

Expense Management

Configuration and Use of the Expense Management Module of *Xpert.NET*

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1 Introduction

1.1 Purpose of the Document

Xpert.NET is a very dynamic help desk solution that can be configured in nearly every direction. Daily routine and experience have shown that, while most administrators familiarize themselves with the most important modules and configurations after some time, many questions remain unanswered and much potential unused, due to a lack of knowledge.

This document is supposed to help you with the orientation in the Expense Management module. For this purpose, it will describe the configuration as well as its integration into the entire *Xpert.NET* system step by step.

1.2 Addressees of the Document

This document mainly addresses administrators of *Xpert.NET*.

Nevertheless, end users may also find helpful advice on handling the module here. As an administrator, you can compile a slim document for your end users by leaving out passages only necessary for the administration of the module. We have, however, smaller, slimmer documents for users and members of support available.

1.3 Remarks on the Content of this Document

In this document, all kinds of functions of the *Expense Management* module will be named and described. The functional range can, however, fluctuate due to configuration, licensing, and versioning. If you miss certain functions listed in this document in your *Xpert.NET* installation, please contact our support directly.

1.4 Overview of the Expense Management

This module allows for controlling the treatment of expenses by individually definable expense workflows to be adapted to the company's requirements in order to process expenses hand in hand with Accounts or Controlling process-oriented. The corresponding features are provided by plug-ins at workflow level and are thus easily configurable. The differentiation between internal and external expenses allows for a differentiated cost calculation for customers and principals. The acquisition of expenses can also be effected without ticket relation and thus without relation to a specific process. Budget management for projects and orders can thus precisely be controlled in the context of a specified budget.

Every expense that is created in *Xpert.NET* is based on a certain project and a specific expense type, which define the structure and calculation method for the expense and the related costs.

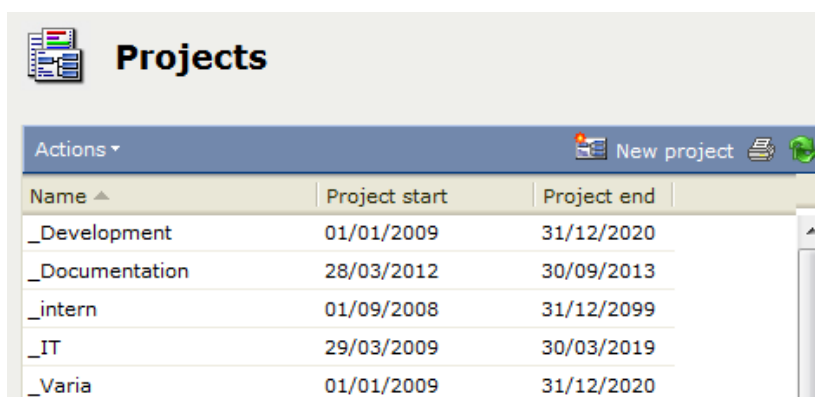
In Chapter 2 of this document the configuration of several Expense Management components is explained, while in chapter 3 goes into the costs related to the expense.

2 Expense Management Configuration

The Expense Management Configuration extends over projects, expense types and allocation types. Projects help to structure and categorize expenses. Expense types are used to calculate several types of service provision in a different way. Allocation types allow for allocating particular projects and expense types.

2.1 Projects

The configuration of projects within the Expense Management is effected under SETTINGS -> EXPENSE MANAGEMENT -> PROJECTS.



The screenshot shows a window titled 'Projects' with a table of project data. The table has three columns: 'Name', 'Project start', and 'Project end'. The rows list five projects: '_Development', '_Documentation', '_intern', '_IT', and '_Varia'. Above the table is an 'Actions' menu and a 'New project' button.

Name ▲	Project start	Project end
_Development	01/01/2009	31/12/2020
_Documentation	28/03/2012	30/09/2013
_intern	01/09/2008	31/12/2099
_IT	29/03/2009	30/03/2019
_Varia	01/01/2009	31/12/2020

Figure 2.1:

This overview shows all projects created in the Expense Management and contains information about the project name, project type and the duration of the project. Clicking the button *New project* enables to create new projects. Double-clicking a particular project in the list opens the settings dialog of a project. The Actions menu on the left side allows for copying and deleting projects from the system.

2.1.1 Configuring Projects

The settings dialog of a project is displayed when a new project is created or when a project is opened. The *Project* tab is the only tab that is active in the settings dialog as long as the settings are not saved.

Project

This tab allows for maintaining general project settings, the following fields are available:

Title: Defines the name of the project.

Project start: Defines the start date of the project. It is possible to define a future or a past date. Only if this date has been reached, expenses can be booked into the project.

Project end: Defines the end date of the project. It is possible to define a future or a past date. If no end date is set, the project continues as long as it is ended manually or when an end date is set. When reaching the defined end date, expenses cannot be booked into the project anymore.

Cost centers

The *Cost centers* tab allows for configuring project-related cost centers. For each cost center individual field values can be added additionally.

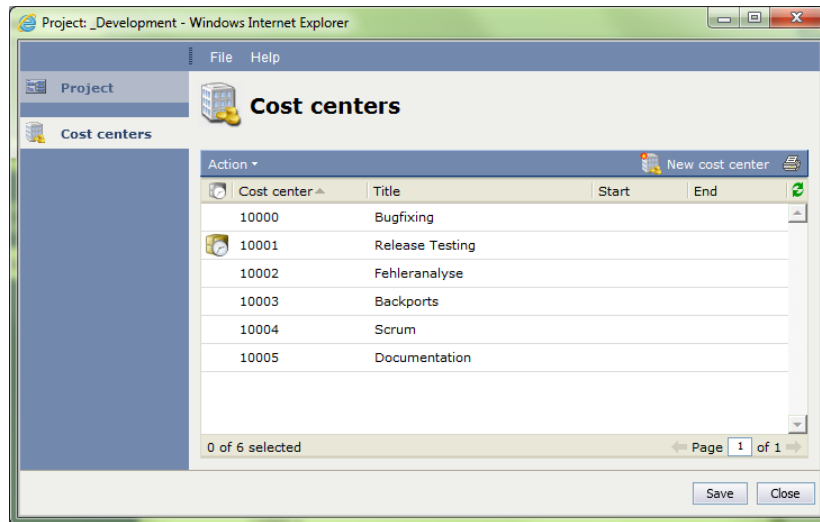


Figure 2.2:

The following fields are available:

Cost center: Contains an individual number for the cost center for clearly identifying it.

Title: Contains the name of the cost center. If multiple languages are activated in the system, the localization buttons (*Use text in all languages* and *Edit language dependent text*) can be used to define the title in all available languages.

Description: Contains a detailed description of the cost center. The description can also be localized.

Start: Contains the start date for the cost center. The date in this field is individually definable and it is not a required field.



End: Contains the end date for the cost center. The date in this field is individually definable and it is not a required field.



Please note


Neither the start date nor the end date are compulsory. If neither the start date nor the end date are defined, the start date and end date of the project are used. If, however, an end date has been defined, this date is considered when creating a new expense. If the cost center is expired, it is not available anymore.


Details

Cost center

Title  

Description  

Start 

End 

Allows booking without task/ticket reference

Preselected in reports

Figure 2.3:

Allows booking without task/ticket reference: If this checkbox is activated, expenses can be booked without relation to tickets and tasks directly in the expense overview.

Preselected in reports: If a report is created that evaluates cost centers, the cost centers this checkbox has been activated for are already selected.

Enable time account: This option activates an account on an hourly basis. This option can be used for the reporting of expenses, for example. It is thus possible to determine the account balance of a particular package/project at any time.

Time Account

Period duration *in months, 0 for unlimited*

Hours per period *in hours, 0 for unlimited*

Limit per ticket *in hours, 0 for unlimited*

All Inclusive

Figure 2.4:

The following information need to be entered for an activated time account:

- **Period duration:** After the number of months entered is elapsed, the time balance will be refilled.
- **Hours per period:** This value defines how many hours per period are available for the time balance.
- **Limit per ticket:** This value defines a limit for bookable hours per ticket. Expenses that exceed this limit can be output in another color in the report, but are nevertheless bookable in the ticket.

- **All inclusive:** If this checkbox is activated, all hours per period and per ticket are all inclusive. All entries under Time balance are not considered. To save the cost center it is necessary to at least define a zero value for unlimited.

After saving the cost center it is possible to create further pairs of value that are not visible during expense creation, but evaluable on report creation. By clicking the button *New* in the top right corner of the dialog the value pair creation dialog opens where the following fields are available:

Key name: Contains the name of the value pair (first value).

Key value: Contains the value of the value pair (second value).

Figure 2.5:

2.2 Allocation Types

The configuration of allocation types is located under **SETTINGS -> EXPENSE MANAGEMENT -> ALLOCATION TYPES**, where all allocation types are displayed.

Clicking the button *New allocation type* in the top right corner allows for creating new allocation types. The settings dialog is opened after double-clicking an existing allocation type in the list. The Actions menu allows for copying and deleting allocation types.

2.2.1 Configuring Allocation Types

The following fields are available for defining an allocation type:

Title: Contains the name of the allocation type. If multiple languages are activated in the system, the localization buttons (Use text in all languages and Edit language dependent text) can be used to define the title in all available languages.

Description: Contains a detailed description of the allocation type. The description can also be localized.

Charge: If this checkbox is activated, an expense an allocation type has been selected for is multiplied by the given factor. This allocation is only effected within reporting.

Factor: This value is used in reporting to be multiplied with an expense this allocation type has been created for.

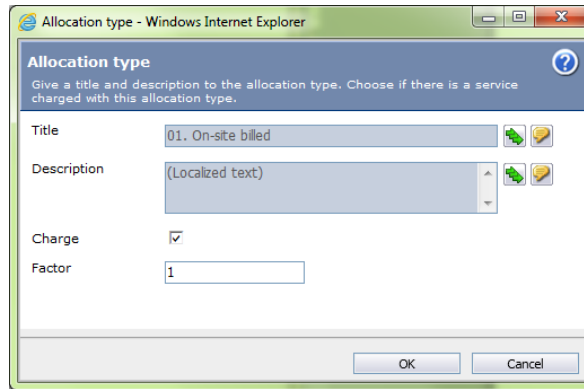


Figure 2.6:

2.3 Expense Types

This menu item, which can be found under (SETTINGS -> EXPENSE MANAGEMENT -> EXPENSE TYPES) shows an overview over all expense types and coordinates these expense types.

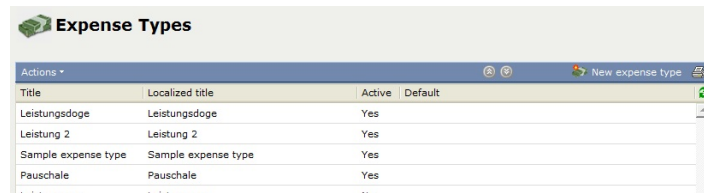


Figure 2.7:

The button *New expense type* in the top right corner allows for creating new expense types. The settings dialog of existing expense types can be opened by double-clicking an expense type in the list. The Actions menu allows for deleting expense types.

Existing expense types can be rearranged by selecting *Move up/down selected item*. This order defines how the expense types are displayed in the drop-down list of the expense detail dialog.

2.3.1 Configuring Expense Types

The settings dialog is opened when double-clicking an expense type in the list or when a new expense type is created.

Preferences

The *Preferences* tab in the expense type detail dialog contains general information about the configuration of the expense type.

The following fields are available here:

Title: Contains the name of the expense type. If multiple languages are activated in the system, the localization buttons (Use text in all languages and Edit language dependent text) can be used to define the title in all available languages.

Active: If this checkbox is activated, the expense type is displayed in the drop-down list when creating a new expense.

Default expense type: If this checkbox is activated, the expense type will be set as the default expense type. When a new expense is booked, this expense type will be set as default automatically. This option can only be assigned to one expense type at a time.

Allow booking of expenses in the future: If this option is activated, expenses can also be booked with a future date. If this checkbox is not activated, the current server time limits the time of bookable expenses.

Allocation types: Defines allocation types belonging to expenses. These allocation types need to be added in the course of the allocation type configuration. When creating expenses, only the stored allocation types are selectable together with the respective expense type.

Default allocation type: Defines the allocation type that is displayed in the as the default value. The only allocation types available for selection are those that have been added to the expense type.

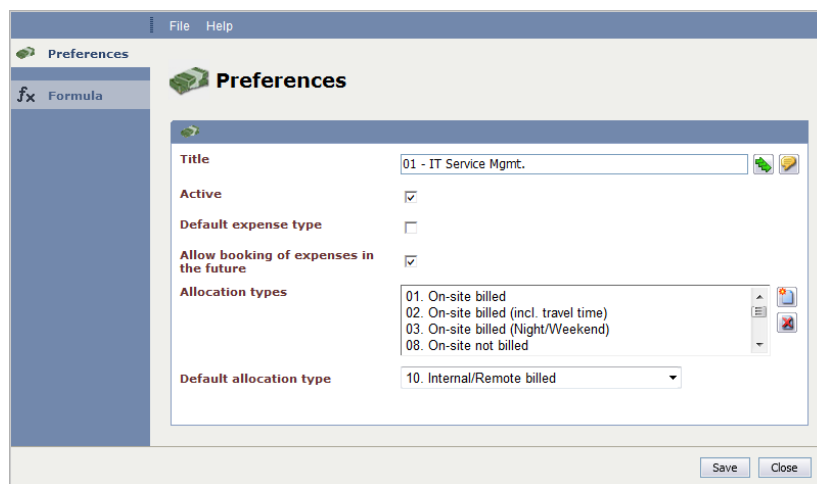


Figure 2.8:

Formula

The *Formula* tab allows for defining mathematic formulae that serve as a basis of calculation for expense based on the respective expense type.

The following fields are available:

Formula: Contains the formula for the mathematical computation of an expense based on the expense type.

Warning

When entering the formula and the definition of the variables, no umlauts or special characters shall be used.

The following mathematical operators can be used:

Function	Description
+	Adds two values.
-	Subtracts two values.
*	Multiplies two values.
/	Divides two values.
()	Groups mathematical terms.

The following binary operators can be used:

Function	Description
=	Returns 1 if both sides are equal.
<	Returns 1 if left side is less than the right.
>	Returns 1 if left side is greater than the right.
<=	Returns 1 if the left side is less than or equal to the right.
>=	Returns 1 if the left side is greater than or equal to the right.
<>	Returns 1 if the left side is not equal to the right.
&	Returns 1 if both sides are not equal to 0.

Additionally, the following further functions are available and can be used:

Function	Description
abs	Returns the absolute value.
acos	Returns the angle whose cosine is the specific value or a function.
asin	Returns the angle whose sin is the specified value or a function.
atan	Returns the angle whose tangent is the specified value or a function.
ceiling	Returns the smallest whole number greater than or equal to the current value or to a function.
cos	Returns the cosine of a value or a function in radian measure.
cosh	Returns the hyperbolic cosine of a value or function or function.
exp	Returns e raised to the specified power of a value or function.
floor	Returns the largest whole number less than or equal to a value or function.
log	Returns the logarithm of a value or function.
log10	Returns the base 10 logarithm of a value or function.
round	Returns the value nearest the specified value and rounds down the value to a whole number. The values are rounded up from 0.5, otherwise the values are rounded down.

sign	Returns a value indicating the sign of a value or function (1 if the value is mathematically positive, 0 if the value is negative).
sin	Returns the sine of a value or function.
sinh	Returns the hyperbolic sine of a value or function.
sqrt	Returns the square root of a value or function.
tan	Returns the tangent of a value or function in radian measure.
tanh	Returns the hyperbolic tangent of a value or function.
min	Returns the lowest value of a list (min(x1, x2, ..., xn))
max	Returns the highest value of a list (max(x1, x2, ..., xn))
if	if (binary expression, first expression, second expression) returns the first expression if the value of the binary expression is not zero. Otherwise, the second expression is returned.

The expense type can only be saved if a formula has been entered.

Result format: Contains the format of the result. The available options are *Duration*, *Floating Point Number* and *Number*.

The Duration value needs to be entered in hh:mm format (Example: 2:30).

Result unit: Contains the unit displayed for the result of the formula.

Additional selection options in the Variables section are only displayed if an unknown string of characters has been entered in the Formula field. This character string is automatically transformed into a variable when the checkbox behind the textbox is activated. When booking a new expense, these variables need to be filled in by the executor.

Variable: Contains the variable set by the user.

Label: Contains the displayed name for the variable. If multiple languages are activated in the system, the localization buttons (*Use text in all languages* and *Edit language dependent text*) can be used to define the label text in all available languages.

Format: Defines the format of the variable. It is possible to select between Duration, Floating Point Number and Number.

The Duration value needs to be entered in hh:mm format (Example: 2:30).

Unit: Contains the unit displayed for the variable, which is displayed when booking an expense. If multiple languages are activated in the system, the localization buttons (*Use text in all languages* and *Edit language dependent text*) can be used to define the label text in all available languages.

Default value: Allows for defining a fixed value for the variable. When booking an expense, this value is automatically set for the input field of the variable, but can be modified by the user.

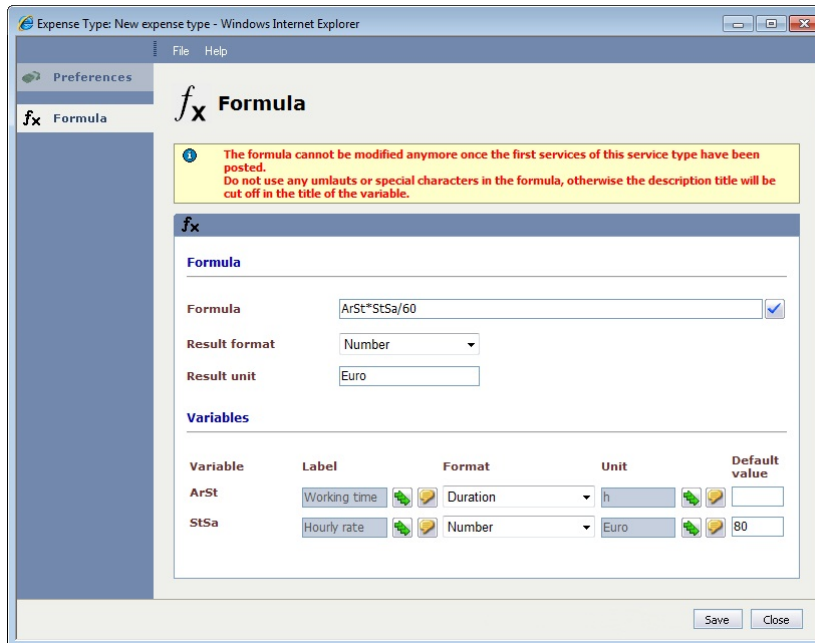


Figure 2.9:

Warning

The formula cannot be modified after the first expense of a particular expense type has been booked. This can only be effected by deleting all expenses that are connected to this expense type.

2.4 Defining Settlement Date

Xpert.NET provides the possibility to lock settlement dates, which prevents bookings for past periods and modifications of existing bookings in this period.

The configuration dialog is to be found under **SETTINGS -> EXPENSE MANAGEMENT -> DEFINE SETTLEMENT DATE**.

Figure 2.10: Configuration of the settlement date

Configuring the settlement date is simple in this process:

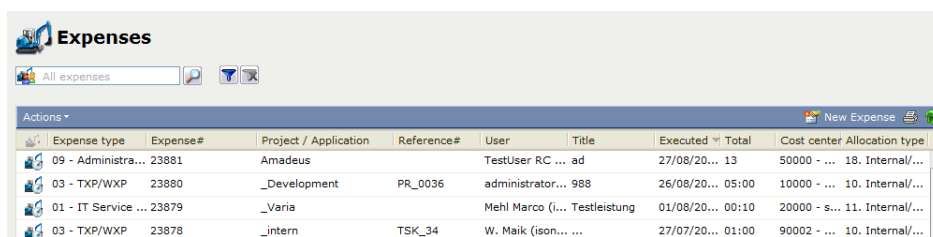
In the upper date field, the settlement date is displayed until which current expenses can be entered or edited subsequently.

In the field below, a new date can be entered. From this date, it is not possible to edit an expense or to create one before that date.

3 Overview of the Expenses

The overview of the expenses shows all expenses that have been created. The permissions defined for the current user determine what expenses for which groups and what expense types for which projects are displayed in the overview. Please find further information about the rights configuration in the *User Management* documentation.

The expense overview can be accessed by clicking *Expenses* in the navigation bar.



The screenshot shows the 'Expenses' overview page. At the top left, there is a search filter set to 'All expenses'. Below the filter is an 'Actions' menu with options for deleting, copying, and assigning expenses. On the right side, there are buttons for 'New Expense', 'Print', and 'Export'. The main area contains a table with the following data:

Expense type	Expense#	Project / Application	Reference#	User	Title	Executed	Total	Cost center	Allocation type
09 - Administra...	23881	Amadeus		TestUser RC ... ad		27/08/20...	13	50000 - ...	18. Internal/...
03 - TXP/WXP	23880	_Development	PR_0036	administrator... 988		26/08/20...	05:00	10000 - ...	10. Internal/...
01 - IT Service ...	23879	_Varia		Mehl Marco (i... Testleistung		01/08/20...	00:10	20000 - s...	11. Internal/...
03 - TXP/WXP	23878	_intern	TSK_34	W. Maik (ison... ...		27/07/20...	01:00	90002 - ...	10. Internal/...

Figure 3.1:

Above the expense overview the expense filter is located on the left side. Please find further information about the behavior of this filter in the *Search and Filter* documentation. Below the filter the *Actions* menu can be found for deleting and copying expenses as well as for assigning expenses to a ticket and for booking several expenses at a time. Buttons for booking new expenses, for printing the expense overview and for exporting expenses to an Excel file can be found on the right side of the screen.

3.1 The Actions Menu

If an expense has been selected in the list, the *Actions* menu provides several actions for expense treatment:

Delete expenses

The expense that has been selected in the list can be deleted from the system by selecting *Delete* in the *Actions* menu (several expenses can be selected by holding the [Ctrl] key).

Copy expenses

The expense that has been selected in the list can be copied by selecting *Copy expense* in the *Actions* menu, which opens a new dialog that already contains all information as specified in the initial expense. Connections to tickets and tasks are nevertheless inherited without change.

Assign expense(s) to ticket

If one or more expenses shall be assigned to a ticket, these expenses need to be selected in the expense overview (several expenses can be selected by holding the [Ctrl] key). When the entry *Assign expense(s) to ticket* is selected, a dialog is opened where the user can enter the desired ticket number the expense shall be assigned to.

For this purpose, it is possible to use the auto-complete so that, for instance, only CR_002 has to be entered in order to list all tickets with this string.

Leading zeros can be left out. Thus, for example, entering CR_2 results in an output containing all tickets beginning with CR_02 or CR_002.

This option is only available if the executor has the permission to use the action *Book expense* in a ticket.

Book multiple expenses

This option allows for booking several expenses at a time. After selecting the period and expense type, an expense can be created for each day within this period and for every allocation type. The expenses are created by clicking *Save*.

(HH:MM)	01.06.2012 FR	02.06.2012 SA	03.06.2012 SO
Allocation types	External	External	External
10. Internal/Remote billed			
11. Internal/Remote billed (Night/Weekend)			

Figure 3.2:

3.2 Booking and Managing Expenses

Expenses can be booked either in the expense overview without relation to a task or ticket or within a task or ticket. The following examples will explain the approach for both options.

3.2.1 Booking Expenses in the Expense Overview

In the expense overview an expense is created by selecting *New expense*, which opens a new dialog to enter all necessary information for expense creation.



The screenshot shows the 'Expenses' application window. At the top, there is a search bar labeled 'My expenses' and a toolbar with icons for search, refresh, and print. Below the toolbar is a table with columns: Expense type, Expense#, Project / Application, Ticket#, Title, User, Executed, Total, Cost center, and Allocation type. The table contains three rows of data. A 'New Expense' button is located in the top right corner of the table area, highlighted with a red box.

Expense type	Expense#	Project / Application	Ticket#	Title	User	Executed	Total	Cost center	Allocation type
Sample expens...	13	Projekt 2		Waru...	W. Maik (mwi...	19/02/2009 08:58	8	456 - Kst456	Verrechnungsart 1
Leistung 1	16	Projekt 1		hgjhg	W. Maik (mwi...	21/04/2009 12:21	0,00	1 - KS1	AAA
Leistung 1	19	Projekt 1		blub	W. Maik (mwi...	29/06/2009 13:29	18,00	1 - KS1	AAA
Pauschale	23	Projekt 1	TSK_59	Switch	W. Maik (mwi...	27/08/2009 12:01	1,5	1 - KS1	Verrechnungsart 1

Figure 3.3:

The following fields are available:

User: Defines the user the expense has been created for, which usually is the executor. If an expense shall be created for another user, this user can be selected by using the User Browser. Additionally, the user requires authorization for creating expenses. Please find further information about the rights configuration in the *User Management* documentation.

Project: Allows for selecting the desired project which has been configured in the Settings of *Xpert.NET*.

Cost center: Allows for selecting the desired cost center that has been configured in the project.

Expense type: Allows for selecting the desired expense type.

Execution time: Contains the date the service has been performed at.

As soon as this information has been entered, further values can be entered. Please note that there is a distinction between external and internal expense information. The option *Synchronize values* allows for using the same specifications for internal and external values.

Title: Contains the name of the expense.

Description: Contains the description of the expense.

Variables: The values in these fields may differ according to the variables that have been created for the expense type used for this expense. Further information about the creation of variables can be found in the section *Configuring Expense Types*.

Allocation type: The value in this field depends on the allocation types that have been created for the selected expense type.

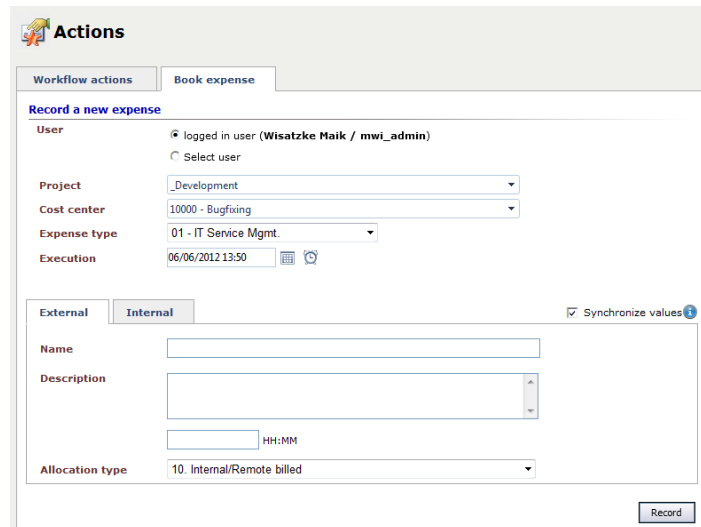
The expense will be created after clicking *Save*.

3.2.2 Managing Expenses within Tasks or Tickets

Expenses can only be booked within tasks or tickets, if the corresponding action has been defined in the task or ticket schema (Book Expense) and if the task or the ticket obtain the correct status (see also *Ticket Management* and *Task Management* documentations).

Via the Actions Tab

In the *Actions* tab the tab *Book expense* is displayed as soon as the action is available (actions can be named individually). Depending on the configuration in the ticket or task schema the dialog for booking an expense is opened. The fields to be filled in are identical with the fields for expense creation in the expense overview.



The screenshot shows a web interface titled "Actions" with a sub-tab "Book expense". Underneath, there is a section "Record a new expense" with the following fields:

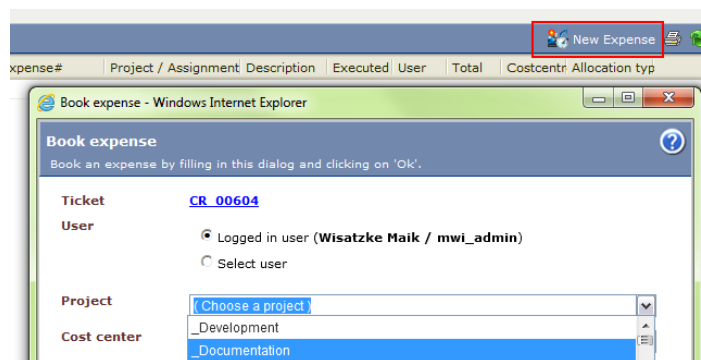
- User:** Radio buttons for "logged in user (Wisatzke Maik / mwi_admin)" (selected) and "Select user".
- Project:** A dropdown menu showing "_Development".
- Cost center:** A dropdown menu showing "10000 - Bugfixing".
- Expense type:** A dropdown menu showing "01 - IT Service Mgmt.". Below it is a date/time field showing "06/06/2012 13:50".
- External/Internal tabs:** The "Internal" tab is selected. It contains:
 - Name:** An empty text input field.
 - Description:** A text area with a scrollbar.
 - Allocation type:** A dropdown menu showing "10. Internal/Remote billed".

A "Record" button is located at the bottom right of the form.

Figure 3.4: Booking an expense via the *Actions* tab

Via the Expense Tab

The *Expense* tab shows an overview of all expenses that are linked to a task or ticket. Adding a new expense can be effected in the same way like in the *Actions* tab. In the top right corner the button *Book new expense* is located.



The screenshot shows a web interface with a table of expenses. In the top right corner of the table, there is a button labeled "New Expense" which is highlighted with a red box. Below the table, a dialog box titled "Book expense" is open. The dialog contains the following fields:

- Ticket:** A text field showing "CR_00604".
- User:** Radio buttons for "Logged in user (Wisatzke Maik / mwi_admin)" (selected) and "Select user".
- Project:** A dropdown menu showing "(Choose a project)".
- Cost center:** A dropdown menu showing "_Development" and "Documentation".

Figure 3.5: Booking an expense via the *Expense* tab of a ticket

By using the *Actions* menu, it is possible to create expenses for the respective ticket or task and to copy or delete the expenses, as known from the expense overview and described under section 3.1.

Via th Overview Tab

An additional option is creating expenses in tickets directly via the history entries under *Overview*. Whenever comments are entered or status or user changes performed manually, expenses can be booked via these actions. Next to the history entry, a button for booking an expense can be found.

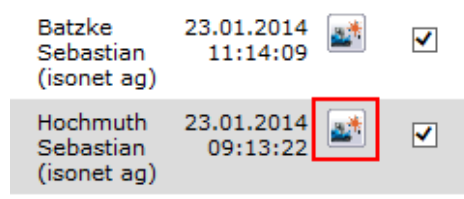


Figure 3.6: The button for booking an expense

After a click on this button, a new window will open, in which an expense can be created. Possible default settings for expenses saved in the ticket will be taken into account in the process and filled in automatically.


4 Statistics and Change Management

4.1 Statistics

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4.2 Change Control

Version	Date	Executed by	Comments
1.0	25.03.2010	Isabelle Günnel/- Maik Wisatzke	Created
3.0	19.08.2010	Maik Wisatzke	Adjustments for version 3.4
3.1	30.11.2010	Maik Wisatzke	Book expenses in the future, tooltips and new options on cost centers
3.4	24.08.2011	Maik Wisatzke	Several revisions, All inclusive revised
3.5	06.06.2012	Maik Wisatzke/Steffi Kurnot	Conformed document to version 3.8; New screenshots; Mathematical operators added
3.6	03.08.2012	Maik Wisatzke	Added auto completion and expense management from tickets and tasks
3.8-1	06.05.2013	Maik Wisatzke	Diverse linguistic revisions
3.8-2	22.01.2014	Maik Wisatzke	New design adapted, new figures
2015-1	12.06.2015	Alexander Schmidt	Updates for 2015



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