HOPEX IT Portfolio Management

User Guide

HOPEX V4

CONTENTS

INTRODUCTION TO HOPEX IT PORTFOLIO MANAGEMENT

HOPEX IT Portfolio Management is a tool published by **MEGA International** to assist IT management in:

- Aligning the application assets with business requirements;
- Reducing IS operating costs by removing applications no longer used;
- Managing technologies relating to applications;
- Identifying the business services covered by applications or application versions.
- Deciding on investments for maximum profits.

HOPEX IT Portfolio Management enables to:

- Define an application assets management workflow, identify the different profiles involved and association of persons with each of these profiles;
- Identify the application assets, specify their characteristics, the technologies used, and define the costs;
- Assess all applications on relevant criteria;
- Generate comparison and analysis reports leading to effective transformation of application assets.
- Visualize the impact of the transformation of the applications on the data they use.

The purpose of this guide is therefore to present how to make best use of these functionalities for the successful evolution of your information system.

- "Governance with HOPEX IT Portfolio Management", page 8
- "HOPEX IT Portfolio Management Profiles", page 10
- "About This Guide", page 13

GOVERNANCE WITH HOPEX IT PORTFOLIO MANAGEMENT

Associated with other **HOPEX** Suite products, **HOPEX IT Portfolio Management** enables description of all components involved in management of the enterprise application assets.

Application and technology inventory

HOPEX IT Portfolio Management allows you to collect information relating to your application and technology assets.

To manage a consistent repository of your application assets, **HOPEX IT Portfolio Management** relies on the following data:

- **Applications** and **Application Systems**
- **Life Cycles** describing the different states that Technology, Application or Deployment object types can take over a given period.
- **Business Processes**: a standard business process tree nomenclature is supplied with **HOPEX IT Portfolio Management**.
- **Business Lines** that correspond to major product segments, distribution channels or business activities, according to enterprises.
- **Business Capabilities** of the enterprise.
- **Org-Units** of the enterprise.
- **Sites** hosting applications.
- Software or hardware **Technologies** required for operation of applications.
- **Editors**, suppliers of technologies.
- **Costs** described based on nomenclature simplifying analysis.
- **Functionalities** offered by the applications.
- **Business Data** exchanged between applications.

Tools are proposed to check global consistency of information collected.

Application and technology evaluation

HOPEX IT Portfolio Management enables comparison of applications inventoried on criteria such as cost, use rate or criticality for the enterprise, and proposes different reports for this purpose.

Transforming application and technology assets

With the **HOPEX Project Portfolio Management** functionalities, you can plan and follow up on the transformation of your application and technological assets. You can build transformation scenarios for your applications and technologies within different projects that can be compared.

When a project is validated, the life cycle that it contains is automatically transferred to the applications that appear in the inventory portfolios.

Analyzing the impact of the applications asset transformation on the data used

Applications use and exchange a large amount of data that can be strategic, sensitive, private, etc. The management and transformation of the application portfolio must take into account the impact of applications on the data used.

To do so, **HOPEX IT Portfolio Management** offers the following features:

- Building a business glossary
- Defining the data used in the application and the data exchanged
- Categorizing data: Golden data, sensitive data, etc.
- Defining responsibilities and data properties
- Defining Golden source applications
- Assessing data quality
- Generating impact reports on the data used by an application
- Initializing data from an Excel template.

Connecting to HOPEX IT Portfolio Management

The menus and commands available in **HOPEX IT Portfolio Management** depend on the profile with which you are connected.

Prerequisite: Importing the APQC Libraries

If you want to use APQC business processes for the different activity sectors, you can also import the corresponding libraries.

To import the APQC libraries, see the chapter "Prerequisites to using APQC libraries" of the **HOPEX Business Process Analysis** guide.

Connecting to the solution

To connect to **HOPEX IT Portfolio Management**, see HOPEX Common Features, "HOPEX Desktop", "Accessing HOPEX (Web Front-End)".

HOPEX IT Portfolio Management Profiles

In **HOPEX IT Portfolio Management**, there are default connection profiles with which specific rights and accesses are associated. The profiles available are:

- ITPM Functional Administrator
- Application Portfolio Manager
- Application Owner
- Chief Technology Officer
- Technology Portfolio Manager
- Financial Controller
- Business Owner
- IT Owner
- Data Asset Manager

The rights of different users on objects of imported libraries depend on their assigned profiles. For more information on creation of users and assignment of profiles, see the chapter "Managing Users" in the **HOPEX Power Supervisor** guide.

IRM Functional Administrator

The functional administrator has rights on all objects and workflows.

He/she prepares the working environment and manages reference data used in the solution.

Application Portfolio Manager

The Application Portfolio Manager:

- is responsible for the global process and its control.
- assures correct operation of tasks assigned to the "Application Owner".
- classifies and evaluates applications.

To allow the application portfolio manager to control the inventory of the application assets, application data entry and validation workflows are delivered with **HOPEX IT Portfolio Management.**

For more details on workflows, see the **HOPEX Common Features** guide.

Application Owner

The application owner is responsible for defining and updating applications.

When he/she is associated with applications, he/she is responsible for them. He/she in particular receives evaluation requests sent by the portfolio manager.

Chief Technology Officer

The chief technology officer is an application portfolio manager who is also in charge of assessing technologies. The assessment is driven by a workflow. See "Validating a Technology", page 151.

Technology Portfolio Manager

The Technology Portfolio Manager is in charge of one or more technology portfolios. He chooses technologies and editors, and asks for the technology director validation.

Financial Controller

The role of the Financial Controller is to specify financial characteristics of applications and technologies for which he/she is responsible.

Business User

Business user of the application. Evaluates business aspects of applications for which he/she is responsible.

IT Owner

IT Responsible for application. Evaluates technical and technological aspects of applications.

For more details on assessment, see "Evaluating Application Criticality", page 141.

Data Asset Manager

The Data Asset Manager is responsible for the creation of information assets.

The other profiles of **HOPEX IT Portfolio Management** can read access these assets and use them, for example in data flows or data stores.

About This Guide

This guide presents how to make best use of **HOPEX IT Portfolio Management** to assure governance of your enterprise application assets.

Guide Structure

The **HOPEX IT Portfolio Management** guide comprises the following chapters:

- "Functional Administration", page 15: describes initializations of reference data to be set up before starting an application assets inventory campaign.
- " Drawing up an Application Inventory", page 113: presents functionalities proposed by **HOPEX IT Portfolio Management** to identify and characterize application assets.
- "Evaluating Application Assets", page 183: introduces the portfolio concept available in **HOPEX IT Portfolio Management** and explains how to evaluate applications during the inventory phase. Also describes the project concept on which the transformation phase of the application assets relies.
- "Glossary", page 47: summarizes definitions of the main concepts used in **HOPEX IT Portfolio Management**.
- "Importing Technology information from BDNA Technopedia™", page 19describes how to use the Technopedia connector.

Additional Resources

This guide is supplemented by:

- The **HOPEX Common Features**guide describes the Web interface and tools specific to HOPEXsolutions.
  - *It can be useful to consult this guide for a general presentation of the interface.*
- the **HOPEX Power Supervisor** administration guide.

Functional Administration

So that the different participants can play their business role, the functional administrator must first prepare the working environment.

This involves:

- Defining Enterprise Org-Units
- Defining Enterprise Org-Units
- Describing Enterprise Sites
- Defining Business Lines
- Defining Business Processes
- Defining Business Capabilities
- Defining Life Cycles

Preparing the Work Environment HOPEX IT Portfolio Management

Inventory and evaluation of the application assets are based on description of business elements - in order to map business requirements with the application architectures that serve as their support - as well as organizational elements such as org-units and deployment sites.

The following points indicate how to create elements that constitute your working environment. This step is executed by the Functional Administrator.

Defining Enterprise Org-Units

HOPEX IT Portfolio Management is used to describe the *org-units* of your enterprise.

) *An org-unit represents a person or a group of persons that intervenes in the enterprise business processes or information system. An org-unit can be internal or external to the enterprise. An internal org-unit is an organizational element of enterprise structure such as a management, department, or job function. It is defined at a level depending on the degree of detail to be provided on the organization (see org-unit type). Example: financial management, sales management, marketing department, account manager. An external org-unit is an external entity that exchanges flows with the enterprise. Example: customer, supplier, government office.*

Creating an org-unit

To create an org-unit:

1. Connect to **HOPEX IT Portfolio Management**as functional administrator.
2. Click the navigation menu, then **Environment** > **Org-Units**.
3. In the edit area, click **New**.
   The org-unit creation wizard opens.
4. Indicate the name of the org-unit and possibly its owner.
5. Click **OK**.
   The org-unit appears in the edit area

Specifying org-unit properties

To specify the properties of an org-unit:

1. Select the org-unit and click **Properties** in the edit window.
2. Click the **Characteristics** page.

Internal org-unit/external entity

During creation, org-units are considered as elements internal to the company. To specify that an org-unit is not part of the company, you must modify the org-unit properties and enter the "External" status.

Org-Unit Type

There are several types of org-units:

- An "Accountable" org-unit (for example, Sales Manager).
- A "Generic" org-unit corresponds to a role to be played during a project (for example, Writer, Requester).
- A "Structure" org-unit (for example, Sales Management).
- A "Function" org-unit (for example, Sales Engineer).

– You can also specify its details (company name, e-mail address, telephone number, etc.).

Describing Enterprise Sites

HOPEX IT Portfolio Management allows you to describe *sites* of your enterprise. These sites are used to define the deployment context of an application.

) A site is a geographical location of an enterprise. Examples: Boston subsidiary, Seattle plant, and more generally the headquarters, subsidiaries, plants, warehouses, etc.

To create a site:

1. Connect to **HOPEX IT Portfolio Management**as functional administrator.
2. Click the navigation menu, then **Environment** > **Sites**.
3. In the edit area, click **New**.
   The site creation wizard opens.
4. Indicate the name of the site and possibly its owner.
5. Click **OK**.
   The site appears in the edit area.

Defining Business Lines

) A business line is a high level classification of main enterprise activities. It corresponds for example to major product segments or to distribution channels. It enables classification of enterprise processes, organizational units or applications that serve a specific product and/or specific market. Regulation frameworks of certain industries impose their own business lines.

To create a business line:

1. Connect to **HOPEX IT Portfolio Management** as functional administrator.
2. Click the navigation menu, then **Environment** > **Business Lines**.
3. In the edit area, click **New**.
   The business line creation wizard opens.

4. Indicate the name of the business line and possibly its owner.
5. Click **OK**.
   The business line appears in the edit area.

Defining Business Processes

APQC proposes standard repositories of business processes specific to each major activity sector.

>) *A business process represents a system that offers products or services to an internal or external client of the company or organization. At the higher levels, a business process represents a structure and a categorization of the business. It can be broken down into other processes. The link with organizational processes will describe the real implementation of the business process in the organization. A business process can also be detailed by a functional view.*

A set of standard business process repositories from APQC is supplied with **HOPEX IT Portfolio Management**, in the APQC solution pack.

> – *For more details on importing a solution pack, see Prerequisite: Importing the APQC Libraries.*

To access business processes of your enterprise:

1. Connect to **HOPEX IT Portfolio Management** as functional administrator.
2. Click the navigation menu, then **Environment** > **Business Processes**.
   The list of business processes appears in the edit area.

Defining Business Capabilities

Presentation

A business capability defines an expected skill.

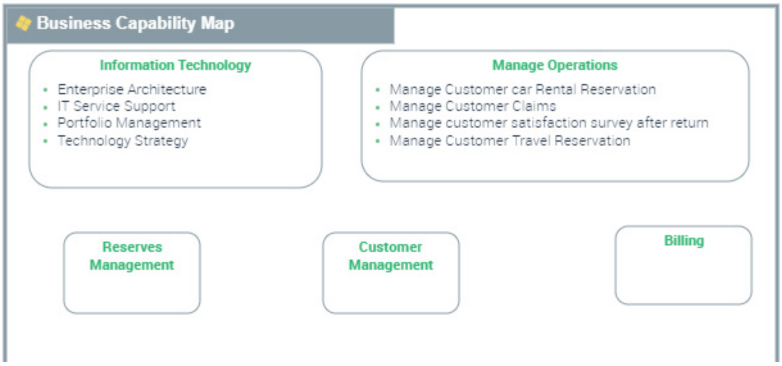
>) *.A business capability is a set of features that can be made available by a system (an enterprise or an automated system).*

```
For example, to respond to a customer satisfaction
objective, the organization must be able to provide
services conforming to contractual commitments.
```

A capability map describes what the enterprise is capable of producing for its internal needs or for meeting the needs of its clients. It is thus based on the main business capabilities of its activity at a given moment.

) *A business capability map is a set of business capabilities with their dependencies that, together, define a framework for an enterprise stage.*

`For example, the standard capability to provide pizzas is based on the "Preparation of pizzas" and "Delivery of pizzas" business capabilities.`



In **HOPEX IT Portfolio Management** you can generate in the form of a report a business capability map for a portfolio.

The business capability map of a portfolio reflects functional coverage of applications of a given portfolio. It is particularly useful to view the functional coverage change of application assets over time. See Generating the Business Capability Map of a Portfolio.

Capabilities can be previously defined in a global capability map. The existence of a business capability map of the company enables automatic creation of business capability maps subsequently generated at the portfolio level.

Creating a business capability

To create a business capability:

1. Connect to **HOPEX IT Portfolio Management** as functional administrator.
2. Click the navigation menu, then **Environment** > **All Business Capabilities**.
3. In the edit area, click the **Business Capabilities** tab then **New**.
   The business capability creation wizard opens.
4. Indicate the name of the business capability and possibly its owner.
5. Click **OK**.

You can also create a Business Capability from an application.

To associate a capability with an application, see Defining Application Functional Scope.

Business capability properties

To view properties of a business capability:

› Click the business capability icon then **Properties**.

Under the **Characteristics** page, you can define:

- The **Color** attribute: the value given to this attribute changes the shape color representing the area, district or block displayed in the diagram.
- The owned capabilities

The **Applications** page allows you to specify the applications that realize the business capability.

Creating a global business capability map

The administrator can create the global capability map in the **Environment** navigation pane.

To create a global business capability map:

1. Connect to **HOPEX IT Portfolio Management**as functional administrator.
2. Click the navigation menu, then **Environment** > **Business Capabilities**.
3. In the edit area, click the **All Business Capability Maps** tab then **New**.
   The business capability map creation wizard opens.
4. Indicate the name of the business capability map and possibly its owner.
5. Click **OK**.

Creating the diagram of a business capability map

To create a business capability map diagram:

› Click the icon of the business capability map that interests you and select **New > Business Capability Map Diagram**.
The diagram opens in the edit area. The frame of the business capability map described appears in the diagram.

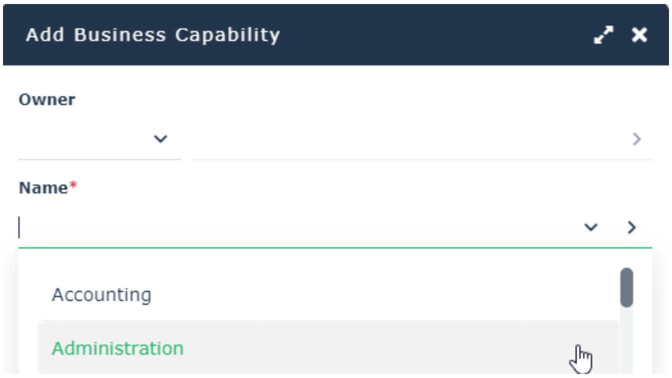
Defining the components of a business capability

A **Business capability component** is the involvement of a business capability in the context of a business capability map (one and only one) linked to an enterprise.

To add a business capability composition to a business capability map diagram:

1. In the diagram insert toolbar, click **Capability Composition**.
2. Click in the frame of the business capability map.
   The creation window for a capability composition opens.

3. Click on the arrow associated with the **Name** field and select the business capability that interests you.



4. Click **OK**.
The capability composition appears in the diagram.

Defining business capability dependencies

A dependency link between one capability composition and another is used to specify the elements on which this dependency is based.

```
For example, for "Delivery of pizzas" use "Prepare the
pizzas". Note that the expected result (business effect) of
"Delivery of pizzas" is a "Pizza delivered" and the expected
result (business effect) of "Preparation of pizzas" is a
"Cooked pizza".
```

Dependent Business Effect and **Desired Business Effect** are the business capability results.

To create dependency links between two capability compositions:

1. In the insert toolbar of the diagram, click **Business Capability Dependency**.
2. Click the user component, and keeping the left mouse button pressed, move the cursor to the assembly used.
3. Release the mouse button.
The capability composition appears in the diagram.

To enter the results concerned by a dependency between two business capability components:

1. Open the **Characteristics** properties dialog box.
2. Enter the user component result in the **Dependent Business Effect** field.

```
For example, "Pizza delivered".
```

3. Enter the user assembly result in the **Desired Business Effect** field.

```
For example, "Pizza cooked".
```

Generating a Business Capability Treemap on an Application Portfolio

A business capability treemap breaks down a capacity tree according to three possible criteria:

- Number of components: the surface area is proportional to the number of sub-capabilities in the tree.
- Number of applications: the surface area is proportional to the number of applications realizing 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.

Note that:

- Since an application can realize several capabilities, the "Cost Contribution Key" ratio is applied for the criteria "Number of applications" and "Cost of Application".
- As a result of the application of this distribution coefficient, the number of applications may not be an integer (it represents an application coverage ratio).
- An application realizing an "intermediate" capability (i.e. not a leaf of the tree) is considered to realize all its sub-capabilities in a uniform way (strict pro rata between all sub-capabilities).

To generate a Business Capability Treemap from an application portfolio:

1. Open the properties of the portfolio in question.
2. Click the drop-down list then **Reporting > Business Capabilities Tree Map**.
3. Select a capability map.
4. Refresh the report.

For more details on business capability treemaps, see Handling a Treemap.

Defining Life Cycles

The life cycle of an object defines the list of possible object states. Associated with begin and end dates, the life cycle of an application is used when planning the different states of an application during a given period. See Defining Application Life.

Life cycles supplied by default

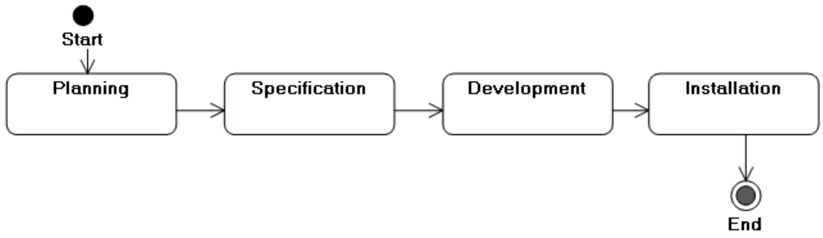
HOPEX supplies standard life cycles for applications and deployment contexts.

Life cycle of an application

This life cycle describes:

- standard development of an application, whatever it might be.
- states that mark steps in evolution of an application.

This standard life cycle can apply to all applications.



Creating new life cycles

Modifying a standard life cycle impacts data already modeled in the repository. It is therefore a modification that should be restricted to appropriate authorization levels.

To formalize states other than those supplied as standard by **HOPEX**, it is preferable to create a new life cycle.

A life cycle corresponds to the "State Machine" object. To define a new life cycle, you must create a state machine and associate with it the states and transitions constituting the life cycle.

To create a life cycle with **HOPEX IT Portfolio Management**:

1. Connect to **HOPEX IT Portfolio Management** as administrator.
2. Click the navigation menu then **Environment**.
3. in the edit area, click the icon of the library that will contain the state machine, and select **New** > **Building Block.**
4. In the window that appears, select the "State Machine" **Object type** then click **Next**.
5. Enter the **Name** of the state machine and click **Next**.
   The next window allows you to specify the list of object types (MetaClasses) that can be associated with the life cycle created.
6. In the **Valid Type** section, click **Connect**.
7. In the dialog box that appears, select the expected object type and click **OK**.
   The list of selected object types appears.
8. Click **OK**.
   The new state machine appears under the **State Machine** folder of the library.

To create the state diagram associated with the new state machine:

› Click the icon of the state machine and select **New > State Diagram**.

– *For more details on the use of state diagrams, see the guide* ***HOPEX UML****.*

DRAWING UP AN APPLICATION INVENTORY

The application inventory phase consists of collecting information from different viewpoints: descriptive, functional, financial, technical, etc.

This chapter presents functionalities proposed by **HOPEX IT Portfolio Management** to help you inventory the application assets of your enterprise.

The following points are covered here:

BUILDING APPLICATION ASSETS

HOPEX IT Portfolio Management offers the possibility of describing simple applications or more complex applications via the use of application systems.

Applications and application systems of the organization can be created by the Administrator, Application Portfolio Manager or Application Owner.

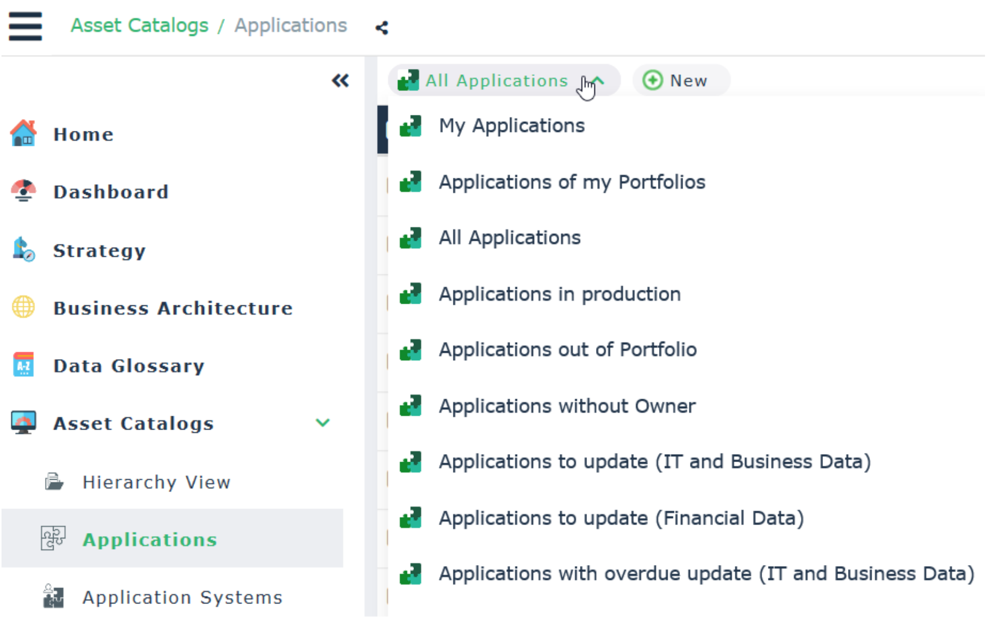
Creating an Application

To inventory applications, **HOPEX IT Portfolio Management** provides a navigation tree.

Depending on whether you are an application owner or an application portfolio manager, you can access applications from the **Home** page or **Asset Catalogs** navigation pane of the ITPM desktop.

Under **Asset Catalogs** a drop-down list classifies the applications according to the following criteria:

- All applications of the repository
- Applications without owner
- Applications outside portfolio (those not belonging to any inventory portfolio)
- Applications of the connected user portfolio
- etc.



ITPM desktop of application portfolio manager

To create an application:

1. Click the **Asset Catalogs** > **Applications** navigation pane.
2. In the edit area, click on the drop-down list then **All Applications**.
   The list of applications appears in the edit area.
3. Click the **New** button.
4. In the application creation window, indicate the following characteristics:
   - name
   - life cycle
   - Life cycle begin and end dates
   - Cloud Computing
     - *For more details, see Application Characteristics.*
5. Click **Next** if you also want to define the different characteristics of the application. If not, click **OK**.
   - *The user that created an application becomes its manager.*

Creating an Application System

An application system comprises applications and/or sub-application systems.

Prerequisite

Application systems are not visible by default To use them in **HOPEX IT Portfolio Management**:

1. On the desktop, click **Main Menu** > **Settings** > **Options**.
   The options window appears.
2. In the tree on the left, click the **IT Portfolio Management** folder.
3. In the right pane of the window, select the option **Use of Application Systems**.
4. Click **OK**.
5. Save the modification and restart **HOPEX IT Portfolio Management**.

Creating an application system (as portfolio manager)

The administrator, application owner and application portfolio manager can all create application systems.

To create an application system as portfolio manager:

1. Click the navigation menu, then **Asset Catalogs** > **Application Systems**.
   In the edit area, a drop-down list classifies the application systems according to different criteria.
2. Click the drop-down list then **All Application Systems**.
   The list of repository application systems appears in the edit area.
3. Click the **New** button.
4. In the dialog box for creating an application system, indicate:
   - its name
   - life cycle
   - begin and end dates
     - *For more details on life cycles, see Defining Life Cycles.*
   - Cloud Computing: defines how the application system should be installed.
5. Click **Next** if you also want to define the functional scope of the application system (see Defining Application Functional Scope). If not, click **OK**.

Adding an application to the application system

To connect an existing application to the application system:

1. Display the properties of the application system.
2. Click the drop-down list then **Characteristics**.
3. In the **Component** section, click **Application**.
4. Click **New**.
   The application component creation dialog box opens.
5. Click the **Reuse an application** field.

6. From the list of applications, find and select the desired application.
7. Click **OK**.

Aggregation Type

Applications in the application system can be considered as components or as independent applications. This distinction modifies evaluation data of application system costs. See Application System Costs.

Defining the Properties and the Environment of an Application

All elements of an application are accessible from its properties pages.

Accessing Application Properties

Depending on whether you are an application owner or an application portfolio manager, you can access applications from the **Home** or **IT Portfolio Management** navigation pane.

To access the properties pages of an application:

1. Click the **Asset Catalogs** > **Applications** navigation pane.
2. In the edit area, click on the drop-down list then **All Applications**.
   The list of applications appears in the edit area.
3. In the edit area, select the required application and click the **Properties**  button that appears.
4. Click the drop-down list to access the following properties pages:
   - **Characteristics**. See Application Characteristics.
   - **Installation**. See Managing application installations.
   - **Version**.**See Managing Application Versions**.
   - **Projects**. See Defining Project Applications.
   - **Evaluation**. See Evaluating Application Criticality.
   - **Cost**. See Managing Application and Application System Costs.
   - **Reports**. See List of Analysis Reports Available on Applications and Application Systems.

Application Characteristics

To access characteristics that enable identification of an application:

› In the properties window of an application, select the **Characteristics** page.

You can specify the following characteristics:

Application identification

The identification includes:

- the **Name**
- the internal **Code**
- the **Application type**
- if it is an **Application template**: to be selected if the application is used to create other applications
- the **Cloud Computing**, which indicates how the application should be installed:
  - **On premises**: the application is installed and runs on computers on the premises (in the building) of the company.
  - **Infrastructure as a Service (IAAS)**: the application is installed and runs on an external provider infrastructure (physical or virtual machines and other additional resources such as images in a virtual-machine image-library, raw (block) and file-based storage, firewalls, load balancers, IP addresses, virtual local area networks (VLANs), and software bundles).
  - **Platform as a Service (PAAS)**: the application is installed and runs on an external provider computing platform including operating system, programming language execution environment, database, and web server. Internal/external developers can develop and run their software solutions on a cloud platform.
  - **Software as a Service (SAAS)**: the application is designed, installed and runs by an external delivery partner. Some customization can be implemented during the design phase.
- a **Comment**.

Other characteristics

Other characteristics of an application:

- the **Service Legal Agreement**: displays the indicators that define the application quality level.
- **Functional Scope** of the application. See Defining Application Functional Scope.
- **Responsibility**: it relates to the person or persons responsible for the application. See Assigning an Application to Persons.
- **Technology** used. See Specifying the Technologies of an Application.
- **Exchanges** with other objects. See Specifying Data Exchanged With Other Applications.
- the **Data** processed by the application. See Defining the Data Used by an Application.
- the **Risks** associated with the application. See Specifying the Risks Associated with an Application.
- **Gantt Chart** of the application presenting the application lifeline. See Defining Application Life.
- associated **Attachments**. See Attaching Documents to an Application.

Defining Application Functional Scope

To indicate the objects that define application functional coverage:

1. Open the application properties.

   – *See also Accessing Application Properties.*

2. Click the drop-down list then **Characteristics**.
3. Expand the **Functional Scope** section.

   – *A report covers functional characteristics of a list of applications. See Analyzing an inventory portfolio.*

The types of data that define functional coverage of the application are:

- The business lines that use the application

) *A business line is a high level classification of main enterprise activities. It corresponds for example to major product segments or to distribution channels. It enables classification of enterprise processes, organizational units or applications that serve a specific product and/or specific market. Regulation frameworks of certain industries impose their own business lines.*

  – *See also: Defining Business Lines.*

- The business processes that use the application

) *A business process represents a system that offers products or services to an internal or external client of the company or organization. At the higher levels, a business process represents a structure and a categorization of the business. It can be broken down into other processes. The link with organizational processes will describe the real implementation of the business process in the organization. A business process can also be detailed by a functional view.*

  – *For more details on the list of available business processes, see Defining Business Processes.*

- The business capabilities covered by the application

  – *For more details on the list of available business capabilities, see Defining Business Capabilities.*

  – *A report covers distribution of applications in business capabilities, see Generating the Business Capability Map of a Portfolio .*

- functionalities implemented by the application

) *A functionality is a service required by an org-unit in order to perform its work. This functionality is generally necessary within an activity in order to execute a specific operation. If it is a software functionality, it can be provided by an application.*

This data is used in the "Application Overview" and "Application Environment Graph" reports of the application.

See Application Environment Graph of an application.

Connecting a functionality to the application

To create a functionality and connect it to the application:

1. In the **Functional Scope** section, select **Implemented Functions**.
2. Click the **New** button.
   The new functionality appears in the list of functionalities of the application.

To connect an existing functionality to the application:

1. In the **Functional Scope** section, select **Implemented Functions**.
2. Click the **Connect** button.
   The connect wizard appears.
3. Click the **Find** button.
   The list of repository functionalities appears.
4. Select the required functionality.
5. Click **Connect**.

Assigning an Application to Persons

You can assign applications to persons who perform the following business roles:

- Application Owner
- Financial Controller
- IT Owner
- Business User

– *For more information on these roles, see the associated profiles in HOPEX IT Portfolio Management Profiles.*

To assign an application manager, for example a business manager:

1. Display the properties of the application.

   – *See also Accessing Application Properties.*
2. Click the drop-down list then **Characteristics**.
3. Expand the **Responsibilities** section.
4. Click the **Business Manager** tab.
5. Click **Connect**.
   The query dialog box appears.
6. Find and select the person concerned.
7. Click **Connect**.

Specifying the Technologies of an Application

To specify technical characteristics of an application:

1. Open the application properties.

   – *See also Accessing Application Properties.*
2. Click the drop-down list then **Characteristics**.
3. Expand the **Technologies** section.

You can:

- connect existing technologies to the application
- create new technologies.

) *A technology is a definition or format that has been approved by a standards organization, or is accepted as a standard by the industry.*

– *A report covers the list of applications by technology. See Analyzing an inventory portfolio.*

For more details on technologies, see Drawing up an Application Inventory.

Attaching Documents to an Application

You can attach external references to an application.

External references are of URL type: They enable association with an object of a document from a source outside HOPEX.

To attach an external reference to an application:

1. Open the application properties.
   - *See also Accessing Application Properties.*
2. Click the drop-down list then **Characteristics**.
3. Expand the **Attachments** section.
4. Click the **New** button.
5. Indicate the name and URL of the reference.
6. Click **OK**.

Specifying Data Exchanged With Other Applications

You can describe the message flows exchanged between applications, with their direction and content. This information enables creation of exchange mapping.

For more details on obtaining this report, see Generating an Application Environment Report.

A message flow is information flowing within an enterprise or exchanged between the enterprise and its business environment. A message flow can carry a content.

A Business data indicates content of a message flow. A Business data can be used by several message flows, since it is not associated with a sender and a destination. The same business data can be used by several message flows.

To create a message flow of a source application to a target application:

1. Open the properties pages of the source application.
   - *See also Accessing Application Properties.*
2. Click the drop-down list then **Characteristics**.
3. Expand the **Exchanged Flows** section.
4. Click **Sent Application Flows** and click the **New** button.
   The Creation of Message Flow - Content dialog box appears.
5. Select the Receiver application.
6. From the **Content** field, select the business data you want to associate with the message flow.
7. Click **OK**.

See also Defining the Data Used by an Application.

Describing a Scenario of Application Flows

With **HOPEX IT Portfolio Management** you can define scenarios that present the flows exchanged between an application and system components in specific contexts.

To create a scenario of application flows:

1. Click the icon of the application and click **New > Scenario of Application Flows**.
   A flow scenario diagram opens in the edit area.

For more details, see Describing a scenario of flows.

Specifying the Risks Associated with an Application

HOPEX IT Portfolio Management is used to identify the risks associated with an application, and to retrieve the evaluations defined in the **HOPEX Enterprise Risk Management** solution. You can define a new risk using the application or connect a previously defined risk.

To connect a risk to an application:

1. Open the properties pages of the application.
   - *See also Accessing Application Properties.*
2. Click the drop-down list then **Characteristics**.
3. Expand the **Risk** section.
4. Click **Connect**.
   The query dialog box appears.
5. Find and select the risk required and click **OK**.

For more details on risks and their evaluation, see **HOPEX Enterprise Risk Management**.

Generating an Application Environment Report

Application Environment Graph of an application

The “Application environment graph” report presents links between an application and its environment. Components appearing in the graph can be applications, installations, technologies, functionalities, consumer org-units or business processes linked to the application.

To open the environment graph of an application:

1. Select the application concerned and display its properties.

2. In the properties window, select the **Reporting > Application Environment Graph** page.
The report consists of four report chapters:
   - **Exchange and Content**: displays data flows between the application and other applications. See also Application Exchange Graph for a set of applications.
   - **Installation and Use** :displays the sites that host the application. See also Managing application installations.
   - **Functional scope**: displays the objects that define application functional coverage. See also Defining Application Functional Scope.
   - **All the Environment**: provides a complete view of the application environment. The **Layers** option associated with the graph allows you to filter the display according to the desired viewpoint (functional scope, installations or data flows).

Application Exchange Graph for a set of applications

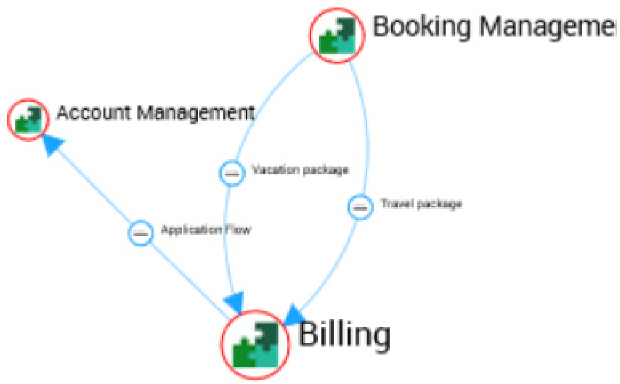
You can generate an Application Exchange Graph from a selection of applications to see their connecting links.

To generate an Application Exchange Graph on a set of applications:

1. Display the application list, for example from the **Asset Catalogs** > **Applications** navigation pane.
2. In the list displayed, select the applications and click **Instant Report**.
3. Select the **Exchange Between Applications** instant report type.
4. Click **OK**.
The instant report opens in the edit area.

This report displays:

- in the form of nodes: the selected applications
- In the form of an arc: the flows that connect the applications. When there are several flows between applications, they are grouped within the same arc.



You can filter display:

- by content: it is the exchanged data, defined in the application properties. See Specifying Data Exchanged With Other Applications.
- by context: this concerns application flow scenarios, which you can create if you have the **HOPEX IT Architecture** application.

For more visibility an option available under the report allows you to hide applications without link.

See also: List of Analysis Reports Available on Applications and Application Systems.

DEFINING THE PROPERTIES AND THE ENVIRONMENT OF AN APPLICATION SYSTEM

Similarly to applications, the inventory phase consists of collecting information on application systems from different viewpoints: descriptive, functional, financial, technical.

Accessing Application System Properties

Depending on whether you are an application owner or an application portfolio manager, you can access application systems from the **Home** or **Asset Catalogs** navigation pane.

To access application system properties:

› In the list of repository application systems, select the required application system and click the **Properties** button of the edit window. Application system properties pages appear:

- Characteristics. See Application System Characteristics.
- Installation. See Creating an Application System Installation.
- Projects. See Transforming the Application Portfolio.
- Evaluation. See Evaluating Application Systems.
- Cost. See Managing Application and Application System Costs.
- Reports. See List of Analysis Reports Available on Applications and Application Systems.

Application System Characteristics

To access characteristics that enable identification of an application system:

› In the application system properties, select the **Characteristics** page.

You can specify:

- the **Identification** (name, internal code, etc.)
- the **Service Legal Agreement**: displays the indicators that define the application quality level.
- the **Components**. See Adding an application to the application system.
- the**Functional Scope**. See Defining Application Functional Scope.
- the **Responsibility**: see Responsibilities.
- the application system **Gantt** chart. See Application system Gantt chart.
- associated **Attachments**. See Attaching Documents to an Application.

Responsibilities

Owner

An owner should be defined on the application system. He/she is responsible for application system technical and functional information He/she can be application owner or portfolio manager.

Financial Controller

A financial controller should be connected to an application system. He/she is responsible for defining application system financial information, in particular at time of evaluation.

Business User

A business manager can be specified if necessary, but this is not mandatory.

Application system Gantt chart

The application system has its own life cycle. It is confronted with the life cycle of its components so that possible conflicts in reports can be detected. The application system Gantt chart therefore displays life cycle of the application system with that of its components.

See Defining Application Life.

Describing a Scenario of Application System Flows

You can define scenarios that present the flows exchanged between an application system and others components in specific contexts.

To create a scenario of application system flows:

1. Click the icon of the application system and click **New > Scenario of Application System Flows**.
   A flow scenario diagram opens in the edit area.

For more details, see Describing a scenario of flows.

Evaluating Application Systems

Similarly to applications, the application manager can evaluate application systems for which he/she is responsible on three criteria: business, functional and technological. For more detailed information, see Evaluating Application Criticality.

The Portfolio Manager can evaluate the application assets he/she supervises by creating an application portfolio and associating with it additional evaluation criteria. See Evaluating Application Assets.

Defining Application Life

To enable detailed analysis of repository object evolution scenarios and the associated costs, **HOPEX IT Portfolio Management** enables description, from an *object life*, of the planning of steps in the object life cycle.

) *The object life is a set of time periods representing the updated calendar of object life cycle states.*

Viewing Application Life (Gantt Chart)

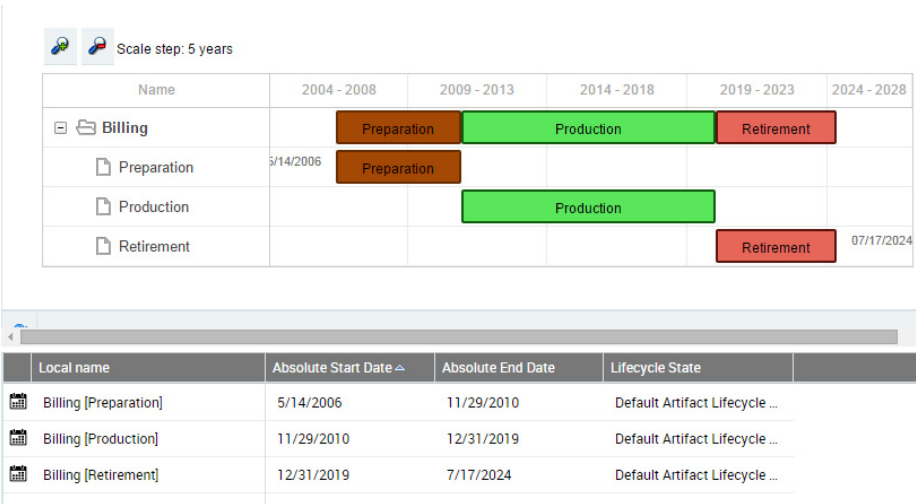
An object evolving over time can take different states (preparation, production, retirement, etc.).

The *Object life* enables viewing of the planning of these different states in the form of a Gantt chart.

To view the Gantt chart representing the different states of an application for example:

1. Open the application properties.
   – *See also Accessing Application Properties.*
2. In the properties of the application, click the drop-down list and select **Characteristics**.
3. Expand the **Gantt** section.

The first line shows the synthesis of the life cycle of the application (here "Billing"), with the sequence of different states. Under this line you access the details of the time periods associated with each state (preparation, production, etc.).



Gantt Chart Report

On an application, a report in the form of a Gantt chart enables viewing of steps in the application life cycle, its deployment and the technologies used. See Analyzing Application Life Cycle and Installations.

Initializing the life of the object

The object life is a set of time periods representing the updated calendar of object life cycle states.

To create the life of an application:

1. In the **Gantt** section, click **Initialize the Life of the Object**.
   - *If the life of the object already exists, the **Delete the Life of the Object** button appears.*

   The creation of object life dialog box appears.
2. Specify the following characteristics:
   - a **Life Cycle** which enables definition of the list of possible states of the object.
     - *For more information on proposed life cycles, see Defining Life Cycles.*
   - a **Begin Date** and an **End Date** which enable positioning of the object life in time.
3. Click **OK**.

The object life appears in the Gantt chart of the application.

From information on *object life*, the Gantt chart represents planning of the different steps in time.

Updating the dates of the object life

By default, the different steps in the object life cycle are distributed in equal *time periods* between object life begin and end dates.

These dates are accessible and can be modified in the application Gantt chart.

Accessing properties of a time period

In the Gantt chart, the pop-up menu of a time period presents commands specific to the described application ("Billing" in our example), followed by the commands relating to the time period itself.

To access properties of a time period of the application life:

1. In the Gantt chart, right-click the time period.
2. In the time period pop-up menu, select **Properties**.

MANAGING APPLICATION INSTALLATIONS

HOPEX IT Portfolio Management enables management of application deployments.

Applications and Installations

HOPEX enables association of an application with one or several installations. A software installation is supported by a site or server.

– *A software installation represents use by a given population of an application over time. The installation is therefore associated with a life cycle which is specified at the time of its creation.*

On the same site, an application is installed to offer different services to different users. Each installation is therefore associated with several *usage contexts* which enable specification of lists of functionalities available to different users.

) *The usage context of an application or an application system enables specification of the list of functionalities offered to each population of users for a given installation over a period of time. Several contexts can be created for a given installation.*

The application installation mechanism supplements the version management functionality offered by **HOPEX**.

Consulting Application Installations

To access the installations of an application:

1. Open the application properties.
2. Select the **Installation** page.
   The list of installations associated with the application is displayed with:
   - deployment date
   - planned retirement date

To access characteristics of installations of an application:

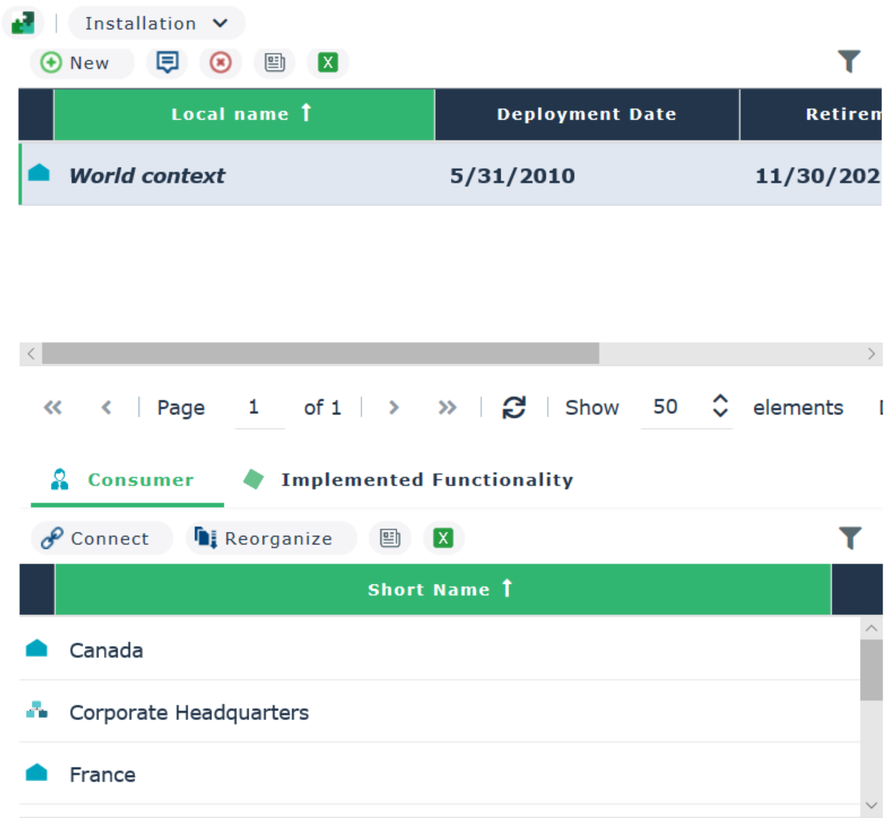
1. Select an installation.
   The hostings and usage contexts associated with the installation appear in the following sections.

In **Context of Use** you can define :

- context begin date:
- proposed functionalities retirement date
- planned number of users

By clicking a context, you display in the following section:

- The list of functionalities associated with the context (**Implemented Functionality**)
- The list of users of these functionalities (**Consumer**)



Creating an Application Installation

Application installation on a site offers functionalities adapted to different populations of users over a time period.

You can create a first installation at creation of the application, or create it later via its properties pages.

To create an application installation:

1. Open the application properties.
2. Select the **Installation** page.
3. In the **Software Installation** section, click the **New** button.
   The **Creation of Software Installation** dialog box opens.
4. Enter the name of the deployment.
5. Select the **Deployment Life Cycle** from the drop-down list of this field.

6. Specify:
   - **Start Date**, corresponding to the effective deployment date
   - **End Date**, which can correspond to the application production end date.
7. Select the **Freeze the Source Object of the Software Installation** to avoid modification of the deployed application.

   – You cannot modify a locked application. If the application is to be modified, a new version must be created.

   *– For more details on variations, see the **HOPEX Common Features** guide, "Handling Repository Objects", "Object Versions" chapters.*
8. Click **Next**.
9. In the **Deployment Support** section, select the site or server that hosts the deployment.
10. Click **OK**.
    The new installation appears in the application properties.

Creating an Installation Usage Context

The usage context of an application or an application system enables specification of the list of functionalities offered to each population of users for a given installation over a period of time. Several contexts can be created for a given installation.

To create a *usage context* of an application installation:

1. Open the application properties.
2. Select the **Installation** page.
   The list of installations associated with the application is displayed.
3. Select the installation that interests you.
4. In the **Usage Context** section, click the **New** button.
   The **Creation of Use Context** dialog box opens.
5. Specify the **Life Cycle**, **Start Date** and **End Date** of the context.
6. Click **Next**.
   The Add Consumer dialog box appears.
7. Click the **Connect** button to select users specific to the usage context.
8. Click **Next**.
   The add functionality dialog box appears:
9. Click the **Connect** button to select the functionalities that will be proposed to users in the usage context.
10. Click **OK**.
    The new usage context appears in the properties of the deployed application.

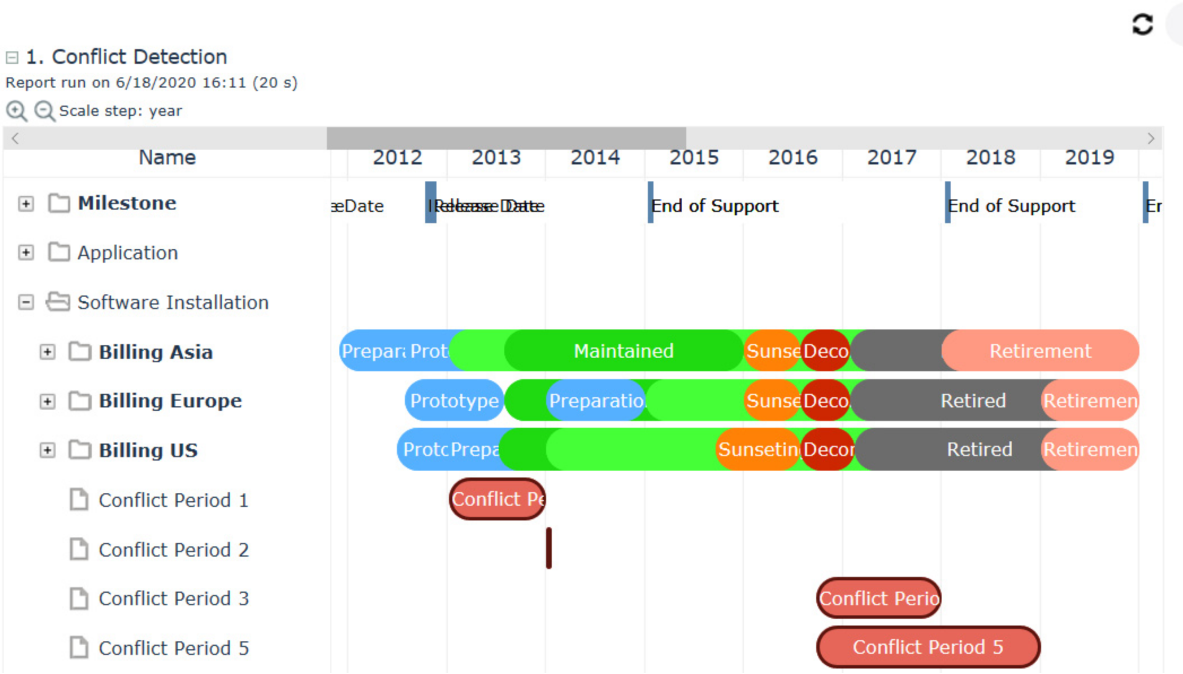
Analyzing Application Life Cycle and Installations

A report enables display in the same Gantt diagram of life cycle steps of the application and its installations.

A second report indicates any conflicts between life cycles of these objects.

To access these reports:

1. Open the properties of the application concerned.
2. Click the **Reports** page then:
   - **Gantt Chart** to view life cycles of the objects
   - **Gantt chart with conflicts** to view any conflicts.



Detection of conflicts report on an application

See also: Creating an Application System Installation.

Creating an Application System Installation

When we refer to application system installation, this means installation of all or only certain of its components.

You can create several installations for the same application system.

When you create an application system installation, the wizard allows you to automatically create software installations for all application system components. You can also manually define software installations to be associated with the application system (see Defining Application System Software Installations).

To run application system installation:

1. Open the properties of the application system.
2. Select the **Installation** page.
3. In the **Application System Installation** section, select **New**.

4. In the window that appears, enter:
   - installation name
   - installation start and end dates
5. Indicate if you want to install all components. In this case, the tool creates these automatically.
6. Click **Next**.
   You can specify:
   - the **Consumers**, in other words the users of the deployed application system.
   - the **Implemented Functions**.
7. Click **OK**.

Application System Installation Contexts

A usage context is automatically associated with an application system installation To this context you can connect consumers and implemented functions.

>) *The usage context of an application or an application system enables specification of the list of functionalities offered to each population of users for a given installation over a period of time. Several contexts can be created for a given installation.*

You can create several contexts for the same application system installation.

To add a context to an application system installation:

1. Open the properties of the application system.
2. In the **Installation** page, **Application System Installation** section, select the application system installation concerned.
3. In the **Application System Installation Context** section, select **New**.
   The context appears in the section.
4. Select the context created and in the next section, indicate the **Consumers** of the context and the **Implemented Functions**.

Defining Application System Software Installations

To indicate manually which components are deployed in an application system installation:

1. Open the properties of the application system.
2. In the **Installation** page, **Application System Installation** section, select the application system installation concerned.
3. In the **Software Installation** section, select **New**.
4. From the listed components, select the application to be installed.
   - If the selected application has no existing installation, create an installation. A context is automatically created for this installation in which the consumer is the installation of the application system.
   - If the application presents existing installations, select the required installation. A context is automatically created for this installation in which the consumer is the installation of the application system.

MANAGING APPLICATION VERSIONS

HOPEX IT Portfolio Management enables management of different versions of applications.

Managing Versions

Application versions enable creation of application variants. Each version constitutes a new application which inherits elements of the application from which it is derived. The user can then indicate the differences to be added to the new application, by modifying or replacing obsolete elements.

The system of versions therefore enables follow-up of updates of an application over time.

– *For more details on versions, see the **HOPEX Common Features** guide, "Handling Repository Objects", "Object Versions".*

M *To use variations, select the **Business Process and Architecture Modeling** option, **Activate Variations**.*

If you create a version of an application, the parent application is automatically locked. To modify the application, you must create a new version or unlock the application.

– *The version of an application is created without an object life, even if the parent had one.*

Unlocking an application

To unlock the parent object that has been versioned:

› Click the icon of the initiative and select **Manage > Unlock Object**.

This command appears if you are authorized to unlock protected objects.

For more information on locks, see lock management in chapter "Managing Transactions" of the **HOPEX Power Supervisor** guide.

Managing Application and Application System Costs

The aim of modeling costs with **HOPEX IT Portfolio Management** is to be able to compare the cost of different components and to compare the different evolution scenarios on identical financial criteria.

To be able to take account of the time (past and future), the cost of a component is represented by a fixed part and a periodic part.

```
For example, a purchase price is specified in a fixed part,
and annual maintenance in a periodic part.
```

Finally, costs are characterized by different criteria that enable more detailed comparison. Criteria are:

- the type to distinguish investment costs.
- the nature to isolate costs of infrastructure, license, service or manpower.
- life cycle of the component concerned.

Cost Calculation Principles

Each fixed expense is associated with an amount and a date.

Each periodic expense is associated with an initial amount, a start date, and the amount and periodicity of timespots.

– *For more details on modeling of costs, see Creating a fixed expense and Modifying a periodic expense.*

The cost of the object can be calculated in the absolute, or in the context of a portfolio. In the case of a portfolio, sums are calculated between begin date and end date of the portfolio.

```
We assume for example that retirement of an application
starts in July with a decreasing periodic cost. The periodic
cost is 500€ and the decreasing cost -100€.
```

Begin Date	End date	Period cost	Total cost obtained
7/1/2012	7/30/2012	500	500
7/1/2012	8/1/2012	400	900
7/1/2012	9/1/2012	300	1200

Begin Date	End date	Period cost	Total cost obtained
7/1/2012	10/1/2012	200	1400
7/1/2012	11/1/2012	100	1500
7/1/2012	12/1/2012	0	1500

The cost calculation formula proposed as standard in **HOPEX** is based on fixed and variable cost characteristics.

Specifying Costs Components

In **HOPEX IT Portfolio Management** costs on a component can be specified by:

- a user with "Financial Controller" role, who has been declared responsible for the component in question;
- the portfolio manager.

– To define those responsible for an application, see Application Characteristics.

One or several *cost lines* can be associated with a component.

) A cost line enables identification of cost kind and type.

A cost line is characterized by:

- a **type** : operating or capital.
- a **nature**: infrastructure (for a deployment), license (for an application), service, manpower.
- a **state** of the life cycle of the component concerned, such as specification or development phases.

Associated with a cost line can be:

- a periodic expense
- one or several fixed expenses

Creating a cost line

To associate costs with an application for example, you must begin by creating a *cost line*.

You can create cost lines singly, or automatically create three cost lines corresponding to the three cost natures possible for an application: license, service, manpower.

To create a *cost line* for an application:

1. Click the icon of the application and select **Properties**.
2. In the properties page, click **Costs**.
3. In the **Cost line**section, click **New**.
   The **Creation of a cost line** box opens.
4. To create a single cost line, select option **Create only one cost line**.
5. Click **Next**.

6. Specify the **Name** of the cost line.
7. Select the **Cost Type**.
8. Select the **Cost Nature**.
9. Select the **State** of the application life cycle.

   – *The states proposed in the drop-down list are the states of the life cycle associated with the object life.*
10. Click **Next**.
    The periodic expenses creation dialog box opens.

    – *Fixed expenses, which can be multiple, are defined separately. For more details on fixed expense creation, see Creating a fixed expense.*
11. Define the periodic cost and click **Next**.

    – *For more details on fixed expense creation, see Modifying a periodic expense.*
12. Click **OK**.
    The new cost line appears in the **Cost Line**.

Creating a fixed expense

Fixed expenses associated with a component are accessible from the component properties pages, in the **Costs** tab.

To create a new fixed expense on an application from a cost line:

1. Click the icon of the application and select **Properties**.
2. In the properties page, click **Costs**.
3. In the **Cost Line** section, select the cost line that interests you.
4. In the **Fixed Expenses** section, the list of fixed expenses associated with the cost line appears. In this section, click **New**.
   The **Creation of Expense** dialog box opens.
5. Specify:
   - the **Name** of the expense
   - the **Date** of the expense,
   - the **Amount** of the expense.
6. Click **OK**.
   The new expense appears in the **Fixed Expenses** section.

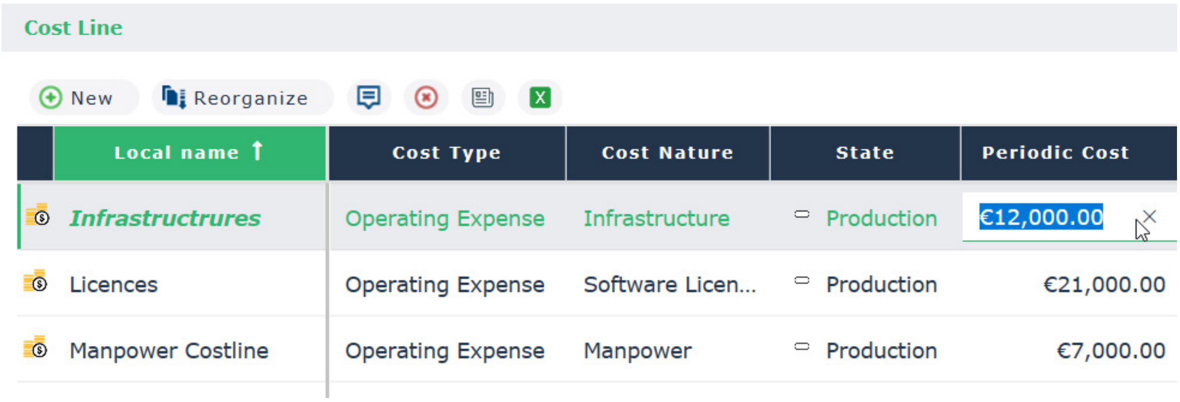
Modifying a periodic expense

To modify characteristics of a periodic expense associated with an application:

1. Click the icon of the application and select **Properties**.
2. In the properties page, click **Costs**.
3. In the **Cost Line** section, select the cost line that interests you.
4. Columns specific to the periodic expense are associated with the cost line:
   - **Periodic cost**
   - **Periodicity**
   - **Up/Down Amount**

5. Click the column to be modified and enter the new value.

   – *If you indicate a negative amount, at each time period the amount will be deducted from the periodic cost until this reaches zero.*



Application System Costs

The cost of an application system can be calculated from its different components or or globally:

- When an application used by the application system is specified "Application", the cost of this application is not charged to the application system, in other words the cost relates only to the application.
- When an application used is specified "Component", the cost of this application is charged to the application system and is no longer listed on the application.

To indicate that an application is used by the system as a component:

1. Open the properties of the application system.
2. Click the drop-down list then **Characteristics**.
3. In the **Component** section, select **Application Component** to display applications making up the application system
4. Select the required application , and in the **Aggregation Type** column, select "Component".

Specifying a Currency

At the level of each HOPEX environment the currency used can be specified. The monetary numeric format adapts as a result.

To modify currency:

1. In the HOPEX installation folder, double-click the "Administration.exe" file.
2. Access your work environment.

3. Right-click the desired environment and select **Options** > **Modify**.
   The options window appears.
4. In the navigator on the left, expand the **Installation** folder and select **Currency**.
5. On the right indicate the currency.
6. Click **OK**.

The format of costs is modified depending on the specified currency. Note also that the format of figures depends on the interface language.

Analyzing Application Costs

In **HOPEX IT Portfolio Management** , a report summarizes the costs of an application and its deployments. The results are derived from values that you specified in the cost page of the application and its deployments.

- *The report is also available on an application system.*

To view the report on costs of an application:

1. Open the properties of the application concerned.
2. Click the drop-down list then **Options** > **Standard Application Cost**.

EVALUATING APPLICATION CRITICALITY

Criticality of an application is assessed related to criteria linked with the business, to functionalities covered and to technologies used. The evaluation of an application therefore involves different user types. For more details on users, see HOPEX IT Portfolio Management Profiles.

Assessment can be done:

- in the properties of the applications in question. See Direct Assessment.
- through an evaluation questionnaire sent to the appropriate recipients: see Assessment By Campaign.

The evaluation is supplemented by result analysis tools.

Application Evaluation Criteria

Evaluation of an application relates to:

- its **Business Value** enabling evaluation of the nesting level of the application in enterprise production.
  - Level 1: operational business processes will be stopped if the application no longer functions and a workaround solution exists.
  - Level 4: major production processes will be stopped in the case of application malfunction with no workaround solution.
- its **Business Value** enabling evaluation of the support level of the application in enterprise process.
  - Level 1: low level
  - Level 4 the application is critical from a functional viewpoint, since it supports key processes on its own.

    – *For more details on businesses addressed and functionalities covered, see Defining Application Functional Scope.*
- its **Technology** enabling assessment of evolution possibilities of the application from the techniques that support it.
  - Level 1: technology is frozen
  - Level 4: corresponds to a flexible and upgradable technological platform.

    – *For more details on technologies, see Specifying the Technologies of an Application.*

Direct Assessment

You can evaluate an application at precise moments, by creating a new assessment measure each time.

To create an assessment measure:

1. Click the icon of the application to evaluate and select **Properties**.

2. In the properties drop-down list, click the **Assessment** page.
3. Click the **Evaluate** button.
   The assessment creation window opens.
4. Indicate the value of each criterion as well as the evaluation end date.

From evaluation data, a report allows you to classify applications of the installation in a matrix and to rapidly identify the applications to be upgraded. See Accessing Embedded Reports in a Portfolio.

Study Start Date	01/05/2012
Study End Date	01/05/2015

		Business Value			
		Low		High	
Functional Support	Good	Eliminate/Freeze	Eliminate, Freeze, or Increase Value	Renovate	Maintain
		1 applications (6%)	-	1 applications (6%)	4 applications (22
		Costs: 0.0 (0%)	-	Costs: 0.0 (0%)	Costs: 78154.0 (8
	Poor	Eliminate	Eliminate or Increase Value	Replace	Enhance
		1 applications (6%)	2 applications (11%)	1 applications (6%) Application | Reference Costs Purchasing Management | 0.0	3 applications (17 Application Secured Payr Billing Customer Management
		Costs: 0.0 (0%)	Costs: 0.0 (0%)	Costs: 0.0 (0%)	Costs: 0.0 (0%)
		Poor	Good	Poor	Good
		Technology			

"Application positioning" report on an application portfolio

It is also possible to evaluate a set of applications at the portfolio level. This evaluation is performed by the application portfolio manager. See Evaluating Application Assets.

Assessment By Campaign

The functional administrator can create evaluation campaigns or sessions for data.

On creation of a campaign, questionnaires are sent to designated respondents to obtain qualitative estimations on the objects for which they are responsible.

For more details on campaigns and sessions, see Introduction to Assessment by Campaign in the IRM solution guide.

Prerequisites for data assessment

Before starting a data assessment campaign, you must first prepare the work environment. Ensure that you have defined respondents for the data, and specify for each one the entity to which he/she is attached as well as an email.

Creating assessment campaigns

To create an assessment campaign:

› Click the navigation menu then **Assessment > Campaign List**.

1. In the edit area, click **New**.
   A new assessment appears.
2. If necessary modify the name of the campaign.
3. In the **Assessment template** column, select an assessment template.
4. Specify the **Begin Date** and the **End Date**.
5. Click **Next**.
6. In the **Scope Selection** window, select the objects that define the evaluation context.
   The context encompasses the elements of the branch that extends from the object in question up to the root.
   - *If you deselect a node of a branch, only the child elements of this branch are deselected.*

Next step: Creating an Assessment Session.

See the chapter “Managing Assessment Campaigns > Creating an Assessment Session” in the IRM solution guide.

List of Analysis Reports Available on Applications and Application Systems

HOPEX IT Portfolio Management provides predefined report templates that are used to analyze the applications of your repository from different angles.

Application and Application System Embedded Reports

The reports available for an application or an application system are:

- **Application / Application System Standard Cost**: presents the detailed costs of an application or an application system. See Analyzing Application Costs.
- **Gantt Chart** and **Gantt Chart with Conflicts**: displays the lifeline of the application / the application system and any conflicts in its deployments. See Analyzing Application Life Cycle and Installations.
- **Environment Graph**: provides a graphical view of the environment of the application / application system in terms of data flow, deployments, functional scope. See Application Environment Graph of an application.
- **Overview**: presents a summary of the information specified for the application or application system.
- **Application Impact** : allows you to visualize the scope of the data used and to measure the impact of application deletions on the data they use. See Analyzing the Impact of an Application on the Data Used.

Reports Applicable to a Set of Applications

Instant reports

Instant reports offer a statistical graphic analysis of the data. You can generate instant reports on a selection of applications in order to view certain data graphically (for example, their exchanges) or to compare the applications for specific characteristics (for example, costs).

To launch an instant report on a set of applications:

1. Click the navigation menu then **IT Portfolio Management**.
2. In the edit area, click the **Applications** tile.
3. Select the applications in question.
4. Click the**Instant Report** button.

5. Select the type of report to create and then, if necessary, the application data to be analyzed.

   ```
   For example, to display a histogram of application costs,
   select a "Quantitative" type report then select the "Cost"
   attribute.
   ```

See also:

Managing Instant Reports.

Application Exchange Graph for a set of applications.

Dashboard reports

The dashboard provides different reports that analyze automatically all the applications of the repository or the applications that you own:

- Application by state: displays the distribution of applications by state
- Application by state for the application owner (AO)
- Applications and deployments by owner
- Reports on application completeness; a set of reports identifies potential gaps in application specification:
  - cost completeness: number of applications for which the cost is determined
  - deployment completeness: number of applications deployed
  - Assessment completeness: number of applications assessed
  - lifecycle completeness: number of applications with a lifecycle
  - technology completeness: number of applications associated with a technology
- Application by age: displays the distribution of applications by age
- Time model by application (Bubbles): this report uses a TIME (Tolerate, Invest, Migrate and Eliminate) model to analyze the business value of applications in a portfolio.

To generate a report in your dashboard:

1. Click the navigation menu then click **Dashboard**.
2. Click + to add a report.
3. Expand the **IT Portfolio Management** folder, then the **Dashboard** sub-folder.
4. Select the report concerned.
   The report appears in your dashboard.

Application portfolio reports

It is possible to analyze a set of applications within a portfolio. See Analyzing an inventory portfolio.

DRAWING UP A TECHNOLOGY INVENTORY

Similarly to applications, **HOPEX IT Portfolio Management** enables to draw up an inventory of available technologies and to collect information according to different criteria.

The following points are covered here:

DEFINING AND VALIDATING TECHNOLOGIES

Application asset technologies can be created and managed by the Technology Portfolio Manager or the Application Owner. They are then validated or rejected by the Chief Technology Officer. Their cost is determined by the Financial Controller.

Validation and updating of technologies is assured by workflows.

Creating a Technology

HOPEX IT Portfolio Management produces a navigation tree for technologies, accessible in the **IT Portfolio Management** navigation pane of the ITPM desktop. The navigation tree displays the list of technologies and classes according to different criteria:

- All technologies of the repository
- Technologies outside portfolio (those not belonging to any inventory portfolio)
- Technologies of the connected user portfolio

To create a technology:

1. In the desktop click the navigation menu then **Asset Catalogs** > **Technologies**.
2. In the edit area, in the drop-down list select **All technologies**.
3. Click the **New** button.
4. In the dialog box that appears, indicate:
   - its name
   - the vendor
5. Click **OK**.

When a technology is created in **HOPEX IT Portfolio Management**, a workflow is automatically started and a validation request sent to the Chief Technology Officer, who defines the Company Standard. See "Validating a Technology", page 151.

See also:

"Importing Technologies from BDNA", page 154.

Defining Technology Properties

To access technology properties:

1. In the list of repository technologies, select the required technology and click the **Properties** button  of the edit area.

2. In the properties window, click the drop-down list to access the following pages:
   - Characteristics
   - Version and installation
   - Application
   - Cost
   - Reports
   - BDNA

Characteristics

In this page you can specify:

- **Identification** of the technology:
  - the **Name** of the technology
  - the internal **Code**
  - the **Vendor**
  - The **Company standard**: this attribute indicates the organization policy regarding the usage of a technology or technologies of a vendor. It is specified by the Chief Technology Officer.

    – *See also "Validating a Technology", page 151.*
  - a **Comment**.
- the **Official Life Cycle** of the technology, with its publication and support end dates.

  – *The end of support date can be imported from BDNA or specified manually.*
  See also: "Technology Support Alert".
- **Technology Type**: IT service, operating system, platform, DBMS. A technology can be connected to one or to several technology types.

  – *New technology types can be created by the functional administrator only.*
- **Responsibility**: this is the person or persons responsible for the technology:
  - the management controller responsible for financial aspects of the technology
  - the local correspondent who is the main referrer for the technology

    – *This business role is not associated with a specific desktop.*
- **Gantt Chart** presenting the technology life cycle. This is the life cycle within the organization; it can differ from the official life cycle specified by the supplier.
  For more information on the object life cycle and its Gantt chart, see "Viewing Application Life (Gantt Chart)", page 128.

  For more information on the technology official life cycle, see "BDNA properties in HOPEX", page 22.
- associated **Attachments**.

Version

See "Managing Deployments of Technologies", page 178.

Application

This page allows you to connect the technology to existing applications. For each application you can indicate:

- Total expenses for the year
- Capital expenditure (CAPEX)
- Operating expenses (OPEX)

Cost

In this page you can define costs linked to the technology. The definition of costs of a technology is the same as for an application. See "Managing Application and Application System Costs", page 136.

An analysis report summarizes costs of the technology. See "Costs Report", page 150.

Reports

The **Reports** page accesses analysis reports available on the technology.

Costs Report

Summarizes technology costs, by cost nature and by year.

Gantt Chart

Displays technology life cycle steps. See "Defining Technology Life", page 174.

Gantt Chart with Conflicts

This report presents possible conflicts between the technology life cycle and the life cycle of the applications that use it.

Rules Application

Displays modeling rules in cases where a rule is active.

Overview

Displays a summary of technology characteristics.

BDNA

This page displays properties imported from BDNA. See "Displaying BDNA properties in HOPEX", page 160.

See also "Importing Technologies from BDNA", page 154.

Validating a Technology

At technology creation

On creation of a technology in ITPM, a task is automatically assigned to the technology manager, who must validate or refuse the technology. The task appears in his/her desktop, in which are displayed the objects for which he/she is responsible.

To validate a Technology:

1. Click the navigation menu then **List of tasks**.
2. In the edit window, click **Technologies**.
   The list of technologies to be validated appears in the edit area.
3. Click the icon of the technology to be validated and select **Assessment of the Technology** > **Defined as Accepted**.

The **Expected** command also validates the technology, but in a more pronounced way, since it specifies that it is an expectation.

Company standard (calculated)

The **Company standard** attribute indicates the organization policy regarding the usage of a technology or technologies of a vendor. This attribute, visible in the technology characteristics, is modified depending on the validation workflow.

It can take the following values:

- Expected
- Accept
- Forbidden
- Unknown

If a technology belongs to a "prohibited" or "unknown"supplier, it automatically takes the same value.

On demand

The Portfolio Manager can subsequently request a new validation of the technology.

He/she can also request financial validation from the Financial Controller responsible for this technology.

Defining a Technology Stack

A technology stack makes up a technology grouping.

It is obsolete when one of the technologies that it contains is obsolete.

It can be associated with applications.

Creating a technology stack

To define a technology stack:

1. In the desktop click the navigation menu then **Asset Catalogs** > **Technologies**.
2. In the edit area, click **New**.
   The technology stack creation dialog box appears.
3. Enter the name of the technology stack and an owner if necessary.
4. Click **OK**.

Specifying its properties

To specify the properties of the technology pile created:

› Select the technology concerned and click **Properties** in the edit window.
  You can specify:
  - its components (technologies)
  - its life cycle
  - its owner
  - the applications used

Support alert

The **Support Alert** attribute available on each technology compares the official life cycle of a technology (imported from BDNA or defined manually) with its life cycle in the organization.

On a technology pile, the value of this attribute is calculated using the values defined for the technologies that it contains.

- If one of the technologies that it contains is "Not Supported", the support alert for the pile is "Not Supported".
- Otherwise, if one of the technologies that the pile contains is "Delayed Use", the support alert for the pile is "Delayed Use".
- Otherwise, if one of the technologies that the pile contains is "Early Use", the support alert for the pile is "Early Use".
- Otherwise, the support alert for the pile is "Supported".

Company standard (computed)

The **Company Standard** attribute indicates the organization policy regarding the usage of a technology.

– *See "Validating a Technology", page 151.*

This attribute can take values:

- Expected
- Accept
- Forbidden
- Unknown

On a technology stack, the value of the **Computed Company Standard** attribute is calculated using the values defined for the technologies that the technology stack contains.

- If one of the technologies the stack contains is "Forbidden", the Computed Company Standard is "Forbidden".
- Otherwise, if one of the technologies the stack contains is "Unknown", the Computed Company Standard is "Unknown".
- Otherwise, if one of the technologies the stack contains is "Accepted", the Computed Company Standard is "Accepted".
- Otherwise, the Computed Company Standard is "Expected".

This computed value is providing a reference only. The director of the technology can define a different value for the **Company Standard** attribute for the technology stack.

Conflicts between a technology stack and its components

The “Gantt chart with conflicts” report is used to view any conflicts between the life cycle of a technology stack and those of the technologies that it contains.

To display this report:

1. Open the properties of the technology stack.
2. Slect the page **Reporting** > **Gantt Chart with Conflicts**.

Importing Technologies from BDNA

BDNA™ is a large repository of technology market information. It provides an up-to-date IT reference catalog of software and hardware information. **HOPEX IT Portfolio Management** provides an integration tool with BDNA™, allowing Enterprise Architects and Technology Portfolio Managers to take full benefit of this information and make more accurate decisions on their IT asset.

With the BDNA Connector you can:

- Import new technologies (as well as technology types and vendors)
- Align BDNA technologies with existing technologies of your repository
- Update technologies imported in your repository

Presentation of the BDNA Connector

Use Case in HOPEX ITPM

In the ITPM solution, the BDNA Connector is available to the Functional Administrator. He/she is in charge of importing data from BDNA. He/she can initialize a new repository by importing software technologies from BDNA and use the Functional Administration Desktop to manage automatic update workflows and alert tools.

The Technology Portfolio Manager (TPM) is responsible for software technologies and their life cycle. He can include his software technologies in the scope of the automatic update in order to be notified automatically of any changes. He/she can also send the Functional Administrator a request to prepare the import of new software technologies using BDNA.

The Application Portfolio Manager should subscribe to the standard notification on sensitive software technologies that are used by his applications. Thus, when these software technologies are updated by automatic or manual import from BDNA properties, he will receive a notification of the change. He will analyze the impact and decide how to proceed (keep the software technology, use a new version or change it).

Prerequisite Conditions

The BDNA Connector is available with **HOPEX IT Portfolio Management** and requires the BDNA license that you will specify in the authentication settings.

To be able to connect to BDNA, you must set the **Data Exchange** options related to exchanges between **HOPEX** and third party tools.

To define the required options:

1. Start **HOPEX Administration**.

2. In the navigation tree, right-click the **HOPEX** site name and select **Options** > **Modify**.
   The site options window opens.
3. Expand the **Data Exchange** > **Import** folder.
4. Click the **BDNA** folder.
5. In the right pane of the window, enter information to access BDNA APIs (provided by BDNA). These are the options visible under **Activate BDNA**:
   - **URL address of the BDNA API**: this is the URL of the BDNA (formely BDNA) public catalog The HTTP protocol is used by default but to secure the exchanges you can use the HTTPS protocol by entering it directly in the option.
   - **Authentication user for the BDNA API**; BDNA user
   - **Authentication key for the BDNA API**: password
6. Activate **SMTP proxy** if necessary (provided by your IT service):
   - Check **Activate Proxy for BDNA API**.
   - Enter the address of the proxy.
   - Enter the port.
7. Check the **Authentication for the proxy** option if required.

Scope of BDNA Connector

Within the context of the technology management in ITPM, the BDNA Connector enables import of the following concepts:

- Technology types: categorizes software products by the function they perform.
- vendors. Example: Microsoft
- Software technologies. Example: MS Office

Mappings with **HOPEX** concepts are detailed below.

Object correspondence

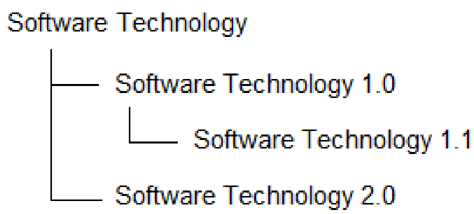
BDNA	HOPEX
Manufacturer (vendor)	Org Unit
Taxonomy (technology type)	_Type
Software Product	Technology
Software Edition	Variation of Software Technology
Software Standard Major/Minor Release	Variation of Software Technology

In BDNA, software technologies are divided into:

- Products (for example: Microsoft Office)
- Editions (for example: Family, Professional)
- Versions (for example: 2013, 2016)
- Releases (major, minor)

Only versions and releases have information on the life cycle (publication date, end support, end of extended support).

Software Products imported from BDNA into **HOPEX** are saved as Software Technologies. Editions and versions of a software are represented by variations of the Software Technology in MEGA.



Importing new Objects from BDNA

Objects you can import from BDNA are:

- Technology types
- Vendors
- Technologies

Data import is carried out by the functional administrator.

To import data with the BDNA Connector:

1. Connect to ITPM as a Functional Administrator.
2. In the desktop click the navigation menu then **Asset Catalogs** > **BDNA**.
3. The edit window displays the following folders:
   - BDNA technology types
   - BDNA vendors
   - BDNA technologies

Technology types

Importing technology types implies import of all technology types of the BDNA repository.

To import technology types:

1. Click the **Asset Catalogs** > **BDNA** navigation pane.
2. In the edit window, click **BDNA Technology Types**.
3. Click **Import**.
   The list of technology types appears in the **Technology Types** folder.

Vendors

You can search vendors to be imported by name, specifying where applicable the Industry and Owner.

The import wizard displays the search results and prompts you to select the vendors to be imported from among the list displayed.

The **Direct Creation** option speeds up the import by eliminating this intermediate stage that lists and displays the vendors found; it creates the vendors found by the wizard directly, without prior validation.

To import a vendor:

1. Click the **Asset Catalogs** > **BDNA** navigation pane.
2. In the edit window, click **BDNA Vendors**.
3. In the edit area, click the **Import** button.
   You can search a vendor by specifying:
   - the name (or a part of the name) of the **Vendor**.

   Under the Advanced options, you can specify:
   - The **Industry** within which a vendor belongs, based on the majority of their products.
   - The **Owner** of the vendor. For example, Microsoft is now the owner of Skype.
   - The **Tier**: categorization of vendors based on priority/importance. For example level 1: well-known vendors.

     – ***Direct Creation****: check this option if you want to ignore the results display and directly create the technologies found.*
4. Click **Next**.
   The wizard displays the search results.
5. Select from the list the vendors you want to import.
6. (Optional) At this stage you can merge a vendor to be imported with a vendor of your repository. To do that, click the **Matching Vendor in HOPEX** column and select the vendor of your repository that corresponds to the vendor to be imported.

   – *The existing vendor is maintained in the repository. In its properties you can see the ID as well as the BDNA name of the vendor to which it corresponds. See also* *"Merging technologies on BDNA import", page 162**.*
7. Click **Next**.
8. Select the import option:
   - Now
   - As soon as possible: execute the import after saving updates
   - Scheduled: execute the import at the date and time specified
9. Click **Import**.
   The imported vendors are shown in the edit area.

Technologies

You can search software technologies to be imported by:

- their name
- the type of technology and the vendor.

The import wizard displays the search results and prompts you to select the technologies to be imported from among the list displayed.

The **Direct Creation** option speeds up the import by eliminating this intermediate stage that lists and displays the technologies found; it creates the technologies found by the wizard directly, without prior validation.

Note that when importing minor technologies, the tool also imports the major versions from which they are derived.

Searching by name

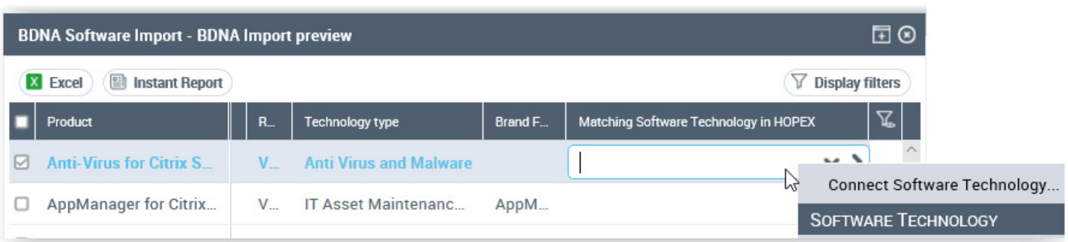
To find a technology using its name:

1. Click the **Asset Catalogs** > **BDNA** navigation pane.
2. In the edit window, click **BDNA Technologies**.
3. Click **Import**.
4. Select the **Import Software technologies by name** query mode and click **Next**.
5. Complete the following fields:
   - Software Technology Name (enter the name or a part of the name)
   - Technology Version
   - Software Version Group (year)

   Under the Advanced options, you can specify if it is:
   - A minor or major version
   - A technology suite
   - A licensable technology

     – ***Direct Creation*** *: check this option if you want to ignore the results display and directly create the found technologies.*
6. Click **Next**.
   The wizard displays the search results.
7. Select from the list the technologies you want to import.
8. (Optional) At this stage you can merge a technology to be imported with a technology of your repository. To do that, click the **Matching Software Technology in HOPEX** column and select the technology of your repository that corresponds to the technology to be imported.

   – *For more details, see* *"Merging technologies on BDNA import", page 162.*



9. Click **Next**.
10. Select the import option:
    - Now
    - As soon as possible: execute the import after saving updates
    - Scheduled: execute the import at the date and time specified
11. Click **Import**.

Searching by the type of technology and the vendor

To find a technology using its type and vendor:

1. Click the **Asset Catalogs** > **BDNA** navigation pane.
2. In the edit window, click **BDNA Technologies**.
3. Click **Import**.
4. Select the **Import Software technologies by selecting technology types and vendors** query mode and click **Next**.
5. Select the technology type.
6. Click **Next**.
7. Select the vendor.
8. Click **Next**.
9. If necessary, filter the technologies by name.

   – ***Direct Creation*** *: check this option if you want to ignore the results display and directly create the found technologies.*

10. Click **Next**.
    The wizard displays the search results.
11. Select from the list the technologies you want to import.
12. (Optional) At this stage you can merge a technology to be imported with a technology of your repository. To do that, click the **Matching Software Technology in HOPEX** column and select the technology of your repository that corresponds to the technology to be imported.
13. Click **Next**.
14. Select the import option:
    - Now
    - As soon as possible: execute the import after saving updates
    - Scheduled: execute the import at the date and time specified
15. Click **Import**.

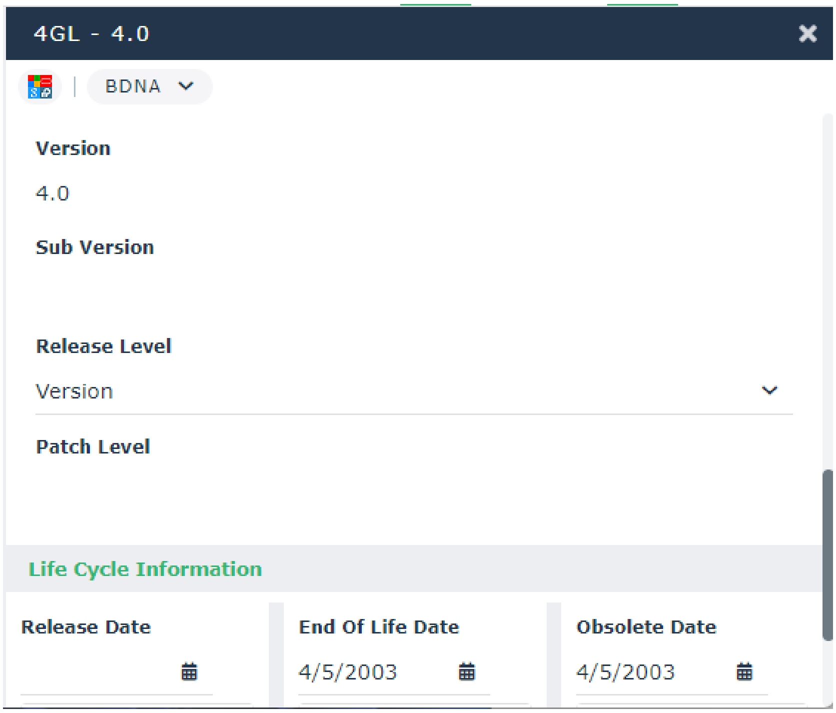
See also:

"Updating BDNA Objects Imported into HOPEX", page 164.

"Merging BDNA technologies with existing technologies of your repository", page 161

Displaying BDNA properties in HOPEX

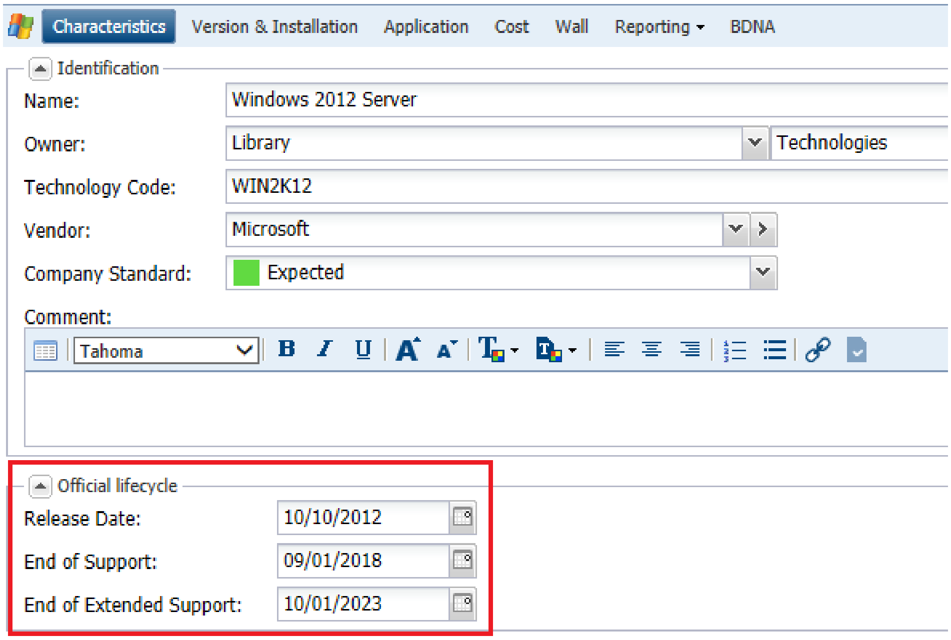
Most of the BDNA properties imported into **HOPEX** appear in the **BDNA** property page of the object concerned (software technology, technology type or vendor).



Technology properties related to the official technology life cycle are automatically defined in the **Characteristics** page of the technology properties.

- Release date
- End of Support
- End of Extended Support

– *These properties can be specified manually if you do not use the BDNA Connector*



A **Support Alert** report uses this data to track technology obsolescence. For example, the solution automatically detects current and future conflicts when an underlying technology component becomes obsolete while the business application is still in production.

See "Technology Support Alert", page 175.

Merging BDNA technologies with existing technologies of your repository

Your repository may contain technologies created outside of the BDNA import. These technologies do not benefit from the provider data and updates supplied by the BDNA connector, such as official life cycle dates, for example. To keep the data for these technologies while benefiting from BDNA information, you can merge it with the BDNA technologies that you import **HOPEX IT Portfolio Management**.

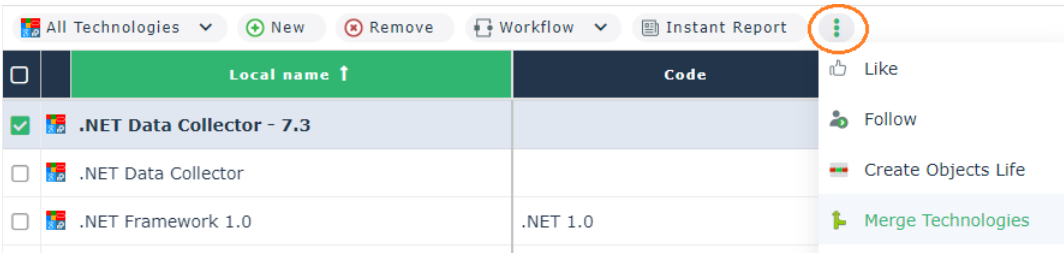
You can merge technologies in three different ways:

- By merging the technologies already contained (BDNA and non-BDNA) in your repository case by case
- By specifying, during the import of BDNA technologies, those that correspond to technologies existing in your repository
- By specifying the BDNA identifier in the technology's properties

Merging two technologies in HOPEX

To merge two technologies:

1. Click the navigation menu then **Asset Catalogs** > **Technologies**.
2. In the edit area, select the technologies to merge.
3. Click the button **More** ⋮ > **Merge technologies**.



4. In the wizard that appears, enter:
   - The source technology, which will be merged in the target technology
   - The target technology, which will include information of the source technology.
5. Click **Next**.
6. Select the properties you want to keep from the source and target technologies. By default, properties of the target technology are selected.
7. In the same way, select the links you want to keep.
8. Click **OK**.

Merging technologies on BDNA import

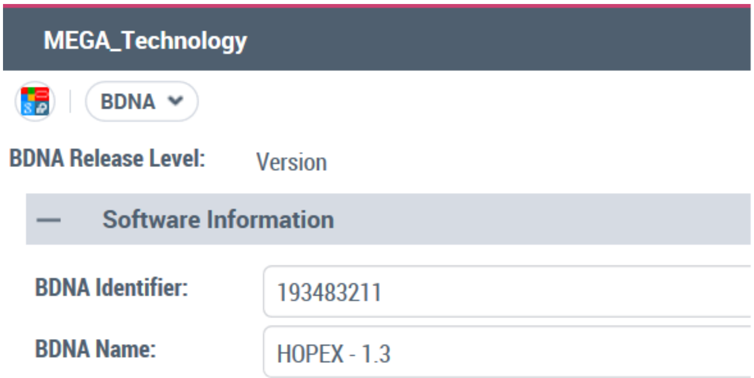
When you import technologies in your HOPEX repository, you can merge them with technologies already present in your repository. The technologies merged in this way are identified as BDNA technologies and can subsequently be updated as such.

In the same way, you can merge vendors.

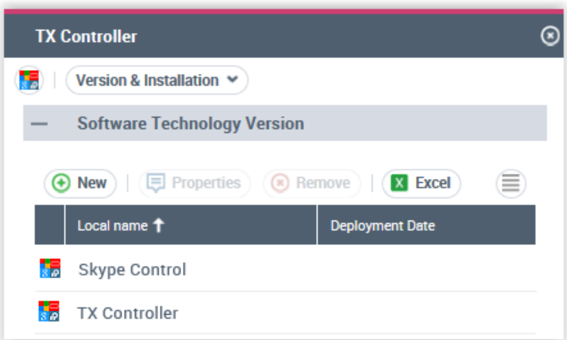
Example of merged technologies

You want to import the "TX Controller V1.15" technology that corresponds to the "Skype control" technology in your repository.

Once the technologies are merged, the existing technology, "Skype control", is kept in your repository. In its properties you can see the ID as well as the BDNA name of the technology to which it corresponds: "TX Controller V1.15".



The "TX Controller" version has also been imported. This is the major version of "TX Controller", from which the imported version is derived. In its properties, in the **Version** page, you can see the different versions of this technology that exist in your repository.



For more details on how to merge technologies and vendors at import, see "Importing new Objects from BDNA", page 156.

Modifying the BDNA Identifier of a technology in HOPEX

To define a technology as a BDNA technology, you can manually specify its BDNA identifier.

To specify a BDNA identifier:

1. Select the technology in question.
2. Click the **Properties** button in the edit area.
   The properties of the technology appear.
3. Select the **BDNA** page.
4. In the **Identifier** field, enter the BDNA identifier number.

See also: "Updating BDNA Objects Imported into HOPEX", page 164.

Updating BDNA Objects Imported into HOPEX

At any time you can update information available on software technologies and vendors imported into **HOPEX**.

To do so:

1. Click the **Asset Catalogs** > **BDNA** navigation pane.
2. In the edit area click **BDNA Vendors** or **BDNA Technologies**, depending on the objects you want to update.
3. In the edit area, click the **Update** button.

   – *If necessary, click to display the hidden commands.*

You can also define an automatic update.

Technology Automatic Updating and Alerts

Automatic update checks, at a given frequency, if the properties of software technologies imported into **HOPEX** have changed in the BDNA repository and updates the corresponding technologies in **HOPEX**.

Defining Update Frequency

To activate an automatic update, you must create a trigger in the administration tool which implements the BDNA Automatic Update macro.

Once the trigger is created, you can plan the update in ITPM.

To create a trigger:

1. Open the Administration module.
2. Open the environment.
3. Expand the repository folder concerned.
4. Right-click **Scheduler** and select **Manage Triggers**.
5. Click the **Triggers Definitions** tab.
6. Click the **New** button to create a trigger definition.
7. In the wizard, create a job definition that implements the macro "BDNA Automatic Update Job Implementation".
8. Complete the planning.
9. Click **Finish**.

To define automatic update on technologies:

1. Connect to ITPM as a Functional Administrator.
2. Click the navigation menu, then **Administration**.
3. Select the **Scheduling Management** navigation pane.

4. In the edit window, click BDNA Automatic Update.
   You can set the alert:
   - Daily
   - Weekly
   - Monthly

Subscribing to Alerts

A user can be notified of updates made on the technologies he is in charge of.

To subscribe to an alert:

1. In the edit window, display the list of technologies.
2. Select the technology concerned and click the **Follow** button.

   – *For more details on alerts, see the HOPEX Common Features guide, chapter "Communicating in HOPEX", section "Threads of Posts and Alerts on Objects".*

Support Alert Report

A **Support Alert** MetaAtribute available on each technology compares the technology life cycle (imported from BDNA or defined manually) with its life cycle in the organization.

– *For more information on technology life, see "Defining Technology Life".*

A report uses the **Support Alert** MetaAttribute to analyze technologies in the **HOPEX** repository and displays all possible conflicts between the use of these technologies in the organization and their official life cycles.

See "Technology Support Alert".

IMPORTING TECHNOLOGIES FROM IT-PEDIA

IT-Pedia™, from Eracent, is a large repository of technology market information. It provides an up-to-date IT reference catalog of software and hardware information. **HOPEX IT Portfolio Management** provides an integration tool with IT-Pedia™, allowing Enterprise Architects and Technology Portfolio Managers to take full benefit of this information and make more accurate decisions on their IT asset.

With the IT-Pedia connector you can:

- import new technologies
- align IT-Pedia technologies with existing technologies of your repository
- update technologies imported in your repository

Presentation of the IT-Pedia Connector

Use Case in HOPEX ITPM

In the ITPM solution, the IT-Pedia connector is available to the Functional Administrator. He/she is in charge of importing data from IT-Pedia. He/she can initialize a new repository by importing software technologies from IT-Pedia and use the Functional Administration Desktop to manage automatic update workflows and alert tools.

The Technology Portfolio Manager (TPM) is responsible for software technologies and their life cycle. He can include his software technologies in the scope of the automatic update in order to be notified automatically of any changes. He/she can also send the Functional Administrator a request to prepare the import of new software technologies using IT-Pedia.

The Application Portfolio Manager should subscribe to the standard notification on sensitive software technologies that are used by his applications. Thus, when these software technologies are updated by automatic or manual import from BDNA properties, he will receive a notification of the change. He will analyze the impact and decide how to proceed (keep the software technology, use a new version or change it).

Prerequisite Conditions

Importing the IT-Pedia Connector V2

The IT-Pedia connector V2 provides advanced features. It is available as a module. To import the module, click on the following link and follow the installation steps: : https://github.com/mega-international/itpedia/releases.

Once the module is installed, import the "Unlink.IT-Pedia.V1.-.from.Hopex.V4.Menu.mgl" file in HOPEX to remove the connector provided by default.

Exchange options betwwen Hopex and IT-Pedia

In HOPEX you must:

- authorize in the options the exchanges with IT-Pedia
- define a user and a password

To set the required import options:

1. Open the **Administration** desktop.
2. In the edit area, click **Environment Options**.
   The options window opens.
3. In the navigation tree, click **Tools** > **Data Exchange** > **Import** > **IT-Pedia**.
4. In the right pane of the window, enter information to access IT-Pedia API (provided by Eracent):
   - **IT-Pedia URL address**: this is the URL of the IT-Pedia public catalog.
   - **IT-Pedia API user**
   - **IT-Pedia API password**

Eracent APIs are available at the following address: https://itpedia.eracent.com/MPAPI/.

Importing New Technologies from IT-Pedia

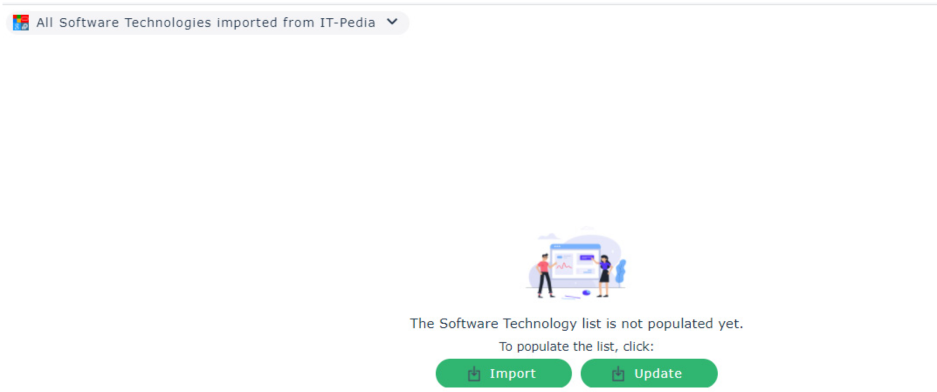
See: "Prerequisite Conditions".

Data import is carried out by the functional administrator.

To import data with the IT-Pedia connector:

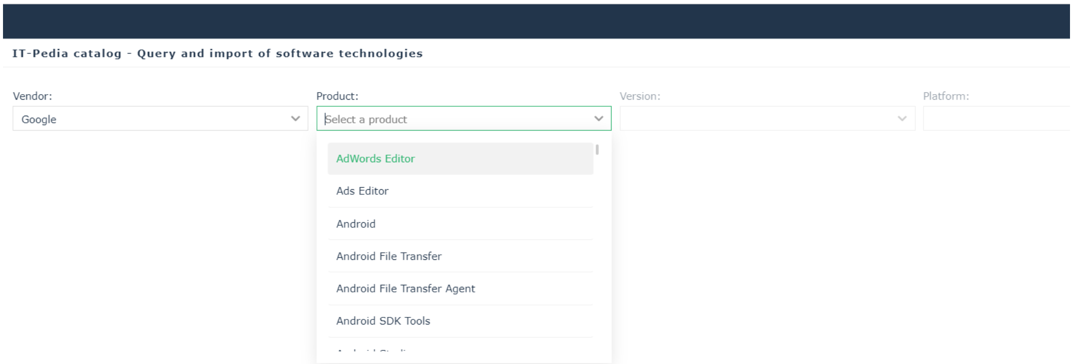
1. Connect to ITPM as a Functional Administrator.
2. Click the navigation menu then **Asset Catalogs** > **IT-Pedia**.
3. In the edit area, click the **IT-Pedia V2** tile.
   If technologies have already been imported, they are displayed.

4. Click the **Import** button.

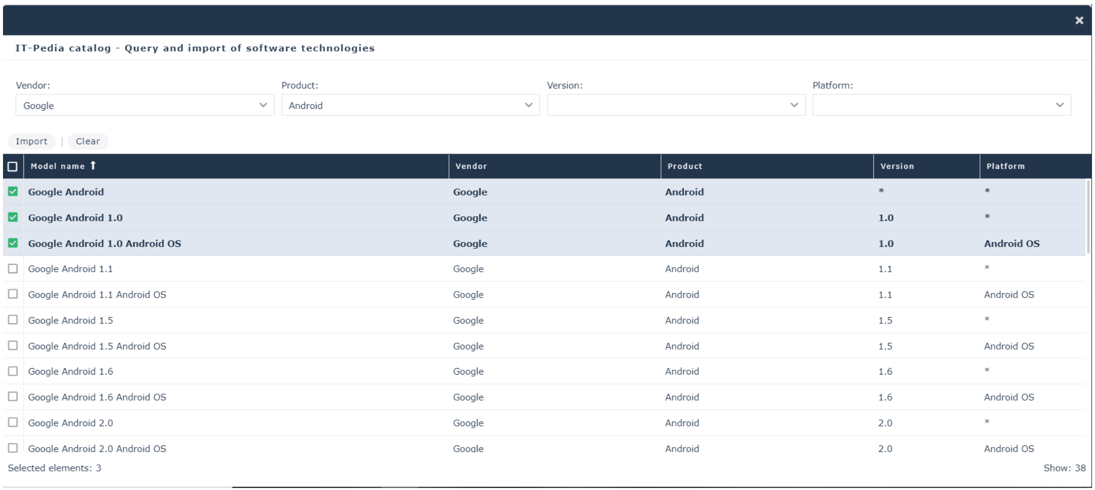


The import wizard appears.

5. Select:
   - A vendor
   - A product
   - The version
   - The platform (Mac or Windows)



6. Check the product of the selection that appears.



7. Click **Import**.

8. Select the import option:
- Now
- As soon as possible: execute the import after saving updates
- Scheduled: execute the import at the date and time specified

9. Click **OK**.
A message indicates the progress then the success of the import.

Filtering the display of technologies

You have the possibility to filter the display of technologies according to:
- Software technologies found in IT-Pedia My Products
- Software technologies not found in IT-Pedia My Products
- All Software technologies imported from IT-Pedia

When you import technologies from IT-Pedia V2, these technologies are automatically added to the "My Products" list of the IT-Pedia catalog. When updating a technology in HOPEX, if the technology no longer exists in IT-Pedia, it is displayed in the list "Software technologies not found in IT-Pedia My Products".

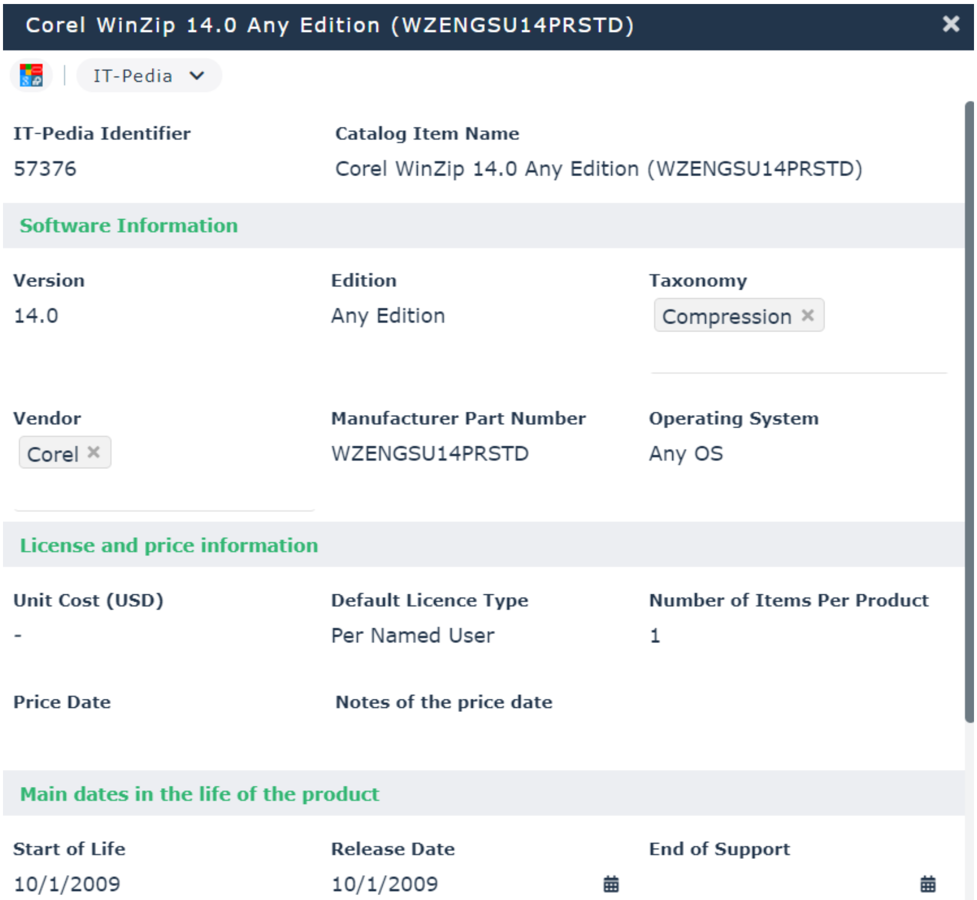
See also:

"Updating IT-Pedia Objects Imported into HOPEX", page 172.

"Merging IT-Pedia Technologies With Existing Technologies of Your Repository", page 171.

Displaying IT-Pedia Properties in HOPEX

The IT-Pedia properties imported into **HOPEX** appear under the **IT-Pedia** properties page of the relevant technology.



Technology properties related to the official technology life cycle are automatically defined in the **Characteristics** page of the technology properties, under the **Official Lifecycle** section.

- Release date
- End of Support
- End of Extended Support

– *These properties can be set manually when you are not using the IT-Pedia connector.*

A **Support Alert** report uses this data to track technology obsolescence. For example, the solution automatically detects current and future conflicts when an underlying technology component becomes obsolete while the business application is still in production.

See "Technology Support Alert", page 175.

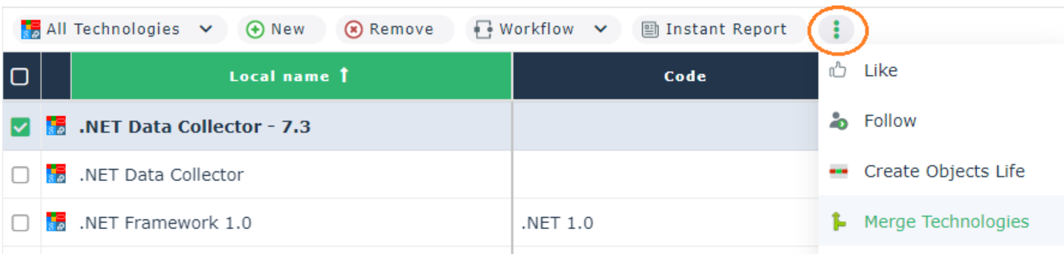
Merging IT-Pedia Technologies With Existing Technologies of Your Repository

Your repository may contain technologies created outside of the IT-Pedia import. These technologies do not benefit from the provider data and updates supplied by the IT-Pedia connector, such as official life cycle dates, for example. To keep the data for these technologies while benefiting from IT-Pedia information, you can merge it with the IT-Pedia technologies that you import **HOPEX IT Portfolio Management**.

Merging two technologies

To merge two technologies:

1. Click the navigation menu then **Asset Catalogs** > **Technologies**.
2. In the edit area, select the technologies to merge.
3. Click the button **More** ⋮ > **Merge technologies**.



4. In the wizard that appears, enter:
   - The source technology, which will be merged in the target technology
   - The target technology, which will include information of the source technology.
5. Click **Next**.
6. Select the properties you want to keep from the source and target technologies. By default, properties of the target technology are selected.
7. In the same way, select the links you want to keep.
8. Click **OK**.

Updating IT-Pedia Objects Imported into HOPEX

At any time you can update information available on software technologies imported into **HOPEX**.

To do so:

1. Click the **Asset Catalogs** > **IT-Pedia** navigation pane.
2. In the edit area, click the **Update** button.

   – *If necessary, click to display the hidden commands.*

You can also define an automatic update.

Technology Automatic Updating and Alerts

Automatic update checks, at a given frequency, if the properties of software technologies imported into **HOPEX** have changed in the IT-Pedia repository and updates the corresponding technologies in **HOPEX**.

Defining Update Frequency

To activate an automatic update, you must create a trigger in the administration tool which implements the BDNA Automatic Update macro.

Once the trigger is created, you can plan the update in ITPM.

To create a trigger:

1. Open the Administration module.
2. Open the environment.
3. Expand the repository folder concerned.
4. Right-click **Scheduler** and select **Manage Triggers**.
5. Click the **Triggers Definitions** tab.
6. Click the **New** button to create a trigger definition.
7. In the wizard, create a job definition that implements the macro "BDNA Automatic Update Job Implementation".
8. Complete the planning.
9. Click **Finish**.

To define automatic update on technologies:

1. Connect to ITPM as a Functional Administrator.
2. Click the navigation menu, then **Administration**.
3. Select the **Scheduling Management** navigation pane.
4. In the edit window, click BDNA Automatic Update.
   You can set the alert:
   - Daily
   - Weekly
   - Monthly

Subscribing to Alerts

A user can be notified of updates made on the technologies he is in charge of.

To subscribe to an alert:

1. In the edit window, display the list of technologies.
2. Select the technology concerned and click the **Follow** button.

– *For more details on alerts, see the HOPEX Common Features guide, chapter "Communicating in HOPEX", section "Threads of Posts and Alerts on Objects".*

Support Alert Report

A **Support Alert** MetaAtribute available on each technology compares the technology life cycle (imported from IT-Pedia or defined manually) with its life cycle in the organization.

– *For more information on technology life, see "Defining Technology Life".*

A report uses the **Support Alert** MetaAttribute to analyze technologies in the **HOPEX** repository and displays all possible conflicts between the use of these technologies in the organization and their official life cycles.

See "Technology Support Alert".

Defining Technology Life

The technology life is characterized by:

- Its official life cycle, specified by the vendor
- Its life cycle within the organization; it can differ from the official life cycle.

Official Life Cycle

Dates of the official technology life cycle are automatically defined in the **Characteristics** tab of the technology properties.

- Release date
- End of Support
- End of Extended Support

These properties are defined automatically when you import a technology from BDNA or IT-Pedia.

They can be specified manually if you do not use the BDNA or IT-Pedia Connector.

See also:

"Importing Technologies from BDNA", page 154.

Technology Life Cycle within the Organization (Gantt Diagram)

An object evolving over time can take different states (preparation, production, retirement, etc.).

The *Object life* enables viewing of the planning of these different states in the form of a Gantt chart.

To view the Gantt chart representing the different states of a technology:

1. Open properties of the technology.
   - *See also "Defining Technology Properties", page 148.*
2. In the properties of the technology, click the drop-down list and select **Characteristics**.
3. Expand the **Gantt** section.

For more details on object life, see "Viewing Application Life (Gantt Chart)", page 128.

Analyzing the life cycle of a technology and the applications that use it

A report enables display in the same Gantt diagram of life cycle steps of the technology and those of the applications that use it.

A second report indicates any conflicts between life cycles of these objects.

To access these reports:

1. Open the properties of the technology concerned.
2. Click the **Reports** page then:
   - **Gantt Chart** to view life cycles of the objects
   - **Gantt chart with conflicts** to view any conflicts.

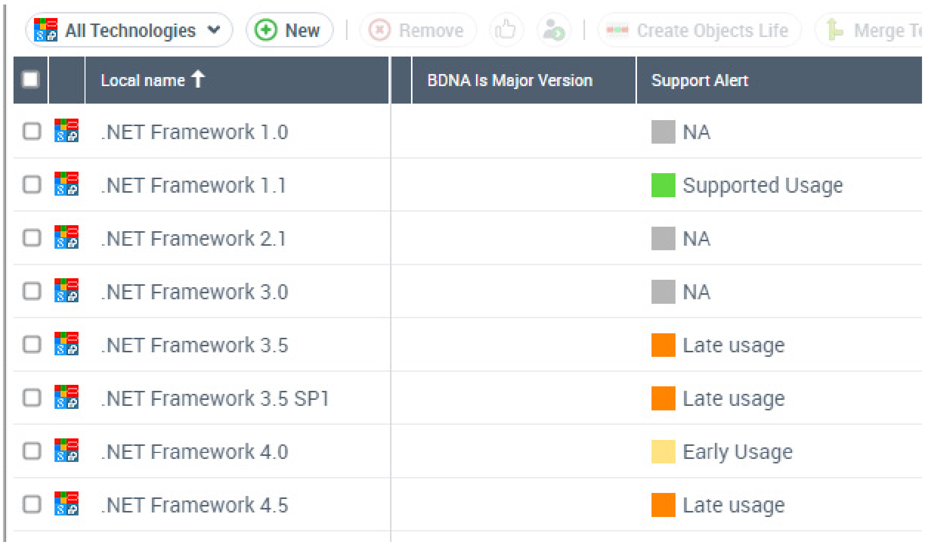
Technology Support Alert

A **Support Alert** MetaAtribute available on each technology compares the technology life cycle (imported from BDNA or defined manually) with its life cycle in the organization.

Viewing the support alert of a technology

To view the Support Alert attribute on a technology:

1. Click the navigation menu then **Asset Catalogs** > **Technologies**.
2. Display "All Technologies".
   The **Support Alert** column defines the use of each technology within the organization.



Local name	BDNA Is Major Version	Support Alert
.NET Framework 1.0		NA
.NET Framework 1.1		Supported Usage
.NET Framework 2.1		NA
.NET Framework 3.0		NA
.NET Framework 3.5		Late usage
.NET Framework 3.5 SP1		Late usage
.NET Framework 4.0		Early Usage
.NET Framework 4.5		Late usage

The attribute can take the following values:

- **Early life cycle**: the technology has a life cycle in the organization which started before the official release date of the software technology.
- **Supported usage**: the life cycle of the technology begins after the release date of the technology and ends before the end of the support date.
- **Delayed use**: the life cycle of the technology begins after the release date of the technology and ends before the end of the extended support date.
- **Non-supported use**: the life cycle of the technology begins after the release date of the technology and ends before the end of the extended support date.

Attribute calculation

The value of the **Support Alert** attribute is defined by the following parameters:

Technology life cycle	Support Alert value
Life cycle not defined	NA (Non applicable)
Support end date and extended support end date not defined	NA (Non applicable)
The release date of the technology is later than the current date and the begin date of use.	Early life cycle
The support end date is not defined or later than the usage end date, and the extended support end date is later than the usage end date.	Supported usage
The support end date is earlier than the usage end date, and the extended support end date is later than the usage end date.	Delayed use
The usage end date is later than the support end date and the extended support end date.	Non-supported use

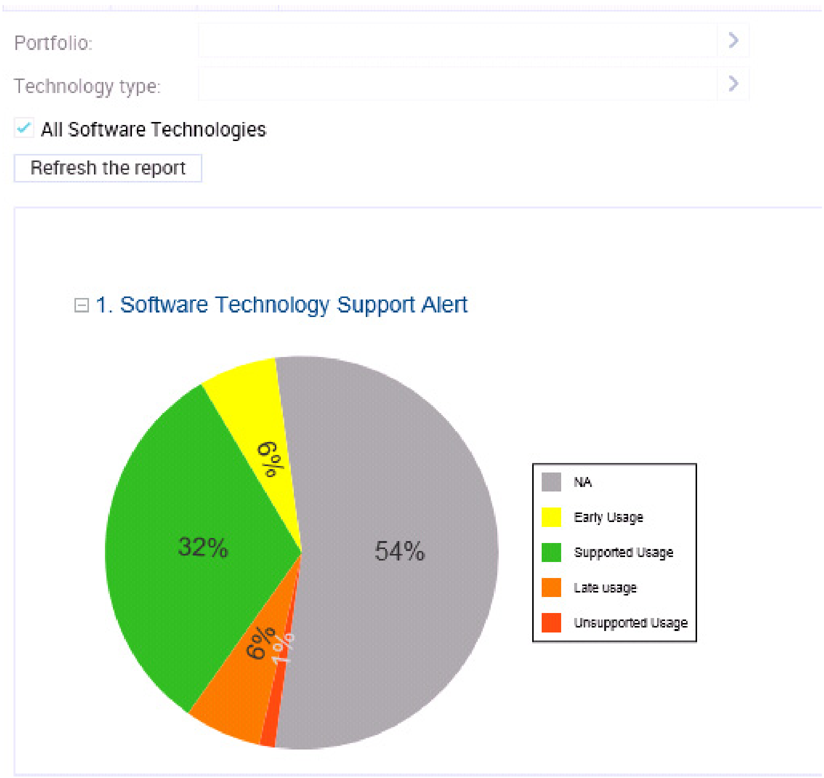
Support Alert report

A report uses the **Support Alert** MetaAttribute to analyze technologies in the **HOPEX** repository and displays all possible conflicts between the use of these technologies in the organization and their official life cycles.

To generate a **Support Alert** report:

1. On the IT Portfolio Management desktop, click the navigation menu, then **Reports**.
   - *This report is also available in the properties of a portfolio.*
2. Click the **Technology** navigation pane.

3. In the edit window, click **Technology Support Alert**.
   The report appears in the edit area.
4. Select the technologies you want to analyze:
   - Technologies of a Portfolio. You can select an Application or a Technology portfolio. In case of an application portfolio, it analyses the technologies linked to the applications.
   - Technologies of a certain Type (Taxonomy).
   - All Technologies
5. Click the **Refresh the report** button.
   The report results appear in the edit area.



MANAGING DEPLOYMENTS OF TECHNOLOGIES

HOPEX IT Portfolio Management enables management of deployments of technologies.

Versions and Deployments

HOPEX enables association of a technology with one or several deployments. A deployment is supported by a site or server and associated with a life cycle.

On the same site, a technology is deployed to offer different services to different users. Each deployment is therefore associated with several *usage contexts* which enable specification of lists of functionalities available to different users.

Consulting Technology Deployments

To access deployments of a technology:

1. Open properties of the technology.
2. Select the **Installation** page.
   The list of associated deployments is displayed.
   - deployment date
   - planned retirement date

To access characteristics of a technology deployment:

1. In the **Deployed Technology** section, select a deployment.
   The hostings and usage contexts associated with the deployment appear in the following sections.

In **Context of Use** you can define :

- context begin date:
- proposed functionalities retirement date
- planned number of users (consumers)

Creating a Technology Deployment

Technology deployment on a site offers functionalities adapted to different populations of users over a time period.

You can create a first deployment at creation of the technology, or create it later via its properties pages.

To create a technology deployment:

1. Open properties of the technology.
2. Select the **Installation** page.

3. In the **Deployed Technology** section, click the **New** button.
   The Deployment creation window opens.
4. Specify the deployment name.
5. Select the **Deployment Life Cycle** from the drop-down list of this field.
6. Specify:
   - **Start Date**, corresponding to the effective deployment date
   - **End Date**, which can correspond to the technology production end date.
7. Select the **Freeze the Source Object of the Software Installation** to avoid modification of the deployed technology.

   – *You cannot modify a locked technology. If the technology is to be modified, a new version must be created.*

   – *For more details on variations, see the **HOPEX Common Features** guide, "Handling Repository Objects", "Object Versions" chapters.*
8. Click **Next**.
9. In the **Deployment Support** section, select the site or server that hosts the deployment.
10. Click **OK**.
    The new installation appears in the technology properties.

Creating an Deployment Usage Context

The deployment context of a technology enables specification of the list of functionalities offered to each population of users for a given deployment over a period of time. Several contexts can be created for a given deployment.

To create a *usage context* of an application installation:

1. Open properties of the technology.
2. Select the **Installation** page.
3. Under **Deployed Technology**, select the deployment.
4. In the **Usage Context**section, click the **New** button.
   The **Creation of Use Context** dialog box opens.
5. Specify the **Life Cycle**, **Start Date** and **End Date** of the context.
6. Click **Next**.
   The wizard offers you to add **consumers**. It relates to the application installations that will use the deployed technology in this context.
7. Click the **Connect** button to connect the consumers to the usage context.
8. Click **Next**.
   You can add functionalities to the context:
9. Click the **Connect** button to select the functionalities that will be proposed to consumers in the usage context.
10. Click **OK**.
    The new usage context appears in the properties of the deployed technology.

MANAGING COSTS OF TECHNOLOGIES

Similarly to application, **HOPEX IT Portfolio Management** allows you to specify and analyze the costs of your organization's technologies.

The definition of costs of a technology is the same as for an application.

See "Managing Application and Application System Costs", page 136.

MANAGING THE DATA USED IN THE APPLICATION ASSETS

The following points are covered here:

Introduction to Data Management in HOPEX IT Portfolio Management

Scope

HOPEX IT Portfolio Management allows you to link the application assets to the data it uses. You can therefore:

- make the inventory of data
- build a business glossary
- connect the data to the relevant applications
- assess data quality
- generate reports on an application to visualize the scope of the data used and measure the impact of an application removal on this data.

Thanks to the integrated HOPEX platform you can exploit this data inventory in the solution dedicated to the data architecture description **HOPEX Information Architecture**.

For more details on data governance see the **HOPEX Information Architecture** guide.

Profile Associated with Data Management

The Data Asset Manager is responsible for the creation of information assets.

The other profiles of **HOPEX IT Portfolio Management** can read access these assets and use them, for example in data flows.

Creating a Business Glossary in HOPEX IT Portfolio Management

HOPEX IT Portfolio Management allows you to make an inventory of the concepts that define business terms and generate a business glossary from which you can view their definitions, synonyms and illustrations.

Consulting Term Definitions

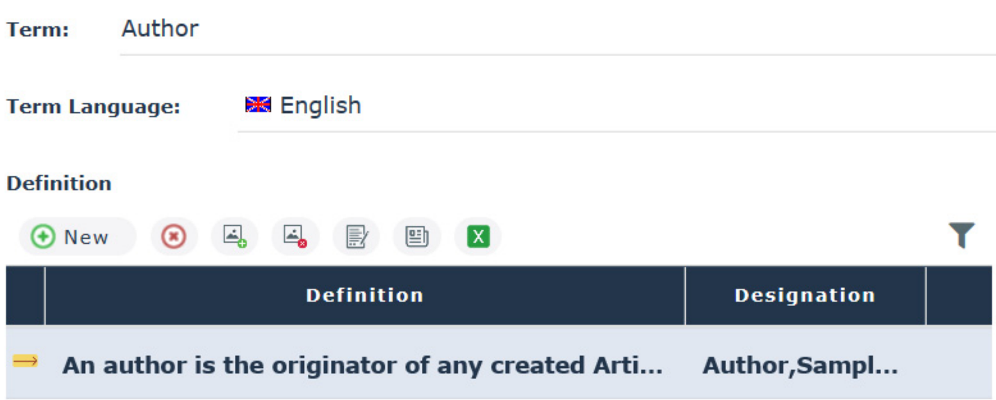
A term is the designation of a concept in a given language.

`Example: the "Country" concept has the "Pays" in French and "Country" in English.`

HOPEX IT Portfolio Management offers a tool for easy consultation and creation of terms, from which you can generate a business glossary.

To display a term definition:

1. Click the navigation menu then **Data Glossary** > **Term Definitions**.
2. In the edit area click the first arrow located to the right of the **Term** title to scroll the list of terms or enter the first letter of the term in question to display the list of corresponding terms.
3. Select the term in question from the list.



Its definition, if it exists, appears under the **Definition** section, with the associated object (concept, concept type, etc.).

See also: Concept and Term.

Creating Terms

To create a term:

1. Click the navigation menu then **Data Glossary** > **Term Definitions**.
2. In the edit area, click the **New** button.
3. In the dialog box that appears, specify:
   - the term name
   - the holder (optional)
   - the language of the term
4. Click **OK**.
   The new term appears in the edit area.
5. In the **Definition** section, click **New**.
6. Select:
   - the holder dictionary (optional)
   - the definition text
7. Click **OK**.
   By default a concept is automatically associated with it.
   - *For more details about concepts see Describing Concepts.*

The terms created can be classified in business dictionaries. The description of business dictionaries and all the construction elements of the business ontology enriches the glossaries.

See Business Dictionary.

Generating a Business Glossary

HOPEX Information Architecture provides a ready-to-use glossary report to automatically build the business glossary with terms derived from a set of Business dictionaries. For each term, the glossary displays a list of associated definitions with their text, synonyms and components list.

To launch an glossary report:

1. Click the navigation menu then **Data Glossary** > **Glossary Report**.
2. In the edit area select the source business dictionary(ies).
   - *You can select more than one.*
3. Refresh the report to display its content.

DRAWING UP A DATA INVENTORY IN HOPEX IT PORTFOLIO MANAGEMENT

In **HOPEX IT Portfolio Management** you can define business data (Concepts, Terms, etc.) and logical data (Classes, Attributes, etc.).

Business Dictionary

A business dictionary collects and structures a set of concepts that expresses the knowledge of a particular area.

The basic component of a business dictionary is the **Concept**.

) *A concept expresses the essential nature of a being, an object, or a word through its properties and characteristics or its specific qualities.*

The word that is associated with a **Concept** and which depends on language is a **Term**.

) *A term is a word or word group, that is used for a specific meaning in a specific context.*

To create a business dictionary in **HOPEX IT Portfolio Management** :

1. Click the navigation menu then **Data Glossary** > **Business Dictionaries**.
2. In the edit area, click **Business Dictionaries**.
3. Click **New**.

From the Hierarchy View of the business dictionaries you can create concepts and terms, as well as business information areas.

For the definition of terms see also Creating a Business Glossary in HOPEX IT Portfolio Management.

Concept

To create a concept from a business dictionary:

1. In the business dictionary hierarchy, unfold the one that concerns the concept.
2. Click the **Concept** folder icon then **New > Concept**.
3. Enter the **Name** of the concept.
4. The **Existing Terms** section lists terms with the same name as the new concept. You can choose to use an already existing term, or create a new term.

) *A term is a word or word group, that is used for a specific meaning in a specific context.*

– *If a term has already been created with the same name as the new concept, this term is automatically connected and appears automatically in the **Term** section.*

5. In the **Definition Text** field, enter the text of the concept definition.
6. Click **Next** to associate an image with the concept or **OK** to finish.

Business information area

A business information area is a sub-set of elements of a business dictionary that reduces the scope of a field.

To create a business information area:

1. Click the navigation menu then **Data Glossary** > **Business Dictionaries**.
2. In the edit area, click **Business Information Areas**.
3. Click **New**.

Business information map

A business information map is a business information urbanization tool. It represents the business information areas of a business dictionary and their dependency links.

Creating a business information map

To create a Business Information Map:

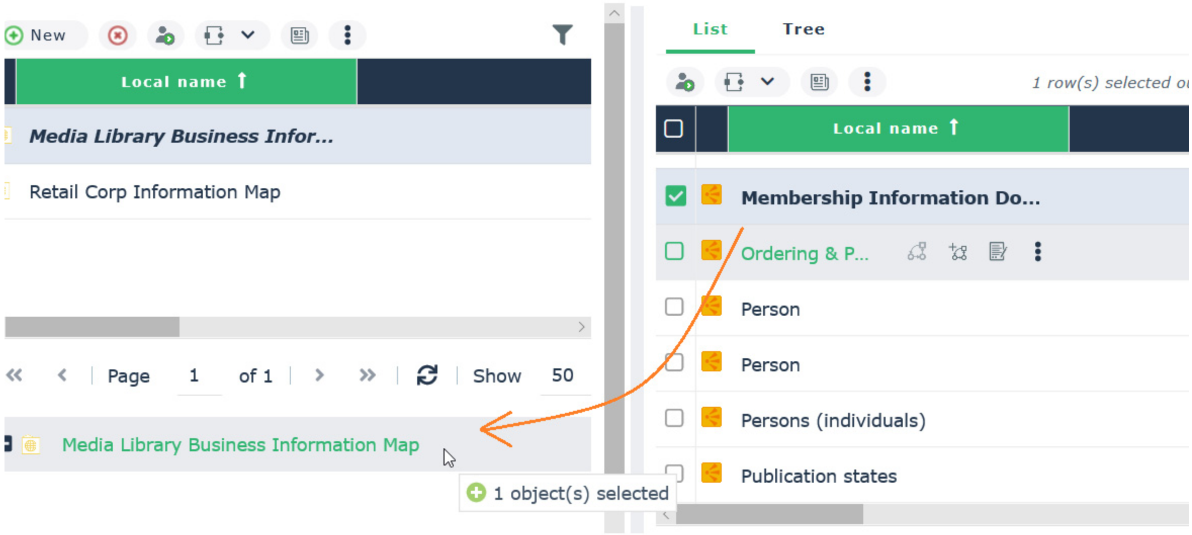
1. Click the navigation menu then **Data Dictionary** > **Business Dictionaries**.
2. In the edit area, click **Business Information Maps**.
3. Click **New**.
   The map appears in the list.

Defining the map components

To add a business information area to the business information map:

1. Select from the list of business information maps the one you want to define.

2. From the tree on the right, select the business information areas you want to include in the map and drag them to the lower part of the tree on the left, on the name of the map in question.
   – *You can also define sub-areas by dragging them to the map areas.*



The business information areas thus added are internal components of the map; they are part of the scope of the business information map (whether or not they belong to the owner business dictionary).

– *The external components of a map are those used in the map but that are not part of the scope analyzed. You can access them in the map properties.*

Removing a component from the map

To remove a business information area from a business information map:

1. Select the relevant business information map to display its components.
2. Click the icon of the component and select **Remove**.
   A window displays the list of existing links on the selected object.
3. Select the link between the component and the relevant map.
4. Click **Delete**.

Analysis reports of a business information map

In the properties of a business information map, reports allow you to visualize :

- The hierarchy of business information areas in a map, and whether these areas use sensitive or reference data. For more details, see Data Domain Map.
- Dependencies between business information areas of the map
- Use of information of a business information map. See Use of information of an information map.

Data dictionary

A data dictionary collects and structures a set of logical data.

Logical data is a realization of business data (concepts). You can define logical data to describe the data used in applications (Data Store) and in flows exchanged between applications.

See also: Defining the Data Used by an Application.

Defining data categories

The data category is a mechanism to classify data such as concepts or classes. One or more categories can be defined on the data.

Examples of data classification :

- Sensitive Data
- Golden data
- Confidential data
- Etc.

Importing the category solution pack

To use the categories, you must import the corresponding solution pack.

The categories are delivered in a compressed file that you must unzip before importing into a repository.

To unzip the file:

1. In the folder where HOPEX is installed, open the **Utilities** folder and then the **Solution Pack** folder.
2. Double-click the file **Information Architecture.exe**.
3. Extract the contents of the file.
   The categories are available under the **Data Categories** folder.

To import the library:

1. Run "Administration.exe" and log on with a user who has the data administration authorization.
2. Select the environment then the repository you want to work on.
3. Right click the repository and select **Object Management** > **Import Solution Pack**.
   The solution pack selection window appears.
4. Select the category library and click **OK**.
5. Exit the administration application.

Accessing the list of categories

To access the list of categories :

1. With the "Data Manager" profile, click the navigation menu then **Environment** > **Data Categories**.
   The list of categories delivered by default appears in the editing area, with their description. You can create new ones.

Indicating the category of a data

You can define the category of a data in the data properties.

You can also indicate the category when you link data to an application. See Connecting Data to an Application.

Visualizing the data of a data category

The **Data Categories Dendrogram** report allows you to visualize where the data of a category is used, for example in the application inventory.

To launch this report:

1. Click the navigation menu then **Reports** > **Data Reports**.
2. In the edit area, click the **Dendrogram Data Categories** tile.
3. Select the required data category.

You can also run a report from a portfolio of applications to view data from specific categories used by the applications in that portfolio.

To launch the report on a portfolio of applications:

1. Open the properties of the portfolio in question.
2. Click **Reports** > **Data Category of Portfolio Dendrogram**.

Importing Data in HOPEX IT Portfolio Management

Two Excel templates are available for importing and exporting data:

- The "Concept Template" to import a list of terms with their definitions, synonyms, etc. See Importing Business Data from an Excel File.
- The "Data Excel Template" template to import classes, attributes, parts, etc. See Importing Logical Data from an Excel File.

Importing classes can result in the creation of concepts or the linking to concepts that exist under the same names. In this way, business and logical data are automatically linked. This mechanism is used to initialize a business dictionary. It can be configured using the **Business dictionary initialization** option. For more details, see Initializing a Business Dictionary Using Logical or Physical Data.

DATA RESPONSIBILITY IN HOPEX IT PORTFOLIO MANAGEMENT

Business Roles Associated with Data

Data created in **HOPEX IT Portfolio Management** has a **Data Owner** and a **Data Designer**; by default the Data Designer is also the Data Owner.

) *The Data Designer is the person responsible for designing an object (such as a package, data domain, database, etc.).*

) *The Data Owner is the authority that decides on access to and use of the data. The owner of the data may be the designer of the data, one of its users or a third party. Data stewards can ask data owners to check or complete the value of a field, for example to correct a data quality defect.*

Other business roles can be explicitly assigned to the data.

The data on which you can designate responsible persons are:

- Business dictionaries
- Business information areas
- Concepts
- Data dictionaries
- Classes

Defining Who is Responsible for a Data Item

To define responsibilities for a data item:

1. Select the data concerned and click the **Properties** button in the edit area.
2. In the properties, select the **Assignment** page.
   - *Only assignable objects have an **Assignment** page.*
3. Click **New**.
4. Indicate the name of the person and the business role.
5. Click **OK**.

DEFINING THE DATA USED BY AN APPLICATION

Within the framework of personal data protection, the application owner and data manager have the possibility to document the data used by the applications and the way in which this data is accessed.

The information you can enter on an application is:

- the personal data processed by the application, with access rights (CRUD).
- the rights of the persons concerned.
- the management of information to the persons concerned and their consent.

Connecting Data to an Application

To connect data to an application:

1. Open the properties pages of the application.
   - *See also Accessing Application Properties.*
2. Click the drop-down list then **Characteristics**.
3. Expand the **Data** section.
4. Click **New**.
5. In the wizard that appears, select the object type that comprises the data item (Class) and the object in question.
6. Click **Next**.

Once the data has been defined, you can specify:

- the access to the data: in create mode (**C**reate), read mode (**R**ead), update mode (**U**pdate), or delete mode (**D**elete).
  - *The content of the **Data access** column is calculated automatically according to the selected actions ("CRUD" is the default value).*
- the category of data: biometric, financial, medical, etc. See Defining data categories.
- if the application is "Golden Source" or "Golden Copy" of this data.

Defining an Application as "Golden Source"

An application defined as "Golden Source" is an application within the information system that guarantees the validity of the data it holds.

When checked, this attribute means that the application is "Golden Source" for the data that is used in the application store and that functionally belongs to the domain referenced by it.

Defining an Application as “Golden Copy”

A Golden Copy is a true copy of the golden source.

When checked, this attribute means that the application is Golden Copy for all the data it uses.

Analyzing the Impact of an Application on the Data Used

The **Application Impact** report allows you to visualize the scope of data used by an application and to measure the impact of its deletion on the data it uses.

To generate an impact report on an application:

1. Open the application properties.
2. In the properties drop-down list, click the **Reporting > Application Impact** page.
   The report displays the following labels:
   - **Data**: data used by the application
   - **Exchanged Data**: data contained in the flows exchanged by the application
   - **Golden Sources**: data for which the application is declared "Golden Source".
   - **Golden Data**: application data classified under the category “Golden data”.
   - **Sensitive Data**: application data classified as "Sensitive Data".
   - **Quality**: quality level of the data used by the application. The report provides an average of the data quality of the latest evaluations performed on all data used by the application, at the level of the application's store or through flow exchanges with other applications.
3. Click on a label to view the details.

Assessing the Data Quality in HOPEX IT Portfolio Management

An assessment is designed to give values, in a specific context, to data characteristics.

In **HOPEX IT Portfolio Management** it is possible to carry out a direct assessment on the data, as an expert.

> – *For an assessment campaign on the data, you need the* ***HOPEX Information Architecture*** *solution.*

The assessment is supplemented by results analysis tools.

Assessing a Data Item

The assessment can focus on business data such as concepts or logical data such as classes.

To directly assess a data item:

1. Open the properties of the data item in question.
2. Select the **Evaluation** page.
3. Click **New**.
4. On the page that appears, select a value for each question.

   > – *For certain identified problems, an optional remediation plan can be created for data cleansing.*

5. Click **OK**.

Data Evaluation Criteria

HOPEX IT Portfolio Management provides by default a data evaluation template that focuses on the following criteria:

Completeness

Identifies percentage completeness of data and missing properties.

Example

Below some columns have no value (in red) and others are truncated (Dupont@Samp.gm)

First Name	Last Name	Billing Address	Shipping Address	Email
Dupont		9 rue Rene Coty Paris 75002	NULL	Dupont@Sample.gm
Durand	Robin	344 rue de Rivoli 75001	NULL	Durand@Sample.com

Accuracy

Identifies the percentage of accurate, reliable data.

Example

Below, for Dupont, the position and the department are reversed.

For Durand, the item displays a typographical error

For Rene, the department displays an erroneous value.

First Name	Position	Department	Email
Dupont	Product Management	Business Analyst	Dupont@Sample.gmail
Durand	Sftware Engineer	Product Development	Durand@Sample.com
René	Test Analyst	xxùpoi*£	Rene@Sample.com

Consistency

Identifies the percentage of inconsistency in the data.

Example

Below is an inconsistency in the data format.

Order Number	Client Id	ShipDate	Total
1000	1	1/12/2018	100$
1001	2	1/12/2018	200£

Validity

Identifies the percentage of invalid data.

```
Example
```

```
The value of the "Available units" field on Prod1 should not be negative.
```

```
A withdrawal date is set to Prod2 but the field "Available units" does not display a null value.
```

Product Code	Name	Units Available	Retire Date
1000	Prod1	-10	12/4/2020
1001	Prod2	100	31/12/2017
			-

Uniqueness

This criterion evaluates duplicate data.

```
Example
```

```
The "Client" table must not contain the same occurrence twice, each record must be unique.
```

EVALUATING APPLICATION ASSETS

Each application manager can evaluate applications for which he/she is responsible based on three criteria: business, functional and technological. See "Evaluating Application Criticality", page 141.

The Portfolio Manager can evaluate the application assets he/she supervises by creating an application portfolio and associating with it additional evaluation criteria.

He/she can also evaluate the quality of the application code of a portfolio by launching a scan campaign with CAST Highlight for the application managers.

The numerous reports proposed by **HOPEX IT Portfolio Management** to analyze applications before starting the transformation phase.

The following points are covered here:

DESCRIBING INVENTORY PORTFOLIOS

An inventory portfolio groups a set of applications.

Creating an inventory *portfolio* consists of defining all the information (comparison criteria, timelines, etc.) that will allow you to assess applications to be implemented.

>) *A portfolio enables representation of all investments of an enterprise (or department) necessary to carry out changes required to achieve strategic objectives. It comprises a set of objects (for example applications for a an inventory portfolio) to be compared based on comparison criteria associated with the portfolio.*

You can also create inventory portfolios for technologies, as Technology Portfolio Manager. The technology portfolio definition uses the same methods than applications portfolios.

Creating an Inventory Portfolio

HOPEX IT Portfolio Management proposes two types of *portfolios*:

- The inventory portfolio: comprising different applications (or technologies), it enables follow-up of a given set of applications.
- The transformation portfolio: this intervenes after the inventory and assessment and comprises project lines (including deliverables that can be applications or technologies) and can include several project lines for the same application to measure the option costs of different scenarios. See "Transforming an application portfolio", page 73.

To create an application inventory portfolio:

1. Connect to **HOPEX IT Portfolio Management** as Application Portfolio Manager.
2. Click the navigation menu then **Asset Catalogs** > **Portfolios** > **Application Portfolios**.
3. In the edit area, select **All Application Portfolios**.
   The list of application portfolios appears in the edit area.
4. Click **New**.
   The new portfolio appears in the list. You can open its properties to define its characteristics.

Defining Inventory Portfolio Content

All elements of a portfolio are accessible from its properties pages.

To access application portfolio properties pages:

1. In the **All Application Portfolios** list, select the portfolio that you wish to study.
2. In the command bar associated with the edit area, click **Properties**.
   Portfolio properties pages appear.

Portfolio characteristics

Portfolio characteristics are broken down into five groups:

- **Identification**: name, portfolio type, study dates, comment.
- **Portfolio Criteria**: see "Defining Portfolio Assessment Criteria", page 189
- **Responsibility**: displays person responsible for the portfolio
- **Sub-Portfolios**
- **Timeline**: see "Using Timelines", page 195.
- **Report: enables creation of analysis reports on the portfolio.** See "Accessing Embedded Reports in a Portfolio", page 200.

Inventory

This page enables listing of portfolio applications - or technologies - and evaluation of their criticality. See "Evaluating Application Criticality", page 141.

In this page, the portfolio manager can launch information gathering for a set of applications. See "Collecting Data for a Set of Applications", page 185.

It is also possible to run instant reports on selected applications or technologies. See "Instant reports", page 144.

Evaluation

This page enables definition of values of *criteria* associated with applications. See "Evaluating Applications on Portfolio Criteria", page 192.

) *A criterion is a reference element used to compare objects in a portfolio. Criterion values can be predefined.*

Reporting

This page displays the different dynamic analysis reports of the portfolio.

Collecting Data for a Set of Applications

Principle and prior conditions

The goal is to enable a portfolio manager to ask application owners to enter the properties of a set of objects.

The local owner of the application receives a link to the questionnaire by email enabling him/her to enter the properties in which the portfolio manager is interested.

You must first ensure that each application has an owner. For this, in the application properties window, expand the **Responsibilities** section, and link an application owner if this has not already been done.

Request completion of data via an assessment questionnaire

To ask the owner of an application to complete the data:

1. Select an application portfolio and open its properties window.
2. In its properties window, click the drop down-list and select **Inventory**. The portfolio components (applications) appear.
3. Select the applications for which you wish to collect data.

   – *Check that the objects selected are linked to an application local owner.*
4. Click the **Fill Data** button.
5. Scroll the creation wizard and select the elements that you wish to make available to the application owner:
   - one or more properties pages (for example the properties page that concerns risks if you want the application owner to specify the application risks)
   - advanced characteristics (special MetaAttributes, for example, the validation date of the application)
6. Start the session immediately. The application owner receives the questionnaire.

Entering data for an application via a questionnaire

To view and fill in the assessment form that was sent to you by your manager:

1. Click the navigation menu then **List of Tasks> My Questionnaires**.
2. Select a questionnaire and click **Display Questionnaires**. The applications for which you must complete the data appear.
3. Once the fields are filled in, right-click on the questionnaire and select **Assessment Questionnaire (To be Filled In) > Complete**.

Generating the Business Capability Map of a Portfolio

HOPEX IT Portfolio Management enables you to generate a business capability map in the form of a report that reflects the functional coverage of an application portfolio.

To generate a Business Capability Map from an application portfolio:

1. Select the portfolio concerned and, in the command bar associated with the edit area, click **Properties**. The portfolio properties appear.
2. Click the drop-down list then **Reporting** > **Business Capability Map Breakdown**.

The report positions the portfolio applications in the areas that represent business capabilities. It therefore reflects the functional coverage of portfolio applications.

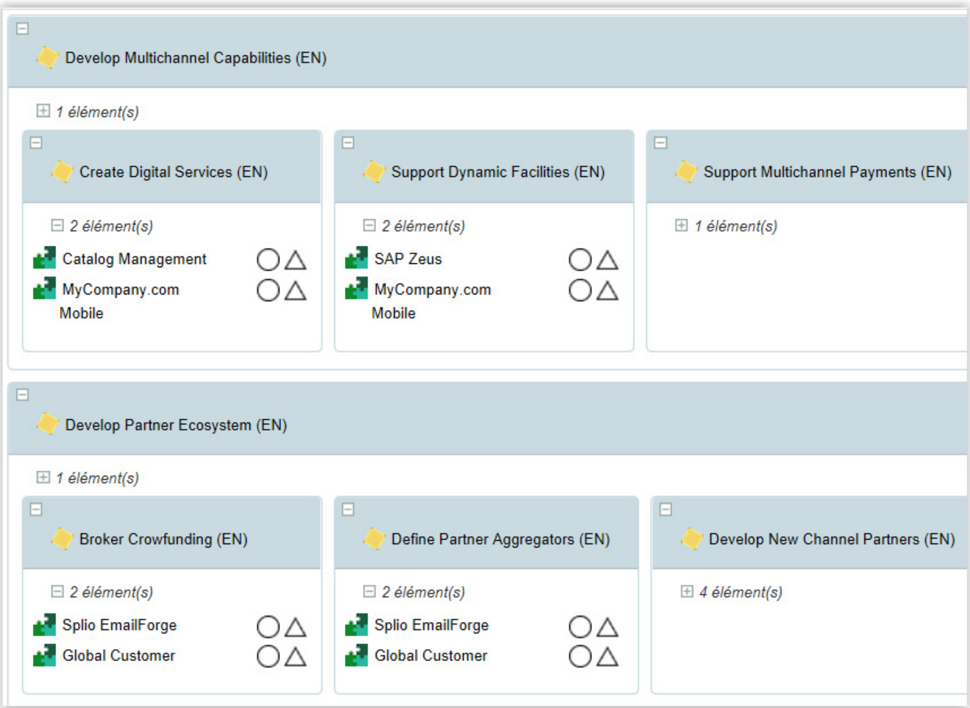
– *For more details on capability maps, see "Defining Business Capabilities", page 18.*

Report parameters

This consists of defining report input data.

Parameter	Parameter object	Comment
Business capabil-ity	Business capability / Business capability Map	One object mandatory.
In-depth research of the application in portfolios and sub-portfolios.		This option displays the applications defined in the sub-portfolios of the portfolio to which the report relates.
Characteristics	Evaluation criteria See "Defining Portfolio Assessment Criteria", page 189.	Displays in the report the application evaluation results for the selected characteristics: - Technology compliance - Cost - Technical efficiency - Etc. Select the form in which you want to display a characteristic: graphic ele-ment or highlighting of the applica-tion concerned by the characteristic.

Example of a business capability map example



You also have the **Business Capability Breakdown Time Report** that shows the evolution of the functional coverage of an application landscape over time.

See also "Analyzing an inventory portfolio", page 200.

Defining Portfolio Assessment Criteria

You can compare applications defined in a portfolio based on common criteria associated with the portfolio.

) *A criterion is a reference element used to compare objects in a portfolio. Criterion values can be predefined.*

To define portfolio criteria, you can:

- use existing criteria in the repository,
- Create new criteria and associated values.

– *Criteria are defined from the MetaClass (object type)* ***TaggedValue****. Certain dialog boxes use this term rather than* ***Criterion****.*

Using Existing Criteria

To connect existing criteria to a portfolio:

1. Click the navigation menu, then **Asset Catalogs** > **Portfolios**.
2. Select the portfolio concerned and, in the command bar associated with the edit area, click **Properties**.
   The properties dialog box of the portfolio appears.
3. Click the drop-down list then **Characteristics**.
4. In the characteristics, expand the **Portfolio Criteria** section.
5. In the section, click the **New** button.
   The search pane is displayed with a list of criteria already defined.
6. Select the criteria that interest you.
7. Click **Connect**.
   Each selected criterion is displayed in portfolio characteristics.

Using Existing Criteria

Standard criteria are proposed to process costs modeled on objects and initiatives.

– *For more details on modeling of costs, see* *"Managing Application and Application System Costs", page 136**.*

Standard criteria enabling analysis of costs declared on initiatives as a function of their **type** and **nature** are the following:

- For **type**:
  - Capital expenses
  - Operating expenses
- For **nature**:
  - Infrastructure costs
  - Software licenses costs
  - Manpower costs
  - Service costs

The names of standard criteria enabling analysis of costs declared on objects carry the extension "Reference", for example "Reference Costs".

Given that certain criteria are automatically calculated, they cannot be modified from the **Inventory** or **Assessment** tabs of the portfolio.

– *For more details, see "Evaluating Applications on Portfolio Criteria", page 192.*

Creating a New Criterion

To create new criteria for portfolio application comparison:

1. Open the **Criteria** properties page of the current portfolio.
2. Click the **New** button.
   The creation window opens.
3. Indicate the name of the site and click **OK**.
   The new criteria appears in the list of portfolio criteria.

Defining criteria format

Specification of type and format of a criteria (or **TaggedValue**) is identical to that of a **MetaAttribute**. For more details on declaration of criteria format, see chapter "MetaAttributes" of the **Studio** guide .

To define characteristics of a criteria:

1. Open the **Characteristics** properties page of the current criteria.
2. In the **MetaAttribute Type** field, indicate the type that will take the criteria values.

MetaAttribute Type	Meaning
String	Alphanumeric, the value of the MetaAttribute Length attribute should then be specified
DateTime	Date
VarChar	ASCII text
VarBinary	Binary text (reserved)
Boolean	Boolean (0 or 1)
Short	Integer (0-65535)
Long	Integer (0- 4294967295)
Binary	Binary (reserved)
Double	Integer (0- 18446744073709551616)
Float	Floating number

3. In the **MetaAttribute Format** field, indicate the Format that will take the criteria values. Possible values are:
   - **Standard**: for character strings
   - **Currency**: for currencies
   - **Enumeration**: for a list of character strings with predefined values
   - **Enumeration (Opened)**: for a list of character strings open to the user
   - **Duration**: for dates
   - **Percent**: to enter a percentage
   - **Double**: to enter a number
   - **Object**: to enter an object
   - **Signed Number**: to enter a number possibly negative. In this case, **MetaAttribute Type** must be **Short**, **Long**, **Double** or **Float**.

     M *The following formats are recognized in analysis reports: **Standard**, **Enumeration** and **Signed Number.***
4. Click **OK**.

To define values associated with a criterion of **Enumeration** format:

1. Open the **External Value** properties page of the current criteria.
2. Click the **New** to create new values.

Defining Criterion Aggregation Rules

Aggregation of a criterion enables definition of calculation rules that will be applied to application values to obtain the criterion value on a portfolio. In this way you can compare portfolios.

To define criterion aggregation rules:

› Open the properties pages of the criterion.
› Click the drop-down list then **Characteristics**.

Aggregation policies proposed as standard are:

- **Minimum**
- **Maximum**
- **Average**
- **Sum**

For example, the Cost criterion associated with a portfolio can be obtained by calculating the average cost of initiatives making up the portfolio, or the sum of costs of each of the elements.

To fix more specific aggregation rules, the aggregation policy can be defined by a **Macro**. The name of the macro is defined in the **Aggregation Macro** column.

– *For more information on **Macros** in **HOPEX**, see the guide **All about starting with APIs**.*

The result of aggregation of different criteria is accessible in the **Aggregation Value** column.

Evaluating Applications on Portfolio Criteria

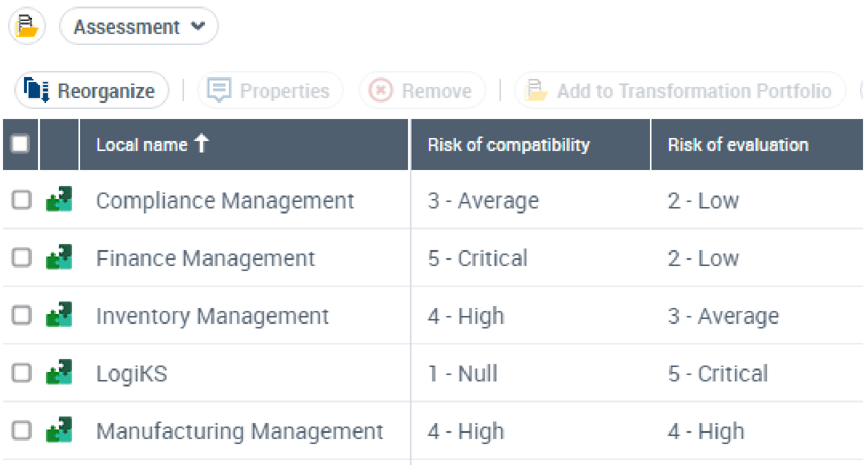
Portfolio applications are evaluated related to different portfolio criteria.

> – *Standard criteria relating to costs are automatically calculated, they cannot therefore be modified in this tab. For more details on these criteria, see* *"Using Existing Criteria", page 189*.

Accessing applications to be evaluated

To access evaluations of all portfolio applications:

1. Open the properties pages of the portfolio.
2. Click the drop-down list then **Evaluation**.
   The list of evaluations of all portfolio applications according to different criteria is displayed.
3. To define a criterion value on an application, select the application concerned and click in the criterion column.



Local name	Risk of compatibility	Risk of evaluation
Compliance Management	3 - Average	2 - Low
Finance Management	5 - Critical	2 - Low
Inventory Management	4 - High	3 - Average
LogiKS	1 - Null	5 - Critical
Manufacturing Management	4 - High	4 - High

Generating a PDF or Excel evaluation data file

The **PDF** and **Excel** allow you to generate PDF and Excel files of evaluation results.

> – *For reasons of readability, the PDF file contains a maximum 12 columns.*

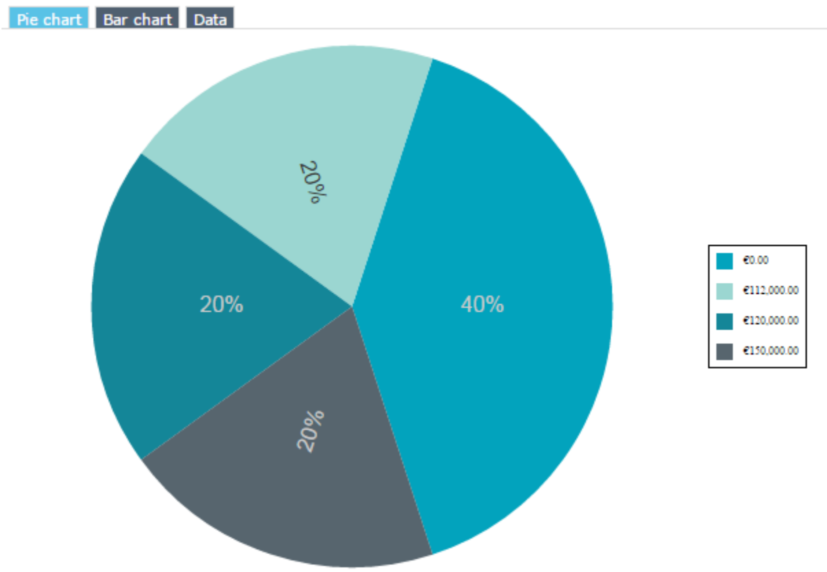
Generating an instant report on evaluation data

Instant reports allow you to carry out drill-down analysis on evaluated objects. They provide greater detail depending on specific analysis perspectives (quantitative, time, etc.).

To generate an instant report on a list of evaluated applications:

1. Open the properties pages of the portfolio.
2. Click the drop-down list then **Inventory**.
3. In the list of applications, select those to be analyzed.
   If you do not select an application, by default the report covers all applications.
4. Click **Instant Report.**

   – *If necessary, click ⋮ to display the hidden commands.*
5. Select the required analysis type, for example "Breakdown".
6. Click **OK**.
7. In the list of possible grouping criteria, select "Costs".
   For all selected technologies, you receive the cost breakdown according to their levels.



For further information on instant reports, see the **HOPEX Common Features** guide, "Generating documentation", "Launching instant reports on lists".

Portfolio costs report

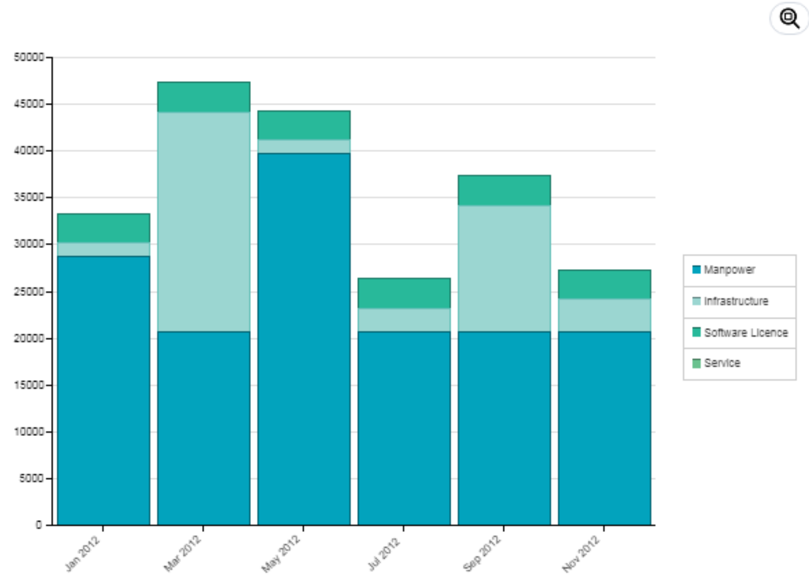
A report automatically displays the global costs of applications contained in a portfolio.

To access the portfolio cost report:

1. Open the properties of the portfolio.

2. Select **Reporting** > **Costs Report**.

Reporting - Costs Report



2. Detailed Cost per Nature

	Manpower	Infrastructure	Software Licence	Service	Total
Jan 2012	€28,667.00	€1,500.00	€3,167.00	€0.00	€33,334.00
Mar 2012	€20,667.00	€23,500.00	€3,167.00	€0.00	€47,334.00
May 2012	€39,667.00	€1,500.00	€3,167.00	€0.00	€44,334.00
Jul 2012	€20,667.00	€2,500.00	€3,167.00	€0.00	€26,334.00
Sep 2012	€20,667.00	€13,500.00	€3,167.00	€0.00	€37,334.00

An analysis report also summarizes costs of applications and of their versions and deployments between the portfolio start date and end date.

USING TIMELINES

The analysis phase of portfolio applications is based on *timelines*.

) *A timeline presents key timespots of the organization from fixed dates or defined periods.*

A timeline is an object specific to the enterprise and can be referenced by portfolios or master plans.

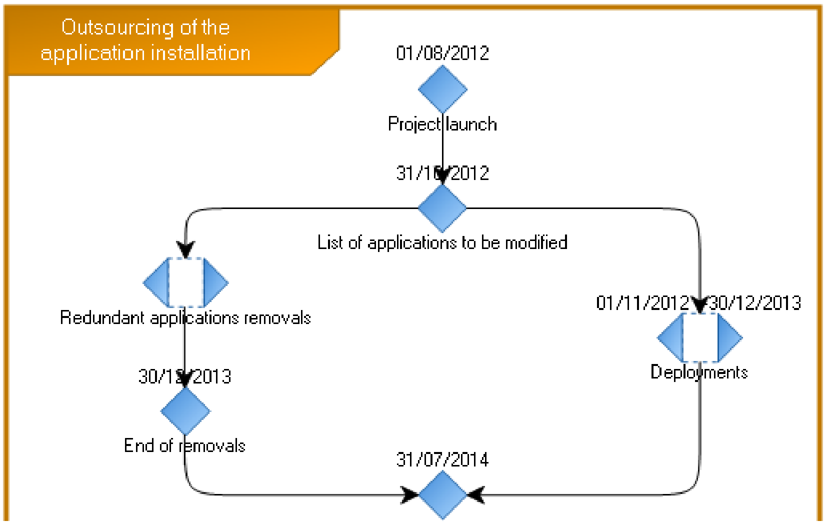
The timeline associated with an application portfolio is used in time distribution of the application portfolio business capability map. See "Generating the Business Capability Map of a Portfolio", page 186.

To view timelines associated with a portfolio:

1. Open the **Timeline of Reference** properties page of the portfolio.

This page is in two parts:

- **Timeline of Reference**: indicates a global calendar showing a certain number of timelines over a given time period. You can define a new timeline or connect an existing timeline.
- **Owned TimeSpot**: corresponds to timeline milestones; milestones appear when you select a timeline in the upper part.




```
The above example presents a timeline for the upgrade of
application assets. Phases of deletion of obsolete
applications are synchronized with phases of deployment of
new applications.
```

Creating a timeline

To create a timeline:

1. In the first frame of the **Timeline** section, select **New**.
   The **Timeline creation** dialog box appears.
2. Enter the name of the timeline.
3. Click **OK**.
   The timeline is created and added to the list of portfolio timelines.

Defining timespots

The **Timeline diagram** allows you to define the different key events that make up the timeline, as well as their dependency links.

To create a new timeline diagram:

1. Click the icon of the timeline and select **New > Timeline Diagram**.
   An empty diagram appears.

To create an **TimeSpot**:

1. In the insert toolbar, click the **Timespot**  button, then click in the diagram.
   The Add TimeSpot dialog box appears.
2. Indicate the name of the timespot and click **OK**.
   The timespot appears in the diagram.

To specify time links between timespots, you will create a sequence flow:

1. Click the **Sequence Flow** button .
2. Click the timespot representing the start step, and holding the mouse button down, draw a line to the timespot representing the next step.
3. Release the mouse button.
   A directional link from one timespot to the next appears in the diagram. Previous and next timespots also appear in timespot **Properties**, in the **Characteristics** page.

Dating a timespot

A timespot can be associated with a precise date or a time interval. The time interval is defined by a date at earliest and a date at latest.

To define timeline timespot dates:

1. Open the **Characteristics** properties page of the timeline.
2. In the **Owned TimeSpot** section, you can date timespots.
   - *You can also specify sequence flows.*

ANALYZING THE APPLICATION CODE OF A PORTFOLIO WITH CAST HIGHLIGHT

On a portfolio containing in-house applications, the portfolio manager can launch a code analysis campaign to analyze the quality of the application code and issue alerts on any risks that might affect the portfolio.

Prerequisite Conditions

The CAST Highlight code analysis functionality requires:

- Entering the client number in HOPEX ITPM
- Identifying the functional administrator as the first CAST Highlight user
- Declaring other users in CAST Highlight
- Establishing the connection between HOPEX and CAST Highlight

Entering the CAST Highlight customer ID

The administrator must specify the CAST Highlight Customer ID in HOPEX. This number is provided by the sales administration.

To specify the CAST Highlight Customer number in HOPEX ITPM:

1. Connect to HOPEX ITPM as HOPEX Administrator.
2. Click **Environment options**.
   The options window appears.
3. In the left pane of the window, expand the **Data Exchange** folder then **Import/Export Synchronization**.
4. Click **CAST Highlight**.
5. In the right pane of the dialog box enter the number of the **CAST Highlight Customer ID**.
6. Click **Apply**.
7. Click **OK** to close the window.

Identifying yourself as the first user (Functional Administrator)

As the first CAST Highlight user, the ITPM functional administrator must register with the CAST Highlight portal.

Once registered, the functional administrator must enter his/her CAST Highlight user number in HOPEX ITPM, which was allocated by CAST Highlight during his/her registration.

To enter your CAST Highlight user number in HOPEX ITPM:

1. On the HOPEX ITPM desktop, click the navigation menu then **IT Portfolio Management**.
2. In the navigation pane, select **CAST Highlight**.

3. In the edit window, click **Manage CAST Highlight Users**.
4. Click the drop-down list, then **Me** to display your information relating to CAST Highlight.
5. In the **Action** column relating to your name, click **Properties**.
   The properties window of the user appears.
6. In the **CAST Highlight ID** field, enter your user number.

The functional administrator can then define other CAST Highlight users in HOPEX ITPM.

Declaring other users in CAST Highlight

Once the functional administrator is registered in CAST Highlight and has established a connection between HOPEX ITPM and CAST Highlight, he/she can declare other CAST Highlight users in HOPEX ITPM. The persons concerned receive an email from CAST Highlight asking them to register in the account created in the CAST Highlight portal.

To add a CAST Highlight user:

1. On the HOPEX ITPM desktop, click the navigation menu then **Assessment** > **CAST Highlight**.
2. In the edit area, click **Manage CAST Highlight Users**.
   The list of users appears.
3. Select the user in question and click **Create user in CAST**.
   The user receives an email from CAST Highlight to confirm the registration, and the user connexion status switches to “Missing token”.

Establishing the connection between HOPEX and CAST Highlight

Before the first use of the code analysis functionality, each user, previously declared as a CAST Highlight user, must establish a connection between HOPEX and CAST Highlight.

To establish the connection between HOPEX and CAST Highlight:

1. On the HOPEX ITPM desktop, click the navigation menu then **Assessment** > **CAST Highlight**.
2. In the edit area, click **Manage CAST Highlight Users**.
3. Click the drop-down list, then **Me** to display your information relating to CAST Highlight.
4. Select your name and click the **More...** button. > **Generate Token**.
   The window for creating a token appears.
5. Specify:
   - your CAST Highlight user email
   - your password entered in CAST Highlight
6. Click **OK**.

Launching a Code Analysis Campaign

The code analysis campaign is on the initiative of the application portfolio manager. It relates to the portfolios whose applications are of the "Specific Development" type.

– *The "Specific Development" application type is defined in the application page, in the **Identification** section of the **Characteristics** page.*

To launch a code analysis campaign on an application portfolio:

1. Click the navigation menu, then **Assessment**> **CAST Highlight**.
2. In the edit area, click **Portfolios Containing in-house Applications**.
3. Display "All Application Portfolios Developed Specifically".
4. Select the application portfolio concerned and click **Scan Application Source Code**.
   The campaign creation window appears.
5. Specify:
   - The campaign name
   - The closing date, which determines the date on which the scan results are automatically transferred in HOPEX
   - A message to the application managers
6. Click **OK**.

Following this creation, CAST Highlight sends a notification to the managers concerned inviting them to launch an analysis of their application codes.

Launching the Code Analysis

Following the notification received, each application manager connects to CAST Highlight to:

- download the local agent if this has not already been done

  – *The local agent is used to run code analyses and to create the results file to be uploaded to the CAST Highlight portal.*

- launch a code analysis on the applications concerned.

The analysis results are saved in a file. The application manager can transfer them to the CAST Highlight portal.

To report the results of the analysis in HOPEX ITPM and update the analysis values on an application:

1. Display the properties of the application in question.
2. Click the drop-down list then **Assessment** > **CAST Highlight Metrics**.
3. Click **Update Metrics from CAST Highlight**.

ANALYZING AN INVENTORY PORTFOLIO

HOPEX IT Portfolio Management provides predefined report templates for application portfolio analysis.

Accessing Embedded Reports in a Portfolio

The different report templates proposed as standard by **HOPEX IT Portfolio Management** are designed to compare initiatives of a portfolio based on specific criteria. Different report types offer different analysis possibilities.

To access existing reports on an application portfolio:

1. Open the properties of the portfolio.
2. Click the drop-down list then **Reporting**.
   You have access to the following reports:
   - Cost report: presents the cost analysis of the portfolio applications.
     - *For further information on application costs, see "Managing Application and Application System Costs".*
   - Business capability map breakdown: shows the distribution of applications in the business capabilities.
     - *See "Generating the Business Capability Map of a Portfolio".*
   - Gantt Chart: presents the lifelines of three objects
     - *For more information on application life cycle, see "Defining Application Life".*
   - Business capability breakdown time report: shows the functional coverage changes of an application portfolio over time.
     - *See "Generating the Business Capability Map of a Portfolio", page 186.*
   - List of applications: presents functional characteristics of portfolio applications as a matrix.
   - Application positioning: shows the distribution of applications with respect to the business function addressed, functionalities covered and the technologies used. This presentation enables rapid identification of applications to be developed.
   - Application TIME report: uses the Gartner TIME model to analyze the business value of applications.
   - Software technology support alert: used to track the obsolescence of technologies.
     - *See also "BDNA properties in HOPEX", page 22.*
   - Business Capabilities Tree Map: breaks down a capability hierarchy according to the quantitative data of the applications in the portfolio (number of applications realizing the capability, cost of the applications).
     - *See "Generating a Business Capability Treemap on an Application Portfolio".*

TRANSFORMING THE APPLICATION PORTFOLIO

To upgrade the application and technological assets according to the objectives set, ITPM provides the tools to plan and follow up on the transformation projects to be achieved.

In ITPM, transformation projects can concern business capabilities, applications, application systems or technologies.

With these objects, depending on your connection profile, you can:

- submit an idea that could become a project demand
- submit a project demand
- directly launch a candidate project

The objects concerned are attached to the project demand or the candidate project as deliverables.

Once submitted, the ideas and projects are completed then assessed before being validated or rejected.

For more information on project portfolio management, see the "Managing project portfolios" section in the **HOPEX Common Features** guide.

Creating a Project in ITPM

Before creating a project, you must have defined the project domain to which the project belongs. See "Defining Project Domains", page 8.

To create a project in ITPM:

1. Click the navigation menu, then **Transformation** > **Projects**.
2. In the edit area, click **Projects**.
   The list of projects appears.
3. Click **New**.
   The window for creating a project appears.
4. Select the project type:
   - demand
   - candidate project
   - Ongoing project
5. Click **Next**.
6. Specify:
   - the owner project domain.
   - the project code (optional)
   - the planned start date
   - the planned end date
7. Click **OK**.

– *For more details on projects, see* *"Defining Enterprise Projects", page 7*.

Defining Project Applications

The applications that you associate with a project are integrated as deliverables in the project.

When you add an object to a project, you must specify the action to be performed on the object. An event can be:

- a creation
- an update
- a removal

To add an application to a project:

1. Open the project properties
2. Select the **Business Case** page.
3. Expand the **Project Deliverables** section.
4. Click **New**.
5. Select the type of action to be performed on the deliverable.
6. Click **Next**.
7. Select the type of deliverable (here an application).
   The list of repository applications appears.
8. In the list, select the application concerned.
9. Click **Next**.
10. Specify the production dates.
11. Click **OK**.

– *See also "Defining the Business Case of a Project", page 11.*

– *You can also add an application to a project using application properties.*

Life of the application in the transformation project

The life of the transformation project development deliverables is separate from the life of the applications in place. This is to be able to modelize change scenarios on these applications without impacting their effective life.

When the project is terminated (with the corresponding workflow command), the life cycle of the deliverables that it contains is automatically transferred to the repository applications.

– *See also: "Terminating a Project", page 24.*

Describing a Transformation Portfolio

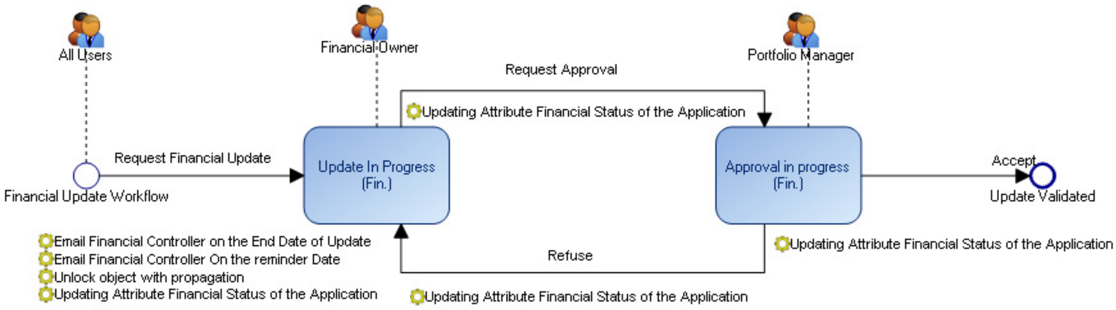
Building a *portfolio* with **HOPEX IT Portfolio Management** consists of defining all the information, in particular the comparison criteria, that will allow you to choose the projects to implement.

For more information on project portfolio management, see "Project portfolio management", page 37.

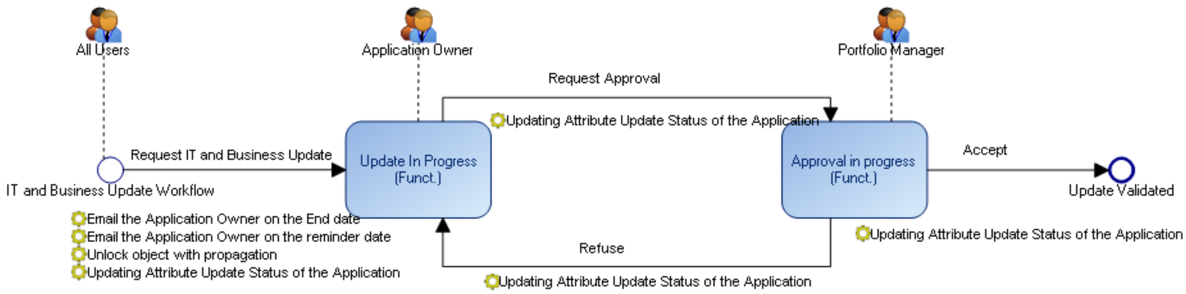
Appendix - HOPEX IT Portfolio Management Workflows

This chapter presents **HOPEX IT Portfolio Management** workflow diagrams.

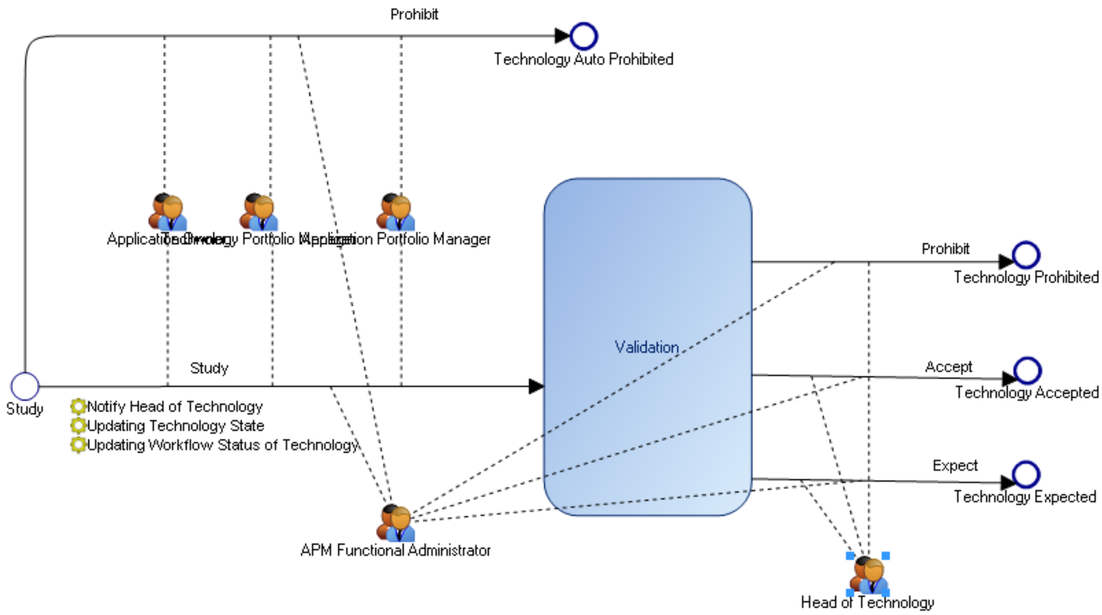
Financial Update Workflow



IT and Business Update Workflow



TECHNOLOGY VALIDATION WORKFLOW



Technology Financial Update Workflow