

# HP Asset Manager

Software version: 5.20

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## Portfolio

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# Introduction

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## Who is the Portfolio module intended for?

The Portfolio module spans a wide range of uses, and thus can be used by nearly every department in a company.

For the most part, it is used by the following people:

- IS managers
- Stock managers
- Asset Manager deployment technicians
- Financial managers
- Purchasers
- Security managers
- General departments
- Cabling managers
- Network managers
- Telephony managers

The Portfolio module is the point of focus for Asset Manager's other module. This guide covers the general concepts of this module that will come in handy for a wide range of Asset Manager users.

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## What does the Portfolio module do?

The Portfolio module enables you to perform the following tasks:

- Keep a detailed, physical inventory of all the items composing your portfolio.  
For each item you can take into account its:
  - Description
  - User and manager
  - Geographic location
  - Cost center
- Precisely track the portfolio items using:
  - Individual tracking
  - Collective tracking (by batch)
  - Undifferentiated management

Managing these tasks enables you to:

- Describe each portfolio item (features, location, etc.)
- Track each portfolio item according to its constraints or requirements.
- Manage the portfolio items in a differentiated manner.
- Easily perform work orders on the portfolio items.
- Create projects necessitating the use of portfolio items.

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## How to use this guide

### **Chapter Overview**

This chapter presents the different portfolio management styles proposed by Asset Manager. It also presents the tables that you must populate to structure your portfolio.

You should read this information to form a general idea of how Asset Manager functions.

### **Chapter Portfolio items**

This chapter discusses what you need to do to manage your portfolio items.

Read this chapter to familiarize yourself with the Portfolio module.

### **Chapter IT portfolio**

This chapter explains how to manage your IT portfolio using the Portfolio module.

Read this chapter to familiarize yourself with how computers, computer connections and IT configurations are managed.

This chapter also deals with automatic computer inventory.

### **Chapter Telephones**

This chapter explains how to manage telephones using the Portfolio module.

Read this chapter if you want to manage your telephones with the Portfolio module. You can also associate certain functions with the buttons of the telephones.

### **Chapter Business services**

This chapter explains how to manage business services using Asset Manager's **Portfolio** module.

Read this chapter to familiarize yourself with how business services and client-resource relationships that make up business services are managed.

### **Chapter Work orders**

This chapter explains how to perform work orders on your portfolio and how to include portfolio items in your projects.

### **Chapter Adjusting items**

This chapter explains how to adjust the fields of your records.

To explain how adjusting items work, we created an example that you can reproduce in order to familiarize yourself with their functions.

### **Chapter Glossary**

The terminology specific to the Portfolio module is specialized. The glossary contains the key terms that we use to describe the Portfolio module.

Read this chapter to understand these terms.



# 1 Overview

Asset Manager helps you manage the items in your company's portfolio. These items can be physical objects (computers, machines-tools, consumables, office supplies) or intangible objects (software installations).

Asset Manager lets you closely track portfolio items throughout their lifecycle. Different management types enable you to apply the most suitable form of management to items in your portfolio depending on their value and/or their use.

---

## Three management types

Asset Manager offers you three management types that are suited to the value of items in your portfolio:

- Individualized management (by asset)
- Collective management (by batch)
- Undifferentiated management (by untracked batch)

What sets these three management types apart is the level of tracking applied to each one.

Whether or not you track an item in your portfolio depends on whether or not it has a record in the Assets table. All items with records in this table can be tracked according to their financial, technical and contractual information. The notion of untracked portfolio items refers to those items that do not have records in this table (untracked batches).

With Asset Manager, you can increase the level of tracking for your portfolio items. Example: You can transform an untracked batch to a tracked batch, which corresponds to a record in the Assets table.

### Individualized management (by asset)

Assets are portfolio items of substantial value, and they are tracked individually in Asset Manager. In the case of a server, for example, Asset Manager can hold information about its location, supervisor, price, depreciation type, etc. All this information is specific to the asset. Technically, an asset in Asset Manager corresponds to a record in the Portfolio items table that is linked to a record in the Assets table.

### Collective management (by batch)

Certain, identical portfolio items of lesser value can be tracked collectively as a batch. In this case, the Assets table holds information that helps you track the entire batch, and not individual items within the batch. This management mode avoids superfluous duplication of tracking information, such as the acquisition price. Technically, a batch in Asset Manager corresponds to one record in the Assets table and one or more records in the Portfolio items table. This is especially the case when a batch is divided, and the resulting batches are used by different departments.

### Undifferentiated management (by untracked batch)

Certain portfolio items of little value, or consumables, are managed as untracked batches (pencils, ink cartridges). An untracked batch does not have a linked record in the Assets table. Most of the time, these items are indirectly tracked by default via items with which they are associated. You can transform a untracked batch into a tracked batch at any given time.

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## Main tables used in portfolio management

The main tables used in portfolio management are:

- The Models table (amModel) and the Natures table (amNature).  
These two tables are prerequisites for creating items in your portfolio. Portfolio items are based on a model, which in turn is based on a nature. The Models table enables you to organize your portfolio (► [Portfolio items](#) [page 27]).
- The Portfolio items table (amPortfolio)



All portfolio items are recorded in this table.

Click the **Portfolio management/ Portfolio items** link on the navigation bar to display the list of portfolio items.

By using the detail of an asset you can access the detail of a portfolio item.

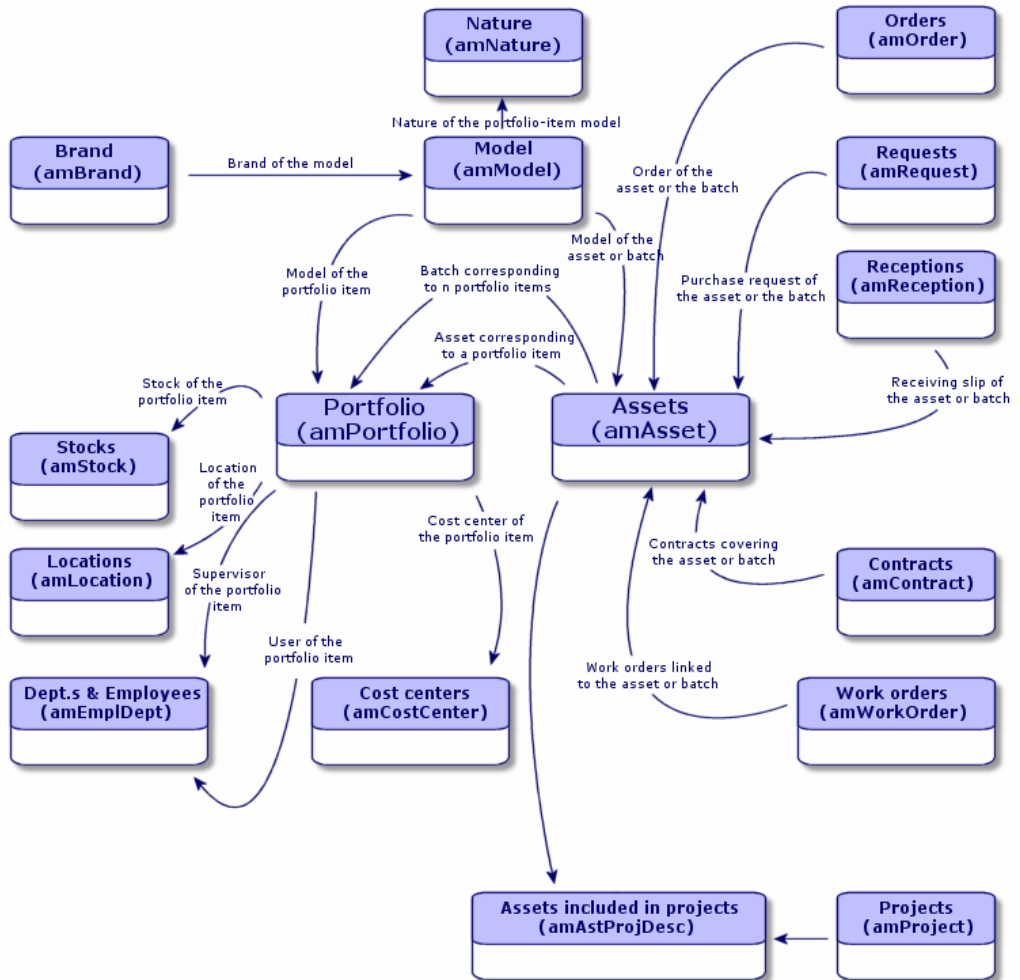
The Portfolio items table is linked to other tables, which enable you to put these items into context:

- The Employees and Departments table (amEmplDept) provides the items' users and supervisors.
- The Locations table (amLocation) provides their location.
- The Cost Centers table (amCostCenter) provides their related expense lines.
- The Assets table:

Portfolio items with records in the Assets table can be tracked more closely, since, here, they are linked to their corresponding financial, technical and contractual information. This information is recorded in multiple tables with which the Assets table is linked. Among the most important of these tables are:

- The Contracts table (amContract)
- The Work Orders table (amWOrder)
- The table of assets assigned to projects (amAstProjDesc)
- The Requests table (amRequest)
- The Purchase Orders table (amPOrder)
- The Receipt Lines table (amReceiptLine)

Figure 1.1. Portfolio - Data model



## Overflow tables

Certain portfolio items are very specific and thus necessitate the use of specific fields. Example: Managing and tracking computers requires that you store large amounts of information. Adding fields in the Portfolio items table to contain this specific information would:

- Slow down Asset Manager's performance.
- Be useless for many other items not needing such information specified.

A typical solution is to have specific tables to contain this information. For example: Any portfolio item corresponding to a computer is recorded in the Portfolio items table and then in a second table: the Computers table. However, this method makes the synchronization process very difficult, since you must constantly make sure that:

- The computers are recorded in both the Portfolio items table and the Computers table.
- The deletion of a computer from the portfolio automatically deletes the computer from the Computers table.
- Etc.

To avoid these synchronization problems, Asset Manager uses overflow tables. Each time you specify one or more overflow table for a portfolio-item record, this record is simultaneously created in the Portfolio items table and the overflow table: the Assets table and the Computers table, for example. Each creation or deletion of a record in one of these two tables is automatically carried over into the other tables, saving you precious time in the synchronization process.

The overflow tables enable you to more easily integrate Asset Manager with other applications. For example: Asset Manager provides out-of-the-box integration with different software distribution tools and stores all information required by this functionality. All this information is present in the Computers overflow table.

You can easily add new overflow tables. This expands Asset Manager's physical data model without you having to make large modifications to its database.

For further information, refer to the **Administration** guide, chapter **Standard database description files**.

## Overview of the overflow tables

In order that a portfolio item be recorded in an overflow table, you need to specify this action in the nature of this item's model (► [A nature's creation criteria](#) [page 23]).

### Available overflow tables

The available overflow tables are the:

- Assets table (amAsset)

This is the main overflow table in Asset Manager. The only portfolio items not recorded in this table are those defined as untracked batched. (► [Untracked batches](#) [page 40]).

---

 **Note:**

The overflow link (PortfolioItems) contained in this table enables the creation of batches and shares the foreign key.

This table enables you to store detailed information on assets:

- Purchase date
- Status
- Rent
- Acquisition method
- Fixed Asset number
- Etc.
- Computers table (amComputer)

This table is an overflow table of the Assets table: Creating a computer generates a record in the Portfolio Items table, the Assets table, and the Computers table.

In particular, it is used to store information relating to integration with software distribution tools:

  - ◆ **Software distribution identifier** (SWDID)
- Telephones table (amPhone)

This table is an overflow table of the Assets table: Creating a telephone generates a record in the Portfolio Items table, the Assets table, and in the Telephones table.

It enables you to store information relating to telephony assets:

  - Voice mail
  - Extension
  - Number
  - Etc.
- Software installations table (amSoftInstal)

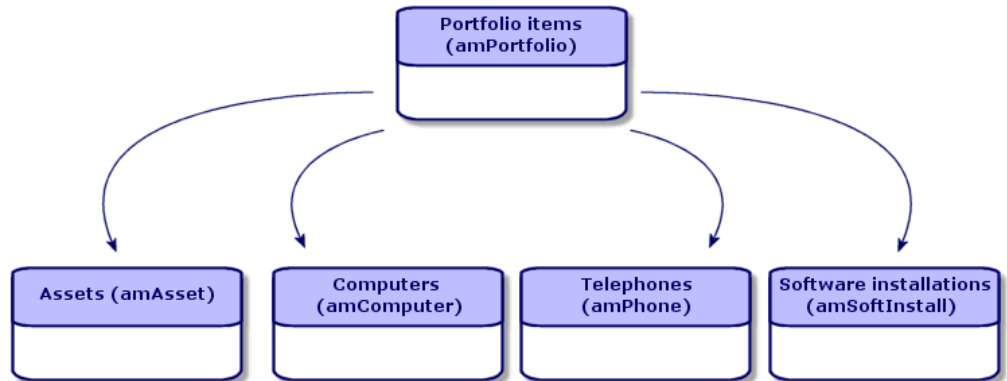
This is an overflow table stemming from the Portfolio items table: The creation of a software installation does not necessitate the creation of a record in the Assets table: The creation of a software installation generates a record in the Portfolio items table and a record in the Software installations table.

This table enables you to store information about your software installations.

  - License number
  - Certification
  - Installation type
  - Number of points consumed by each software installation (for Microsoft Select type licenses).

- Etc.

Figure 1.2. Overflow tables - data models



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## Description and tracking of portfolio items

Asset Manager enables you to contextualize items in your portfolio.

### Contextualization

One of the main goals in managing your portfolio is to be able to contextualize its items. Whether you manage a thousand items or a hundred thousand items, you can contextualize them with accuracy. Asset Manager provides the following contextual information for each item or batch of items:

- Its status.
- Its user and supervisor.
- Its location.
- Its cost center.
- All other linked items in the portfolio (associated assets, consumables, supplies).

By being able to precisely locate portfolio items and see how they are used, you can:

- Efficiently monitor their movements (Example: assignment of a group of computers to another department).

- Evaluate the needs of each department (Example: calculate the ratio of photocopiers per department).
- Distribute new computer hardware evenly.
- Locate hardware given to a customer.
- Avoid allocating 2 identical assets to the same person (For instance: a consultant who uses several laptops).
- Rapidly reorganize cost centers related to portfolio items.
- Etc.

## Tracking

The tracking of portfolio items is fundamental. Asset Manager lets you choose whether to track portfolio items individually or by batch. For portfolio items that you don't consider worth tracking closely (office supplies or consumables), an undifferentiated tracking (by untracked batch) lets you simply contextualize them.

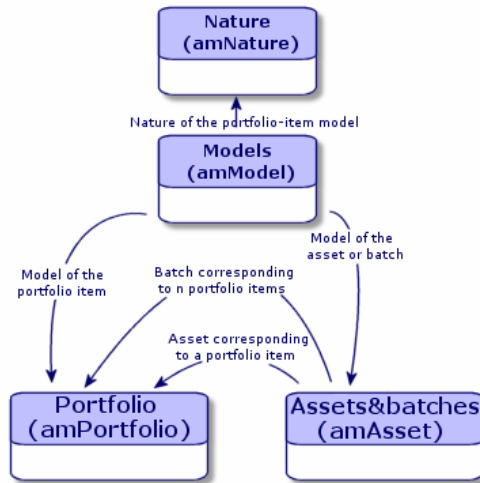
For each asset or batch, the tracking options enable you to:

- Create a fixed asset.
- Obtain linked requests, estimates, purchase orders and receiving slips when using the Procurement module.
- Obtain cost-related information.
- Obtain work order and project-related information.
- Look up its acquisition method (purchase, lease, rental, loan).

---

## Nature: Creation and behavior

The organization of your portfolio depends on the organization of models, which are in turn based on natures. Therefore, you need to create the natures before creating the models.



The nature of a model determines different criteria that are inherited by the portfolio items and all other items based on the models in Asset Manager: Contracts, Trainings, Work orders, Cables, etc.

Each nature specifies the tables in which you can create records for the model linked to this nature. Example: A **Computer** nature enables you to create models that will in turn create computers in the Portfolio items table. In order for natures to enable you to create portfolio items, a second condition must be entered: the management constraint.

For each nature enabling you to create portfolio item models, you can also select behavior options. Example: For a **Computer** nature, the **Can be connected** option enables you to display tabs relating to connection ports.

### A nature's creation criteria

For each nature, you must indicate the table in which the models based on this nature will be able to create records. Example: One nature enables you to create models of portfolio items; another nature enables you to create models of contracts; etc.

For the natures enabling you to create portfolio item models, you must indicate an overflow table: Computers table, Software installations table, Telephones table, or any table of your choice. Example: A nature enables you to create models for portfolio items and computers. In this case, creating a portfolio item based on this nature automatically creates a corresponding record in the Computers table. ► [Creating a nature for computers](#) [page 57].

For further information, refer to the **Administration** guide, chapter **Standard database description files**.

### Management constraint

The management constraints enable you to define the way in which you manage a portfolio item.

The management constraint is rendered by the use or absence of an asset tag. An asset tag conditions whether the portfolio item is linked to a record in the Assets table. There are three options for the management constraint:

- Unique asset tag  
Portfolio items with their own asset tag are individually tracked assets. Using a unique asset tag is recommended for more important portfolio items that require close and constant tracking. Examples: A server, a machine tool, a photocopier.
- Unique or shared asset tag  
Portfolio items sharing the same asset tag are grouped together in a batch and tracked collectively. Items in the same batch share the same asset tag. This management mode is recommended for identical items that do not need to be tracked individually. Example: A batch of 100 chairs; a batch of 20 hard hats.
- Free  
If this option is selected for the portfolio item, you are free to choose whether to give it an asset tag or not. Portfolio items without asset tags are those for which accurate tracking is not required. These items are grouped together in untracked batches and do not appear in the Assets table. Example: Office supplies of little value (pencils, erasers, paperclips) or consumables that are tracked indirectly through the items that consume them.

### A nature's behavior criteria

Selecting one or more behavior option for the nature of an item conditions the availability of certain fields and tabs in the tables of these items. Example: Selecting **License** in the nature of a portfolio item enables the **License** tab to be displayed in the Models table. The following behavior options are available in Asset Manager:

- Has software installed



- Can be connected
- Consumable
- Cable device
- License

---

## Models: Organizing your portfolio

By creating models, you determine a number of features that the portfolio items inherit when you create them: name, brand, other technical features related to computers, etc.

Models are organized hierarchically: Generic models enable you to classify your models more precisely. The way in which you organize your models governs the way in which your portfolio will be organized.



## 2 Portfolio items

This chapter describes the procedures for managing portfolio items. These procedures concern how records are edited in the following tables:

- Natures (amNature)
- Models (amModel)
- Portfolio items (amPortfolio)
- Assets (amAsset)
- Computers (amComputer)
- Software installations (amSoftInstall)
- Telephones (amPhone)

---

### Natures

Natures are required to create the models that you use to create the portfolio items. Because the nature governs the management constraints of the portfolio items, you must create as many natures as you require for a given type of portfolio item. Example: If you manage software as assets, batches and untracked assets, you must create three corresponding natures: Software, Software (batch), Software (untracked batch).

To display the list of natures, click the **Portfolio management/ Natures** link on the navigation bar.

## Creating the nature for a portfolio item

To create the nature for a portfolio item:

- 1 Display the natures (**Portfolio management/ Natures** link on the navigation bar).
- 2 Click **New**.
- 3 Enter a value in the **Name** field.
- 4 Modify the **Code** field, if required.  
By default, the **Code** field uses the value of the **Name** field. This field enables you to enter a code to uniquely identify the record. It can be used as a reconciliation key between records in the Asset Manager and other applications when importing or exporting data.
- 5 Select **Portfolio item** in the **Creates** field.
- 6 Select **Telephone** or **Computer** in the **Also create** field if you want to create a nature that allows you to create models of telephones or computers.
- 7 Select a management constraint.
- 8 Select, if required, one of the options in the **Behavior** frame.
- 9 Click **Create** to confirm your creation.

## Examples of natures

We recommend creating as many natures as there are models of portfolio items. The following table presents a non-exhaustive list of examples of natures.

**Table 2.1. Portfolio - Examples of natures**

Name	Also create	Management constraint	Behavior
<b>General</b>			
Asset	Nothing	Unique asset tag	No option
Batch	Nothing	Asset tag	No option
Untracked batch	Nothing	Free	No option
Consumable	Nothing	Free	Consumable
Raw material	Nothing	Asset tag	No option
<b>IT</b>			
Computer	Computer	Unique asset tag	<ul style="list-style-type: none"> <li>■ Has software installed</li> <li>■ Can be connected</li> </ul>
Computers (batch)	Nothing	Asset tag	No option
Software installation	Software installations	Unique asset tag	No option
Software installations (batch)	Software installations	Asset tag	No option

Name	Also create	Management constraint	Behavior
Software installations (untracked batch)	Software installations	Free	No option
License	Nothing	Unique asset tag	◆ License
Licenses (batch)	Nothing	Asset tag	◆ License
Licenses (untracked batch)	Nothing	Free	◆ License
Standard configuration	Computer	Asset tag	■ Has software installed ■ Can be connected
<b>Other</b>			
Cable device	Nothing	Unique asset tag	◆ Cable device
Telephone	Telephone	Unique asset tag	No option

## Models

Models, which are based on natures, enable you to organize your portfolio items. Depending on your requirements, models can go from very generic to very specific.

### Example of organization of software models

The following example represents a way of organizing your software models:

- 1 All the software models are based on a nature that creates a portfolio item. The management constraint depends on the way you want to manage your software: individually, by batch or by untracked batch.
- 2 A generic **Software** model is created.
- 3 Sub-models enable you to classify software according to their use: Office automation, ERP, Project management, etc.
- 4 Other models are created for the Office Automation sub-model for specific applications: Word processor, Spreadsheet, DTP, File Management.
- 5 Models created at the bottom of the hierarchy correspond to specific models which can be used to create individual software items in the Portfolio items table: Software/Office Automation/Word processor/Microsoft Word 2000.

To display the list of models, click the **Portfolio management/ Models** link on the navigation bar.

## Creating a portfolio item model

To create a model:

- 1 Click **New**.
- 2 Enter a value in the **Nature** field of the **General** tab.

- 3 Enter a value in the **Name** field.
- 4 Enter a parent model in the **Sub-model of** field.  
Example: When creating the **Office Automation** model, enter **Software** in the **Sub-model of** field.
- 5 Enter a value in the **Brand** field in the case of a specific model.  
Example: When creating the **Word 2000** model, enter **Microsoft** in the **Brand** field.
- 6 In the case of a batch, select the unit used.
- 7 Select **Certified** if the model created can be used in a purchase request. If necessary, enter a date and a certification level.
- 8 Click **Create** to confirm your creation.
- 9 Populate the different tabs according to the features that the items in your portfolio have inherited from the created model.

## Units used in batches

You sometimes need to specify a unit of measure when you create a model for a batch of items. Example: Let's say you create a model for a batch that contains sand. You want to use the unit of measure **Ton**, for example.

To create units, you need to have already created reference units for each of the dimensions that you use in your portfolio. Here are some examples of dimensions: **Temperature**, **Measure**, **Mass**. After having created reference units, you can create an unlimited number of other units whose coefficients of conversion with the reference unit need to be specified. Example: For the **Mass** dimension, you create the reference unit **Kilogram** and the unit **Ton** whose conversion coefficient is 1000 (1000 kg = 1 ton).

The unit selected in the model of a portfolio item appears in symbolic form after the **Quantity** field in the Portfolio items table and Assets table.

### Creating a reference unit

To create a reference unit:

- 1 Display the units (**Administration / System/ Units** link on the navigation bar).
- 2 Click **New**.
- 3 Populate the **Name**, **Dimension** and **Symbol** fields. (Example: Kilogram, Mass, Kg.)
- 4 Enter **1** in the **Conv. coeff.** field.
- 5 Click **Create** to confirm your creation.

## Creating units

To create a unit:

- 1 Display the units (**Administration / System/ Units** link on the navigation bar).
- 2 Click **New**.
- 3 Populate the **Name**, **Dimension** and **Symbol** fields. (Example: Pound, Mass, Lb.)  
Once you have chosen your dimension, the reference unit symbol of this dimension appears in the field next to the **Conv. coeff.** field.
- 4 In the **Conv. coeff.** field, enter the number that converts the reference unit into the created unit. Example: For the pound, you would enter 0.454. (One pound equals 0.454 kilograms.)
- 5 Click **Create** to validate.

## Viewing units



This operation can only be done using the Windows client.

For ease of use, we recommend customizing the units screen and creating a virtual hierarchy.

You can, for example, group the information by the dimensions of units:

- 1 Display the units (**Administration / System/ Units** link on the navigation bar).
- 2 Right-click the **Dimension** field.
- 3 Select **Group by this field** from the shortcut menu.  
The list is sorted by dimension, each dimension defining a level in the hierarchy.

---

## Portfolio item users

For each portfolio item, you need to choose between 2 modes of user management

- Assign a single user
- Assign a principal user and secondary users

### Assign a single user

- 1 Display portfolio item detail.

- 2 Display the **General** tab.
- 3 Uncheck the **Shared portfolio item** box (bUsers).
- 4 Populate the **User** link (User).

## Assign a principal user and secondary users

- 1 Display portfolio item detail.
- 2 Display the **General** tab.
- 3 Check the **Shared portfolio item** box (bUsers).
- 4 Populate the **User** link (User).

### Important:

This link plays a key role, as certain processes are based on this link and not on the **Users** link (Users) in the **Users** tab.

For example, the default requester of a deployment work order is determined by the **User** (User) link.

- 5 Display the **Users** tab.
- 6 Add secondary users

### Tip:

It can be useful to add the user who has been selected at the level of the **User** (User) link.

Values in the **User** link are not automatically updated in the **Users** link.

## Find all portfolio item users

When searching for all portfolio item users (filter or request, for example), think of referring to the following links:

- **User** (User)
- **Users** (Users)

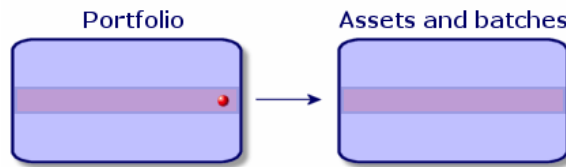
---

## Assets

In Asset Manager, an asset corresponds to a portfolio item whose nature has the management constraint: Unique asset tag (► [Management constraint](#) [page 24]). The Unique-asset-tag management constraint means an asset will



be managed individually (individual management). In the database, an asset is represented by a record in the Assets table and a record in the Portfolio items table.



---

 **Note:**

For each record in the Assets table, you can select the Portfolio tab to consult the detail of the corresponding portfolio item.

To display the list of assets, click the **Portfolio management/ Assets** link on the navigation bar.

## Creating an asset

To create an asset:

1 Display the assets (**Portfolio management/ Assets** link on the navigation bar).

2 Click **New**.

In the **General** tab, an asset tag is assigned to a new record.

3 Select a model in the **Model** field.

The model of an asset must rely on a nature whose management constraint is **Unique asset tag** (► [Management constraint](#) [page 24]).

If the selected model has a prefix, this prefix appears in front of the asset's asset tag.

4 Click **Create** to confirm your creation.

5 Populate the tabs according to the different tracking information that is available for that asset.

Other than the **General**, **Portfolio** and **Project** tabs, the tabs available for the Assets table concern different domains of tracking:

- Financial domain
  - Costs
  - Acquisition
  - Fixed assets

- ▶ [Financial tracking of assets](#) [page 42].
- IT domain
  - License
  - Connections
  - Port
  - ▶ [IT portfolio](#) [page 57].
- Contractual domain
  - Contracts
  - Maint. (maintenance)
  - ▶ [Assets linked to a contract](#) [page 50] and the **Contracts** guide.
- Cabling domain
  - Slots
  - Pins/Terminals
  - Traces
  - Ports
  - ▶ **Cable** guide.

## Portfolio items associated with an asset

An asset is the only item in the portfolio that can be associated with other portfolio items. The portfolio items associated with other items can be divided into:

- Consumables
 

Consumables are the portfolio items whose model is based on a nature for which the option **Consumables** has been selected.

For more information about behavior options, refer to section [Nature: Creation and behavior](#) [page 23].
- Software installations
 

Software installations are portfolio items whose model is based on a nature for which the option **Software installation** has been selected (in the **Also create** field (seOverflowTbl)).

  - ▶ **Software assets** guide.
- Licenses
 

Licenses are the portfolio items whose model is based on a nature for which the **License** option is selected.

  - ▶ **Software assets** guide.

## Associating portfolio items to an asset

To associate portfolio items with an asset, several methods are available depending on the following criteria:

- The portfolio item already exists in the database.
- The portfolio item must be created on the fly when associated to an asset.
- The portfolio item is a batch in stock, and you want to associate some of the batch to an asset.


To filter by nature the portfolio items associated with an asset (consumables, licenses, installations), select one of the options displayed by default to the left of the list of items associated to an asset.

To filter by date of association the portfolio items associated with an asset, enter values in the **To** and **From** fields.

### To associate an existing portfolio item to an asset

- 1 Display the portfolio items (**Portfolio management/ Portfolio items** link on the navigation bar).
- 2 Select the portfolio item that you want to associate with your asset.
- 3 Select the asset using the **Component of** link (Parent).
- 4 Click **Modify**.

### To associate an asset with a portfolio item on the fly

- 1 Display the assets (**Portfolio management/ Assets** link on the navigation bar).
- 2 Select the asset with which you want to associate the portfolio item.
- 3 Select the **Components** sub-tab in the **Portfolio** tab.
- 4 Click .
- 5 Create the portfolio item that you are associating to your asset.
- 6 Click **Add**.

### To associate an asset to certain items of a batch in stock

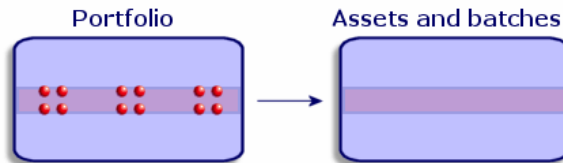
- 1 Display the portfolio items (**Portfolio management/ Portfolio items** link on the navigation bar).
- 2 Select the asset with which you want to associate a portfolio item from a batch in stock.
- 3 Click **Stock**.
- 4 Wait until the **Add an item from stock** wizard appears.
- 5 In the **Select an item from stock** page, select the batch that you want to associate with your asset.
- 6 Click **Next**.

- 7 In the **Quantity** page, select the number of items from your batch to associate with your asset.  
You can also populate the other fields on this page if you wish.
- 8 Click **Finish**.

---

## Batches

In Asset Manager, a batch corresponds to a portfolio item whose nature has the management constraint: Asset tag (► [Management constraint](#) [page 24]). The Asset-tag management constraint means that an item will be managed collectively instead of individually (unique Asset tag). The batches contain identical items whose quantity is indicated. Example: a batch of 1000 safety helmets. These batches can be composed either of countable items (keyboards, bags of cement, etc.) or uncountable items (cement, sand, kerosene, etc.). For uncountable items, a unit of measurement is used: kilogram, ton, liter, meter, etc. When you create a batch, a double-record is created: one in the Portfolio items table and one in the Assets table.



---

### Note:

For each batch record in the Assets table, you can select the Portfolio tab to consult the detail of the corresponding portfolio item.

No matter how many divisions exist for a batch, each of these divisions in the Portfolio items table all correspond to the same, single record in the Assets table (► [Dividing a batch](#) [page 38]).

To display the list of assets, click the **Portfolio management/ Assets** link on the navigation bar.

## Creating a batch

To create a batch:

- 1 Display the assets (**Portfolio management/ Assets** link on the navigation bar).
- 2 Click **New**.  
In the **General** tab, an asset tag is assigned to this new record.
- 3 Select a model in the **Model** field.  
The model of an asset must rely on a nature whose management constraint is **Asset tag**. (► [Management constraint](#) [page 24]).  
If the selected model has a prefix, this prefix appears in front of the batch's asset tag.
- 4 Specify the quantity in your batch.  
You must choose the batch's reference unit of measurement in the model used to define your batch (► [Units used in batches](#) [page 30]).
- 5 Click **Create** to confirm your creation.
- 6 Populate the tabs according to the different tracking information that is available for that batch.

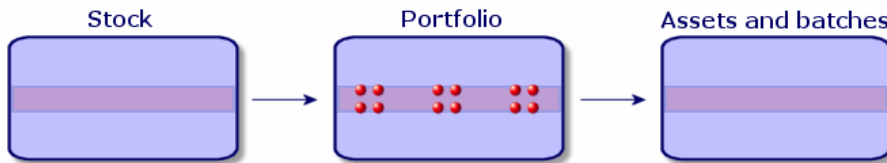
Other than the **General**, **Portfolio** and **Project** tabs, the tabs available for the Assets and batches table concern different domains of tracking:

- Financial domain
  - Costs
  - Acquisition
  - Fixed assets
  - [Financial tracking of assets](#) [page 42]
- IT domain
  - License
  - Connections
  - Port
  - [IT portfolio](#) [page 57].
- Contractual domain
  - Contracts
  - Maint. (maintenance)
  - [Assets linked to a contract](#) [page 50] and the **Contracts** guide.
- Cabling domain
  - Slots
  - Pins/Terminals
  - Traces
  - Ports
  - **Cable** guide.

## Dividing a batch

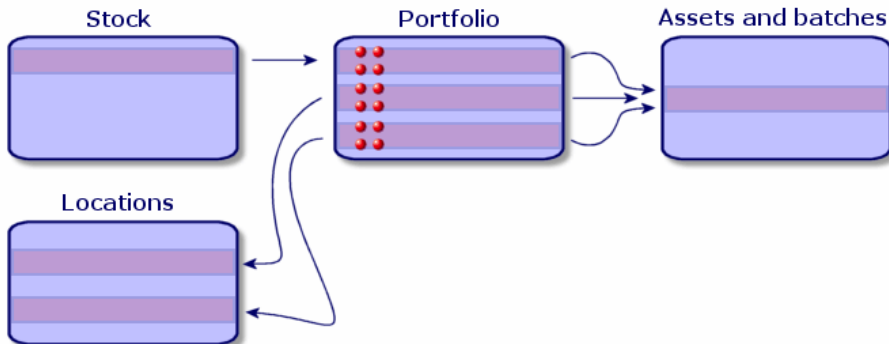
Dividing a batch enables you to create, from the initial record in the Assets table, several records in the Portfolio items table that are associated with that initial record. Each of these records corresponds to the batch obtained from dividing the record of the initial batch.

For example: Let's say you receive a batch of 12 chairs in stock. You create a record in the Assets table for these chairs. In the database, a record is created in the Assets table and in the Portfolio items table. This batch is put in stock.



Next, let's say you divide this batch into three batches of 4 chairs. One batch of 4 stays in stock and the other two batches of 4 go to two different locations in your company. In this case, the record corresponding to the batch is identical to the one in the Assets table, but it is henceforth linked to three records in the Portfolio items table, corresponding to:

- A batch of 4 chairs still in stock.
- A batch of 4 chairs linked to the first location.
- A batch of 4 chairs linked to the second location.



## Dividing a batch

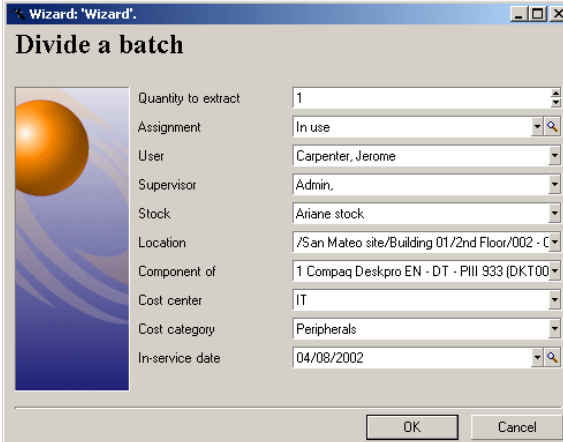
There are two ways to divide a batch:

- Using a **Divide a batch** wizard.
- Creating several links from the Assets table to the Portfolio items table.

## Using the **Divide a batch** wizard

To use the **Divide a batch** wizard:

- 1 Display the list of portfolio items.
- 2 Select the batch that you want to divide.
- 3 Click **Divide**.
- 4 Wait for the first page of the **Divide a batch** wizard to appear.



The screenshot shows a Windows-style dialog box titled "Wizard: 'Wizard'." with a sub-title "Divide a batch". On the left side, there is a decorative graphic of an orange sphere. The main area contains several input fields, each with a label and a value:

Quantity to extract	1
Assignment	In use
User	Carpenter, Jerome
Supervisor	Admin,
Stock	Ariane stock
Location	/San Mateo site/Building 01/2nd Floor/002 - C
Component of	1 Compaq Deskpro EN - DT - PIII 933 (DKT00
Cost center	IT
Cost category	Peripherals
In-service date	04/08/2002

At the bottom right of the dialog box, there are two buttons: "OK" and "Cancel".

- 5 Enter the number of items of the new batch in the **Quantity to extract** field.
- 6 Enter the new data that will enable you to contextualize the new batch: locations, users, managers, etc.
- 7 Click **Finish**  
In the Portfolio items table, the number of items contained in the new batch is subtracted from divided batch. The new batch then appears as a new record in the Portfolio items table.

## Creating several links to the Portfolio items table from the Assets table

To create several links to the Portfolio items table from the Assets table:

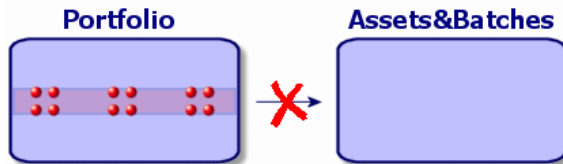
- 1 Display the list of assets.
- 2 Select a record corresponding to a batch.
- 3 Go to the **Portfolio** tab and add a link toward the Portfolio items table.  
Windows client: Once a record from the Assets and batches table is linked to several records in the Portfolio items table, we recommend that you display these links in list form. (Go to the **Portfolio** tab, right-click and select **List only** from the shortcut menu that appears.)

---

## Untracked batches

In Asset Manager, an untracked batch corresponds to a portfolio item that uses a nature whose management constraint is free. (► [Management constraint](#) [page 24]). This management constraint corresponds to the undifferentiated management type.

An untracked batch only appears in the Portfolio items table, which enables it to be contextualized: It is linked to a location, a user, a manager, a cost center. The absence of an untracked batch in the Assets table means that it doesn't contain financial, technical or contractual information. Untracked batches are reserved for items of little value (office supplies, for example) or consumables. In fact, consumables can be tracked indirectly by managing the portfolio items that consume them.



Click the **Portfolio management/ Portfolio items** link on the navigation bar to display the list of portfolio items.

### Creating an untracked batch

To create an untracked batch:

- 1 Display the portfolio items (**Portfolio management/ Portfolio items** link on the navigation bar).
- 2 Click **New**.  
A code is assigned to this new record.
- 3 Select a model in the **Model** field.
- 4 Specify the quantity in your untracked batch.  
You must choose the batch's reference unit of measurement in the model used to define your batch. (► [Units used in batches](#) [page 30])
- 5 Click **Create** to confirm your creation.
- 6 Populate the tabs according to the different contextual information that is available for that batch. (► [Contextualizing portfolio items](#) [page 47])



## Consumables

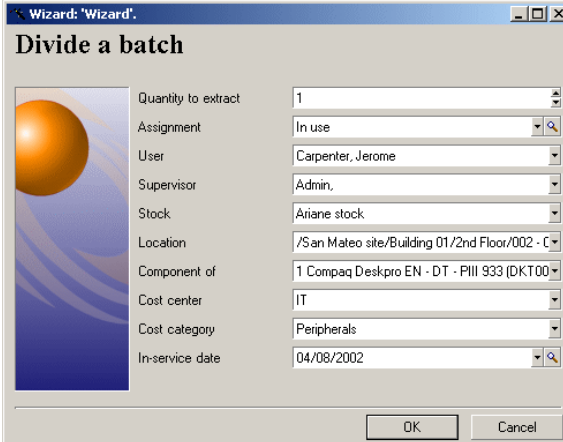
Consumables are portfolio items that, once they are associated with an asset, can no longer be disassociated from it. Consumables are created from models whose nature has a **Free** management constraint. The **Consumable** behavior option must also be selected. (► [Management constraint](#) [page 24])

► [Portfolio items associated with an asset](#) [page 34]

## Dividing an untracked batch

To divide an untracked batch:

- 1 Display the list of portfolio items.
- 2 Select the batch that you want to split up.
- 3 Click **Divide**.
- 4 Wait until the **Divide the batch** wizard appears.



The screenshot shows a dialog box titled "Wizard: 'Wizard'" with the subtitle "Divide a batch". The dialog contains several fields for configuring the new batch:

Quantity to extract	1
Assignment	In use
User	Carpenter, Jerome
Supervisor	Admin,
Stock	Ariane stock
Location	/San Mateo site/Building 01/2nd Floor/002 - C
Component of	1 Compaq Deskpro EN - DT - PIII 933 [DKT00]
Cost center	IT
Cost category	Peripherals
In-service date	04/08/2002

At the bottom of the dialog are "OK" and "Cancel" buttons.

- 5 Enter the number of items in the new batch into the **Quantity to extract** field.
- 6 Enter the new data that will enable you to contextualize the new batch: location, user, supervisor, etc.
- 7 Click **Finish**.

In the Portfolio items table, the number of items contained in the new batch is subtracted from divided batch. The new batch then appears as a new record in the Portfolio items table.

## Transforming an untracked batch into a tracked batch

You might need to change an untracked batch into a tracked batch for a variety of reasons. Example: You need to link a batch of desks, which you use for several offices, to different projects. To do this, this batch must correspond to a record in the Assets table.

To transform an untracked batch:

- 1 Display the list of portfolio items.
- 2 Select the untracked batch.
- 3 Click **Tag**.

This action creates a record corresponding to that batch in the Assets and batches table. The tag assigned to the batch's record is actually an asset tag, which is one of the features of the records located in the Assets table.

---

## Financial tracking of assets

Financially tracking assets enables you to:

- Describe their mode of acquisition.  
Was the messaging server purchased, rented or borrowed?
- Log the expenses resulting from them.  
How many times did we need to order batches of 50 reams of paper for the photocopier in the documentation department?
- Describe their fixed-asset accounting information.  
What type of depreciation method has been chosen for company vehicles?

To consult or modify financial information, you must display the list of assets and select one of the three following tabs:

- **Acquis.** (Acquisition)
- **Costs**
- **Fixed assets**



Note:

In this section, **Assets** covers both assets and batches, which have similar-type records in the Assets table.

## Asset-acquisition information

The **Acquis.** tab enables you to view the main information on how an asset was acquired. Most of this information is organized into sub-tabs.

## Acquisition method

Asset Manager manages four acquisition methods for assets:

- Purchase
- Rental
- Lease
- Loan

The acquisition method you choose determines the information displayed:

- Certain tabs in the asset detail.
- Certain fields in the **Acquis.** tab.
- Certain sub-tabs in the **Acquis.** tab.

An asset's acquisition method (SQL name: seAcquMethod) is Purchase by default. The other acquisition methods available are the following: Rental, Lease, Loan.

## Contracts related to asset acquisition

No matter what acquisition method you select, you can always link a contract to the acquisition from the **Procurement** sub-tab. The selected contract then appears in the **Contracts** tab of the asset detail.

### Warning:

If you confirm your selection of a contract, the **Acq. method** (SQL name: seAcquMethod) is modified automatically to indicate the financing mode specified in the **Default acquisition method for assets** field (SQL name: seAcquMethod), in the **General** tab of the contract detail.

## Companies related to the acquisition of an asset or batch

In the **Procurement** sub-tab, you can select:

- A **Lessor** (SQL name: Lessor) for rented or leased assets.
- A **Lessor** for assets on loan.

## Additional rent description sub-tabs

Whatever acquisition method you select, it is possible to add rent description sub-tabs in the **Acquis.** tab. To add a sub-tab, right-click the sub-tab zone and select **Add linked record**.

We use rent in the broadest possible sense of the word: It can be taken to mean any sum to be paid periodically for an asset such as insurance premiums, maintenance contract payments, etc.

These sub-tabs are similar to lease-rent description sub-tabs.

## Costs of an asset

The **Costs** tab in an asset detail displays the expense lines associated with that asset.

Specific filters are located at the top of the list.

The  button lets you total the costs displayed in the list after filtering.

## Fixed-asset information

This section describes the following points:

- Describing fixed assets.
- How to associate fixed-asset accounting information with assets.

### Describing fixed assets

#### Describing and calculating the depreciation of an asset

The information concerning the depreciation of an asset appears in the **Fixed Asset** tab of an asset's detail.

This tab only appears if you set the **Acq. method** field (SQL name: seAcquMethod) in the **Acquis.** tab to **Purchase**.

There are two kinds of information contained in this tab:



- In the left-hand frame, there is information (fields and links) used for calculating the depreciation and residual value of an asset.
- In the right-hand frame, there is information (records) from the **Fixed assets** table (SQL name: amFixedAsset) associated with the asset after it is imported into Asset Manager.

The depreciation calculation formulas are defined in the **Depreciation calculation formulas** table (SQL name: amDeprScheme).

You can select the calculation formula used for the asset via the **Depreciation type** link (SQL name: DeprScheme) in the left-hand frame of the tab.

#### Defining the depreciation calculation formulas

To define a depreciation calculation formula:

- In an asset detail:
  - 1 Go to the **Fixed Asset** tab.
  - 2 Click the  (Windows client) or  (Web client) button to the right of the **Depreciation type** (DeprScheme) field.
- Or via the **Administration/ List of screens** menu, which opens a window:



**Note:**

This operation can only be done using the Windows client.

- 1 Select **List of depreciation types** (SQL name: amDeprScheme).
- 2 Click **New**.
- 3 Populate the **General** tab.
- 4 Create a calculation script in the **Script** tab.

The objective of the script is to calculate the depreciation values using the following fields:

- In the **Depreciation calculation formulas** table:
  - **Duration** field (SQL name: tsDeprDur)
  - **Coefficient** field (SQL name: fCoeff)
  - **Rate** field (SQL name: pRate).
- In the **Assets** table (SQL name: amAsset):
  - **Start date** field (SQL name: dStartAcqu)
  - **Depreciation basis** field (SQL name: mDeprBasis)
  - **Estimation date** field (SQL name: dDeprRecalc)

The amount obtained must modify the value of the **Depreciation** field (SQL name: mDeprVal).



**Note:**

The **Residual value** field (SQL name: mNetValue) is automatically recalculated by Asset Manager when the **Depreciation basis** and/or **Depreciation** fields are modified.

Simplified example of a calculation script describing a straight-line depreciation:

```
Dim iNbOfDays As Integer
iNbOfDays = amDateDiff([dDeprRecalc], [dStartAcqu])
If (iNbOfDays <= 0) Or ([DeprScheme.tsDeprDur] <= 0) Then
Set [mDeprVal] = 0
ElseIf (iNbOfDays >= [DeprScheme.tsDeprDur]) Then
Set [mDeprVal] = [mDeprBasis]
Else
Set [mDeprVal] = [mDeprBasis] * iNbOfDays / [DeprScheme.tsDeprDur]
End If
Set [dDeprRecalc] = amDate -> Set [dDeprRecalc] = amDate()
```

Asset Manager uses an automatic mechanism to recalculate the value of the **Depreciation** field if the reference fields are modified.

## Estimating depreciation for a group of assets

In some cases, you might want to update the value of the **Depreciation** field on a given date for a selection of assets. To do this, you simply need to modify the value of the **Estimation date** field after having selected the assets to be updated together.

You can also create a **Script Type** action (SQL name: seActionType) to perform this task. Its script will resemble:

```
Set [dDeprRecalc] = amDate
```

Asset Manager will then use an automatic default mechanism to update the **Depreciation** field.

You can even create a workflow that triggers the above action on a periodical basis for a group of assets.

## How to associate fixed-asset accounting information with assets

Two methods are available:

### From the asset detail

- 1 Click the **Fixed Asset** tab.
- 2 Add or remove fixed assets associated with the asset.

You can also display the list of fixed assets in another window, select the fixed asset to be associated with the asset, and drag it into the list in the asset's **Fixed asset** tab.

### From the fixed asset detail

- 1 Click the **Assets** tab.
- 2 Add or remove assets associated with the fixed asset.

You can also display the list of fixed assets in another window, select the fixed asset to be associated with the asset, and drag it into the list in the fixed asset's **Asset** tab.

---

## Movements of portfolio items

The Portfolio items table enables you to monitor the movements of portfolio items.

For each selected item, you have contextual information. Other operations in Asset Manager are reflected in the Portfolio items table. Example: If a photocopier is reassigned to another department in the Employees and Departments table, you simply need to consult the record in the Portfolio items

table in order to see that this change has been made. The Portfolio items table also helps you find out who has reserved items that are on order but not yet received.

In the Portfolio items table, two tabs enable you to monitor movements of portfolio items:

- The **General** tab enables you to monitor the physical movements of portfolio items.
- The **Reservation** tab enables you to reserve unassigned items.

## Contextualizing portfolio items

The following fields in the **General** tab of the Portfolio items table enable you to contextualize each item by associating them with:

- A particular assignment.
- The dates they were put into production and inventoried.
- A user.
- A manager.
- A location, or a stock if the item is not yet assigned.
- A cost center.

If the contextual information given by default is insufficient, you can add as many fields and features as necessary. To add features, refer to the chapter 'Features tables' in the "Cross-functional tables" guide and the chapter "Customizing the database" in the Asset Manager Administration Guide.

In the Portfolio items table, you can also divide a batch. The [Dividing a batch](#) [page 38] wizard enables you to assign a batch a new location, a new department, a new cost center, etc. Each batch created using the [Dividing a batch](#) [page 38] wizard stays linked to the same record in the Assets table. This enables you to track together items that have different contextual information.

► [Batches](#) [page 36]

## Reserving portfolio items

An item can only be reserved if the **Assignment** field (SQL name: seAssignment) in the **General** tab of the detail of the item is set to **In stock** or **Awaiting receipt**.

Several methods are available for reserving portfolio items.

From the portfolio item detail

To reserve a portfolio item:

- 1 Display the portfolio items (**Portfolio management/ Portfolio items** link on the navigation bar).
- 2 Specify the request line of the selected portfolio item.
- 3 Display the **Reservation** tab of the detail of the portfolio item you want to reserve.
- 4 Specify the reservation start and end dates as well as the person who reserved the asset.



To delete a reservation, modify the value of the **Assignment** field, or delete the values of the fields relative to the reservation.

### From a purchase request


A purchase request may include:

- Items to be ordered that do not yet exist in the Portfolio items table.
- Items to be reserved via the purchase request. These items have already been created in the Portfolio items table, and they meet the conditions defined above.

To reserve a portfolio item via a purchase request:

- 1 Display the purchase request detail.
- 2 Display the detail of the request composition by clicking **Compo.**
- 3 Go to the **Reservations** tab.
- 4 Click 
- 5 The displayed window lists portfolio items whose **Assignment** field (SQL name: seAssignment) indicates **In stock** or **Awaiting delivery**.
- 6 If there are portfolio items corresponding to these criteria in the database, select them, then click **Select** to reserve them. Otherwise, click **New** to create new portfolio items. The **Assignment** of the portfolio items that you create should show **In stock** or **Awaiting delivery**. Populate the necessary fields, then click **Add** to create the portfolio item, then **Select** to reserve it.
- 7 Validate the reservation by clicking **Modify** in the detail of the request composition, then in the request detail.
- 8 You can also populate the **End date** (SQL name: dReservEnd) field of the asset detail. To do so, click the  button in the **Reservations** tab in the detail of the request composition.

To delete a reservation made through a request:

- 1 Select the reservation from the list in the **Reservations** tab of the request composition detail.
- 2 Click  to delete the reservation.



## Impact on stock management

Reserving a portfolio item affects the management of the stock for that portfolio item: Reserved portfolio items are no longer counted when stock levels are checked (► [Creating stock rules](#) [page 52]).

### Note:

The stock to which a reserved portfolio item is assigned is indicated in the **Stock** field (SQL name: Stock) in the **General** tab of the portfolio item detail.

## Managing the end of a portfolio item's life

When a portfolio item is no longer used (written off, destroyed, stolen, sold, etc.), you may want to leave it in the database and just modify its description to take into account its new status.

To show that a portfolio item is no longer used:

- 1 Select the item that is no longer used.
- 2 On the **General** tab, set the **Assignment** field (SQL name: seAssignment) to **Retired (or consumed)**.
- 3 If necessary, unlink the item from its parent item by clearing the **Component of** (SQL name: Parent) field.
- 4 In the case of an asset or a tracked batch, update the **Fixed Asset**, **Contracts**, **Maint.**, **Acquis.**, **Connections** and **Projects** tabs in the Assets table.

### Note:

When the record of a portfolio item is destroyed, all information concerning this item is lost for good. We recommend simply retiring items that are no longer used but for which information needs to be kept.

## Return a portfolio item to a supplier

If a portfolio item was delivered and accepted, but there is a problem (for example, the portfolio item is damaged):

- 1 Select the portfolio in question.
- 2 Set the **Assignment** field (SQL name: seAssignment) to **Return to supplier**.

This status is temporary as how the portfolio item will be handled is currently unknown:

- If the portfolio item is repaired and recovered: set the **Assignment** field to **In use**.  
The portfolio item's identifiers (**Asset tag** field) remain unchanged.
- If the portfolio item is replaced by another portfolio item: Set the **Assignment** field to **Retired (or consumed)** and create the new portfolio item (with new identifiers).
- If the portfolio item is taken back by the supplier: Set the **Assignment** field to **Retired (or consumed)**.

### Entrust temporarily the portfolio item to a third-party company

If a portfolio item has been temporarily entrusted to a third-party company for repair, preventive maintenance or to be updated:

- 1 Select the portfolio in question.
- 2 Set the **Assignment** field (SQL name: seAssignment) to **Return for maintenance**.

The portfolio item should be returned to the portfolio at a later date.

### Set a portfolio item as missing

If a portfolio item cannot be found:

- 1 Select the portfolio in question.
- 2 Set the **Assignment** field (SQL name: seAssignment) to **Missing**.

It is recommended that you select this value for a software installation whose **Inventory date** (dtInvent) field value is previous to the computer's **Last software scan** (dtSoftScan) field value.

---

## Assets linked to a contract

You can associate an asset with one or more contracts.

These associated contracts can be viewed in two of the tabs in the Asset's table: **Contracts** and **Acquis**.

 Note:

In this section, **Assets** covers both assets and batches, which have similar records in the Assets table.

---

## The Contracts tab

The **Contracts** tab presents the list of all the contracts associated with the asset.

A specific filter is located at the top of the tab.

This filter enables you to view the contracts based on three conditions:

- **All**: displays all the contracts.
- **Current**: displays only the current, valid contracts for a given period.
- **Expired**: displays out-dated contracts.

The associated contracts are listed and sorted according to their nature, company, start date, end date or the date the asset was put on that contract.

When you add a contract, or when you consult the contract line, a new window opens displaying the detail of that contract line.

- Select the desired contract, then enter the date on which the asset is added to it, as well as the asset's planned removal date from the contract.
- You can also populate the **Authorization** and **No. of utilizations** fields, but they are not mandatory.

## The Acquis. tab

An asset can be acquired within the framework of a contract.

The **Acquis.** tab enables you to associate a contract with an asset using any of the following methods:

- Purchase
- Rental
- Lease
- Loan

According to the acquisition method, sub-tabs enable you to specify the details of the acquisition contract.

Refer to the **Contracts** guide for more information on how to create and manage contracts associated with an asset.

---

## Stocks

A stock contains in-stock portfolio items or those awaiting delivery.

In the detail of a portfolio item, the **Assignment** field (SQL name: seAssignment) in the **General** tab is set to **In stock** or **Awaiting receipt**. For example, a portfolio item that was recently bought but has not yet been installed

or given to a user. These portfolio items can be seen in the **Portfolio** tab of the stock detail.

Asset Manager enables you to set up automatic stock reorder rules. Asset Manager Server monitors stock reorder levels.

---

 **Warning:**

You need to run Asset Manager Automated Process Manager on a client or server station so that it can monitor the stock reorder levels.

---

You can create as many stocks as you want using Asset Manager.

To display the stocks table, click the **Portfolio management/ Extended portfolio/ Stocks** link on the navigation bar.


## Creating stock rules

Asset Manager enables you to associate rules with a stock that will trigger automatic purchase requests in order to replenish your stock with portfolio items.

These stock management rules are defined in the **Management** tab of a stock detail. Each rule is associated with a model and indicates the quantity that is needed in order for the portfolio items to exist in the same number as indicated for the model.

It is Asset Manager Automated Process Manager that verifies the level of replenishment of stock lines.

To create a stock rule:

- 1 Click the **Manage** tab.
- 2 Click .
- 3 Wait until the **Add a stock management rule** window appears.
- 4 Specify the model of the portfolio item for which you want to create a stock rule (Example: ink cartridges for printers).
- 5 Populate the **Reorder level** field with the quantity for which the purchase order request is automatically created (Example: 5).
- 6 Populate the **To order** field with the number of portfolio items to order.

If a portfolio item is an asset or a tracked batch, Asset Manager Automated Process Manager creates a purchase order whose **Quantity** field is equal to 5. Upon receipt of an order based on this request:

- In the case of an asset, 5 records are created in the Portfolio items table.
- In the case of a tracked batch, a record with a quantity of 5 is created in the Portfolio items table.

For each stock management rule relating to a model:

- 1 Asset Manager Automated Process Manager calculates the quantity of items available from the **Portfolio** tab of the stock detail.

For portfolio items corresponding to tracked batches, Asset Manager Automated Process Manager verifies that the quantity of the items in the batch equals the amount indicated in the **Quantity** field.

- 2 Using the quantity indicated in the **Reorder level** field (SQL name: lReordLevel) of the stock rule detail, Asset Manager Automated Process Manager automatically creates a purchase request order.
- 3 As long as the request has not been entirely received, Asset Manager Server will not verify the stock management rule that it has generated. So, no new requests will be sent out until the previous request has been fully received.
- 4 As soon as the request has been entirely received, Asset Manager Server:
  - Readjusts the stock levels.
  - Deletes the contents of the **Request line** field (SQL name: ReqLine) from the stock rule detail.
  - Re-enables the stock management rule.



#### Note:

The frequency with which the stock table is verified is defined at the level of Asset Manager Automated Process Manager.

### Calculation of the number of items effectively available

To count the number of items currently available during each stock-rule verification for a given model, Asset Manager Automated Process Manager counts the number of items based on this model contained in the **Portfolio** detail of the stock.

Only the unreserved portfolio items are counted.

### Creating reorder requests

If necessary, Asset Manager Automated Process Manager generates a purchase-order-request line to reorder stock for each stock rule:

- The purchase-order parameters are described in the **Auto-request** tab of the stock detail.
- The purchase order specifies the quantity to be reordered in the **To order** field (SQL name: lQtyToOrder) of the stock rule detail.

When a purchase request created automatically through stock level verification is delivered, the quantities in stock are adjusted.

## Stock management procedure

This section details the following points:




- List of portfolio items in stock.
- Placing portfolio items in stock.
- Issuing portfolio items from a stock.

### List of portfolio items in stock

The **Portfolio** tab of the stock detail lists all the portfolio items in the selected stock.

#### Filters

Above the list of portfolio items in stock are three filters:

-  First simple filter.
-  Second simple filter.
-  Third simple filter.

Between the filters there is an "AND" condition (in the SQL sense).

#### Tree view of the list of the portfolio items in stock

When you list the portfolio items in stock using a tree view:

- If an item in stock contains items associated with it, but that are not in stock, these items will not be displayed.
- If an item in stock is a sub-item of other items, the entire chain of parent items appears. The parent items that are not in stock appear in gray.

### Placing items in stock

There are several ways of putting items in stock:

#### From the detail of portfolio items

In the **General** tab of portfolio items:

- 1 Set the **Assignment** (SQL name: seAssignment) field to **In stock**.
- 2 Select the stock in the **Stock** field (SQL name: Stock).

#### From the stock detail

In the **Portfolio** tab of the stock detail, use the  button to add items.

#### From an order detail

The purchase-order composition lines creating portfolio items can create items in stock. To do this:

- 1 Select the appropriate order in the table of orders (**Procurement/ Orders** link on the navigation bar).
- 2 For each purchase-order composition line creating a portfolio item, verify that the **Deliv. stock** field (SQL name: Stock) of the **Purchase** tab indicates the name of the stock. Otherwise, you need to populate this field.
- 3 To create the portfolio items awaiting receipt, make sure the **Ord. status** field is set to **Validated** or **Ordered**. Click **Create**: The portfolio items are created in the portfolio items table.

For each item thus created in the Portfolio items table:

- The **Assignment** field in the **General** tab of the item's detail indicates **Awaiting receipt**.
- The **Stock** field has the same value as in the **Delivery** field of the **Purchase** tab of the item's order-composition line.

### Issuing assets from a stock

There are several ways to take items out of stock:

#### From the detail of portfolio items

In the **General** tab of a portfolio item's detail:

- 1 Display the list of portfolio items in "List and Detail" mode.
- 2 Select all the portfolio items that you want to remove from stock.
- 3 Set the **Assignment** field (SQL name: seAssignment) to **In use**.
- 4 Select the user and the manger of these items if they all items belong to the same user and manager.
- 5 Define the location as well, if they all have the same location.

#### From the stock detail

- 1 Go to the **Portfolio** tab of the stock detail.
- 2 Select all the items to remove from stock.
- 3 Click  to the right of the list. In this case, the value of the item's **Assignment** field changes to **In use**.

Or:

- 1 Go to the **Portfolio** tab of the stock detail.
- 2 Display the detail of each of the items that you want to remove from stock.
- 3 Select **In use** for the **Assignment** field, in the **General** tab of each item's detail.
- 4 Select the user, the manager and the location for each the portfolio item.





## 3 IT portfolio

Asset Manager has been specifically designed to help manage your IT portfolio. For every computer in your IT portfolio (computer, workstation, laptop, server, etc.) Asset Manager provides you with a multitude of fields and tables to help you manage it.

---

### Computers

We recommend that you manage your computers individually. This method of management enables you to define a computer's technical data in its model.

Individualized management is also the only type of management allowing a record to be present in the Portfolio items table, the Assets table and the Telephones table at the same time (► [Overflow tables](#) [page 18]).

#### Creating a nature for computers

To create a nature for a computer that you want to manage individually:

- 1 Display the natures (**Portfolio management/ Natures** link on the navigation bar).
- 2 Click **Create**.
- 3 Enter the name and the code of the nature you are creating (example: Computer and Computer).

- 4 Select **Portfolio item** in the **Create** field.
- 5 Select **Computer** in the **Also create** field.  
The Computers table is used to integrate software distribution tools with Asset Manager.
- 6 Select the **Has software installed** and **Can be connected** options.
- 7 Click **Create** to confirm your creation.

## Creating a computer model

Creating a computer model is exactly the same as creating any other model (► [Models](#) [page 29]). You just need to choose the nature for computers (► [Creating a nature for computers](#) [page 57]).

Since the Models table enables you to organize your portfolio, we suggest that you create generic models. For example: Let's say you create the model **Computer** and sub-models **Office computers**, **Laptops** and **Servers**. Using these sub-models, you can create computer models that you will use to create the computer assets in your portfolio.

### Creating a computer model (example)

This section will show you how to create a computer model with the following features:

- HP VECTRA VL 800 computer
- Intel® Pentium® 4 1.3 GHz processor
- 128 Mo standard RDRAM memory
- 40 GB hard drive
- 3.5", 1.44 MB disk drive
- DVD-ROM 12x/40x
- HP multimedia keyboard
- HP optical mouse device

---

To create the model of this computer:

- 1 Display the models (**Portfolio management/ Models** link on the navigation bar).
- 2 Click **New**.
- 3 Enter **VECTRA VL 800** in the **Name** field.
- 4 Enter **Hewlett-Packard** in the **Brand** field.
- 5 Select, for example, **Office computer** in the **Sub-model of** field.

- 6 In the **General** tab, enter or select in the **Nature** field a nature which will allow you to create computer models. (► [Creating a nature for computers](#) [page 57])
- 7 In the **Hardware** tab, enter the data corresponding to your computer:
  - **Pentium 4** in the **CPU** field.
  - **1300** in the **CPU speed** field (in megahertz by default).
  - Enter **128** in the **Memory** field.
  - Enter **40000** in the **Disk size** field.
- 8 Click **Create** to confirm your creation.
- 9 Repeat the same steps to create models corresponding to the different items associated with your computer:
  - Disk drive
  - DVD drive
  - Keyboard
  - Mouse

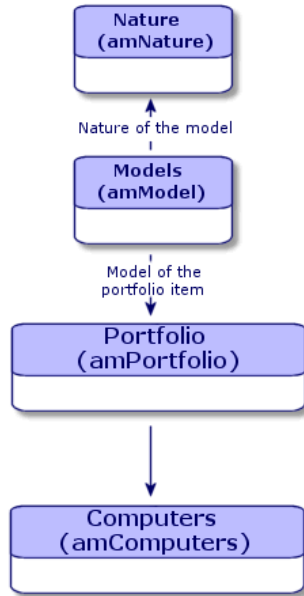
You cannot associate models with other models. On the other hand, you can, when you create your VECTRA VL 800 computer, associate it with these different assets based on these models (► [Portfolio items associated with an asset](#) [page 34]).

## Create computers manually

The computers are recorded in three different Asset Manager tables:

- The Portfolio items table (amPortfolio)
- The Assets and batches table (amAsset)
- The Computers table (amComputer)

The following diagram illustrates which tables deal with computers.



Since the creation of a computer is similar to the creation of an asset, you should refer to the section [Creating an asset](#) [page 33]. To associate portfolio items with a computer, refer to the section [Associating portfolio items to an asset](#) [page 35]. The assets associated with a computer are its peripheral devices (keyboard, printer, various drives), its software applications and its consumable products.

## Create computers automatically

The most effective and reliable way to represent the status of your computer portfolio is to use automatic network inventory tools such as HP Discovery and Dependency Mapping Inventory.

---

### Note:

You can, of course, use other inventory tools. You must make the required changes to the HP Connect-It scenarios and the Asset Manager Automated Process Manager modules for them to work with your inventory software.

These tools are used to identify computers that are present in your portfolio. Inventoried computers can be transferred to the Asset Manager database.

## Configure your environment to import the inventory database created using HP Discovery and Dependency Mapping Inventory

- 1 Perform the computer inventory using HP Discovery and Dependency Mapping Inventory. Use the version specified in the HP Connect-It Support Matrix that ships with Asset Manager 5.2 (available at [www.hp.com/go/hpssoftwaresupport](http://www.hp.com/go/hpssoftwaresupport)).
- 2 Install HP Connect-It in the version as provided with Asset Manager 5.2.
- 3 Start the HP Connect-It scenario builder.
- 4 Open the `edac.scn` scenario (located in the `scenario\ed\ed<HP Discovery and Dependency Mapping Inventory version number>\ed<HP Discovery and Dependency Mapping Inventory version number>ac<Asset Manager version number>` sub-folder of the HP Connect-It installation folder) (**File/ Open** menu).  
For example: `C:\Program Files\HP\Connect-It <Version number> <Language>\scenario\ed\ed25ac52`.
- 5 Configure the **Enterprise Discovery** connector (select the connector in the scenario diagram, **Configure connector...** shortcut menu).  
On the **Select a connection type** wizard page, select a connection type and then populate the related pages in the wizard.
- 6 Configure the **Asset Management** connector (select the connector in the scenario scheme, shortcut menu **Configure connector...**).  
Populate the **Define the connection parameters** page of the configuration wizard.
- 7 Save your modifications and then exit HP Connect-It.
- 8 Start Asset Manager Automated Process Manager.
- 9 Connect to the Asset Manager database (**File/Connect to database**).
- 10 Display the modules (**Tools/ Configure modules** menu).
- 11 Select the **Update the database using Enterprise Discovery inventory results** module (EdAc).
- 12 Check the **Enabled** box.
- 13 Modify the **User data item** field as follows:

```
"$connectit_exedir$/conitsvc.exe" -once -wpplog '$connectit_exedir$/../scenario/ed/ed2ac$version$/edac.scn' -dc:'Asset Management.SERVER'=$cnx $ -dc:'Asset Management.LOGIN'=$login$ -dc:'Asset Management.TEXTPASSWORD'=$pwd$
```

Replace the number **2** with the version number of HP Discovery and Dependency Mapping Inventory that is installed on your station.

- 14 Define the frequency of the **Update the database using Enterprise Discovery inventory results** module (**Verification schedules** frame.)
- 15 Save your modifications (**Modify** button).

## 16 Exit Asset Manager Automated Process Manager.

### Importing the inventory database obtained by HP Discovery and Dependency Mapping Inventory

#### Importing the inventory database

Asset Manager Automated Process Manager, when running in the background with the appropriate modules activated, automatically imports the information from the HP Discovery and Dependency Mapping Inventory inventory database.

#### What is imported from the inventory database

The inventory database contains all the inventoried computers.

To each inventoried computer is attached the components (screen, printer, etc.) and the identified software.

#### Result of the import in the Asset Manager database

A portfolio item is created for every computer, computer component and software item identified on the computer.

### Viewing computers in the HP Discovery and Dependency Mapping Inventory database from Asset Manager

From a computer detail, users can display the detail of the computer in the HP Discovery and Dependency Mapping Inventory database by clicking on the computer's URL address.

#### Preliminary tasks

##### Make the HP Discovery and Dependency Mapping Inventory database accessible via Internet Explorer

Users who want to display the computer detail in the HP Discovery and Dependency Mapping Inventory database must be able to access the HP Discovery and Dependency Mapping Inventory database via Internet Explorer.

##### Import the **Portfolio - Line-of-business data** into your database

The **Portfolio - Line-of-business data** must be imported in order for the integration to work properly.

## Importing the Line-of-business data when you create the database

Follow the instructions in the **Administration** guide, chapter **Creating, modifying and deleting an Asset Manager database/ Creating the database structure with Asset Manager Application Designer**.

On the **Data to import** page, select the **Portfolio - Line-of-business data** option.

## Importing the Line-of-business data into an existing database

Proceed in the following manner:

- 1 Execute Asset Manager Application Designer.
- 2 Select the **File/ Open** menu item.
- 3 Select the **Open database description file - create new database** option.
- 4 Select the `gbbase.xml` file which is located in the `config` sub-folder of the Asset Manager installation folder.
- 5 Start the database creation wizard (**Action/ Create database** menu).
- 6 Populate the pages of the wizard as follows (navigate through the wizard pages using the **Next** and **Previous** buttons):

**Generate SQL script / Create database** page:

Fields	Value
Database	Select the connection to the database into which you wish to import the line-of-business data.
Creation	Import line-of-business data.
Use advanced creation options	Do not select this option.

**Creation parameters** page:

Fields	Value
Password	Enter the administrator's password.
	<p><b>Note:</b></p> <p>The Asset Manager database administrator is the record in the <b>Employees and departments</b> (amEmplDept) table for which the <b>Name</b> (Name) field is set to <b>Admin</b>.</p> <p>The database connection login is stored in the <b>User name</b> (UserLogin) field. The administration name is <b>Admin</b>.</p> <p>The password is stored in the <b>Password</b> field (LoginPassword).</p>

**Data to import** page:

Fields	Value
Available data	Select the <b>Portfolio - Line-of-business data</b> option
Stop import if error	Select this option for the import to stop if a problem is encountered.
Log file	Full name of the file to which all import operations, including errors and warnings, are logged.

- 7 Execute the options defined using the wizard (**Finish** button).

Declare the URL address of the HP Discovery and Dependency Mapping Inventory Web client

- 1 Start the Asset Manager Windows or Web client.
- 2 Start the **Edit the URL address of the application servers...** wizard (BstBackEndOpt) (**Administration/ Edit the URL address of the application servers...** link on the navigation bar).
- 3 Populate this wizard as follows:

Field	Value
<b>Add and/or modify properties of the application servers</b> page	
Name of the application server to add	If, in the lower part of the page, there is no line whose <b>Application</b> column equals <b>ED</b> , populate this field with the value <b>ED</b> , then click <b>Add the application server</b> .



Field	Value
List of applications, line whose <b>Application</b> column equals <b>ED</b> , <b>Server's URL address</b> column	http or https://<HP Discovery and Dependency Mapping Inventory server name>:<Port used by HP Discovery and Dependency Mapping Inventory>
<b>Summary</b> page	Verify the contents of the page.
Click <b>Finish</b>	
Windows client: Click <b>OK</b>	

- 4 Windows client: Reconnect to the database (**File/Connect to database** menu).

#### Creating computers in the Asset Manager database

- 1 Start the Asset Manager Windows or Web client.
- 2 Display the computers (**Portfolio management/ IT/ IT equipment/ Computers** link).
- 3 Populate the detail of the computer, and in particular the following fields and links:

Name of the field or link	SQL name of the field or link	Value
<b>Network</b> tab		
Physical address	PhysicalAddress	Computer identifier in the HP Discovery and Dependency Mapping Inventory database. The format of this identifier is <b>AB-CD-EF-GH-IJ-KL</b> . This identifier must be provided in order to find the computer in the HP Discovery and Dependency Mapping Inventory database.

#### Viewing the computer in the HP Discovery and Dependency Mapping Inventory database from Asset Manager

- 1 Start the Asset Manager Windows or Web client.
- 2 Display the computers (**Portfolio management/ IT/ IT equipment/ Computers** link on the navigation bar).
- 3 Select the computer to display in the HP Discovery and Dependency Mapping Inventory database.
- 4 Display the **Hardware** tab.
- 5 Click the **Display the detail in Enterprise Discovery** link.

Windows client: The default Internet browser starts and displays the page corresponding to the URL address associated with the **Display the detail in Enterprise Discovery** link.

Web client: The Web client displays the page corresponding to the URL address associated with the **Display the detail in Enterprise Discovery** link.

#### How did it work?

Asset Manager uses the **Enterprise Discovery** (sysCoreWebED) calculated field to generate an HTML <A> anchor with an **HREF** attribute whose label is **Display the detail in Enterprise Discovery**. This points to a URL address generated by concatenation:

- Text strings
- The URL address of the HP Discovery and Dependency Mapping Inventory defined by the **Edit the URL address of the application servers...** wizard (BstBackEndOpt)
- **Physical address** field of the computer

When you click the **Display the detail in Enterprise Discovery** link, Asset Manager processes the URL address.

## Displaying incidents, changes and problems for the computer in the HP Service Manager database

From a computer detail, users can display the list of incidents, changes and problems declared for the computer in the HP Service Manager database.

#### Preliminary tasks

[Make the HP Service Manager database accessible via Internet Explorer](#)

Users who want to display the computer detail in the HP Service Manager database must be able to access the HP Service Manager database via Internet Explorer.

[Import the \*\*Portfolio - Line-of-business data\*\* into your database](#)

The **Portfolio - Line-of-business data** must be imported in order for the integration to work properly.

▶ [Import the Portfolio - Line-of-business data into your database \[page 62\]](#)

[Declare the URL address of the HP Service Manager Web client](#)

- 1 Start the Asset Manager Windows or Web client.

- 2 Start the **Edit the URL address of the application servers...** wizard (BstBackEndOpt) (**Administration/ Edit the URL address of the application servers...** link on the navigation bar).
- 3 Populate this wizard as follows:

Field	Value
<b>Add and/or modify properties of the application servers</b> page	
Name of the application server to add	If, in the lower part of the page, there is no line whose <b>Application</b> column equals <b>HP Service Manager</b> , populate this field with the value <b>HP Service Manager</b> , then click <b>Add the application server</b> .
List of applications, line whose <b>Application</b> column equals <b>HP Service Manager</b> , <b>Server's URL address</b> column	http or https://<HP Service Manager server name>:<Port used by HP Service Manager>
<b>Summary</b> page	Verify the contents of the page.
Click <b>Finish</b>	
Windows client: Click <b>OK</b>	

- 4 Windows client: Reconnect to the database (**File/Connect to database** menu).

#### Creating the computers in the Asset Manager and HP Service Manager databases

In order for computers selected in the Asset Manager database to be found in the HP Service Manager database, they must be identified in the same way for the following fields:

	Table	Field
Asset Manager	Computers (amComputer)	Name (Name)
HP Service Manager	computer	logical.name

In order to automate reconciliation between the Asset Manager database and the HP Service Manager database, you can use HP Connect-It integration scenarios between Asset Manager and HP Service Manager or between an inventory tool and Asset Manager and between the same inventory tool and HP Service Manager.

View incidents, changes and problems for the computer in the HP Service Manager database from a Asset Manager Windows client.

- 1 Start the Windows client.
- 2 Display the computers (**Portfolio management/ IT/ IT equipment/ Computers** link on the navigation bar).

- 3 Display the computer detail.
- 4 Do one of the following tasks:

Objective	Action to perform
View incidents in HP Service Manager	Do one of the following tasks: <ul style="list-style-type: none"> <li>■ Click the <b>HP Service Manager</b> button.</li> <li>■ Select <b>View incidents in HP Service Manager</b> from the contextual actions (<b>Actions</b> shortcut menu).</li> </ul>
View changes in HP Service Manager	Select <b>View changes in HP Service Manager</b> from the contextual actions ( <b>Actions</b> shortcut menu).
View problems in HP Service Manager	Select <b>View problems in HP Service Manager</b> from the contextual actions ( <b>Actions</b> shortcut menu).

View incidents, changes and problems for the computer in the HP Service Manager database from a Asset Manager Web client.

- 1 Start the Web client.
- 2 Display the list of computers (**Portfolio management/ IT/ IT equipment/ Computers** link on the navigation bar).
- 3 Select the computer from the list (check box in the left-hand column).
- 4 Do one of the following tasks:

Objective	Select the following value from the <b>Contextual actions</b> list.
View incidents in HP Service Manager	View incidents in HP Service Manager
View changes in HP Service Manager	View changes in HP Service Manager
View problems in HP Service Manager	View problems in HP Service Manager

#### How did it work?

To generate a URL address, Asset Manager uses the following calculated fields (**Administration/ System/ Calculated fields** link on the navigation bar):

- Changes in HP Service Manager (sysCoreWebSCChanges)
- Problems in HP Service Manager (sysCoreWebSCProblems)
- Incidents in HP Service Manager (sysCoreWebSCTickets)

To open the appropriate page of the HP Service Manager Web client, Asset Manager uses the following actions (**Administration/ Actions** link on the navigation bar):

- View changes in HP Service Manager (BstSCChanges)
- View problems in HP Service Manager (BstSCProblems)
- View incidents in HP Service Manager (BstSCTickets)
- View incidents in HP Service Manager (BstHP Service ManagerTickets)

These actions use the calculated fields to retrieve the URL of the HP Service Manager page to display.

---

## Standard configurations

Standard configurations include a CPU, its standard peripheral devices and standard software applications. They correspond to the packaged offers that many IT suppliers provide.

Depending on your needs, you can manage the entire standard configuration as an individual asset, or you can manage each separate element of the configuration as its own asset and then associated them with each other.

### Managing a standard configuration as an individual asset

To manage a standard configuration as an individual asset, you need to create a model corresponding to this configuration. Once the configurations that rely on this model have been created, you can associate them with other items in the portfolio that are not included in the configuration: consumables, new software, new peripheral devices, etc.

#### Advantages

Managing a standard configuration as an individual asset enables you to reduce the number of records you create. Since this standard configuration represents just one record in the Assets and Batches table, you reduce costs tied to tracking these assets financially: depreciation, individual purchasing price, simplified accounting, etc. On the other hand, tracking major changes (deletions, updates) of one of the configuration items can only be done with the help of a complex adjustment operation.

### Managing standard configuration items as associated assets

To manage standard-configuration items as associated assets, you need to:

- 1 Create records corresponding to these assets in your portfolio (► [Creating an asset](#) [page 33])
- 2 Choose a main item among all those included in the standard configuration (example: the CPU).

- 3 Associate this main item with the other items in the configuration (► [Portfolio items associated with an asset](#) [page 34]).

### Advantages

Managing a standard configuration as individual, associated assets enables you to track each item precisely. Thus, all you need to do to replace a keyboard, for example, is delete the link going to that keyboard and create a new link to the new keyboard that you are going to use instead.

---

## Connections between computers

Asset Manager enables you to describe the connections that exist between computers.

The connection model used in Asset Manager describes a generic connection between computer A and computer B. You can customize this model and describe any type of connection you want, and, in particular, the Client/Server type connection. This idea of connections between computers can be found in the following parts of Asset Manager:

- In the **Ports** tab of a model detail (amModel) or an asset detail (amAsset).
- In the list of connection types (amCnxType).

### Prerequisites

The connections are described in the **Ports** tab of an asset detail. This tab only appears if the **Can be connected** option has been selected for this asset's model in the Nature table. (► [A nature's behavior criteria](#) [page 24] and [Natures](#) [page 27]).

---

#### Note:

A computer can have an unlimited number of ports, each one identified individually by a number. Each port, however, can only be involved in one connection.

---

### Ports

The connection between two computers is created with ports. This connection is only valid when the port of computer A and the port of computer B are linked together. This connection is reciprocal: It appears in the **Ports** tab of details of all of the computers involved in the connection. A connection port can be:

- Occupied (linked to a port of another computer or to a different port of the same computer). In this case, it is described in the following way:

```
<Computer> <Port number> - <Port number> <Computer>
```

For example, the connection between computer A and computer B is described in the following way:

- In the detail of computer A:

```
<Computer A> <Port number of computer A> - <Port number of computer B> <Computer B>
```

- In the detail of computer B:

```
<Computer B> <Port number of computer B> - <Port number of computer A> <Computer A>
```

- Free (available for a connection). In this case, it is described in the following way:

```
<Computer> <Port number> -
```

## Creating a connection

In this section, we will use an example to illustrate the method we use to create a connection between two computers: a server and a client post. The example breaks itself down into the following steps:

- 1 Creating a connection.
- 2 Creating computers to connect.
- 3 Declaring the connection.
- 4 Providing supplementary information on the connection.

### Creating a connection

Creating a connection type enables you to link two types of ports, identified by the following fields:

- **Type** (SQL name: Type), which designates the source port.
- **Targ. type** (SQL name: TargetType), which designates the target port associated with the source port.

This relation only works in one direction. In a connection, selecting for your port a source port-type forces you to choose a destination-port type to which to connect it. On the other hand, selecting for your port a target-port type does not force you to choose the type of source port for the computer to which it is connected. The result is that, to create a reciprocal connection, you need to create two symmetrical connection types. For example, in the case of a Client/Server connection:

- From "Client" type to "Server" type.

- From "Server" type to "Client" type.

In this section, we are going to create a reciprocal Client/Server connection model. Selecting this model when you create the connection between computer A and computer B triggers the following automatic mechanisms:

- If the type of port for asset A is "Client", then the type of port to which it is connected on asset B becomes "Server".
- If the type of a port on asset A is "Server", then the type of port to which it is connected on asset B becomes "Client".

---

 **Note:**

This automatic mechanism is invoked only when the connection is created directly.

---

### Opening the Connection types screen

Display the connection types (**Administration/ Connection types** link on the navigation bar).

### Creating a Client/Server type of connection

Create the Client/Server type of connection by following these steps:

- 1 Click **New**.
- 2 Set the **Type** field to "Client".
- 3 Set the **Targ. type** field to "Server".
- 4 You can enter an additional description in the **Description** field (SQL name: memDescription), but this is not mandatory.
- 5 Click **Create** to confirm your creation.

### Creating a Server/Client type of connection

Create the Server/Client by following these steps:

- 1 Click **New**.
- 2 Set the **Type** field to "Server".
- 3 Set the **Targ. type** to "Client".
- 4 You can enter an additional description in the **Description** field (SQL name: memDescription), but this is not mandatory.
- 5 Click **Create** to confirm your creation.

## Creating the computers to connect

### Step 1: Creating two computer models

To create a server model and a client model, refer to the section [Creating a computer model \(example\)](#) [page 58].



When you create the computer models, populate the fields in the **Ports** tab. The computers later on created from these two models in the Assets table will inherit the features that you enter in this tab.

The following table shows you examples of a server model and a client model.

Server	Client
<ul style="list-style-type: none"><li>■ Sun Microsystems Sun Fire 15K</li><li>■ UltraSparc III 64-bit 900 MHz</li></ul>	<ul style="list-style-type: none"><li>■ HP VECTRA VL 800 computer</li><li>■ Intel® Pentium® 4 1.3 GHz processor</li><li>■ 128 Mo standard RDRAM memory</li><li>■ 40 GB hard drive</li></ul>

Once you have created your two computer models, you can create the computers' records in the Assets table using the information from the computer models (► [Creating an asset](#) [page 33]).

### Step 2: Creating the computers in the Assets table

Display the assets (**Portfolio management/ Assets** link on the navigation bar).

Create two new assets by selecting for each one of them one of the two models previously created. Validate these creations by clicking **Create**.

### Declaring the connection

#### Methods for creating a connection


There are two ways to create a connection between two computers:

- Creating a port on each of the computers in question, then by attaching these ports to create the connection. We suggest you use this method to create connections.
- Creating the connection directly from either of the two computers.

We will connect two assets using both methods.

#### Creating ports on each asset, then attaching these ports


From the list of records in the Assets and Batches table, select **Sun Fire 15K** and click the **Ports** tab in the asset detail. Now you will create a vacant port for this computer in the following steps:

- 1 Click the  button. Asset Manager displays the screen for creating connection ports on the **Sun Fire 15K**.
- 2 We simply want to create a vacant "Server"-type port. Consequently, the **Targ. asset** and **Targ. port** fields (SQL: TargetAsset and TargetPort) will be left empty. (These are the fields that enable you to identify the asset and the port of the asset to which you are connected.)

- 3 Set the **Port type** field (SQL name: Type) to "Server".
- 4 Click **Create** to confirm your creation.
- 5 Note that the port is displayed in the **Ports** tab as:


1

Now you will perform the same operation for the **VECTRA VL 800** computer:

- 1 Select **VECTRA VL 800** and click the **Ports** tab in the asset detail.
- 2 Click . Asset Manager displays the screen for creating connection ports for this asset.
- 3 Populate the **Type** field only; set its value to "Client".
- 4 Click **Create** to confirm your creation.
- 5 Note that the port is displayed in the **Ports** tab as:


1

All that remains is to connect these two ports. You can do this from one of the two computers:

- 1 Select **Sun Fire 15K** and click the **Ports** tab.
- 2 Select port **1** and then click .
- 3 Now populate the **Target asset** field (SQL name: TargetAsset) by selecting the **VECTRA VL 800** client.
- 4 The **Target port** field lists all the vacant ports for this asset.



**Note:**

You can also choose a port directly from the list of ports by clicking . When you choose a port from this list, Asset Manager automatically populates the **Target asset** field (SQL name: TargetAsset).

- 5 Click **Modify** or **Close**.
- 6 In the detail of the **Sun Fire 15K** asset, the connection is displayed as:

1 - 1 (<AssetTag of the target asset>)

In the detail of the **VECTRA VL 800** asset, the reciprocal connection is created, i.e.:


1 - 1 (<AssetTag of the target asset>)

- 7 The connection is validated.


## Directly creating a connection

---

### Note:

To create this connection while keeping the previously created computers, you must delete the entries in the **Ports** tab for each of the computers. To do this, select them and then click the  button.



From the list of records in the Assets table, select **Sun Fire 15K** and click the **Ports** tab in the asset detail. Now you will create a connection to **Sun Fire 15K** using the following steps:

- 1 Click the  button. Asset Manager displays the screen for creating connection ports on the **Sun Fire 15K** computer.
- 2 Populate the **Targ. asset** field (SQL name: TargetAsset) and set its value to **VECTRA VL 800**.
- 3 Set the **Type** to "Server".
- 4 Click **Add**.

Asset Manager automatically creates:

- A "Server" type port on the **Sun Fire 15K** computer.
- A "Client" type port on the **VECTRA VL 800** computer.
- A connection between these two ports.

### Additional information on a connection.

Asset Manager enables you to add information about a connection via the connection detail. In the asset detail, click the **Ports** tab, select an existing connection and click the  button. Asset Manager displays the connection detail. Use the **Connection** field (SQL name: Connection) to define additional information. When you click the  button, Asset Manager displays the connection detail screen:

### Note:

No automatic calculations are associated with the fields in this screen. In particular, expense lines are not generated for expenses related to a connection.

## Managing connections

This section explains how to manage a connection. You will find information on the following topics:

- Viewing the number of connections.
- Terminating a connection between two assets.
- Impact of deleting a connected asset.

- Impact of changing the port assignment of a connection.

### Viewing the number of connections


The information in the **Ports** tab of an asset detail enables you to track an asset's connections. The **Max no. connections** and **Current connections** fields (SQL names: sMaxCnxCount and sCnxCount) describe the number of possible connections and the actual number of connections for an asset, respectively. Asset Manager updates the **Current connections** field (SQL name: sCnxCount) when adding or deleting a connection.

#### Note:


The **Max no. connections** field provides an approximate value; it does not trigger any automatic mechanisms. Asset Manager does not prevent you from creating an additional connection if the actual number of connections is greater than the number of possible connections.

### Deleting a connection between two assets

This is the procedure for deleting a connection:

- 1 Move to the detail of one of the assets.
- 2 Click the **Ports** tab and select the connection you want to delete. Click the  button.
- 3 Asset Manager displays the connection detail.
- 4 Clear either the **Target asset** or the **Target port** fields (SQL names: TargetAsset and TargetPort) and click **Modify**, Asset Manager deletes the connection between the two assets. As a result:
  - Additional connection information (accessible from the **Connection** field (SQL name: Connection)) is erased.
  - The ports used for the connection are freed.

#### Note:

If you click the  button in the **Ports** tab of the detail of one of the connected assets, you will also delete the ports used in the connection.

### Impact of deleting a connected asset

When you delete a connected asset, Asset Manager performs the following operations. It:

- Deletes all the connections associated with the asset.
- Deletes all the ports of the asset.
- Frees the ports of all the assets connected to the asset just deleted.

## Impact of changing the port assignment of a connection

You can modify the assignment of a connection port by:

- Completely freeing the port; now it is available for a new connection.
- Connecting the port to a port other than the one originally assigned. In this case, the target port to which the port was previously connected is freed, and it is available for a new connection.

---

## Mobile devices

Mobile devices correspond to communication devices and accessories such as mobile phones, PDAs, etc.

Like computers, mobile devices are stored as portfolio items. They are listed in the computers table and have specific fields.

You can view the mobiles devices via the **Portfolio management/ IT/ IT equipment/ Computers/ Mobile devices** link on the navigation bar.

A mobile device can be linked to a service provider (for example, a telephone carrier).

Mobile devices can be managed in different ways:

- [Creating mobile devices manually](#) [page 77]
- [Creating mobile devices automatically](#) [page 81]

## Creating mobile devices manually

### Creating natures

If none exist, create one or more mobile device natures:

- 1 Display the natures (**Portfolio management/ Natures** link on the navigation bar).
- 2 Add a nature.

Populate in particular the following fields and links:

Name	SQL Name	Value
<b>General</b> tab		
Create	seBasis	Portfolio item
Also create	OverflowTbl	Computers (amComputer)

Name	SQL Name	Value
Type of equipment	seComputerType	Mobile device

Associating this type of nature to a portfolio item (via its model) determines how and on which screens information specific to mobile devices will be displayed.

To learn how to create a nature, please read paragraph [► Natures](#) [page 27].

Instead of creating a nature manually, you can use the nature that is provided in the **Portfolio - Line-of-business** data after this data has been imported into your database.

To learn how to import the **Portfolio - Line-of-business data**: [► Import the Portfolio - Line-of-business data into your database](#) [page 62].

After importing the line-of-business data, the **Mobile device** nature will be available.

### Creating mobile device models

Create the models that will be required when creating the portfolio items to represent the mobile devices that will be in the portfolio.

To learn how to create a model, please read paragraph [► Models](#) [page 29].

The procedure for creating mobile device models is exactly the same as for creating any other model ([► Models](#) [page 29]). Once created, you need to link them to a mobile device nature ([► Creating natures](#) [page 77]).

We recommend that you create several models to categorize your items and then create a model for each mobile device model that will be in your portfolio and link them to one of the categorization models.

Example of a model hierarchy used to categorize items:

- ◆ Mobile device
  - PDA
  - Mobile phone

Instead of creating models manually, you can use the models that are provided in the **Portfolio - Line-of-business** data after this data has been imported into your database.

To learn how to import the **Portfolio - Line-of-business data**: [► Import the Portfolio - Line-of-business data into your database](#) [page 62]

After importing the line-of-business data, you will have a model structure that is organized as follows:

- ◆ IT and Telecom
  - ◆ Communications Devices and Accessories
    - ◆ **Mobile device**
      - **PDA**
      - **Mobile phone**

You can link the models that correspond to the mobile devices in your portfolio to one of the models in this model structure.

### Creating mobile devices

- 1 Display the mobile devices (**Portfolio management/ IT/ IT equipment/ Mobile devices** link on the navigation bar).
- 2 Add a mobile device.  
Populate the **Model** (Model) link by selecting a mobile device model (► [Creating mobile device models](#) [page 78]).

The following fields and links are specific to mobile devices:

Name	SQL Name
Status of the mobile device	MDStatus
<b>Hardware tab</b>	
ROM	IROMMb
External RAM	lExternalRAMMb
<b>Network tab</b>	
Telephone number	PhoneNum
<b>Service providers tab</b>	
This indicates the link to the service providers. You cannot update the <b>Resources</b> directly from the mobile device's record. You need to access the <b>Client-resource relationships</b> in order to do this (► <a href="#">Creating clients and resources involved in a business service</a> [page 102]).	

### Creating service provider models

You must create a model for each service provider. This model will be selected when creating the portfolio item used to represent the service provider.

There are no special constraints concerning the nature to which you are linking the models.

### Creating service providers

To create a service provider:

- 1 Display the portfolio items (**Portfolio management/ Portfolio items** link on the navigation bar).
- 2 Add a portfolio item.  
Populate the **Model** (Model) link by selecting a service provider model (► [Creating service provider models](#) [page 79]).

### Create client-resource relationship types

Asset Manager uses client-resource relationships to represent the link that exists between a mobile device and a service provider.

To describe your client-resource relationships accurately, you will need to use the correct client-resource relationship types (for example: **Uses the carrier's network**).

To create a client-resource relationship type:

- 1 Display the client-resource relationship types (**Portfolio management/ Business services/ Client-resource relationship types** link on the navigation bar).
- 2 Add a client-resource relationship type.

You are only required to populate the mandatory fields, unless you want to manage your business services in greater detail (► [Business services](#) [page 99]).

### Linking mobile devices to service providers

To link a mobile device to a service provider:

- 1 Display the client-resource relationship (**Portfolio management/ Business services/ Client-resource relationships** link on the navigation bar).
- 2 Add a client-resource relationship.

Populate in particular the following fields and links:

Name	SQL Name	Value
Client	Client	Select the mobile device
Relationship type	CRType	Select the client-resource relationship type that exists between the mobile device and the service provider
Resource	Resource	Select the service provider

- Please read section [Practical case: Create a mobile device](#) [page 84] for an example on how to link to a service provider.

### Creating software installation models for software that is present on a mobile device

Create the models that will be required when creating the portfolio items to represent the software installations that are in use on a mobile device (antivirus, GPS navigator, etc).

The procedure for creating software installation models for software which is present on a mobile device is exactly the same as for creating any other model (► [Models](#) [page 29]).

We recommend the following: First, create a **Software for mobile devices** model and link it to a software installation nature. Second, create a software installation model for each software application that is present on your mobile device. Third, link those models to the **Software for mobile devices** model.



Examples of the models hierarchy:

- ◆ Software for mobile devices
  - Cyberon VoiceCommander
  - Google Maps
  - Norton Antivirus

You can now create records in the **Software installations or utilizations** (amSoftInstall) table (**Portfolio management/ IT/ Software installations** link on the navigation bar) and link them to these models, as well as specify the mobile device on which the software is installed in the **IT equipment** (ParentPortfolio) field.

---

 **Note:**

If you are using HP Discovery and Dependency Mapping Inventory to inventory the mobile devices and the software installed on these mobile devices, the edac-mobiledevices.scn HP Connect-It scenario ([▶ Creating mobile devices automatically](#) [page 81]) will automatically create the **Software for mobile devices** model.

This provides you with a model structure that is organized as follows:

- ◆ IT and Telecom
  - ◆ Software
    - ◆ Software installation
      - ◆ **Software for mobile devices**

The sub-models that are required for the software installations that are present on your mobile devices are created automatically by the edac-mobiledevices.scn HP Connect-It scenario ([▶ Creating mobile devices automatically](#) [page 81]) and are linked to the **Software for mobile devices** model.

HP Connect-It creates or updates the record in the **Software installations or utilizations** (amSoftInstall) table which is automatically associated with the portfolio item.

---

## Creating mobile devices automatically

The most effective and reliable way to represent the status of your mobile devices portfolio is to use automatic network inventory tools such as HP Discovery and Dependency Mapping Inventory.



#### Note:

You can, of course, use other inventory tools. You must make the required changes to the HP Connect-It scenarios and the Asset Manager Automated Process Manager modules for them to work with your inventory software.

These tools are used to identify the mobile devices that are present in your portfolio and the software that is installed on those devices. Once the mobile devices have been inventoried, this information can be transferred to the Asset Manager database.

### Prerequisites

You must import the **Portfolio - Line-of-business** data before importing the mobile device data.

▶ [Import the Portfolio - Line-of-business data into your database \[page 62\]](#)

This must be done because the HP Connect-It `edac-mobiledevices.scn` scenario requires the nature and model information that is included in the **Portfolio - Line-of-business** data.

Do not delete the nature (**Mobile device**) nor the models (**Mobile device**, **PDA** and **Mobile phone**) that are imported.

Do not modify the value of the nature's **Code** (Code) field, nor the value of the **Barcode** (BarCode) field of the imported models.

If you decide to create your own natures and models different from those specified below, you will need to modify the `edac-mobiledevices.scn` HP Connect-It scenario.

### Configure your environment to import the inventory database created using HP Discovery and Dependency Mapping Inventory

- 1 Perform the mobile device inventory using HP Discovery and Dependency Mapping Inventory. Use the version specified in the HP Connect-It Support Matrix that ships with Asset Manager 5.2 (available at [www.hp.com/go/hpssoftwaresupport](http://www.hp.com/go/hpssoftwaresupport)).
- 2 Install HP Connect-It in the version as provided with Asset Manager 5.2.
- 3 Start the HP Connect-It scenario builder.
- 4 Open the `edac-mobiledevices.scn` scenario (**File/ Open** menu).

This scenario is located in the `scenario\ed\ed<HP Discovery and Dependency Mapping Inventory version number>\ed<HP Discovery and Dependency Mapping Inventory version number>ac<Asset Manager version number>` sub-folder of the HP Connect-It installation folder).

- For example: C:\Program Files\HP\Connect-It <Version number> <language>\scenario\ed\ed25\ed25ac52.
- 5 Configure the **Enterprise Discovery** connector (select the connector in the scenario diagram, **Configure connector** shortcut menu).  
On the **Select a connection type** wizard page, select a connection type and then populate the related pages in the wizard.
  - 6 Configure the **Asset Manager** connector (select the connector in the scenario scheme, shortcut menu **Configure connector**).  
Populate the **Define the connection parameters** page of the configuration wizard.
  - 7 Save your modifications and then exit HP Connect-It.
  - 8 Start Asset Manager Automated Process Manager.
  - 9 Connect to the Asset Manager database (**File/Connect to database**).
  - 10 Display the modules (**Tools/ Configure modules** menu).
  - 11 Select the **Update mobile devices in the database using Enterprise Discovery inventory results** (EdAcMD) module.
  - 12 Select the **Enabled** option.
  - 13 Modify the **User data item** field as follows:

```
"$connectit_exedir$/conitsvc.exe" -once -wpplog '$connectit_exedir$../scenario/ed/ed2ac$version$/edac-mobiledevices.scn' -dc:'Asset Management.SERVER'=$cnx$ -dc:'Asset Management.LOGIN'=$login$ -dc:'Asset Management.TEXTPASSWORD'=$pwd$
```

- Replace the number **2** with the version number of HP Discovery and Dependency Mapping Inventory that you are using.
- 14 Define the frequency of the **Update all mobile devices in the database using the Enterprise Discovery inventory results** module (**Verification schedules** frame.)
  - 15 Save your modifications (**Modify** button).
  - 16 Exit Asset Manager Automated Process Manager.

## Importing the inventory database obtained by HP Discovery and Dependency Mapping Inventory

### Importing the inventory database

Asset Manager Automated Process Manager, when running in the background with the appropriate modules activated, automatically imports the information from the HP Discovery and Dependency Mapping Inventory inventory database.

## What is imported from the HP Discovery and Dependency Mapping Inventory inventory database

What's imported	Result in Asset Manager
Mobile devices	Portfolio item + model
Service providers	Portfolio item + model
Links between mobile devices and service providers	Client-resource relationship + Client-resource relationship type
Software installations present on a mobile device	Model + item in the <b>Software installations</b> (amSoftInstall) table

### Result of the import in the Asset Manager database

The missing portfolio items, models and client-resource relationships are added to the Asset Manager database.

If they already exist, they are updated.

The **Uses the carrier's network** client-resource relationship type is created if it is missing.

#### Warning:

Mobile devices and service providers that are deleted from the HP Discovery and Dependency Mapping Inventory database are not deleted from the Asset Manager database.

## Practical case: Create a mobile device

In this practical case you will create a record for a **PDA HP iPAQ hx2790** that is linked to telephone carrier **AT&T Mobility (AT&T)**

This practical case has several steps.

### Prerequisites

If you are not using the demonstration database, you will need to import the **Portfolio - Line-of-business data** ([▶ Import the Portfolio - Line-of-business data into your database \[page 62\]](#)).

### Step 1: Creating the telephone carrier

#### Create the brand

- 1 Display the brands (**Portfolio management/ Brands** link on the navigation bar).
- 2 Add a new record and populate the fields and links specified in the following table:

Name	SQL Name	Value
Name	Name	000/AT&T

- 3 Click **Create** in the Windows client or **Save** in the Web client.

#### Creating the model

- 1 Display the models (**Portfolio management/ Models** link on the navigation bar).
- 2 Add a new record and populate the fields and links specified in the following table:

Name	SQL Name	Value
Name	Name	000/AT&T Mobility
Brand	Brand	000/AT&T
<b>General tab</b>		
Nature	Nature	Standard asset

- 3 Click **Create** in the Windows client or **Save** in the Web client.

#### Creating the portfolio item

- 1 Display the portfolio items (**Portfolio management/ Portfolio items** link on the navigation bar).
- 2 Add a new record and populate the fields and links specified in the following table:

Name	SQL Name	Value
Model	Model	000/AT&T Mobility
Assignment	seAssignment	In use

- 3 Click **Create** in the Windows client or **Save** in the Web client.

### Step 2: Creating the mobile device

#### Creating the brand

- 1 Display the brands (**Portfolio management/ Brands** link on the navigation bar).
- 2 Add a new record and populate the fields and links specified in the following table:

Name	SQL Name	Value
Name	Name	000/Hewlett Packard

- 3 Click **Create** in the Windows client or **Save** in the Web client.

#### Creating the model

- 1 Display the models (**Portfolio management/ Models** link on the navigation bar).
- 2 Add a new record and populate the fields and links specified in the following table:

Name	SQL Name	Value
Name	Name	000/HP iPAQ hx2790
Sub-model of	Parent	PDA
Brand	Brand	000/Hewlett Packard
<b>General tab</b>		
Nature	Nature	Mobile device

- 3 Click **Create** in the Windows client or **Save** in the Web client.

#### Creating the mobile device

- 1 Display the mobile devices (**Portfolio management/ IT/ IT equipment/ Mobile devices** link on the navigation bar).
- 2 Add a new record and populate the fields and links specified in the following table:

Name	SQL Name	Value
<b>General tab</b>		
Model	Model	000/HP iPAQ hx2790
Click <b>Create</b> (Windows client)		
<b>General tab</b>		
Assignment	seAssignment	In use
<b>Hardware tab</b>		
ROM	lROMMb	192
External RAM	lExternalRAMMb	1000
<b>Network tab</b>		
Telephone number.	PhoneNum	555-9635

Name	SQL Name	Value
Click <b>Modify</b> (Windows client) or <b>Save</b> (Web client).		

### Step 3: Creating the client-resource relationship

#### Creating the client-resource relationship type

- 1 Display the client-resource relationship types (**Portfolio management/ Business services/ Client-resource relationship types** link on the navigation bar).
- 2 Add a new record and populate the fields and links specified in the following table:

Name	SQL Name	Value
Name	Name	000/Uses the provider's network

- 3 Click **Create** in the Windows client or **Save** in the Web client.

#### Creating the client-resource relationship

- 1 Display the client-resource relationship (**Portfolio management/ Business services/ Client-resource relationships** link on the navigation bar).
- 2 Add a new record and populate the fields and links specified in the following table:

Name	SQL Name	Value
<b>General tab</b>		
Client	Client	Select the <b>000/Hewlett Packard 000/HP iPAQ hx2790</b> record.
Relationship type	CRType	000/Uses the provider's network
Resource	Resource	Select the <b>000/AT&amp;T 000/AT&amp;T Mobility</b> record

- 3 Click **Create** in the Windows client or **Save** in the Web client.

#### Checking that the mobile device has been created

- 1 Display the mobile devices (**Portfolio management/ IT/ IT equipment/ Mobile devices** link on the navigation bar).
- 2 Select the **000/HP iPAQ hx2790** record.
- 3 On the **Service providers** tab, make sure you see the **000/AT&T 000/AT&T Mobility** resource.

---

## Virtual environments

### General overview

Asset Manager enables you to describe virtual environments.

Virtual environment components include:

- **Virtual machines**
- **Virtual machine hosts:** physical computers on which a **virtual machine management software** is installed  
Examples: ESX Server, Solaris Zoning
- **Virtual machine management software:** software installed on a **virtual machine host** and managing **virtual machines**
- **Virtual environment management servers:** physical computers on which a **virtual environment management software** is installed  
Examples: VMWare VirtualCenter
- **Virtual environment management software:** software installed on a **virtual machine host** and managing **virtual environments**

Relationships between some of those components are described:

- Between **Virtual machines** and **Virtual machine hosts:** using the **Component of** (Parent) link in the **Portfolio items** (amPortfolio) table as well as a client-resource relationship (with a **Manages VM** (ManagesVm) client-resource relationship type).
- Between **Virtual machine hosts** and **Virtual environment management servers:** using client-resource relationships (with a **Manages VM host** (ManagesVmHost) client-resource relationship type).

A business service is created and associated to the client-resource relationships for each:

- **Virtual machine host**
- **Virtual environment management server**

You can create virtual environment components either manually or by importing data from HP Discovery and Dependency Mapping Inventory using HP Connect-It.

This section covers the following topics:

- [Preliminary tasks](#) [page 89]
- [Importing virtual environments from HP Discovery and Dependency Mapping Inventory](#) [page 91]
- [Creating virtual machines manually](#) [page 93]
- [Manually specify the host of a virtual machine](#) [page 94]
- [Display a dashboard on your virtualization environments](#) [page 94]



- [Display virtual environment management servers \[page 94\]](#)

## Preliminary tasks

Before you are able to create virtual environments in Asset Manager either manually or through a HP Discovery and Dependency Mapping Inventory import using HP Connect-It, you need to perform the preliminary tasks described in this section.

Import the **Virtualization - Line-of-business data** into your database

These line-of-business data contain:

- Client-resource relationship types:
  - Manages VM host (ManagesVmHost)
  - Manages VM (ManagesVm)
- Natures:
  - Virtual machine (CPUVM)
  - Business service (BIZSVC)
- Models:
  - Virtual machine (VMCPU)
  - VMware ESX Server (SIESX)
  - VMware VirtualCenter (SIVC)
  - VMware ESX Server (ESXSERVER)
  - VirtualCenter Server (VCSERVER)
  - Virtual machine management software (SIVM)
- **Dashboard** type actions:
  - ◆ Dashboard: Virtualization (BstVirtualizDashBoard)
- Statistics:
  - Breakdown of physical computers versus virtual machines (StdStatVirtPhys\_virt)
  - Breakdown of virtual machines by Oper. System (StdStatVirtOS\_virt)
  - Breakdown of virtual machines by State (StdStatVirtStatus\_virt)
  - Breakdown of virtual machines per CPU speed (StdStatVirtCPUSpeed\_virt)
  - Breakdown of virtual machines by Assignment (BstStatVMsByAssignment\_virt)

## Importing the Line-of-business data when you create the database

Follow the instructions in the **Administration** guide, chapter **Creating, modifying and deleting an Asset Manager database/ Creating the database structure with Asset Manager Application Designer**.

On the **Data to import** page, select the **Virtualization - Line-of-business data** option.

## Importing the Line-of-business data into an existing database

Proceed in the following manner:

- 1 Execute Asset Manager Application Designer.
- 2 Select the **File/ Open** menu item.
- 3 Select the **Open database description file - create new database** option.
- 4 Select the `gbbase.xml` file which is located in the `config` sub-folder of the Asset Manager installation folder.
- 5 Start the database creation wizard (**Action/ Create database** menu).
- 6 Populate the pages of the wizard as follows (navigate through the wizard pages using the **Next** and **Previous** buttons):

**Generate SQL script / Create database** page:

Fields	Value
Database	Select the connection to the database into which you wish to import the line-of-business data.
Creation	Import line-of-business data.
Use advanced creation options	Do not select this option.

**Creation parameters** page:

Fields	Value
Password	Enter the administrator's password.
	<p><b>Note:</b></p> <p>The Asset Manager database administrator is the record in the <b>Employees and departments</b> (amEmplDept) table for which the <b>Name</b> (Name) field is set to <b>Admin</b>.</p> <p>The database connection login is stored in the <b>User name</b> (UserLogin) field. The administration name is <b>Admin</b>.</p> <p>The password is stored in the <b>Password</b> field (LoginPassword).</p>

**Data to import** page:

Fields	Value
Available data	Select the <b>Virtualization - Line-of-business data</b> option
Stop import if error	Select this option for the import to stop if a problem is encountered.
Log file	Full name of the file to which all import operations, including errors and warnings, are logged.

- Execute the options defined using the wizard (**Finish** button).

## Importing virtual environments from HP Discovery and Dependency Mapping Inventory

This section describes how to import data from HP Discovery and Dependency Mapping Inventory to Asset Manager using HP Connect-It.

### Supported product versions

HP Discovery and Dependency Mapping Inventory must be version 7.50 or above.

HP Connect-It must be version 3.90 or above.

### Overview of the integration

The integration of Asset Manager and HP Discovery and Dependency Mapping Inventory is based around HP Connect-It scenarios delivered with HP Connect-It.

These scenarios support one-way integration from HP Discovery and Dependency Mapping Inventory to Asset Manager, permitting data in mapped fields to be transferred.

► To know what virtual environment components and relationships between some of those components are transferred, refer to [General overview](#) [page 88].

### Enabling the integration

The integration assumes that the components included in **Virtualization - Line-of-business data** have been imported in the Asset Manager database.

► [Preliminary tasks](#) [page 89].

The HP Connect-It scenarios can then transfer data that can be linked to the natures, models and client-resource relationship types imported from the **Virtualization - Line-of-business data**.

### Use the appropriate HP Connect-It scenario

You will find the following scenario files under <HP Connect-It installation folder>\scenario\ed\ddmi<HP Discovery and Dependency Mapping Inventory version>\ddmi<HP Discovery and Dependency Mapping Inventory version>am52>:

- ddmiac.scn
- ddmiac-hpovcmse.scn
- ddmiac-reconc.scn
- ddmi-swnorm.scn

You have to select one and only one of these scenarios to perform the transfer. They all transfer virtual environment components and relationships the same way.

Differences between these scenarios are not related to the way virtual environments are transferred but to other criteria.

► Refer to the HP Connect-It documentation to understand which scenario to choose.

### How does HP Discovery and Dependency Mapping Inventory identify a virtual machine

HP Discovery and Dependency Mapping Inventory identifies that a machine is virtual and not physical in one of the following ways:

- The machine is linked to another machine using the **VirtualDevice** link.
- If there is no such link, the value of the **Name** field for the HP Discovery and Dependency Mapping Inventory machine is found in the map table.

 **Note:**

The standard procedure should flag all virtual machines as such during the transfer to Asset Manager. However, if for any reason some machines are not correctly flagged, use the following workaround:

- 1 Run the HP Connect-It Scenario Builder
- 2 Open the scenario you are using
- 3 Select the **Scenario/ Maptables...** menu
- 4 Select the **ddmi.mpt** mappable
- 5 Search for **MapTable UnmanagedVMTypes**
- 6 Add the name of the machine that should be transferred as a virtual machine to Asset Manager.

Use the value **Name** filed in HP Discovery and Dependency Mapping Inventory for the machine.

How does DDML identify a computer as a **Virtual machine host** or a **Virtual environment management server**

**Virtual machine hosts** and **Virtual environment management servers** are computers that are linked to another computer using the **VirtualLink** link.

#### Reference Documents

Asset Manager, HP Connect-It and HP Discovery and Dependency Mapping Inventory are each provided with comprehensive installation, user and reference guides, to which you should refer as required for further details and in-depth explanations of the concepts mentioned in this section.

## Creating virtual machines manually

- 1 Display the virtual machines (**Portfolio Management/ IT/ IT equipment/ Virtual machines** link on the navigation bar).
- 2 Add a virtual machine.  
Populate the **Model** link (Model) by selecting a virtual machine model ([► Preliminary tasks \[page 89\]](#)).

The fields and links specific to virtual machines are:

Label	SQL name
Host	sysCoreVMParent

This field is for informational purposes only:  
A calculated field indicates the host machine on which the virtual machine is installed.

Label	SQL name
<b>General tab</b>	
Installation folder	Folder
Serial #	SerialNo
<b>Hardware tab</b>	
Virtualization type	VmType
State of the virtual machine	VmStatus
Max. CPUs	fMaxCpu
Min CPUs	fMinCpu
Max. RAM	lMaxMemory
Min. RAM	lMinMemory

## Manually specify the host of a virtual machine

The host of a virtual machine cannot be selected directly in the screen displayed by the **Portfolio Management/ IT/ IT equipment/ Virtual machines** link on the navigation bar.

To specify the host machine (element in the **Computers** (amComputer) table) on which the virtual machine is installed:

- 1 Display the portfolio items (**Portfolio management/ Portfolio items** link on the navigation bar).
- 2 Display the virtual machine details.
- 3 In the **Component of** (Parent) link, select the host computer.
- 4 Save your changes.

## Display a dashboard on your virtualization environments

Click the **Portfolio management/ IT/ IT equipment/ Dashboard: Virtualization** link on the navigation bar.

## Display virtual environment management servers

- 1 Click the **Portfolio management/ IT/ IT equipment/ Virtual environment management servers** link on the navigation bar.

# 4 Telephones

Telephones in Asset Manager are considered as portfolio items. If you decide to manage them as assets, they can be recorded in the Telephones table.

---

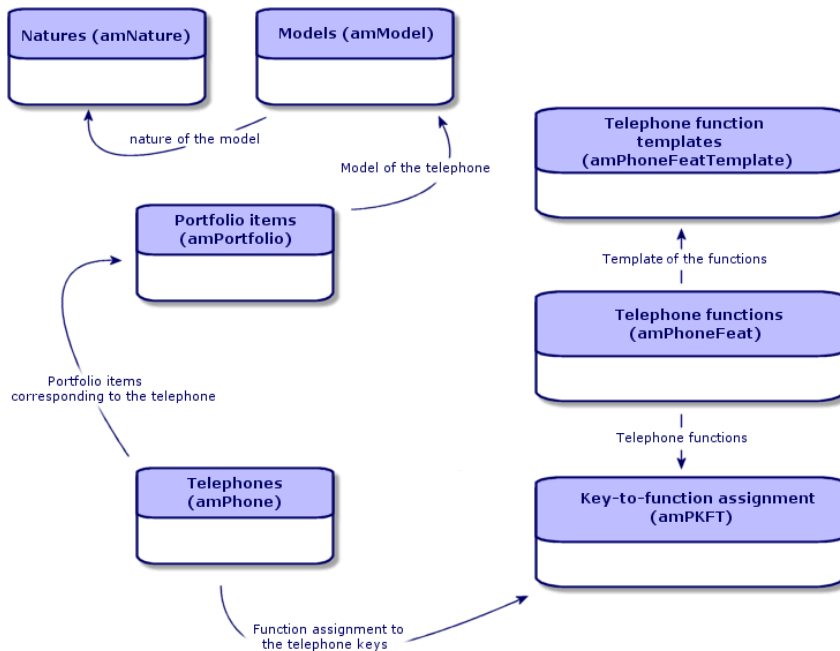
## Telephones and functions

All of the management types can be used to describe telephones (► [Individualized management \(by asset\)](#) [page 16]).

In Asset Manager, the following tables are concerned by telephone management:

- The Natures table  
In this table, you define the model of a portfolio item as being able to create a record in the Assets and Telephones tables.
- The Models table  
In this table, you create the models of the portfolio items that are recorded in the Assets and Telephones tables.
- The Telephones table  
This table contains all the records corresponding to telephones.
- The Assignments of functions to keys table  
In this table, you associate functions with telephone keys.
- The Telephone function templates table  
This table enables you to create telephone function templates.
- The Telephone functions table

This table enables you to see the telephone functions used by your company's telephone population.



## Telephone management

Managing telephones in Asset Manager consists of:

- Recording them in the Telephones table.
- Associating certain functions with their keys.

To consult the detail of a record in the Telephones table, perform the following steps:

- Display the telephones (**Portfolio management/ Telephony/ Telephones** link on the navigation bar).
- Select a record that corresponds to a telephone in the Assets table, then select the **Telephone** tab.

### Warning:

If the **Telephone** tab does not appear in the detail of an asset, it means that the nature of its model does not indicate **Telephone** in its **Also create** field.



## Creating telephones

To create a telephone:

- 1 Create a nature whose **Create** and **Also create** fields are set to **Portfolio item** and **Telephone**, respectively.
  - ▶ [Creating the nature for a portfolio item](#) [page 28]
- 2 Create a telephone model.
- 3 Create a record in the Assets table that corresponds to your telephone. This record automatically creates a record in the Telephones table.
- 4 Select the **Telephone** tab.
- 5 Enter the phone number and the extension of this telephone.
- 6 You can select the **Voice mail** and **Speaker phone** options depending on the specific functions of the telephone.
- 7 Populate the **Call forward to** link by indicating the telephone to which the call is forwarded to. This link points toward another record in the Telephones table.
- 8 In the **Call line ID** field, indicate the telephone's CLI (Command-line interface) number.
- 9 Click **Create** to confirm your creation.

## Associating a function with a telephone key

Before you can associate a function with a telephone key, you must create a template of this function.

### Creating function templates



Note:

This operation can only be done using the Windows client.

To create a function:

- 1 Display the list of telephone function templates via the **Administration/List of screens** menu.
- 2 Create the function template by populating the **Description** field.

### Creating functions



Note:


This operation can only be done using the Windows client.

To create a function:

- 1 Display the list of telephone functions via the **Administration/ List of screens** menu.
- 2 Click **New**.
- 3 Enter a value in the **Description** field.
- 4 Populate the **Template** link with the template of the telephone function that you previously created.
- 5 Select the **Toggle feature** if this function can be activated or deactivated from the codes that you indicate in the fields appearing in the selection of this option.
- 6 Select the **Identification required** option if the use of this function necessitates an identification code.

#### Associating a function with a telephone key

To associate a function with a telephone key:

- 1 Display the portfolio items (**Portfolio management/ Portfolio items** link on the navigation bar).
- 2 Select a record corresponding to a telephone.
- 3 Select the **Telephone** tab.
- 4 Select the **Functions** sub-tab.
- 5 Click 
- 6 In the **Starting key** field, indicate the number of the first key having a function on the telephone. In most cases, the first key is either 1 or 0. If the first key is a 0, the number of keys having functions on the telephone is equal to n + the key 0.  
If **0** is the first key on the telephone, the key **5** is in the 6th position on the telephone.
- 7 In the **Number of keys** field, indicate the number of keys with which you can associate functions. Don't forget to add 1 to this number of keys if 0 is indicated in the **Starting key** field.
- 8 Populate the **Function** link with the function that you want to associate with the telephone key.

## 5 Business services

In Asset Manager, a business service defines all key relationships that link clients and resources within the framework of a global service deployment destined for users (for example, IT application, network system). Resources and clients are portfolio items, associated by different relationship types, in which the resources supply clients with a specific service that contributes to the deployment of the business service.

Managing a service as a business service lets users highlight the complex relationships that exist between clients and resources, and evaluate deployment costs and the impact of a business service failure.

Asset Manager enables you to:

- Create the client-resource relationships involved in a business service.
- Manage downtimes of a business service's resources and analyze their impact.
- Determine the costs linked to the deployment of a business service.

---

### Client-resource relationships

Client-resource relationships are the main components of a business service. They provide a view on the different portfolio items involved in the deployment of the business service and on the different relationship types that link them. The client-resource relationships provide important information to analyze and forecast costs linked to the deployment of the business service.

A client and its resource are associated by a relationship type (the relationship type is the manner in which the client uses the service provided by the resource).

Examples:

- **Connects to:** Can be used to associate an application (client) and its database (resource).
- **Uses IT equipment:** Can be used to associate an application (client) and its host computer (resource).
- **Hosts shared application:** can be used to associate a Web server (client) hosting a shared Web application (resource).

Clients and resources can be associated in different ways: 1 client for 1 resource, 1 client for n resources, n clients for 1 resource, n clients for n resources.

All client-resource relationships of a business service make up what could be called the "functional representation of the business service". This representation is used to create a diagram of the client-resource relationships that make up the business service and to distinguish the internal elements (involved in the deployment of the service) from the external ones.



Note:

Asset Manager does not allow clients involved in the deployment of the business service to be distinguished precisely from end-user clients (clients that use the business service). The client of client-resource relationship associated with a business service is automatically considered as internal to the business service.

---

## How is a business service represented in Asset Manager?

In Asset Manager, a business service is managed as an asset. This asset is the common element around which the business service's client-resource relationships are centralized. This asset can have expense lines and be associated with contracts and users. The clients and resources involved in a business service are hardware or software type portfolio items (or assets).

To represent a business service in Asset Manager:

- 1 Create the asset that represents the business service.
- 2 Create the clients and resources involved in the business service.
- 3 Create the client-resource relationships of the business service.

## Prerequisites: Nature and model of a business service

- The nature associated with the business service must allow an asset whose behavior is "Business service" to be created. If this nature does not already exist in Asset Manager:
  - 1 Display the natures (**Portfolio management/ Natures** link on the navigation bar).
  - 2 Click **New**.
  - 3 Populate the fields and links of the nature's detail with the following values:

Field or link	Value
<b>General</b> tab	
Create (seBasis)	Portfolio item
Also create (OverflowTbl)	(No table)
Note: This field can only be populated from the Windows client.	or Software installations or utilizations (amSoft-Install)
Management constraint (seMgtConstraint)	Unique asset tag
Business service (bSystem)	Check this box

- 4 Windows client: Click the **Create** button.  
Web client: Click the **Save** button.
- The model associated with the business service does not have any special features. Make sure that it is only associated with the appropriate nature. If this model does not yet exist in Asset Manager:
    - 1 Display the models (**Portfolio management/ Models** link on the navigation bar).
    - 2 Click **New**.
    - 3 Populate the fields and links of the model's detail.
    - 4 Windows client: Click the **Create** button.  
Web client: Click the **Save** button.

## Creating the asset that represents the business service

- 1 Display the assets (**Portfolio management/ Assets** link on the navigation bar).
- 2 Click **New**.
- 3 Populate the fields and links of the asset's detail.



Tip:

When the asset's model is populated, the **Business service** tab appears (because the **Business service** behavior is activated in the detail of the nature associated with the model). This tab displays the client-resource relationships defined for the business service represented by the asset.

- 4 Windows client: Click the **Create** button.  
Web client: Click the **Save** button.

## Creating clients and resources involved in a business service

The clients and resources of a business service are portfolio items (or assets). This can be elements that are already saved in Asset Manager. If this is not the case, create them: ► [Portfolio items](#) [page 27]



Note:

Resources of the business service must be defined as assets. Applications must have a nature that allows them to be managed as software installations with a unique asset tab. This enables you to:

- Associate expense lines with them
- Manage downtime if a failure occurs ► [Downtime of a business service's resources](#) [page 104]
- Take into account their costs in the business service's TCO calculations ► [TCO of a business service](#) [page 109]

## Creating client-resource relationships for a business service

You can create as many client-resource relationships as you like as long as they enable you to appropriately describe the exchanges that make up the deployment of the business service:

- Define client-resource relationships in a clear manner adapted to the context.
- Use simple and explicit names for relationship types.

### Some best practices

- A portfolio item, client of a resource, can also be a resource for other clients.
- An application involved in a business service must always be associated with the host hardware (server, PC) on which it is installed. In this client-resource relationship, the application is the client and its host is the resource. The host is considered as a full resource of the business service. This is important because:

- It is easier to manage server downtime than downtime for an application that is hosted on the server. An application can be down but not its host. If the host is down, then the application is also down.
- The financial impact is different depending on whether the hardware hosting the application is dedicated to a single business service or if it is used by several business services. For dedicated servers, all hardware, software license and maintenance costs can be directly transferred to the server. This simplifies the evaluation of the total cost of the business service. In all other cases, the costs must be distributed to the clients and resources attached to the server, depending on their involvement in the different business services.
- A resource and its clients can be hosted by the same host hardware.

#### To create a client-resource relationship type

- 1 Display the client-resource relationship types (**Portfolio management/ Business services/ Client-resource relationship types** link on the navigation bar).
- 2 Click **New**.
- 3 Populate the fields and links of the relationship type's detail, notably:
  - **Impact of downtime** (pClientImpact): Evaluation of the impact of resource's downtime on its clients.
  - **Financial impact calculation method** (seFinImpactCalc): Method used to redistribute TCO of the resource, at the level of the business service.

#### Important:

It is important to understand the logic behind the different fields and links of the client-resource relationship type detail (see also the **Substitute resources can be used** (seFailOver), **One resource can be defined by default** (bDefault), and **One single resource per client** (bResourceUnicity) fields). They create automatic mechanisms that influence, on a technical (performance) and/or financial (costs) level, the involvement of the associated client-resource relationship, within the business service. For more details, please consult the contextual help on fields and links available in Asset Manager (**Shift+F1** keys on the keyboard, on the field or link).

- 4 Windows client: Click the **Create** button.  
Web client: Click the **Save** button.

## To create a client-resource relationship

### Method 1: Using the **Create client-resource relationships...** wizard

- 1 Run and populate the **Create client-resource relationships...** (sysCreateClientsResource) wizard (**Portfolio management/ Business services/ Create client-resources relationships...** browser link).
- 2 This wizard lets you link a resource to one or more clients in a single operation and create the associated client-resource relationships.  
It also allows you to define the parameters for each client resource relationship.

### Method 2: Manually

- 1 Display the client-resource relationship (**Portfolio management/ Business services/ Client-resource relationships** link on the navigation bar).
- 2 Click **New**.
- 3 Populate the fields and links of the client-resource relationship's detail.
- 4 Windows client: Click the **Create** button.  
Web client: Click the **Save** button.

## To view client-resource relationships

The client-resource relationships associated with a business service can be viewed:

- From the asset detail that represents the business service (**Portfolio management/ Assets** link on the navigation bar): Select the **Business services** tab.
- From the list of client-resource relationships (**Portfolio management/ Business services/ Client-resource relationships** link on the navigation bar). This window displays all client-resource relationships (even those that have not been defined within the framework of a business service).
- From the list of business services (**Portfolio management/ Business services/ Business services** link on the navigation bar): On the **Business services** tab of the business service detail, the client-resource relationships are grouped depending on the type of client-resource relationship that is used.

---

## Downtime of a business service's resources

Downtimes of a business service's resources can be planned (server maintenance) or unplanned (network failure). Depending on the extent of the downtime, the



resource can become partially or totally unavailable for its clients. This can impact the overall performance of the business service.

## Resources that depend on portfolio items external to the business service

Some resources, independently from their involvement in a business service, can be linked to other portfolio items on which they are dependent and which do not appear in the functional representation of the business service. These portfolio items are not directly involved in the business service, but can play a major role indirectly since they act as resources for the resources involved in the business service.

For example: A network switch used to connect the servers hosting applications which act as resources for a business service. The relationships between the switch and the servers do not necessarily appear in the business service's client-resource relationships.

These relationships may need to be considered when managing downtime for a business service's resources. The process that analyzes the impact of resource downtime must also account for portfolio items that the resources use, even if these relationships are not specifically defined within the business service. To do this, client-resource relationships that are equivalent to these relationships must be created with the following characteristics:

- The resource of the business service acts as the client
- The portfolio item that is external to the business service and on which the resource is dependent, acts as the resource
- No business service is associated with the relationship

To create these client-resource relationships ► [To create a client-resource relationship](#) [page 104].

If the relationship type does not exist ► [To create a client-resource relationship type](#) [page 103].

Doing this allows you to create downtime for the portfolio item on which the business service's resource is dependent and lets you view the impact that this downtime can have on the entire business service even though the portfolio item is considered as being external to the business service.


To create a downtime ► [Creating resource downtime](#) [page 105].

To view the impact of downtime ► [Impact analysis wizards](#) [page 108]

## Creating resource downtime

### Method 1: Using a deployment work order

To specify downtime for a work order:

- 1 Display the **Work orders (Portfolio management/ Extended portfolio/ Work orders/ Work orders)** link on the navigation bar).
- 2 Select the work order for which you want to specify downtime.
- 3 In the **Downtime tab** of the work order detail, click the  icon.  
This will run the **Create downtime from a work order...** (sysWOCreateDownTime) wizard.
- 4 Populate the **Create downtime using a work order...** wizard by specifying in the **Asset** field the resource that you wish to make unavailable.

 **Tip:**

You will find the downtime created in the table of **Downtimes (Portfolio management/ Business services/ Downtime)** link on the navigation bar).

### Method 2: Manually

To create a downtime for a resource:

- 1 Display the **Downtimes (Portfolio management/ Business services/ Downtime)** link on the navigation bar).
- 2 Click **New**.
- 3 Populate the fields and links of the downtime detail.

 **Tip:**

You do not need to populate the business service impacted by the downtime of the resource as the resource may be involved in several business services. Its downtime will be automatically distributed to all appropriate business services.

- 4 Windows client: Click the **Create** button.  
Web client: Click the **Save** button.

### Impact of a resource downtime

To evaluate the impact of a resource's downtime, Asset Manager uses the values from two fields:

- The value of the **Effective availability of the asset** (pAvail) field on the resource's downtime detail.
- The value of the **Impact of downtime** (pClientImpact) field of the relationship type detail that links the resource to its clients.

Below is the formula that is used to calculate the impact:

$\% \text{ impact of resource downtime} = \% \text{ effective resource downtime} * \% \text{ downtime impact on the relationship ty}$
---

```
pe  
= (100% - % effective resource availability) * % downtime impact on the re  
lationship type
```

The following availability is calculated:

- For clients of the resource

```
% availability at client level = 100% - % impact of resource downtime
```

- For the business service

```
% business service availability = sum of availabilities at client level  
/ number of impacted clients
```

 **Note:**

- If a client is impacted by several resource downtimes, then the total availability at the client level corresponds to the smallest of all availabilities calculated for each of the resources that is down.
- Resource downtime is cascaded to clients. This means that if a resource is down, its clients are impacted as well as the clients of the impacted clients (where the impacted clients are resources for other clients). Availability of a business service is only calculated for impacted clients that are not resources for other clients.

## Impact of downtime: Examples

- 1 A resource is only 60% available. The relationship type that links this resource to its clients evaluates the impact of the downtime at 40%.
  - The impact of the resource downtime is equal to:  $(100\% - 60\%) * 40\% = 16\%$
  - The availability at the client level is equal to:  $100\% - 16\% = 84\%$
- 2 An application connects to two different databases: **DB1** and **DB2**. Following network problems, the databases are only 40% available each. The relationship type that links DB1 to its clients evaluates the impact of the downtime at 100%. The relationship type that links DB2 to its clients evaluates the impact of the downtime at 80%.
  - The impact of the **DB1** downtime is equal to:  $(100\% - 40\%) * 100\% = 60\%$
  - The availability of **DB1** at the application level is equal to:  $100\% - 60\% = 40\%$
  - The impact of the **DB2** downtime is equal to:  $(100\% - 40\%) * 80\% = 48\%$
  - The availability of **DB2** at the application level is equal to:  $100\% - 48\% = 52\%$

The total availability at the application level is equal to 40%.
- 3 An application is managed as a business service. This business service has the following relationships:

**Database (client) uses Server2 computer hardware (resource)**

**Application (client) uses Server1 computer hardware (resource)**

**Application (client) connects to database (resource)**

The impact of downtime for the "connects to" relationship type is evaluated at 90%. The impact of downtime for the "uses computer hardware" relationship type is estimated at 95%.

At a given period, the database server is only 20% available. Thus:

- The availability of the database is only 24%.
- Clients of the database (the application) are also impacted. The availability at the client level is equal to 31.6%.

## Impact analysis wizards

The **Impact of downtime on business service...** (BstImpactAnalysis\_Simul) wizard (**Portfolio management/ Business services /Impact of downtime on business service...** link on the navigation bar) lets you simulate resource downtime for given times and dates and to visualize global availability of a business service and its resources.

These wizards display:

- In the top frame: Client level availability
- In the bottom frame:
  - The availability of resources.
  - Downtime of portfolio items on which the resources are dependent and for which a client-resource relationship equivalent to the dependent relationship has been created in Asset Manager.

### Warning:

The **Impact of downtime on a business service...** (BstImpactAnalysis\_Simul) wizard is part of the **Business services - business data** line-of-business data. Make sure that you have imported this data before using the wizard.

► An example of importing line-of-business data is provided in the **Procurement guide, General overview** chapter, **Preliminary steps** section, **Importing line-of-business data into an existing database** paragraph.

---

## Costs linked to a business service

Costs linked to the deployment of a business service originate from the costs of resources and clients involved in the business service:

- Procurement of hardware assets
- Installation of applications and procurement of associated software licenses
- Maintenance contracts, etc

Evaluating these costs requires proper use of Asset Manager's **Procurement, Contracts** and **Finance** modules.

## Licenses and contracts

These elements can be taken into account as they have a major financial impact on the business service.

For example, some licenses can be completely dedicated to a single business service but attached to a hardware resource that is only partially involved in the business service. Two types of cases can be distinguished:

- For an application dedicated 100% as a business service resource, you can directly define its associated software license as a sub-asset of the hardware resource hosting the application. In this way, the TCO calculation of an asset taking into account the asset and its associated sub-assets, if the financial impact of the hardware resource is estimated at 100%, the software license will be entirely taken into account.
- If a hardware resource that hosts the licensed application is shared by several business services, the license can be defined as a portfolio item (sub-component of no other portfolio item) involved as a resource in the business service. This license is directly associated with the business service, by a relationship that is exclusively financial: The financial impact is estimated at 100% (**Financial impact** (pFinImpact) field of the client-resource relationship's detail) and the technical impact is estimated at 0% (**Impact of downtime** (pClientImpact) of the relationship type's detail).

The cost of contracts are distributed directly to the assets that are associated with these contracts, depending on the selected distribution method (**Prorate to assets** (seProrateRule) field on the contract detail's **Rents** tab). These associated assets must be involved in the business service.

## TCO of a business service

The TCO of ownership (TCO) of a business service displays:

- In the detail of the client-resource relationships (**Total cost of annual ownership (TCO)** (mAvgYearlyTco field of the amAsset table)).
- In the **ROI** tab of the business service detail (**Total cost of annual ownership (TCO)** field (mAvgYearlyTco)).

The calculation sums:

- The TCO of the asset that represents the business service (and its sub-assets).
  - The TCO of the resources involved in the business service.
- Calculation of TCO for the resources of the business services depends on the **Financial impact calculation method** (seFinImpactCalc) for the client-resource relationship:
- If the calculation method is set to **None**: it takes the TCO value of the business service resource.
  - If the calculation method is set to **Use the financial impact of the relationship** : the TCO value of the business service resource is multiplied by the financial impact (**Financial impact** (pFinImpact) field of the client-resource relationship).



Note:

The **Financial impact** (PFinImpact) field of a client-resource relationship only appears and is only used when the value of the **Financial impact calculation method** (seFinImpactCalc) field of the relationship type's detail is set to **Use the financial impact of the relationship**.

- If the calculation method is set to **Breakdown evenly**: the TCO value of the business service resource is multiplied by:

$$\frac{[1 - I]}{N}$$

where:

- I represents the sum of financial impacts on the resources for which the calculation of the financial impact of the client resource relationship is set to **Use the financial impact of the relationship**.
- N equals the number of resources whose financial impact calculation method for the client-resource relationship is **Breakdown evenly**.

This is done for **each** client-resource relationship, even if the resource is used several times.

The TCO of clients is not taken into account.

For more information on TCO (main concepts, calculations, TCO of a business service) ► **Financials** guide, **TCO (Total Cost of Ownership)** chapter.

---

## Practical case

To illustrate management of a business service, we are going to look at AssetCenter Web as a business service. Asset Manager Web. Asset Manager Web is a service that lets users access the web interface of the Asset Manager

application. The main elements involved in the deployment of this business service are:

- Software elements:
  - Instance of an Oracle database
  - Apache Tomcat web server
  - Asset Manager Web Service web application
  - Asset Manager Web Tier web application

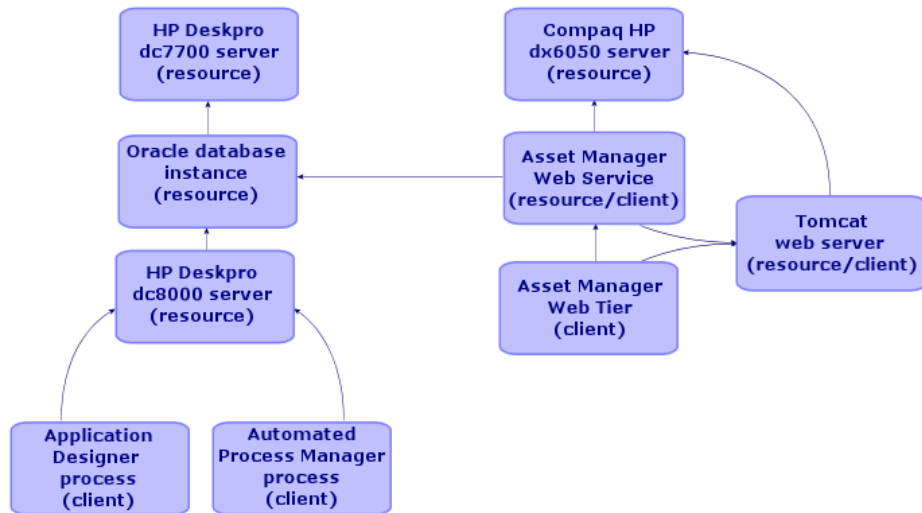
The Asset Manager Application Designer process is added to insert the Asset Manager user license and the Asset Manager Automated Process Manager process to manage the monitoring system (alarms, workflows, etc.) and to automatically trigger actions from Asset Manager Web.
- Hardware elements:
  - Compaq HP dx6050 server on which the Oracle database is installed.
  - HP Deskpro dc7700 server on which the Asset Manager Web Service and Asset Manager Web Tier applications are deployed via the Tomcat web server.
  - HP Deskpro dc8000 server on which the Asset Manager Automated Process Manager and Asset Manager Application Designer applications are installed.

In order for the Asset Manager Web service to be deployed (and made available via a user's web browser for example):

- Asset Manager Web Service connects to the Oracle database instance.
- Asset Manager Web Tier connects to Asset Manager Web Service.
- Asset Manager Automated Process Manager and Asset Manager Application Designer connect to the Oracle database instance.

This business service can be represented as in the following diagram:

Figure 5.1. Practical case - Functional representation of the "Asset Manager Web" business service



The Compaq HP dx6050 server undergoes a monthly maintenance operation during which the server is only 20% available.

The goal of this practical case is to:

- 1 Define the business service by creating the client-resource relationships that compose it.
- 2 Simulate downtime of the Compaq HP dx6050 server and analyze the impact on the total availability of the business service.
- 3 Analyze the financial impact of the different components of the business service

Here are the steps of the scenario:

- 1 Create the asset that represents the business service.
- 2 Create clients and resources involved in the deployment of the business service.
- 3 Create client-resource relationship types.
- 4 Create the client-resource relationships of the business service.
- 5 Simulate the downtime of the Compaq HP dx6050 server.
- 6 Analyze the financial impact.



## Step 1: Create the asset that represents the business service

### Creating the nature

- 1 Display the natures (**Portfolio management/ Natures** link on the navigation bar).
- 2 Create a record by populating the fields and links as shown in the following table:

Field or link	Value
Name (Name)	PC_Business service
<b>General</b> tab	
Create (seBasis)	Portfolio item
Also create (OverflowTbl)	(No table)
Management constraint (seMgtConstraint)	Unique asset tag
Business service (bSystem)	Check this box

### Creating the model

- 1 Display the models (**Portfolio management/ Models** link on the navigation bar).
- 2 Create a record by populating the fields and links as shown in the following table:

Field or link	Value
Name (Name)	PC_Asset Manager Web business service
<b>General</b> tab	
Nature (Nature)	PC_Business service

### Creating the asset

- 1 Display the assets (**Portfolio management/ Assets** link on the navigation bar).
- 2 Create a record by populating the fields and links as shown in the following table:

Field or link	Value
Model (Model)	PC_Asset Manager Web business service

## Step 2: Create clients and resources involved in the deployment of the business service

### Creating the natures

#### Note:

You can only create these natures from the Windows client because the **Also create** field cannot be populated from the Web client.

- 1 Display the natures (**Portfolio management/ Natures** link on the navigation bar).
- 2 Create the following records by populating the fields and links as shown in the following tables:

Field or link	Value
Name (Name)	PC_Host servers
<b>General</b> tab	
Create (seBasis)	Portfolio item
Also create (OverflowTbl)	Computers (amComputer)
Management constraint (seMgtConstraint)	Unique asset tag
Has software installed (bHasSoftInstall)	Check this box
Type of equipment	Computer

Field or link	Value
Name (Name)	PC_IT applications
<b>General</b> tab	
Create (seBasis)	Portfolio item
Also create (OverflowTbl)	Software installations or utilizations (amSoftInstall)
Management constraint (seMgtConstraint)	Unique asset tag

### Creating the models

- 1 Display the models (**Portfolio management/ Models** link on the navigation bar).
- 2 Create the following records by populating the fields and links as shown in the following tables:

Field or link	Value
Name (Name)	PC_Compag HP dx6050 server
<b>General</b> tab	
Nature (Nature)	PC_Host servers

Field or link	Value
Name (Name)	PC_HP Deskpro dc7700 Server
<b>General</b> tab	
Nature (Nature)	PC_Host servers

Field or link	Value
Name (Name)	PC_HP Deskpro dc8000 Server
<b>General</b> tab	
Nature (Nature)	PC_Host servers

Field or link	Value
Name (Name)	PC_Oracle instance
<b>General</b> tab	
Nature (Nature)	PC_IT applications

Field or link	Value
Name (Name)	PC_Asset Manager Web Service
<b>General</b> tab	
Nature (Nature)	PC_IT applications

Field or link	Value
Name (Name)	PC_Asset Manager Web Tier
<b>General</b> tab	
Nature (Nature)	PC_IT applications

Field or link	Value
Name (Name)	PC_Apache Tomcat server
<b>General</b> tab	
Nature (Nature)	PC_IT applications

Field or link	Value
Name (Name)	PC_Server process
<b>General</b> tab	

Field or link	Value
Nature (Nature)	PC_IT applications

Field or link	Value
Name (Name)	PC_Administrator process
<b>General</b> tab	
Nature (Nature)	PC_IT applications

## Creating assets corresponding to resources



Tip:

Resources of the business service are managed as assets in order to create downtimes for them if necessary.

- 1 Display the assets (**Portfolio management/ Assets** link on the navigation bar).
- 2 Create the following records by populating the fields and links as shown in the following tables:

Field or link	Value
Model (Model)	PC_Compac HP dx6050 server

Field or link	Value
Model (Model)	PC_HP Deskpro dc7700 Server

Field or link	Value
Model (Model)	PC_HP Deskpro dc8000 Server

Field or link	Value
Model (Model)	PC_Oracle instance

- Windows client:
  - 1 Click the **Create** button.
  - 2 Display the **Portfolio** tab.
- Web client:
  - 1 Click the **Save** button.
  - 2 Display the **Portfolio** tab.
  - 3 Click the **PC\_Oracle Instance** link.
  - 4 Click **Modify**.

**Portfolio** tab

Field or link	Value
Component of (Parent)	PC_Compag HP dx6050 server
Web client:	
1	Click the <b>Save</b> button.
2	Click the <a href="#">Back to main document link</a> .

Field or link	Value
Model (Model)	PC_Apache Tomcat server
■ Windows client:	
1	Click the <b>Create</b> button.
2	Display the <b>Portfolio</b> tab.
■ Web client:	
1	Click the <b>Save</b> button.
2	Display the <b>Portfolio</b> tab.
3	Click the link <a href="#">PC_Apache Tomcat server link</a> .
4	Click <b>Modify</b> .

#### Portfolio tab

Component of (Parent)	PC_HP Deskpro dc7700 Server
Web client:	
1	Click the <b>Save</b> button.
2	Click the <a href="#">Back to main document link</a> .

Field or link	Value
Model (Model)	PC_Asset Manager Web Service

#### Creating portfolio items corresponding to clients

- 1 Display the portfolio items (**Portfolio management/ Portfolio items** link on the navigation bar).
- 2 Create the following record by populating the fields and links as shown in the following tables:

Field or link	Value
Model (Model)	PC_Asset Manager Web Tier

Field or link	Value
Model (Model)	PC_Server process
<b>General</b> tab	

Field or link	Value
Component of (Parent)	PC_HP Deskpro dc8000 Server

Field or link	Value
Model (Model)	PC_Administrator process
<b>General</b> tab	
Component of (Parent)	PC_HP Deskpro dc8000 Server

#### Step 4: Create client-resource relationship types

- 1 Display the client-resource relationship types (**Portfolio management/ Business services/ Client-resource relationship types** link on the navigation bar).
- 2 Create the following records by populating the fields and links as shown in the following tables:

Field or link	Value
Name (Name)	PC_Uses the database
<b>General</b> tab	
Impact of downtime (pClientImpact)	90%
One single resource per client (bResourceUnicity)	Clear this option
Financial impact calculation method (seFinImpactCalc)	Use the financial impact of the relationship

Field or link	Value
Name (Name)	PC_Is deployed on
<b>General</b> tab	
Impact of downtime (pClientImpact)	100%
One single resource per client (bResourceUnicity)	Clear this option
Financial impact calculation method (seFinImpactCalc)	Use the financial impact of the relationship

Field or link	Value
Name (Name)	PC_Connects to
<b>General</b> tab	
Impact of downtime (pClientImpact)	95%
One single resource per client (bResourceUnicity)	Clear this option

Field or link	Value
Financial impact calculation method (seFinImpactCalc)	Use the financial impact of the relationship

Field or link	Value
Name (Name)	PC_Uses computer hardware
<b>General</b> tab	
Impact of downtime (pClientImpact)	100%
One single resource per client (bResourceUnicity)	Clear this option
Financial impact calculation method (seFinImpactCalc)	Use the financial impact of the relationship

## Step 5: Create the client-resource relationships of the business service

- 1 Run the **Create client-resource relationships...** wizard (sysCreateClientsResource) (**Portfolio management/ Business services/ Create client-resource relationships...** link on the navigation bar).
- 2 Populate the **Create client-resource relationships...** wizard as shown in the following tables:

Field or link	Value
Page <b>Select the resource of the selected business service</b>	
Business service	PC_Asset Manager Web business service
Resource	PC_Compaq HP dx6050 server
Click <b>Next</b>	
Page <b>Select the clients of the selected business service</b>	
Clients	PC_Oracle instance
Click <b>Next</b>	
Page <b>Define the parameters of the client-resource relationship</b>	
Select <b>PC_Oracle Instance</b>	
Relationship type	PC_Uses computer hardware
Financial impact	40
Click on <b>Apply to all selected clients</b>	
Click <b>Next</b>	
Page <b>Summary</b>	
Re-run the Create client-resource relationships wizard after clicking <b>Finish</b>	Check this box
Click <b>Finish</b>	
Click <b>OK</b>	

Field or link	Value
Page <b>Select the resource of the selected business service</b>	
Business service	PC_Asset Manager Web business service

Field or link	Value
Resource	PC_Oracle instance
Click <b>Next</b>	
Page <b>Select the clients of the selected business service</b>	
Clients	<ul style="list-style-type: none"> <li>■ PC_Server process</li> <li>■ PC_Administrator process</li> <li>■ PC_Asset Manager Web Service</li> </ul>
Click <b>Next</b>	
Page <b>Define the parameters of the client-resource relationship</b>	
Select <b>PC_Server Process</b>	
Relationship type	PC_Uses the database
Financial impact	20
Click on <b>Apply to all selected clients</b>	
Select <b>PC_Administrator Process</b>	
Relationship type	PC_Uses the database
Financial impact	15
Click on <b>Apply to all selected clients</b>	
Select <b>PC_Asset Manager Web Service</b>	
Relationship type	PC_Uses the database
Financial impact	8
Click on <b>Apply to all selected clients</b>	
Click <b>Next</b>	
Page <b>Summary</b>	
Re-run the Create client-resource relationships wizard after clicking on 'Finish'.	Check this box
Click <b>Finish</b>	
Click on <b>OK</b>	

Field or link	Value
Page <b>Select the resource of the selected business service</b>	
Business service	PC_Asset Manager Web business service
Resource	PC_HP Deskpro dc7700 Server
Click <b>Next</b>	
Page <b>Select the clients of the selected business service</b>	
Clients	PC_Apache Tomcat server
Click <b>Next</b>	
Page <b>Define the parameters of the client-resource relationship</b>	
Select <b>PC_Apache Tomcat Server</b>	
Relationship type	PC_Uses computer hardware
Financial impact	35
Click on <b>Apply to all selected clients</b>	
Click <b>Next</b>	
Page <b>Summary</b>	
Re-run the Create client-resource relationships wizard after clicking on 'Finish'.	Check this box



Field or link	Value
Click <b>Finish</b>	
Click on <b>OK</b>	

Field or link	Value
Page <b>Select the resource of the selected business service</b>	
Business service	PC_Asset Manager Web business service
Resource	PC_Apache Tomcat server
Click <b>Next</b>	
Page <b>Select the clients of the selected business service</b>	
Clients	<ul style="list-style-type: none"> <li>■ PC_Asset Manager Web Service</li> <li>■ PC_Asset Manager Web Tier</li> </ul>

Click <b>Next</b>	
Page <b>Define the parameters of the client-resource relationships</b>	
Select <b>PC_Asset Manager Web Service</b> and <b>PC_Asset Manager Web Tier</b>	
Relationship type	PC_Is deployed on
Financial impact	10
Click on <b>Apply to all selected clients</b>	
Click <b>Next</b>	
Page <b>Summary</b>	
Re-run the Create client-resource relationships wizard after clicking on 'Finish'.	Check this box
Click <b>Finish</b>	
Click the <b>OK</b> button	

Field or link	Value
Page <b>Select the resource of the selected business service</b>	
Business service	PC_Asset Manager Web business service
Resource	PC_Asset Manager Web Service
Click <b>Next</b>	
Page <b>Select the clients of the selected business service</b>	
Clients	PC_Asset Manager Web Tier
Click <b>Next</b>	
Page <b>Define the parameters of the client resource relationship</b>	
Select <b>PC_Asset Manager Web Tier</b>	
Relationship type	PC_Connects to
Financial impact	100
Click on <b>Apply to all selected clients</b>	
Click <b>Next</b>	
<b>Summary of changes</b> page	
Click <b>Finish</b>	
Click the <b>OK</b> button	

To view all client-resource relationships of the business service:

- 1 Display the **Business services (Portfolio management/ Business services/ Business services)** link on the navigation bar).
- 2 In the **Business services** tab of the business service detail **PC\_Asset Manager Web business service**, you can see all the client-resource relationships of the business service, listed by client-resource relationship type.

## Step 6: Simulate the downtime of the Compaq HP dx6050 server

- 1 Display the Impact analysis: Simulation wizard (**Portfolio management/ Business services/ Impact of downtime on a business service...** link on the navigation bar).
- 2 On the first page of the wizard:
  - 1 Select the **PC\_Asset Manager Web business service** web business service.
  - 2 Click **Next**.  
Availabilities of all resources are set to **100%**.
  - 3 In the **Availability** column, set the availability of PC\_Compaq HP dx6050 server to **20**, then click **Finish**.

The wizard displays the results of the simulation:

- PC\_Oracle instance is impacted because it is a client of PC\_Compaq HP dx6050 server. Its availability is now **20%**.
- PC\_Asset Manager Web Service, PC\_Server process and PC\_Administrator process are impacted because they are clients of PC\_Oracle instance. The availability of each of these clients falls to **28%**.
- PC\_Asset Manager Web Tier is impacted because it is a client of PC\_Asset Manager Web Service. The availability for this client falls to **31.6%**.
- The total availability of the business service is calculated taking into account impacted clients that are not also used as a resource by other clients: These are PC\_Asset Manager Web Tier, PC\_Server process and PC\_Administrator process. The availability of the business service is equal to:

**$\% \text{ availability PC\_Asset Manager Web Tier} + \% \text{ availability PC\_Server process} + \% \text{ availability PC\_Administrator process} / 3 = 29.2\%$**

## Step 7: Analyze the financial impact

Thanks to the features available in Asset Manager's **Procurement, Contracts** and **Finance** modules, users can evaluate the different expenses that contribute to the costs linked to the business service, including:

- Procurement of host servers: Expense lines are generated for each purchase.
- Cost of the Asset Manager license and the associated maintenance contract: The Asset Manager license (useful for deploying Asset Manager Web) is completely dedicated to the business service. Its cost will be entirely transferred to the business service. The license will be created as a resource associated directly to the business service by a client-resource relationship that is exclusively financial (Financial impact equals 100% and Impact of downtime equals 0%). It is important to associate a rent to the maintenance contract attached to this license. This will ensure that the expense lines generated by the contract are transferred to the license and, ultimately, to the TCO of the business service.
- Cost of the Oracle license associated with PC\_Oracle instance: The cost of this license is partially transferred because the financial impact of the PC\_Oracle instance resource is only 30%.
- Operational costs for servers and applications: Expense lines generated by installations, internal chargeback processes, etc.

The TCO of the business service will be the sum of the TCO of the PC\_Asset Manager Web business service asset (asset that represents the business service) and the TCOs of the business service's resources, taking into account the financial impact that is evaluated for each client-resource relationship.



## 6 Work orders

Portfolio items can be involved in work orders (maintenance) or can be included in projects that necessitate their use (need IT hardware for a long-term training session).

A work order is an operation carried out on a portfolio item to resolve a problem: Service, user support, repair, relocation, etc.

To display the list of work orders, click the **Portfolio management/ Extended portfolio/ Work orders** link on the navigation bar.

Work orders are described as a tree structure of work orders (or sub-tasks). You can assign as many sub-tasks to a work order as you like. A work order can be based on a work-order template. A template describes a generic work order or a standard procedure. The information defined in the template is copied over to the work order detail.

Sub-tasks are also work orders. They enable a work order to be divided up into elementary work orders. All sub-tasks must be performed for the work order to be complete.

The sub-task of a work order can be performed sequentially or simultaneously. The **Sequencing** field (SQL name: lSequenceNumber) enables you to specify the order of sub-tasks. This field has the following conditions attached to it:

- Two work orders with the same sequencing level can be executed in parallel.
- A lower number indicates a higher priority in performing the work order/sub-task.

---

## Types of work orders

The **Type** field (SQL name: seType) in the **General** tab of the work order detail indicates the type of work order. This field is associated with a system-itemized list.

The fields in the **Tracking** tab in the work order detail vary according to the type of selected work order.

### Internal maintenance

You can specify the technician and group in the **Technician** and **Group** fields (SQL name: Technician and EmplGroup) in the **Technician** sub-tab of the **Tracking** tab.

### On-contract maintenance

In general, all work orders performed under contract are not invoiced.

- The **Contract** field in the **Technician** sub-tab of the **Tracking** tab enables you to select the contract associated with the work order. Asset Manager only displays contracts associated with the portfolio item concerning this work order.
- You can specify the technician and company in the **Technician** (SQL name: Contact) and **Company** (SQL name: Supplier) fields in the **Technician** sub-tab of the **Tracking** tab. If you populated the **Company** field before populating the **Technician** field, Asset Manager displays contacts from the selected company only.

### Off-contract maintenance

These work orders are just that: work orders not covered by the existing maintenance contract or work orders concerning companies with which no contract has been signed. In general, these calls are invoiced.

- If this is a work order not covered by an existing maintenance contract, you can specify the contract in the **Contract** field (SQL name: Contract) in the **Technician** sub-tab of the **Tracking** tab. Asset Manager displays the contracts associated with the asset only.
- You can specify the technician by indicating a person from the list of contacts for all third-party companies in the **Technician** field (SQL name: Contact) in the **Technician** sub-tab of the **Tracking** tab. If you populated the

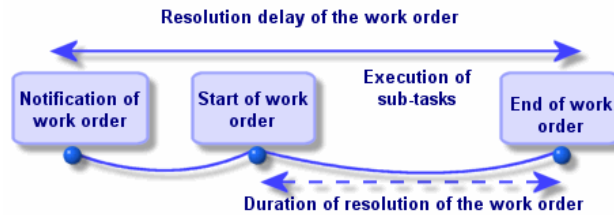
**Company** field (SQL name: Supplier), Asset Manager displays contacts from the selected company only.

## Evolution of work orders

### Life-cycle of a work order

The life-cycle of a work order is as follows:

Figure 6.1. Work order - Full cycle



Each step of this cycle occurs on or is scheduled for a given date. The transition to a given stage is reflected in the **Status** field (SQL name: seStatus).

**Table 6.1. Work order - The different statuses**


Stage	Status
Notification of work order	<b>Notified</b>
Start of work order	<b>In progress</b>
End of work order	<b>Closed</b>

The detail screen of a work order and the **Scheduling** sub-tab of its **Tracking** tab specify the dates of the different stages: date of notification, planned start date, actual start date, etc.

### Status of a work order and automatic mechanisms

The **Status** field (SQL name: seStatus) at the top of a work order specifies its status. This field is automatically calculated by Asset Manager according to the dates given in the **Scheduling** sub-tab of the **Tracking** tab of the work

order slip or following an action performed by a user clicking one of the action buttons:

- By default, the status of the work order is: **Notified**.
- The status changes to **Scheduled** when the **Planned start** field (SQL name: dtSchedFixStart) is populated.
- The status changes to **In progress** in of the following cases:
  - The **Actual start** field (SQL name: dtActualFixStart) is populated.
  - The user clicks the  **Start** button.
  - The status of one of the work orders is **In progress**.
- The status of the work order changes to **Closed** in the following cases:
  - The user clicks the **Close** button.
  - All the sub-work orders of a work order are **Closed**.

---

## Tracking work orders

The **Tracking** tab in a work order detail enables you to accurately control the scheduling and performance of a work order.

This tab is divided into a series of sub-tabs.

- The **Technician** tab details, according to the work order type, the information concerning the person responsible for the work order.
- The **Sub-tasks** tab enables you to structure a work order hierarchically by dividing it into a series of sub-work orders. These can be performed in parallel or sequentially according to the value of the **Sequencing** field (SQL name: lSequenceNumber) for each of the sub-work orders.
- The **Scheduling** tab shows a schedule of the work order: Planned date of resolution, Actual date of resolution, date-third party maintenance called (in the case of an **On-contract maintenance** or **Off-contract maintenance** type contract). You can also select a business period calendar that will be used by Asset Manager in calculating dates and time limits linked to the work order.
- The **Close** tab details the information linked to the end of the work order.



---

## Managing work orders

 **Note:**

This operation can only be done using the Windows client.


For ease of use, we recommend customizing the link associated with the **Asset** field in the Work Orders table and create a virtual hierarchy.

To customize the displaying of the link associated with the asset:

- 1 Right-click the **Asset** field
- 2 Select **Properties of link editor/ Group by/ Select a grouping**
- 3 In the window that is displayed, select the model associated with the asset (**Model** link).

Now the list of assets is displayed hierarchically according to the models associated with the assets.

When a problem is reported, create a work order report using one of two methods:

- Display the list of work orders (**Portfolio management/ Extended portfolio/ Work orders** link on the navigation bar) and click **New**.
- Or display the **Maint.** tab of the asset detail and then click the  button to add a service report.

Technicians can find the work orders that concern them by displaying either a view or the work orders list with an appropriate filter (for example, a filter that combines criteria covering fields such as **Technician** (SQL name: Contact), **Company** (SQL name: Supplier), **Maint. provider #** (SQL name: MaintNumber), **Status** (SQL name: seStatus), **Priority** (SQL name: Priority)).

The administrator may regularly analyze the work in progress using views or filters:

- Work orders that have not yet been scheduled: Status = **Notified**.
- Late work orders: Status = **Scheduled** and the **Planned start** (SQL name: dtSchedFixStart) < today's date.
- Ongoing work orders: Status = **In progress**.
- List of work orders whose status is **In progress** by technician, third party company, or contract.

The administrator may regularly analyze the work performed using views or filters:

- Difference between the scheduled duration and the actual duration.
- Analysis of the time required to resolve the call.

- Difference between the date of the call to the maintenance supplier and the first call date, compared to the first call delay specified in the contract.

# 7 Projects

A project lets you describe an operation concerning a group of assets and/or persons.

---

## Creating projects

To create a project:

- 1 Use the **Portfolio/ Projects** menu to display the list of projects.
- 2 Create a new project by clicking **New**.
- 3 Fill in the fields in the **General** tab, especially the end of project date and if necessary an alarm 🚨.
- 4 Use the **Assets** tab to add the assets used for the project.
- 5 Specify the employees concerned by the project in the **Employees** tab.
- 6 If you need to add other assets to the project at a later date, start either from the **Projects** tab in the details of the assets to be added, or from the **Assets** tab in the project detail.
- 7 Check the status of current projects regularly. Filters and views offer possibilities that make this easy. You can combine criteria concerning the **Start, End** and **Status** fields (SQL names: dStart, dEnd, and Status) to view projects that are underway, late, etc.

---

# Synchronizing project data from HP Project and Portfolio Management

## Introduction

The Asset Manager and HP Project and Portfolio Management software solutions enable customers to both measure and communicate the value the IT organization is providing to the businesses it supports.

Integrating Asset Manager and HP Project and Portfolio Management provides a unified portal for all operational and strategic IT investments, to help managers select optimal investments and wring cost savings out of their operational IT spend. Labor and non-labor costs associated with a project are centralized in Asset Manager.

HP Project and Portfolio Management provides the best-practice templates and processes needed to get started on the road to optimized project and portfolio management. HP Project and Portfolio Management integrates and unifies all of the discrete elements that make up the IT workload - from IT demand management to financial management, time management and resource management, to project management and program management - to enable real-time visibility into all IT activities. In addition, HP Project and Portfolio Management is built on top of a powerful workflow process engine that can automate project management processes. These capabilities enable HP Project and Portfolio Management to provide the Project Management Office with the visibility, controls and flexibility needed to align IT services with business objectives.

Asset Manager's powerful ITIL-aligned financial management capabilities and robust computation engine help organizations manage the full life cycle of assets, from procurement to retirement and capture costs, report them against any kind of asset, chargeback for service usage, and make this information available to C-level executives for business decision-making.

## Prerequisites

Installations of the following products are required before the integration:

- Asset Manager 5.20
- HP Project and Portfolio Management 7.5
- HP Connect-It (supported versions as defined in the Asset Manager support matrix)

## Integration procedure

This section explains how to implement the first level integration between Asset Manager and HP Project and Portfolio Management. (Further enhancements are then possible, depending on your project management requirements.)

The dedicated HP Connect-It connector called **Project and Portfolio Management Center** allows Asset Manager to access two of the HP Project and Portfolio Management Web Services, (via two instances of the connector):

- **Project Service** (to retrieve information about the projects)
- **Finance Service** (to retrieve actual costs for the projects)

To configure the link to the HP Project and Portfolio Management application server:

- 1 Select the **Administration/ Edit the URL address of the application servers...** navigation bar link
- 2 On the **Add and/or modify properties of the application servers** screen, select the **PPM** application server (or add an entry if it is not already present in the list)
- 3 Click in the corresponding field in the **Server's URL address** column
- 4 Enter the URL to the HP Project and Portfolio Management server, for instance **http://localhost:8082**
- 5 Click **Next**, then **Finish**

To configure the HP Connect-It scenario and connector:

- 1 Run HP Connect-It
- 2 Open the <HP Connect-It installation folder>\scenario\ppm\ppm75am52\ppmam.scn scenario.
- 3 Configure each of the two connector instances (**PPM 7.5 Project Service** and **PPM 7.5 Finance Service**), by right-clicking them then following the wizard. The parameters whose labels highlighted in red are compulsory.

On the **Define connection parameters** screen, populate and/or adapt the server and port details as necessary.

## Use HP Connect-It to transfer data from HP Project and Portfolio Management to Asset Manager

Data is transferred only if the scenario is executed (either manually or on a regular, programmed basis.)

HP Connect-It imports projects from HP Project and Portfolio Management to Asset Manager, including details of their expense lines, cost types, actual labor costs from the budget associated with the project, project status, purpose, and

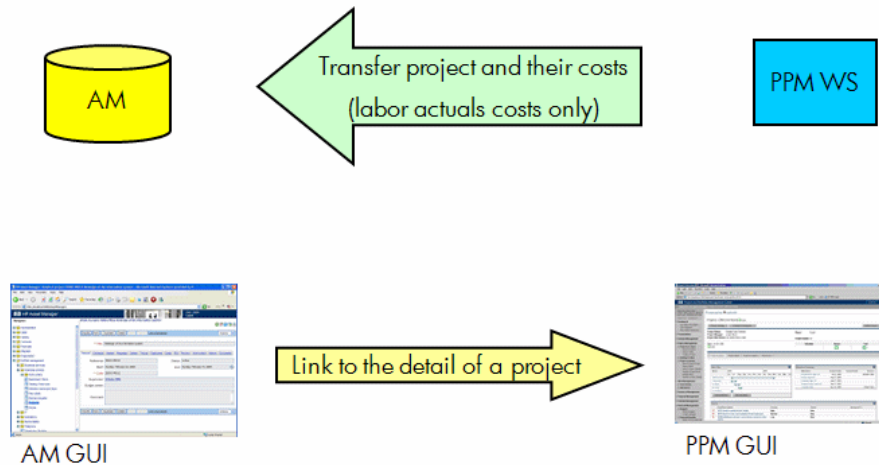
multi-currencies. The new project details are then available in both the Windows and Web client versions of Asset Manager.

## What the integration provides

### Overview

The following schematic summarizes the benefits provided by the integration.

## Integration levels



### Listing Projects

All projects from the HP Project and Portfolio Management database are added to the Asset Manager database, with a **Reference** (Ref) prefixed with **PPM**. Thus to display all and only those projects originating in HP Project and Portfolio Management, you can filter on the **Reference** (Ref) field using the contextual menu option **Filter on this field**, then selecting the **LIKE** operator and the value **PPM%**.

When you list projects in Asset Manager, a calculated field presents the project TCO:

**Project TCO** (Total Cost of Ownership), shown on the **Costs** and **ROI** tabs. This figure is the total for expense lines attached to the project and whose status is **Incurred** or **Incurred and Locked**.

 **Note:**

The result calculated in this field includes a conversion, if necessary, from the defined source currency, to the Reference currency 1. Any changes to the result will be reflected following a forced manual refresh.

The HP Connect-It integration scenario includes a mapping table between the PPM currencies names and Asset Manager currency codes. Costs imported from HP Project and Portfolio Management can thus be properly represented or converted.

**Example:**

British Pound	GBP
---------------	-----

This is provided in the <HP Connect-It installation folder>\scenario\ppm\mpt\ppmam.mpt file.

(The mapping table file also retains the mapping between HP Project and Portfolio Management regions and currencies that was used by a previous version of the scenario, for backwards compatibility.)

### Viewing detailed project costs from Asset Manager

Asset Manager federates all IT costs, including project costs. You can browse from Asset Manager all costs of each project. (In the example screen below, costs derived from PPM have Labor in their name). Hence, Asset Manager provides in the Project Total Cost of Ownership that includes IT material, contract as well as labor costs.

## Having an operational view of projects from Asset Manager

You can launch HP Project and Portfolio Management from Asset Manager to focus on labor aspects by clicking on the **Display the detail in Project Portfolio Management** link on the **General** tab.

Project: Partner Management System ■ Green

Project Settings | **Configure Participants** | Delete Project

Project Status: Detailed Project Definition  
 Project Manager: Nicole Smith  
 Project Plan Period: January 2008 to June 2008

Phase: Project  
 Project Region: US

Status: Nov 3, 2008  
■ Green

Schedule ■ Issues ■ Cost

Project Summary | **Project Details** | References

---

**Work Plan**

Name	January 2008	February 2008	March 2008	April 2008
Partner Man...	[Gantt bar]			
I. Requirem...	[Gantt bar]			
II. Solutio...	[Gantt bar]			
III. Probt...	[Gantt bar]			
IV. Purchas...	[Gantt bar]			

Edit Work Plan | View Baselines

**Milestone Summary**

Milestone	Sched Finish	Actual Finish	Owners
Requirements Sign-Off	Jan 16, 2008		
Design Approval	Jan 29, 2008		
Prototype Sign-Off	Jan 29, 2008		
Purchases - Capitalized	Jan 7, 2008		
Purchases - Expensed	Jan 7, 2008		

---

**Issues**

Req#	Description	Priority	Status	Assigned To
30271	More filters to report	High	New	
30278	Acceptance criteria undefined	High	New	
30261	Change in support hours	Normal	New	
30249	Report layout needs change	Normal	New	
30245	Inventory balance is wrong	Normal	New	

Log Issue | Show Full List

---

**Risks**

Req#	Description	Status	Probability	Impact Level	Assigned To
30122	Training schedule	New	Unlikely (0-40%)	High	
30126	Missing Key Inputs on Requirements from remote sales offices	New	Unlikely (0-40%)	Low	
30046	Glitches in bulking move during testing	New	Unlikely (0-40%)	Low	
30085	Patch release incompatibility with desktop publishing SW	New	Unlikely (0-40%)	Low	

Show Full List



## What type of costs are imported (planned, actual)

- Only actual costs are imported. For instance in the example project budget shown below, the **Plan** (planned) costs would not be imported.

This Budget is for **Asset - Corporate Help Desk**, actuals are **entered manually**. This Budget occurs in **Region - US**, Cost are entered in **United States Dollar**. This Budget has capitalized costs.

Start Period: January 2007 Finish Period: December 2008 [Change Periods](#)

### Asset Budget Summary

Planned Budget		Actual Budget	
Total Planned Capital	\$240,000	Total Actual Capital	\$52,000
Total Planned Operating	\$1,152,000	Total Actual Operating	\$56,000
<b>Total Planned Budget:</b>	<b>\$1,392,000</b>	<b>Total Actual Budget:</b>	<b>\$138,000</b>

### Asset Budget Breakdown

Budget Status: Approved [Rework Plan](#) Show: [Plan Only](#) | Plan and Actuals View Lines In: [Months](#) | [Quarters](#)

Breakdown from January 2007 to December 2008 (Numbers in Table in 000s)												
	Q1 2007						Q2 2007					
	Jan 07		Feb 07		Mar 07		Apr 07		May 07		Jun	
Capital	Plan	Act	Plan	Act	Plan	Act	Plan	Act	Plan	Act	Plan	
Training Non-Labor <input type="checkbox"/>	10	20	10	20	10	5	10	4	10	3	10	
<b>Capital Total</b>	<b>\$10</b>	<b>\$20</b>	<b>\$10</b>	<b>\$20</b>	<b>\$10</b>	<b>\$5</b>	<b>\$10</b>	<b>\$4</b>	<b>\$10</b>	<b>\$3</b>	<b>\$10</b>	
Operating	Plan	Act	Plan	Act	Plan	Act	Plan	Act	Plan	Act	Plan	
Employee Labor <input type="checkbox"/>	48	24	48	36	48	12	48	14	48	36	48	
<b>Operating Total</b>	<b>\$48</b>	<b>\$24</b>	<b>\$48</b>	<b>\$36</b>	<b>\$48</b>	<b>\$12</b>	<b>\$48</b>	<b>\$14</b>	<b>\$48</b>	<b>\$0</b>	<b>\$48</b>	
<b>Month Total</b>	<b>\$58</b>	<b>\$44</b>	<b>\$58</b>	<b>\$56</b>	<b>\$58</b>	<b>\$17</b>	<b>\$58</b>	<b>\$18</b>	<b>\$58</b>	<b>\$3</b>	<b>\$58</b>	
<b>Quarter Total</b>	<b>Plan: \$174 Actual: \$117</b>											

## Customizing the ppmam.scn scenario

If you use HP Connect-It Scenario Builder to make changes to the ppmam.scn scenario, you should check the .xml scenario file and make sure that the following `<ATTRIBUTE Name="mDebit" Type="Double"/>` attribute appears before the `<ATTRIBUTE Name="DebitCur" Type="String"/>` attribute in the following sections:

```
<PifFormat Version="3.0" FormatId="Project - used to add expense lines ">
<STRUCTURE Name="amProject">
<COLLECTION Name="ExpenseLines">
<STRUCTURE Name="CostCategory">
<ATTRIBUTE Name="Name" Type="String"/>
<ATTRIBUTE Name="seExpenseType" Type="Short"/>
</STRUCTURE>
<ATTRIBUTE Name="Title" Type="String"/>
<ATTRIBUTE Name="dBilling" Type="Date"/>
<ATTRIBUTE Name="mDebit" Type="Double"/>
<ATTRIBUTE Name="DebitCur" Type="String"/>
<ATTRIBUTE Name="seStatus" Type="Short"/>
```

```
<ATTRIBUTE Name="sePurpose" Type="Short"/>
<ATTRIBUTE Name="tsAccrualPeriod" Type="Long"/>
</COLLECTION>
<ATTRIBUTE Name="Title" Type="String"/>
</STRUCTURE>
</PifFormat>
```

If this is not the case, the cost is imported with the right amount but associated to the default currency (this is the one that is associated to the login used to transfer data from HP Project and Portfolio Management, if defined. Otherwise, it is the database default currency).

# 8 Adjusting items

Adjusting items are records in the database that enable you to adjust one or more fields with other records.

---

## Adjusting items and target items

An adjusting item adjusts a field of one or more target items. The adjusting items can be:

- Portfolio items
- Work orders
- Contracts
- Trainings
- Cables

Target items are items with a link to an adjusting item.

Example: The record of a monitor (**Adjusting item**) in the portfolio updates the number of monitors of the computer (**Target item**) to which it is attached.

The types of field adjustments are defined in the models of the adjusting items. There are three types of field adjustments:

- Addition  
Example: Creating 256 MB memory module in the portfolio adds **256** to the **Memory** field of the computer to which it is installed.
- Subtraction

Example: Creating a 10-hour work order on an asset subtracts **10** from the **Duration** field in the first work order for the same asset.

- Replacement

Example: Creating a contract covering an asset replaces the previous contract that covered this asset.

The main tables concerned by the adjustment process are the:

- Natures table (amNature)

This table enables you to define the model of the adjusting item.

- Models table (amModel)

This table enables you to create the models of the adjusting items. Field adjustment types are defined for each one of these models.

- Field adjustment types table (amFieldAdjustTempl)

Each type of field adjustment contains the following information:

- The table of the adjusting item: Portfolio items, Work orders, Contracts, Trainings, Cables.

- The link of the adjusting item to the target item that triggers the adjustment.

Example: The action of linking the adjusting item to its parent item (a printer to a computer, for example).

- The field of the target item that must be modified.

The field can be one of the fields in the target item's record or it can be linked directly or indirectly to the record of the target item.

- A script indicating the adjusting value of the field.

- The table of adjusted fields (amFieldAdjustment).

The record of each adjusted field details:

- Its date of adjustment.

- Its value before the adjustment.

- Its value after the adjustment.

- The series of links that enable you to access it from the table of the target record.

- The table of adjustments (amAdjustment).

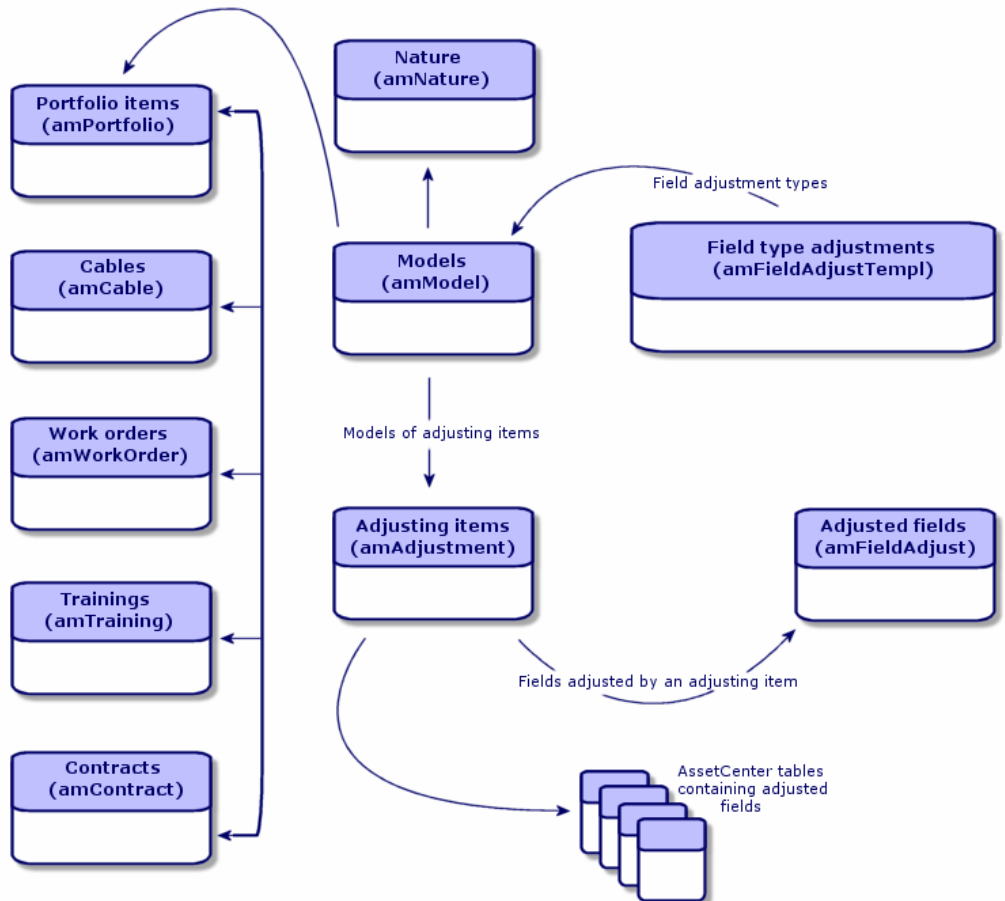
This table regroups all the adjusting items created in the database.

- The Portfolio items, Cables, Work orders, Trainings and Contracts tables.

These tables contain the records of items that can become adjusting items.

- All the Asset Manager tables.

These tables contain the target items of the adjustments. Via the use of direct or indirect links, the record of an adjustment item has the possibility of adjusting all the fields of all the tables in Asset Manager.



## Using adjusting items

Adjusting a field using an adjusting item consists of:

- 1 Creating a model of an adjusting item.
- 2 Defining the field adjustment type in this model.
- 3 Creating the adjusting item.
- 4 Creating the link that triggers the adjustment of the field.

## Creating the model of the adjusting item


► Creating a portfolio item model [page 29]

 Note:

All the models are adjusting item models except those models whose nature creates nothing. (Make sure that the **Creates** field of the model's nature is not set to **Nothing**.)

## Defining a field adjustment type

In order that an adjusting item can adjust a field, you must define an adjustment type for this field in its model. To define a field adjustment type:

- 1 Display the models (**Portfolio management/ Models** link on the navigation bar).
- 2 Select the model to adjust.
- 3 Click the **Adjust. types** tab.
- 4 Click .
- 5 In the **Field to adjust** field, specify
  - The link to the target item that will trigger the adjustment of the field.
  - The complete path (link or series of links) that indicates the field to adjust.

Example: For an adjusting item of the portfolio, you would enter for the **Target**:

```
Parent.Computer.LMemorySizeMb
```

**Parent** indicates the link that will trigger the adjustment. In this case, the action of linking the adjusting item to a parent record in the Portfolio items table: the target item.

**Computer.LMemorySizeMb** indicates the path leading to the **LMemorySizeMb** field: the field to adjust.

- 6 Choose a type of adjustment in the **Operation** field: Replacement, Addition, Subtraction.
- 7 Enter a script in the **Source** field, which returns the value of the adjustment.

Example: In the case of an addition, this script indicates that the value of the **fv\_memory\_module** field of the model of the adjusting item is added to the field to adjust.

```
RetVal = [Model.fv_memory_module]
```

- 8 Validate the creation of this field adjustment type by clicking **Add**.

## Creating an adjusting item

- ▶ [Creating an asset \[page 33\]](#)

This section explains how to create a portfolio item corresponding to an asset. To create adjusting items other than portfolio items, refer to the guides relating to those items. For example, see the **Contracts** guide if you want to create an adjusting contract.

## Creating the link triggering the field adjustment

In order for a field to be adjusted, you must create the link specified in the field adjustment type.

If, for an adjusting portfolio item, the link triggering the adjustment is the **Component of link (Parent)**:

- 1 Select the adjusting item in the Portfolio items table.
- 2 Select the **General** tab.
- 3 Enter or create the **Component of link**.
- 4 Make sure that the field of the target item has been correctly adjusted.

---

## Adjusting a field - Example

The following sections detail the steps of an example that enables you to adjust the **Memory** field. This field is in the record of a computer using an adjusting item, which corresponds to a 256 MB memory module.

This 256 MB of supplementary memory is added to the value of the computer's **Memory** field (**IMemorySizeMb**) as soon as the link between this computer and the memory module is created in the Portfolio items table.

### Details of the example

Adjusting item	<b>RAM_256</b> record of the Portfolio items table.
Target item	<b>Adjusted_computer</b> record of the Portfolio items table.
Field to adjust	The <b>Memory</b> field ( <b>IMemorySizeMb</b> ) of the <b>Adjusted_computer record</b> .
Type of adjustment	Addition of the RAM value to the computer's RAM.


## 1 - Creating the target item

- 1 Display the natures (**Portfolio management/ Natures** link on the navigation bar).
- 2 Click **New**.
- 3 Enter **Computer** in the **Name** field (**Name**).
- 4 Select **Computer** in the **Also create** field (**seOverflowTbl**).  
Creating natures: ► [Creating a nature for computers](#) [page 57].
- 5 Click **Create**.
- 6 Display the models (**Portfolio management/ Models** link on the navigation bar).
- 7 Click **New**.
- 8 Enter **Adjusted\_computer** in the **Name** field (**Name**).
- 9 Select **Computer** for the **Nature** link (**Nature**).  
Creating models: ► [Creating a computer model](#) [page 58].
- 10 Click **Create**.
- 11 Display the portfolio items (**Portfolio management/ Portfolio items** link on the navigation bar).
- 12 Click **New**.
- 13 Select **Adjusted\_computer** for the **Model** link (**Model**).
- 14 Click **Create**.  
Overflow tables: ► [Overflow tables](#) [page 18].  
Creating computers: ► [Create computers manually](#) [page 59].  
Creating a portfolio item based on a computer model automatically creates a record in the Computers table.
- 15 Select the **Hardware** sub-tab of the **Computer** tab.
- 16 Populate the **Memory** field (**IMemorySizeMb**) with the value **256**.
- 17 Click **Modify**.


## 2 - Adding the memory\_module feature to the Models table

- 1 Display the features (**Administration / Features/ Features** link on the navigation bar).




- 2 Click **New**.
- 3 Enter the value **memory\_module** in the **Title** field (**TextLabel**).
- 4 Select the **Input** tab.
- 5 Select **Numerical** in the **Input type** field (**seDataType**).
- 6 Click **Create**.
- 7 Select the **Parameters** tab.
- 8 Click .
- 9 Select **Models (amModel)** in the **Table** field (**TableName**).
- 10 Select the **Constraints** tab.
- 11 Select **Yes** for the **Available** field (**seAvailable**).
- 12 Click **Add**.
- 13 Wait for the list of features to appear.
- 14 Click **Modify**.


### 3 - Creating the adjusting item

- 1 Display the natures (**Portfolio management/ Natures** link on the navigation bar).
- 2 Click **New**.
- 3 Enter **Adjustment** in the **Name** field (**Name**).
- 4 Verify that **Portfolio item** has been selected in the **Create** field (**seBasis**).  
Creating natures: [Creating the nature for a portfolio item](#) [page 28].
- 5 Click **Create**.
- 6 Display the models (**Portfolio management/ Models** link on the navigation bar).
- 7 Click **New**.
- 8 Enter **RAM\_256** in the **Name** field (**Name**).
- 9 Select **Adjustment** for the **Nature** link (**Nature**).
- 10 Select the **Features** tab.
- 11 Click .
- 12 Select the **memory\_module** feature (**fv\_ram**) in the window that appears.
- 13 Click **OK**.
- 14 Assign this feature the value **256**.
- 15 Click **Create**.
- 16 Display the portfolio items (**Portfolio management/ Portfolio items** link on the navigation bar).

- 17 Click **New**.
- 18 Select **RAM\_256** for the **Model** link (**Model**).
- 19 Validate this creation by clicking **Create**.

#### 4 - Creating an adjustment type for the model of the adjusting item.

- 1 Display the models (**Portfolio management/ Models** link on the navigation bar).
- 2 Select the **RAM\_256** model that you created in the previous step.
- 3 Click the **Adjust. types** tab.
- 4 Click .
- 5 Enter **Parent.Computer.IMemorySizeMb** in the **Field to adjust** field (**TargetField**).

You can also use the button  to find this link to the **Memory** field (**IMemorySizeMb**) in the Computers table.

- 6 Enter **RetVal=[Model.fv\_memory\_module]** in the **Source** editable field (**memScript**).
- 7 Select **Addition** in the **Operation** field (**seOperation**).
- 8 Click **Add**.
- 9 Click **Modify**.


#### 5 - Triggering the adjustment

- 1 Display the portfolio items (**Portfolio management/ Portfolio items** link on the navigation bar).
- 2 Select the **RAM\_256** record.
- 3 Select the **General** tab.
- 4 Select the **Adjusted\_computer** record for the **Component of** link.
- 5 Click **Modify**.

#### 6 - Verifying the adjustment

- 1 Display the computers (**Portfolio management/ IT/ IT equipment/ Computers** link on the navigation bar).
- 2 Select the **Adjusted\_computer** record.
- 3 Select the **Hardware** tab.
- 4 Make sure the **Memory** field (**IMemorySizeMb**) is set to **512** (256 + 256).

## 7 - Complete information about the adjusted field

- 1 Display the computers (**Portfolio management/ IT/ IT equipment/ Computers** link on the navigation bar).
- 2 Select the **Adjusted\_computer** record.
- 3 Select the **Adjusted fields** tab.
- 4 Select the record corresponding to the **Memory** field (**IMemorySizeMb**).
- 5 Click  to obtain all the information on the adjusted field.
  - Date of adjustment.
  - Value of the field before adjustment
  - Etc.



---

## 9 Glossary

This section proposes a glossary of terms used in portfolio management.

 Note:

The terms do not appear in alphabetical order.

---

### Portfolio items

#### Nature

A record in the Natures table determines the type of item a model can create. When you create a model, you must indicate its nature. The model is then based on this particular nature.

Natures are available for the following models:

- Portfolio items
- Work orders
- Contracts
- Trainings
- Cables

When you create a nature, you define certain parameters that will influence the models based on this nature. Example: Setting the nature's **Management**

**constraint** field (seMgtConstraint) to **Free** enables you to create models of portfolio items that do not have records in the Assets table.

## Model

A record in the Models table enables you to create records in the following tables:

- Portfolio items  
The creation of a portfolio item is sometimes accompanied by the simultaneous creation of a record in one of the following overflow tables:
  - Assets table
  - Computers table
  - Telephones table
  - Software installations table
- Work orders
- Contracts
- Trainings
- Cables

When you create a portfolio item, you must specify the model on which it is based. The data entered for a model is automatically reproduced in the records of the portfolio items. Examples: the CPU type of a computer; the applicable tax rate; the length of a contract, etc.

The hierarchical structure of the Models table helps you organize your portfolio. We recommend that you create generic models that encompass more specific sub-models. Example: Printer/Laser printer/Laserjet printer 8000DN.

## Portfolio item

Records in the Portfolio Items table are based on models from which they inherit the features. Depending on the importance of a portfolio item, a management constraint is chosen in the nature of the model on which the item is based. This constraint conditions whether a portfolio item is created as an asset, a batch or an untracked batch. Depending on the overflow table indicated in the nature of the model, a record created in the Portfolio Items table also creates a record in one of the following tables:

- Assets table
- Computers table
- Telephones table
- Software installations table

## Asset

A record in the Assets table corresponds to a portfolio item whose monetary value is high enough to necessitate individual tracking. In Asset Manager, each asset corresponds to two linked records: one in the Portfolio items table; the other in the Assets table. In order for the creation of a record in the Portfolio items table to create the simultaneous creation of a record in the Assets table, you must select the correct management constraint: In the nature of this portfolio item's model, you must set the **Management constraint** field (seMgtConstraint) to **Unique asset tag**.

While it is true that all assets are portfolio items, it is not true that all portfolio items are assets.

## Overflow table

An overflow table holds records that were created there simultaneously when they were originally created in another table.

In Asset Manager, an overflow table can be specified in the nature of a portfolio item's model. According to this nature, the creation of a portfolio item's record in the Portfolio items table can be accompanied by the simultaneous creation of a record in one of the following overflow tables:

- Assets table
- Computers table
- Telephones table
- Software installations table

## Batch

A batch is composed of several identical items whose quantity is expressed either in number of items (a batch of 100 chairs) or in a unit of measurement (a batch of one ton of sand). The creation of a batch means that two linked records will be created: one in the Portfolio items table; one in the Assets and batches table. In the portfolio, a batch can be divided between several locations, for example. Each division creates a second record, and the quantity of the divided batch is reduced by the number of items taken out to make the new batch. Example: Ten chairs from a batch of 100 chairs is relocated to another department. The quantity of this batch drops to 90 chairs, and a second batch record is created having a quantity of 10 chairs.

## Untracked batch

An untracked batch is a batch that doesn't correspond to any records in the Assets and batches table. To create an untracked batch, its nature must have

a free management constraint. Untracked batches are reserved for items of little value: supplies and consumables. As such, there is no tracking information associated with this kind of batch either. To turn an untracked batch into a tracked batch, you must create a corresponding link in the Assets and batches table (using the **Tag** button in the Portfolio items table).

## Consumable

Consumables are portfolio items. When you select **Consumable** in the nature of a model, it indicates that the portfolio items based on this model are consumables.

## Management constraint

The management constraint of a portfolio item is indicated in its nature. This constraint determines the use of an asset tag: A portfolio item that has an asset tag is automatically recorded in both the Portfolio items table and the Assets and batches table. A portfolio item without an asset tag is only recorded in the Portfolio items table.

Three management constraints are available:

- Unique asset tag  
This management constraint is reserved for individual assets in your portfolio that will have a unique asset tag.
- Asset tag  
This management constraint is reserved for tracked batches. An asset tag is assigned to this kind of batch when it's created. All sub-batches resulting from the division of this batch will also share the same asset tag. (They all correspond to the same record in the Assets and Batches table.)
- Free  
This management constraint is reserved for untracked batches. No asset tags are assigned to this kind of batch upon its creation, nor do any records correspond to this portfolio item in the Assets and Batches table. The management constraint is free because you can, at any moment, assign an asset tag to an untracked batch to turn it into a tracked batch.

## Management type

Three types of management types are available in Asset Manager:

- Individualized management  
Used for assets. Each asset is tracked individually.
- Collective management



Used for batches. The items in the batch are not tracked individually in the Assets and Batches table, but instead they are tracked collectively. Example: The acquisition price of the batch does not correspond to each item in that batch, but to all the items in that batch.

- Undifferentiated management

Used for untracked batches. The items in the batch are only recorded in the Portfolio items table. However, you can decide to assign an asset tag to an untracked batch at any time so that it benefits from the tracking methods in place for tracked batches. You can even turn an untracked batch into an individual asset, if there is only one item in the batch.

## Tracking

Each record in the Assets and Batches table benefits from triple-tracking:

- Technical tracking

Example: the hardware features of a computer.

- Financial tracking

Example: the depreciation type of an asset.

- Contractual tracking

Example: the maintenance contracts linked to a server.

## Stock

A stock contains the items in your portfolio that have not yet been assigned. Asset Manager enables you to assign rules to a stock that trigger automatic purchase requests in order to replenish that stock.

## Assignment

The assignment of a portfolio item defines its status in your portfolio. In Asset Manager, the different possible assignments are: **In use**, **In stock**, **Retired (or consumed)**, **Awaiting receipt**, **Return for maintenance**, **Return to supplier** or **Missing**.

## Quantity

Quantities are reserved for describing portfolio items that are managed in batches. The quantity can be expressed in a unit of measurement (a batch of a ton of cement) or in a number of items (a batch of 100 chairs). From the model of a batch, you can create several batches, each differentiated by their quantities.

---

## Projects

### Project

A project concerns portfolio items and/or company employees. (Example: The division of one department into several departments). Asset Manager enables you to precisely track all your company's projects, and each one can use contracts or work orders.

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