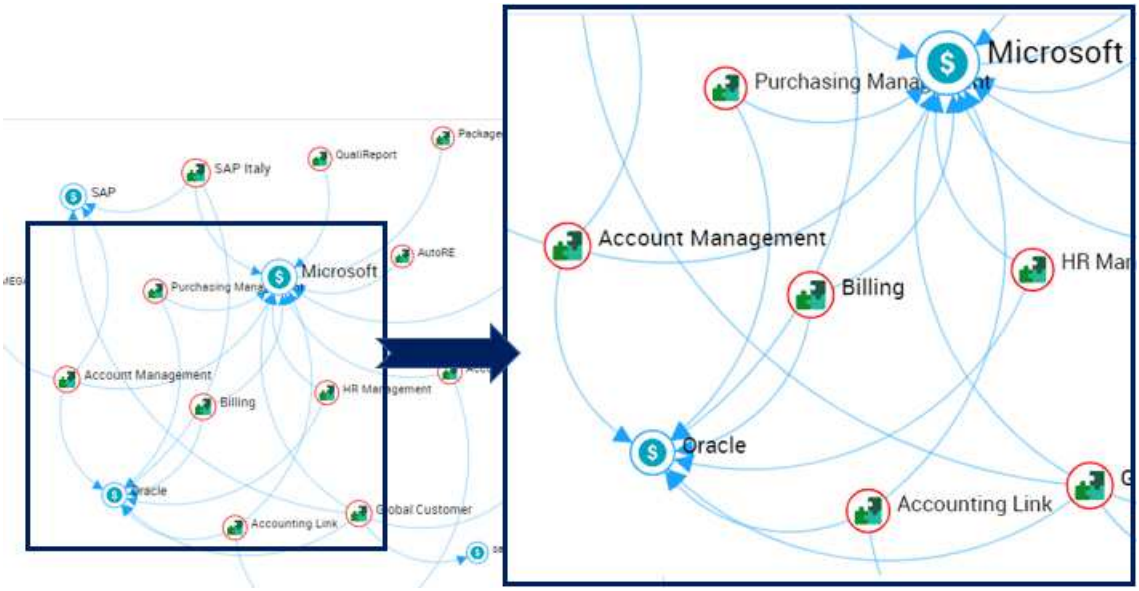
   `E.g.: enter "man".`

   The objects that do not contain the character string entered are automatically grayed.



2. To display all the objects again, click **Refresh the report**.

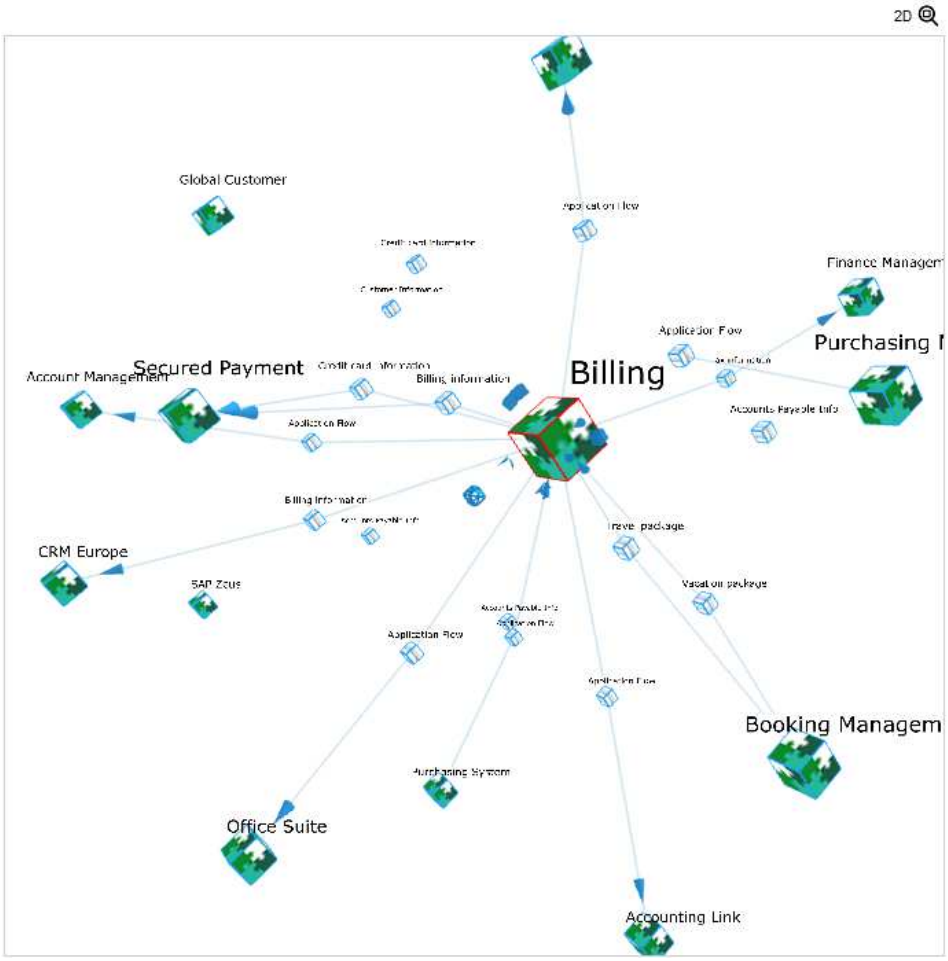
Zooming in on and moving about in a graph



To zoom in on and move about in a graph:

1. In the graph, use the mouse wheel to zoom in/zoom out.
   The zoom is performed on the graph as a whole.
   * *To focus on a single object in the graph, see Improving a graph readability.*
2. (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 an object in the graph.*

Displaying a graph in 3D



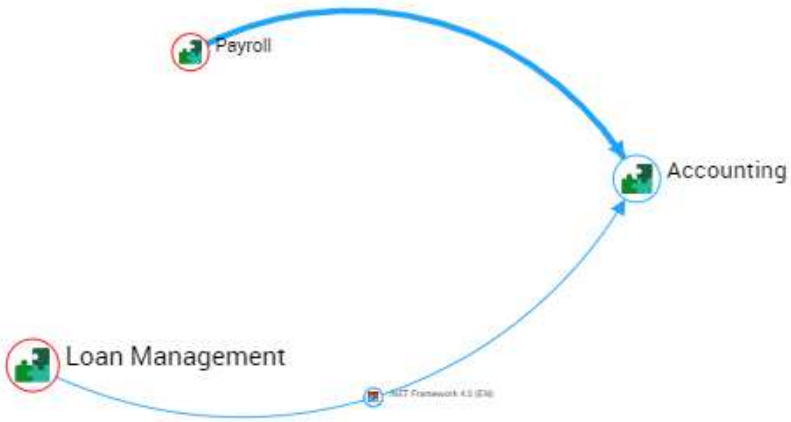
To display a graph in 3D:

1. Above the graph, click **3D**.
   The **2D** button replaces the **3D** button.
   The graph is displayed in 3D.
   * *To return to 2D, click **2D**.*
2. If needed:
   - Click in the graph and move the mouse so as to make the elements more readable.
   - Focus on another object to highlight another object.

Handling a relationship grouping

In a graph, relationships between two objects can be grouped. A relationship grouping is identified by its stroke thickness. The strokes standing for relationships are called arcs.

E.g.: the arc between "Payroll" and "Accounting" stands for a relationship grouping.



You can:

- display the number of arcs included in the grouping
- ungroup arcs to display their intermediate objects
- simply display the list of intermediate objects

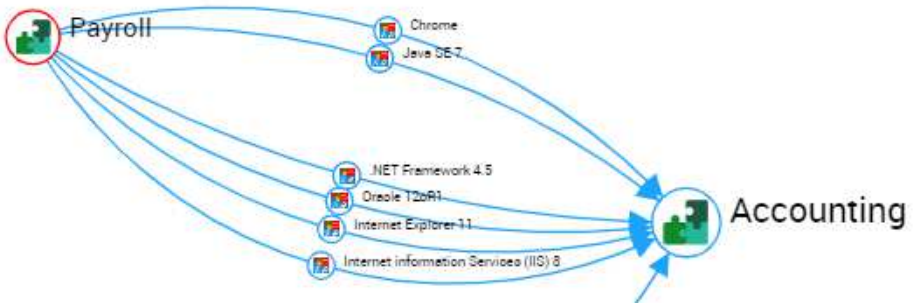
To handle an arc grouping:

1. (If needed) In the graph, find and/or isolate an object for more readability.
   * *See Finding an object in the graph.*
   * *See Improving a graph readability.*
2. Roll the mouse over the arc grouping.
   A tooltip displays the number of arcs included in the grouping.

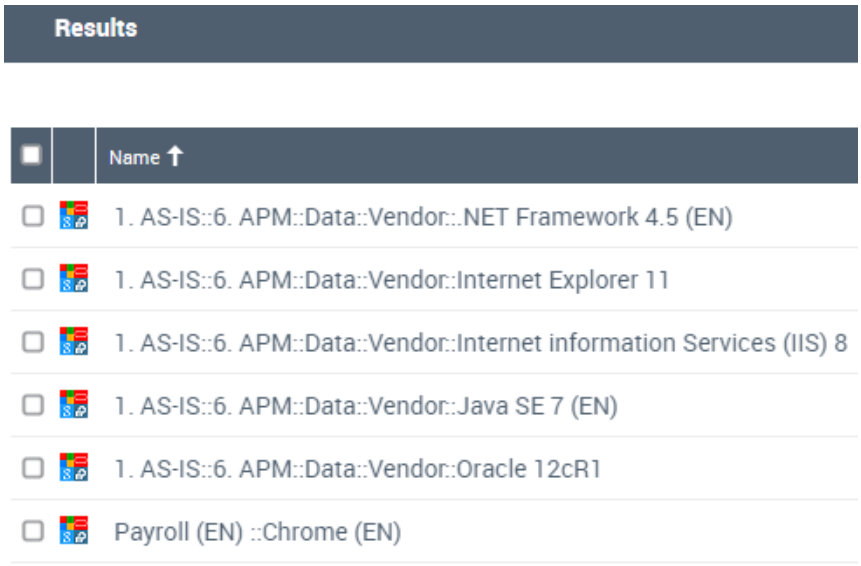
   Example: the arc grouping between "Payroll" and "Accounting" stands for six arcs.

3. You can:
   - display the arcs of the grouping and their objects: click **Ungroup arcs** .
     * *To regroup the arcs, roll the mouse over one of the arcs and click* ***Group arcs*** .

     E.g.: each arc between "Payroll" and "Accounting" includes one intermediate object (the grouping includes six intermediate objects).



   - simply list the intermediate objects in the **Results** window: click **Click to view details** .



Displaying the properties available in tooltips

Tooltips enable to display the properties available on:

- an object
- a relationship
- an intermediate object (object included in a relationship)

To display the properties available in tooltips in a graph:

1. Access the graph, and if needed find and/or isolate an object for more readability.
   * *See Finding an object in the graph.*
   * *See Improving a graph readability.*
2. Roll the mouse:
   - over the object concerned to display its available properties.
   - over the relationship concerned to display its available properties.
   - over the intermediate object concerned to display its available properties.

   * *A maximum of five properties are displayed, click **Display more** ⊞ to display more (if any).*

Displaying an object properties

You can display an object properties:

- In the **Properties** window , which enables to switch from an object properties to another one easily.
- in a pop-up window (right-click the object).

Handling a Treemap

A treemap displays hierarchical data as nested rectangles whose size varies according to the associated value.

Treemaps enable to identify trends and make quick comparisons.

You can:

- modify the number of displayed levels
- modify the display criterion
- display a rectangle properties

Example of a Report Template showing a treemap

The "**Capability Treemap**" report template belonging to ITPM Solution shows a treemap.

This report breaks down a capability hierarchy into a treemap according to three available criteria (parameters):

- **Number of components**: the surface area is proportional to the number of descendants in the tree.
- **Application ratio**: the surface area is proportional to the number of realizing applications of current and descendant capabilities in the tree.
- **Cost of applications**: the surface area is proportional to the cost of applications realizing current and descendant capabilities in the tree.

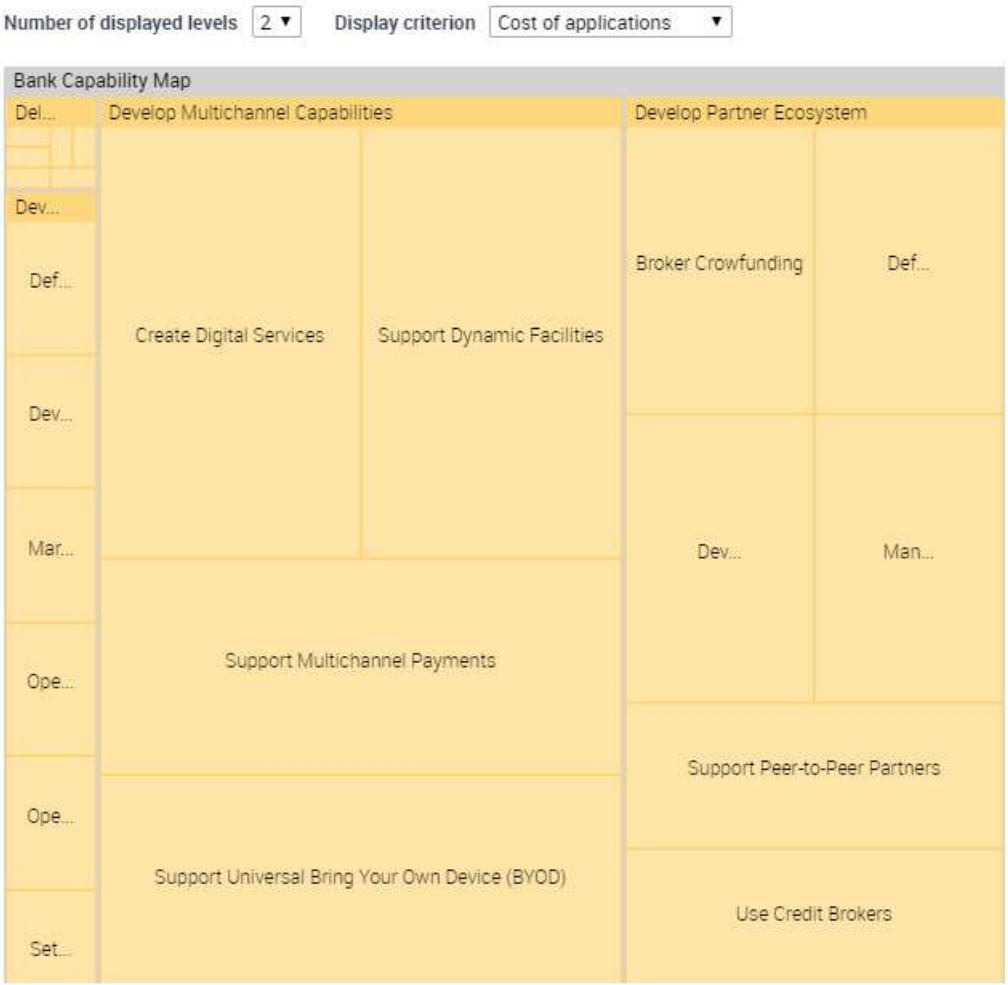
To handle a treemap:

1. To lighten a treemap display, in the **Number of displayed levels** field, select an upper level.
   Lower levels are hidden.

2. To display the treemap according to another criterion, in the drop-down menu of the **Display criterion** field select another criterion.

   `Example: Cost of applications.`

   The rectangle area corresponding to each element (e.g.: capability) is modified according to the new display criterion.



3. To display the values of an object, roll the mouse over the corresponding rectangle.

   `E.g.: on a business capability.`

   The rectangle color changes.

   The criteria values of the object (e.g.: the capability) are displayed:

   - the total number of components included in the object.

     `e.g.: 6`

   - its value for each available criterion.

     `e.g.: the ratio (2.56) and the cost (€1,831,758.33) of applications it includes.`

4. To zoom in on an item, double-click the item.
   The breadcrumb trail indicates you are one level lower down.

   The element selected widens over the whole space of the treemap and displays its components.

   You can drill down in the treemap levels, as long as the element includes items.

   * *In the treemap top right corner, click **One level up** to go one level up. You can go up only one level at a time.*

Handling a Breakdown Report

A breakdown report can be specialized according to each Solution specific needs. This type of report enables to display the breakdown of an "Architecture Building Block" type root object (e.g.: Capability map) into sub-objects of different types and analyze their fulfillment by "Solution Building Block" type objects (e.g.: Application).

The Report Template showing a breakdown map is based on:

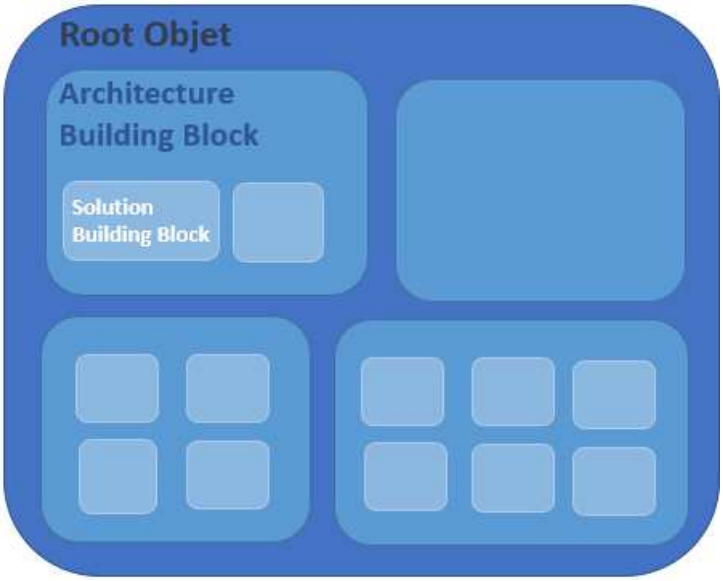
- a root object
- analysis criteria (on each breakdown level)

You can:

- modify the number of levels displayed in the report
- modify the analysis criteria displayed (background color and forms)
- unfold all of the elements
- highlight a criterion (e.g.: attribute or rating)
- filter the elements of a breakdown level using a predefined query

Example of a Report Template showing a breakdown map

The "**Building Block Breakdown Report**" shows a breakdown map.



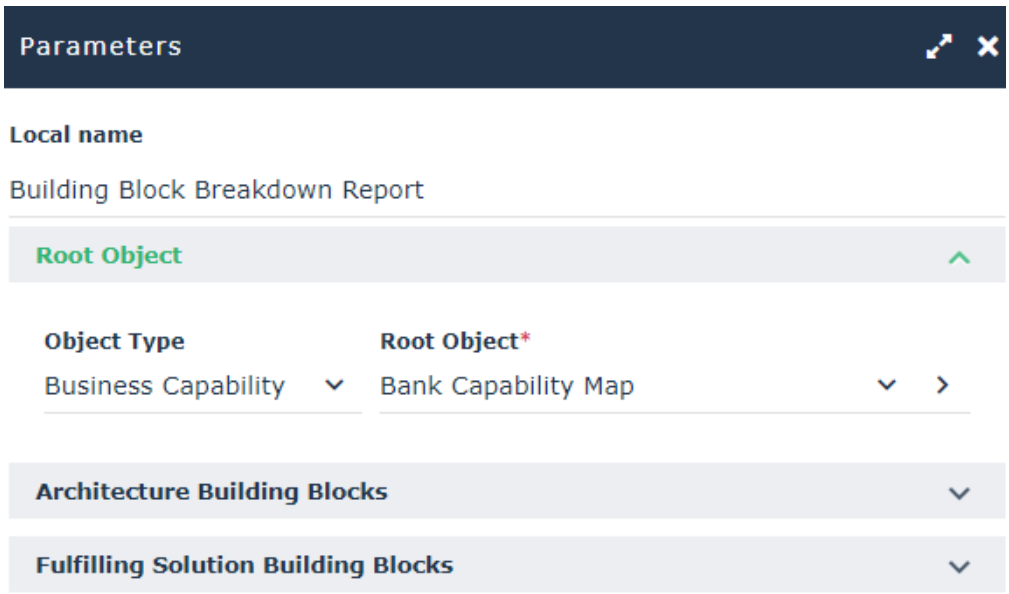
The "**Building Block Breakdown Report**" details the breakdown of a **Root Object** (e.g.: the "Bank Capability Map" Business Capability Map) according to selected classifier objects:

- **Architecture Building Blocks**

  Example: Capability Models.

- **Fulfilling Solution Building Blocks**

  Example: Application layer.



For each building block, you can add:

- a content filter (using a query)

  Examples:

  The "Capabilities with fulfilling solutions building blocks" filter, which you can add to the Architecture

Building Blocks, enables to display only capabilities fulfilled by applications (Solution building blocks).

The "Applications in production" filter, which you can add to the Fulfilling Solution Building Blocks, enables to display only the applications that are in production

- analysis criteria and choose their associated symbols (forms)

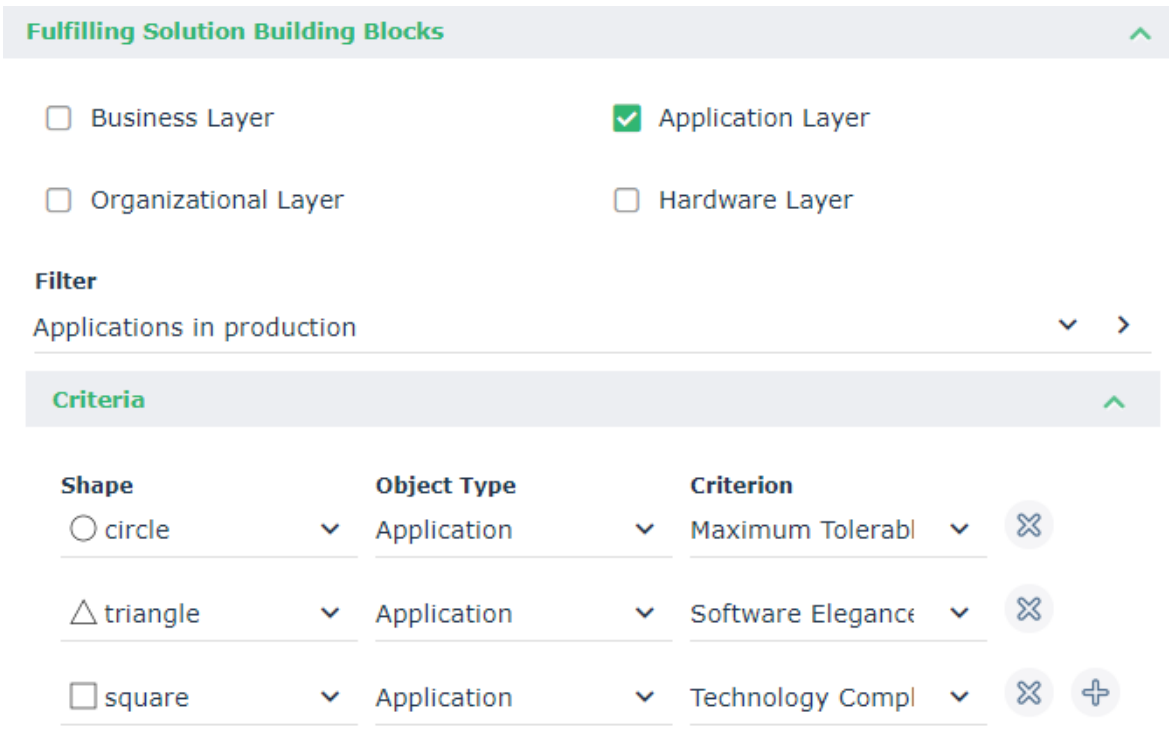
  Examples:

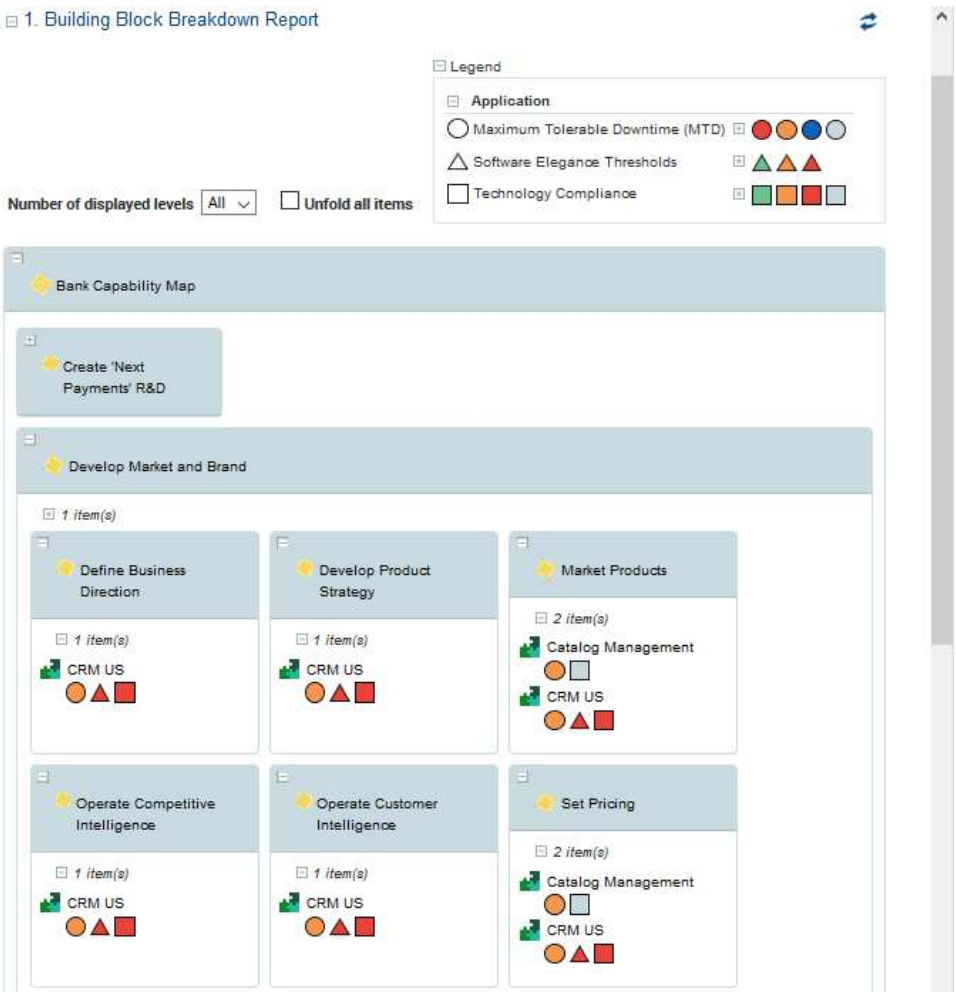
  The "Maximum Tolerable Downtime(MTD)" criterion of an application is represented by a circle.

  The "Software Elegance Thresholds" of an application is represented by a triangle.

  The "Technology Compliance" is represented by a square.

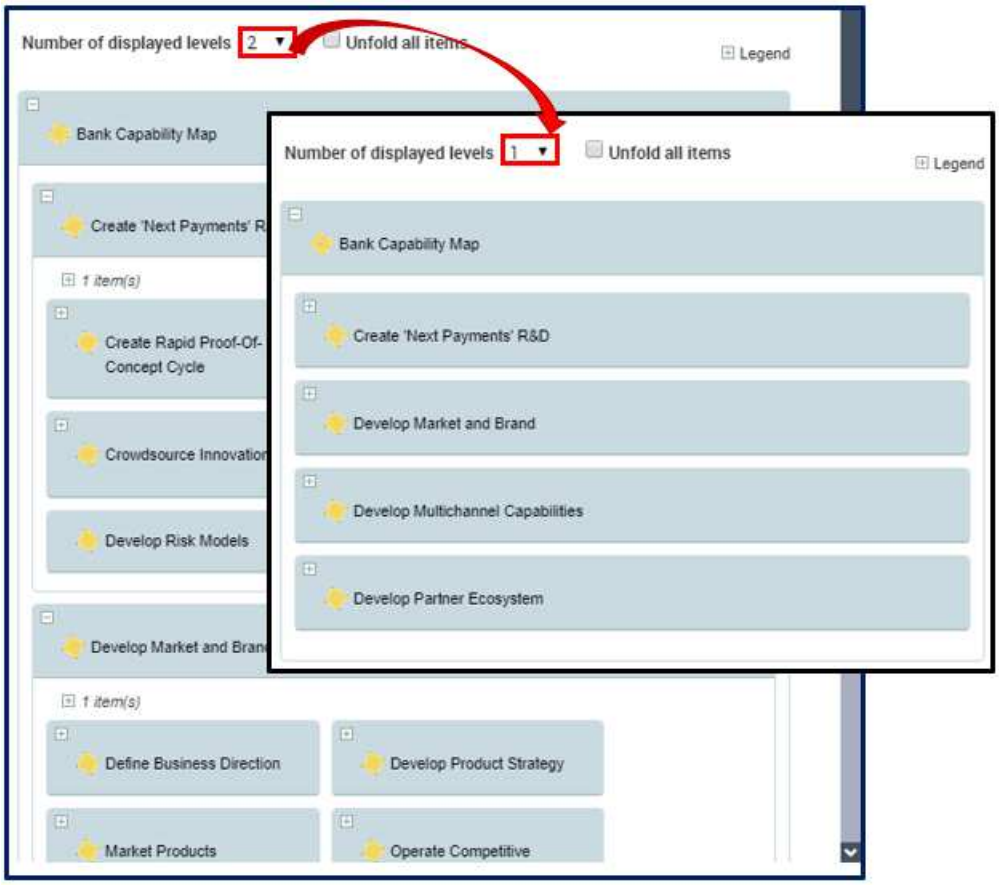
  * *In this example, analysis criteria are all linked to the same object type (Application). You can define analysis criteria linked to different object types.*




1. Building Block Breakdown Report
Legend
Application
Maximum Tolerable Downtime (MTD)
Software Elegance Thresholds
Technology Compliance
Number of displayed levels
All
Unfold all items
Bank Capability Map
Create 'Next Payments' R&D
Develop Market and Brand
1 item(s)
Define Business Direction
1 item(s)
CRM US
Develop Product Strategy
1 item(s)
CRM US
Market Products
2 item(s)
Catalog Management
CRM US
Operate Competitive Intelligence
1 item(s)
CRM US
Operate Customer Intelligence
1 item(s)
CRM US
Set Pricing
2 item(s)
Catalog Management
CRM US

To configure a breakdown map display:

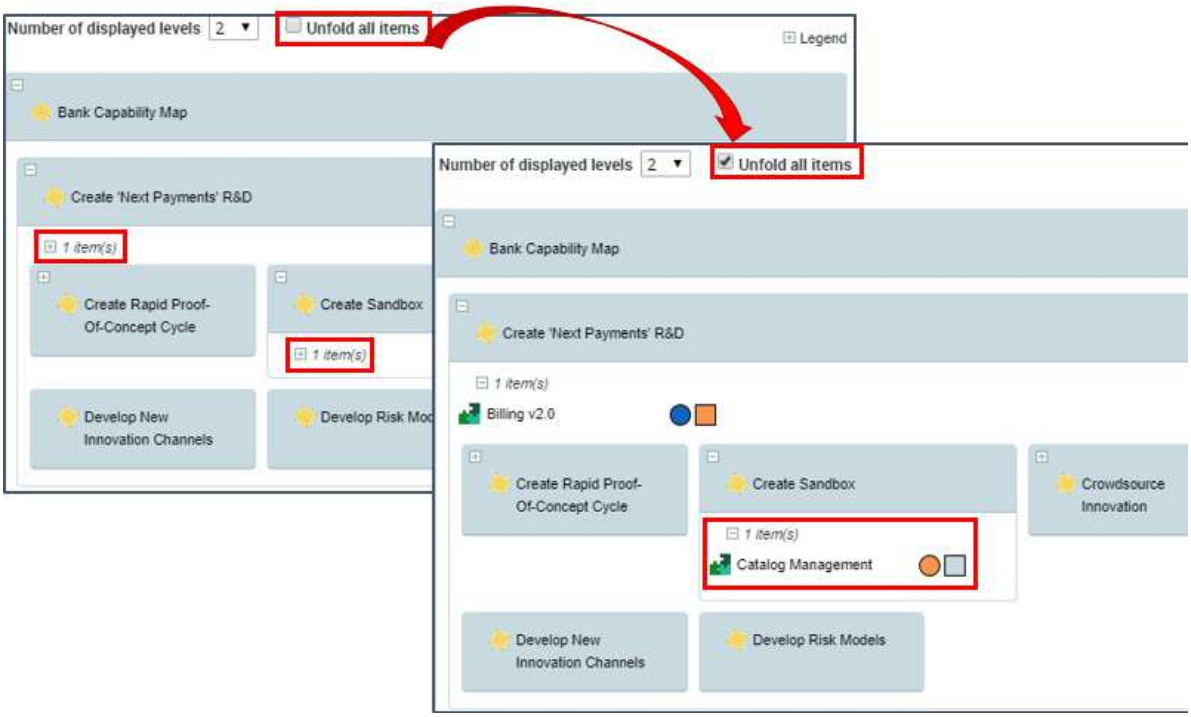
1. To lighten a breakdown map display, in the **Number of displayed levels** field, select an upper level.
   Lower levels are hidden.



2. To display the criteria values in the legend, click ⊞ next to each criterion.

3. To unfold all items, select **Unfold all items**.
Displayed items are unfolded.

* *Hidden items (that is in folded building blocks) are also unfolded but not visible until the building block is unfolded.*



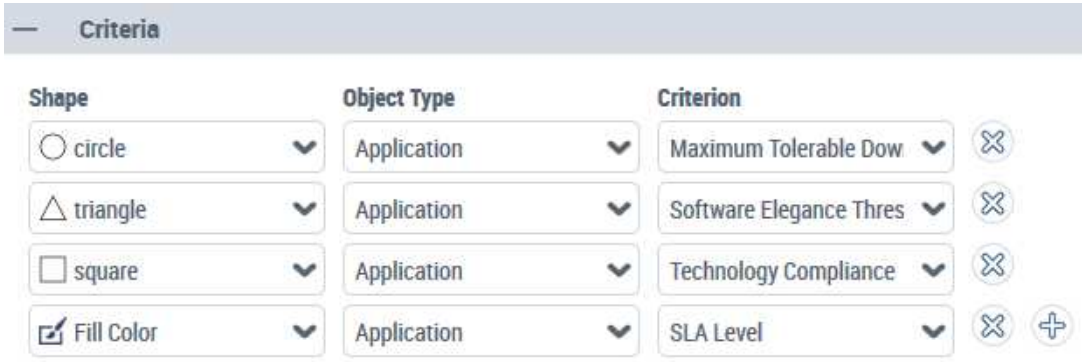
4. To add an analysis criterion: in the **Parameter** page of the report properties, **Criteria** section:

   - Click **Add Criterion** .
   - In the **Shape** column, select the symbol associated with the criterion, or select "Fill Color" to highlight this criterion (adding back ground color to the name of the object).

     `Example: Fill Color.`
   - In the **Object Type** column, select the type of object that holds the analysis criterion.

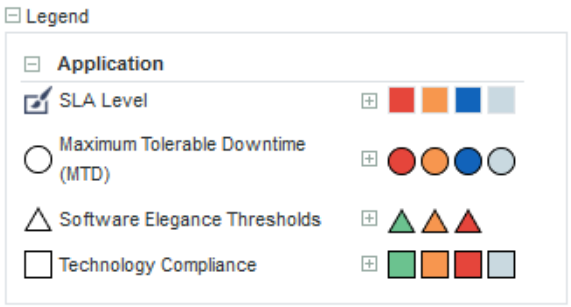
     `Example: Application.`
   - In the **Criterion** column, select the object parameter. The values of this parameter are represented by colors.

     `Example: SLA Level of the application.`



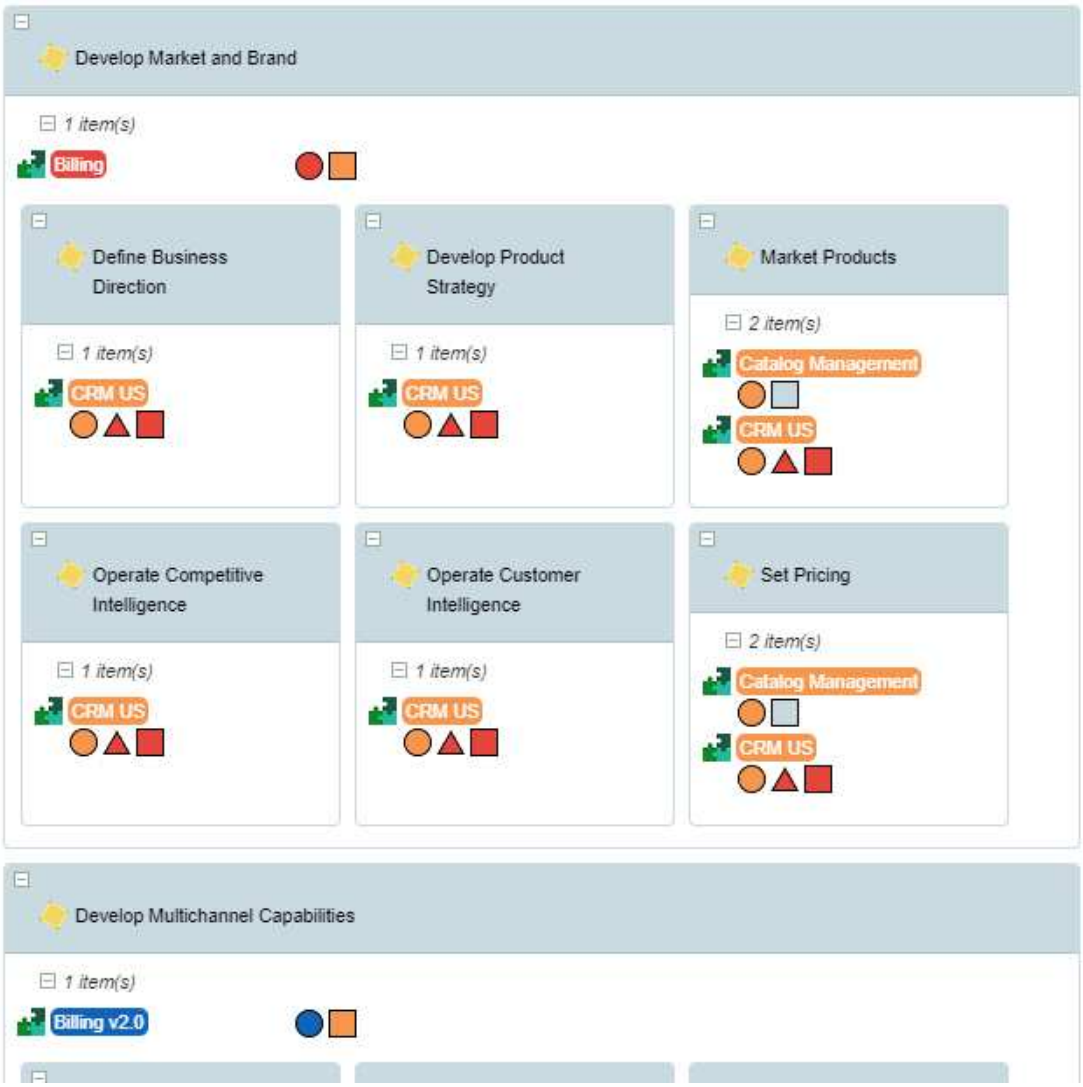
   - Click to refresh the report:

The parameter is added to the legend.



If you chose the "Fill color" shape, the name of the objects have as background color the color that represents the value of the criterion selected.

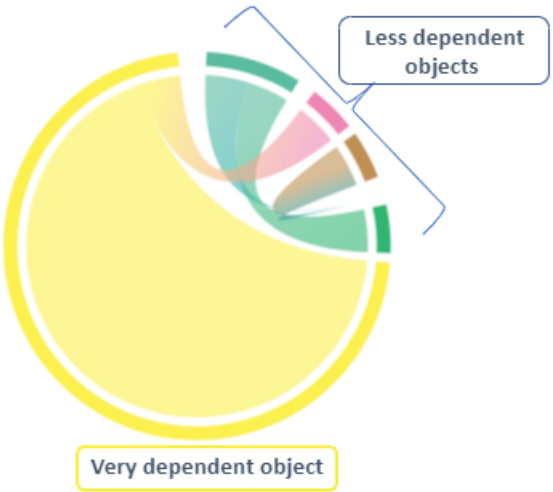
`Example: The name of the applications has as background color the SLA level value of the application.`


Develop Market and Brand
1 item(s)
Billing
Define Business Direction
1 item(s)
CRM US
Develop Product Strategy
1 item(s)
CRM US
Market Products
2 item(s)
Catalog Management
CRM US
Operate Competitive Intelligence
1 item(s)
CRM US
Operate Customer Intelligence
1 item(s)
CRM US
Set Pricing
2 item(s)
Catalog Management
CRM US
Develop Multichannel Capabilities
1 item(s)
Billing v2.0

Handling a Chord Diagram

A chord diagram enables to quickly visualize the connections (dependencies or transfers) between objects:

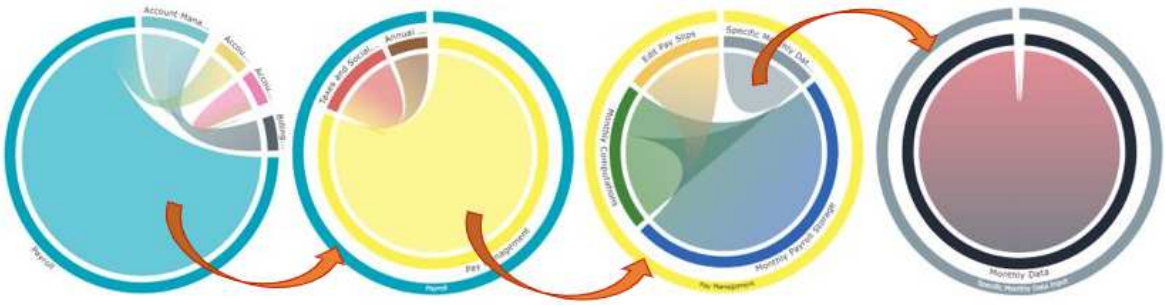
- Each object is represented by a fragment of the outer part of the circle. The greater its dependency on the other concerned objects, the wider its fragment size.



- A chord expresses relations between two objects.

- The size of each chord end is proportional to the importance of its dependency. The wider is the chord end, the more the object concerned is dependent on the opposite object.

- Hovering over a chord, you can get the detail of dependencies between concerned objects.
- If an object has components, you can navigate between its breakdown levels and display, for each level, the connections of its objects.
  The chord diagram enables to focus on a chord to analyze the connections of its lower level.



You can:

- restrict the analysis to a single dependency type only (i.e. a chord).
  By default all the dependencies are shown (those from the current level and those aggregated)
- navigate between levels: go one level down or up
- display the total dependencies of an object of the outer part of the circle (current node weight, opposite node weight)
- display the dependency weights of both chord ends
- get the detail of the elements held by a chord

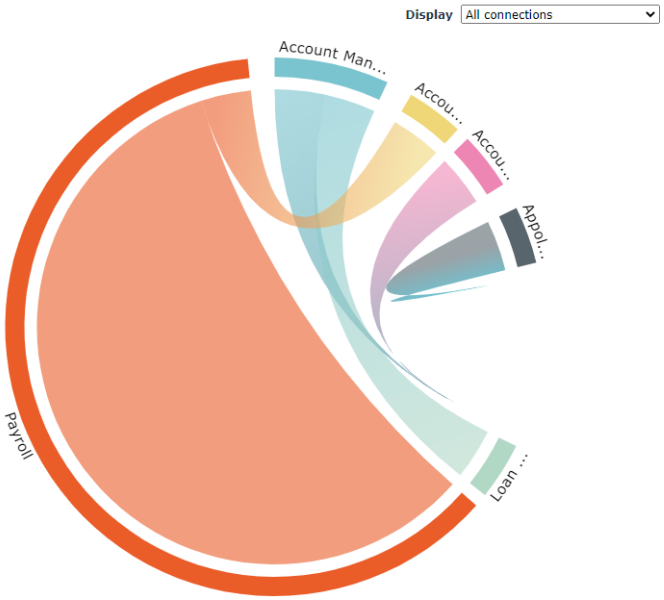
Example of a Report Template showing a chord diagram

The "**Agent Dependencies**" report template highlights the dependencies between agents through the application flows exchanged between them or their components.

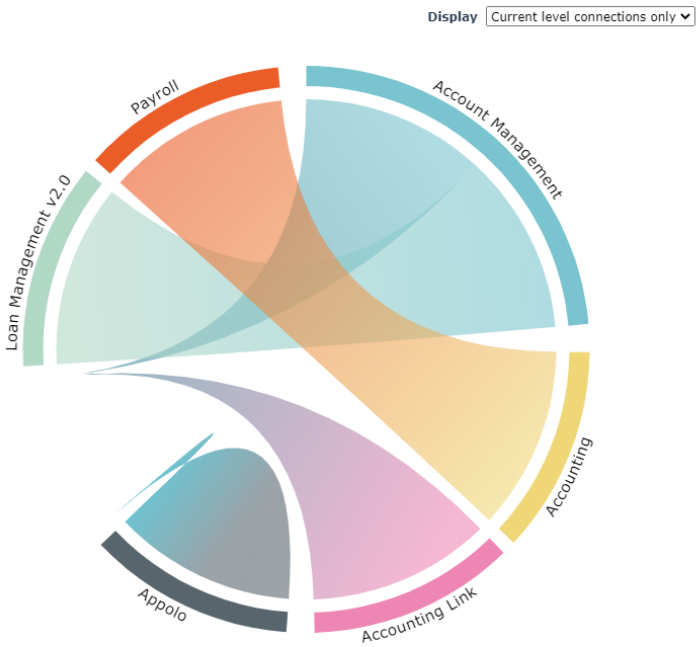
The chord diagram represents the volume of the flows received between applications. The more an application receives flows from other applications, the more it is dependent on these applications and wider is the chord end.

To handle a chord diagram:

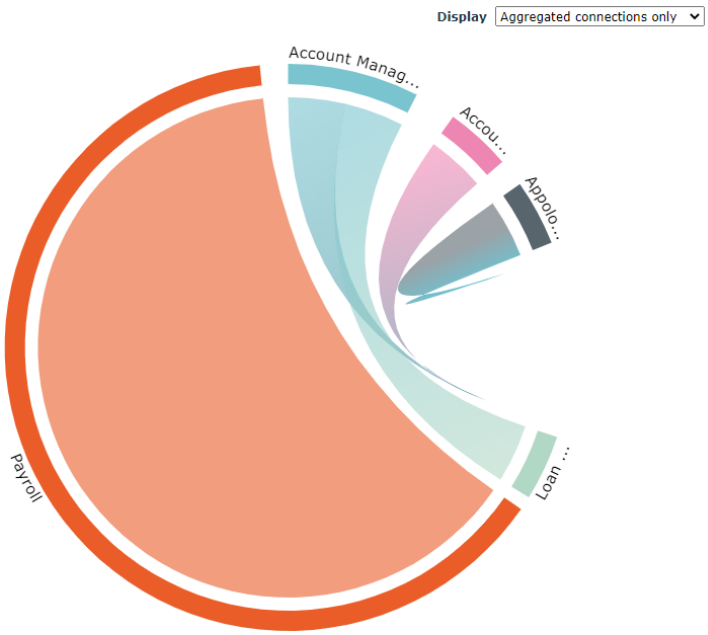
1. Create a report based on the "Agent Dependencies" report template. By default, all the connections are displayed.



2. To restrict the connection display, in the **Display** field, select:
   - current connections only (dependencies between applications)

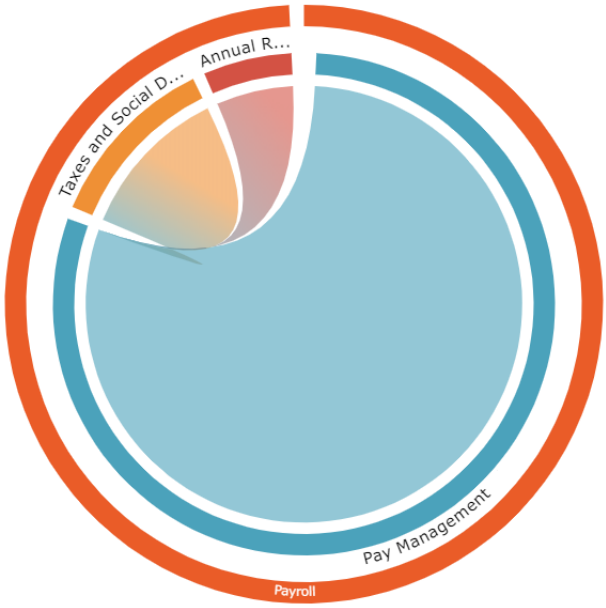


   - aggregated connections only (dependencies between the components, application services)



3. To display the connections of the first lower level, click the chord.

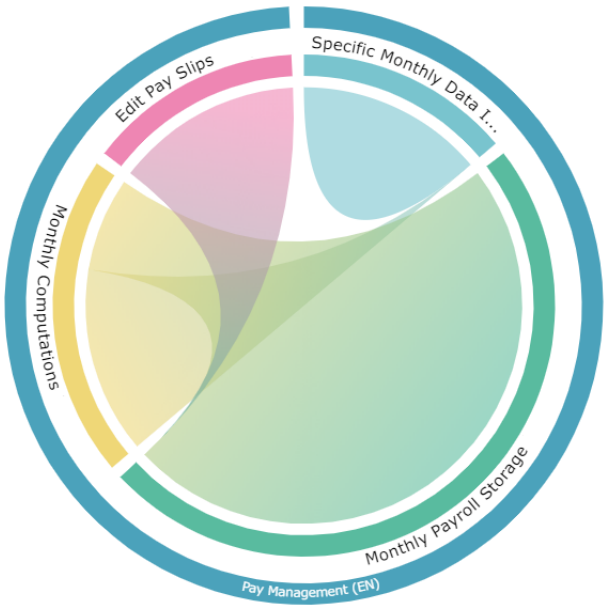
   E.g.: click the "Payroll" application chord: the diagram displays the connections between the application services of the "Payroll" application.



4. To display the connections of the next lower level, click a chord.

   E.g.: click the "Pay Management" application service chord: the diagram displays the connections between the

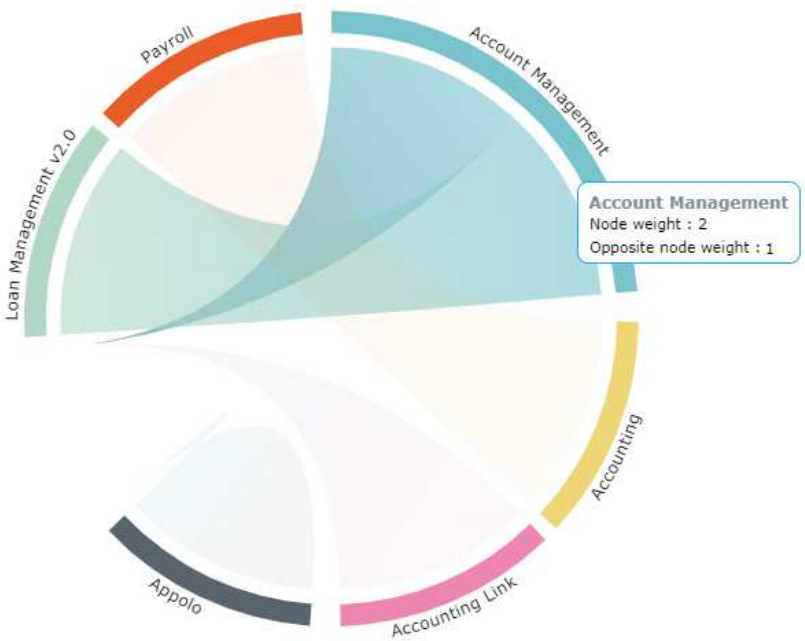
application services of the “Pay Management” application service.



5. Click a chord to go down one level, or click **One level up** to go back to the upper level.

6. Roll the mouse over an object of the outer part of the circle (fragment) to display its total dependencies on the other objects of the current level.

   E.g.: the "Account Management" application weight is 2, the weight of its opposite nodes is 1 ("Loan Management V2" for 1 and "Loan Management" for 0).

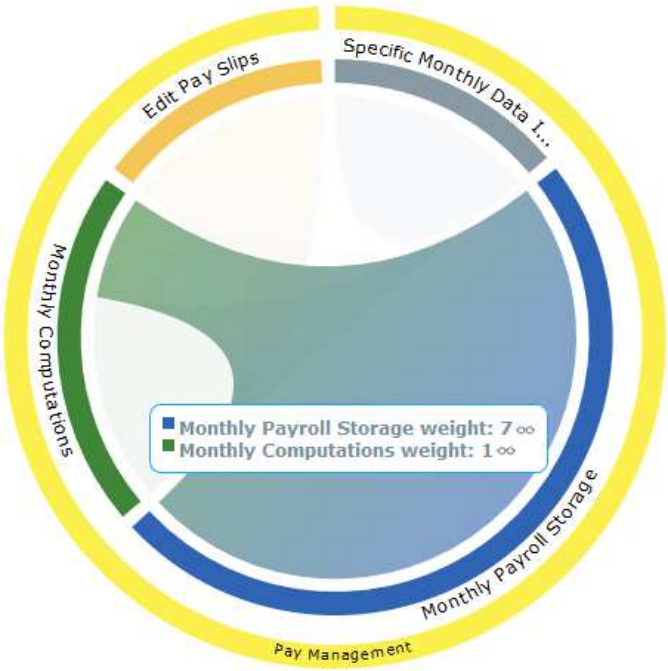


7. Roll the mouse over a chord to display the dependencies it represents between two nodes.

   E.g.: the chord between "Account Management" (weight 1) and "Loan Management" (weight 0) applications.

8. Roll the mouse over a chord and click **Click to view details** ∞ to get the list of the contents exchanged.

E.g.: click **Click to view details** ∞ of "Monthly Payroll Storage" (weight 7).



The contents are displayed in the **Results** window.

Results

	Local name ↑	Name
☐	Amount Due	Amount Due
☐	Employee	Employee
☐	Salary Elements	Salary Elements
☐	Standard Wages	Standard Wages
☐	Taxes	Taxes

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.*
- help buttons

You can disable the following functions:

- the dynamic rendering of reports
- the display limit for reports:
  By default, a report does not necessarily display in its entirety. When there are too many elements to be displayed, the number of cells displayed in a table is restricted to 5,000. The number of rows, bars, and sectors of a graph is also restricted. Beyond this limit, report processing may fail.
  The **Deactivates the display limit in reports** option allows not to take into account the limit set for each report type, but the whole display is no longer ensured.

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: XLSX.*
- paper format
    - *By default: A4.*

To modify report options:

1. Access the options (select **Main Menu > Settings > Options**).
2. In the options tree, expand the **Documentation** folder and select **Reports**.
3. In the right frame, modify the options concerned.
4. Click **OK**.

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 reports
- Accessing MS Word reports concerning an object

MS Word reports

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.*

Specificities

Reports (MS Word) available in **HOPEX** 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.

Creating an MS Word report in HOPEX

HOPEX 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 Specificities.*

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).
8. Click **OK**.
   The report (MS Word) opens.

Accessing MS Word reports concerning an object

To access reports (MS Word) concerning an object:

1. Open the properties page of the object.
2. Display the **General > Documents** page.
   The **Reports MS Word** section lists the Reports (MS Word) concerning the object.

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 HOPEX (Windows Front-End), but you can generate a Web site with HOPEX (Web Front-End).*

See:

- Creating a Web site from a Web site template
- Generating a Web Site (Web Front-End)

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 HOPEX (Windows Front-End), but you can generate a Web site with HOPEX (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 that you have created specifically.

To create a Web site from a Web site template:

1. Connect to **HOPEX** (Windows Front-End).
   * *See Accessing HOPEX Customizing Desktop.*
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.
7. Click **Finish**.
   The new Web site is listed in the **Web Sites** folder.
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**.

Generating a Web Site (Web Front-End)

Web Site Generation Prerequisites

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**.

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.*

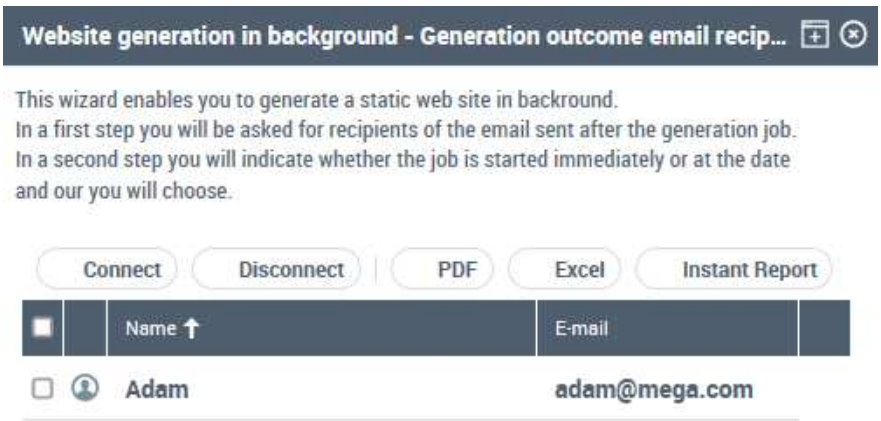
2. Access the Web site you want to generate:
   - (**Web Front-End**) via the search by object type "Web Site ".
   - (**Windows Front-End**) from the **Documentation** window. Unfold the "Web sites" folder.

     * *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**.

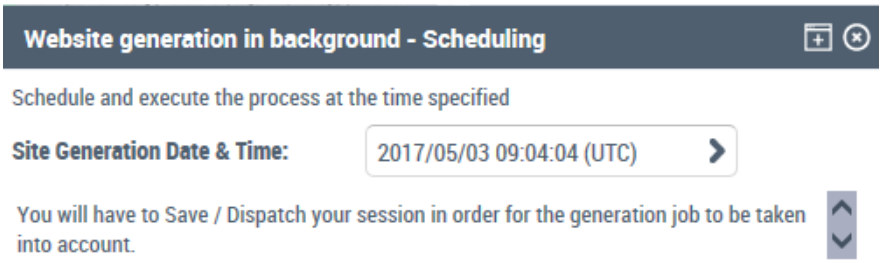
   * *(Windows Front-End) you can also click **Generate** to immediately generate the Web site.*

   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 Managing Object Comments.*

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
- Creating an External Reference
- Predefining an Address
- Using External References

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.

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.*

   * *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.

     J *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.*

     J *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".*
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.*
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.
- Predefining a URL Type Address

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), 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), 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.

* *For more details on the use of business documents, see Customizing Business Documents.*

- Business Documents Overview
- Accessing Business Documents
- Creating Business Documents
- Managing Business Documents

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.

   J *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.
- the confidentiality area, see Confidentiality and reading access.
- 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:

â 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.*
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.*

To update a business document:

1. Open the business document and save it locally.
2. Make your modifications in the local copy.

   M **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.*

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.*

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.*

   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.*

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.*
- add tags to objects.
  - *See Managing Tags.*
- view the activity on objects.
  - *See Managing Activity on Objects.*
- share with the other **HOPEX** users: add tags, share an object or your breadcrumb, like an object, add ideas.
  - *See Sharing with other users (social).*
- follow objects and receive notifications of their ongoing modifications.
  - *See Managing my notifications.*
- (in a private workspace) work on objects with certain users without other users seeing your work.
  - *See Working in a Collaborative Workspace.*

ACCESSING COLLABORATION IN HOPEX

In HOPEX (Web Front-End), you can access collaboration features:

- for all objects.
  - *See Accessing a Collaboration Feature.*
- for a specific object.
  - *See Accessing Collaboration Information on an Object.*

To access a collaborative workspace, see Working in a Collaborative Workspace.

Accessing a Collaboration Feature

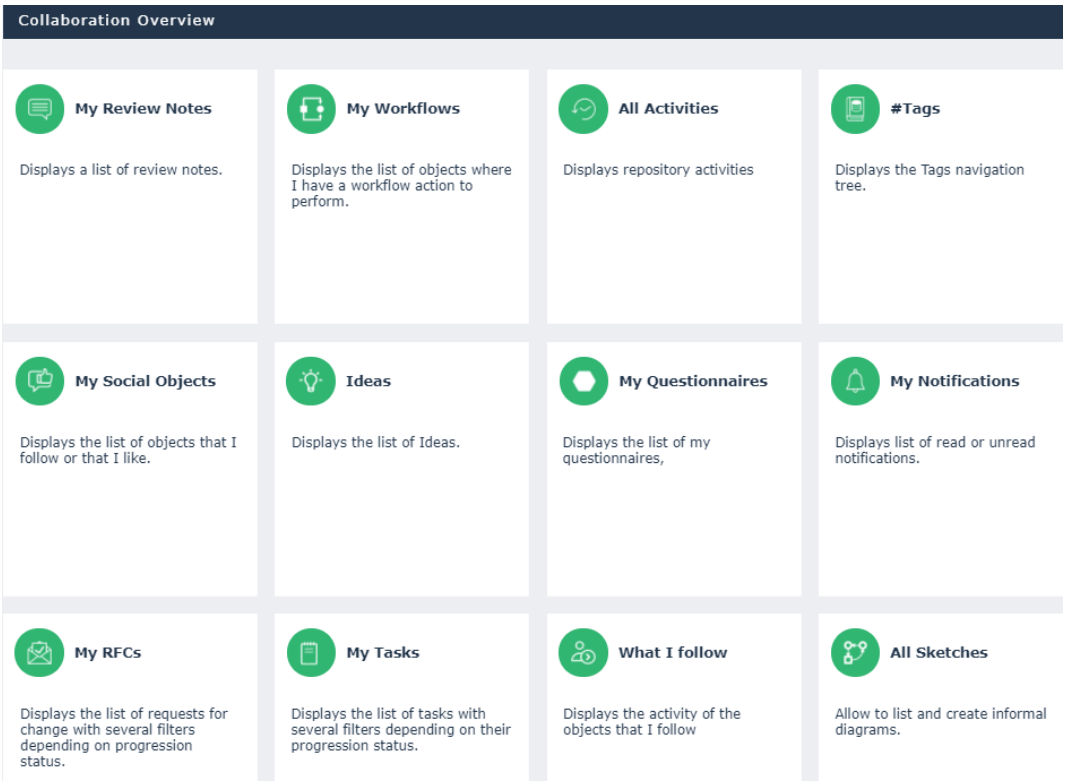
Depending on the desktop on which you work, the **Collaboration** navigation pane provides access to:

- your questionnaires
- your workflows
  - *See Using Workflows.*
- your notifications
  - *See Managing my notifications.*
- your review notes
  - *See Managing Review Notes.*
- tags
  - *See Managing Tags.*
- activities on objects
  - *See Managing Activity on Objects.*
- objects that you are following
  - *See Accessing the list of objects you are following.*
- your tasks
  - *See Using Design Tasks.*
- your change requests
  - *See Using Requests For Change.*
- your social objects
  - *See Sharing with other users (social).*
- ideas
  - *See Managing Ideas.*

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 **Browse** edit area.



2. Click the feature you want to access.

   The feature appears in the **Browse** edit area.

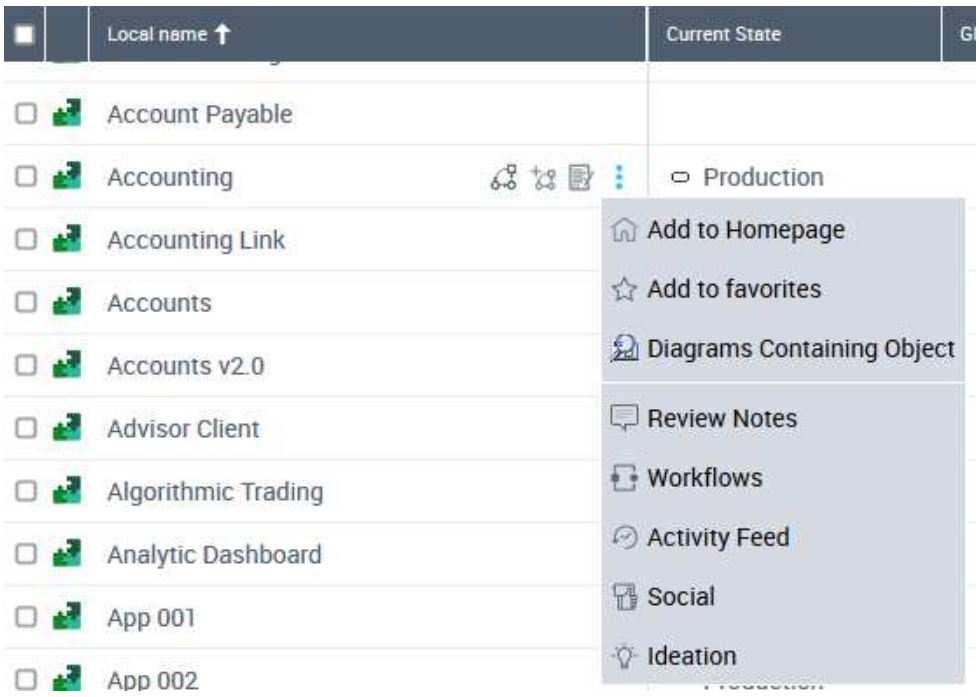
Accessing Collaboration Information on an Object

Accessing a collaboration information on an object in a list

To access a 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.*

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.
   - **Workflows**, see Using Workflows.
   - **Activity Feed**, see Managing Activity on Objects.
   - **Social**, see Sharing with other users (social).
   - **Ideation**, see Managing Ideas.

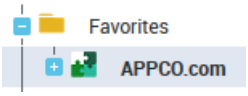
Accessing a collaboration information on an object in a tree

To access a collaboration information on an object in a tree:

1. In your **HOPEX** desktop, open the **Collaboration** window.
   * *See Displaying a Collaboration Feature.*
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.*

   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
- Adding a Review Note
- Accessing Review Notes
- Modifying a Review Note
- Answering a Review Note
- Modifying your Answer to a Review Note
- Validating a Review Note
- Canceling the Validation of a Review Note
- Closing a Review Note
- Reopening a Closed Review Note
- Managing Tags

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:

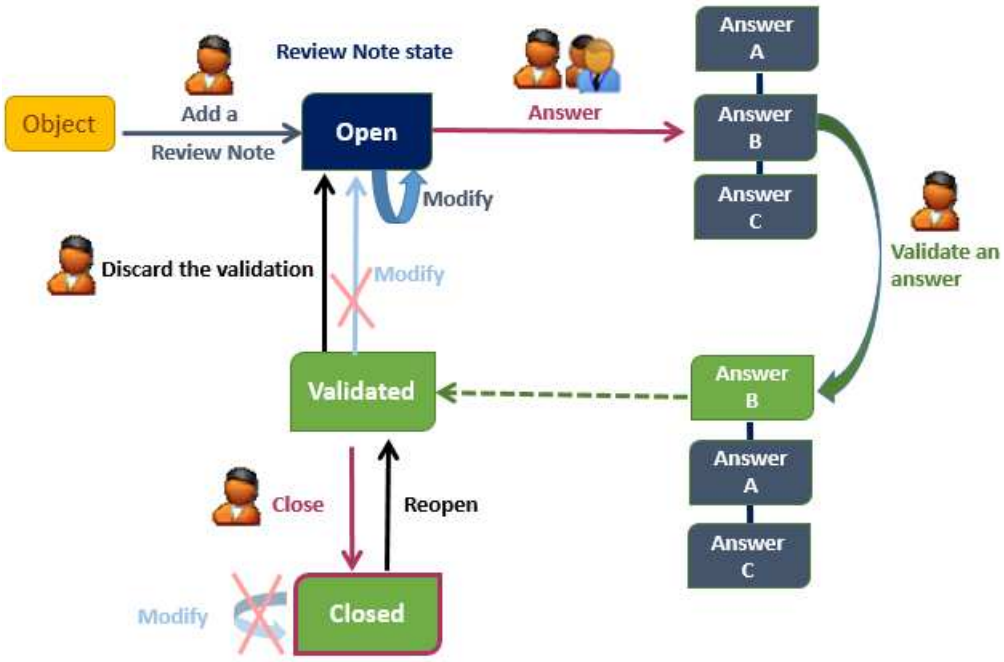
- opened:
  - answer
  - modify (if you are the author)
- validated
  - closed
  - cancel the validation
- closed
  - reopen

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.*
- access your review notes.
  - *See Accessing Review Notes.*
- modify a review note if you are the author.
  - *See Modifying a Review Note.*
- Answer a review note.
  - *See Answering a Review Note.*
- modify your answer to a review note.
  - *See Modifying your Answer to a Review Note.*
- validate a review note.
  - *See Validating a Review Note.*
- cancel the validation of a review note.
  - *See Canceling the Validation of a Review Note.*
- close a review note.
  - *See Closing a Review Note.*
- reopen a closed review note.
  - *See Reopening a Closed Review Note.*
- reorder review notes.
  - *See Reopening a Closed Review Note.*

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.*

   The **Collaboration** window appears and displays the **Review Notes** tab for the object.

   The name and type of the object are displayed.

   All the opened or validated review notes already existing on the object are displayed.

2. In the text edit field enter your note.

   J *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.*

   * *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.*

   * *To answer (yourself or other users) this review note, see Answering a Review Note.*

   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.*

   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.*

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.*

2. Click the edit area display button for **Collaboration** 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.*

    * *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.*

    * *To answer (yourself or other users) this review note, see Answering a Review Note.*

    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.*

    Users subscribing to alerts on object modifications are notified.

        * *See Managing Your Alerts on Object Modification.*

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, click the navigation menu and select **Collaboration**.

    The collaboration features appear in the form of tiles in the **Browse** edit area.
2. Click the **My review notes** tile.

    * *See Accessing a Collaboration Feature.*

    All the opened or validated review notes for which you are the author appear.
3. 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

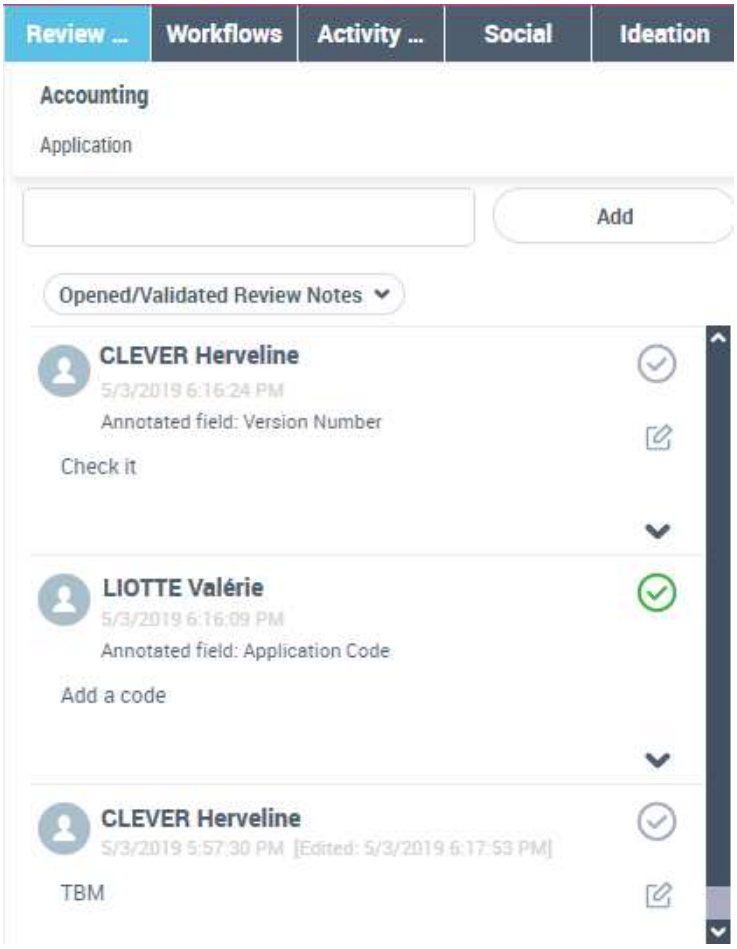
Review notes are classified by type:

- 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.*
2. Select **Review Notes**.

   The **Collaboration** window appears and displays the **Review Notes** tab with:
   - the object concerned by the review note and its 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.*

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.

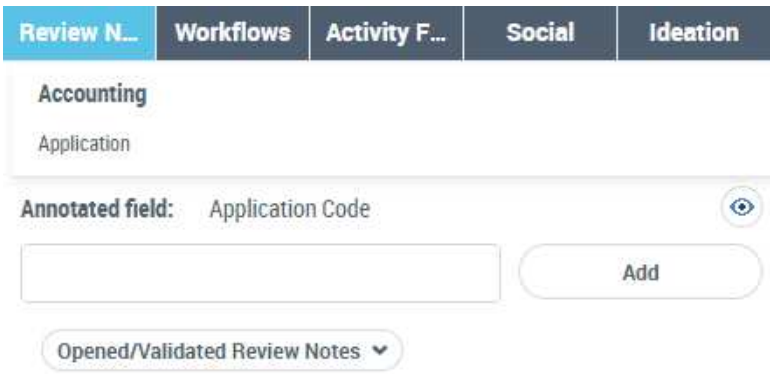
    * *See Accessing Object Properties.*

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 and its 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.*

To modify a review note:

1. Access the review notes for which you are the author.
   * *See Accessing Review Notes.*
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.*

   Users subscribing to alerts on object modifications are notified.
   * *See Managing Your Alerts on Object Modification.*

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.*

To answer a review note:

1. Access the review note concerned.
   * *See Accessing Review Notes.*
2. On the bottom of the review note, click **Expand** .
   The answers (if any) 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*

   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.*

   Users subscribing to alerts on object modifications are notified.
   * *See Managing Your Alerts on Object Modification.*

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.*

To modify your answer to a review note:

1. Access your answer.
   * *See Accessing Review Notes.*
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.*

   Users subscribing to alerts on object modifications are notified.
   * *See Managing my notifications.*

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.*

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.*

To cancel the validation of a review note:

1. Access the answer that validates the review note.

   * *See Accessing Review Notes.*

   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.*

To close a review note:

1. Access the validated review note that you want to close.

   * *See Accessing Review Notes.*
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.*

To reopen a review note:

1. Access the closed review note that you want to reopen.
   * *See Accessing Review Notes.*
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/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
- Classifying the Tags
- Creating a Tag or Creating Mass Tags
- Mass Addition of a Tag to Objects
- Displaying all the Objects Tagged by a Given Tag
- Deleting a Tag from the HOPEX Repository
- Managing Tags on an Object

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.*

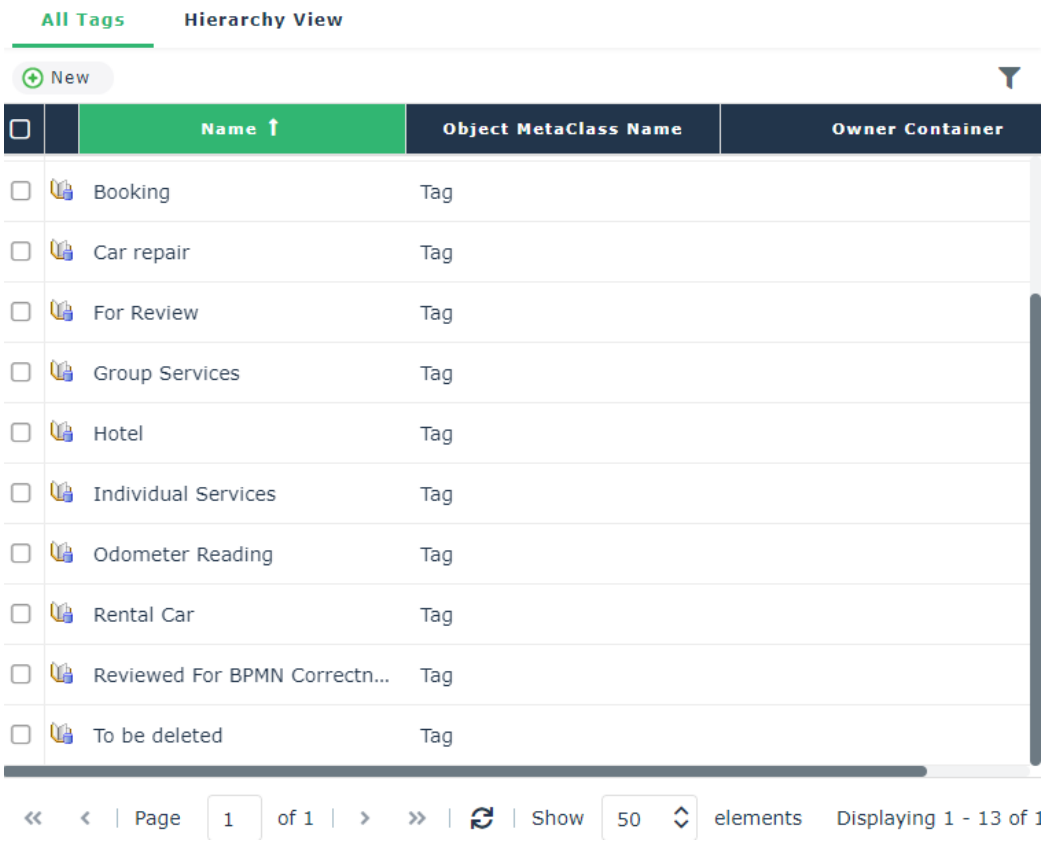
To access the repository tags:

1. From your **HOPEX** desktop, click the navigation menu and select **Collaboration**.

   The collaboration features appear in the form of tiles in the **Browse** edit area.

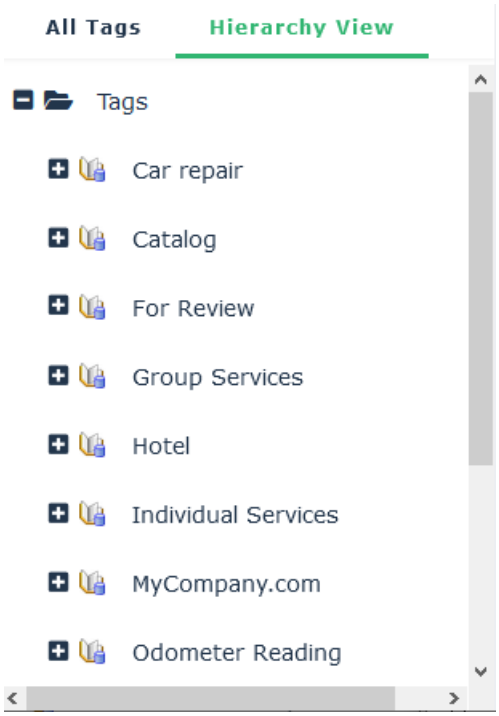
2. Click the **Tags** tile.
   * *See Accessing a Collaboration Feature.*

   The **Tags** list appears in the **Browse** edit area.

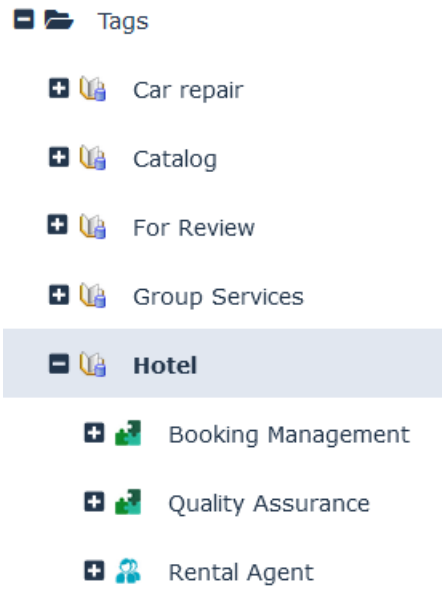


3. To display the tags in hierarchy, click **Hierarchy View**.

4. Expand the **Tags** folder.
The **Tags** tree displays its tags and/or tag classifying folders.
   * *To create tag classifying folders, see Classifying the Tags.*



5. Expand a tag to display the objects tagged by this tag.
   `E.g.: expand "Hotel" tag.`



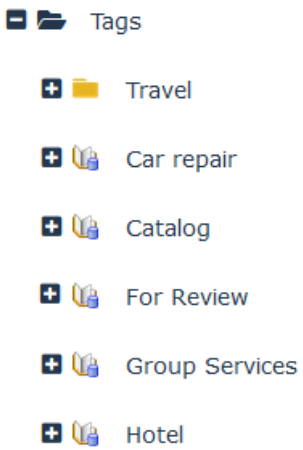
Classifying the Tags

You can classify the tags in folders and sub-folders.

To classify the tags:

1. Access the tags.
   * *See Accessing the Repository Tags.*
2. In the **Hierarchy View** tab, right-click **tags** and select **New > Tag Folder**.
3. In the **Local Name** field, enter a tag classification name.

   `Example: "Travel".`
4. Click **OK**.
   The folder is added to the **Tags** folder.



5. In the **Tags** tree, select a tag and drag and drop it to the tag classification folder.

   `Example: move the "Hotel" and "Catalog" 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.*

To create a tag:

1. Access the repository tags.
   * *See Accessing the Repository Tags.*

2. In the **All tags** tab, click **New** .
   * *Alternative: if you want to create a tag while classifying it in a folder, in the **Hierarchy View** tab, right-click the classification folder and select **New > Tag**.*
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.

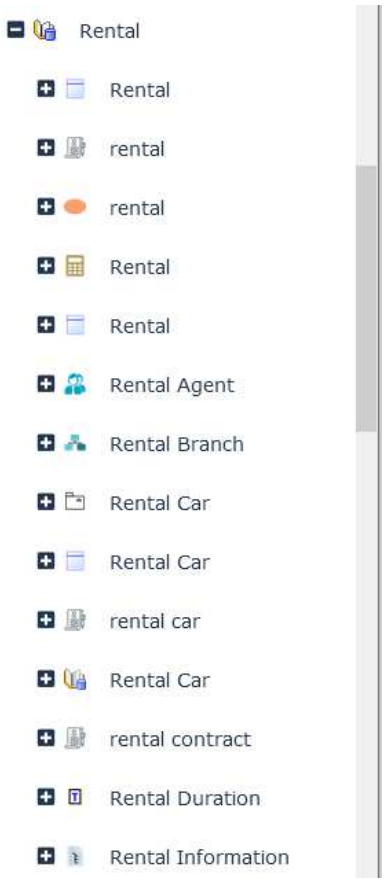
* *To add a tag to one object, see Adding a tag to an object.*

To add a tag to more than one object at a time:

1. Access the repository tags.
   * *See Accessing the Repository Tags.*
2. In the **Hierarchy View** tab, right-click the tag concerned and select **Connect > Element with tags**.
   `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".

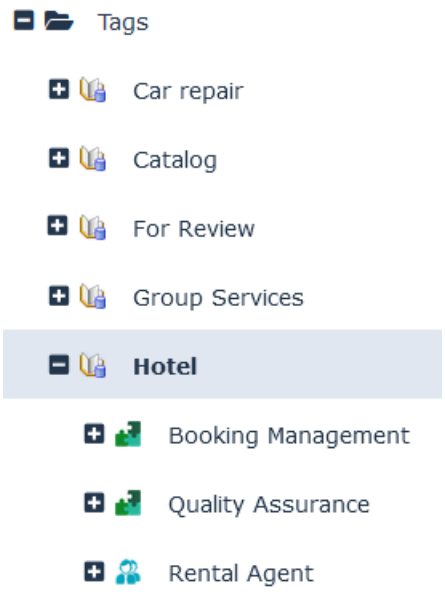


Displaying all the Objects Tagged by a Given Tag

To display all the objects to which a specific tag has been added:

1. Access the repository tags.
   * *See Accessing the Repository Tags.*

2. Expand the tag concerned.
The objects tagged by 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.*
2. In the **All tags** tab, select the tag.
3. Click **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.*

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.*

To add a tag to an object:

1. Access the **Social** feature on the object concerned.

   * *Alternatively, when you access an object from the search results for example, you can also add a tag to the object from its property pages (**General - Tags** page).*

   The **Collaboration** window appears and displays the **Social** tab.

   The name and type of the object are displayed.

   * *See Accessing Collaboration Information on an Object.*

2. In the **#Tags** section, enter the tag in the field.

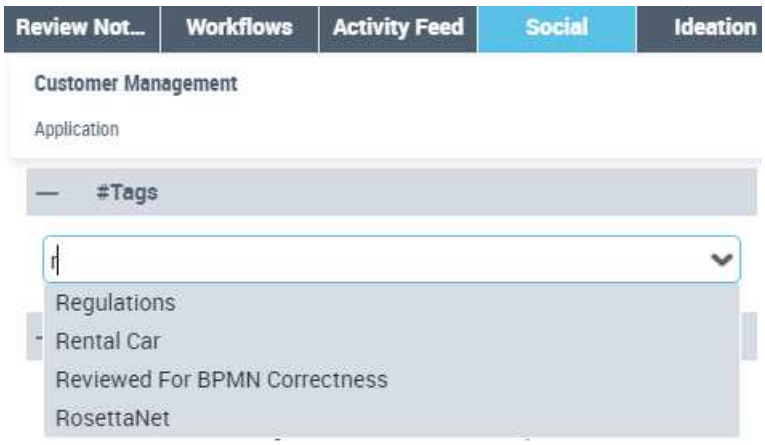
   ```
   Example: "important"
   ```

   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.*

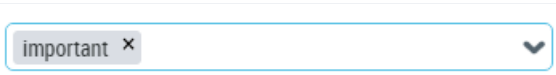
   When you enter letters, tags that exist and start by these letters are automatically made available.

   * *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.*

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.*
2. Click × to the right of the tag.
   The tag is removed 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

See:

- Managing Activity on Objects
- Managing the Activity Feed on an Object

Managing Activity on Objects

You have access to the activity:

- on all repository objects (**All activities** tile)
  - *See Accessing the activity on objects.*
- on all repository objects that you are following (**What I follow** tab)
  - *See Accessing the activity on the objects that you are following.*
- on one repository object (**Activity Feed** tab)
  - *See Using the activity feed on an object.*

Accessing the activity on objects

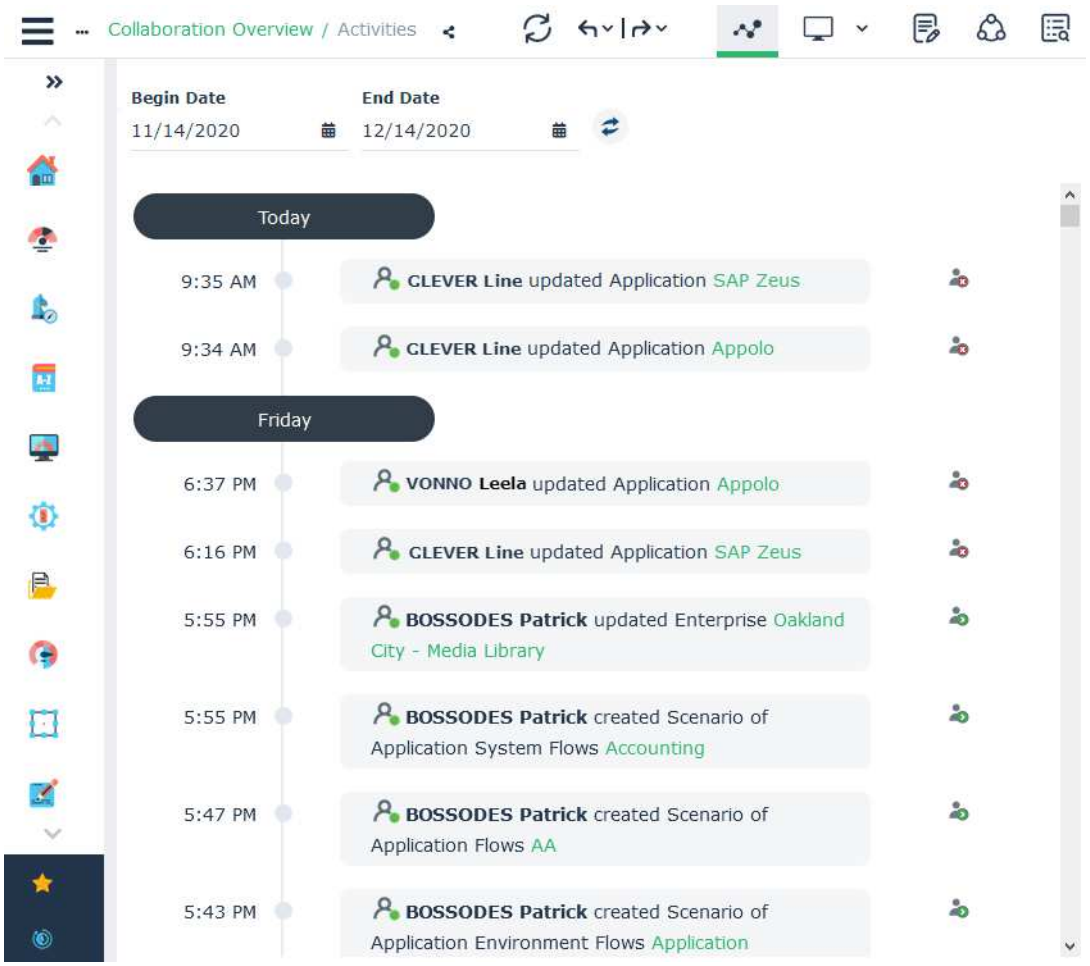
To access the activity on objects:

1. From your **HOPEX** desktop, click the navigation menu and select **Collaboration**.

   The collaboration features appear in the form of tiles in the **Browse** edit area.

2. Click the **All activities** tile.

   The activity on the repository objects appears in the **Browse** 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 of the person who performed the update
   - the name and type of object concerned by 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.*

3. See:
   - Using the activity on objects.
   - Modifying the display period for the activity.
   - Managing the options on the activity of object.

Accessing the activity on the objects that you are following

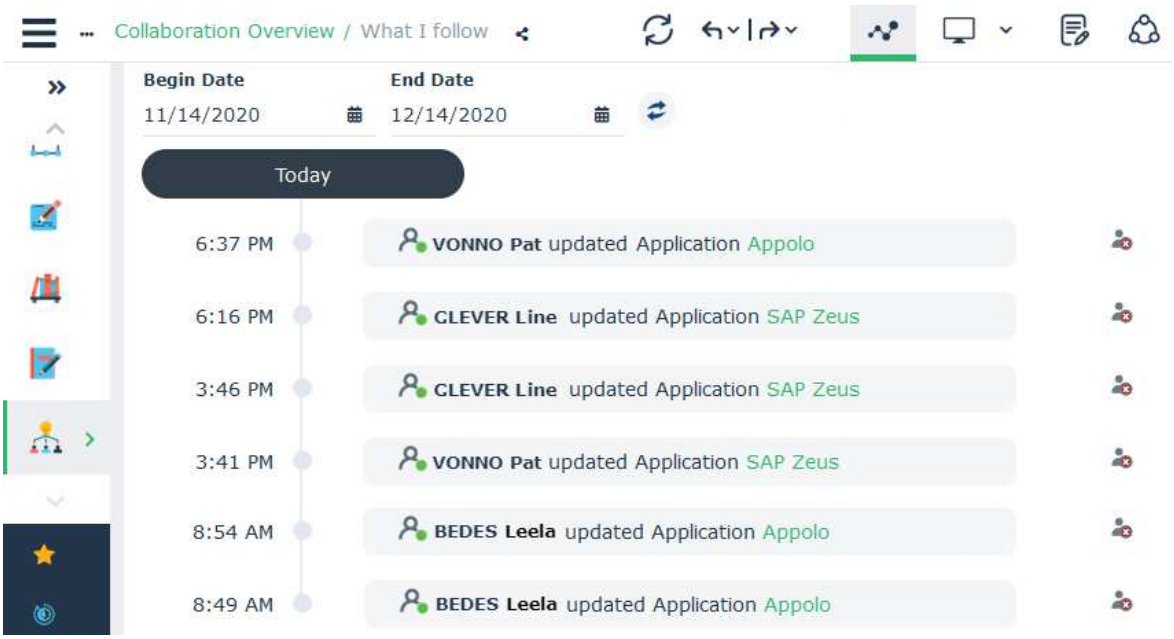
To access the activity on the objects that you are following:

1. From your **HOPEX** desktop, click the navigation menu and select **Collaboration** .

   The collaboration features appear in the form of tiles in the **Browse** edit area.
2. Click the **What I follow** tile.

   * *See Accessing a Collaboration Feature.*

   The activity on the repository objects that you are following appears in the **Browse** 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 of the person who performed the update
- the name and the type of object concerned by the update.

  * *To access the activity on all the objects, see Accessing the activity on objects.*

3. See:
   - Using the activity on objects.
   - Modifying the display period for the activity.
   - Managing the options on the activity of object.

Using the activity on objects

To use the activity on objects:

1. Access the activity on the objects.
   * *See Accessing the activity on objects or Accessing the activity on the objects that you are following.*
2. (if necessary) Define the display period for the activity.
   * *See Modifying the display period for the activity.*
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/stop following the changes of an object, click **Follow** / **Stop following** 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.*

To modify the display period for the activity:

1. Access the activity on the objects.
   * *See Accessing the activity on objects or Accessing the activity on the objects that you are following.*
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 **Collaboration**.
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.`
5. Click **OK**.

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.*

In the activity feed on an object you can:

- view the activity on the object
- modify the activity feed display granularity

  E.g.: the last 24 hours, the last 7 days (by default), the last 30 days, the last year, or a specific period defined by two dates.
- compare the modifications performed (before/after) on the attributes or on the links

Using the activity feed on an object

In the activity feed on an object, modifications appear in chronological order (with the most recent at the top) and by user, and according to the granularity defined (the last 7 days by default).

Each modification details:

- the name of the person who performed the update(s)
- the type of action carried out on the object
- the number of actions per action type
- the attributes or links concerned by each modification

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.

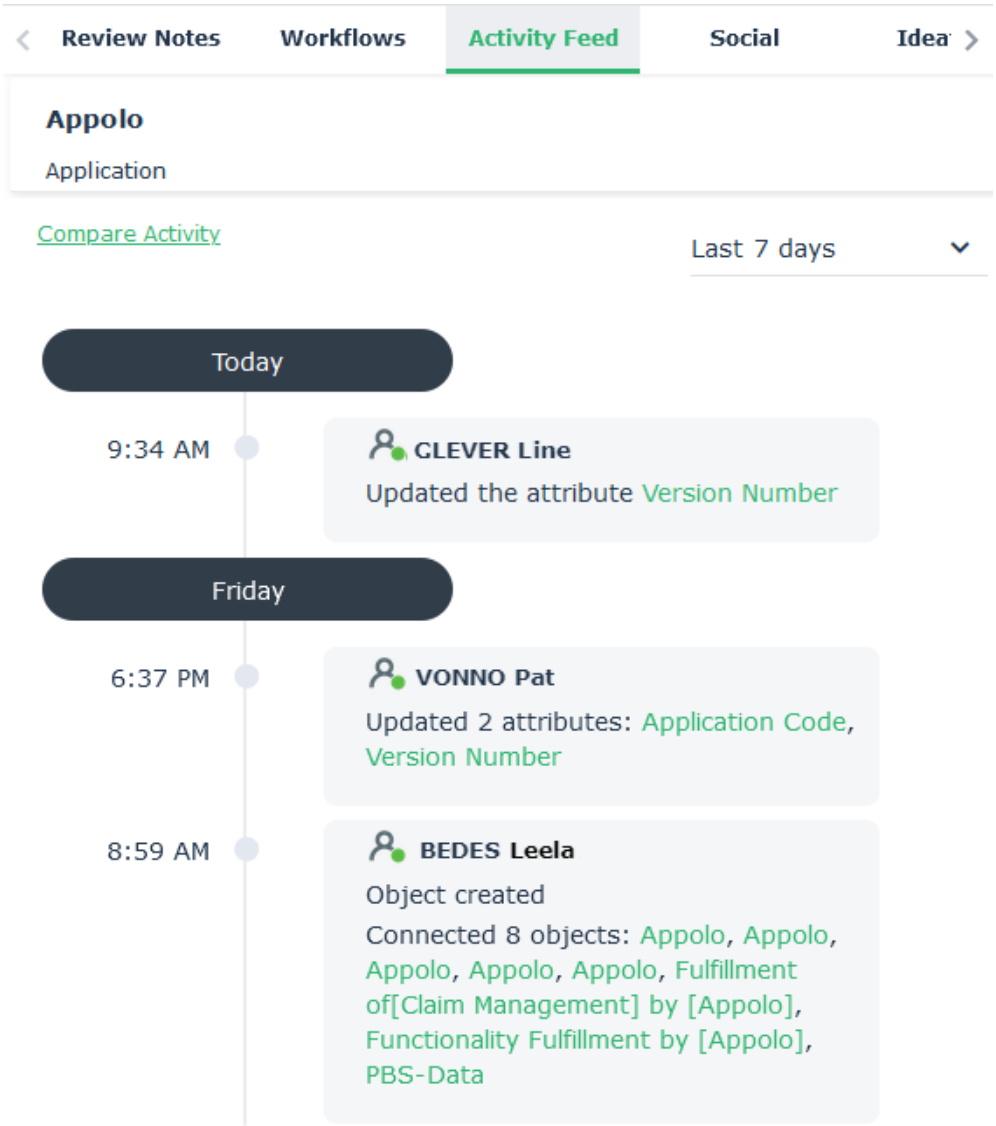
   * *See Accessing Collaboration Information on an Object.*

   Modifications are displayed chronologically, by user, for the "Last 7 days" (by default).

2. (If needed) In the granularity drop-down menu, select another granularity for the object activity feed display.

   * *To define a customized granularity, select the "Custom" value and use the calendars to define the **Start Date** and **End Date**, then click **Find** .*

   The modification display is automatically updated according to the new granularity.



3. (optional) Compare the attribute/link values modified on the object.

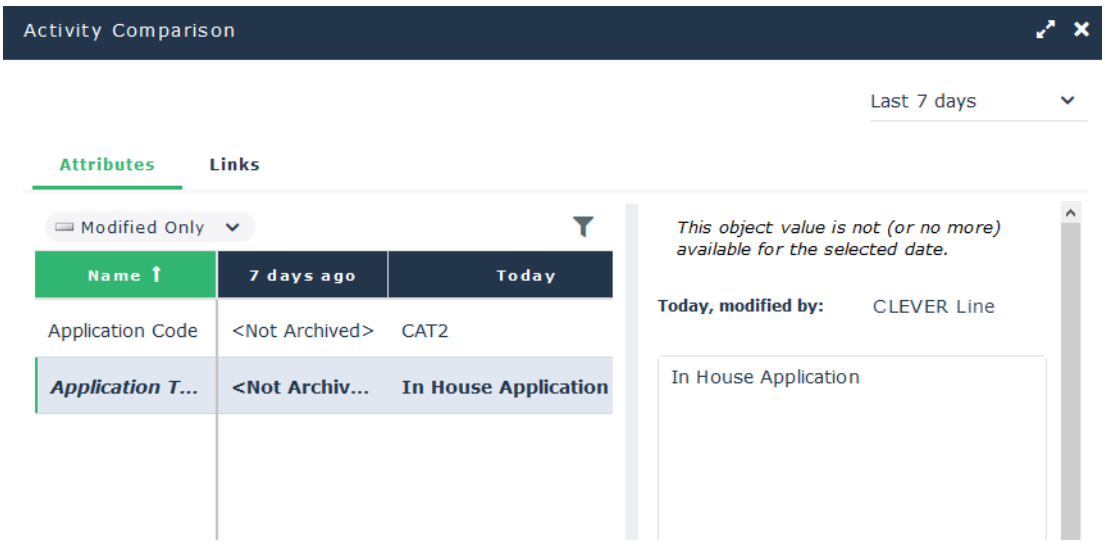
   * *See Comparing the attribute/link values modified on an object.*

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.*
2. Click **Compare Activity**.
3. (If needed) Use the (**On** and **Compared to**) calendars to modify the comparison dates and click **Compare** .
   * *By default the compared values match the granularity defined in the **Activity Feed** tab.*

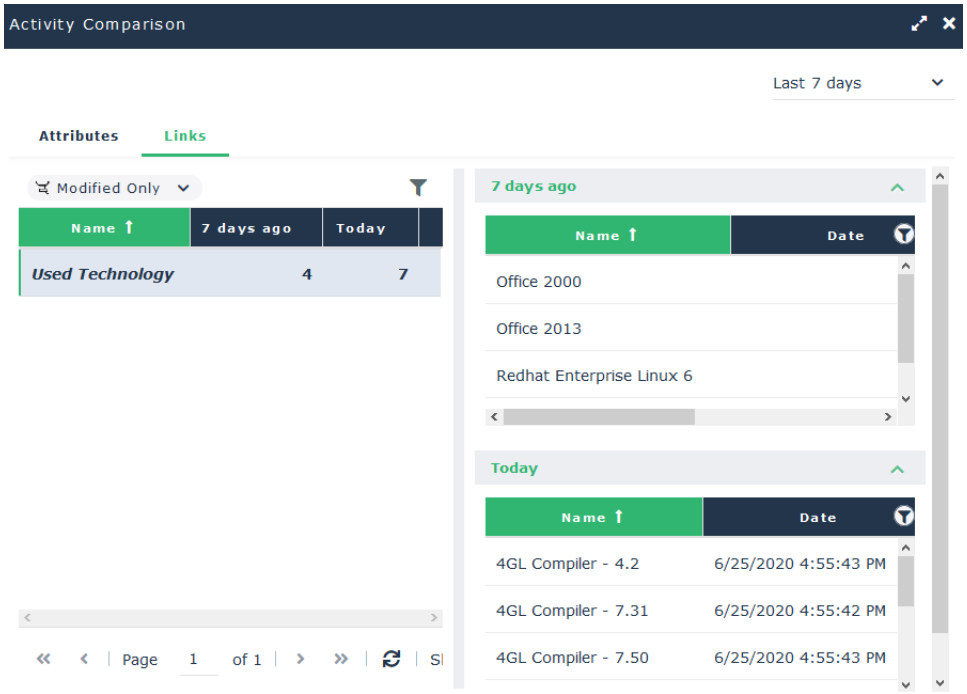
   By default the **Attributes** tab displays modified attributes only.
   * *To display all of the attributes, in the drop-down menu select **All**.*
4. (If needed) Use the filter to display one or several specific attributes.
   * *See Filtering a list data.*
5. Select an attribute.
   The right pane details for each comparison date, the corresponding values and author of the modifications.



6. To display the modified links, click the **Links** tab.
   * *To display all of the links, in the drop-down menu select **All**.*

   The left pane displays the modified links and indicates the number of modifications for both comparison dates.
7. (If needed) Use the filter to display one or several specific links.
   * *See Filtering a list data.*

8. Select a link.
The right pane displays for each comparison date, the link modifications, the modification date and its author.



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 **Collaboration**.
3. Select **History management**.
4. In the right pane, 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
- share by email: an object, a diagram, or your breadcrumb
- like an object
- add an idea
- follow an object

See:

- Managing Tags on an Object
- Sharing an Object as Email
- Sharing your breadcrumb
- Managing your Likes on an Object
- Managing Ideas
- Managing the Object Follow-up

Sharing an Object as Email

You can share an object as email:

- either by selecting the recipients
- or by entering the email address of the recipients

    * *An object can also be a report.*
    * *Directly in a diagram, you can also share a diagram by email.*

The recipients of the email receive a link which enables to open **HOPEX** and display the properties of the shared object (the recipient must have the rights to view this object).

To share an object as email:

1. From your **HOPEX** desktop, access the **Social** feature.

   * *See Displaying a Collaboration Feature.*

   The **Collaboration** window appears and displays the **Social** tab.

   * *Alternative: Right-click the object and in its pop-up menu, select **Share as email**.*

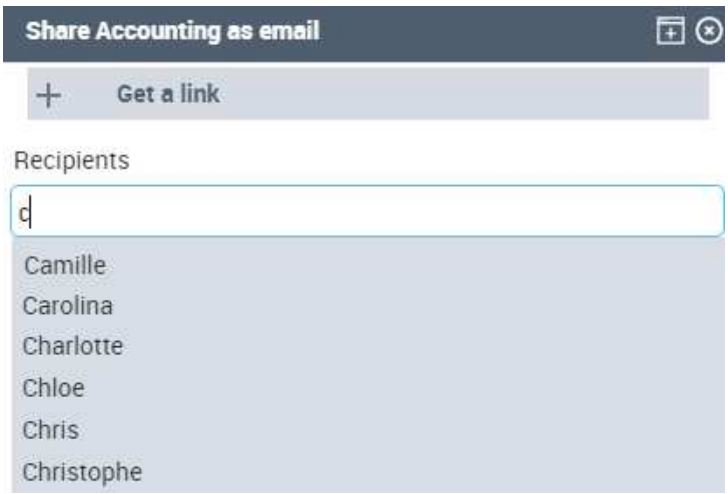
   * *(Diagram) In the diagram toolbar, click **Share this diagram** .*

2. In the **Shared** section, click **Share as email** .
   The **Share <Object name> as email** window appears.

   * *The **Get a Link** section enables you to copy the link that is inserted in the email.*

3. In the **Recipients** field, enter the first letter of the name of the person (**HOPEX** user) with whom you want to share this object.
   The list of persons whose name starts with this letter appears.

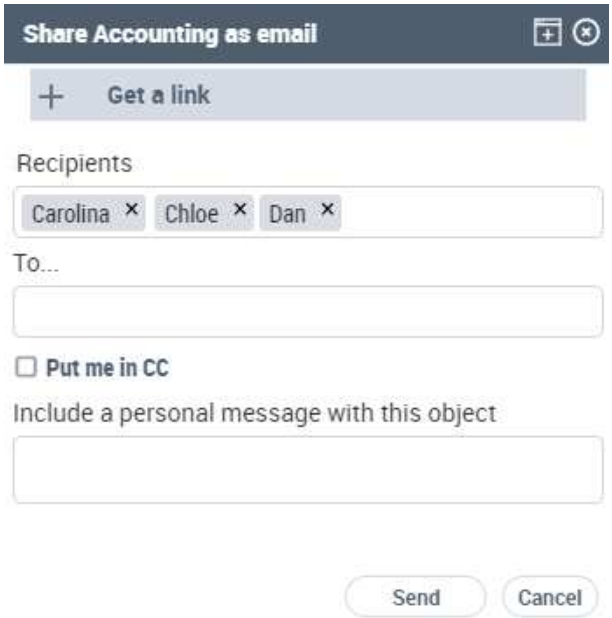
   * *If the proposed list is too long, enter the first letters of the person's name.*



4. Press the down navigation key to select the person's name or select it with the mouse.
5. Press [Enter].

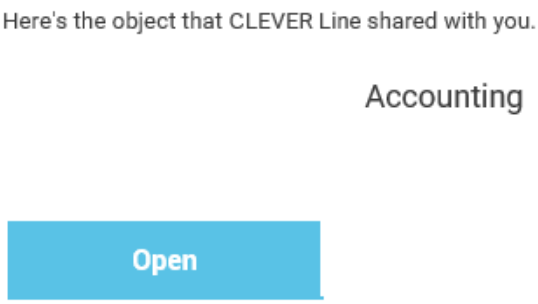
   J *You can add several persons whose name starts with the same letter without closing the window.*

6. Click outside the list to close it.
   * *You can add several persons to the list of recipients.*



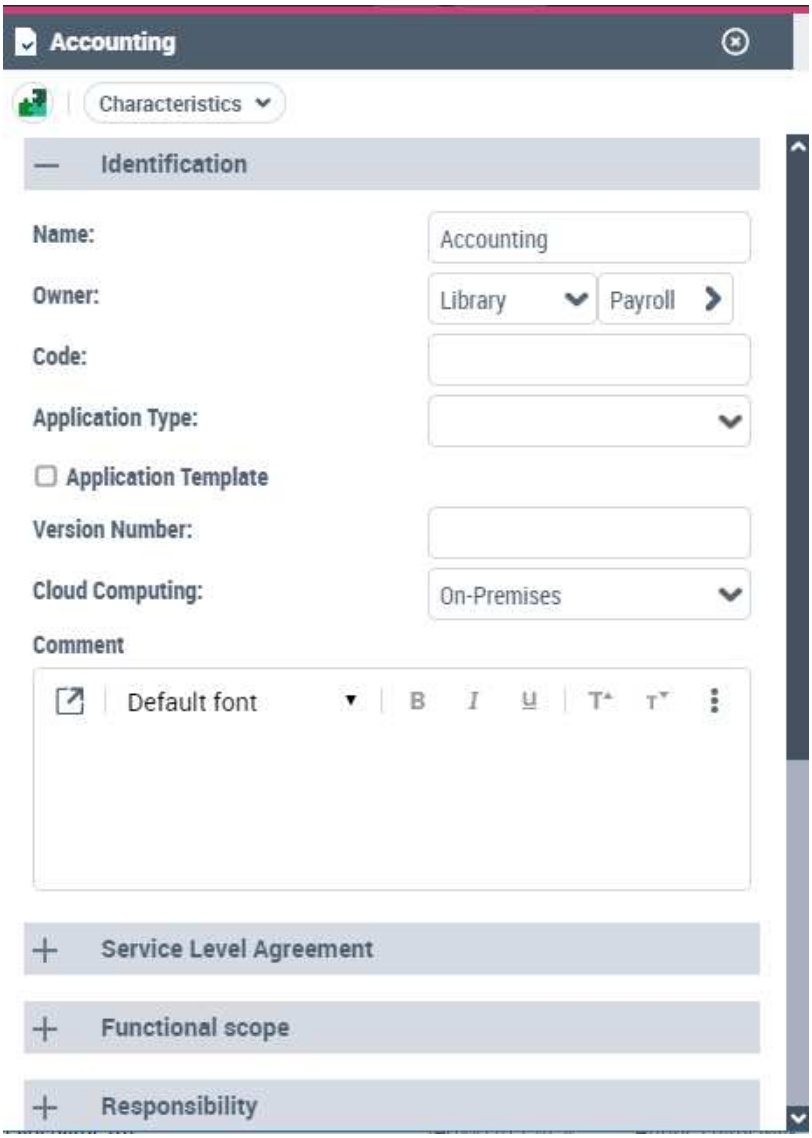
   * *To remove a person from the list of recipients, click the cross ✕ beside its name. to which you want to send this object sharing.*

7. (If needed) In the **A** field, enter the email address to which you want to send the object sharing.
8. To receive a copy of the email, select **Put me in CC**.
9. (Optional) In the **Include a personal message with this object** pane, enter the text of the email.
10. Click **Send**.
    An email is sent to the recipients of the message as well as to you if you have selected the option.



11. When the recipient clicks **Open**, a **HOPEX** desktop opens (a second desktop if the user is already connected, otherwise the **HOPEX** connection window opens) and displays the characteristics of the object.

    * *The user must connect with a profile that has access to the object to see it.*



Sharing your breadcrumb

You can share your breadcrumb by email:

- either by selecting the recipients, or
- by entering the email address of the recipients

The recipients of the email receive a link which enables to display the **HOPEX** desktop with an identical breadcrumb, that is access directly the same navigation location in HOPEX, without performing the prior navigation.

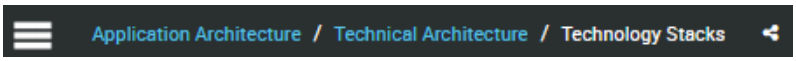
* *Only the navigation is shared and not the content of the reached page.*

Recipients should connect with the same profile as the person sharing the breadcrumb.

To share your breadcrumb by email:

1. In your **HOPEX** desktop, at the breadcrumb right end, click **Share**.

   * *You can share the navigation elements only. For example, if you select an object, the breadcrumb share button is not available. To share an object, see Sharing an Object as Email.*

   The **Share <Breadcrumb> as email** window appears.

   * *If needed, the **Get a Link** section enables you to copy the link that is inserted in the email.*

2. In the **Recipients** field, enter the first letter of the name of the person (**HOPEX** user) with whom you want to share your breadcrumb.
   The list of persons whose name starts with this letter appears.

   * *If the proposed list is too long, enter the first letters of the person's name.*

3. Press the down navigation key to select the person's name or select it with the mouse.
4. Press [Enter].

   J *You can add several persons whose name starts with the same letter without closing the window.*

5. Click outside the list to close it.

   * *You can add several persons to the list of recipients.*

   * *To remove a person from the list of recipients, click the cross beside its name.*

6. (If needed) In the **A** field, enter the email address to which you want to send the breadcrumb sharing.

7. To receive a copy of the email, select **Put me in CC**.

8. (Optional) In the **Include a personal message with this object** pane, enter the text of the email.
9. Click **Send**.
   An email is sent to the recipients of the message as well as to you if you have selected the option.
10. When the recipient clicks **Open**, the **HOPEX** connection window opens. The recipient must enter only his/her login and password to open his/her desktop with the same breadcrumb (the profile is automatically taken into account).

    * *If the recipient is already connected with another profile, he must first logout from this desktop.*

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.

Accessing the list of objects that you like

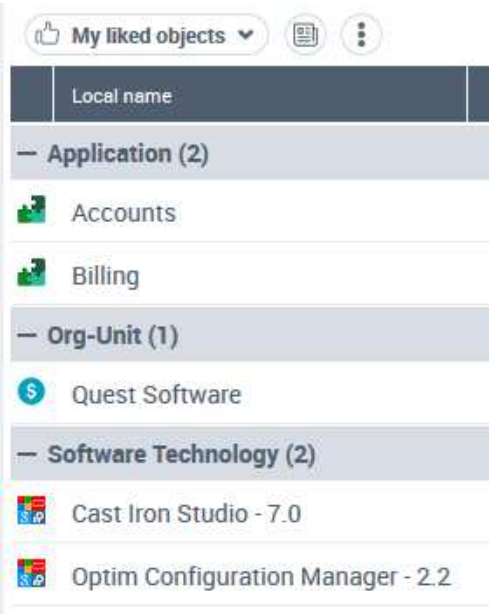
To access the list of objects that you like:

1. From your **HOPEX** desktop, click the navigation menu and select **Collaboration**.

   The collaboration features appear in the form of tiles in the **Browse** edit area.
2. Click the **My social objects** tile.

   * *See Accessing a Collaboration Feature.*

   The page showing the list of objects you like or the list of objects you follow is displayed.
3. In the drop-down menu, select **My liked objects**.
   The object you like are listed by type.



You can perform actions on these objects.

* *See Actions on an object from the Local Name of a list.*

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 **More** > **Like**

   * *Alternative: In the **Collaboration** window, **Social** tab, in the **Likers** section, 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.*

Liking an object (in a tree)

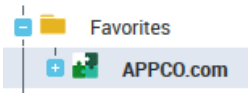
To like an object:

1. From your **HOPEX** desktop, access the **Social** feature.

   * *See Displaying a Collaboration Feature.*

   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.*

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 **More** >**Stop liking** .

   In the **Collaboration** window, **Social** tab, **Likers** section, your name is removed from the list of persons who like this object.

   If you follow this object, continue to follow it.

   * *To stop following the object, see Canceling Follow-up of an Object.*

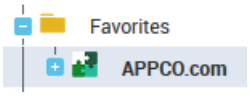
Removing your Like on an object (in a tree)

To remove your **Like** on an object:

1. From your **HOPEX** desktop, access the **Social** feature.
   * *See Displaying a Collaboration Feature.*

   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.

   If you follow this object, continue to follow it.
   * *To stop following the object, see Canceling Follow-up of an 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.

Adding an idea to an object

Ideas are sorted by type:

- Innovation
- Improvement
- Rationalization

To add an idea to an object:

1. In **HOPEX**, access the **Idea** feature on the object concerned.
   The **Collaboration** window appears and displays the **Ideation** tab for the object.

   The name and type of the object are displayed.
   * *See Displaying a Collaboration Feature.*
2. Click **New** .
3. In the **Idea Name** field, enter the name of your idea.
4. In the **Idea Type** field, select the type of your idea.
5. In the **Description** section, enter your idea.
   * *You can use text edit buttons to format your comment.*

6. (optional) In the **Idea Submission Date** field, modify the submission date.
    * *By default the submission date is the current date.*
7. Click **OK**.
Your idea is created.

Creating an Idea

To create an idea:

1. From your **HOPEX** desktop, click the navigation menu and select **Collaboration** .

   The collaboration features appear in the form of tiles in the **Browse** edit area.
2. Click the **Ideas** tile.
    * *See Accessing a Collaboration Feature.*
3. Click **New** .
4. In the **Local Name** field, enter the name of your idea.
5. In the **Description** section, enter your idea.
    * *You can use text edit buttons to format your comment.*
6. Click **Next**.
7. (If needed) In the **Idea Submission Date** field, modify the submission date.
    * *By default the submission date is the current date.*
8. In the **Idea Submitter** field, your name is automatically entered, if needed you can attribute the idea to another person.
9. Click **OK**.
Your idea is created.

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.*

Managing the Object Follow-up

You can receive a notification and/or an email when an object is modified. To do this, you must follow the object.

* *To view the activity on the objects that you are following:Accessing the activity on the objects that you are following see*

You can follow:

- all objects to which you have access in **HOPEX**

  * *See Following an object.*

- all objects for which you participate in a review note

  * *See No longer receive notifications on review notes that concern me.*

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.*
   - 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.

Accessing the list of objects you are following

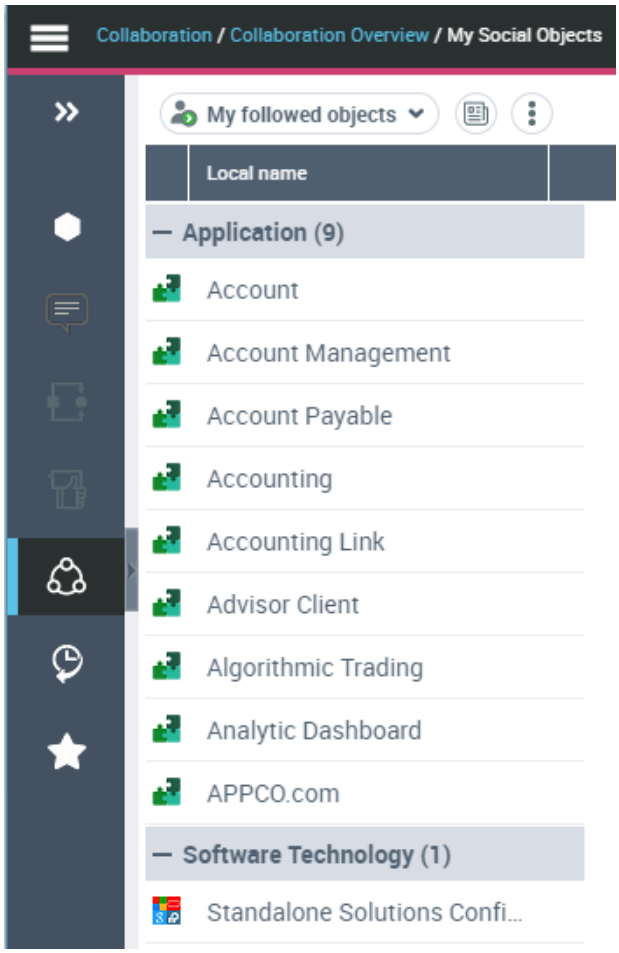
To access the list of objects you are following:

1. From your **HOPEX** desktop, click the navigation menu and select **Collaboration**.

   The collaboration features appear in the form of tiles in the **Browse** edit area.
2. Click the **My social objects** tile.
   * *See Accessing a Collaboration Feature.*

   The page showing the list of objects you like or the list of objects you follow is displayed.

3. In the drop-down menu, select **My followed objects**.
The object you are following are listed by type.



You can perform actions on these objects.

* *See Actions on an object from the Local Name of a list.*

Accessing your Notifications

In the main toolbar of your **HOPEX** desktop, a red dot indicates that you have unread 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.*

To access your notifications:

1. In the **HOPEX** main toolbar, click .

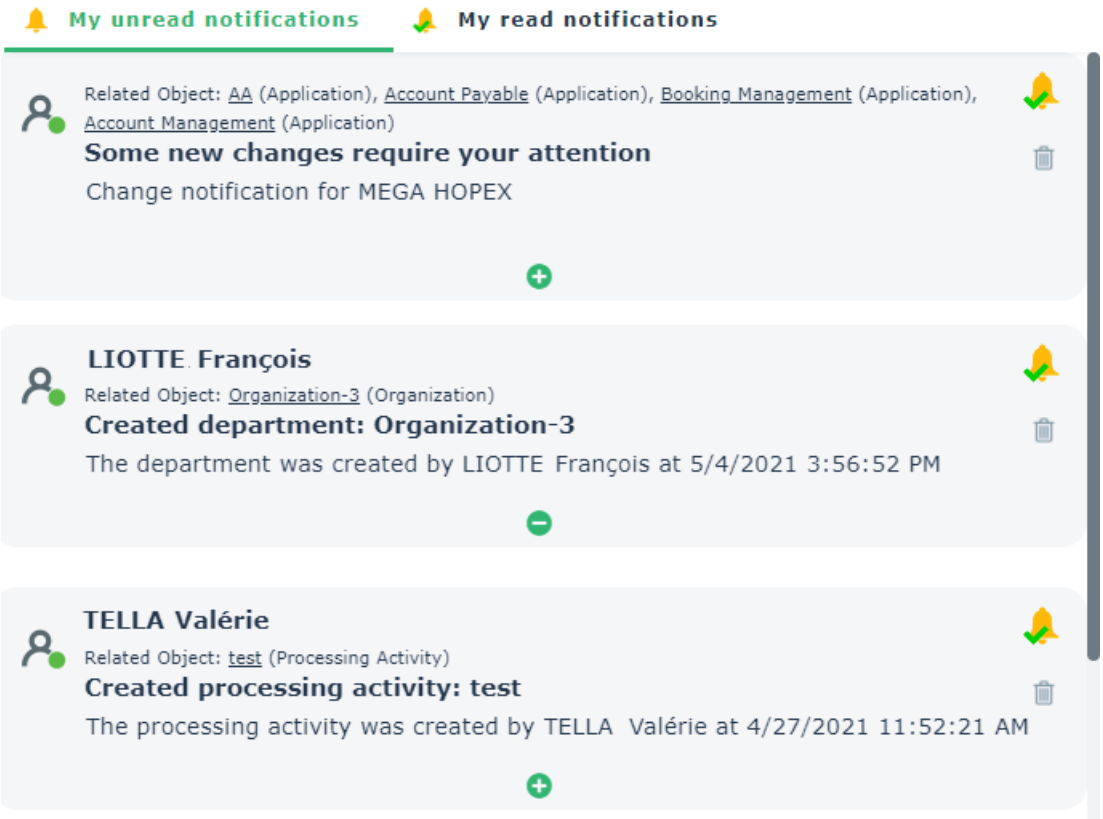
    * *Alternative: access **My notifications** feature, see Accessing a Collaboration Feature.*

    The **Browse** edit area displays your unread notifications in creation order (with the most recent first).

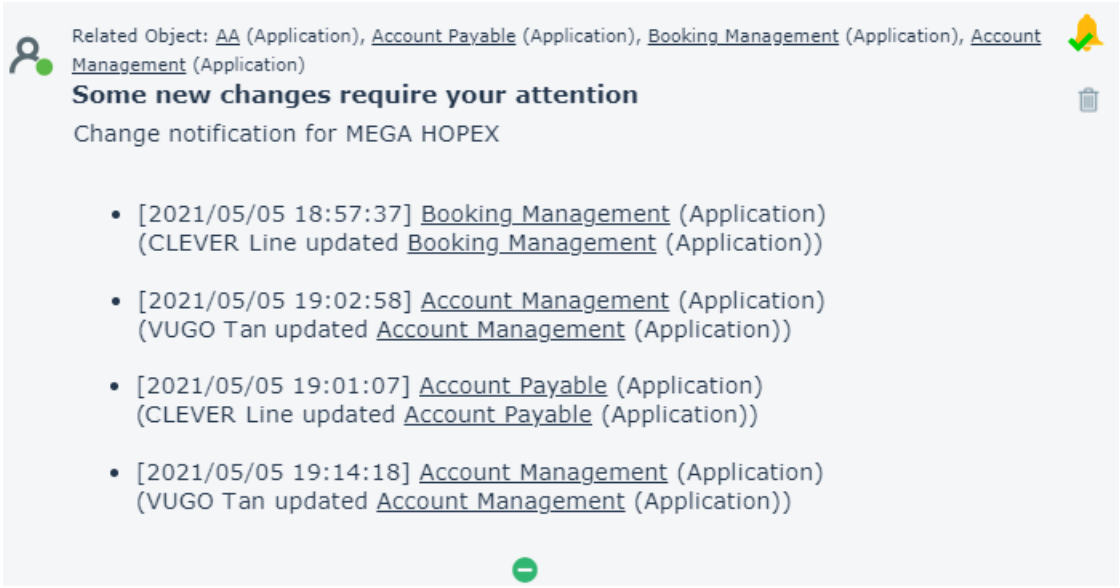
    * *To display your read notifications, click **My read notifications**.*

    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



2. To display all the content of a notification, click .
Updates are displayed in chronological order.



3. To access the properties of a modified object, click the name of the object.
The **Properties** window appears in the edit area and displays the properties of the modified object.

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.*
2. In the drop-down menu, select **My Read Notifications**.
3. In the notification concerned, click **Mark as Read** .
The notification is moved to **My read notifications**.

   * *In the same way, click **Mark as unread** to move the notification to **My unread notifications**.*

Deleting a Notification

To delete a notification:

1. Access your notifications.
   * *See Accessing your Notifications.*
2. In the notification concerned, click **Delete** .
   The notification is deleted directly.
   M **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 options:

- **Activate Alerts**: activates receipt of alerts (notifications and e-mails) on followed objects.
- **Activate notification pop-up window**: activates, in addition, a pop-up window (at the bottom right corner of your Desktop), which indicates, at Desktop opening, that you have unread notifications.
- **Activates viewing of object follow-up**: enables to hide/display the **Social** tab in the **Collaboration** window.
- **Period by default for updates of followed objects**: defines the display period regarding the updates of followed objects: week, quarter, or year (monthly by default).

The email address of the sender of the notifications can be modified by a HOPEX Administrator only. This email address is the same for all of the users.

Receiving your alerts in pop-up mode

Your alerts appear in the toolbar of your **HOPEX** desktop. A red dot indicates that you have unread notifications .

In addition, at Desktop opening, you can receive a notification in pop-up mode (at the bottom right corner of your Desktop).

To receive your alerts in pop-up mode:

1. Access your options (**Main Menu > Settings > Options**).
2. In the Options tree, expand **Collaboration**.
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, expand **Collaboration**.

3. Select **Notification management and object follow-up**.
4. In the right pane, modify the options concerned.

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.*
* *See Answering a Review Note.*

To no longer receive notifications on review notes that concern you:

1. Access your alert management feature.
* *See Accessing alert management.*
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.*

Managing Your Alerts on Object Modification

To follow the modifications carried out on an object, you must follow it.

* *See Managing the Object Follow-up.*

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.*
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.*
   - configure management of your alerts.
     * *See Configuring management of your alerts.*
   - view your **Notification** type alerts.
     * *See Accessing your Notifications.*
   - cancel subscription to an alert.
     * *See Canceling Follow-up of an Object.*

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:

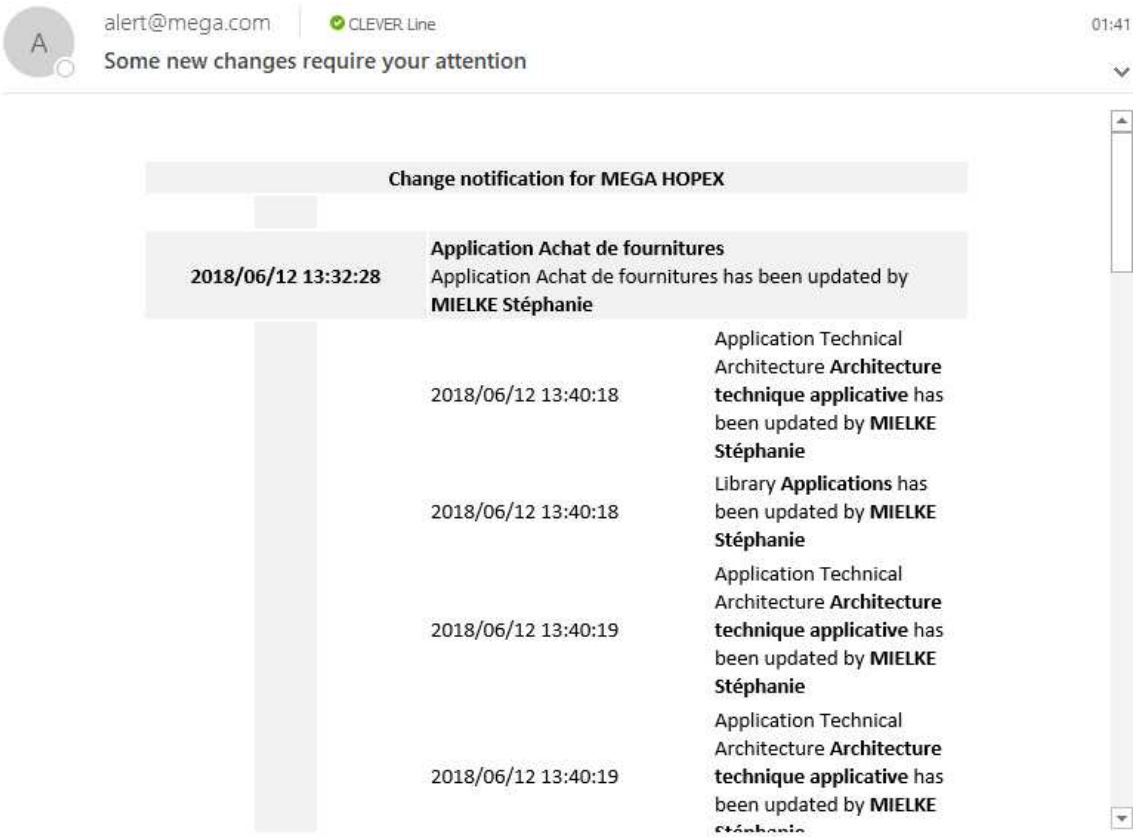
- e-mail receipt frequency:
  - none
  - daily summary
  - daily summary with choice of day and time (UTC)
- content of e-mails:
  - with or without details
- format of e-mails:
  - plain text
  - HTML

To configure management of your alerts:

1. Access your alert management dialog box.
   * *See Accessing alert management.*
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.*
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

The following points are covered here:

- Overview
- Creating Collaborative Workspaces
- Inviting Persons to Your Collaborative Workspace
- Removing Participants from Your Collaborative Workspace
- Modifying Collaborative Workspace Participant Access Level
- Modifying Your Collaborative Workspace Characteristics
- Adding/Deleting Objects to/from Your Collaborative Workspace
- Working in a Collaborative Workspace

Overview

* *This feature requires a desktop based on private workspaces (that is, that cannot be used in a public workspace).*

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.*
- invite participants
  * *See Inviting Persons to Your Collaborative Workspace.*
- define objects on which you want to work
  * *See Adding/Deleting Objects to/from Your Collaborative Workspace.*

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).*

* *To modify the access level of a participant, see Modifying Collaborative Workspace Participant Access Level.*

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.*
  * *See Giving your opinion on work in review.*
  * *See Accessing collaborative workspace properties.*
- **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.*
  * *See Communicating your work progress in the collaborative workspace.*
  * *See Giving your opinion on work in review.*
- **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.*
  * *See Removing Participants from Your Collaborative Workspace.*
  * *See Modifying Collaborative Workspace Participant Access Level.*
  * *See Adding/Deleting Objects to/from Your Collaborative Workspace.*
  * *See Modifying the collaborative workspace owner.*
- **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.*
  * *See Dispatching or discarding collaborative workspace updates.*

Collaborative workspace states

A collaborative workspace can be in the following states:

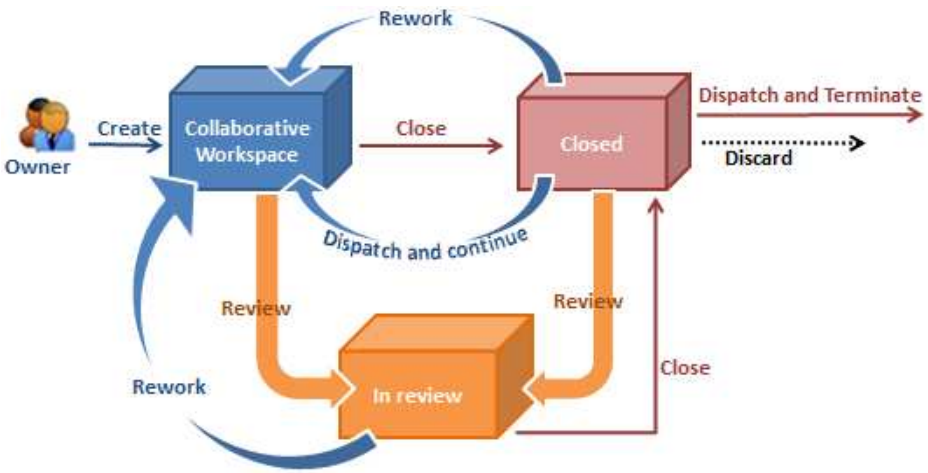
- **Shared**
  Once the collaborative workspace has been created, it is in Shared state. All authorized participants can connect to it.
  Authorized participants can update this collaborative workspace.
- **Closed**
  When the collaborative workspace has been closed by its **Owner**, it can no longer 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.*

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.*



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.*

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 to/from Your Collaborative Workspace.*
- you can be invited to other collaborative workspaces as a participant.
  - *See Inviting Persons to Your Collaborative Workspace.*
- you can create a private workspace (if you do not already have one).

To create a collaborative workspace:

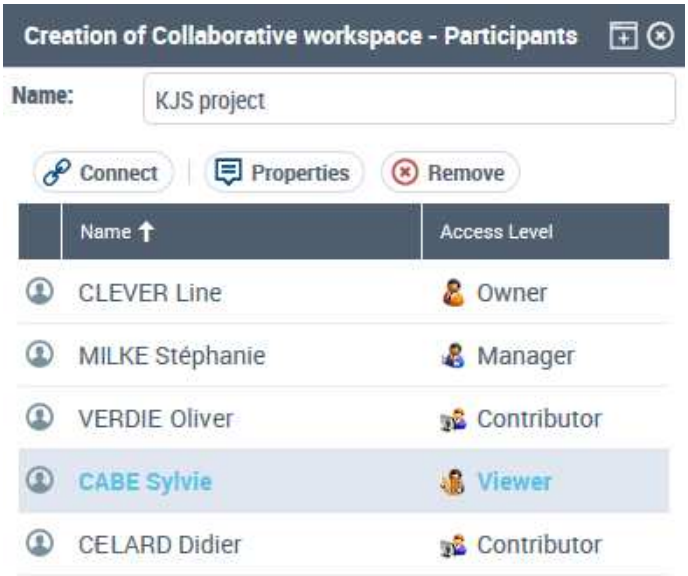
1. In your **HOPEX** desktop, click **Main menu > Collaborative Workspace > New Workspace**.
   The collaborative workspace creation dialog box appears
2. In the **Name** field, enter the name of the collaborative workspace.
   - *You can modify its name later, see Modifying the collaborative workspace name.*
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.*



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 to/from Your Collaborative Workspace.*

    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.

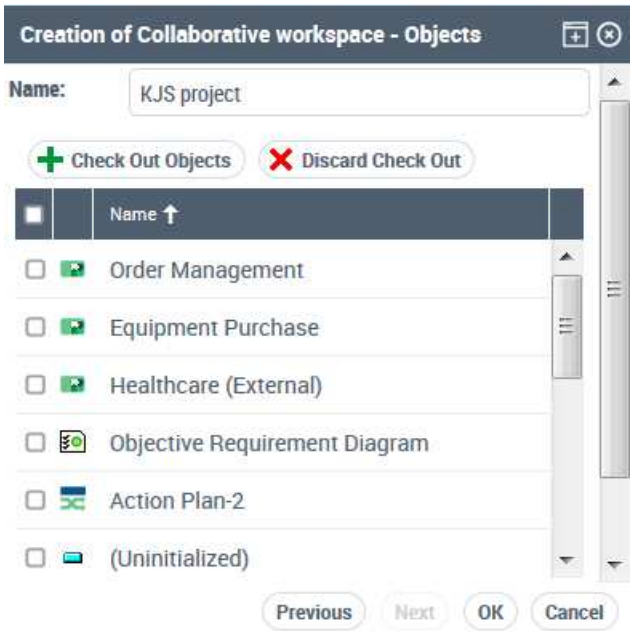
    * *An object can be in Check Out in only one collaborative workspace at a time.*

    * *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**.



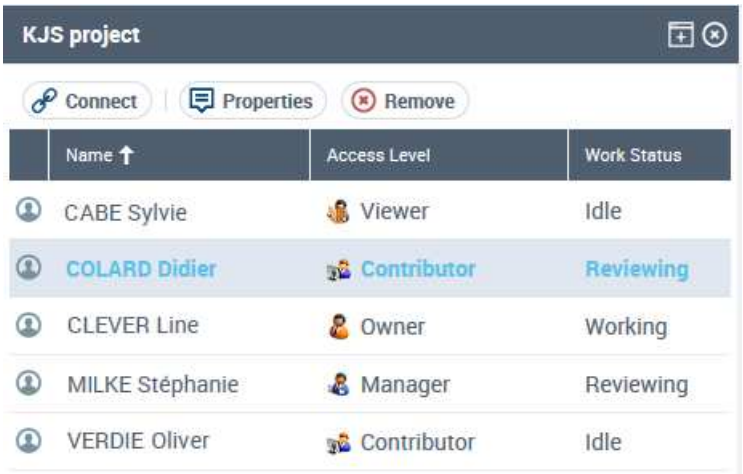
11. Click **OK/Finish**.
    The selected objects are reserved in Check Out for your collaborative workspace. They are locked for users who are not participants in your collaborative workspace.
    If you selected option **Send notification by e-mail**:
    - an invitation message is sent immediately 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. In your **HOPEX** desktop, click **Main menu > Collaborative Workspace > Manage 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).*
   * *To modify the access level of the person to your collaborative workspace, see Modifying Collaborative Workspace Participant Access Level.*

Removing Participants from Your Collaborative Workspace

Once your collaborative workspace has been created and participants defined, you can remove participants from your collaborative workspace.

* *To block access to a participant, see Modifying Collaborative Workspace Participant Access Level.*

To remove a participant from your collaborative workspace:

1. In your **HOPEX** desktop, click **Main menu > Collaborative Workspace > Management Participants**.
   The collaborative workspace participants dialog box appears.
2. Select the person and click **Disconnect** .
   The person is removed 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).*

Modifying Collaborative Workspace Participant Access Level

To modify collaborative workspace participant access level:

1. In your **HOPEX** desktop, 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.*
   * *See Modifying the collaborative workspace owner.*

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.*
- its description
  * *See Modifying collaborative workspace status description.*
- its owner
  * *See Modifying the collaborative workspace owner.*
- its name
  * *See Modifying the collaborative workspace name.*

Accessing collaborative workspace properties

To access collaborative workspace properties:

1. Connect to your collaborative workspace.
   * *See Connecting to a collaborative workspace.*
2. In your **HOPEX** desktop, 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.*
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.*
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.*
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. In your **HOPEX** desktop, 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 to/from 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. In your **HOPEX** desktop, 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.

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 and Modifying Collaborative Workspace Participant Access Level).*
* *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.*

Depending on your collaborative workspace access level, you can perform the following actions:

- Connecting to a collaborative workspace
- Communicating your work progress in the collaborative workspace
- Organizing a review
- Giving your opinion on work in review
- Consulting opinions of other participants on work in review
- Consulting participant work status
- Closing a collaborative workspace
- Dispatching or discarding collaborative workspace updates
- Exiting a session from a collaborative workspace

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**.*

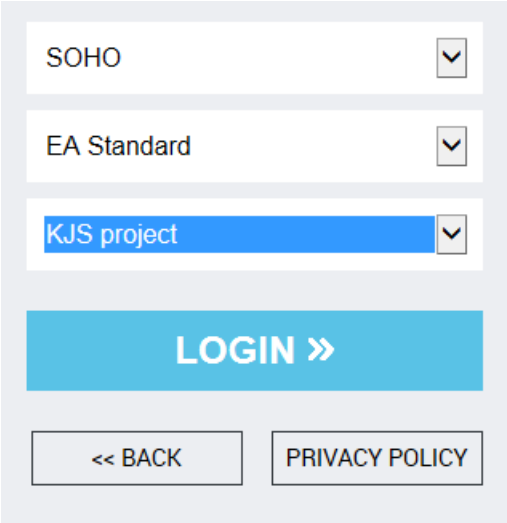
Only participants of access level **Blocked** cannot connect to the collaborative workspace.

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.*

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.*

2. In your **HOPEX** desktop, 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.*

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.*

To organize a review:

1. Connect to your collaborative workspace.
   * *See Connecting to a collaborative workspace.*
2. In your **HOPEX** desktop, 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:

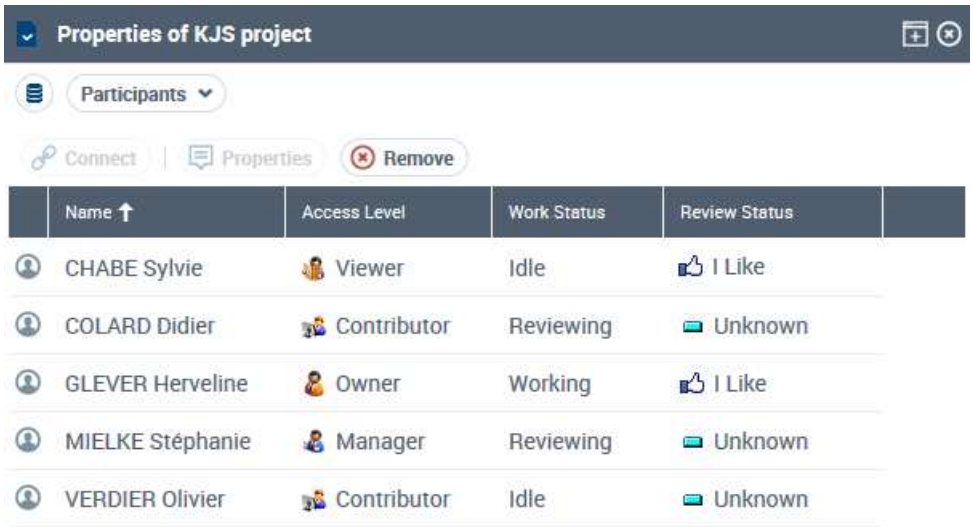
1. Connect to your collaborative workspace.
   * *See Connecting to a collaborative workspace.*
2. In your **HOPEX** desktop, click **Main menu > Collaborative Workspace**.
3. Select your opinion (**I like**, **I don't like**).
   * *To consult the opinions of participants on updates carried out in the collaborative workspace, see Consulting opinions of other participants on work in review.*

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.*

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.*
2. Select **Participants**.
   The **Work Status** field indicates the work status of each participant.
   * *See Work status of a participant.*

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 and Sharing with other users (social).*

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.*

To close your collaborative workspace:

* *You must be **Owner** of the collaborative workspace.*

â In your **HOPEX** desktop, 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.*

- **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.*
2. In your **HOPEX** desktop, 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

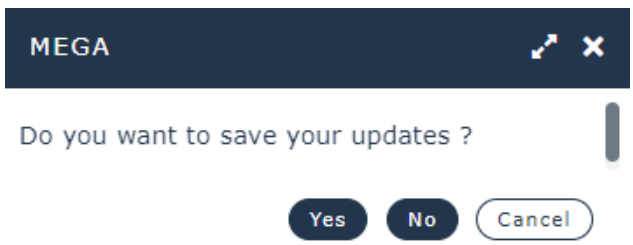
Exiting **HOPEX** from a collaborative workspace is the same whether you are its **Owner** or not.

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.*

In **HOPEX**, to exit your work *session*:

1. In your **HOPEX** desktop, 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
- start a workflow
- participate in a workflow

Examples of standard workflows used across different HOPEX solutions are also included.

* *Details of workflows are provided in the corresponding **HOPEX** documentation.*
* *To create your own workflows, see Configuring Workflows in the **HOPEX Power Studio** guide.*

CONSULTING WORKFLOWS

To access the workflows which are of interest to you:

â From the navigation menu, click **Collaboration > My Workflows**.

You can access:

- 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)

* *See also Starting a Workflow.*

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.

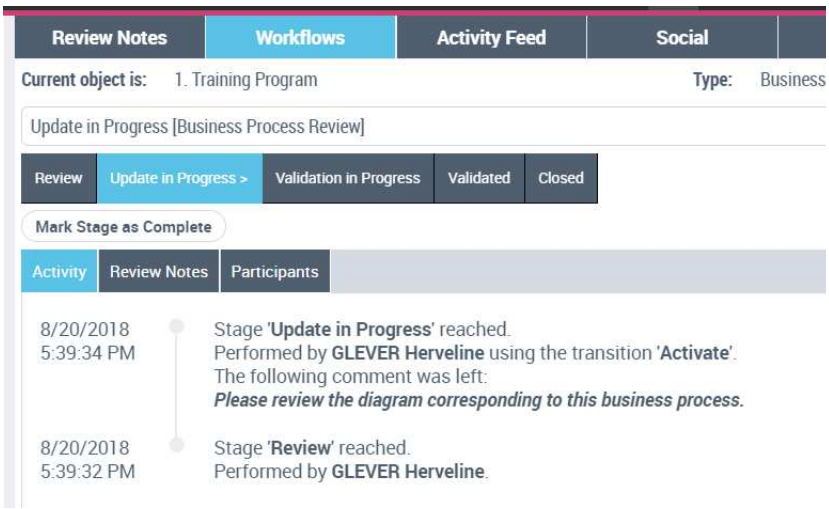
* *See Accessing your Notifications.*

STARTING A WORKFLOW

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.*
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 Participating in a Workflow.

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.*

You can trigger a workflow transition:

- From the list of workflows that are of interest to you
- an object list

From the list of workflows that concern you

To take part in a workflow:

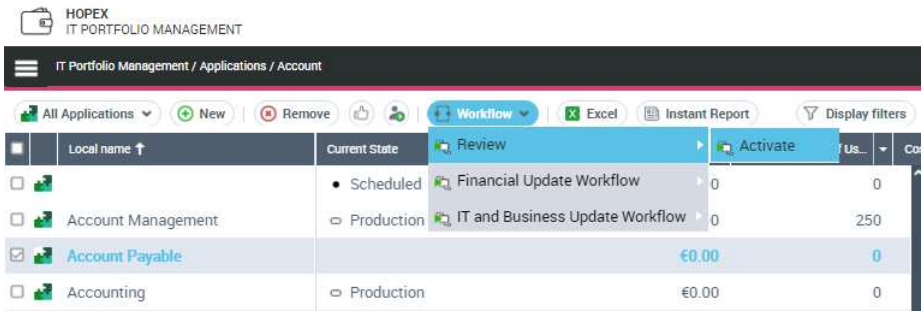
1. Access the workflows which are of interest to you.
   * *For more details, see Consulting Workflows.*
   * *See also Starting a Workflow.*
2. If you are assigned to the next workflow status, the workflow appears in the "My Active Workflows" page.
3. Select the workflow of interest.
4. Roll the mouse 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****.*

WORKFLOW EXAMPLES

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

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. He/she can:

- accept the request for change, or
- reject the request for change, or
- 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

â From the navigation tree, select **Collaboration > Overview > My Requests for Change**.

Creating a Request For Change

To create a request for change:

1. See Accessing Requests for Change.
2. Click .
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, make sure you have:

- Activated task management.
- Activated 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.

Accessing Design Tasks

To access design tasks:

â 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

Creating Design Tasks

To create a design create:

1. See Accessing Design Tasks.
2. In **Collaboration > Collaboration Overview > My Tasks**, select **Requested Tasks** in the drop-down menu and click New.
   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.
2. Expand the navigation folder corresponding to the request for changes.
3. In the page corresponding to your change request, click **Expand** to create a design task.
4. In the dialog box that appears, enter the name of the design task and indicate the task due date.
5. Click **OK**.
6. In the dialog box that appears, specify if you want to:
   - create the task and assign it
   - create the task and assign it later
7. Enter a comment for the design task, then click **Next**.
8. Select the design task assigned user if required, then click **Finish**.

The design task is created.

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:

1. In the list of required tasks, click .
2. 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:

1. In the list of required tasks, click .
2. 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**.

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 **HOPEX Web Front-End** desktop, 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

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 Managing Repository Transfers.*

Requesting validation

To request validation of an object:

1. Right-click the object of interest and select **Validate > Request Validation**

   * *The location of the menu can vary if customized. For more details, see Customizing the Validation Workflow.*
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. Click the object and select **Validate > Request Validation**.

   * *The location of the menu can vary if customized. For more details, see Customizing the Validation Workflow.*

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.*

   The object is protected. If you want to modify it, you must first unlock it.

   * *To unlock an object, click the object of interest 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.*

Refusing object validation

To refuse validation of the object subject of a validation request:

1. Click the object and select **Validate > Invalidate**.

   * *The location of the menu can vary if customized. For more details, see Customizing the Validation Workflow.*

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.*

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.*

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. 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.

Accepting an unlocking request

To accept an unlocking request:

â 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:

â 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**).*

USING ACTION PLANS

The action plan consists of defining, executing and following up specific actions in a project context.

This feature is common to solutions. However, the action plans use the workflows mechanisms. The standard execution of an action plan can be configured to adapt to specific solution.

This topic describes the standard action plans execution as well as their customization.

- "Using Action Plans", page 564
- "Managing Actions", page 568
- "Action plan execution", page 569
- "Assure follow-up of Action plan", page 574
- "Action Plan Reports", page 577

USING ACTION PLANS

& *An action plan comprises a series of actions, its objective being to reduce risks and events that have a negative impact on company activities.*

Accessing action plans

Action plan access path and creation depend on the solution you actually use. See the corresponding documentation.

Standard reports are offered to follow up expected and effective progression of one or more action plans. For more details, see: "Action Plan Reports", page 577.

Entering Action Plan Information

Before proposing an action plan for approval, the action plan creator may supplement Action Plan information.

To update fields that characterize an action plan:

â Open the **Characteristics** properties pages of the action plan that interests you.
Several sections appear.

General characteristics

In the **Characteristics** section, you can specify action plan fields:

- **Name**: action plan name.
- **Owner**: is the user responsible for submitting the action plan to the approver and for proposing the action plan closing when all the actions are closed.

  * *For more details on the owner tasks, see "Action plan execution", page 569.*
- **Owner Entity**: enables restriction of the list of owners.
- **Approver**: is the user responsible for validating the action plan closing.

  * *For more details on the approver tasks, see "Action plan execution", page 569.*
- **Means**: text description of means required/desired for action plan execution.
- **Priority**: enables indication of a priority level of the action plan. Possible values are:
  - "Low",
  - "Medium"
  - "High" or
  - "Critical".
- **Origin**: enables definition of the context of carrying out the action plan:
  - "Audit",
  - "Compliance",
  - "Event",
  - "Risk", "RFC"
  - "Other".
- **Category**: enables specification of the action plan undertaken, for example: "Process Improvement".
- **Nature**: enables definition of the action plan nature "preventive" or "Corrective".
- **Comment**: supplements information on the action plan and its characteristics.
- **Steering Calendar**:enables the connection of a Steering Calendar to the action plan

  & *A steering calendar enables performing recurring actions at predefined due dates. It can be used for example for sending recurrent reminders to the person responsible for an action plan so that they can indicate progress of this element. A steering Calendar can also be used to automatically trigger assessment Assessment Sessions at regular intervals.*

  * *For more details on the use of the steering calendar, see "Using steering calendars", page 575.*
- **Action Plan Status**: automatically updated depending on the action plan progress.

  * *For more details on action plan statuses, see "Action plan execution", page 569.*

Financial assertion

In the **Financial assertion** section, you can enter financial information that facilitate action plan cost monitoring.

- **Forecast Cost**: estimate of action plan cost expressed in current currency.
- **Real Cost**: action plan real cost expressed in currency current.
- **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 .

Action plan progress

In the **Action plan progress** section, you can enter the milestones that facilitate the action plan follow-up.

* *For more details on managing action plans progress, see "Specifying action plan progress rate", page 574.*

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.
- **Successful**: information on action plan result.
  - "none",
  - "Yes", for success,
  - "No", for failure.
- **Successful Comments**: text information on action plan results.

Scope

You can associate objects with the action plan to position it in its environment.

Depending on the products you have, you can connect objects of the following types:

- risks,
- organizational processes,
- business Processes,
- controls,
- entities,
- applications,
- Touchpoint, or
- issue.

Milestones

Milestones are important dates of the action plan. You can specify these dates later.

- **Planned Begin Date** and **Real Begin Date**.
- **Real End Date** and **Planned End Date**.

Actions

Milestones are important dates of the action plan. You can specify these dates later.

* *For more details on action plan statuses, see "Action plan execution", page 569.*

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.*

MANAGING ACTIONS

& *An action is included in an action plan and represents a transformation or processing in an organization or system.*

Users involved by an action plan can propose actions corresponding to the execution of the action plan. The “Owner”, for example, can create actions and assign these.

Creating an Action

To create an action from an action plan:

1. Open the **Characteristics** property page of the action plan and expand the **Actions** section.
2. Click **New**.
   The action appears in the list of action plan actions.
3. Open the **Characteristics** property page of the action plan and specify its **Name**.
4. Specify the following fields:
   - **Responsible** for the action as specified by the action plan creator.
   - **Owner Entity**: owner organization unit enabling restriction of the list of action owners.
5. You can specify milestones, which are important dates of the action.
   - **Real End Date** and **Planned End Date**.

Action Status

The action status is automatically updated during the action execution.

* *For more details on an action execution and its statuses, see "Action workflow", page 572.*

The different statuses of an action are:

- **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.

ACTION PLAN EXECUTION

During the execution, an action plan takes different states. Passage from one state to another is a step in a procedure executed by an org-unit.

The execution of action plans and their associated action is managed by workflows.

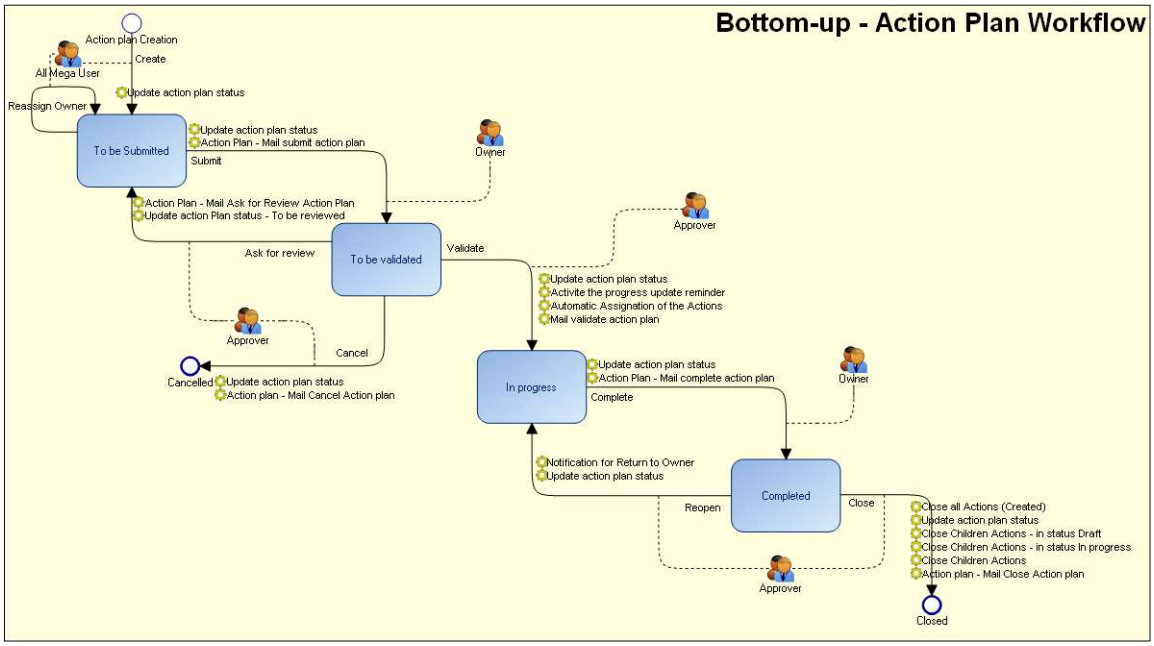
Two workflows are proposed to manage different steps of an action plan:

- A **Bottom-Up** workflow, which corresponds to the case where an action plan is created by any user. The new action plan must 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".

A third workflow is proposed to manage the actions associated to an action plan.

Bottom-up action plan workflow

A **Bottom-Up** workflow corresponds to the case where an action plan is created by any user.



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 568.
- **Cancel** the action plan which takes status "Canceled".

Executing the action plan

After execution of 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 568.
  The "Approver" user is notified of the action plan termination request.

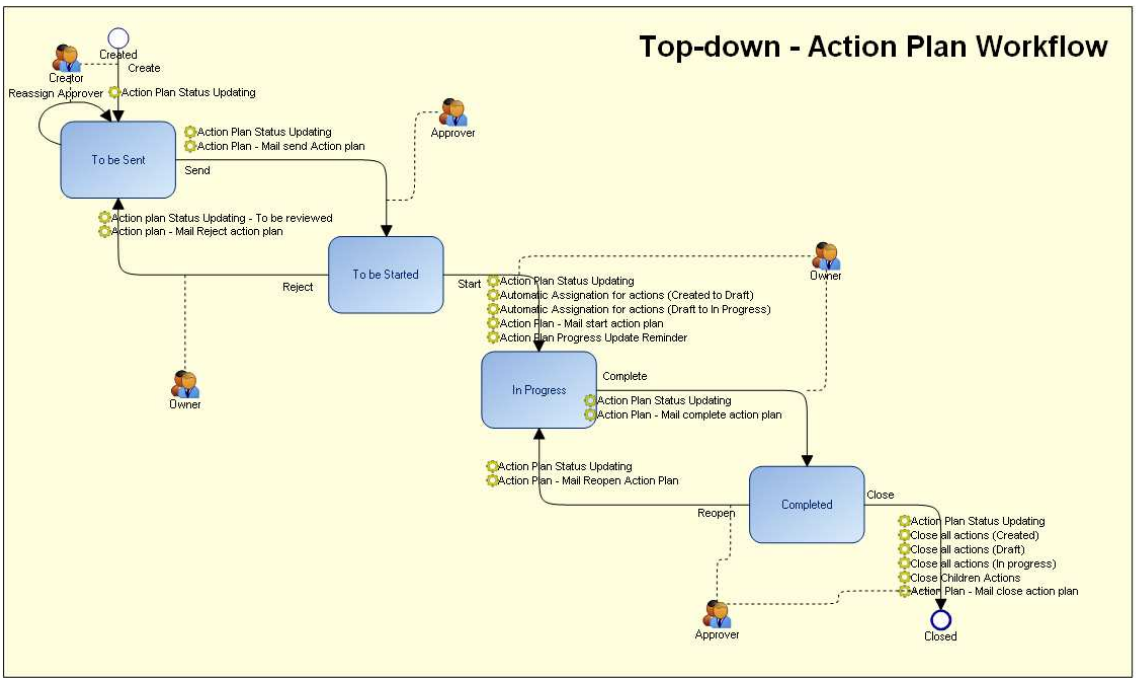
Closing the action plan

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".

Top-down action plan workflow

The **Top-Down** workflow corresponds to the case where an action plan is created by an "action plan manager".



Creating the action plan

When the action plan is created, it is in "To be sent" state.

By default, the action plan creator is the action plan **Accountable** . Having specified the characteristics of a new action plan, the creator can:

- **Send** 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:

- **Start** the action plan, which then takes status ""In Progress".. Actions can then be created. For more details, see "Managing Actions", page 568.
- **Reject** the action plan which takes status "Rejected".

Executing the action plan

After execution of actions relating to the action plan, the "Owner" can:

- **Terminate** the action plan which takes status "Completed". To do this, all action plan actions must be terminated. For more details, see "Managing Actions", page 568.
  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".

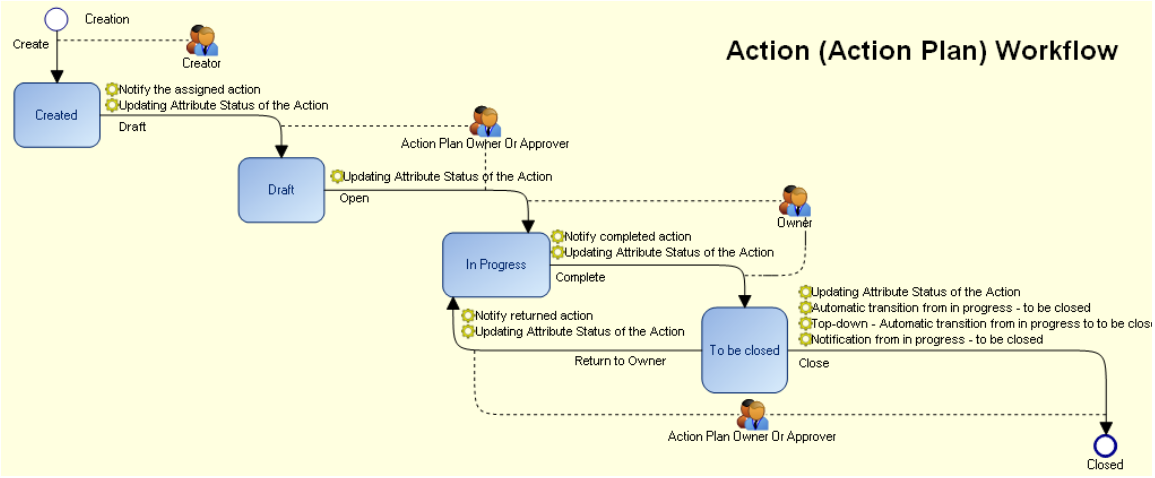
Action workflow

An action plan is executed when the associated actions are executed.

Actions can then be created as soon as the action plan state is "In Progress".

When all actions of an action plan have been published and accepted, the action plan can be implemented.

The action plan takes status "Completed" only if all its attached actions are closed.



Action Creation

When the action A created, it is in "Created" state.

By default, the action creator is the action owner. Having specified the characteristics of a new action, the creator can declare the action as **Draft**. In this

case, the user defined as "Approver" receives a notification mail, and the new action appears with status "Draft" in his/her tasks list.

Action preparation

When an action has been proposed, the action plan "owner" or "approver", or the action "owner" can:

- **Open** the action, which takes status "In Progress".

Action execution

Having studied action execution possibilities, the "Owner" can:

- **Complete** the action.
  A notification is sent to the user defined as "action plan owner or approver".

Action termination

After studying characteristics of the action, the action plan "owner" or "approver" can:

- **Close** the action.
  In this case the user defined as "Owner" receives a notification and the action takes status "Closed".
- **Return to responsible user**, for supplementary actions.

ASSURE FOLLOW-UP OF ACTION PLAN

Action Plan Progress Steps

During the execution, an action plan takes different states. Passage from one state to another is submitted to the approval of several org-units associated to business roles.

* *For more information on action plan execution, see "Bottom-up action plan workflow", page 569 and "Top-down action plan workflow", page 571.*

Action plan progress is specified at periodic dates by the action plan responsible user. For more details, see "Specifying action plan progress rate", page 574.

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 steering calendars", page 575.

Specifying action plan progress rate

Reports are offered to follow up expected and effective progression of one or more action plans. See "Action Plan Reports", page 577.

The action plan progress rate can be specified if the action plan is in the status "In progress", that is it has been validated by the “Approver”.

To indicate progress rate of an action plan:

1. Open the properties of the action plan and expand the **Action Plan Progress** section.
2. In the **Progress Update** section, click **New**.
   The **Progress Update** creation page appears.
3. Specify the **Name** of the progress rate.
4. Specify the **Progress Update Percentage** and add a percentage **Comment**, if required.
5. Verify the **Progress Date**.
6. Select the **Progress Evaluation**.
   - “Late”
   - “In time”
7. Specify the **Progress Forecasted End Date**.
   -
8. In the progress rate creation page, click **OK**.
   The progress rate appears in the list.

Using steering calendars

& *A steering calendar enables performing recurring actions at predefined due dates. It can be used for example for sending recurrent reminders to the person responsible for an action plan so that they can indicate progress of this element. A steering Calendar can also be used to automatically trigger assessment Assessment Sessions at regular intervals.*

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 **Characteristics** property page of the Steering Date.
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:

â Open the **Scheduling** properties page of the steering date.
You can specify:

* *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 REPORTS

Action plan progress Report

Before proposing an action plan for approval, the action plan creator may supplement Action Plan information.

To access the action plan progress rates:

- â Open **Progress Report** property page of the action plan that interests you.
  This report displays the actions Gantt chart and an History progression.

Actions Gantt chart

This diagram lets you see the sequencing of planned and executed actions.

* *For more details on actions associated to an action plan, see "Managing Actions", page 568.*

History Progression

This graph is based on progress states to show the progress rate percentage planned on different dates.

* *For more details on managing action plans progress, see "Specifying action plan progress rate", page 574.*

Action plans summary reports

The access path to action plans reports depend on the solution you actually use. For example, to access the action plans in the **HOPEX Business Process Analysis** solution from the navigation pane **Transformation**:

1. Select **Corrective Action Plans > Hierachy View**.
   The action plan tree is displayed.
2. Expand the **Reports** folder.
   The folders containing the possible report types appears.

Action Plan Progress

Report parameters

Parameter	Parameter type	Constraints
Library or action plan	Action plan	At least one action plan mandatory.

This graph is based on progress states of several action Plans (entered as a parameter in the report) to show the progress rate percentage planned on different dates.

* *For more details on managing action plans progress, see "Specifying action plan progress rate", page 574.*

Action Plan Gantt Chart

Report parameters

Parameter	Parameter type	Constraints
Library or action plan	Action plan	At least one action plan mandatory.

The Gantt diagram lets you see the sequencing of action plans entered as a parameter.

* *For more details on action plan start date and end date, see "Entering Action Plan Information", page 564.*

Action Plan Follow-Up

The report is composed of different graphs (bar charts and pie charts) showing actions plans associated to contexts (processes and entities) defined as parameters.

Report parameters

Parameter	Parameter type	Constraints
Library or action plan	Action plan	At least one action plan mandatory.

Action plans by status

This bar chart presents action plan statuses.

The sum of action plans must be equal to the number of action plans. The number is in the legend.

Action plans by progress

This pie chart presents action plan breakdown according to their progress rate. Possible statuses are the following:

- In time=in progress with due date superior to 30 days
- Late=in progress with due date inferior to 0 days.
- Approaching due date=in progress with due date between 0 and 30 days.
- Canceled
- Closed

The sum of action plans must be equal to the number of action plans. The number is in the legend.

Action Plans By Priority

This bar chart presents action plan breakdown according to priority.

Available priorities are the following: "Critical", “High”, "Medium” or “Low”.

The sum of action plans must be equal to the number of action plans. The number is in the legend.

Action plans by category

This bar chart presents action plan breakdown according to their category.

Possible categories are: Corrective, Preventive.

The sum of action plans must be equal to the number of action plans. The number is in the legend.

Action Plans By Nature

This bar chart presents breakdown action plans by nature.

The sum of action plans must be equal to the number of action plans. The number is in the legend.

Action Plans by Entity

This bar chart presents breakdown action plans for each entity selected.

- X-axis: All entities selected
- Y-axis: number of action linked to each entity and sub-entity.

If no entity is selected, all root entities are presented.

Action plans by process

This bar chart presents breakdown action plans for each process selected.

- X-axis: all root selected
- Y-axis: number of action linked to each process and sub-process

If no process is selected, all root processes (organizational and business processes) are presented.

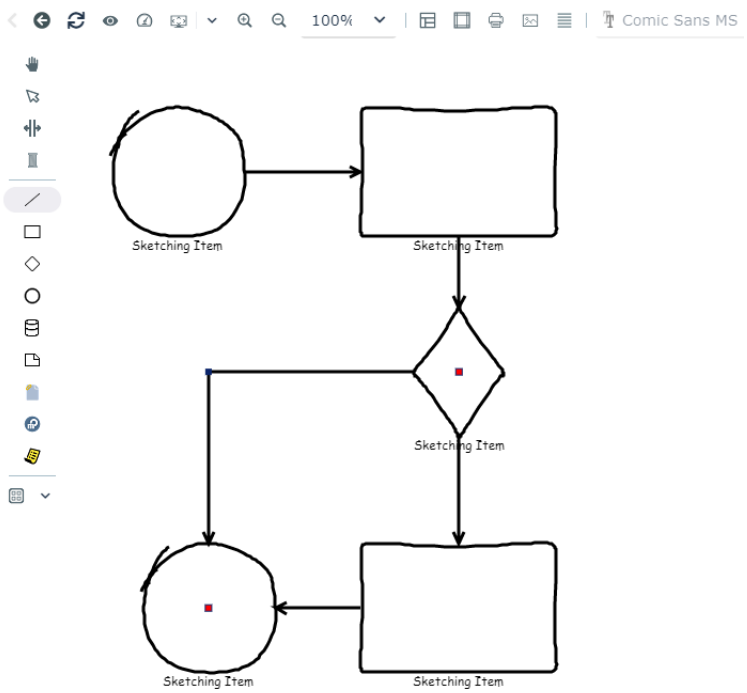
USING SKETCHES

HOPEX allows you to use drawings or images to create diagrams from shapes without needing to specify the type of object represented from the start.

This feature makes teamwork easier from sketches without any methodological or formalism constraint. Sketching diagrams can then be reworked and transformed into diagrams recognized by an **HOPEX** solution.

Sketching with HOPEX

Sketch diagram consists of *sketching items* connected by *sketching links*.



Available *Sketching items* are:

- rectangles
- rhombus
- circle
- barrels
- folded corner rectangle

You can connect *Sketching items* with repository objects representing architecture elements.

* *For more details, see Connecting a sketching item with a repository object.*

Drawing a sketching with HOPEX Web Front-End

Creating a new sketch

To create a sketch with **HOPEX**:

1. In the navigation menu, select **Collaboration > All Sketches**.
2. click **New**.
   A sketch creation dialog box opens.
3. Specify the name and click **OK**.
   The sketch appears in the list.

Creating a sketching from a sketch

To create sketching with **HOPEX Web Front-End**:

1. Click the navigation menu then select **Collaboration > All Sketches**.
2. Select the sketch that interests you, open its contextual menu and select **New > Diagram**.
3. Select **Sketching** and click **OK**.
   The diagram opens.

* *To insert a sketching item or a sketching link in a sketching, see "Handling Diagrams".*

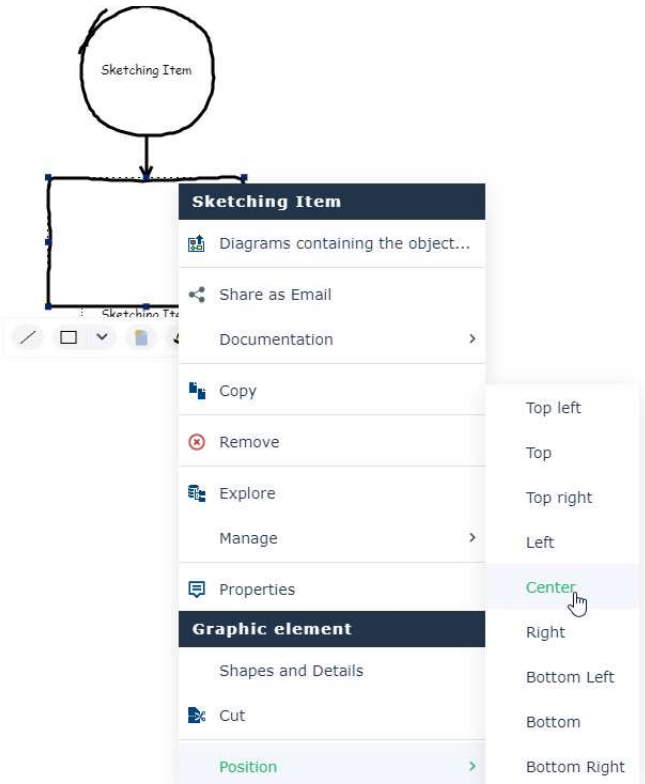
Modifying the position of a sketching item name

In a sketch, a shape may be associated with an explanatory text rather than a name. In the case, it may be interesting to move the name of the shape in its center.

To move tha name of a shape:

1. Select the shape that interests you and open its contextual menu.

2. In the **Graphical Element** section**Position > Center**.
The name appears in the center of the shape.



Connecting a sketching item with a repository object

If a *sketching item* represents an object already created in the repository, you can connect the sketching item to the architecture element.

To do this:

1. Open the properties of the sketching item.
2. In **Characteristics** property page, from the **Represented object** field, connect a repository object.
3. (Optional) In **Appearance** section, check the box **Use represented object representation**.
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.*

* *No check is made between the chosen shape and the type of the architectural element.*

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.*

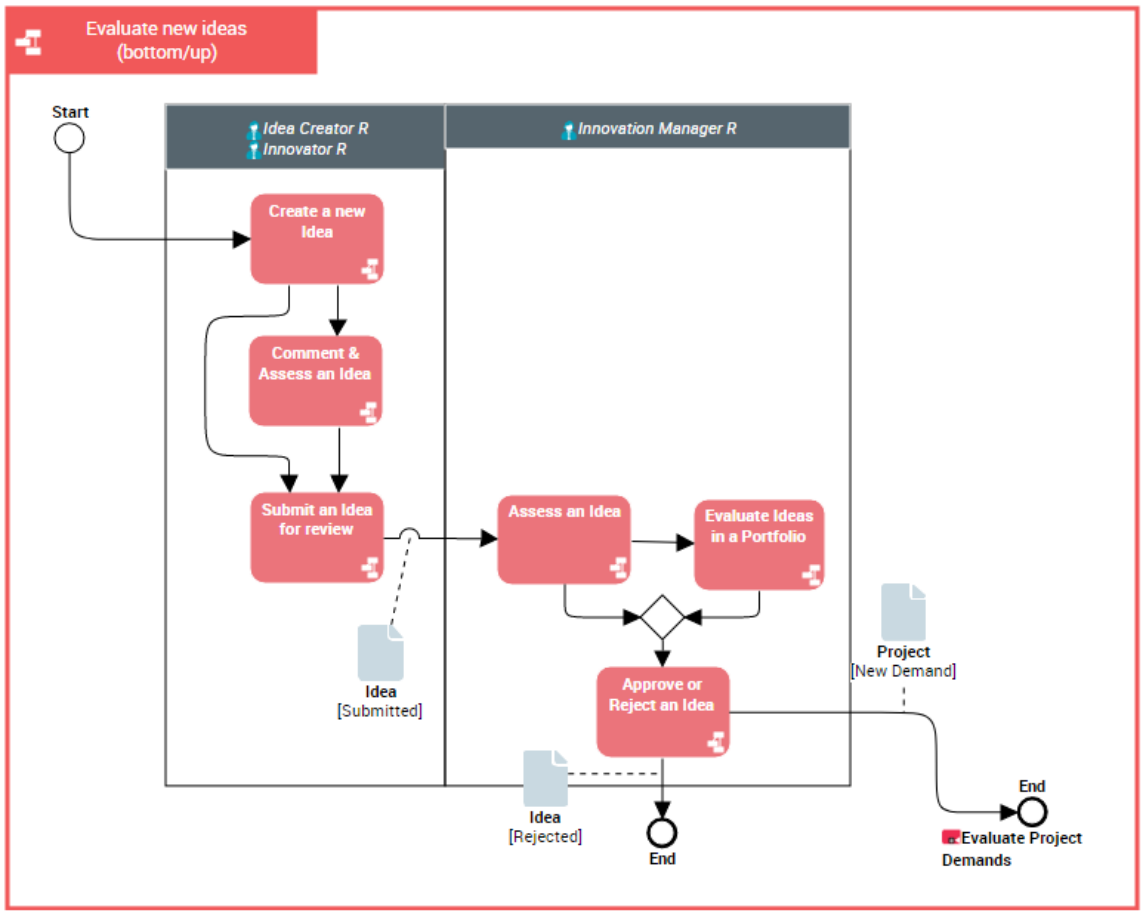
- Idea Management Process
- Submitting an Idea
- Starting an Ideation Campaign
- Examining an Idea
- Validating or Rejecting an Idea

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



Profiles and Roles 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 IT Portfolio Management** (who inherits the profile of innovation manager) can submit ideas within the framework of their solution and complete ideas by combining them with repository objects (e.g. business capability, application, organization).

The innovator and the innovation manager may assign people to an idea, giving them the role of idea reviewer, to complete or evaluate it. These people are not part of the workflow. See Assigning an Idea to Persons.

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.
- 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.

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.

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.

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

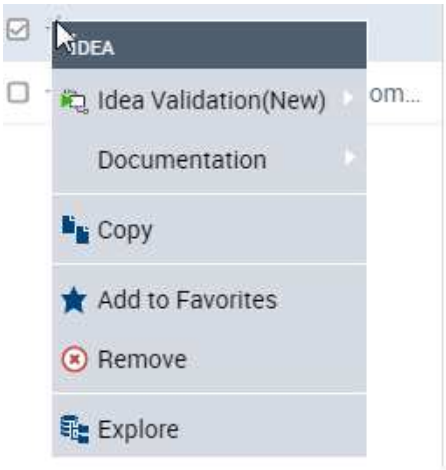
To define the properties of an idea:

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.
   - Assessment. See Examining an Idea.
   - Assignment. See Assigning an Idea to Persons.

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).
- Documentation (including reports)
- etc.



Idea Description

To describe an idea:

1. Open the idea properties.
   * *See Accessing the properties of an idea 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 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.

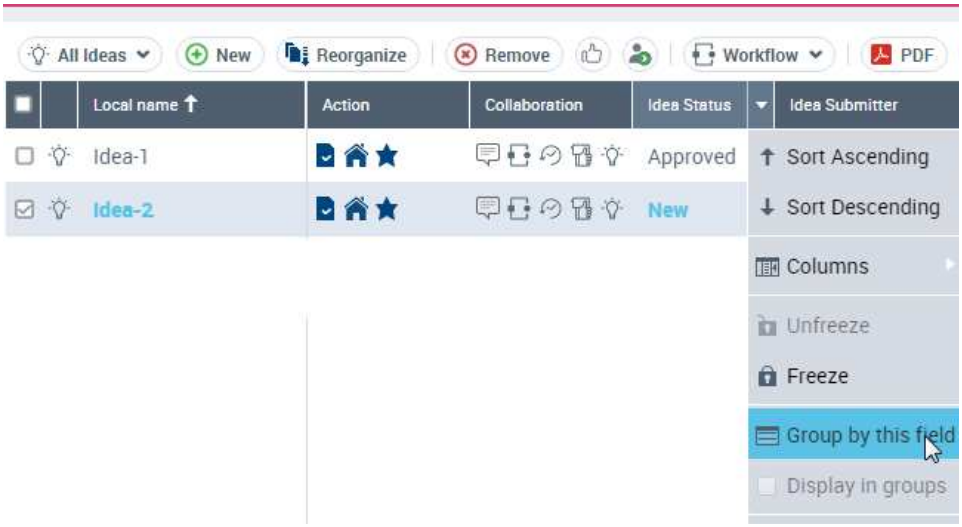
View the ideas submitted for review

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.):

- â 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

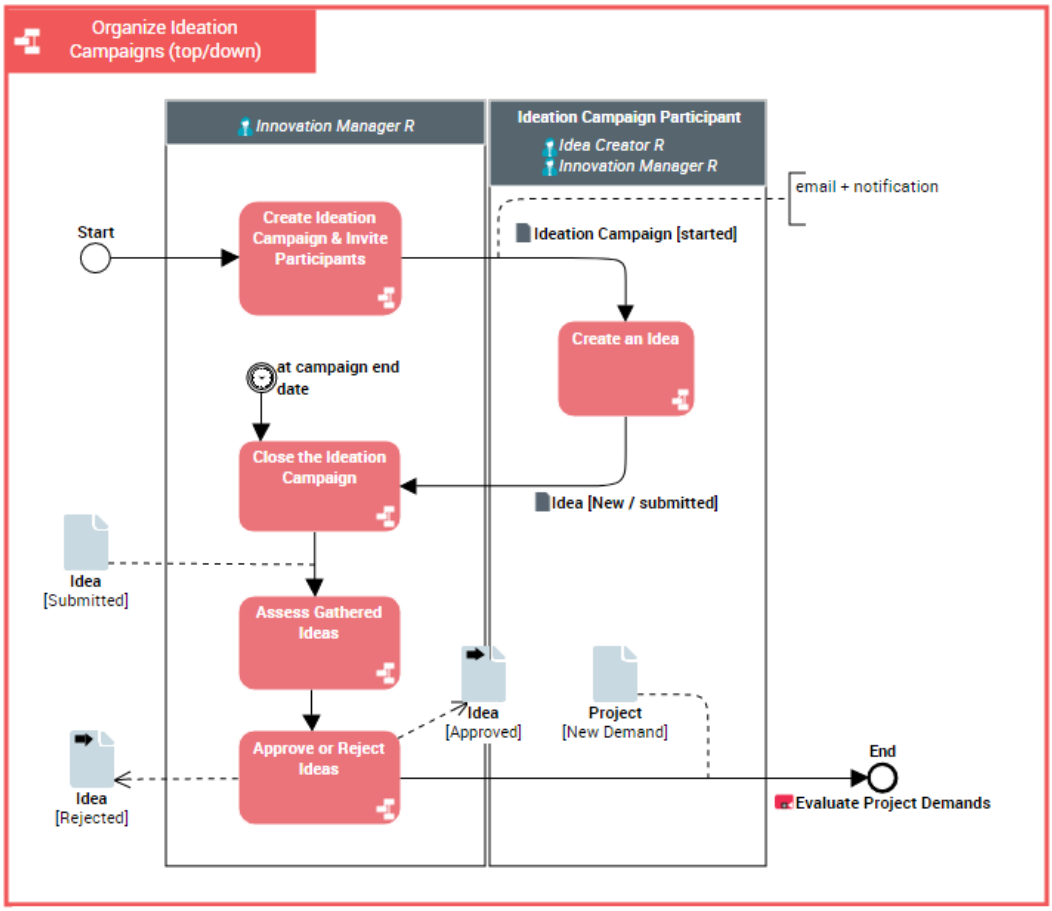
A campaign is initiated by an innovation manager. This involves a number of stakeholders who can be called on to submit ideas on a given theme.

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.

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.

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).

The latter can validate or reject them. See Validating or Rejecting an Idea.

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).

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:

â 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.

Managing Assessments

ASSESSMENTS IN HOPEX

HOPEX proposes a mechanism for managing questionnaire of **HOPEX** users. These questionnaires 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 duplicate these assessment templates 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 more details on how to build questionnaire templates, see "Questionnaire Templates".*

- "Assessment types in HOPEX"
- "Assessment session Launching Modes"
- "Managing Assessment Campaigns"
- "Data Call"

ASSESSMENT TYPES IN HOPEX

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.

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 in **HOPEX** solutions.

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 185
- "Data Call"

ASSESSMENT SESSION LAUNCHING MODES

HOPEX enables to launch 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.*

- ***From an Existing Template***: assessment is created from an existing assessment template. All information characterizing the session is described in the 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.*

- Starting from zero ***In Ad-Hoc mode***: the assessment is created simply from lists to be completed so as to specify the scope objects.
- 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.

Assessment Campaigns

For more information on campaign management, see "Managing Assessment Campaigns".

DATA CALL

Data Call Usage Context

Data call is a feature which enables to collect data from end users.

End users are given the possibility to enter object properties by completing questionnaires.

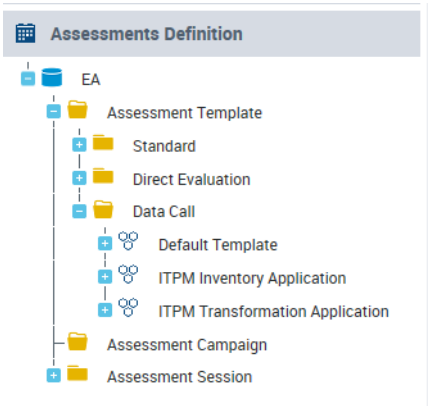
For an example of standard data call implementation, see "Collecting Data for a Set of Applications" in **HOPEX IT Portfolio Management.**

Designing Assessment Templates for Data Call

Data Call relies on the assessment feature. Questionnaires are sent through sessions.

Specific assessment templates

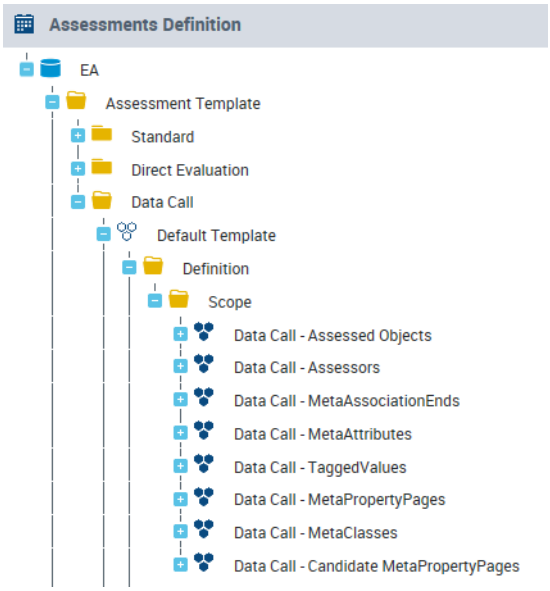
You need to design specific assessment templates and questionnaire templates for this.



Defining scope for data call

You can customize the default template provided for data call by defining:

- the respondents (assessors)
- the objects for which you need to gather data



Application owners and applications to assess are defined in the scope of the data call assessment templates provided as standard for **HOPEX IT Portfolio Management**.

Difference between Data Call and Assessment

Data Call	Assessment
Form displaying pre-existing properties	Questionnaire with questions and answers
Does NOT enable to compute assessed values	Enables to compute assessed values

QUESTIONNAIRE TEMPLATES

- "Accessing Questionnaire Templates"
- "Presentation of the Questionnaire Builder"
- "Question Types"
- "Defining a Condition on a Question"
- "Defining Conditions at Questionnaire Template Level"

ACCESSING QUESTIONNAIRE TEMPLATES

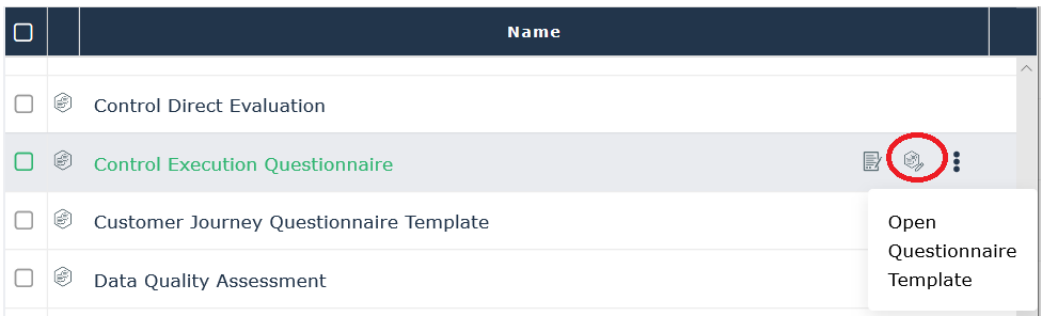
To access questionnaire templates:

› From the navigation menu of the IRM solutions desktop, select **Assessment > Preparation** > **Questionnaire Templates**.

Opening a Questionnaire Template

To open an existing questionnaire template:

1. From the navigation menu of the IRM solutions desktop, select **Assessment > Preparation** > **Questionnaire Templates**.
2. Hover over the questionnaire template and click the **Open Questionnaire Template** icon that appears.



Viewing Questionnaire Template Properties

To view questionnaire template properties:

1. From the navigation menu of the IRM solutions desktop, select **Assessment > Preparation** > **Questionnaire Templates**.
2. Hover over the questionnaire template and click the **Properties** icon that appears.

The properties of a questionnaire template are as follows:

Mode

- **Standard**: standard mode is the mode that involves assessment sessions
- **Direct**: direct mode is the mode that involves direct assessment (unitary assessment in the properties of an object or multiple assessment)

Display Diagram

This check box enables the respondent to view diagrams when answering questionnaires involving objects associated to diagrams.

Delegation allowed

Indicates whether the questionnaire can be delegated or not.

Questionnaire Template Type

Allows you to visualize the mechanism used to design the questionnaire template.

- **Standard**: uses the new questionnaire builder
  - *For more details, see "Presentation of the Questionnaire Builder".*
- **Extended**: uses the old way of designing questionnaires (the questionnaire template has not yet been converted for use in Questionnaire Builder)

Creating a Questionnaire Template

To create a questionnaire template:

1. From the navigation menu of the IRM solutions desktop, select **Assessment > Preparation** > **Questionnaire Templates**.
2. Click **New**.

The Questionnaire Builder workspace opens. See "Presentation of the Questionnaire Builder" for more information about designing questionnaire templates.

PRESENTATION OF THE QUESTIONNAIRE BUILDER

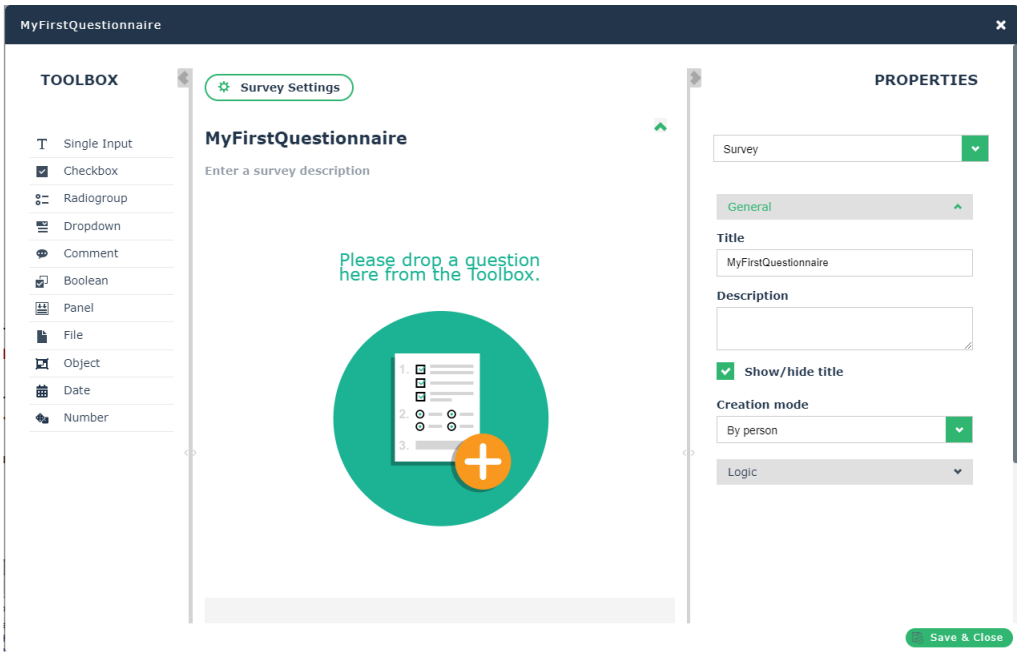
- *See "Accessing Questionnaire Templates".*

After opening or creating a questionnaire template, the workspace of the Questionnaire Builder appears.

- *Questionnaire Builder is an **HOPEX** module that is subject to a specific installation. If you do not have access to it, contact your HOPEX administrator.*

The workspace consists of three parts, which can be collapsed.

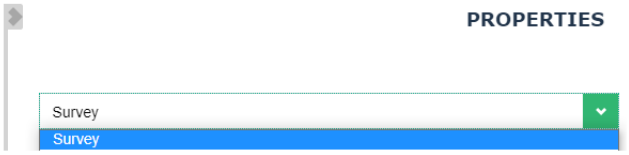
- a left ***toolbox*** offers the different types of questions you can use in your questionnaire template.
- The central part enables you to drop your questions from the left toolbox.
- The right part enables you to access the properties:
  - of the whole questionnaire
  - of each question that has been dropped in the middle of the questionnaire builder.



Defining properties in Questionnaire Builder

To specify general properties for your questionnaire template:

› From the drop-down list on the top right-hand side, select "Survey".



You can indicate the general properties of your questionnaire template:

- **Title**
- **Description**
- **Creation Mode**
  This enables you to specify how the questionnaire template has to be handled in campaigns, that is to say whether you want to generate one questionnaire:
  - per person
  - per context
  - per assigned object

    – *See also "Viewing Questionnaire Template Properties" on the corresponding HOPEX object.*

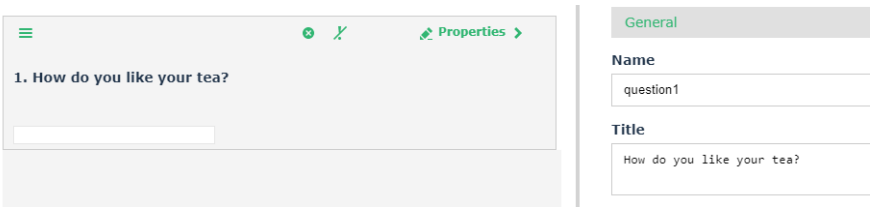
Inserting questions

To insert questions into your questionnaire template:

1. In the left part of the questionnaire builder, select a question type or drop it on to the page.

   `For example: Click Comment to insert free text.`
2. Click the question you have just created ("Question 1" by default) and enter text.

   – *This is the title of your question. This is what appears to the users in the questionnaires received. The Name found in the properties of the question is a technical name that appears in the event no title has been entered.*



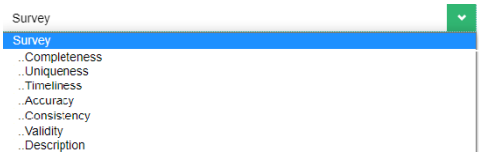
3. Click another type of question and drag and drop it below the first question.

   – *See also "Question Types".*

Defining questions properties

To specify question properties:

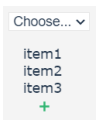
› Select the relevant question in the upper right drop-down list.

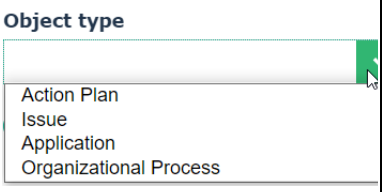
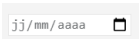


You can define processing conditions from the question properties. See "Defining a Condition on a Question".

QUESTION TYPES

Summary of Question Types

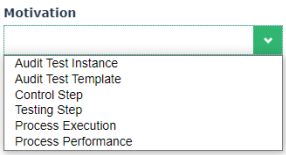
Question Types	Description	
Single Input	This is an input text question enabling to display: • Text • Date • Number	
Check Box	Used for Multiple Choices	
Radio Group	Single Choice Question	
Drop-down	Enables you to select an answer from a pre-defined list. For example: OK/NO/NA	
Comment	Multi-line text box	
Boolean	Boolean question	
Panel	Is a container element. Can contain several questions.	
File	Is used to upload a file in the form of business documents.	

Question Types	Description	
Object	Is used to select multiple **HOPEX** objects. In the right part of Questionnaire Builder, select an object type from the list of assessable object types. – *To add an object type to the default list, you may:* • *connect the relevant MetaClass to the "Answered Element" MetaClass.* • *regenerate the GraphQL Rest API schema applicable to assessments. For more information, see the video "Create custom schema".*	
Date	Is used to insert a date – *You can also use the Single Input question type to insert a date.*	
Number	Is used to insert a number – *You can also use the Single Input question type to insert a number.*	

Using Panels

The Panel-type question is a question group. It enables you to:

- group questions together
  - *You may drag & drop questions from the Questionnaire Builder tool box or drop existing questions.*
- create questions based on question motives that are specific to a trade (for example audit or testing).
  - *The "Motivation" list allows you to select the contexts of use of this panel, i.e. when questions specific to one of these types of objects must be inserted in the questionnaire (e.g. Control or test steps).*



DEFINING A CONDITION ON A QUESTION

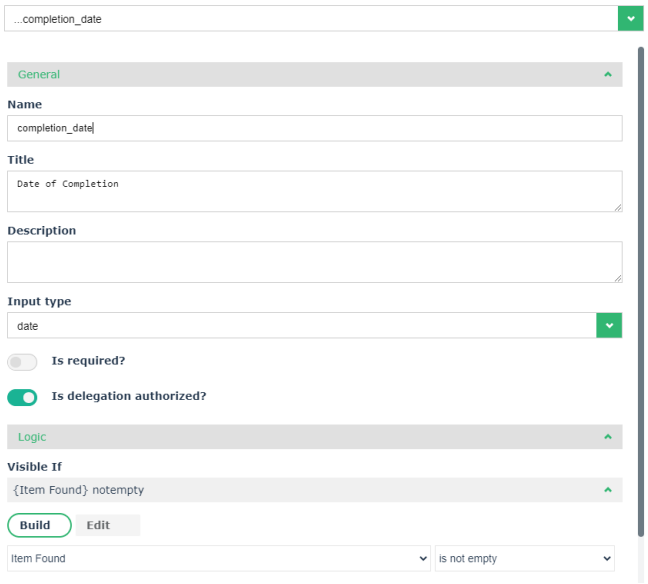
You may want to hide questions or make a question mandatory, which means you want to condition it.

You may for example hide a question while a user has not answered the previous one.

To condition a question:

1. Select the question in Questionnaire Builder upper right-hand side.
2. Go to the **Logics** section and complete relevant sections, for example **Visible if**, which enables to create complex conditions to control question visibility.

   In the following example, the "completion_date" question is displayed only if the "Item found" question has been answered.



Defining Validation Criteria

You may define validation expression to ensure that respondents follow a specific business logics.

You may, for example:

- enter a **Required Error Text**

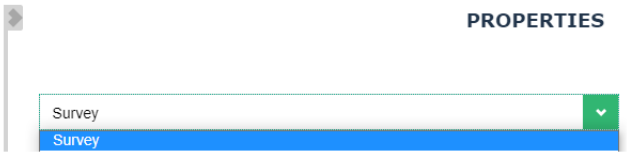
  ```
  You may for example specify that the respondent has the right to select
  up to two check boxes in his/her answer. If the user selected more, the
  text entered in Required Error Text is displayed.
  ```

- define **Validators** by building an expression.
- Define a **Maximum Length** (for "single" input question types)

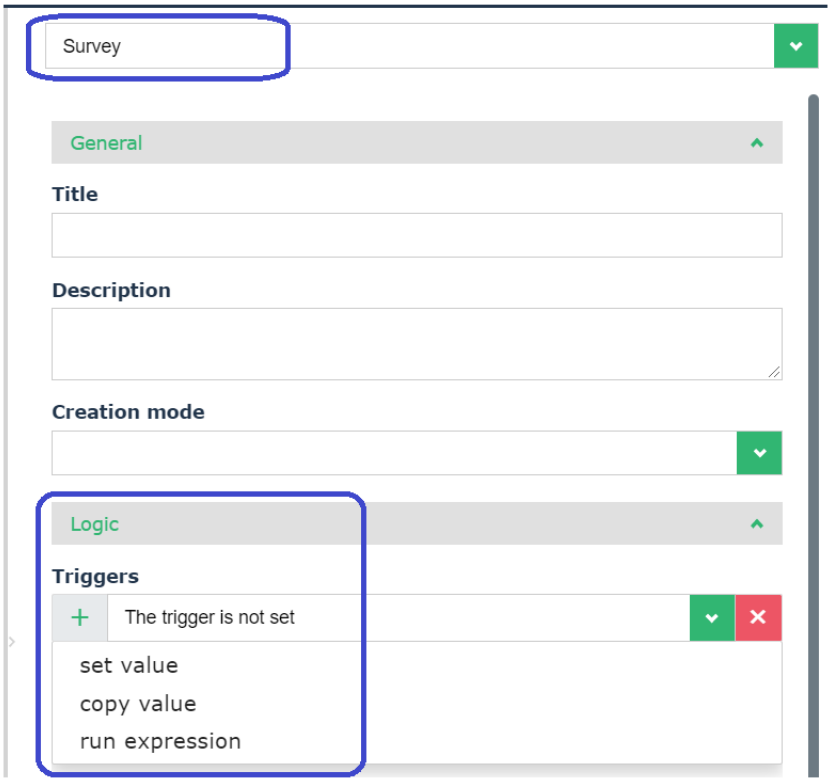
DEFINING CONDITIONS AT QUESTIONNAIRE TEMPLATE LEVEL

To define conditions at the questionnaire template level:

› From the drop-down list on the top right-hand side, select "Survey".

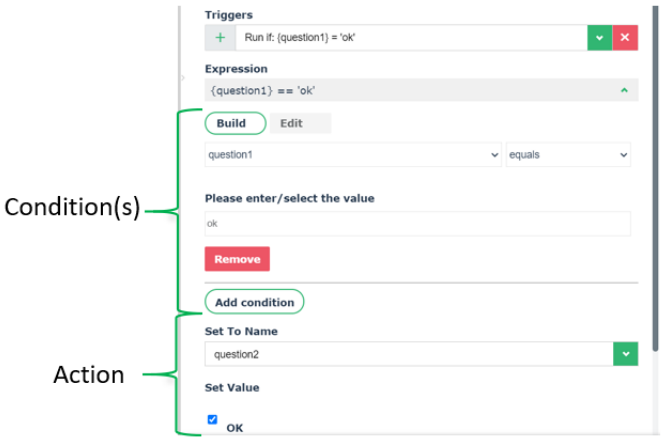


The **Logic** section enables you to define triggers. A trigger is a mechanism that enables you to define conditions and an action, which is triggered if the conditions have been met.



The trigger consists of:

- a set of ***Conditions***: "Defining Trigger Conditions"
- an ***Action***: "Defining Trigger Actions"



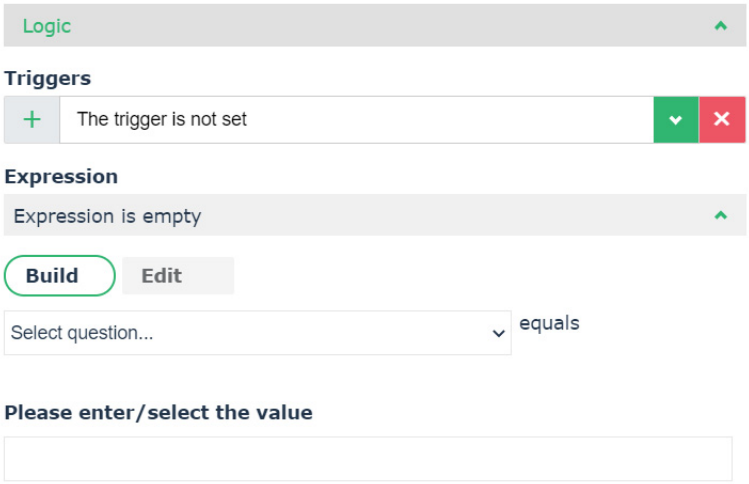
Defining Trigger Conditions

A condition defines the logics that determines whether an action should be triggered or not. This condition is assessed each time a respondent answers a question.

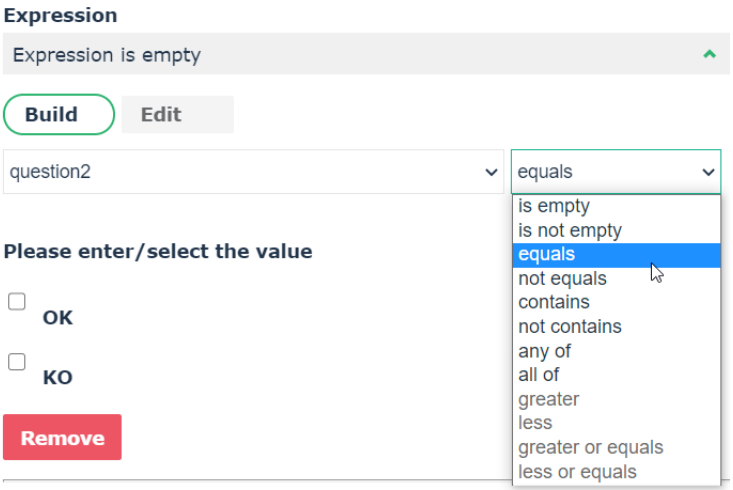
If the condition(s) is (are) met, the action is triggered. For more details on this action, see "Defining Trigger Actions".

Trigger conditions consist of expressions. Questionnaire Builder enables you to define conditions:

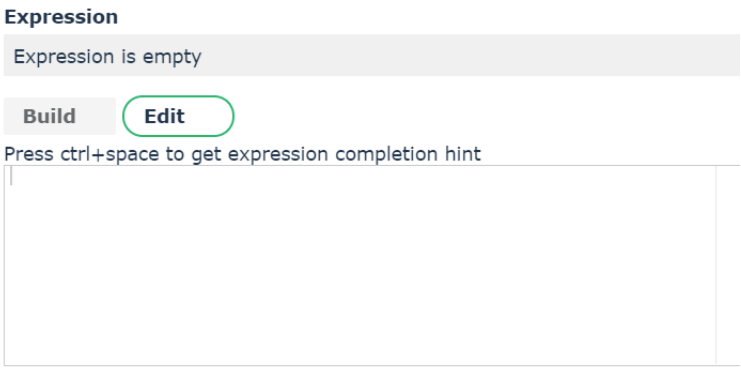
- through a user-friendly GUI (**Build** button).



– *Depending on the question type, different tests are offered (for example: equals, contains, less, greater):*



- through the expression editor (**Edit** button)



Defining Trigger Actions

An action is triggered if one or more conditions are met.

- *To define conditions, see "Defining Trigger Conditions".*

You may specify the following actions:

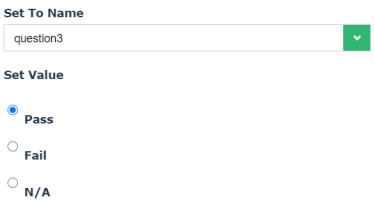
- "Set Value"
- "Define Expression"

Set Value

The "Set Value" trigger enables you to initialize an answer.

This way you can suggest a default answer. Yet, the respondent can modify this answer.

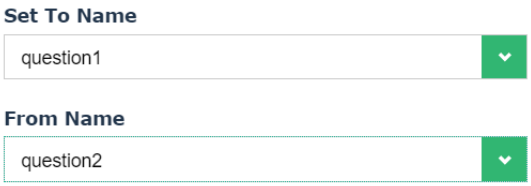
In the example below, the answer to Question 3 is by default "Pass".



Copy Value

"Copy Value" enables to copy the answer to another answer.

In the example below, answer to Question 2 is used to fill in the answer to Question 1.

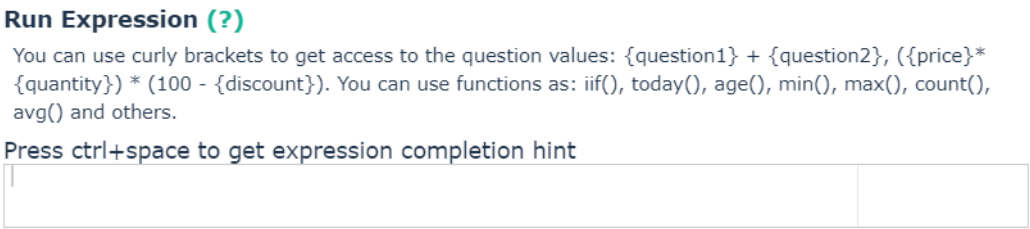


– *You can copy values only if source and target answers are compatible (for example, you cannot copy the answer of comment to a check box).*

Define Expression

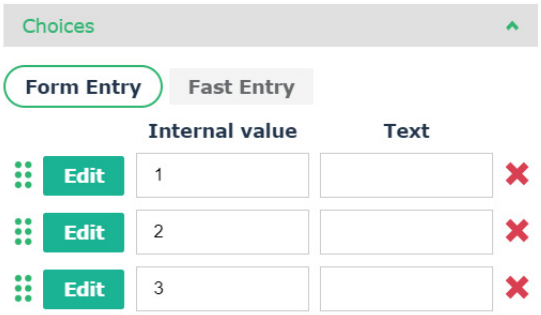
"Define expression" enables to automatically calculate an expression to display the result by default in an answer.

An expression uses possible answers internal values.



To be able to use a mathematical expression, you must:

- use a question type of the following type:
  - boolean
  - radio group
  - drop-down
- have integers as possible answers internal values



– *Questions of boolean type have the following internal values:*

- *0 = false*
- *1 = true*

In an expression, you may:

- combine text and values, for example:

```
'The result is' + ({question1} + {question2})
```

- use functions such as: if(), today(), age(), min(), max(), count(), avg() .

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.*

The following points are covered here:

- The Project Scheduling Diagram
- Enterprise Architecture (EA) projects
- Project Type and Methods
- EA Project Creation Wizard

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.*

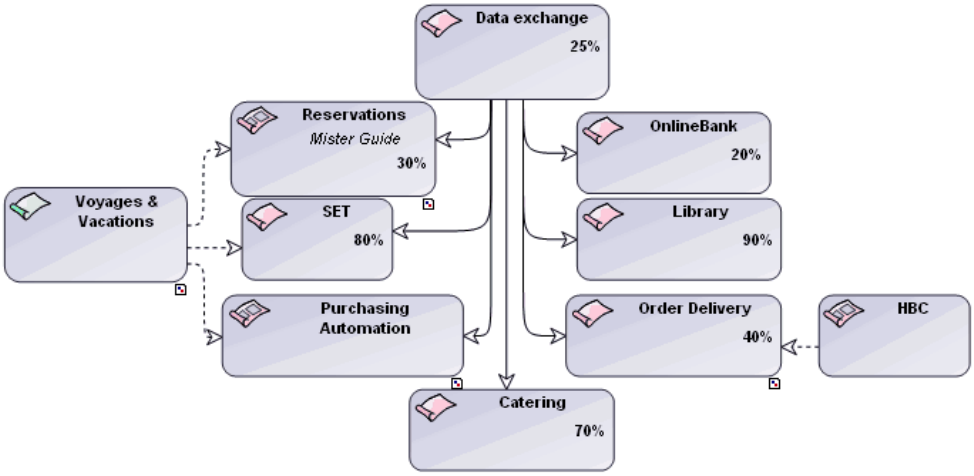
Open a diagram in the workspace

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.
```

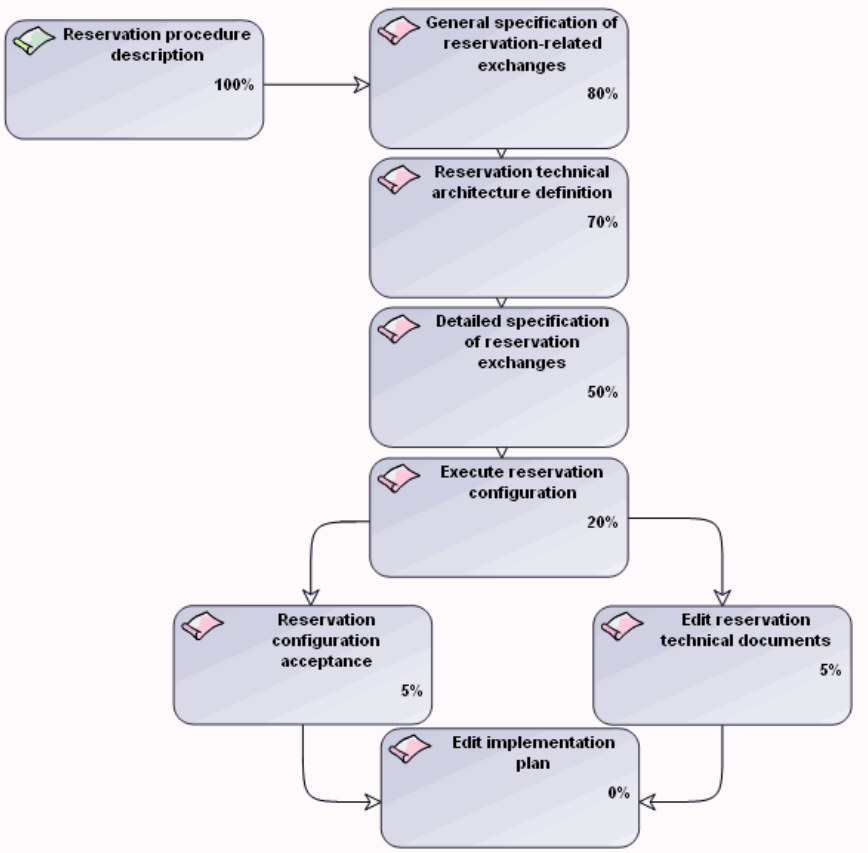
Splitting of a project into sub-projects is represented by dotted lines.

```
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.

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.
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.*

& *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.

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.*

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.

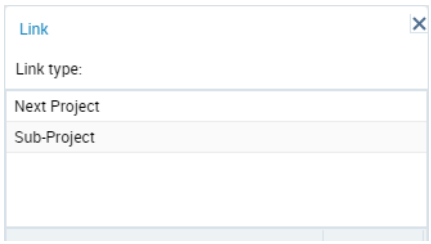
Splitting an EA project

To split a project:

1. Click .
2. In the dialog box that opens, select the **Splitting** check box then click **OK**.

* *See also Resizing Elements in a Diagram, 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.

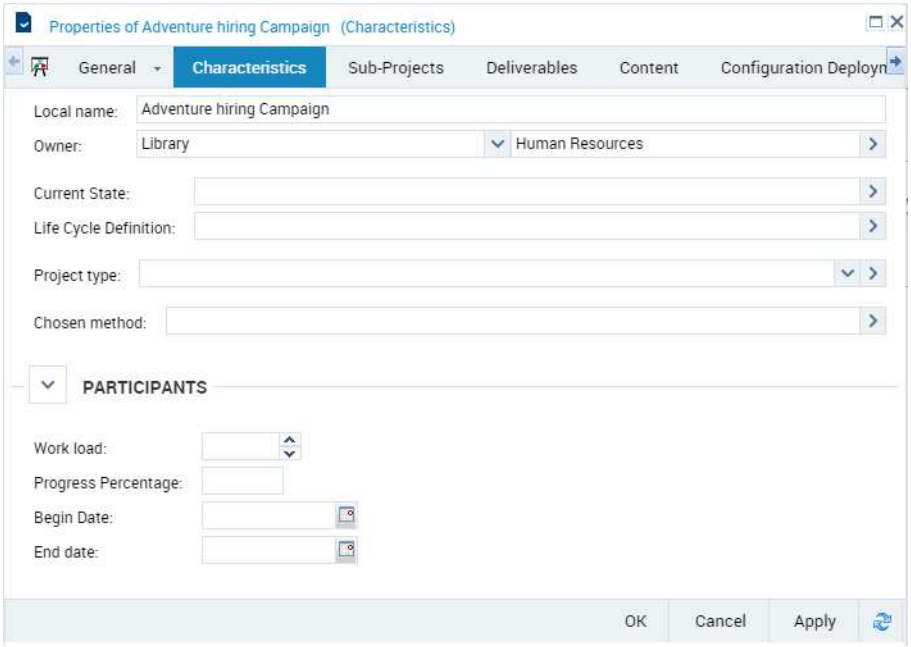
Describing an Enterprise Architecture (EA) Project

EA Project Characteristics

To specify the characteristics of an EA project:

1. See Accessing Enterprise Architecture (EA) projects.

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.*
   - 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.

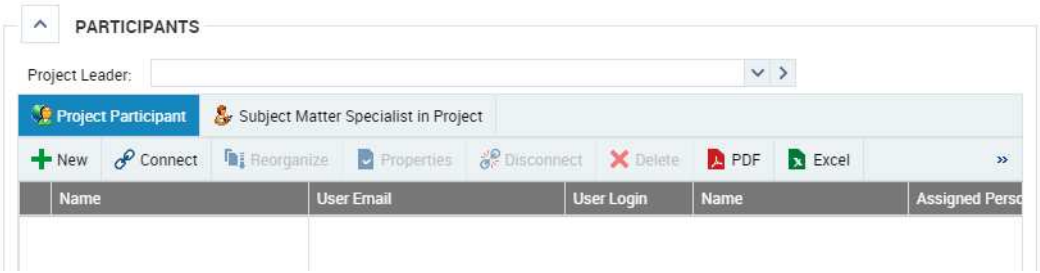
Participants are the project head, modeling participants and business specialists, who will validate modeled objects (such as capabilities or processes).

To specify main participants of the EA project:

â 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.*

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.

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.*

Accessing EA project types and methods

To access enterprise architecture (EA) projects

- â (**Windows Front-End**) In the **View** menu, click **Navigation Windows > Methodology**.
- â (**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.*

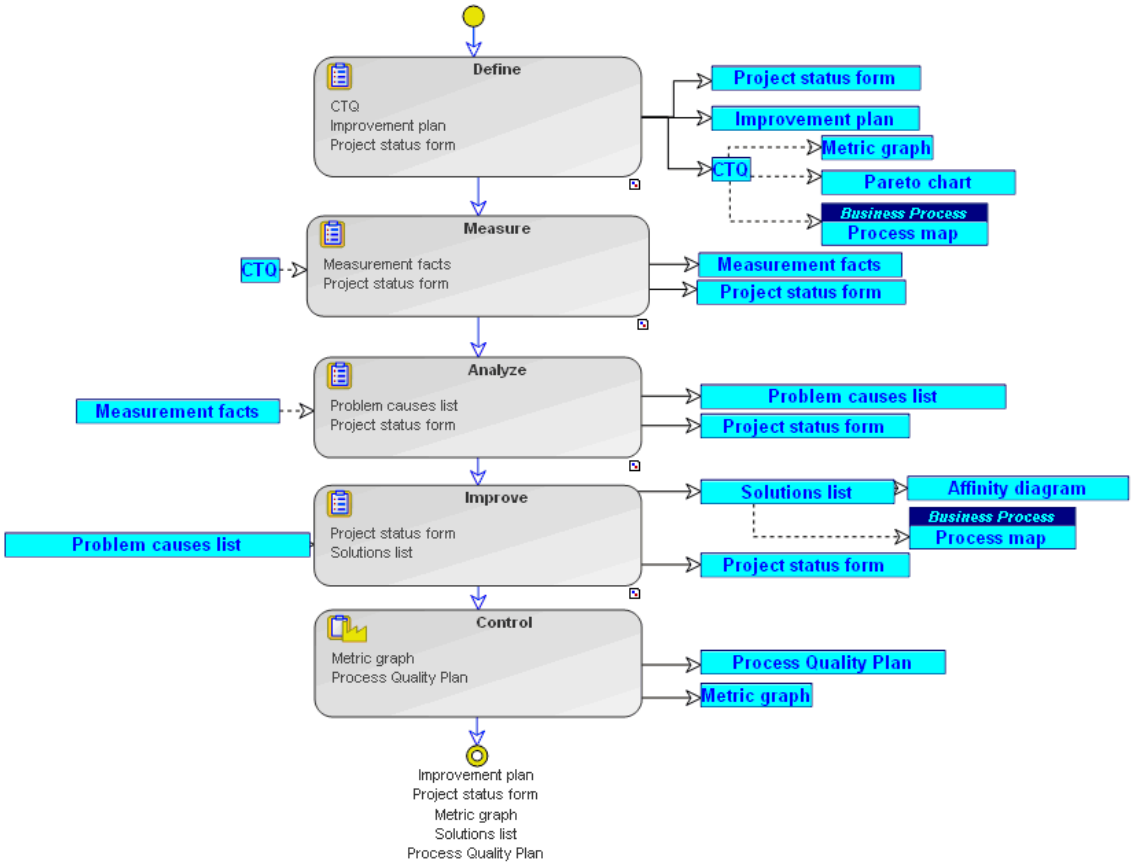
& *A phase is an operational activity that participates in production of the deliverables of the approach. It can be an activity related to production, verification, delivery, etc.*

Accessing the Phase Scheduling Diagram

To access the diagram that describes a method:

1. See Accessing EA project types and methods.
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.*
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.*
3. Select the **Resources** tab/page to determine the list of resources required to execute the phase.

   * *For more details, see Phase Resource.*
4. Select the **Deliverables** tab/page to determine the list of deliverables used and produced by the phase.

   * *For more details, see Phase Deliverable.*

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.*

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.
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:

â 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.*

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.*

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:

â 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.*

Accessing an EA project type

To access properties of a project type:

1. Accessing EA project types and methods
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.

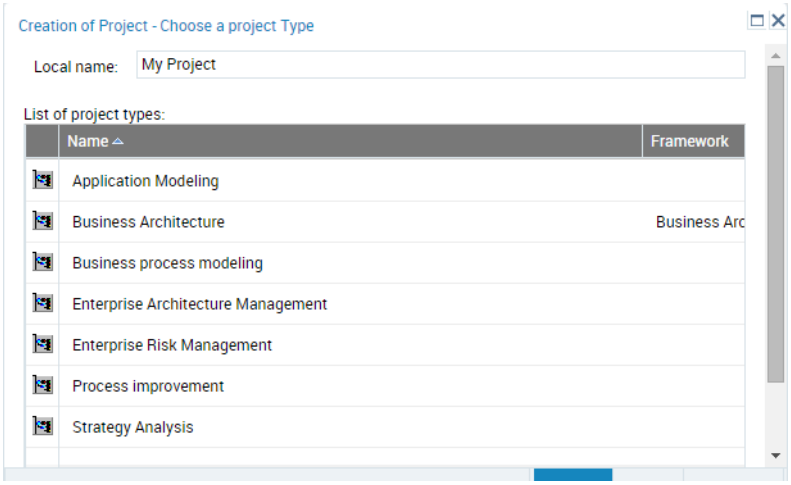
To benefit from assistance in creation of your project:

1. See Accessing Enterprise Architecture (EA) projects.
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".

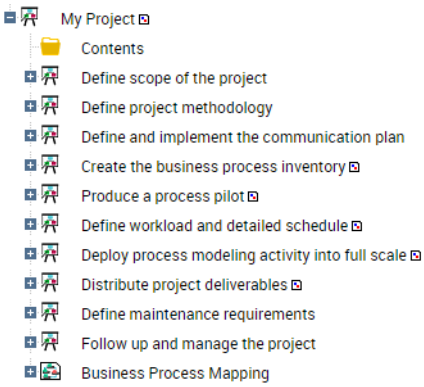
   * *You need not necessarily select a project type.*

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.*

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**).*

3 Objectives, Indicators and Requirements

3 Objective and Requirement Diagram

3 Cause-and-Effect Diagram

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:

â 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	Quantita-tive	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:

â 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:

â 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.

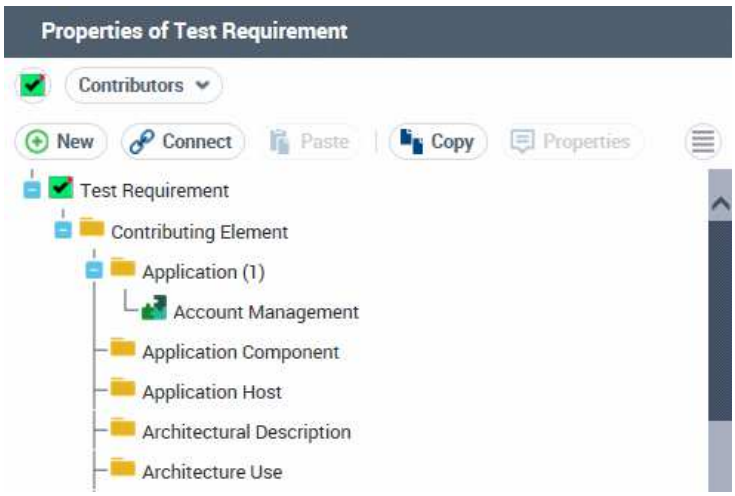
Requirement priority

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.

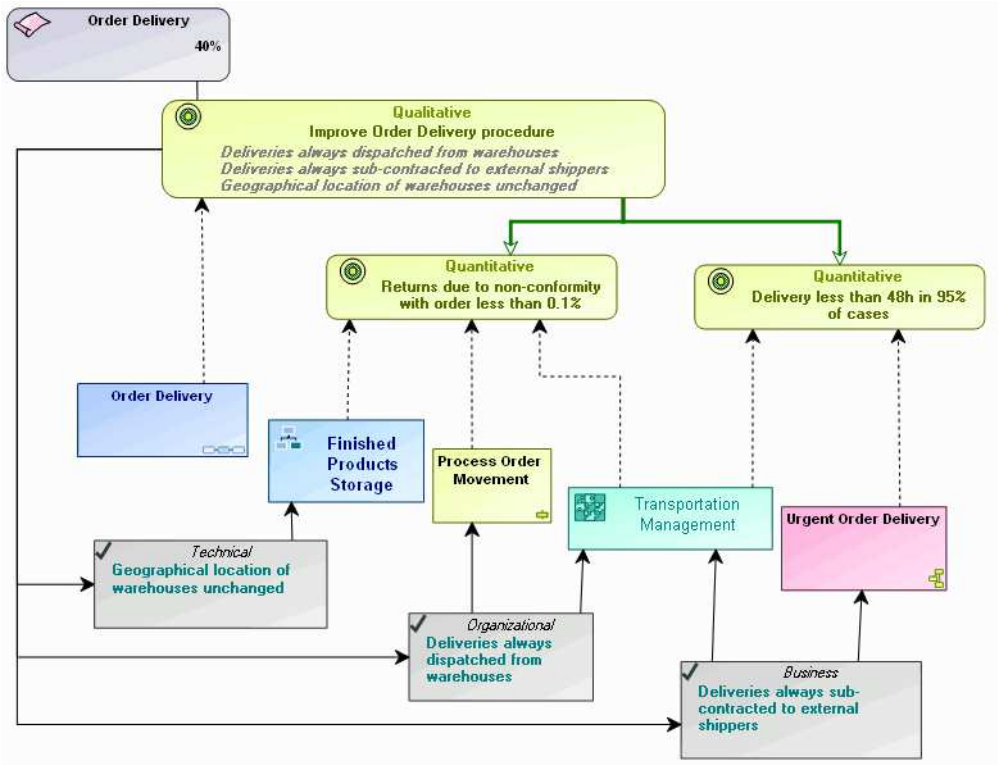
Creating a project objective and requirement diagram

To create a project objective and requirement diagram with **HOPEX Web Front-End** :

â 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**.

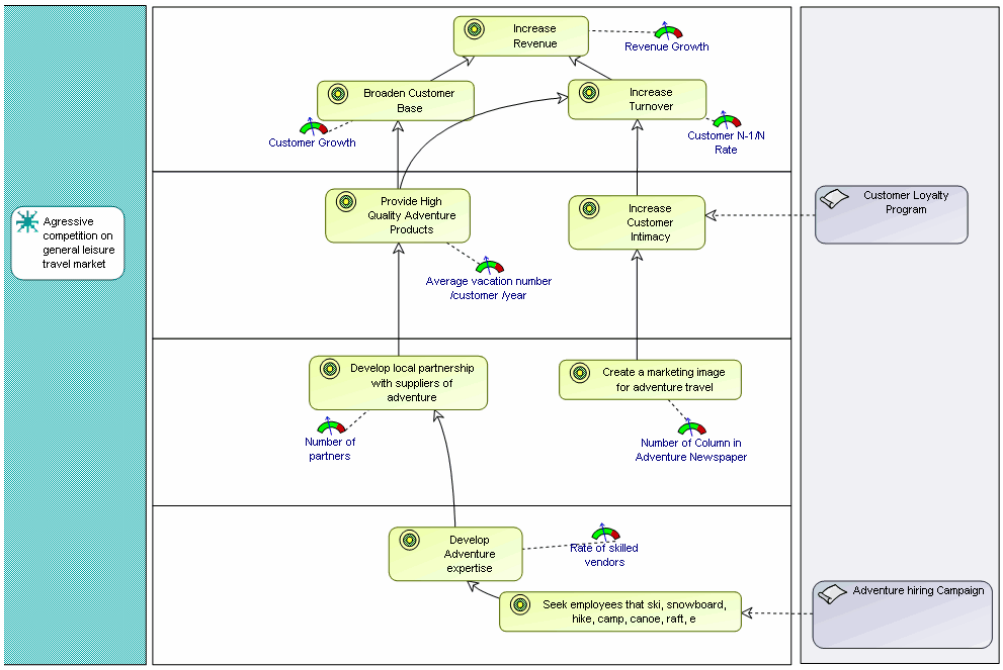
Issues

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:

- â 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 the Pools.

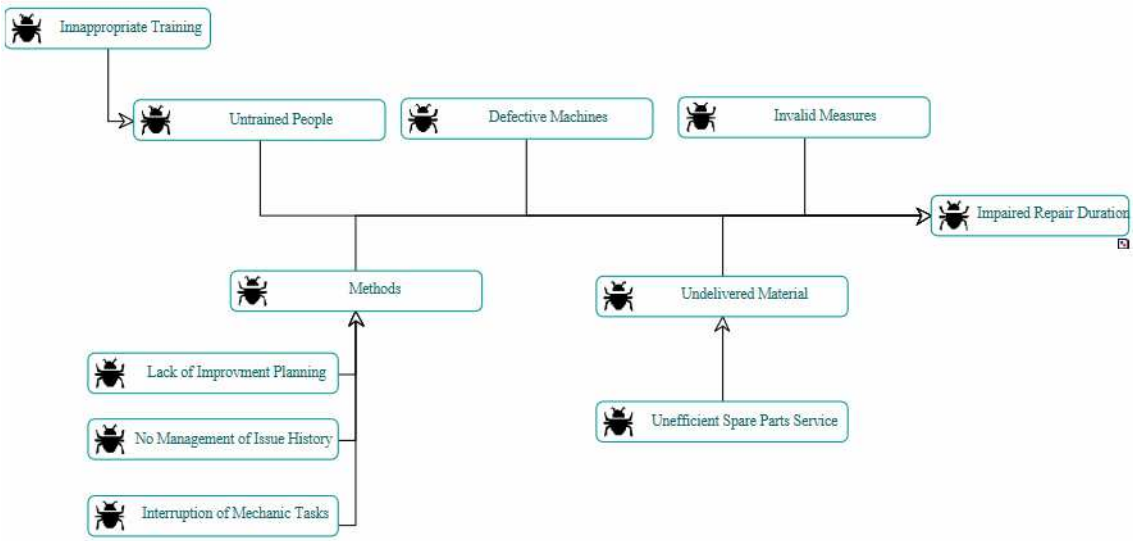
CAUSE-AND-EFFECT DIAGRAM

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

â Open an issue properties dialog box.

You can best define the problem using its characteristics.

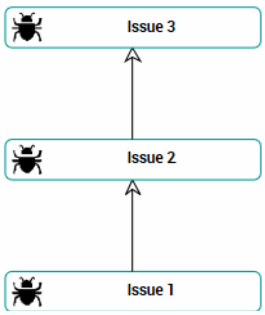
Issue type

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.

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 object comparison.

- Creating Repository Snapshots
- Compare-Align and Repository Snapshots

CREATING REPOSITORY SNAPSHOTS

To be able to use repository snapshots, you must:

- have the repository log activated (default case).
  - *For more details on repository log activation, see Managing logfiles.*
- 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 Administration.exe, via the repository pop-up menu, **RDBMS Administration > Shrink unused repository historical data**).
  - *For more details, see "Repository - RDBMS Installation Guide", "HOPEX Historical Data Cleanup".*

To create a repository snapshot from the **HOPEX** Administration desktop:

1. Connect to the **HOPEX Administration** desktop.
   - *See Connecting to the Web Administration Desktop.*
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**.
   - *You can automate snapshot creation through the scheduler. For more information see Managing the Scheduling (Scheduler).*

COMPARE-ALIGN AND REPOSITORY SNAPSHOTS

Repository snapshots are used in The Compare-Align function of two object states over time.

They 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**.
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.*

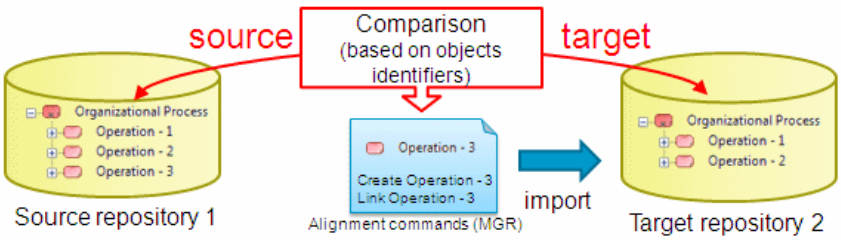
   – *To compare all objects of a repository, select the **Compare All Repository Objects** check box.*
7. Click **Next** until reaching **Finish**.

The destination state is aligned with the archived origin state: the object has returned to its earlier state.

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.*

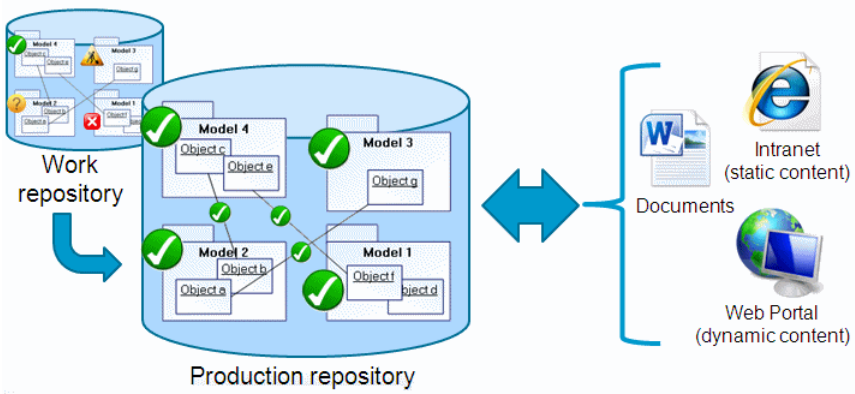
ALIGNMENT USE CASE

In teamworking, it can be difficult to work on a single repository, projects and diagrams not all having the same production cycles. Some diagrams are under 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

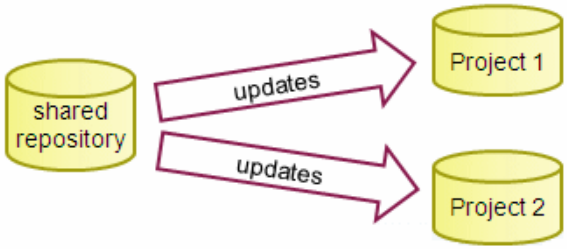
It can sometimes be necessary to transfer objects between repositories in a context other than that of the production repository.

- *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)?

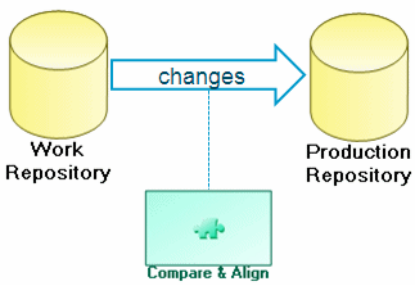
Depending on the selected organization, use of Compare and Align can be supplemented by:

- 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

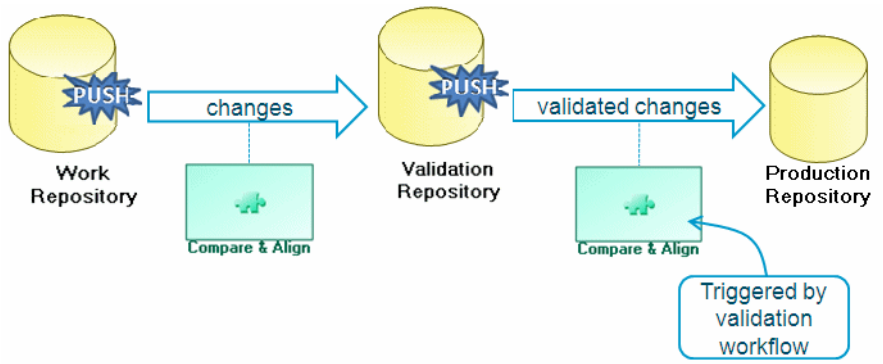


Variants are possible:

- 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

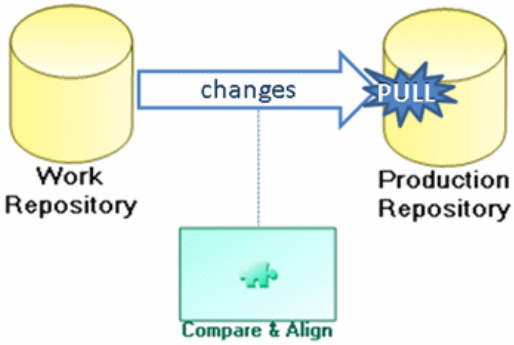
"Pull" mode requires connection to the production repository. Modifications are imported in a private workspace from the target repository.

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

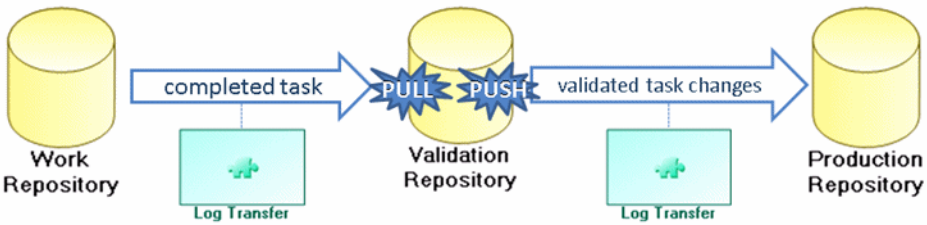
If however the transfer is under the responsibility of users controlling the transfer result before dispatch, "pull" mode has the advantage of allowing private workspace discard if necessary.

"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

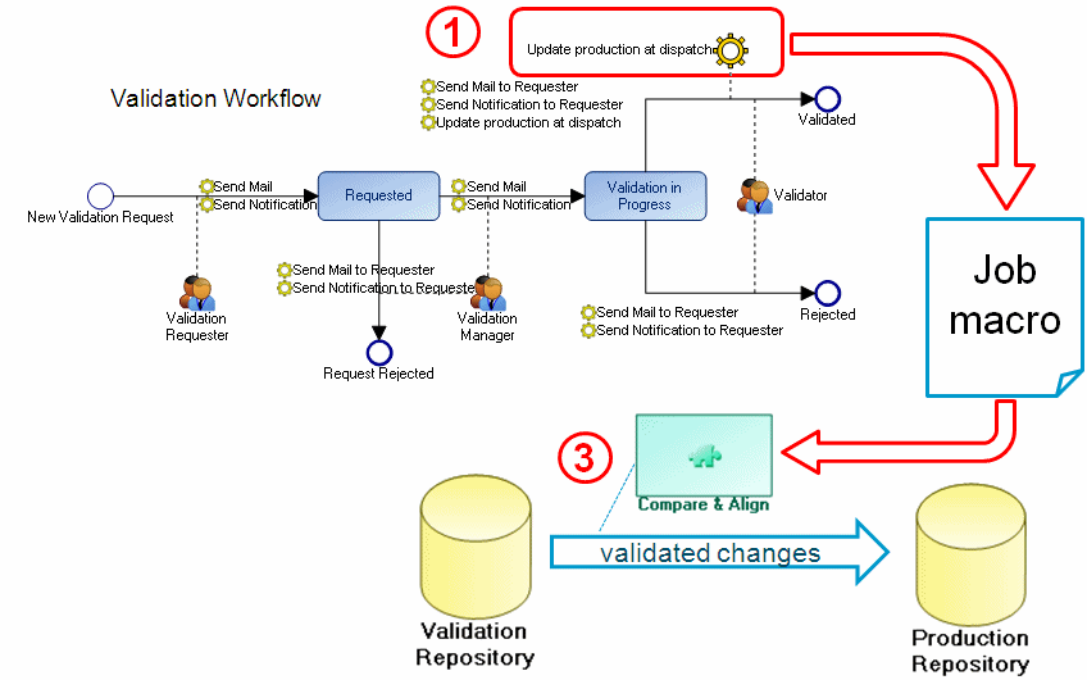


It may be necessary to check dependencies between tasks before export/import of the logfile.

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 560.*

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 675.*
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.*

FREQUENTLY ASKED QUESTIONS (FAQ)

Here you will find common questions that you may ask concerning the use of **HOPEX**.

- Report Management (MS Word)
- Graphic Objects
- Assessments
- Other Questions
- Useful Keyboard Shortcuts

REPORT MANAGEMENT (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.

J *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".

GRAPHIC OBJECTS

How do I insert text into a diagram?

See Inserting a Text in a Diagram.

How do I insert a title in a diagram?

* *See also Inserting a Title or a Title Block.*

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:

â 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 move around quickly in a diagram?

See Moving a Diagram.

How to change the appearance of a line?

See Modifying a Line Style.

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

See Ordering Elements.

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.*

ASSESSMENTS

What is assessment?

HOPEX offers the possibility to send questionnaires to **HOPEX** users. These questionnaires enable obtaining value characteristics for specific objects of 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.*

What are the different types of assessment?

There are several ways of running assessments:

- ***Direct Assessment***: expert view assessment
- ***Campaign assessment***: questionnaires are sent to respondents. A campaign consists of several sessions, each with its own scope.
- ***Data Call assessment***: questionnaires are sent to stakeholders so as to automatically fill object information.

  Example: you can collect data about applications (attribute values).

Where can I find information about assessment?

Product documentation	Features
GRC solutions **Managing Assessment Campaigns** **Assessing Risks** **Assessing controls**	- Creation and execution of assessment campaigns and sessions - Direct assessment
HOPEX Power Studio **Assessment Templates** **Questionnaire-Related FAQs**	Creation of assessment templates Creation of questionnaire templates Creation and modification of workflow definitions

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.

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

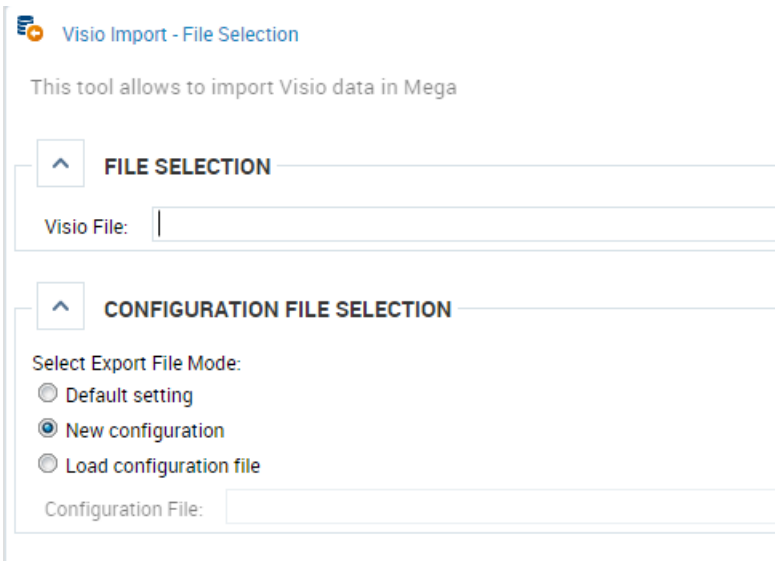
To import a Visio diagram, follow this procedure:

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

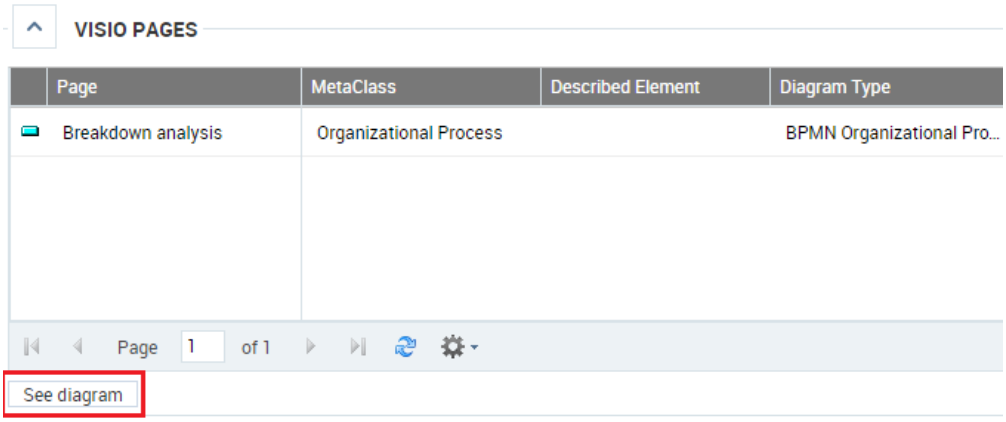
This step displays the contents of the Visio pages so you can select the pages to be imported.

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

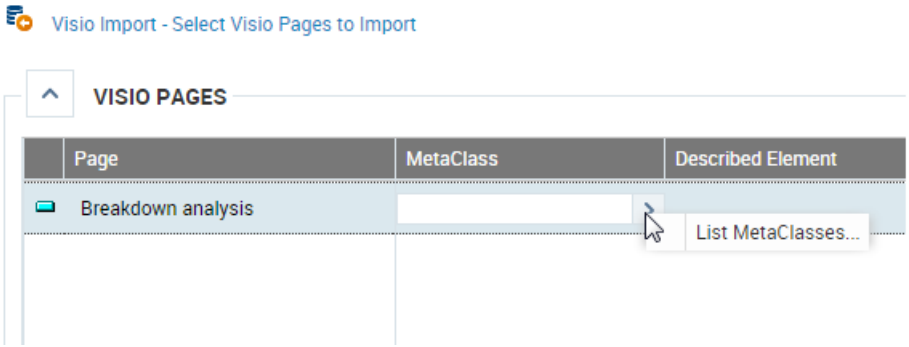
  – *If a configuration file has been defined, the values of the **MetaClass** and **Diagram Type** columns may appear automatically.*

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.`

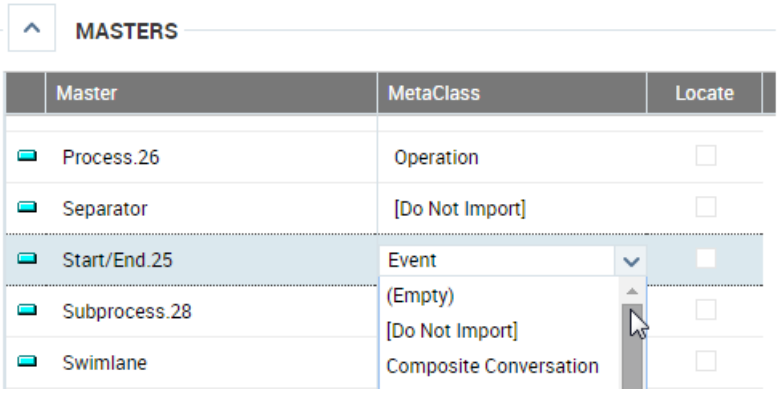
7. In the **Import** column, select the box to import the page.
8. Do the same with the other pages.
9. Click **Next**.

Step 3: Define the mapping of objects of each Visio page

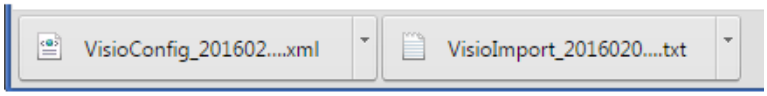
In this step you specify the mapping to be done for each item of the Visio pages selected in the previous step. See also "Mapping Visio and HOPEX concepts", page 3.

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.

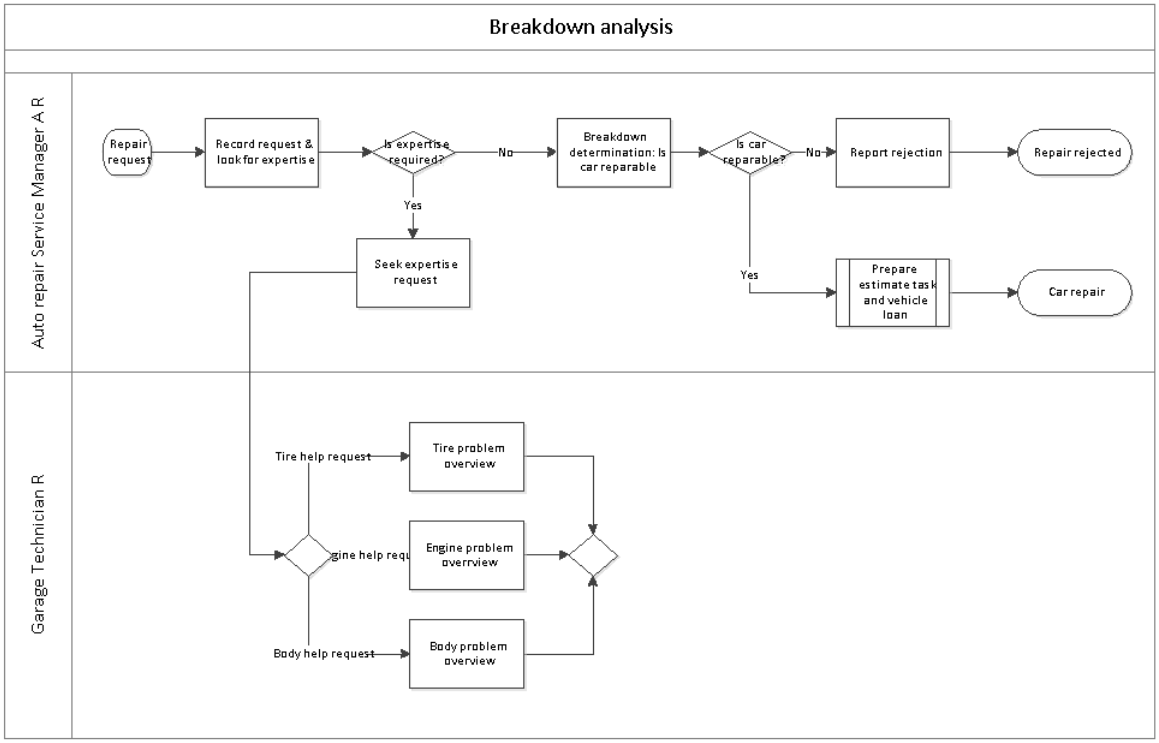
Importing Elements in the Current Library

When the option **Visio Import: Import to the current library** is selected, elements imported are automatically linked to the current library.

VISIO IMPORT EXAMPLE

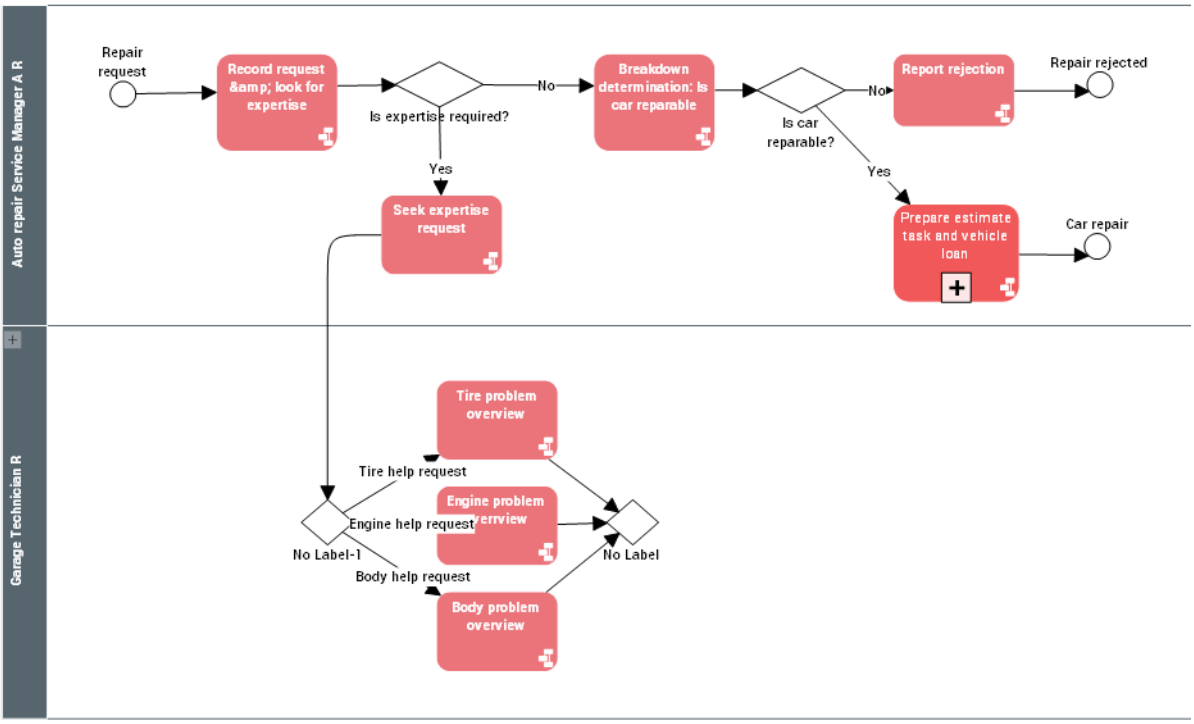
As an example of a drawing to be imported, take the simple flow diagram "Vehicle Breakdown Analysis", which describes steps in vehicle repair.

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).

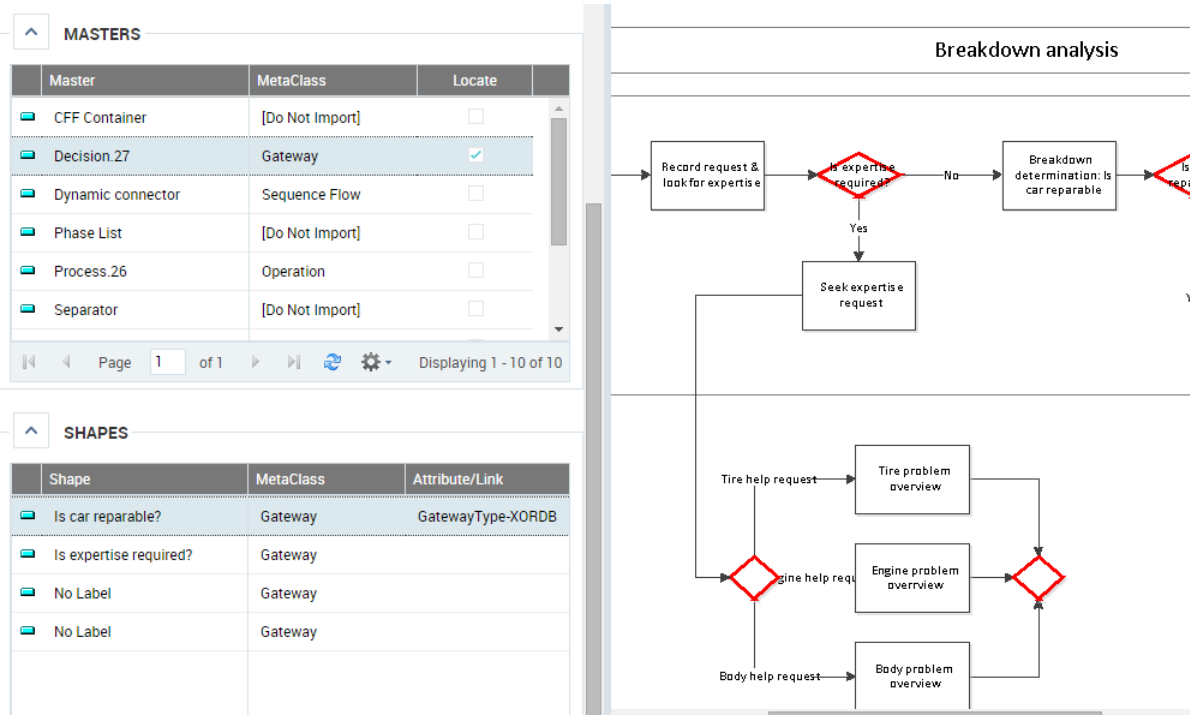
See "Step 3: Define the mapping of objects of each Visio page", page 12.

Example of Shape Properties

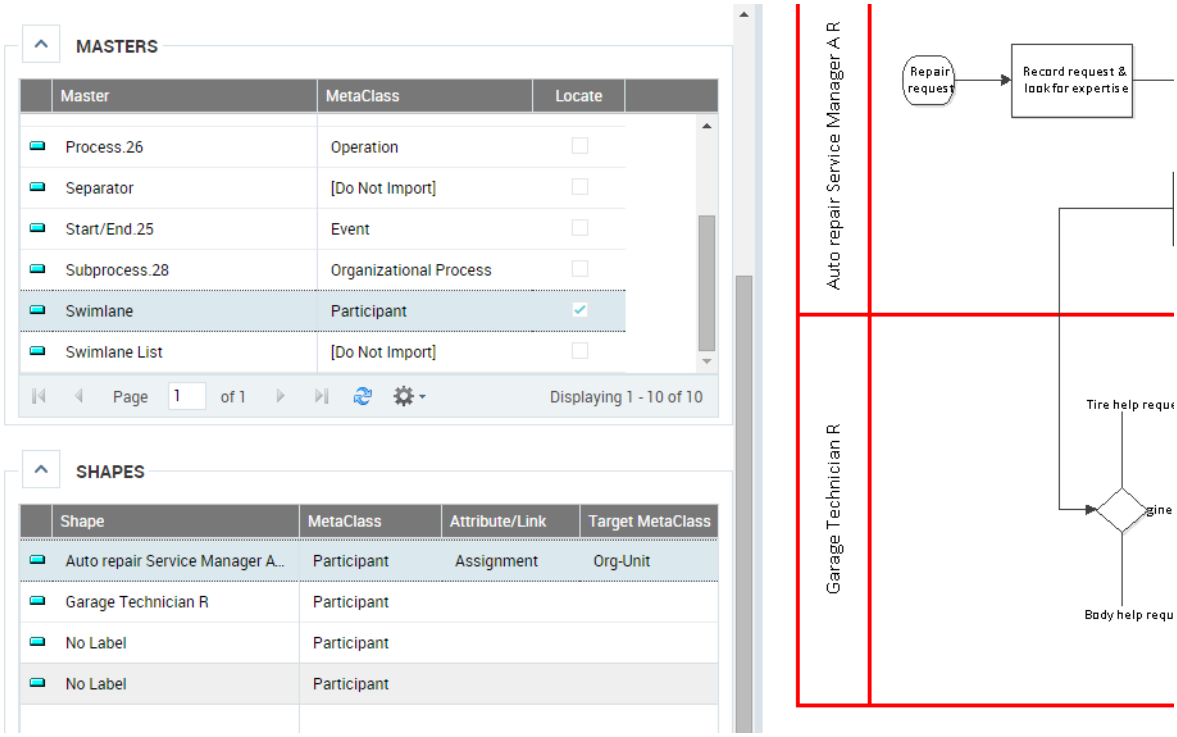
Visio Shape and corresponding HOPEX MetaClass	Property
If Decision = Gateway	Gateway type: exclusive, inclusive, parallel, etc.
If Start/End = Event	Event category: end, start, timer, etc.
If Swimlane = Participant	Participant assignment (target MetaClass)

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

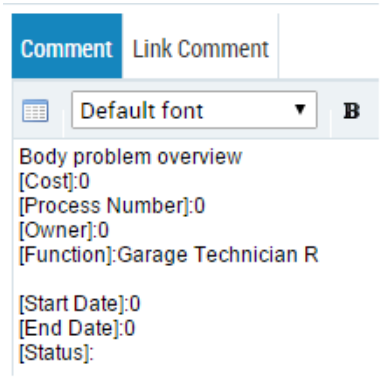
  For example, use the **Business Process** type shape and not the **Rectangle** drawing object.

- 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 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 HOPEX 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 HOPEX.

Prerequisites

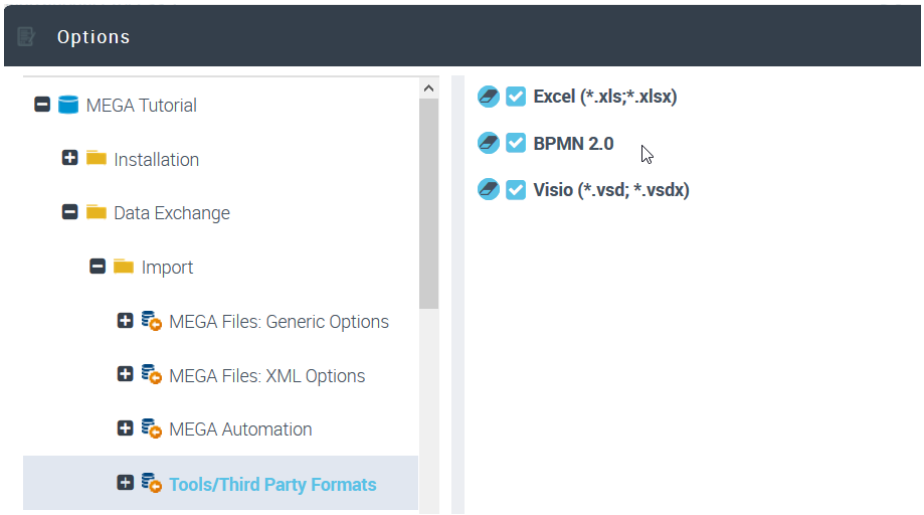
The BPMN import feature is available with **HOPEX Buisiness Process Analysis** and supports BPMN version 2.0.

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 an HOPEX Process into a BPMN file.

The tool handles translation of BPMN processes into one of the following process types in HOPEX:

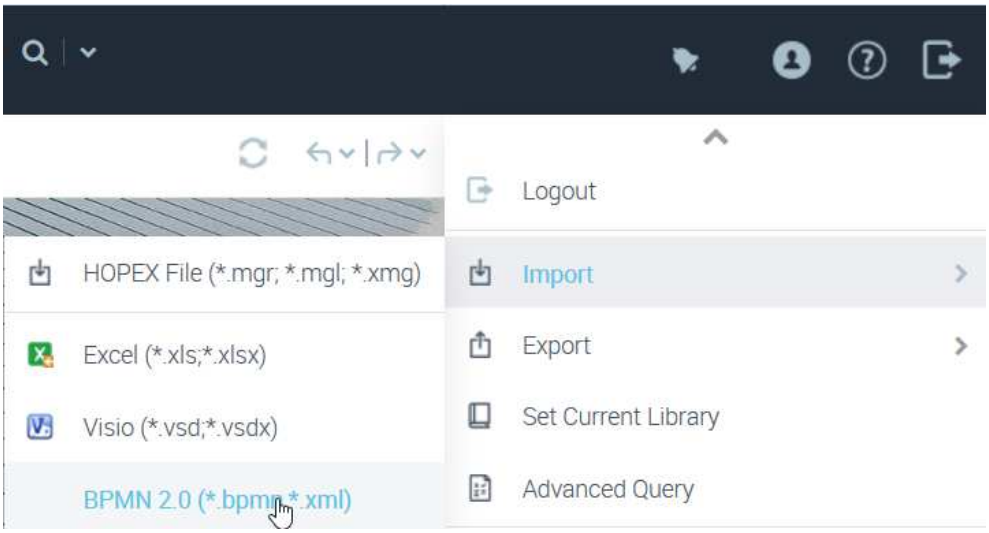
- System Processes
- Organizational Processes
- Value Streams

The list of supported mappings is detailed below. See Object Correspondences.

Importing BPMN Files

To import a BPMN file from HOPEX:

1. In HOPEX, select **Main Menu > Import > BPMN 2.0 (*.bpmn, *.xml).**



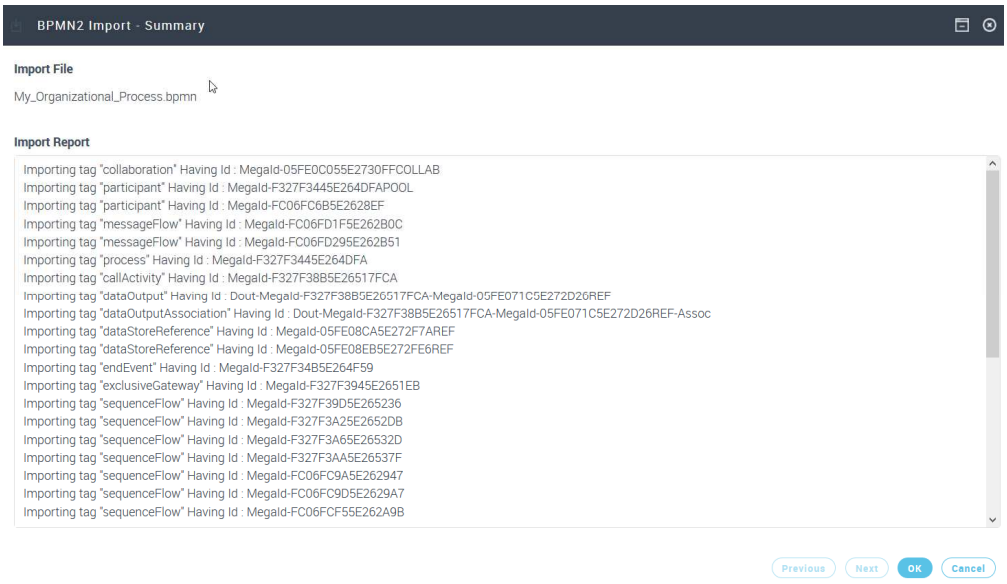
The import dialog box appears.

2. Select the type of object you want to import, for example Organizational 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 a report of the import.



5. Click **Finish**.

   The diagram containing the description of the BPMN concepts opens.

BPMN/HOPEX OBJECT CORRESPONDENCE

The BPMN import feature translates a BPMN-compliant output file into a BPMN element specification in HOPEX. It is based on a set of mappings between BPMN version 2.0 and the HOPEX 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 ::.

HOPEX 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 (Value Stream, Organizational Process or System Process).

Nb: Business processes are not proposed as a target.

BPMN Concepts	HOPEX Concepts
<process> (if Organizational Process)	**Organizational Process**
name	Short Name
id	_Hexaidabs
<documentation>	Comment
<task>	Owned Operation
<dataStore> and <dataStoreReference>	Owned Data Store
	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
<dataStoreReference> and <dataStoreRef>	Owned Update Association

BPMN Concepts	HOPEX Concepts
<dataStoreReference> and <dataStoreRef>	Owned Read Association
< 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 or BPMN Data Store Read Association
< dataOutput> and <dataOutAssociation>	Data Object Used or BPMN Data Store Read Association
< 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	HOPEX 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 Access 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** Assignment BPMN Element Assignment BPMN Element
<participant> name id name <textAnnotation> and <text>	**External Participant** Short Name _Hexaidabs Assignment Note
<textAnnotation> and <association> id < documentation>	**Note** _Hexaidabs Comment

BPMN Concepts	HOPEX Concepts
<process> (if System Process)	**System Process**
name	Short Name
id	_Hexaidabs
<documentation>	Comment
<task>	Owned Task
<dataStore> and <dataStoreReference>	Owned Data Store
	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
<dataStoreReference> and <dataStoreRef>	Owned Update Association
<dataStoreReference> and <dataStoreRef>	Owned Read Association
< 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 or BPMN Data Store Read Association
< dataOutput> and <dataOutAssociation>	Data Object Used or BPMN Data Store Read Association
< textAnnotation> and <text>	Note

BPMN Concepts	HOPEX Concepts
<process> (if Value Stream)	**Value Stream**
name	Short Name
id	_Hexaidabs
<documentation>	Comment
<task>	Owned Value Stage
<dataStore> and <dataStoreReference>	Owned Data Store
	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 Value Stream
<dataStoreReference> and <dataStoreRef>	Owned Update Association
<dataStoreReference> and <dataStoreRef>	Owned Read Association
< textAnnotation> and <text>	Note
<BPMNDiagram>	Description
<task> (*See Table 1)* **(if Value Stream)**	**Value Stage**
name	Short Name
id	_Hexaidabs
<documentation>	Comment
isForCompensation	Compensation
<standardLoopCharacteristics>	Loop
< loopCondition>	Loop Condition
< multiInstanceLoopCharacteristics >	Multiple
calledElement	Called Value Stream
<dataInput> and <dataInputAssociation>	Data Object Used or BPMN Data Store Read Association
< dataOutput> and <dataOutAssociation>	Data Object Used or BPMN Data Store Read Association
< textAnnotation> and <text>	Note

Table 1:

BPMN	Task Type
<task>	**Task Type**
< userTask>	User
< serviceTask>	IT-Service Call
< callActivity>	System Process Call
< scriptTask >	Script
< receiveTask>	Send
< manualTask>	Receive
< businessRuleTask>	Manual

Table 2:

BPMN	Gateway Type
Gateway Type	**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:

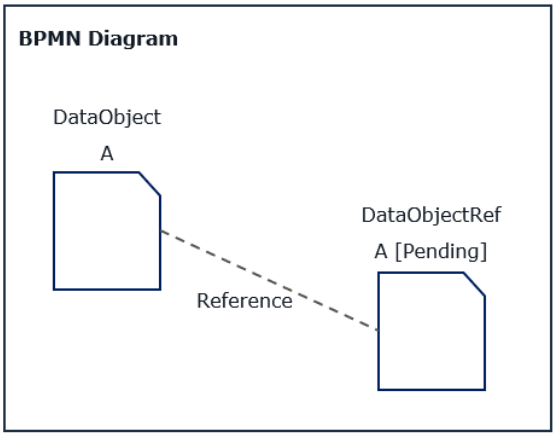
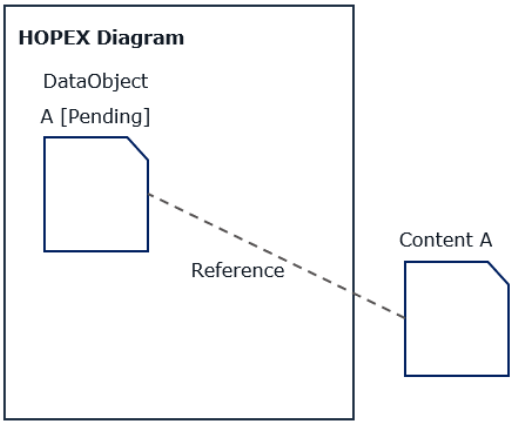
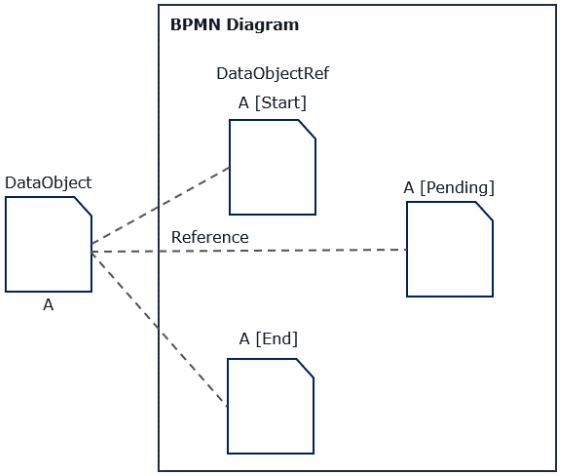
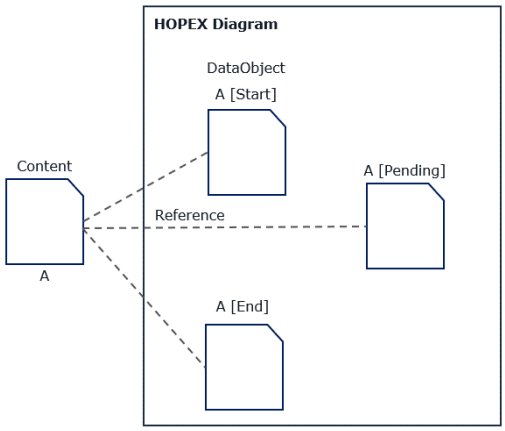
		Event Nature				Bounded Activity
		Start	End	Throw	Catch	
		<startEvent>	*<endEvent>*	*<intermediateThrowEvent>*	*<intermediateCatchEvent>*	*<boundaryEvent>*
Event Type	Generic					
	Message	<messageEventDefinition>	<messageEventDefinition>	<messageEventDefinition>	<messageEventDefinition>	<messageEventDefinition>
	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 HOPEX
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.
DataStore/DataStorereference (Datainput/Dataoutput)	
(Reminder) DataStore DataStoreReference	 Buisiness Information Area Process Data Store
DataStore without Reference	As a Buisiness Information Area can not be represented graphically on its own in HOPEX, a Process Data Store is created without Buisiness Information Area.
DataStoreReference + DataStore	References resulting in DataStores are represented in the diagram. The Business Information Area is referenced if it already exists. Otherwise, it is not created.

Dataobject/Dataobjectreference (Datainput/Dataoutput)	
(Reminder) DataObject DataObjectReference	Content DataObject
DataObject without Reference	As a content can not be represented graphically on its own in HOPEX, 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 HOPEX 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.

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.

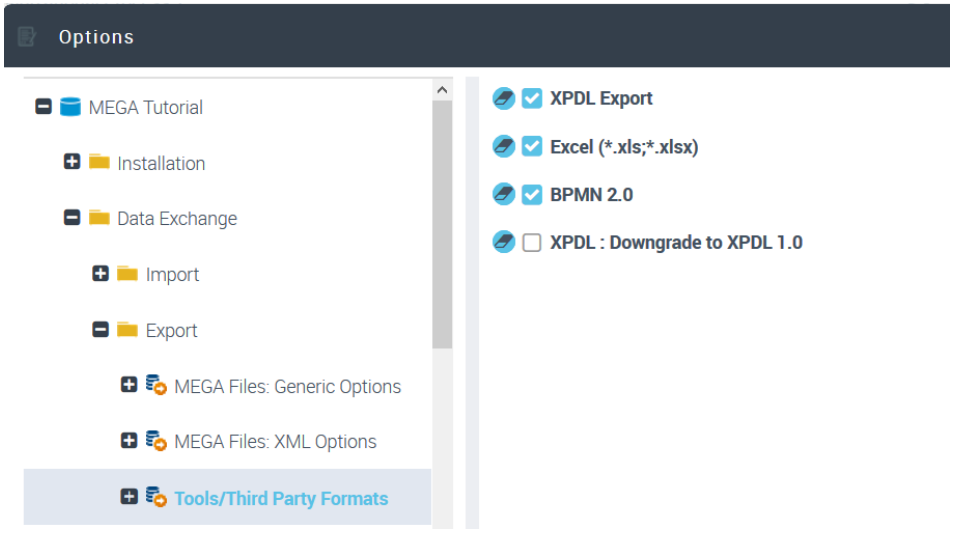
The HOPEX BPMN export project aims at exporting workflow definitions as BPMN files so that workflows modeled in HOPEX can be used by other BPMN modeling tools or workflow engines.

Prerequisites

The BPMN export feature is available with with **HOPEX Buisiness Process Analysis** 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 an HOPEX Process into a BPMN file.

The tool handles translation of the following processes:

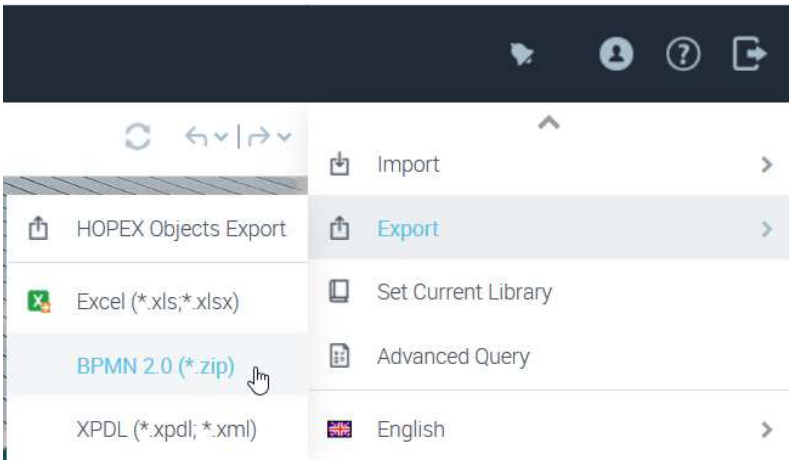
- System Processes
- Organizational Processes
- Business Processes
- Value Streams

The list of supported mappings is detailed below. See Object correspondences.

Exporting BPMN Files

To export a BPMN file from HOPEX:

1. In HOPEX, select **Main Menu > Export > BPMN 2.0 (*.bpmn).**



   The export dialog box appears.

2. Select the type of object you want to export, for example Organizational Process, and click **Next**.

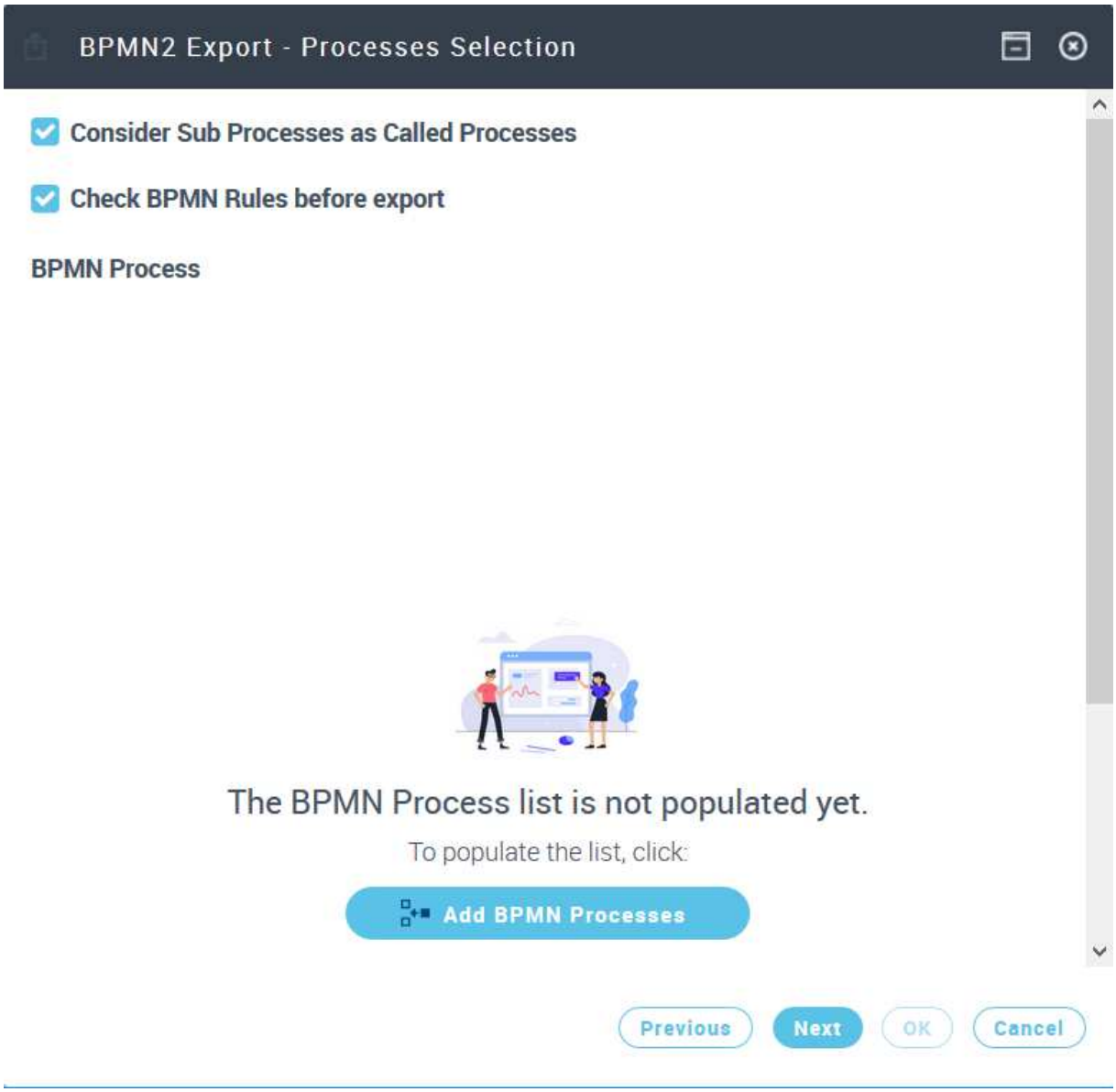
3. Specify the organizational processes to be exported.

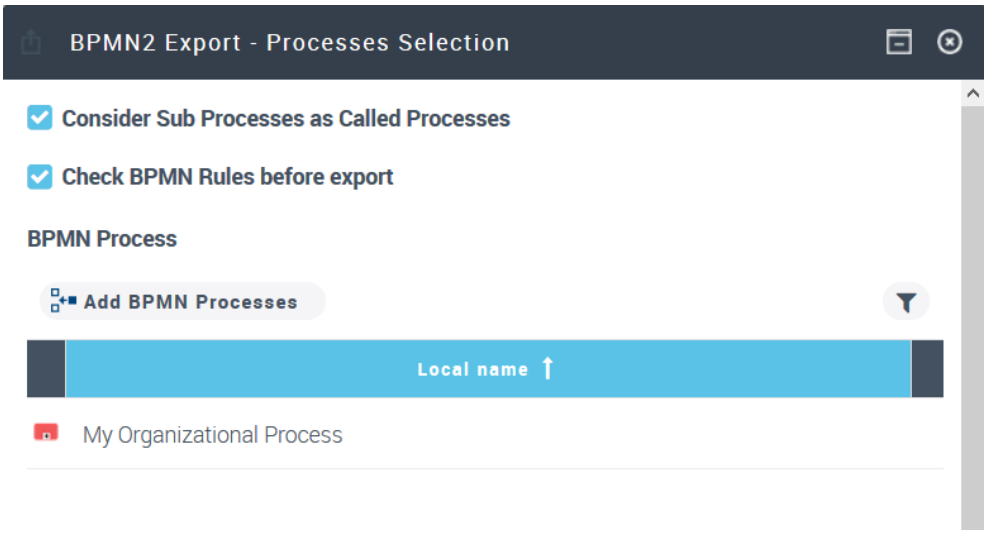
   Two options are available:

   - **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 called 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.

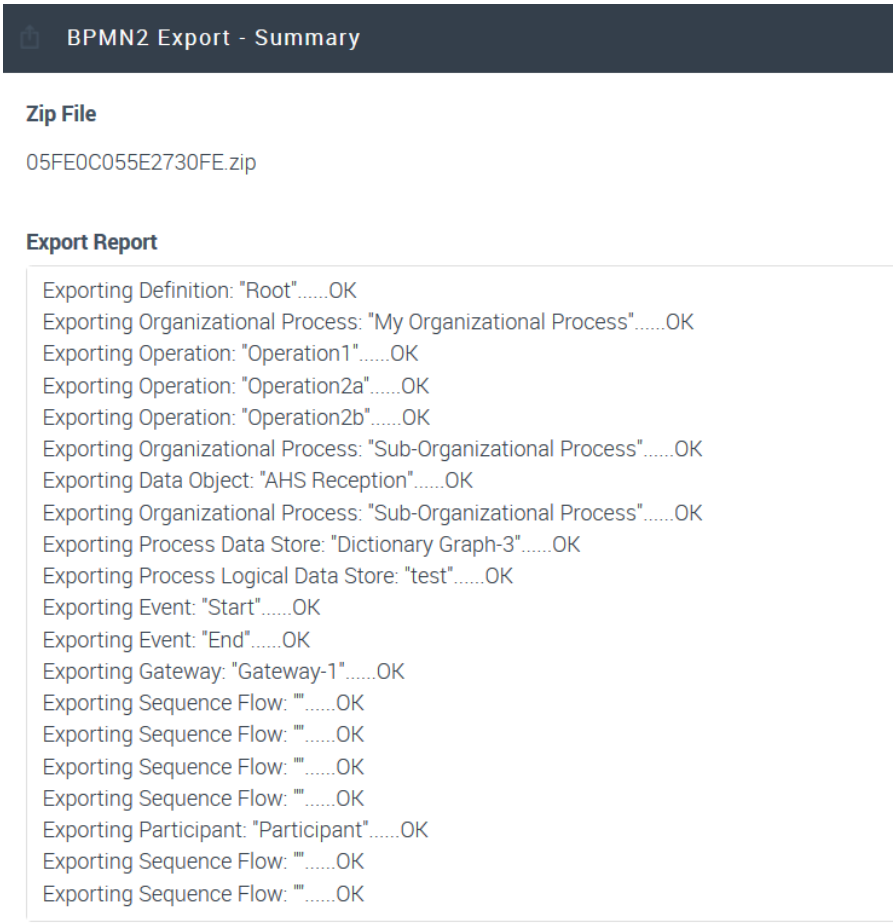
Click **Add BPMN Processes** to specify the list of processes you want to export.





4. Select one or several processes to be exported.
5. Click **Next**.

   A progression window opens. Another window prompts you to open or to save the xml result file. A report of the export is displayed.



6. Click **Ok** to finish.

HOPEX/BPMN OBJECT CORRESPONDENCE

The BPMN export feature translates a BPMN element specification in HOPEX into a BPMN-compliant output file. It is based on a set of mappings between the HOPEX BPMN Process metamodel (including diagrams) and BPMN version 2.0.

Conventions

HOPEX concept names start with an 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:

HOPEX Concepts	BPMN Concepts
Organizational Process	**<process>**
Short Name	name
_Hexaidabs	id
Comment	<documentation>
Owned Operation	<task>
Owned Data Store	<dataStore> and <dataStoreReference>
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>
Owned Update Association	<dataStoreReference> and <dataStoreRef>
Owned Read Association	<dataStoreReference> and <dataStoreRef>
Note	< textAnnotation> and <text>
Description	<BPMNDiagram>

HOPEX Concepts	BPMN Concepts
Operation	**<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 <dataOutAssociation>
BPMN Data Store Read Association	<dataInput> and <dataInputAssociation>
BPMN Data Store Update Association	<dataOutput> and <dataOutAssociation>
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

HOPEX Concepts	BPMN Concepts
Data Object	**<dataObject> and <dataObjectReference>**
Short Name	name
_Hexaidabs	id
Collection	isCollection
Comment	<dataObjectReference> and <documentation>
Data Object Status	< dataObjectReference::name>
Process Data Object	**<dataStore> and <dataStoreReference>**
Short Name	name
_Hexaidabs	id
Process Data Object	**<dataStore> and <dataStoreReference>**
Short Name	name
Predicate	<conditionExpression>
Predecessor	sourceRef
Successor	targetRef
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	< documentation>

HOPEX Concepts	BPMN Concepts
System Process	**<process>**
Short Name	name
_Hexaidabs	id
Comment	<documentation>
Owned Task	<task>
Owned Data Store	<dataStore> and <dataStoreReference>
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 System Process	<callActivity> or <subProcess>
Owned Read Association	<dataStoreReference> and <dataStoreRef>
Owned Update Association	<dataStoreReference> and <dataStoreRef>
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 System Process	calledElement
Data Object Used	<dataInput> and <dataInputAssociation>
Produced Data Object	<dataOutput> and <dataOutAssociation>
BPMN Data Store Read Association	<dataInput> and <dataInputAssociation>
BPMN Data Store Update Association	<dataOutput> and <dataOutAssociation>
Note	< textAnnotation> and <text>

HOPEX Concepts	BPMN Concepts
Value Stream	**<process>**
Short Name	name
_Hexaidabs	id
Comment	<documentation>
Owned Value Stage	<task>
Owned Data Store	<dataStore> and <dataStoreReference>
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 Value Stream	<callActivity> or <subProcess>
Owned Read Association	<dataStoreReference> and <dataStoreRef>
Owned Update Association	<dataStoreReference> and <dataStoreRef>
Note	< textAnnotation> and <text>
Description	<BPMNDiagram>
Value Stage	**<task>** (*See Table 1)*
Short Name	name
_Hexaidabs	id
Comment	<documentation>
Compensation	isForCompensation
Loop	<standardLoopCharacteristics>
Loop Condition	< loopCondition>
Multiple	< multiInstanceLoopCharacteristics >
Called Value Stream	calledElement
Data Object Used	<dataInput> and <dataInputAssociation>
Produced Data Object	<dataOutput> and <dataOutAssociation>
BPMN Data Store Read Association	<dataInput> and <dataInputAssociation>
BPMN Data Store Update Association	<dataOutput> and <dataOutAssociation>
Note	< textAnnotation> and <text>

HOPEX Concepts	BPMN Concepts
Business Process	**<process>**
Short Name	name
_Hexaidabs	id
Comment	<documentation>
Owned Task	<task>
Owned Data Store	<dataStore> and <dataStoreReference>
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 System Process	<callActivity> or <subProcess>
Owned Read Association	<dataStoreReference> and <dataStoreRef>
Owned Update Association	<dataStoreReference> and <dataStoreRef>
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	< receiveTask>
Receive	< manualTask>
Manual	< 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					

* = Combination not possible

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:

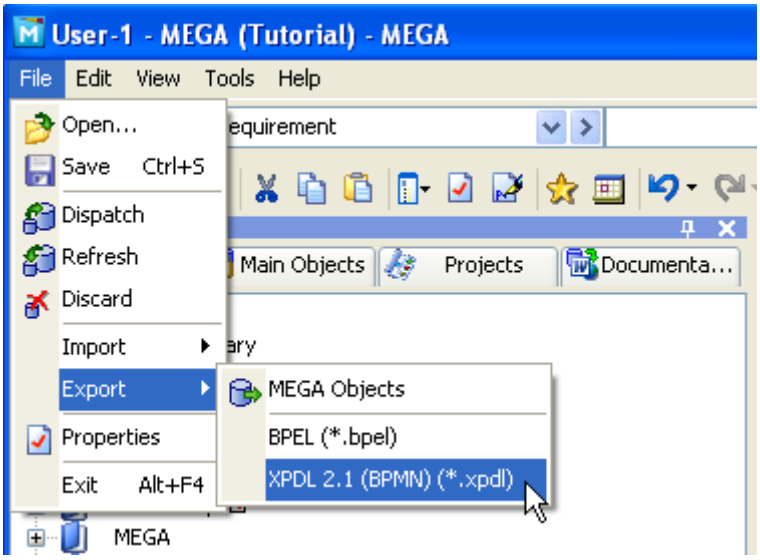
- System Processes
- Organizational Processes
- Business Processes
- Functional Processes

The list of supported mappings is detailed below. See Object correspondences.

Exporting XPDL Files

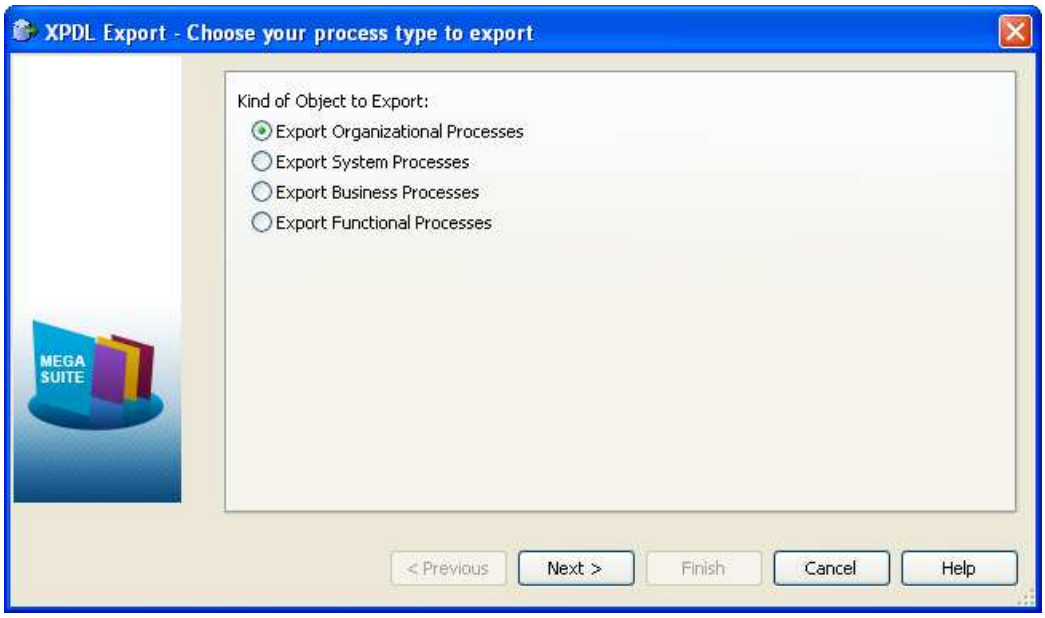
To export an XPDL file from MEGA:

1. In MEGA, select **File > Export > XPDL 2.1 (*.xpdl).**

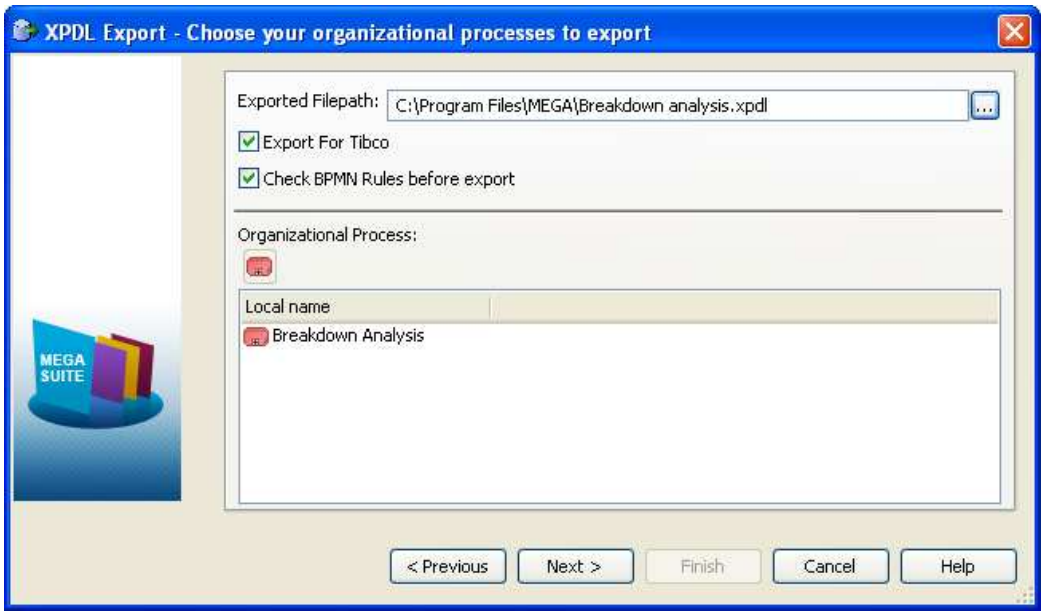


The export dialog box appears.

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®.

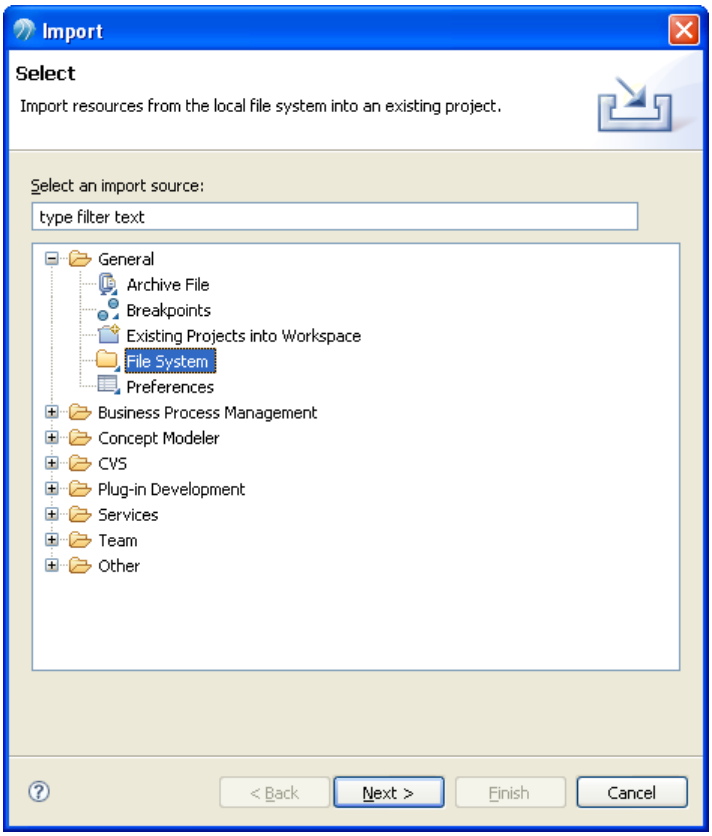
To obtain workflow that can be used in TIBCO Business Studio, simply export the description of this workflow in XPDL format.

To do this:

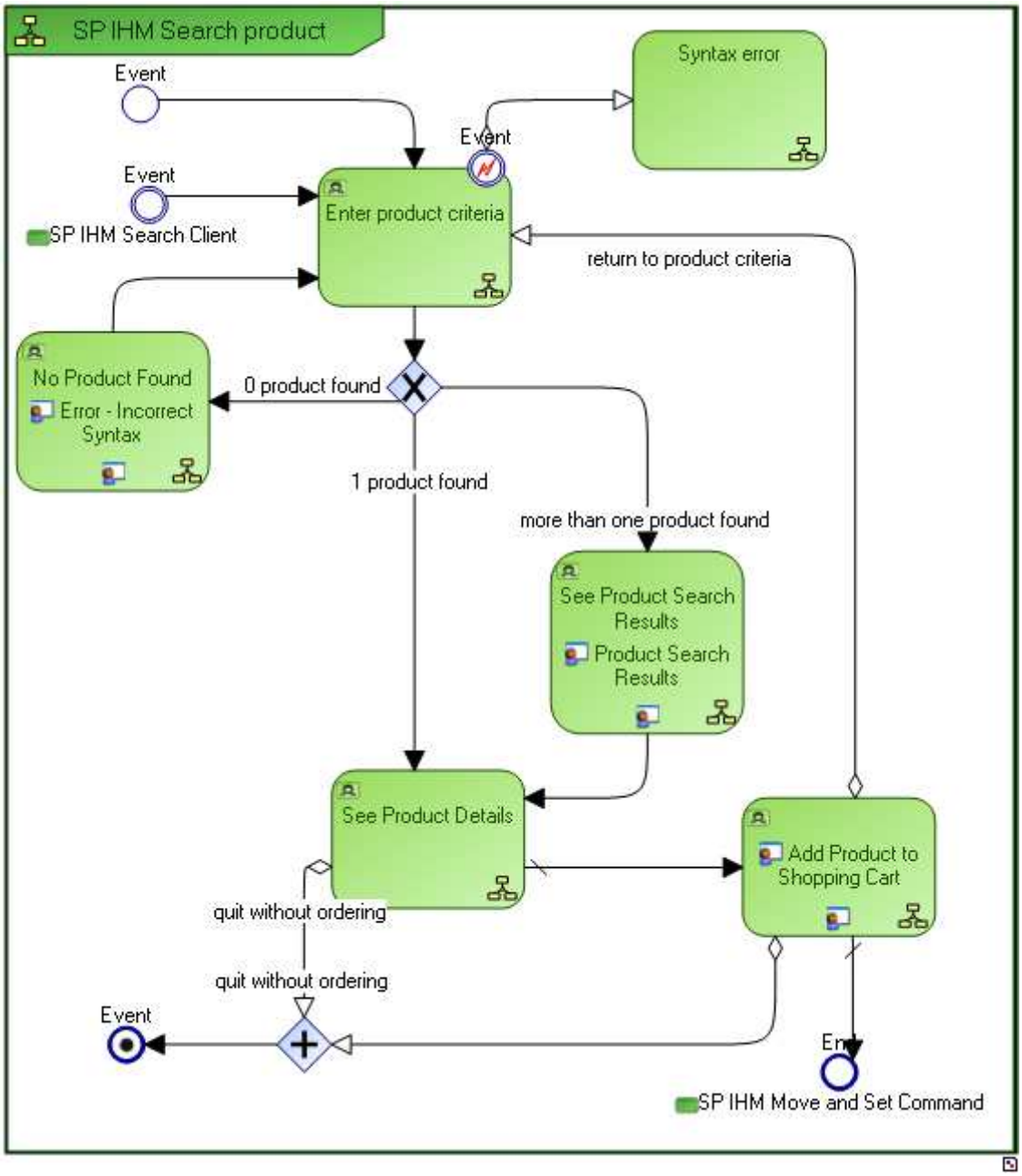
1. In MEGA, select **File** > **Export** > XPDL **2.1 (*.xpdl)**.

   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: