HP Asset Manager

Software version: 5.10

Financials

Legal Notices

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Introduction

Who is the Financials module intended for?

The Financials module is intended for organizations wishing to track expenses.

It is generally implemented by the following persons:

- Financial manager
- The administrator

What does the Financials module do?

The Financials module enables you to perform the following tasks:

- Draw up budgets
- Track expenses
- Track fixed assets
- Generate internal invoices

Managing these tasks enables you to:

- Know how money is being used
- Optimize costs

How to use this guide

Chapter Monetary values

To implement currencies and exchange rates

Chapter Expenses

To track expenses according to budgets

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To track fixed assets

Chapter Taxes

To include taxes in financial flows

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Chapter Glossary

The terminology used in the Financials module is specialized. The glossary included here contains the key terms used in Asset Manager.

Read this glossary to fully understand how these terms are used.

1 Monetary values

You can enter monetary values in the currency of your choice, but you must define this currency, and the corresponding exchange rates, beforehand in Asset Manager.

Asset Manager also offers the exchange values in several currencies.

Managing multiple currency support in Asset Manager consists of:
- Defining currencies.
- Defining exchange rates.
- Populating monetary values (Asset Manager automatically calculates the exchange values)

Currencies

We recommend defining currencies when implementing Asset Manager.

Access the currencies table via the **Financials/ Currencies/ Currencies** link on the navigation bar.

In the detail of a currency, there are three fields that help you define a currency by specifying its name, its description and its symbol.

The detail includes two fields to define the format of amounts expressed in a currency:
- The **Precision** field (SQL name: sPrecision) defines the number of decimal places amounts must have.

- The **Position of symbol** field (SQL name: seSymbolPos) specifies whether the currency symbol precedes or follows the currency value.

Specific currencies

You can define as many currencies as you like. Certain currencies have specific rules associated with them:
- Default currencies
- Reference currencies
- The Euro

Default currency

The default currency is applied to all monetary fields for which the user does not associate a currency.

It is unique and can be selected by clicking the **Default currency** check box (bDefCur) in the detail of a currency.

You can define a default currency per employee by selecting it in the **Default currency** field (SQL name: DefCurrency) on the *Finances* tab of the employee detail. This currency becomes the employee's new default currency.

In other words, a monetary field with no associated currency will use the default currency defined for the database, unless a currency has been defined by an individual user. In this case, the field uses the user's currency instead.

Reference currencies

You can define two reference currencies for which exchange values are automatically calculated.

To do this, select the **Reference currency 1** (bRefCur1) or **Reference currency 2** (bRefCur2) check boxes in the detail of a currency.

Warning:

We recommend that you define your reference currencies before saving data in the Asset Manager database. In effect, if you define the reference currencies after records have been already been added in the database, the exchange values associated with the monetary values in these records will not be updated.

The Euro

If you want to manage conversions between Euro zone currencies, you must define the "Euro" currency via the **Finance/ Currencies/ Currencies** link on the navigation bar.

> **Important:**
> The value of the **Name** field (SQL name: Name) of the "Euro" must be set to "EUR".

Exchange rates

Access the exchange rates table via the **Financials/ Currencies/ Exchange rates** link.

An exchange rate is defined by:

- The date from which it is applicable.
- The source currency.
- The target currency.
- Its value.
- Its inverse rate.
- Its link with the Euro zone.

Entering exchange rates

You can enter exchange rates as and when you need them or by importing a file with the relevant information.

Inverse rate

When you enter an exchange rate from a given currency A to a currency B, Asset Manager automatically calculates the inverse exchange rate from B to A.

However, if you slightly modify the exchange rate (a difference less or equal to 1%), Asset Manager does not recalculate the inverse exchange rate. It is thus necessary to modify the inverse exchange rate at the same time so that it matches.

On the other hand, if you make a larger modification of the exchange rate (greater than 1%), Asset Manager recalculates the inverse rate accordingly.

Example

The exchange rate between the two currencies A and B is equal to 2. The inverse rate is automatically calculated by Asset Manager and is equal to 0.5.

- If the inverse rate is slightly modified, for example set to:

  Inverse rate = 0.505

  Then the exchange rate is not modified.

- On the other hand, if the inverse rate undergoes a larger variation, for example:

  Inverse rate = 0.51

  Then the exchange rate is recalculated:

  Exchange rate from A to B = 1.960784

Case of the Euro zone

The establishment of Euro zone on January 1, 1999 has brought consequences on exchange rates. Within the Euro zone, only the following exchange rates are authorized:

- Exchange rates from Euro zone currencies to the Euro.

  Asset Manager enables you to manage the exchange rates specificities that are in effect for Euro zone currencies. If you select the **Belongs to Euro zone** (bInEuroZone) check box in the exchange rate detail:

  - The **Source currency** field (SQL name: SrcCurrency) displays the Euro. This cannot be modified.
  - The **Target currency** field (SQL name: TargetCurrency) will only accept Euro-zone currencies.

- You can enter conversion rates from the Euro to Euro zone currencies but not the inverse rate.

> **Important:**
>
> After all currencies in the Euro zone convert to the Euro, the need for exchange rates between these currencies will obviously no longer exist. Only the conversion rate between a given Euro zone currency and the Euro will be allowed.

- Exchange rates between currencies outside of the Euro zone and the Euro and their inverse rates.

> **Important:**
>
> After all currencies in the Euro zone convert to the Euro, exchange rates between a currency outside of the Euro zone and a currency within the Euro zone (excepting the Euro) will be obsolete.

- Exchange rates between currencies outside of the Euro zone.

Recommendations

In order to easily find the exchanges rates between two currencies and determine which are used in the calculation of exchange values, we recommend always entering the exchanges between two currencies A and B in the same direction.

Editing monetary fields

Monetary field example: **Financials/ Expense lines** link; detail of an expense line, **Credit** (mCredit) field.

Enter the amount and the currency

Windows client

1 Place the cursor inside the edit zone of the monetary field.
2 Enter an amount and specify the currency in which it is expressed.
   Click ▣ to the right of the monetary field to select the currency.

> 🖊 Note:
>
> If you do not specify a currency, the default currency is applied.

> 💡 Tip:
>
> The **Configure object** contextual menu enables you to configure a monetary field by assigning a default amount and currency.
>
> A specific control is designed for entering monetary values; it is defined in the currency detail.

You can use the arrows to the right of monetary values, or the arrow keys on your keyboard, to increase or decrease the selected amount.

Web client

1 Place the cursor inside the edit zone of the monetary field.
2 Enter the amount and select the currency from the drop-down list to the right of the amount.

> 🖊 Note:
>
> If you do not specify a currency, the default currency is applied.

Convert to shortcut menu

> ❗ Warning:
>
> This function is available in the Windows client only.

You can convert a monetary value entered in one currency to another. To do this:

1 Right-click the monetary value.

2 In the shortcut menu, select **Convert to**.

3 Select the new currency from among the list of currencies proposed.

4 The monetary value is converted and displayed in the new currency.

The calculation mechanisms are similar to those used in calculating exchange values, and the exchange rates are automatically selected by Asset Manager.

For more information: ▶

Information on a monetary field

> **⚠ Warning:**
>
> This function is available in the Windows client only.

- Monetary fields (SQL name "mXXX"), which are visible in certain screens, contain the entered amount.

  Each monetary field has four related sub-fields:

- A field containing the currency associated with the entered amount (SQL name "XXXcur") (click ▣).

- Two fields used to store the exchange values in the two reference currencies (SQL names "mXXXRef1" and "mXXXRef2") (click ▣).

- A field containing the date of conversion (SQL name "dtXXXCv") (click ▣).

For example: If the purchase price of an asset is 1000 USD and the conversion date is October 1, 2008:

- **mPrice** is set to 1000.

- **PriceCur** is set to USD.

- **mPriceRef1** and **mPriceRef2** contain the exchange values.

- **dtPriceCv** is set to October 1, 2008.

Currency conversion rules

Converting an amount expressed in one currency to another requires that you apply an exchange rate when you do the conversion.

This section describes the rules governing conversions and exchange rates. These rules depend on the currencies to be converted:

Specificities of the Euro zone

In order to convert a value expressed in currency A to currency B, when currency B belongs to the Euro zone, the mandatory procedure is to:

1 Convert the sum to Euros.

2 Then convert this sum expressed in Euros to currency B.

If you have entered the appropriate conversion rates in the exchange rates, Asset Manager automatically performs these conversions in line with the legal calculation rules.

If both currencies belong to the Euro zone

To convert an amount expressed in currency A to currency B when both currencies belong to the Euro zone:

1 Asset Manager converts the sum expressed in currency A to Euros. The calculation:
   - Uses the inverse of the Euro-to-currency-A conversion rate.
   - Rounds the result to three decimal places.

2 Then Asset Manager converts the sum expressed in Euros to currency B. The calculation:
   - Uses the Euro-to-currency-B conversion rate.
   - Rounds the result to the number of decimal places specified in the detail of currency B.

If one of the currencies belongs to the Euro zone

If the target currency belongs to the Euro zone

To convert a sum expressed in a given currency A to given currency B, where A does not belong to the Euro zone and B belongs to the Euro zone:

1 Asset Manager converts the sum expressed in A to Euros. The calculation:
   - Uses the exchange rate from currency A to the Euro on the date of the conversion or the inverse rate of the Euro-to-currency-A exchange rate.
   - Rounds the result to three decimal places.

2 Then Asset Manager converts the sum expressed in Euros to currency B. The calculation:
   - Uses the Euro-to-currency-B conversion rate.
   - Rounds the result to the number of decimal places specified in the detail of currency B.

If the source currency belongs to the Euro zone

To convert a sum expressed in a given currency A to given currency B, where A belongs to the Euro zone and B does not belong to the Euro zone:

1 Asset Manager converts the sum expressed in A to Euros. The calculation:
   - Uses the inverse Euro-to-currency-A exchange rate.
   - Rounds the result to three decimal places.

2 Then Asset Manager converts the sum expressed in Euros to currency B. The calculation:
   - Uses the Euro-to-currency-B conversion rate.
   - Rounds the result to the number of decimal places specified in the detail of currency B.

If no currencies belong to the Euro zone

To select the appropriate exchange rate between a given currency couple A and B, Asset Manager uses the date of conversion and the following rules:

- If there is an exchange rate defined for the date of conversion when A is the source currency and B is the target (resulting) currency, Asset Manager uses this rate.
- Otherwise, if there is an exchange rate for which currency B is the source currency and currency A the target currency, Asset Manager uses the inverse rate defined for this rate. It is indicated in the "1 A = x B" field in the detail of the exchange rate from B to A.
- Otherwise, Asset Manager will not calculate an exchange value.

Example:

- The exchange rate from currency A to currency B on July 1, 2008 is "1 A = 6 B".
- The exchange rate from currency B to currency A on August 1, 2008 is "1 B = 0.2 A".
- On September 1, 2008, to convert 100 A to currency B, Asset Manager uses the exchange rate "1 A = 6 B", resulting in 600 B.

Calculation of exchange values

This section details the following points:

- Overview
- Date of conversion
- Update

Overview

When you enter an amount, Asset Manager automatically calculates the exchange values as expressed in the reference currencies.

The automatic calculation of exchange values uses:

- The date of conversion.
- The exchange rates effective for this date for the currency unit of the entered monetary value and the reference currencies.

Displaying exchange values

⚠ Warning:

This function is available in the Windows client only.

Simply click the 🗐 icon to the right of an amount to display a screen showing the date of conversion, the amount, the exchange rates and the exchange values.

Date of conversion

The date of conversion determines the exchange rate to be applied.

A conversion date, stored in the "dtxxxCv" field, is associated with each monetary type value (amount).

You can define a default conversion date for this field. This enables you to, for example, make sure that the conversion date associated with the purchase price of an asset is the date this asset was purchased.

By default, the conversion date associated with monetary values is the current date. To define the default values of the conversion dates associated with monetary values, use Asset Manager Application Designer.

Updating monetary values

If you update exchange values, and then modify the monetary value later on, the modifications you made on the exchange values will be lost.

Asset Manager updates the exchange values in the database:

- If the exchange rates are modified.
- If the dates of conversion are calculated via scripts, and if the field values used in these scripts are modified.

There is no automatic mechanism that propagates these modifications to the exchange values.

In order to do this, it is possible to define a workflow scheme.

Limited use of multi-currency support

If you do not want to use all of the available multiple-currency functionality, there are two possibilities open to you:

- Either you do not define currencies. In this case:
    - Monetary values are always expressed without a specified currency unit.
    - The formatting of monetary values follows the format defined via the Windows Control Panel (For example, in Windows XP: **Regional and Language Options** tool, **Regional Options** tab). A specific control is designed for entering monetary values.
    - The four other fields (currency, both exchange values, conversion date) associated with a monetary field remain unpopulated in the database.
- Or you create currencies without defining a reference currency. In this case:
    - You can define different formatting rules for each currency.
    - At the database level, one field is used to store the monetary value, another contains the currency. The three others, which store the exchange values and the date of conversion, are left unpopulated.

2 Expenses

This chapter explains how to manage your expenses with Asset Manager.

General overview of expenses

This section discusses the professional areas associated with expense management.

Introduction to budgets

A budget represents your planned revenues and expenses in a given period (as a general rule, this period is the upcoming year) for each cost type. Logically, a budget is composed on two axes:

1 A time axis, divided up according to your company's tracking and reporting rules (by quarter, by semester, by month, etc.).
2 An axis regrouping the different budget categories (or budget headings) identified in your company.

Figure 2.1. Budgets - composition
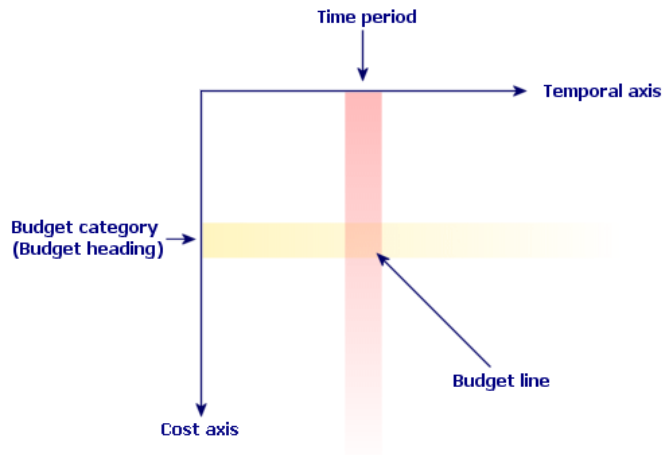
Note:

A budget may be considered as a grid in which:

- A column corresponds to a time period (for example, first quarter, second quarter, etc.).
- A row corresponds to a division by budget category (for example: internal travels, external travels, consulting, etc.).
- A cell containing an amount corresponding to a budget line (for example: the provisional amount for travel in the first quarter is 10,000 dollars). The amount of a budget line is called an allowance; it represents a sum that you are going to allocate.

The following concepts are introduced for reasons of nomenclature and organization:

- On the cost axis:
    - A budget category is made up of one or more cost types. Using the previous example, the Internal travel budget category can group together the National Assignments and International Assignments cost types.
    - A budget classification groups together the budget categories. For example, the Travel classification can regroup the Internal travels and External travels budget categories.
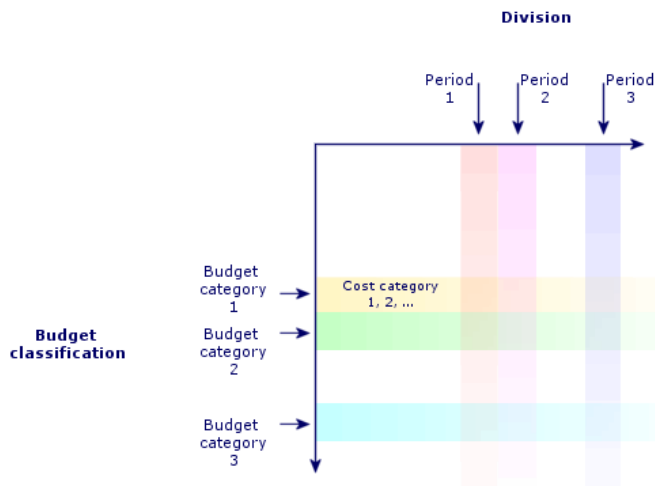
- On the time axis:
  - A time division groups together several time periods (quarters, etc.), which have been defined by your company.
  - A financial year, in turn, groups together the time divisions. In general, it covers the entire year (calendar year or fiscal year, depending on the case).

Figure 2.2. Budgets - nomenclature

A company's budgets are normally defined in the period of one financial year, which lasts an entire year. But there is something that lasts even longer than the one-year budget: the budget center. A budget center is a perpetual structure that houses the annual budgets for a particular entity in your company. You can have a budget center for each department in your company, for example.

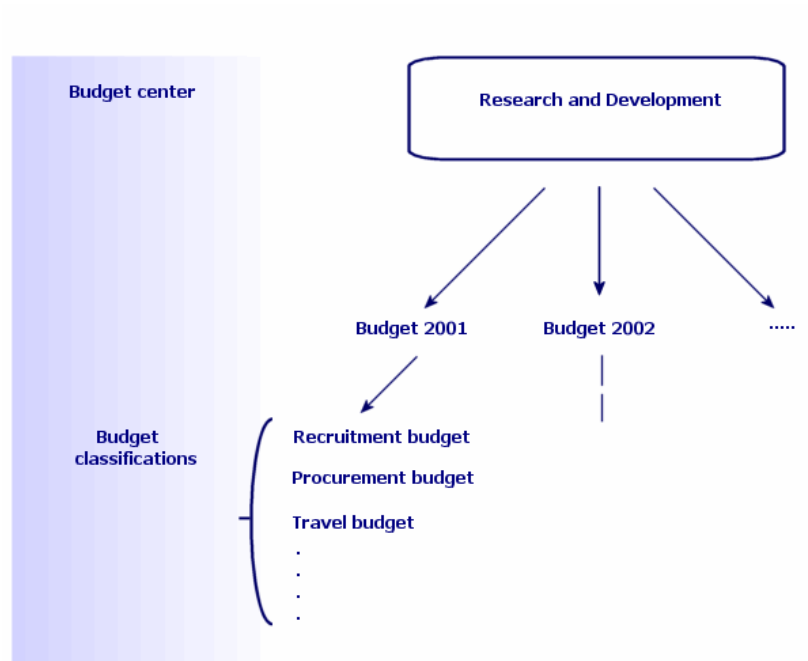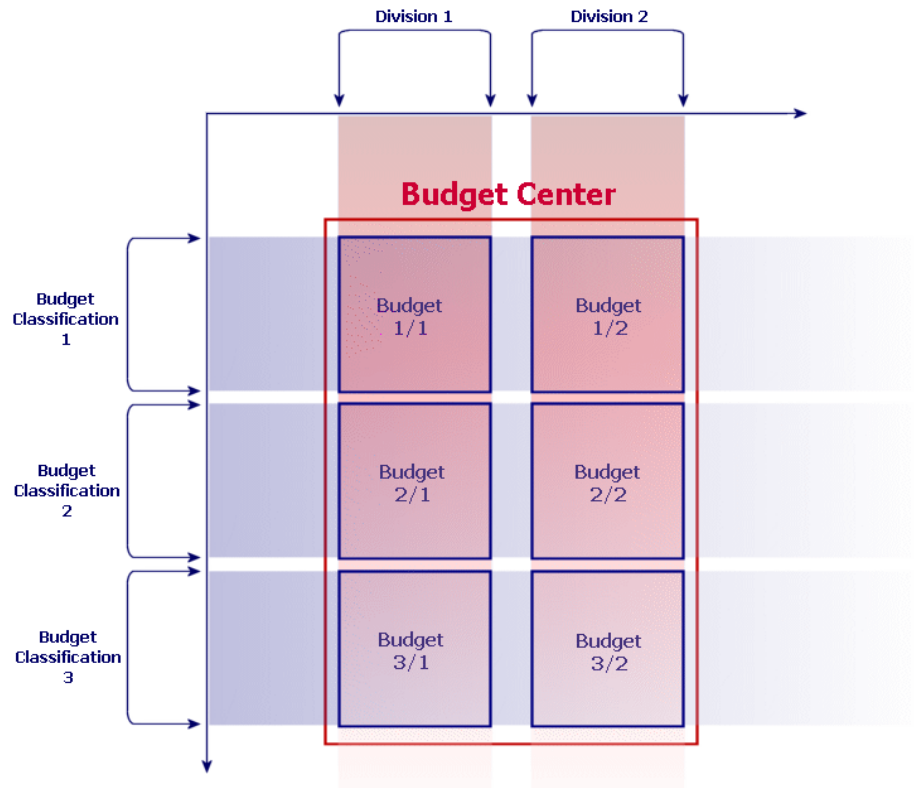Figure 2.3. Budget center - structure

Figure 2.4. Budget centers and budgets - how they work together

Conceptually, you can compare a budget center to a cost center: Their duration of life is undetermined, but the items belonging to them are directly linked to time periods.

Introduction to cost centers

A cost center is used to group together expenses generated by a business unit (a department, etc.).

If you want to implement budget management, each cost center must belong to a budget center.

Budgets

This section provides a practical introduction to using budgets in Asset Manager.

Implementation methodology

The methodology used to implement a budget system in Asset Manager is based on wizards that let you create, view and modify budgets:

- The *Create a budget classification* (sysFinBudgetClassCreate) wizard lets you create a new budget classification.
- The *Create a time division* (sysFinBudgetPeriodCreate) lets you:
    - Create a time division for an existing financial year.
    - Create a new financial year and its time divisions.
- The *Create a budget* (sysFinBudgetCreate) wizard lets you create the actual budget.

> 📝 Note:
>
> The three wizards below are chained.

- The *Update budget...* (sysFinAllowanceUpdate) wizard lets you modify the budget lines:
    - By modifying the allowance amounts.
    - By distributing an allowance evenly.
    - By transferring an allowance from one budget to the next.
    - By entering new cost codes.
- The *View budget management...* (sysFinBudgetTracking) wizard displays a summary of the budget lines that have been entered and a graphic view of the allowances that were made.

The following practical case explains how to use the wizards.

Depending on the specific needs of your company, you may wish to adopt a different strategy and create your budgets without using the wizards. In this case, make sure you do the following:

- You absolutely must create all the structural items for your budget management, whether they relate to the time axis (financial year, divisions, periods) or the cost axis (budget classifications, budget categories, cost types).
- Each budget classification must contain all the defined cost types.

Practical case

In this example, the Software company, specializing in software design, is in the process of implementing a budget-management system for its Research and Development department with Asset Manager. The rules that the company uses requires the time division to be defined in the following manner:

- A time period corresponds to a quarter.
- A time division corresponds to a year.
- The financial year covers the current fiscal year.

We will limit this practical case to the creation of a budget for professional travel (assignments) in the following context:

- Assignments in the United States or abroad.
- For the United States, the assignments are either in Chicago or Miami.

  For abroad, the assignments are either in Paris or London.

We can deduce from this context the following implementation information:

- The elementary cost types are: Chicago assignments, Miami assignments, Paris assignments, London assignments.
- The budget categories are: U.S. assignments (covering Chicago assignments and Miami assignments) and Foreign assignments (covering Paris assignments and London assignments).
- The budget classification is Assignments.

We are now ready to implement our system in Asset Manager.

Creating the cost center

1 Display the cost centers (**Portfolio management/ Cost centers** link on the navigation bar).
2 Click **New** and enter *Miscellaneous* in the **Label** field.
3 Create the new record by clicking **Create**.

Creating cost types

1 Display the cost types (**Portfolio management/ Cost types** link on the navigation bar).
2 Create four cost types **Named**: *Los Angeles assignments, Indianapolis assignments, Paris assignments, Toulouse assignments*.
3 Close the window.

Creating budget centers

1 Display the budget centers (**Financials/ Budgets/ Budget centers...** link on the navigation bar).
2 Click **New** and enter *Research and Development* in the **Name** field.

3   Create the new record by clicking **Create**.
4   On the **Cost centers** tab, click the ▣ (Windows client) or **Add** (Web client)
    button, select the *Miscellaneous* cost center and click **Select** (Windows client)
    or **Add** (Web client).
5   Windows client: Click **Modify** to save your changes.

Creating budget classification

1   Display the detail of the *Research and development* budget center
    (**Financials/ Budgets/ Budget centers...** link on the navigation bar).
2   Start the wizard by clicking the **Budget** button in the Windows client or by
    selecting **Budget** from the *Actions...* drop-down list in the Web client.
3   Populate the *Create a budget classification* (sysFinBudgetClassCreate)
    wizard with the values shown in the following table:

Field or link	Value
Create a budget classification page	
Create a new budget classification?	Note:
	If you click No, the **Next** button is disabled and the **Finish** button lets you access the next phase of the budget creation process: *Creating a budget period*.
	Yes
Click **Next**	
Create a budget classification page	
Name	Assignments
New category	National assignments
Click **Add**	
New category	International assignments
Click **Add**	
Click **Next**	
Create a budget classification page	
Budget categories	Select *National assignments*
Cost types	Select *Paris assignments*
Click the **Associate** button.	
Budget categories	Select *National assignments*
Cost types	Select *Toulouse assignments*
Click the **Associate** button.	
Budget categories	Select *International assignments*
Cost types	Select *Los Angeles assignments*
Click the **Associate** button.	
Budget categories	Select *International assignments*
Cost types	Select *Indianapolis assignments*
Click the **Associate** button.	

Field or link	Value
Click **Finish**	

4 Click **OK** to exit the wizard. This takes you to the wizard that corresponds to the next step of budget creation: *Creating time divisions*.

Creating time division

1 Populate the *Create a time division* (sysFinBudgetPeriodCreate) wizard with the values shown in the following table:

Field or link	Value
Create a time division page	
	Note:
	If you select *Create division for existing financial year* , when you click **Next** a financial year selection screen will appear.
	Note:
	If you select *Create a budget*, the **Next** button is disabled and the **Finish** button lets you access a new wizard, which corresponds to the last step in the creation process: *actual budget creation*.
	Select *Create a new financial year*.
Click **Next**	
Create a new financial year page	
Financial year	Fiscal Year 2008
Periodicity	Quarterly
Period start date	01/01/2008
Click **Next**	
Click **Finish**	

2 Click **OK** to exit the wizard. This takes you to the wizard that corresponds to the last step of budget creation: *actual budget creation*.

Creating a budget

1 Populate the *Create a budget* (sysFinBudgetCreate) wizard with the values shown in the following table:

Field or link	Value
Create a budget page	
Name	Professional travel
Budget centers	Research and Development
Budget classifications	Assignments

Field or link	Value
Time division	Fiscal Year 2008 Quarterly
Click **Finish**	

2 Click **OK** to exit the wizard.

3 Your budget is now created. Next, you can enter the budget lines, otherwise called the forecast revenues and expenses for each budget heading and for each period.

Creating budget lines

1 Display the detail of the *Professional travel* budget that you just added (**Financials/ Budgets/ Budgets** link).

Start the *Update budget...* (sysFinAllowanceUpdate) wizard by clicking the **Update** button in the Windows client or selecting **Update** from the *Actions...* drop-down list in the Web client. This wizard lets you modify the allowance amount for existing budget lines.

2 When the wizard is launched, the first screen displays information about the budget (name, budget center, budget classification and time division).

Four check boxes let you choose the different operations that you want to perform to modify the allowances:

- Change allowance amounts
- Distribute evenly
- Transfer an allowance from an existing budget (is this box is checked, the next screen requests that you specify the source budget)
- Enter the cost codes

Clear the boxes for the operations that you do not want to perform.

3 For our example, select *Change allowance amounts* and *Distribute evenly* and clear all the other options.

4 Click **Next**.

5 First, you are going to distribute a budget totaling 18,000 euros to the *Professional travel: International assignments/T1*, *Professional travel: International assignments/T3* and *Professional travel: National assignments/T2* budgets.

6 To do so, select the lines to credit (press the **Ctrl** key to perform a multiple selection).

In the numeric field of the *Distribute allowance* line, specify the amount of 18,000 euros.

Click the **Distribute allowance** button.

The total amount of 18,000 euros was divided by the number of selected lines. This distributed amount is added to each line's initial amount. And

is indicated in the **New amount** column. You will see that the new amounts for the three selected lines are 6,000 euros.

7   Perform the same operations to distribute an allowance of 20,000 euros to the *Professional travel: International assignments/T2*, *Professional travel: International assignments/T4*, *Professional travel: National assignments/T1* and *Professional travel: National assignments/T4* budgets.

8   Manually enter the amount of 3,000 euros in the *New amount* column of the *Professional travel: National assignments/T3* budget line.

9   Now, you are going to increase the *Professional travel: International assignments/T1* and *Professional travel: National assignments/T2* budgets by 10%.

10 Do this by selecting the lines to credit.

Enter *10* in the numeric field of the *Apply percentage* line.

Click the **Apply percentage** button.

The result after the percent increase is applied is specified in the **New amount** column. You will see that the new amounts for the two selected lines are 6,600 euros.

Note:

The **Reset operations** button lets you cancel all of the update operations and restore the budgets to the state that is currently stored in the database.

11 Click **Next** to display the summary of changes. Review carefully this screen, which displays the new amounts, before saving the changes to the database.

12 Click **Finish** to update the database then **OK** to exit the wizard.

Viewing the budget

In this step, you can preview your budget by clicking **Track** on the budgets screen in the Windows client or by selecting **Track** from the *Actions...* drop-down list in the Web client. The *View budget management...* (sysFinBudgetTracking) wizard displays a summary of the budget lines that have been entered and a graphic view of the allowances that were made.

Budget tracking

Once your budget structure is established, Asset Manager enables you to track budget expenses. The following mechanism is used:

■   All expenses theoretically lead to the creation of an expense line.

> **Note:**
>
> Certain automatic mechanisms in Asset Manager, such as the procurement cycle or chargebacks, trigger the creation, the modification, or the split-billing of expense lines. For more information on this subject, please refer to the guides that cover this functionality (Procurement, Contracts), as well as section Expense lines [page 34] of this guide.

- An expense line has:
    - An amount.
    - A date of expense, from which we deduce the time period for the expense.
    - A cost type, from which we deduce the budget category of the expense.
    - A cost center for the allocation of the expense.
    - A status for the expense (Projected, Incurred, Incurred and locked).

    This information enables you to deduce the budget line and the budget associated with the expense.
- In the Windows client or in the Web client's Actions drop-down list, click **Tracking** in the budget's detail to display a wizard. The wizard will generate a chart to summarize the relationship between expenses and the budget allowance.

Tracking example

Using the previously described practical case, you are going to manually create three expense lines:

1 Display the expense lines (**Financials/ Expense lines** link on the navigation bar).

2 Create three expense lines with information from the following table :

Field	Expense line #1	Expense line #2	Expense line #3
Name	Travel 01	Travel 02	Travel 03
Debit	4000	2000	950
Expense date	October 31, 2008	June 25, 2008	January 12, 2008
Cost center	Misc	Misc	Misc
Cost type	Paris Assignments	Miami Assignments	Chicago Assignments
Status	Incurred and locked	Incurred	Projected

3 Go back to the detail of the *Professional travel* budget (**Financials/ Budgets/ Budgets** link on the navigation bar) and click the **Tracking** button.

The wizard proposes a graphic comparison of the projected and operational expenses.

Automating budget validation

This section explains how budget validation is automated by Asset Manager, and how to configure it.

The line-of-business data for the *Budgets* module contains a workflow scheme named *Budget approval* (BST_FINANCEBUDGETVAL).

This workflow scheme is used to implement an automated budget validation cycle.

Below are the characteristics of this scheme:

Events that trigger the workflow scheme	The workflow scheme is started if the following event occurs: ◆ Status changes to: *Awaiting approval*
Conditions required for the workflow to continue running	The workflow scheme continues running if the following fields are set to the following values: *Table name* — *Name of the field or link* — *Value of the field* Budgets (am-Budget) — Status (seStatus) — Awaiting approval
Is Asset Manager Automated Process Manager required to trigger and run the workflow scheme?	No
Simplified description of the workflow scheme	1 The workflow scheme creates a budget validation request. This validation request takes the form of a workflow activity assigned to the budget supervisor, if one has been assigned, or otherwise directly to the *Budget* group, if one has not been assigned. 2 If the validation request is accepted, the status of the budget becomes *Validated*. 3 If the validation request is denied, the status of the budget becomes *Denied*. 4 If the validation request is accepted, the status of the budget becomes *In preparation*. 5 In all cases, to track the request, the validation task's comment is copied to the budget's comment.

Designate which employees are involved in the validation process

Before requesting a contract validation, make the following configuration:

1 Display the groups (**Organization/ Employee groups** link on the navigation bar).
2 Display the *Budget* group.
3 Populate at least the following fields and links:

Field or link	Comments
Supervisor (Supervisor)	The person designated by this link receives notification when a workflow activity is created by the *Budget approval request* workflow scheme. The person also views these workflow activities.
Composition tab	
Members	The members of the group view the workflow activities for the document validation request created by the *Budget approval* workflow.

Cost centers

Each cost center manages the inventory for its own expense lines. The term cost center needs to be understood in the general sense of an "allocation center".

Cost centers in Asset Manager help you track expenses (cash flow). They do not have a strict adherence in accounting terms.

Cost centers in Asset Manager let you group various kinds of expenses, related to the acquisition and maintenance of assets, employee training, the cost of maintenance, insurance or leasing contracts, etc.

Note:

Each cost center has a code to help you reconcile the records in the database with those from other application when importing or exporting data.

Expense lines

Use the **Financials/ Expense lines** link on the navigation bar to display the list of expense lines. Otherwise, you can access the expense lines of a specific cost center via its **Expenses** tab.

Windows client (not available in the Web client): To calculate the sum of the amounts credited and debited by a list of expense lines, click , located on the bottom left-hand corner of the list.

Each time you create a new lease schedule or split expenses between different cost centers, Asset Manager Automated Process Manager automatically generates expense lines.

> **Important:**
>
> Every time an expense line is created automatically, its **Status** field (SQL name: seStatus) never indicates that it is **Incurred and locked**. This thus enables you to identify which expense lines are not yet validated. The other values enable you to verify and process non-validated expense lines.

Here are some operations for which you must specify the cost:

- Asset acquisitions
- Work orders, maintenance operations.
- A contract

Here is the procedure to follow to associate an expense line with any entity having a cost:

1 Display the detail of the item creating a cost for your company (contract, asset, etc.).
2 Select the **Costs** tab.
3 Add an expense line (⊞ button in the Windows client or **Add** in the Web client).

Detail of an expense line

The **General** tab of an expense line includes the following information:

- A **Credit** field and a **Debit** field (SQL names: mCredit and mDebit).

  When you enter an amount to credit, the debit amount is set to zero, and vice versa.
- A **Status** field (SQL name: seStatus). The expense line may be: **Incurred**, **Incurred and locked** or **Projected**.

  No expense line that was automatically created will ever be **Incurred and locked**. Instead, you need to manually validate these fields as you see fit.

The **Cost center** field (SQL name: CostCenter) enables you to assign the current expense line to a cost center.

Creating expense lines

Expense lines are created in several different ways.

You can create expense lines manually from the list of expense lines by clicking **New**. You will need to specify the entity at the origin of this expense line.

Automatic creation

Expense lines are automatically added to the expense lines table for all events generating expenses.

Expense line amounts are automatically calculated using the available information.

The **Status** of the expense line is set to either: **Projected** or **Incurred**.

Automatic creation by Asset Manager Server

Asset Manager Automated Process Manager automatically generates expense lines linked to:

- Periodic rent payments for contracts or assets.
- Payment lines for loans obtained in order to finance contracts.
- Split-billing of expense lines.
- Chargeback of expenses.

The amount of the expense lines are calculated automatically based on information available in the sub-tabs of the rents and loans in the contract and asset detail.

Asset Manager Automated Process Manager automatically generates expense, split-billing and chargeback lines for other cost centers depending on split-billing and chargeback rules.

Modifying expense lines

If certain information concerning expenses is modified after an expense line is created, and if the expense line has not been validated, Asset Manager offers to modify the expense line accordingly. If the line has been validated, the record cannot be modified.

When an expense line is modified after its creation, the information used in the detail of an item (of a contract for example) used to create the expense line is left unchanged.

Consequences of splitting expense lines

- If a given expense line L is the result of a split operation on another expense line, then manual changes made to the amount of the expense line L will not show up:
  - In the expense lines resulting from the split of expense line L.
  - Nor in the expense lines whose split triggered the creation of expense line L.

> **⚠ Warning:**
>
> Changes are lost if the expense line is recalculated automatically by
> Asset Manager Automated Process Manager, e.g. if a cost center is deleted.

- If an expense line is not the result of a split operation on another expense line, and if its amount is changed, then that change is taken into account in the expense lines resulting from the split of the expense line.

Splitting expenses among cost centers

This section explains how Asset Manager manages the splitting of expenses between cost centers:

Overview of split operations

An expense line may be split up among several cost centers.

To split an expense line, you allocate it to an intermediate cost center. This cost center defines the list of cost centers to which the expense may be split, and the split percentage for each cost center.

Successive split operations may be performed on a given cost center. For example, cost center C1 is split between C2 and C3; C3 is split between C4 and C5, etc.

By convention, we will use the term "source cost center" to describe a cost center split between other cost centers, and "target cost center" to describe a cost center to which a source cost center is split.

Expense lines are split by Asset Manager Server.

Asset Manager Automated Process Manager searches for expense lines to split, and splits them. The frequency for monitoring expense lines is defined in the Asset Manager Automated Process Manager options.

When an expense line is split:
- An offset expense line, equivalent to the split expense line, is created in the source cost center.
- Expense lines are created in the target cost centers, according to the split percentages.

Figure 2.5. Cost center split operations
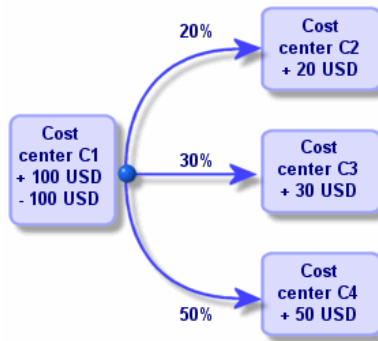
Automate split-billing of expense lines

In order to correctly split an expense line, proceed as follows:

1 Launch Asset Manager Automated Process Manager.
2 Connect to your database.
3 Select the **Tools/ Configure modules** menu.
4 Select the **Split expense lines in cost centers** module (CostCenter).
5 Check the **Enabled** box.
6 Populate the options in the **Split expense lines in cost centers** module as specified in the *Administration* guide, chapter *Asset Manager Automated Process Manager*, section *Configuring the modules monitored by Asset Manager Automated Process Manager/ Split expense lines in cost centers (CostCenter)*.
7 Click **Close**.
8 Asset Manager Automated Process Manager automatically performs the split operation for the expense lines.

Description and calculation of split operations

Use the **Split operations** tab in the cost center detail to split its associated expenses.

Add a split line for each target cost center.

Each split line includes a start of split date, an end date, and a split percentage.

Precautions

- In the detail of a split line, the start date is inclusive and the end date is exclusive. For example, if the start date is January 1, 2008 and the end date is April 1, 2008, the split is valid from January 1, 2008 through March 31, 2008.
- At a given date, the sum of the percentages assigned to the target cost centers must equal 100 %, plus or minus 0.1%.
- A source cost center cannot be included in the associated split billing of one of its target cost centers.

Calculating expense lines

- After the split percentages have been applied, the expenses are rounded to 0.1.
- Rounding errors are carried to the first expense line.

Note on changing the amount of an expense line

- If a given expense line L is the result of a split operation on another expense line, then manual changes to the amount of the expense line L do not show up:
  - In the expense lines resulting from the split of expense line L.
  - Nor in the expense lines whose split triggered the creation of expense line L.

  > ⚠ **Warning:**
  >
  > Changes are lost if the expense line is recalculated automatically by Asset Manager Automated Process Manager, for example if a cost center is deleted.

- If an expense line is not the result of a split operation on another expense line, and if its amount is changed, then that change is taken into account in the expense lines resulting from the split of the expense line.

Deleting a cost center

> ⚠ **Warning:**
>
> This section only applies to the Windows client.

As long as the **Authorize extended deletions** option is set to "Yes" in the options window (**Edit/ Options**, *Edit* group), you can delete a cost center that has assigned expense lines. There are three different ways to do this:

Delete all linked records

When a cost center is deleted, Asset Manager deletes:

- The expense lines of the deleted cost center.
- The expense lines resulting from associated split operations of the deleted cost center.

> **Note:**
>
> An Asset Manager agent changes the hidden **Split operation status** field (SQL name: seSplitStatus) to "Not split" at the level of the highest expense lines in the split-operation chain. When these expense lines were split, they generated the lines belonging to the deleted cost center (after any intermediate split operations).

Changing this status deletes all the expense lines that resulted from the split operations of those "original" expense line. In doing this, Asset Manager Automated Process Manager deletes the expense lines which, when split, generated the expense lines belonging to the deleted cost center.

Then Asset Manager Automated Process Manager performs the split operations on those expense lines which have not yet been split. It thus uses new parameters to recalculate all the expense lines whose split generated the expense lines of the deleted cost center.

Detach all linked records

In this case:

- The expense lines of the deleted cost center are no longer associated with a cost center.
- The expense lines, which when split generated the expense lines for the deleted cost center, are split again.
- The expense lines, resulting from split operations associated with the deleted cost center, are not modified.

Attach linked records to another record

In this case, you select another cost center X, which takes the place of the deleted cost center:

- The expense lines of the deleted cost center are attached to cost center X.
- The expense lines, which generated the expense lines for the deleted cost center after having been split, are split again; cost center X is considered as the new target cost center.
- The expense lines resulting from split operations associated with the deleted cost center are deleted, and the expense lines of cost center X are split.

3 Reconciling fixed assets

> ⚠ Warning:
>
> This chapter only applies to the Windows client.

This chapter explains how to reconcile fixed assets with the Asset Manager database.

You will find information on the following topics:

- Overview of reconciling fixed assets with the Asset Manager database.
- Describing a fixed asset.

Use the **Financials/ Depreciation/ Fixed Assets** link on the navigation bar to display the list of fixed assets.

Reconcile assets in the Asset Manager database with fixed assets

> ⚠ Warning:
>
> This section only applies to the Windows client.

Your accounting department probably manages fixed assets in detail using specific, accounting software. Yet it is difficult to maintain an up-to-date list of fixed assets, especially when considering assets that disappear or that are

not used. You commonly find fixed assets in accounting records corresponding to assets that should have been written off.

To update these files, you need a physical, asset inventory. Asset Manager can supply that inventory. This physical inventory can then be reconciled with the list of fixed assets, to highlight differences and to update the accounting files.

To help you with this reconciliation, Asset Manager provides a table that can receive fixed assets from your accounting application. Once these fixed assets are imported, they can be reconciled with inventoried assets. Asset Manager provides a reconciliation window where you can manually associate accounting fixed assets with inventoried assets.

With Asset Manager, there are three ways for you to associate the assets in its database with fixed assets:

- You can associate an asset with a fixed asset.
- You can associate an asset with several fixed assets (to manage work in progress associated with an asset, for example).
- You can associate a fixed asset with several assets (to manage groups of assets, for example).

Here is the procedure to follow to reconcile assets in the Asset Manager database and accounting fixed asset information:

1 Extract the useful information from the fixed asset accounting software (output to a text file).
2 Import the text file into the Asset Manager Fixed assets table.
3 Reconcile the assets with the fixed assets.
4 Display and print the list of "Un-reconciled" fixed assets. These are fixed assets that you could not associate with assets. The accounting department can then remove these fixed assets from their list of fixed assets if that is appropriate.
5 Display and print the list of "Partially reconciled" fixed assets. These are fixed assets with which you could only associate part of the assets that should be included. The accounting department can break down these fixed assets and remove the non-reconciled fixed assets from their list.
6 Display and print the fixed assets that are "To write off". These are fixed assets with which you were only able to associate retired assets. The accounting department can then remove these assets from their list of fixed assets.

Describing a fixed asset

> ⚠️ Warning:
>
> This section only applies to the Windows client.

Most of the information contained in the fixed asset detail is provided by an external software application to manage fixed assets.

None of the fields at the top of the screen of the fixed asset detail and in the **General** and **Depreciation** tabs are linked to other Asset Manager tables.

Once you have imported a fixed asset into the Asset Manager database, populate its description (if necessary):

> 📝 Note:
>
> For information on importing data, refer to the *Administration* guide, chapter *Import*.

- Populate the fields in the **General** tab. If necessary, indicate the accounting code associated with the fixed asset, the acquisition date and the installation date (in service), the updating date of the record, the location of the fixed assets, their quantity and their unit price.
- Populate the fields in the **Depreciation** tab. If necessary, specify the type of depreciation for the fixed asset (accounting, technical, fiscal, etc.), its calculation mode (straight line, declining balance, exceptional, etc, and the duration of the depreciation.
- Associate the assets with the fixed asset from the **Assets** tab in the fixed asset detail. Use the ⊞, ⊟ and ⊠ buttons to add, delete, view or modify the assets associated with the fixed asset.
- Populate the **Option** field (SQL name: seOption) at the top of the fixed asset detail. This field may contain one of the following four values:
  - **Not reconciled**: Indicates the fixed asset is not associated with any assets.
  - **Partially reconciled**: Indicates that at least one asset has been associated with the fixed asset, but that it has not been fully reconciled.
  - **Reconciled**: Indicates the fixed asset has been fully reconciled with assets.
  - **Write off**: Indicates that the fixed asset should no longer appear in the list of fixed assets. This may arise when the assets that were at the origin of the fixed asset are no longer in use.

📝 Note:

On the **Acquis. date** and **In service** date fields (SQL names: AcquDate and InstallDate in the **General** tab in the fixed asset detail): Because these dates come from an external database, it is impossible to guarantee their data entry and storage format. Therefore they are stored in text format in the Asset Manager database.

4 Taxes

This chapter explains how to use the different calculation methods supported by Asset Manager.

Taxes may be:

- Fixed
- Calculated using a formula.

Areas in the software involving taxes

Several parts of the software deal with taxes:

- Contract rent: On the **Financials** sub-tab of the **Rents** tab of a contract's detail, the **Taxes**, **Jurisdiction**, **Tax rates** and **Tax amount** fields (SQL names: TaxFormula, TaxJuris, pTaxRate and mTaxValue) specify the taxes payable on contract level rent payments.

    > 🖊 Note:
    >
    > The **Rents** tab is only displayed if the **Type** field (SQL name: seType) is not set to **Master lease** and the **Nature of payments** field (SQL name: sePayType) in the **General** tab of the contract detail indicates the payments are **Rents** or **Both** (i.e., both rents and loans).

- Rent for assets: On the **Financials** sub-tab of the **Rents** tab of an asset's detail, the **Taxes**, **Jurisdiction**, **Tax rates** and **Tax amount** fields (SQL

names: TaxFormula, TaxJuris, pTaxRate and mTaxValue) specify the taxes payable on contract level rent payments.

> 📝 Note:
>
> A rent sub-tab is automatically created when the **Acq. method** field (SQL name: seAcquMethod) in the **Procurement** sub-tab of the **Acquis.** tab is set to **Rental** or **Lease** and when the asset is added to a contract whose rent is prorated and distributed or allocated at the asset level (contract detail, **Rents** tab, individual rent sub-tab, **Prorate to assets** field (SQL name: seProrateRule).

- At the level of tax jurisdictions.
- At location level: The **Jurisdiction** field (SQL name: TaxJuris) contains a link to a tax jurisdiction which details the tax rates associated with a location.
- At tax type level.
- At expense line level: An expense line's **Tax credit** and **Tax debit** fields show the amount of tax payable on the sum credited or debited. In particular, the expense lines associated with asset or contract-level rent payments contain the amount of taxes payable on these rents. These expense lines are displayed in the **Costs** tab of the detail of these assets and contracts.
- At the level of the Asset Manager Automated Process Manager monitoring program: This program launches the automatic creation of expense lines corresponding to contract or asset level rent items, split-billing or expense chargebacks. Each expense line is composed of a periodic rent and an associated tax.
- At the level of the procurement cycle (especially for purchase requests, purchase orders and invoices). Taxes associated with the procurement cycle appear in the **Composition** tab of a request, order or invoice. Taxes can be declared in the detail of a request line, order line or invoice line.

Concepts and practical case

This section contains information on the concepts used in calculating taxes.

Tax jurisdictions

Use the **Financials/ Taxes/ Tax jurisdictions** link on the navigation bar to access the table of tax jurisdictions.

Tax jurisdictions provide the ability to combine locations, tax types, and tax rates. The tax jurisdictions detail screen allows you to perform the following operations:

- Edit the tax rates of a jurisdiction (**Edit tax rates** tab).
- View the tax rates applicable for a jurisdiction on a given date (**Preview** tab).

Note:

Tax jurisdictions are organized hierarchically.

Tax rate type

A tax rate type defines a tax to apply. For example: local tax.

The table of **Tax rate types** can be accessed in several ways:

- Windows client only: Via the **Administration/ List of screens** menu item.
- Via a tax jurisdictions detail screen, **Edit tax rates** tab, **Rate type (SQL name: TaxType)** link..

Note:

The **Variable name** (SQL name: SQLName) of the tax rate type can appear in tax formulas. It is alphanumeric and contains no spaces. The first character must be a letter of the alphabet.

Tax rate

For each "Tax rate type " applicable for a given jurisdiction, you define a list of tax "Rates" applicable from a given date.

To view the list of rates used by a tax rate type for a given location:

1 Display the locations (**Organization/ Locations** link on the navigation bar).
2 Display the detail of the tax jurisdiction of the location (**General** tab, **Jurisdiction** (TaxJuris) link.)
3 Select the **Preview** tab.
4 This list summarizes all applicable tax rates for the tax rate types of the jurisdiction at a given date.

Tax formula

Use the **Financials/ Taxes/ Tax formulas** link on the navigation bar to access the **Tax formulas** table.

Tax formulas enable you to calculate the amount of tax to apply using a BASIC formula such as:

```
RetVal = <Tax rate> * <Amount to tax>
```

The tax rate can be a fixed value or a value calculated by the **AmTaxRate()** function. This function returns a tax rate depending on a tax rate type, a tax jurisdiction or a date.

To learn the syntax of the **AmTaxRate()** function, refer to the *Programmer's Reference* guide.

Example of a simple formula

```
RetVal = 21.6 * [mPrice]
```

Practical case

> **Warning:**
>
> This practical case can only be done using the Windows client.

We will calculate the tax of one request line. The request line will be linked to a tax jurisdiction and a tax formula. The tax formula will use the **AmTaxRate()** function.

1 Create the tax jurisdiction:
   a Display the list of tax jurisdictions (**Financials/ Taxes/ Tax jurisdictions** link on the navigation bar).
   b Create a new tax jurisdiction by clicking **New**.
   c Populate the **Name** field with *PC - Jurisdiction*.
   d Create the new record by clicking **Create**.
   e Select the **Edit tax rates** tab.
   f Add a tax rate (⊞ button).
   g Populate the following fields:
   - **Rate type** (TaxType): *PC - Type*

   > **Note:**
   >
   > If the message *Would you like to create 'XXX' (table 'YYY')?* is displayed, click **On the fly creation**.

- **Application date** (dApplication): *January 1, 2008*.
- **Rate value** (pRateVal): *10%*.

h Click the **Add button with the arrows**, which designates that you will add several of the same records.

i Populate the following fields
- **Rate type** (TaxType) : *PC - Type*
- **Application date** (dApplication): *July 1, 2008*.
- **Rate value** (pRateVal): *20%*.

j Click **Add**.

k Click **Modify**.

l Click **Close**.

2 Create the tax formula:

a Display the tax formulas (**Financials/ Taxes/ Tax formulas** link).

b Create a new tax formula by clicking **New**.

c Populate the following fields:
- **Name** field: *PC - Formula*.
- **Table** (TableName): *Request lines (amReqLine)*.

  > 📝 Note:
  >
  > This field must be completed before completing the next field.

- **Script** frame (This frame displays the **Formula** (memFormula) field without naming it).

```
RetVal = amTaxRate("PC - Type" , [lTaxJurisId], [dtService], [mUn
itCost]) * [mUnitCost]
```

d Click **Create**.

e Click **Close**.

3 Compose the request line:

a Display the requests (**Procurement/ Requests** link on the navigation bar).

b Create a new request by clicking **New**.

c Populate the **Purpose** field (ReqPurpose) with the value *PC - Request*.

d Click **Create**.

e Select the **Composition** tab.

f Click 🔳.

g Select the **Purchase** tab.

h Populate the following fields and links:
- **on** (dtService): *July 15, 2008*.
- **Unit price** (mUnitCost): *100*.
- **Tax calculation** (bUsesTaxForm): Select this option.
- **Taxes**: *PC - Formula*.
- **Jurisdiction** (TaxJuris): *PC - Jurisdiction*.

i Examine the **Tax rates** and **Tax amount** fields (pTaxRate and mTaxValue, respectively): They have been automatically calculated according to the fields, links and records that you populated or created previously.

Implementing tax calculations

- If the tax calculation formula depends on the location and therefore the tax jurisdiction:
  1 Windows client only: Create tax types: from the "Tax types" screen obtained via the **Administration/ List of screens** menu item or from the table of tax jurisdictions.
  2 Declare tax jurisdictions for each location.
  3 Define applicable rates for each tax type declared at the level of each tax jurisdiction: from the **Edit tax rates** tab in the detail of each tax jurisdiction.
- Entering the tax calculation method:
  - If the tax is payable on the asset-level or contract level rent, the tax calculation method is entered in the **Rents** tab in the contract detail or **Payments** tab in the asset detail.
  - If the tax is associated with a request or order line, the tax calculation method is entered in the **Purchase** tab of the detail of this line.

    📝 Note:

    Request and purchase order lines are listed on the **Composition** tab of a request and purchase order detail.

  - If the tax is associated with an invoice line, the tax calculation method is entered in the **Price** tab of the detail of this line.

    📝 Note:

    Invoice lines are located on the **Composition** tab of the invoice detail.

The tax calculation method can either be:

- Fixed
- Formula

🖋 **Important:**

Asset Manager Automated Process Manager automatically calculates the taxes payable on period rents of assets or contracts. These taxes appear in expense lines of rent payments, and they are either generated at the contract level (rent payments not allocated or distributed to asset level) or at the level of the assets under contract (for rent payments prorated to the asset level).

🖋 **Note:**

The automatic calculation of taxes does not apply to interim rents in lease contracts.

Declaring taxes linked to locations

This section explains how to declare taxes linked to locations.

Overview

If the tax payable depends on the location, you must first:

1 Define the tax jurisdiction under which it falls for each location.
2 Define for each tax jurisdiction the tax types and rates according to their date of application.

Since the table of tax jurisdictions is hierarchical, the tax types and tax rates that you define for a given jurisdiction apply to all sub-jurisdictions without having to copy them over manually.

On the **General** tab of a location's detail, you can associate a tax jurisdiction, **Jurisdiction (SQL name: TaxJuris)** field, (and therefore tax rates) with a location.

Managing tax types applicable for a tax jurisdiction

Declare a tax rate applicable for a tax jurisdiction

1 Display the tax jurisdictions in one of the following ways:

- Display the detail of the location and click the selection button to the right of the **Jurisdiction** field.
- Click the **Financials/ Taxes/ Tax jurisdictions** link on the navigation bar.

2 Select the **Edit tax rates** tab.

3 Add a tax rate (■ button in the Windows client or **Add** in the Web client).

4 Populate the **Rate type (SQL name: TaxType)** field in one of the following ways:
- Windows and Web clients: by selecting "Tax type" in the table of tax types.
- Windows client only: by creating the "Tax type" ("On-the-fly" or "Detailed").

5 Populate the **Application date** and *Rate value* fields (SQL names: dApplication and pRateVal).

6 Add the tax rate (**Add** button in the Windows client or **OK** in the Web client).

Delete tax rates from a tax jurisdiction

1 Display the tax jurisdictions to modify (**Financials/ Taxes/ Tax jurisdictions** link on the navigation bar).

2 Select the **Edit tax rates** tab.

3 Select the tax rates to delete.

4 Delete the tax rates (■ button in the Windows client or **Delete** in the Web client).

Viewing applicable taxes for a tax jurisdiction

> ⚠ Warning:
>
> This function is only available in the Windows client.

Once the tax types and tax values are defined, you can view the taxes applicable in a tax jurisdiction on a given date as follows:

1 Display the tax jurisdictions (**Financials/ Taxes/ Tax jurisdictions** link on the navigation bar).

2 Select the jurisdiction for which you want to view the taxes.

3 Select the **Preview** tab.

4 In the **Application date** field, enter the date for which you want to list taxes applicable for the location.

5 The taxes in effect on the date of application are displayed: These are taxes specific to the jurisdiction and taxes inherited from parent locations.

Declaring the calculation method for taxes payable on rents

This section explains how to declare the calculation method for taxes on rent payments.

The tax calculation method is defined by the **Taxes (SQL name: TaxFormula)**, **Jurisdiction (SQL name: TaxJuris)**, **Tax amount (SQL name: mTaxValue)** and **Tax rates (SQL name: pTaxRate)** fields, which appear in several places:

- At contract rent level (**Rents** tab, rent description sub-tab).
- At asset rent level (**Acquis.** tab, rent description sub-tab).

The **Tax calculation** check box (SQL name: bUsesTaxForm) enables you to specify the method of calculation of the tax:

- When this box is unchecked, the tax is fixed rate.
- When this box is checked, the tax is calculated according to a formula.

Fixed taxes

To define a fixed tax associated with an asset or contract (schedule) level rent:
1 Uncheck the **Tax calculation** checkbox (SQL name: bUsesTaxForm) to indicate that the tax is fixed.
2 Enter the amount of the tax in the **Tax amount** field (SQL name: mTaxValue) or the tax rate in the **Tax rates** field (SQL name: pTaxRate).

The tax remains fixed for all periodic rents calculated in the rent sub-tab containing the fixed tax.

When rent is distributed to the asset level: The tax payment is distributed to the asset level according to the same rules as for the rent.

Tax formulas

With Asset Manager, you can calculate taxes using formulas.

To access the detail of a tax formula:
1 Select the **Tax calculation** checkbox (SQL name: bUsesTaxForm) to indicate that the taxes use a calculation formula.
2 If the tax formula already exists:
    - Windows client: Select it using the ▪ icon.
    - Web client: Click the ▣ icon.

3 If the tax formula does not already exist: Using the Windows client, click the ▣ icon to the right of the **Taxes** field, then click **New**.

A tax formula is characterized by:

- A **Name** (SQL name: Name): identifies the tax formula in the table of tax formulas.
- A **Category** (SQL name: Category): Selected from a free itemized list, the "Category" provides further information on the "Description". This field is for informational purposes only and is not linked to any automatic mechanisms. If the itemized list is "open" and if you have the necessary rights, you can enter a new value in this field.
- The **Table** (SQL name:TableName) to which it is linked.
- A syntax specified in the **Formula** zone(SQL name: memFormula).

  Windows client: Clicking ▣ displays the script builder that facilitates entering the Basic calculation formula script.

Fields in the table to which the tax formula is linked can be incorporated in the formula.

Whether or not you are able to select a tax formula linked to a table in a rent description sub-tab depends on if and how rent is distributed to asset level:

- The following formulas may be linked to the table of asset rents:
  - The taxes payable on asset rents independent of any contract.
  - The taxes payable on contract rents prorated and distributed or allocated to all or a selection of assets under contract.
- The following formulas may be linked to the table of contract rents:
  - ◆ The taxes payable on contract rents which are not distributed to the asset level.

Tax distribution method

- If the tax formula uses variables from the table of asset rents, tax is directly calculated at the asset level when rent expense lines are created.
- If the tax formula does not use variables from the table of asset rents, tax is calculated at the contract level.
  - If rent is not distributed to the asset level, the tax is integrated into the expense lines that are generated for the contract.
  - If the rent is distributed to the asset level, tax is distributed to the asset-level expense lines according to the same rules as used for the rent calculations.

Tax formula syntax

The syntax of tax formulas can be complex and involves:

- Fields from the table to which the formula is linked.

- "Tax types" applicable to the tax jurisdiction of the rent payments that are subject to the tax: They are identified by the names of their variables.

> **Note:**
>
> Asset Manager's script builder helps the user in writing tax formulas. It is accessible by clicking the magnifier to the right of the data entry zone of the formula.

Associating a tax calculated using a formula with a rent item

This is the procedure to follow to associate a tax calculated using a formula with a rent item:

First step at the level of the table of locations

This step is necessary if the tax is paid on an asset rent or a contract rent distributed to all (or a selection) of the assets under contract, and if the tax depends on the location of the assets.

1. Display the locations (**Organization/ Locations** link).
2. Select the location of the assets.
3. Select the tax jurisdiction of the location.
4. Declare the possible tax types which are applicable for this jurisdiction, as well as the associated rates and their application dates.

Second step at the level of the **Taxes** field (SQL name: TaxFormula) of the contract or asset rent

1. Check the **Tax calculation** box (SQL name: bUsesTaxForm) to specify that the tax payable on the rent is calculated using a formula.
2. If the tax formula already exists, select it from the table of formulas using the button to the right of the **Taxes** field.
3. Otherwise, using the Windows client, create it directly from the **Taxes** field:
   1. Enter its name in the **Taxes** field and move the cursor to another field.
   2. Select "Detailed creation": The tax formula detail is displayed.
   3. Enter the **Category** of the formula if necessary.
   4. Enter the syntax of the formula.
4. Click **Modify** to confirm the changes.

Example of tax formula independent of the tax jurisdiction

Here is an example of a tax formula where "Tax types" are not involved.
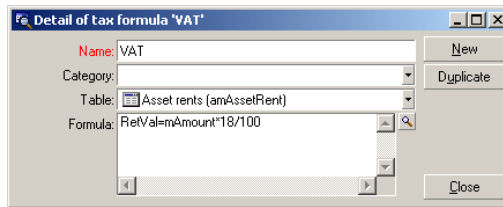
In this example, the jurisdiction-independent tax formula is entered directly in the **Formula** zone (SQL name: memFormula). The value of the tax is equal to 18% of the value of the rent.

Example of tax formula dependent on the tax jurisdiction

Here is an example of a tax formula associated with a contract rent, which is distributed to all assets where tax types arise:
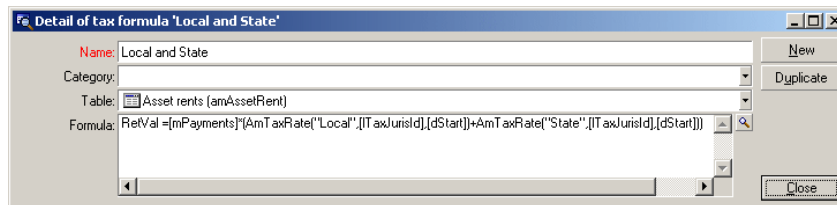
In this example, the tax is equal to a percentage of the value of the rent. This percentage is the sum of the "Local" and "State" "Tax types".

Using the above formula, here are the steps for calculating the tax associated with a contract rent for a given period:

1 Asset Manager Automated Process Manager searches to see whether the tax types (whose variable names appear in the formula) apply for the tax jurisdiction.

2 If one of these tax types in the formula does not exist for the tax jurisdiction, the corresponding tax rate is replaced by 0 in the formula.

3 Otherwise, Asset Manager Automated Process Manager searches for the tax value that is applicable on the date the rent must be paid, and uses this in the formula. If no tax rate is defined for this date, it is replaced by 0.

4 Then Asset Manager Automated Process Manager calculates the total amount of the tax and integrates it in the expense line associated with rent.

Managing changes to tax rates during a rent period

In a tax calculation, it is possible that the tax rates used by the "Tax types" might change during the period covered by the rent (between two bill cycle days).

Asset Manager Automated Process Manager applies the tax rates in effect on the date the rent must be paid. This is usually sufficient for the majority of situations.

If this does not suit your needs, however, we advise you to define successive rents, as described below. This will take into account the variation in the tax rate:

1 Go to the rent description sub-tab (in the **Rents** tab of the contract detail, or in the **Acquis.** tab of the asset).

2 Modify the end-of-rent-validity date in order for the rent to cover only that period before the change in tax rate.

3 Duplicate the rent sub-tab in order to create two new rent items:

1 A rent item for the transition period: Enter the tax directly to pay for this rent as for a fixed tax without creating a tax formula.

2 A rent item applicable for the periods coming after the change in rate.

Using taxes in the procurement cycle

This section explains how to use taxes in the procurement cycle of an asset.

General points

The amount of taxes linked to an asset acquisition appears in each stage of the procurement cycle (purchase request, estimate/quote, order, supplier invoice), and is located in the lower part of the **Composition** tab in the detail of a request, estimate, order or invoice.

Note:

This total amount is for informational purposes only and cannot be edited directly by the user. However, from the detail of a request, order or invoice line, the user can define the taxes associated with the line.

Automatic mechanisms

Asset Manager propagates the tax amount throughout the procurement cycle. Thus, if you define taxes for a purchase request, they will be propagated identically when an order and its corresponding invoice are created.

Propagation of taxes in the procurement cycle is not retroactive. For example, if the taxes were defined when drawing up the purchase order, the original purchase request will not be modified accordingly.

Note:

As much as is possible, we recommend systematically defining taxes at the earliest possible stage in the procurement cycle, i.e. the purchase request, in order to ensure the integrity of automatic mechanisms.

Entering taxes

Enter a tax

Within the procurement cycle, taxes can be entered:

- In the **Purchase** tab in the detail of a request line.
- In the **Purchase** tab in the detail of an order line.
- In the **Price** tab in the detail of an invoice line.

The section at the bottom right of the screen is used to declare taxes. For a fixed tax, uncheck the **Tax calculation** check box (SQL name: bUsesTaxForm) and enter the amount of the tax or the tax rate directly. For a calculated tax, check the **Tax calculation** box (SQL name: bUsesTaxForm) and select a tax formula.

Automatic mechanisms using taxes

The fields in the lower area of the **Purchase** tabs in the details of request, order or invoice lines are linked by the following automatic mechanisms:

Table 4.1. Automatic mechanisms using taxes

Modifying this field	Brings about modification of this field	According to this field
Unit price (SQL name: mUnit-Cost)	**Taxes** (SQL name: mTax-Value)	**Tax formula** (SQL name: TaxFormula)
Tax formula (SQL name: TaxFormula)	**Taxes** (SQL name: mTax-Value)	**Unit price** (SQL name: mUnit-Cost)

Modifying this field	Brings about modification of this field	According to this field
Tax rates (SQL name: pTaxRate)	**Taxes** (SQL name: mTaxValue)	**Unit price** (SQL name: mUnitCost)

The following formula enables you to calculate the value of the **Total price** field (SQL name: mCost):

```
Total=(Unit price. + Taxes)*(1-Discount)
```

5 Total Cost of Ownership (TCO)

Overview

The objective of TCO (Total Cost of Ownership) calculations is to identify all direct and indirect costs that are incurred as a result of owning software and hardware assets.

It includes asset acquisition, training, support, and update costs.

Calculating TCO is an ideal means to identify abnormally high or redundant expenses.

Controlling TCO is a major factor in having a competitive advantage. Studies conducted by analysts indicate that implementing a coherent TCO strategy can bring about a 30-40% reduction in TCO in a two-year time frame. However, failing to address TCO issues can lead to a 5O% increase in TCO over the same period of time.

TCO of an asset includes:

- Hardware and software acquisition costs
- Management costs (external and internal).
- End user costs.

Hardware and software acquisition costs

These are the expenses associated with desktop and laptop computers, servers, peripherals, and network systems.

They also include hardware and software purchases and lease costs.

In general, acquisition costs are determined using financial information from asset, lease contract, and purchasing records. Loss values are also taken into account.

This cost type is made up of several sub-categories:

- Hardware acquisition costs: These are the expenses incurred when buying or upgrading hardware. Acquisition costs are amortized over a period that differs according to the asset's category (in general, a three-year straight-line schedule is used for a desktop computer).
- Software expenses: These are expenses incurred when buying or upgrading software. These expenses are only amortized when they exceed thresholds for fixed assets. For certain licenses, such as those acquired as part of a "Select" contract type, expenses incurred over a given period of time. For example, costs of a three-year, $30,000 "Select" contract type can broken down into $10,000 payments (one payment made each year during the three-year period).
- Rent costs: This category includes both hardware and software lease fees.

Management costs

This includes cost of installation, management, support, training and maintenance done for hardware or software assets. Costs can be external (payment of services provided by an external technician) or internal (installation of hardware done by a technician from the company's IT department). External costs are easily measured: invoices are received and payments are made. Internal costs can be estimated by assigning an hourly cost rate for each employee category. For example, internally, an hour of work done by an engineer can be billed 200 dollars. This category also includes all expenses incurred from management contracts (internal and external maintenance contracts).

End user costs

These are indirect costs linked to using an asset. This category can be broken down as follows:

- Costs incurred by end users or co-workers performing support tasks without using the usual technical support channels.
- Self-education costs: the time spent by users in training themselves (reading manuals, testing hardware and software, etc.).

> **✐ Note:**
>
> Traditionally, these costs have been considered as hidden costs and evaluated using surveys. As such, it is difficult to measure them on the basis of identifiable information (such as the acquisition, lease or maintenance costs). Certain studies have concluded that end user costs make up around 27 percent of hardware, software, and management costs.

Implementing TCO calculation

You must complete the tasks described in this section before the TCO can be calculated automatically.

Activate required modules

The following modules must be:

- Included in the license inserted in your database.
- Activated for the Windows client (**File/ Activate modules** menu).

Table 5.1. TCO - Required modules

Required functionality	Required module
Cost management	Financials
Asset management	Portfolio
Work order management	Portfolio
Contracts	Contracts
Procurement	Procurement

Insert line-of-business data into an existing database

The line-of-business data that can be imported in this section is used to automate the creation of expense lines for work orders.

When creating the database

To insert TCO line-of-business data during database creation, 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 *Financials - Line-of-business (TCO) data*.

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

If you did not insert the TCO line-of-business data when creating the database, do the following:

1 Start 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 reports.
Create	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.

> Note:
>
> The Asset Manager database administrator is the record in the **Departments and employees** (amEmplDept) table for which the **Name** (Name) field is set to *Admin*.
>
> The database connection login is stored in the **User name** (UserLogin) field. The administration name is *Admin*.
>
> The password is stored in the **Password** field (LoginPassword).

Data to import page:

Fields	Value
Available data	Select the option *Financials - Line-of-business data (TCO)*.
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).

Assign the appropriate access rights to Asset Manager users.

If you want expense lines to be automatically created by work orders, make sure that users who prepare work order slips have the following access rights for the **Expense lines** (amExpenseLine) table:

- ◆ Tables:
  - ■ Create
  - ■ Delete

Define the hourly cost of internal technicians

If you want *Internal maintenance* work orders to trigger the creation of an expense line automatically, you must perform the following preliminary tasks:

1 Make sure there is a nature whose **Code** (Code) field equals *TCO_WORK_UNIT*

2 Create at least one model by populating the following fields and links:

Field label	SQL name of the field	Value
Name	Name	Value of your choice
General tab		
Nature	Nature	Select a nature whose **Code** (Code) field equals *TCO_WORK_UNIT*

3 Create a product for each work order cost by populating the following fields and links:

Field label	SQL name of the field	Value
Description	Description	Value of your choice (example: Name of the model)
General tab		
Model	Model	Select a model linked to a nature whose **Code** (Code) field equals *TCO_WORK_UNIT*

Field label	SQL name of the field	Value
The **Employees** tab		
Work unit	tsUnitDuration	Unit of time used to invoice internal work orders.
Multiplier factor	fOverheadFactor	This field is used to generate an internal chargeback price from the **List price** (mPrice) field in order to account for any applicable internal chargeback margins.
		If the **List price** (mPrice) field already corresponds to the internal chargeback price, assign the value *1* to the **Multiplier factor** field.
Acquis. tab		
List price	mPrice	Internal cost per technician's work unit.
		You can also manually enter the internal chargeback price in this field.
		In this case, assign the value *1* to the *Multiplier factor* field. (fOverheadFactor).

4 Populate the following field to associate each technician to the product that defines his or her internal chargeback cost:

Field label	SQL name of the field	Value
Costs tab		
Cost of services	Cost of services	Select the product that provides the technician's rate per work unit

Have previous expense lines taken into account in the TCO calculation

Once the TCO calculation has been set up, you must update all preexisting expense lines so that the **Economic depreciation duration** (tsAccrualPeriod) field contains a value that complies with the standards you defined.

To do this, you can use the **lAccrualPeriod** function in the *TcoLib* script library.

The same function is used to populate the default value of the **Economic depreciation duration** (tsAccrualPeriod) field.

Calculate the Total Cost of Ownership (TCO) in Asset Manager

TCO of an asset

Calculate an asset's TCO

To calculate an asset's TCO :

1 Display the list of assets (**Portfolio management/ Assets** link on the navigation bar).
2 Display the asset detail.
3 Windows client: Click the **Calc. TCO** button.

   Web client: Select *Calc. TCO* from the **Actions...** drop-down list.
4 Select the **ROI** tab and examine the **Yearly total cost of ownership (TCO)** (mAvgYearlyTco) field.

How is TCO for an asset calculated?

1 The user triggers the TCO calculation by clicking the **Calc. TCO** button (Windows client) or by selecting *Calc. TCO* from the **Actions...** drop-down list (Web client) in the asset's detail.
2 This button or entry triggers the *Calculate yearly TCO* (sysCoreCalcAvgYearlyTco) action.
3 This action triggers the *TcoLib* (TcoLib) script's *CoreCalcAvgYearlyTCO* function (**Administration/ Scripts** link on the navigation bar).
4 If the asset is not a business service, the *CoreCalcAvgYearlyTCO* function calls the *CoreCalcAvgYearlyTCOAsset* function which also calls the *CoreCalcAvgYearlyTCOSimpleAsset* function (to calculate the TCO for sub-assets).

   If the asset is a business service, the *CoreCalcAvgYearlyTCO* function calls the *CoreCalcAvgYearlyTCOBusinessService* function which also calls the *CoreCalcAvgYearlyTCOAsset* function for the business service's components.
5 These functions update the **Yearly total cost of ownership (TCO)** (mAvgYearlyTco) field of the asset and its sub-assets, of the resources (for the business services) and their sub-assets.

Figure 5.1. TCO calculation - dates included
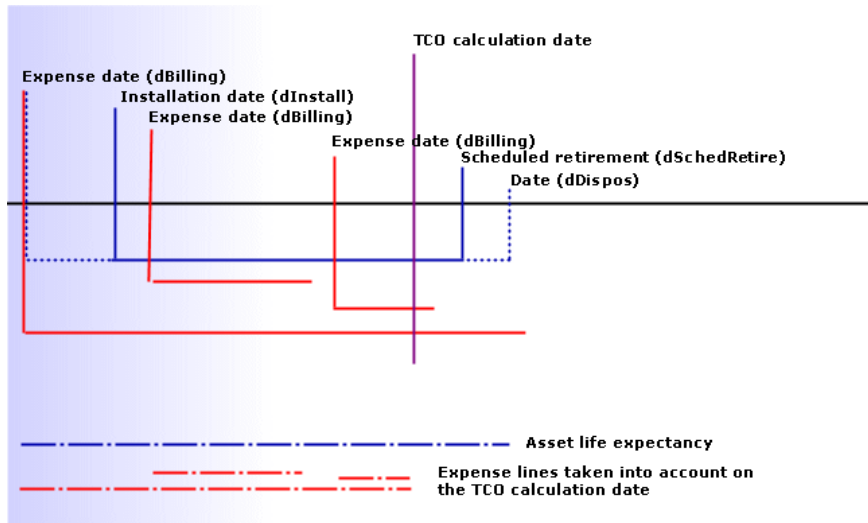
TCO for an asset is calculated as follows:

- TCO is given in reference currency 1.
- Expense lines whose **Expense date** (dBilling) field value is prior to the current date are included.
- For each expense line that is included, the following formula is used to calculate the percentage of the amortized expense on the TCO calculation date:

```
(DHT - CHT) * (duration between D1 and D2) / DA
```

With:

- *DHT* = detail of the expense line, **Debit (currency A exchange value)** (mDebitRef1)
- *CHT* = detail of the expense line, **Credit (currency A exchange value)** (mCreditRef1)
- *D1* = detail of the expense line, **Expense date** (dBilling)
- *D2* = the older of the two following dates:
    - Current date
    - Detail of the expense line, **Expense date** (dBilling) field + **Economic depreciation duration** (tsAccrualPeriod)

- ◆ *DA* = detail of the expense line, **Economic depreciation duration** field (tsAccrualPeriod)
- The resulting amounts for both expense lines are added together.
- The resulting total for one year is calculated using the following formula:

```
TCO = S / (duration between D1 and D2)
```

With:
- *S* = Sum of the amounts withheld for each expense line
- *D1* = the least recent of the following dates:
  - Asset's detail, **Installation date** (dInstall) field
  - Expense lines' detail, **Expense date** (dBilling) field
- *D2* = the older of the following dates :
  - TCO calculation date
  - The most recent of the following dates:
    - Asset's detail, **Scheduled retirement** (dSchedRetire) field

      If this field has not been populated: Asset's detail, **Retirement date** (dDispos) field

      If these fields are not populated: Asset's detail, **Installation date** (dInstall) field + model's detail, **Economic depreciation duration** (tsLifeExpectancy) field

      If none of the fields are populated: Asset's detail, **Installation date** (dInstall) field + 3 years
    - Detail of the expense line, **Expense date** (dBilling) field + **Economic depreciation duration** (tsAccrualPeriod)

TCO of a business service

Calculate the TCO of a business service

Several possibilities exist when you calculate the TCO of a business service:
- From the business service's detail:
  1 Display the list of business services (**Portfolio management/ Business services / Business services** link on the navigation bar).
  2 Display the detail of the business service.
  3 Windows client: Click the **Calc. TCO** button.

    Web client: Select *Calc. TCO* from the **Actions...** drop-down list.
  4 Select the **ROI** tab and examine the **Yearly total cost of ownership (TCO)** (mAvgYearlyTco) calculated field.

- From one of the business service's client-resource relationships:
  1 Display the list of client-resource relationships (**Portfolio management/ Business services/ Client-resource relationships** link on the navigation bar).
  2 Display the detail of one of the business service's client-resource relationships.
  3 Windows client: Click the **Calc. TCO** button.

    Web client: Select *Calc. TCO* from the **Actions...** drop-down list.
  4 Examine the **Calculate annual total cost of ownership (TCO)** (mAvgYearlyTco) calculated field.

How is a business service's TCO calculated?

1 The user triggers the TCO calculation by clicking the **Calc. TCO** button (Windows client) or by selecting *Calc. TCO* from the **Actions...** drop-down list (Web client) in the business service's detail.
2 This button or entry triggers:
   - The *Calculate yearly TCO* (sysCoreCalcAvgYearlyTco) action if the call is made from the asset.
   - The *Calculate yearly TCO of the business service* (sysCoreCalcAvgYearlyTcoCR) action if the call is made from the client-resource relationship.
3 These actions trigger the *TcoLib* (TcoLib) script's *CoreCalcAvgYearlyTCO* function (**Administration/ Scripts** link on the navigation bar).

   The *CoreCalcAvgYearlyTCO* function calls the *CoreCalcAvgYearlyTCOBusinessService* function.

   The *CoreCalcAvgYearlyTCOBusinessService* function calls the *CoreCalcAvgYearlyTCOAsset* function for the business service's components.
4 These functions update the **Yearly total cost of ownership (TCO)** (mAvgYearlyTco) field of the business service and its sub-assets, of the business service's resources and the sub-assets of these resources.

What is a business service's TCO calculation rule?

The TCO of the business service includes :
- The TCO of the business service itself (as an asset).

  This includes the TCO of its sub-assets.
- A portion of the TCO of the business service's resources.

The TCO of the business service and of the resources are calculated as described in the TCO of an asset [page 67] section.

The included portion of TCO for a business service's resources depends on the *Financial impact calculation method* (seFinImpactCalc) field of the

client-resource relationships that link the resource to a client within the business service:

- If the calculation method is *None*: The resource's TCO is not taken into account in the calculation.
- If the calculation method is *Use the financial impact of the relationship*: The value of the resource's TCO is multiplied by the financial impact (**Financial impact** (pFinImpact) field of the client-resource relationship).
- If the calculation method is *Breakdown evenly*: The value of the resource's TCO is multiplied by:

```
[1-I]*Z/N
```

Where:

- *I* equals the sum of the financial impacts of the client-resource relationships linked to the current resource and linked to a client-resource relationship type whose financial impact calculation method is *Use the financial impact of the relationship*.
- *Z* equals the number of client-resource relationships linked to the resource within the business service whose financial impact calculation method is *Breakdown evenly*.
- *N* equals the number of client-resource relationships whose financial impact calculation method for this resource is *Breakdown evenly*.

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

TCO of a model

Calculate a model's TCO

To calculate the TCO of a model:

1 Display the list of models (**Portfolio management/ Models** link on the navigation bar).
2 Display the detail of the model.
3 Windows client: Click the **Calc. TCO** button.

   Web client: Select *Calc. TCO* from the **Actions...** drop-down list.
4 Select the **General** tab and examine the **Yearly total cost of ownership (TCO)** (mAvgYearlyTco) calculated field.

How is TCO for a model calculated?

1 The user triggers the TCO calculation by clicking the **Calc. TCO** button (Windows client) or by selecting *Calc. TCO* from the **Actions...** drop-down list (Web client) in the model's detail.

2 This button or entry triggers the *Calculate yearly TCO of the model* (sysCoreCalcAvgYearlyTcoModel) action.

3 As the TCO calculation may take some time, this wizard displays a warning message.

4 If the TCO calculation is confirmed, this wizard triggers the *TcoLib* (TcoLib) script's *CoreCalcAvgYearlyTCOModel* function (**Administration/ Scripts** link on the navigation bar).

5 If the model is not a business service model, the *CoreCalcAvgYearlyTCOModel* function calls the *CoreCalcAvgYearlyTCOAsset* function.

   If the model is a business service model, the *CoreCalcAvgYearlyTCOModel* function calls the *CoreCalcAvgYearlyTCOBusinessService* function.

6 These functions update the **Yearly total cost of ownership (TCO)** (mAvgYearlyTco) field of the model, of the assets linked to this model, of the sub-assets linked to these assets, of the resources (for the business services) and of the sub-assets linked to these resources.

How is TCO for a model calculated?

The TCO of the model is calculated as follows:

- It calculates the TCO average of assets associated with the model whose TCO value is not null (including sub-assets).
- The TCO of assets associated with the model is calculated as described in the TCO of an asset [page 67] section.

To modify the TCO calculation method of an asset, a business service or a model

> ⚠️ Warning:
>
> This requires a high level of expertise.

1 Duplicate the *TcoLib* (TcoLib) script (**Administration/ Queries** link on the navigation bar).

2 Modify the functions of the *TcoLib* script depending on how you want to calculate the TCO.

3 Duplicate the *Calculate yearly TCO* (sysCoreCalcAvgYearlyTco), *Calculate yearly TCO of the model* (sysCoreCalcAvgYearlyTcoModel) and *Calculate yearly TCO of the business service* (sysCoreCalcAvgYearlyTcoCR) actions (**Administration/ Actions** link on the navigation bar).

4 Modify the actions to have them call the duplicated *TcoLib* script.

5 Using Asset Manager Application Designer, duplicate the screens for the **Assets** (amAsset), **Models** (amModel) and **Client-resource relationships**

(amClientResource) tables which have a button that triggers the sysCoreCalcAvgYearlyTco, sysCoreCalcAvgYearlyTcoModel and sysCoreCalcAvgYearlyTcoCR actions.

Modify these buttons so that they trigger the sysCoreCalcAvgYearlyTco, sysCoreCalcAvgYearlyTcoModel and sysCoreCalcAvgYearlyTcoCR actions that were duplicated.

6 Make sure that Asset Manager users use the duplicated screens instead of the original system screens.

💡 Tip:

Changes have to be made using this process because system objects in the database cannot be modified. Also, system objects are overwritten by new system objects when Asset Manager is migrated to a more recent version (this means your customization would be lost).

Automating the TCO calculation

This section explains how to recalculate periodically and automatically the TCO for assets.

This task is carried out by the *Average annual TCO of assets calculation* (TCO_AVG_YEARLY_CALC) workflow scheme.

Main features of the *Average annual TCO of assets calculation* workflow scheme

This workflow scheme is part of the *Financials - Line-of-business data (TCO)*.

▶ Insert line-of-business data into an existing database [page 63]

Table 5.2. *Average annual TCO of assets calculation* **workflow scheme**

Triggering of the workflow scheme	According to the frequency defined by the scheduling settings of the workflow scheme's initial event. By default, once every Saturday at 2 am.
Is Asset Manager Automated Process Manager required to trigger and run the workflow scheme?	Yes
Simplified description of the workflow scheme	The workflow scheme executes the *Calculate the yearly TCO of all assets* (CalcAvgYearlyTcoAll) action which recalculates the TCO of all models and all assets. To do this, the action calls the *TcoLib* (TcoLib) script's *CoreCalcAvgYearlyTCOModel* function (**Administration/ Scripts** link on the navigation bar).

Asset Manager Automated Process Manager parameters

Asset Manager Automated Process Manager tests whether the *Average annual TCO of assets calculation* workflow scheme needs to be triggered depending on the scheduling settings of this workflow's initial event.

To make sure Asset Manager Automated Process Manager performs this task:

1 Start Asset Manager Automated Process Manager.
2 Connect to the Asset Manager database (**File/ Connect to database** menu).
3 Display the modules (**Tools/ Configure modules** menu).
4 Select the *Execute workflow rules for execution group 'TCO'* (WkGroupTCO) module.
5 Make sure that the *Enabled* box is selected.
6 If needed, modify when the module is triggered (**Verification schedules** frame).

Executing Asset Manager Automated Process Manager as background task

Asset Manager Automated Process Manager must be executed as a background task in order for the *Execute workflow rules for execution group 'TCO'* module to be executed periodically.

Generating expense lines included in the TCO

The Calculate the Total Cost of Ownership (TCO) in Asset Manager [page 67] section explained how to view the TCO of an asset, a business service and a model, as well as how the TCO calculation was performed.

The Calculate the Total Cost of Ownership (TCO) in Asset Manager [page 67] section did not explain how expense lines linked to assets are generated.

This will be explained in this section.

Method used to generate the expense lines

The following table explains how the expense lines are generated:

Expense type	Event that triggers the automatic creation of the expense line	Information taken into account to populate the expense line's **Expense date** (dBilling) field
Asset purchase	Enter a value in the asset's **Purchase price** (mPrice) field. Note: If you use the *Procurement* module, this field is populated automatically.	Asset's **Purchase date** (dAcquisition) field
Asset rental	Asset Manager Automated Process Manager's *Calculate rents and loans* (Rent) module automatically generates expense lines that correspond to rent	Loan payment date deducted from the rent detail
Asset loan payment	Asset Manager Automated Process Manager's *Calculate rents and loans* (Rent) module automatically generates expense lines that correspond to repayment	Loan repayment date
On-contract maintenance and *Off-contract maintenance* type work orders	Entering a value in the work order's **Real cost** (mCost) field	Work order's **Actual end** (dtActualFixed) field
Internal maintenance type work orders	Entering a value in one of the work order's following fields: ■ **Work time** (tsTotalTimeBill) ■ **Int. technician** (Technician) Note: The technician's **Cost of services** (WorkUnit) link must be populated.	Work order's **Actual end** (dtActualFixed) field
Various expenses	Manual creation	By default, the line creation date

Method used to calculate the **Economic depreciation duration** (tsAccrualPeriod) field

This section explains how the **lAccrualPeriod** function in the *TcoLib* script library calculates the value of the **Economic depreciation duration** (tsAccrualPeriod) field depending on the value of the expense line's **Purpose** (sePurpose) field.

If the value of the **sePurpose** field is *Purchase (Asset)*, *Initial payment (Asset)*, *License extension* or *Adjustment*

Calculated value	References used
Depreciation duration start date	Asset's detail, **Installation date** (dInstall) field
Depreciation duration end date	The first populated value of the following values: ■ Asset's detail, **Date** (dDispos) field ■ Asset's detail, **Scheduled retirement** (dSchedRetire) field ■ Asset's detail, **Installation date** (dInstall) field + model's detail, **Economic depreciation duration** (tsLifeExpectancy) field ■ Otherwise: 3 years
Ideal period that you can enter manually	Asset life expectancy

If the value of the **sePurpose** field is *Project*

Calculated value	References used
Depreciation duration start date	The most recent of the following dates: ■ Asset's detail, **Installation date** (dInstall) field ■ Expense line's detail, **Expense date** (dBilling) field ■ Project's detail, **Start** (dStart) field
Depreciation duration end date	The least recent of the following dates: ■ Asset's detail, **Date** (dDispos) field ■ Asset's detail, **Scheduled retirement** (dSchedRetire) field ■ Project's detail, **End** (dEnd) field

 Note:

If no date can be found, a one-year period is used.

If the value of the **sePurpose** field is *Free*

 Note:

The **sePurpose** field is set to *Free* for loan payment lines.

Fixed period: 30 days

Calculated value	References used
Depreciation duration start date	The most recent of the following dates:
	■ Asset's detail, **Installation date** (dInstall) field
	■ Expense line's detail, **Expense date** (dBilling) field
	■ Contract's detail, **Start** (dStart) field
Depreciation duration end date	The least recent of the following dates:
	■ Asset's detail, **Date** (dDispos) field
	■ Asset's detail, **Scheduled retirement** (dSchedRetire) field
	■ Contract's detail, **End** (dEnd) field

> ✏ Note:
>
> If no date can be found, a one-year period is used.

- Detail of the contract's main rent, **Periodicity** (sePeriodicity) field
- If the value of the **Periodicity** (sePeriodicity) field is *0* (one time): ▶ If the value of the sePurpose field is Initial payment (Contract) [page 77]

Calculated value	References used
Fixed period	■ Work orders: **Economic depreciation duration** (tsLifeExpectancy) field of the work order's model
	■ Training sessions: **Economic depreciation duration** (tsLifeExpectancy) field of the training model
	■ Other: 3 months

Calculated value	References used
Ideal period that you can enter manually	Average time between similar work orders for the asset or the asset model

If the value of the **sePurpose** field is *Consumption* or *Purchase (Consumable)*

Calculated value	References used
Fixed period	1 year
Ideal period that you can enter manually	Consumable's life expectancy

If the value of the **sePurpose** field is *Training*

Calculated value	References used
Fixed period	▪ **Economic depreciation duration** (tsLifeExpectancy) field of the training model ▪ Otherwise: 1 year
Ideal period that you can enter manually	Period during which the training session is useful

6 Chargeback

This chapter explains what chargeback processes are and how to automate them. It also includes step-by-step practical cases to try out by yourself; These practical cases illustrate certain aspects of rebilling.

Prerequisites

To implement chargeback, your Asset Manager user license must include access to the following modules:

- Financials
- Chargeback

For the windows client, you must activate these modules (**File/ Activate modules** menu).

Overview

Chargebacks are used to re-allocate an expense paid for by a (source) cost center to the (target) cost centers that were really at the origin of the expense.

Asset Manager enables you to define chargeback rules to automate the creation of chargeback expense lines.

The source cost center is credited with the amount of the chargeback, whereas the target cost centers are debited with the same amount. The amount credited and the sum of the amounts debited cancel each other out.

Example: You can define chargeback rules corresponding to the installation of computers by the IS department: When a computer record is created in the database, Asset Manager automatically creates two expense lines:

- An expense line crediting the IS cost center to account for services performed
- An expense line debiting the cost center of the department for which the computer was installed

Tip:

You can create multiple chargeback rules for any given event.

Make sure that such rules are consistent among themselves (avoiding conflicts and redundancies).

Creating a chargeback system

To automate chargeback for a given type of expense:

1 Create a chargeback system (**Financials/ Chargeback/ Chargeback systems** link on the navigation bar).

2 Add rules to the chargeback system (**Rules** tab).

Populate in particular the following fields and links:

Field or link	Value
General tab	
Fields and links in the **Event** frame	Define the events that trigger the application of the rule
Fields and links in the **Amount calculation** frame	Define how expense line credits and debits are calculated
Fields and links in the **Cost type** frame	Define how the cost type to which the credit and debit expense lines are allocated is selected
Fields and links in the **Debited cost center** frame	Define how the cost center to which the debit expense line is allocated is selected

Field or link	Value
Fields and links in the **Credited cost center** frame	Define how the cost center to which the credit expense line is allocated is selected

Create a chargeback system from existing chargeback rules

To create a chargeback system from existing rules (that you can modify later):

1 Start the *Create a chargeback system* (sysCbkSystemCreate) wizard (**Financials/ Chargeback/ Create a chargeback system...** link on the navigation bar).

2 Populate the *Description*, *Code*, *Start* and *End* fields.

3 The wizard displays the list of all existing chargeback rules (active and inactive).

Next, you can select one or more chargeback rules to add to the new chargeback system (**Add rules** button).

Click the **Delete rules** button to remove rules from the chargeback system.

> 📝 Note:
>
> You can add the same rule several times. When doing so, they will be generated with different codes.

4 Modify manually the label and code of the new chargeback rule as needed.

5 Click **Finish**.

6 Asset Manager displays the detail of the newly created chargeback system rules that have been created.

You can modify the value of the fields if necessary.

7 Close all windows.

8 To view your system and modify the chargeback rules, open the *Chargeback systems* (amCbkSystem) table (**Financials/ Chargeback/ Chargeback systems** link on the navigation bar).

Making reference cost centers and cost types required fields

When you create a chargeback rule (▶ Creating a chargeback system [page 80]), you define a target cost center, a source cost center and a cost type.

In order for a chargeback rule to be executed with success, the cost centers and cost types referenced by the rule must be populated.

Example: The IS department rebills computer installations and charges the rebilled amount to the cost center of the user's department. The departmental cost centers must therefore be populated beforehand.

The most reliable procedure is to make the cost centers and cost types referenced by the chargeback rules mandatory.

Processing unresolved chargeback events

1 Display the chargeback systems (**Financials/ Chargeback/ Chargeback systems** link on the navigation bar).
2 Display the detail of the system to check.
3 Select the **Events** tab.
4 Look to see if there are any events in the list.

   If this is the case, it means that a rule in the system encountered a triggering event but the corresponding expense lines could not be generated.

   For each event in the list:
   a Display the detail of the event.
   b Examine the detail of the event and identify the reason for which the expense lines could not be created.

      To examine the detail of the record whose creation, modification or deletion generated the event:
      ■ Windows client: Click the **Origin** button.
      ■ Web client: Select the *Origin* entry from the **Contextual actions** drop-down list.
   c Once the problem has been corrected:
      ■ Windows client: Click the **Reapply** button.
      ■ Web client: Select the *Reapply* entry from the **Contextual actions** drop-down list.

Scheduling triggering of chargeback rules

It is possible to schedule the triggering of a chargeback rule.

The scheduler is defined in the detail of the chargeback rule.

The execution of the scheduler is controlled by Asset Manager Automated Process Manager.

As a consequence, Asset Manager Automated Process Manager must be installed, configured and started on the server.

Note:

If chargeback rules have been scheduled since the last restart of Asset Manager Automated Process Manager when Asset Manager Automated Process Manager is next restarted, all these scheduled chargeback rules will be triggered and all associated expense lines will be generated.

Configuring Asset Manager Automated Process Manager

1. Start Asset Manager Automated Process Manager.
2. Connect to your database (*File / Connect to database* menu).
3. Select the *Tools / Configure modules* menu.
4. Select the **Trigger the periodical chargeback rules** (CbkTimer) module.
5. Populate the options in the **Trigger the periodical chargeback rules** module as specified in the *Administration* guide, chapter *Asset Manager Automated Process Manager*, section *Configuring the modules monitored by Asset Manager Automated Process Manager / Trigger the periodical chargeback rules (CbkTimer)*.
6. Check the **Enabled** box.
7. Asset Manager Automated Process Manager automatically performs the chargeback operation for the expense lines.

Executing Asset Manager Automated Process Manager as background task

1. Start Asset Manager Automated Process Manager.
2. Connect to your database (*File / Connect to database* menu).

Generating chargeback expense lines

Once it is connected to the database, Asset Manager Automated Process Manager periodically checks if the scheduler needs to be checked (intervals are defined in the **Trigger the periodical chargeback rules** module).

This is determined by comparing the value of the **Last execution of the rule** (dtLastExec) field with the frequency of execution of the scheduler.

After executing the chargeback rule, Asset Manager Automated Process Manager uses the **Last execution of the rule** (dtLastExec) field to store the date and time of execution.

Scheduling a chargeback rule

1 Display the chargeback systems (**Financials/ Chargeback/ Chargeback systems** link on the navigation bar).
2 Display the detail of the chargeback system.
3 Select the **Rules** tab.
4 Add a chargeback rule or display the detail of an existing rule, and populate the following fields and links:

Field or link	Value
General tab	
Timer (bOnTimer)	Yes
Timer tab	
Last execution of the rule (dtLastExec)	Leave the date and time of creation of the chargeback rule
Days and times	Refer to the *Administration* guide, chapter *Asset Manager Automated Process Manager*, *Configuring the modules monitored by Asset Manager Automated Process Manager*, section *Asset Manager Automated Process Manager verification schedules*

Practical case 1 - Chargeback computer installation and move

Presentation

This practical case is intended to help you understand how to create a chargeback system and its rule and how these rules are applied.

Scenario

A computer is installed for Mr. *PC1 - Pike* in the office *PC1 - Office 1*.

Mr. *PC1 - Pike* belongs to the department *PC1 - Administration*, which is assigned to the cost center *PC1 - Administration*.

The information systems department charges *100* for the installation and allocates this amount to the cost center of the user's department and to the *PC1 - Hardware moves* cost type.

Later, Mr. *PC1 - Pike* moves with his computer to office *PC1 - Office 2*.

The information systems department charges *200* for the move and allocates this amount to the cost center of the user's department and to the *PC1 - Hardware moves* cost type.

Steps to carry out

Create the nature

1 Display the natures (**Portfolio management/ Natures** link on the navigation bar).

2 Create the following record using the fields and links as shown in the following table:

Field or link	Value
Name (Name)	PC1 - Computer
General tab	
Create (seBasis)	Portfolio item
Also create (OverflowTbl)	Computers (amComputer)
Management constraint (seMgtConstraint)	Unique asset tag

3 Windows client: Close all windows.

Create the model

1 Display the models (**Portfolio management/ Models** link on the navigation bar).

2 Create the following record using the fields and links as shown in the following table:

Field or link	Value
Name (Name)	PC1 - Computer
General tab	
Nature (Nature)	PC1 - Computer

3 Windows client: Close all windows.

Create the locations

1 Display the locations (**Organization/ Locations** link on the navigation bar).

2 Create the following records, populating the fields and links as shown in
the following tables:

Field or link	Value
Name (Name)	PC1 - Office 1

Field or link	Value
Name (Name)	PC1 - Office 2

3 Windows client: Close all windows.

Create the cost centers

1 Display the cost centers (**Portfolio management/ Cost centers** link on
the navigation bar).
2 Create the following records, populating the fields and links as shown in
the following tables:

Field or link	Value
Title (Title)	PC1 - Information systems

Field or link	Value
Title (Title)	PC1 - Administration

3 Windows client: Close all windows.

Create the cost type

1 Display the cost types (**Portfolio management/ Cost types** link on the
navigation bar).
2 Create the following record using the fields and links as shown in the
following table:

Field or link	Value
Name (Name)	PC1 - Hardware moves

3 Windows client: Close all windows.

Create the department

1 Display the departments (**Organization/ Departments** link on the
navigation bar).

2 Create the following record using the fields and links as shown in the following table:

Field or link	Value
Name (Name)	PC1 - Administration
Finances tab	
Cost center (CostCenter)	PC1 - Administration

3 Windows client: Close all windows.

Create the employee

1 Display the employees (**Organization/ Employees** link on the navigation bar).
2 Create the following record using the fields and links as shown in the following table:

Field or link	Value
Name (Name)	PC1 - Pike
Department (Parent)	PC1 - Administration

3 Windows client: Close all windows.

Create the query filter for the purchased computers

1 Display the queries (**Administration/ Queries** link on the navigation bar).
2 Create the following record using the fields and links as shown in the following table:

Field or link	Value
Name (Name)	PC1 - Administration department computers
Table (TableName)	Portfolio items (amPortfolio)
Query tab	
Query (memQueryText)	(User.Parent.FullName = '/PC1 - Administration/') AND (Model.Nature.seOverflowTbl = 1)

3 Windows client: Close all windows.

Create the chargeback system

1 Display the chargeback systems (**Financials/ Chargeback/ Chargeback systems** link on the navigation bar).
2 Create the following record using the fields and links as shown in the following table:

Field or link	Value
Description (Name)	PC1 - Computer moves

3 Validate your input (**Create** button).

4 Select the **Rules** tab.

5 Add the following rules, populating the fields and links as shown in the following tables:

Field or link	Value
Description (Name)	PC1 - Computer installation
Rule enabled (bEnabled)	Yes
Manual validation (bManual)	No
General tab	
Insert (bOnInsert)	Yes
Context (Context)	Portfolio items (amPortfolio)
Filter (Query)	PC1 - Administration department computers
Base amount (seAmountRule)	Fixed amount
Fixed amount (mFixedAmount)	100
Cost type frame	
Calculation rule (seCostCatRule)	Select in the list
Name (Cost type) (CostCategory)	PC1 - Hardware moves
Debited cost center frame	
Calculation rule (seCostCatRule)	Select in the database
Target cost center (TargetCostCenter)	User.Parent.CostCenter

> Note:
>
> You can enter this value.
>
> Asset Manager automatically adds a period to what you enter.
>
> You must delete the period before activating another field or link.

Credited cost center frame	
Calculation rule (seSrcCostCtrRule)	Select in the list
Name (Cost center) (SrcCostCenterId)	PC1 - Information systems

Field or link	Value
Description (Name)	PC1 - Change location
Rule enabled (bEnabled)	Yes
Manual validation (bManual)	No
General tab	
Update (bOnUpdate)	Yes
Context (Context)	Portfolio items (amPortfolio)
Filter (Query)	PC1 - Administration department computers

Field or link	Value
Field (EvtField)	Location
	Note:
	You can enter this value.
	Asset Manager automatically adds a period to what you enter.
	You must delete the period before activating another field or link.
Base amount (seAmountRule)	Fixed amount
Fixed amount (mFixedAmount)	200
Cost type frame	
Calculation rule (seCostCatRule)	Select in the list
Name (Cost type) (CostCategory)	PC1 - Hardware moves
Debited cost center frame	
Calculation rule (seCostCatRule)	Select in the database
Target cost center (TargetCostCenter)	User.Parent.CostCenter
	Note:
	You can enter this value.
	Asset Manager automatically adds a period to what you enter.
	You must delete the period before activating another field or link.
Credited cost center frame	
Calculation rule (seSrcCostCtrRule)	Select in the list
Name (Cost center) (SrcCostCenterId)	PC1 - Information systems

6 Windows client: Close all windows.

Create the computer

1 Display the portfolio items (**Portfolio management/ Portfolio items** link on the navigation bar).

2 Create the following record using the fields and links as shown in the following table:

Field or link	Value
Model (Model)	PC1 - Computer
Code (Code)	PC1-001
General tab	
Assignment (seAssignment)	In use
User (User)	PC1 - Pike
Location (Location)	/PC1 - Office 1/
Acquis. tab, **Price and conditions** sub-tab	

Field or link	Value
Purchase price (mPrice)	2000
Acquis. tab, **Procurement** sub-tab	
Acq. method (seAcquMethod)	Purchase
Asset tab	
Asset tag (AssetTag)	PC1-001

3 Validate the creation of the record (**Create** button in the Windows client or **Save** in the Web client).

4 Display the cost centers (**Portfolio management/ Cost centers** link on the navigation bar).

5 Display the detail of the cost centers *PC1 - Administration*.

6 Select the **Expenses** tab.

7 Examine the detail of the expense line *PC1 - Install computer: PC1 - Computer (PC1-001: PC1-001)*.

   This expense line allocates the installation costs to the department that received the services.

8 Close the detail of the expense line.

9 Display the list of cost centers.

10 Display the detail of the cost centers *PC1 - Information systems*.

11 Select the **Expenses** tab.

12 Examine the detail of the expense line *PC1 - Install computer: PC1 - Computer (PC1-001: PC1-001)*.

   This expense line reimburses the installation costs to the department that provided the services.

13 Windows client: Close the detail of the expense line and the list of cost centers, but leave the detail of the portfolio item displayed.

Modify the location of the computer

1 Display the portfolio item *PC1-001*.

2 Modify the record using the fields and links as shown in the following table:

Field or link	Value
General tab	
Location (Location)	/PC1 - Office 2/-

3 Validate the change of the record (**Modify** button in the Windows client or **Save** in the Web client).

4 Display the cost centers (**Portfolio management/ Cost centers** link on the navigation bar).

5 Display the detail of the cost centers *PC1 - Administration*.

6 Select the **Expenses** tab.

7 Examine the detail of the expense line *PC1 - Change location: PC1 - Computer (PC1-001: PC1-001)*.

This expense line allocates the costs of the location change to the department that received the services.

8 Close the detail of the expense line.

9 Display the list of cost centers.

10 Display the detail of the cost centers *PC1 - Information systems*.

11 Select the **Expenses** tab.

12 Examine the detail of the expense line *PC1 - Change location: PC1 - Computer (PC1-001: PC1-001)*.

This expense line reimburses the costs of the location change to the department that provided the services.

13 Windows client: Close all windows.

Practical case 2 - Split the chargeback

> ⚠️ Warning:
>
> This practical case can only be done using the Windows client.

Presentation

This practical case is intended to show you how to split a chargeback to multiple cost centers.

Prerequisites

You must have completed the practical case named Practical case 1 - Chargeback computer installation and move [page 84].

Scenario

The information systems department charges *300* for the retirement and allocates 70% of this amount to the cost center *PC2 - Stock* and 30% to the cost center *PC2 - Accounting*, and to the *PC1 - Hardware moves* cost type.

Steps to carry out

Create the cost centers

1 Display the cost centers (**Portfolio management/ Cost centers** link on the navigation bar).

2 Create the following records, populating the fields and links as shown in the following tables:

Field or link	Value
Label (Title)	PC2 - Stock

Field or link	Value
Label (Title)	PC2 - Accounting

3 Windows client: Close all windows.

Create the split-billing rule

1 Display the split-billing rules (**Administration/ List of screens/ Split-billing rules (amCbkSplitRule)**, select the line whose **Screen set** column equals *Full*).

2 Create the following record using the fields and links as shown in the following table:

Field or link	Value
Description (Name)	PC2 - Retirement

3 Validate your input (**Create** button).

4 Add the following lines (**+** button), populating the fields and links as shown in the following tables:

Field or link	Value
Cost center (CostCenter)	PC2 - Stock
Percentage (pPercentage)	70%

Field or link	Value
Cost center (CostCenter)	PC2 - Accounting
Percentage (pPercentage)	30%

5 Windows client: Close all windows.

1 Display the chargeback systems (**Financials/ Chargeback/ Chargeback systems** link on the navigation bar).

2 Display the detail of the chargeback system identified by the following field:

Field or link	Value
Description (Name)	PC1 - Computer moves

3 Select the **Rules** tab.

4 Add the following rule, populating the fields and links specified in the following table:

Field or link	Value
Description (Name)	PC2 - Retire computer
Rule enabled (bEnabled)	Yes
Manual validation (bManual)	No
General tab	
Update (bOnUpdate)	Yes
Context (Context)	Assets (amAsset)
Field (EvtField)	dDispos
	Note: You can enter this value. Asset Manager automatically adds a period to what you enter. You must delete the period before activating another field or link.
Base amount (seAmountRule)	Fixed amount
Fixed amount (mFixedAmount)	300
Cost type frame	
Calculation rule (seCostCatRule)	Select in the list
Name (Cost type) (CostCategory)	PC1 - Hardware moves
Debited cost center frame	
Calculation rule (seCostCatRule)	Split billing
Split rule (SplitRule)	PC2 - Retirement
Credited cost center frame	
Calculation rule (seSrcCostCtrRule)	Select in the list
Name (Cost center) (SrcCostCenterId)	PC1 - Information systems

5 Windows client: Close all windows.

Retire the computer

1 Display the assets (**Portfolio management/ Assets** link on the navigation bar).
2 Display the detail of the asset *PC1-001*.
3 Modify the record using the fields and links as shown in the following table:

Field or link	Value
General tab	
Date (dDispos)	Select the following date using the graphical calendar:
	September 21, 2008

4 Validate the modification of the record (**Modify** button).
5 Select the **Costs** tab.
6 The list contains 3 expense lines (1 credit and 2 debits), created by the chargeback rule *PC2 - Retire computer*.

Examine the details of these expense lines.
7 Windows client: Close all windows.

Practical case 3 - Scheduled triggering of a chargeback rule

Presentation

This practical case is intended to show you how to trigger a chargeback using a scheduler.

Prerequisites

You must have completed the practical case named Practical case 1 - Chargeback computer installation and move [page 84].

Scenario

The information systems department charges for supporting the administration department's computers *10%* of the purchase price and allocates the recharged amount to the department of the user and to the *PC1 - Support* cost type.

Steps to carry out

Create the cost type

1 Display the cost types (**Portfolio management/ Cost types** link on the navigation bar).

2 Create the following record using the fields and links as shown in the following table:

Field or link	Value
Name (Name)	PC3 - Support

3 Windows client: Close all windows.

Add a rule to the chargeback rule

1 Display the chargeback systems (**Financials/ Chargeback/ Chargeback systems** link on the navigation bar).

2 Display the detail of the chargeback system identified by the following field:

Field or link	Value
Description (Name)	PC1 - Computer moves

3 Select the **Rules** tab.

4 Add the following rule, populating the fields and links specified in the following table:

Field or link	Value
Description (Name)	PC3 - Support
Rule enabled (bEnabled)	Yes
Manual validation (bManual)	No
General tab	
Timer (bOnTimer)	Yes
Context (Context)	Portfolio items (amPortfolio)
Filter (Query)	PC1 - Administration department computers
Base amount (seAmountRule)	Field
Selected field	Asset.mPrice
	Note:
	You can enter this value.
	Asset Manager automatically adds a period to what you enter.
	You must delete the period before activating another field or link.

Field or link	Value
Coefficient (dMarkupCoef)	0.1
Fixed mark-up (mFixedMarkup)	100
Charged object (ChargedRecord)	User.Parent

> **Note:**
>
> You can enter this value.
>
> Asset Manager automatically adds a period to what you enter.
>
> You must delete the period before activating another field or link.

Field or link	Value
Cost type frame	
Calculation rule (seCostCatRule)	Select in the list
Name (Cost type) (CostCategory)	PC1 - Hardware moves
Debited cost center frame	
Calculation rule (seCostCatRule)	Select in the database
Target cost center (TargetCostCenter)	User.Parent.CostCenter

> **Note:**
>
> You can enter this value.
>
> Asset Manager automatically adds a period to what you enter.
>
> You must delete the period before activating another field or link.

Field or link	Value
Credited cost center frame	
Calculation rule (seSrcCostCtrRule)	Select in the list
Name (Cost center) (SrcCostCenterId)	PC1 - Information systems
Timer tab	
Last execution of the rule (dtLastExec)	Leave the date and time of creation of the chargeback rule
Days	Day of the year
Day	Day on which you perform the practical case
Month	Month in which you perform the practical case
Year	Year in which you perform the practical case
Times	Itemized list
Field to the right of **Itemized list**	The time displayed by your computer.
	Example: *19:33*.

5 Leave the detail of the chargeback rule open.

Execute Asset Manager Automated Process Manager

1 Start Asset Manager Automated Process Manager.
2 Connect to the database you are connected to with Asset Manager.
3 Display the activation window (**Action/ Activate**).

4 Select the **Trigger the periodical chargeback rules** (CbkTimer) module.
5 Trigger the module (**OK** button).
6 Go back to Asset Manager.
7 Make sure that the detail of the chargeback rule *PC3 - Support* is correctly displayed.
8 Select the **Timer** tab.
9 Examine the **Last execution of the rule** (dtLastExec) field: This field is set to the date and time of triggering of the **Trigger the periodical chargeback rules** module by Asset Manager Automated Process Manager.
10 Windows client: Close all windows.
11 Display the employees and departments (**Organization/ Employees** link on the navigation bar).
12 Select the following record:

Field or link	Value
Name (Name)	PC1 - Administration

13 Select the **Costs** tab.
14 The list contains the 2 expense lines (credit and debit) automatically created by the chargeback rule *PC3 - Support*.

Examine the details of these expense lines.
15 Windows client: Close all windows.

7 Glossary

Expenses

Financial year

Time span covered by a budget.

A given *financial year* can be divided differently into set of *periods*. Each set of *periods* corresponds to a *time division*.

Examples

Fiscal 2003

Table in the Asset Manager database that describes these objects

Financial years (amFinancialYear)

Time division

A *time division* is a way of dividing a *financial year* into a set of *periods*.

A same given *financial year* can have several associated *time divisions* (semesters, quarters, etc.).

Time divisions, along with *budget classifications*, are used to delimit the scope of *budgets*.

By linking a *budget* to a *time division*, the budget is indirectly linked to the *financial year* covered by the time division.

Examples

- Fiscal 2008 - semesters
- Fiscal 2008 - quarters

Table in the Asset Manager database that describes these objects

Time division (amFYDivision)

Period

One of the intervals of time of a *time division*.

The *periods* of a *time division* follow on after each other without overlapping.

Together, the *periods* of a *time division* cover the exact duration of the financial year.

Examples

First quarter 2008

Table in the Asset Manager database that describes these objects

Periods (amPeriod)

Budget classification

Highest level of cost division used in the *Budget classifications* / *Budget categories* / *Cost types* hierarchy.

A *budget classification* is divided into *budget categories*.

Budget classifications, along with *time divisions*, are used to delimit the scope of a budget.

Examples

The *Travel* budget classification made up of the following budget categories:
- National travel.
- International travel.

Table in the Asset Manager database that describes these objects

Budget classifications (amBudgClass)

Budget category

Middle level of cost division used in the *Budget classifications* / *Budget categories* / *Cost types* hierarchy.

Budget categories are divided into *cost types*.

Budget categories give you a wider capacity to control costs than is simply available with *cost types*.

Examples

The *National assignment* budget category made up of the following cost types:
- NY travel.
- LA travel.

Table in the Asset Manager database that describes these objects

Budget categories (amBudgetCategory)

Cost type

Lowest level of cost division used in the *Budget classifications* / *Budget categories* / *Cost types* hierarchy.

Cost types are divided into *budget categories*.

Cost types are used to classify expenses.

Expense lines can be associated to a *cost type*. This enables you to perform cost tracking.

Examples

The following cost types, grouped together in the *National assignment* budget category:
- NY travel.
- LA travel.

Table in the Asset Manager database that describes these objects

Cost types (amCostCategory)

Budget

A budget gives you a central location to manage revenues and expenses according to:
- A time division (1 fiscal year, for example).

  This defines what financial year is concerned by the budget.

- A budget classification (travel, for example).

A budget is created in a budget center.

Examples

- Assignments 2008.
- Hardware purchases 2008.

Table in the Asset Manager database that describes these objects

Budgets (amBudget)

Cost center

A cost center is used to group together expenses generated by a business unit (a department, etc.).

If you want to implement budget management, each cost center must belong to a budget center.

Examples

- MIS.
- NY operations.

Table in the Asset Manager database that describes these objects

Cost centers (amCostCenter)

Budget center

A budget center is made up of budgets and cost centers.

The budget center does not need to be bounded in time to a given type of expense. Budgets, on the other hand, are specific to a period and a type of expenses.

A budget center enables you to plan and track expenses for a set of cost centers.

Examples

The *Research and development* cost center made up of the 9 following budgets:

Travel 2004	Hardware purchases 2004	Training 2004
Travel 2005	Hardware purchases 2005	Training 2005

Table in the Asset Manager database that describes these objects

Budget centers (amBudgCenter)

Expense line

Full description of an expense (debit amount, credit amount, date, tax, etc.).

Examples

Expense lines can have multiple origins:
- A purchase.
- A work order.
- A chargeback.
- A training.
- A rent.

Table in the Asset Manager database that describes these objects

Expense lines (amExpenseLine)

Currency

Currency in which monetary values can be expressed.

Examples

- Euro.
- Dollar.

Table in the Asset Manager database that describes these objects

Currencies (amCurrency)

Exchange rate

Exchange rate between two currencies.

Exchange rates are used to calculate equivalent monetary values in different currencies.

Table in the Asset Manager database that describes these objects

Exchange rates (amCurRate)

Depreciation

Depreciation

Amortizing an asset consists of making provisions for depreciation.

Asset Manager enables you to estimate depreciation for fixed assets.

It is an estimation only; Asset Manager is not intended to be a substitute for specialized accounting software, which alone can be used for legal purposes.

However, information in the Asset Manager database can be reconciled with information in accounting applications. Managers in the field using Asset Manager are well placed to note the presence and condition of fixed assets.

Asset Manager enables you to define or calculate:

- The depreciation type (rate, duration, coefficient).
- The basis of the depreciation.
- The amount of the depreciation.
- The residual value.

Examples

- Straight-line method
- Declining balance method.

Tables in the Asset Manager database that describe these objects

- Assets (amAsset)
- Fixed assets (amFixedAsset)

Fixed asset

Asset of value used by the enterprise and amortized.

Asset Manager enables you to describe fixed assets for informational purposes.

Information in the Asset Manager database can be reconciled with information in accounting applications. Managers in the field using Asset Manager are well placed to note the presence and condition of fixed assets.

Table in the Asset Manager database that describes these objects

Fixed assets (amFixedAsset)

Taxes

Tax jurisdiction

Zone within which the same tax rates are applicable.

Examples

Tax jurisdictions usually match up with geographical areas.

Table in the Asset Manager database that describes these objects

Tax jurisdictions (amTaxJuris)

Tax

Sum payable to the government or local authorities dependent on certain expenses.

Tables in the Asset Manager database that describe these objects

- Asset rents (amAssetRent)
- Contract rents (amCntrRent)
- Purchase order lines (amPOrdLine)
- Invoice lines (amInvoiceLine)
- Request lines (amReqLine)
- Expense lines (amExpenseLine)
- Assets (amAsset)
- Adjusting items (amAdjustment)
- Contracts (amContract)
- Supplier invoices (amInvoice)
- Orders (amPOrder)
- Requests (amRequest)
- Training (amTraining)
- Work orders (amWorkOrder)

Tax rate

Percentage used in a tax jurisdiction to calculate tax amounts.

Table in the Asset Manager database that describes these objects

Tax rate values (amTaxRate)

Tax formula

Script used in certain tables to calculate tax amounts for certain expenses.

Table in the Asset Manager database that describes these objects

Tax formulas (amTaxFormula)

TCO

TCO

TCO or *Total Cost of Ownership* is the name given to various methodologies used to evaluate the cost of using and maintaining an IT asset beyond its simple purchase or rental cost.

This cost is made up of the purchase prices of hardware and software, maintenance and upgrade costs, overhead and labor costs of administration (hot line, support, work orders, training, etc.).

Chargeback

Chargeback

Recharging of expenses from a source cost center to a target cost center.

Examples

- Recharging maintenance costs

Chargeback system

Set of chargeback rules used to automate the generation of chargeback lines.

Table in the Asset Manager database that describes these objects

Chargeback systems (amCbkSystem)

Chargeback rule

Set of parameters used to generate chargeback lines:
- Triggering conditions.
- Source and target cost centers.
- Calculation method and chargeback amount.

Chargeback rules are implemented in chargeback systems.

Table in the Asset Manager database that describes these objects

Chargeback rules (amCbkRule)

Chargeback script

Script used by a chargeback rule to calculate the amount of chargeback lines.

Table in the Asset Manager database that describes these objects

Chargeback scripts (amCbkSystem)

Chargeback event

Trace of a chargeback automatically triggered by a chargeback rule.

Table in the Asset Manager database that describes these objects

Chargeback events (amCbkStoredEvent)

Split billing

The division of an expense line between several cost centers.

Table in the Asset Manager database that describes these objects

Cost center split operations (amCCSplit)

Split-billing rule

Split-billing rules are used in the chargeback rules to define how to split an expense between different cost centers (what percentage goes to which cost center).

Table in the Asset Manager database that describes these objects

Split-billing rules (amCbkSplitRule)

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