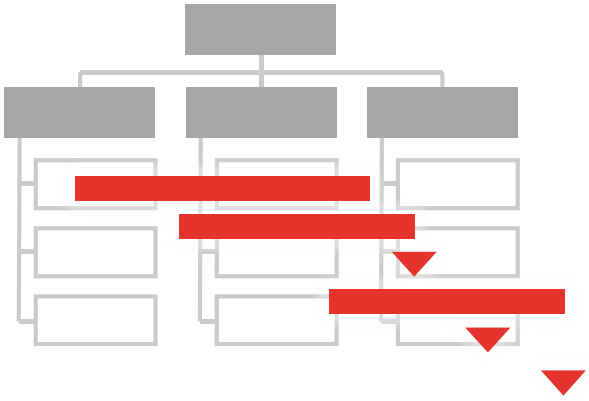
Manual

next wbs

Version 2.4



next level holding GmbH
Floridsdorfer Hauptstrasse 1
A-1210 Vienna

☏ +43(1)478 06 60 – 0
🖷 +43(1)478 06 60 – 60
✉ office@nextlevel-solutions.eu
🌐 www.nextlevelconsulting.eu

General

next wbs

The tool next wbs (before V2.4 wbs.planner.xl) is a simple tool to visualize project planning in the form of a work breakdown structure. Additionally, planning and controlling can be done outside the WBS on the data sheet or project data can be partially imported from MS Project.
The tool next wbs is based on a simple MS Office architecture (primarily MS Excel with VBA).

next wbs light

The tool next wbs light (before V2.4 wbs.planner.xs) is an in content and technology reduced version of next wbs, that supports the visualization of the project planning in form of a work breakdown structure. next wbs light is not subject to license and can be used free of charge; however, the number of tasks is limited. Also, some functions (such as the MS Project interface and next wbs) are not available

Manual

The manual gives the user an understanding of the functionalities of next wbs in a simple and comprehensible way.
The manual does not explain theoretical project management approaches and thus covers the supported PM methods only to some extent. Specific roles and processes are not covered at all.
The manual is for reference use only; experience shows that it cannot replace a tool-training.
The manual primarily describes the functionality of next wbs which partially coincides (except for restrictions) with that of next wbs light. next wbs light is described in a separate manual.

This is the standard manual for the standard version of next wbs. If the tool was customised without ordering the adaptation of the manual, next level solutions is not responsible for deviations between the tool and the manual.

Right of use and Customizing

The tool next wbs was developed by next level solutions and thus belongs to next level holding GmbH.
Under licensing agreements the right of use will be granted to the licensee for a license fee (generally indefinitely).

Due to its simple architecture the tool can be adapted with little effort according to customers' specific requirements and system environments and implemented on short notice. The simple MS Office architecture results in limited technical framework; however, it is well-suited to react quickly to dynamic changes of requirements, organisational structures and system environment.

The manual is property of next level holding GmbH as well; it can, however, be distributed to or copied for all users within the scope of the license.

Regardless of the technical possibilities, customers are not allowed to use and / or distribute the tool and the manual beyond the agreed scope of the license, nor may technical changes be made that exceed the described tool functionality.

next wbs light is property of next level holding GmbH as well, it is not an Open Source product, that can freely be further developed.

Above all, references to the owner have to remain in next wbs light and logo and/or footer may not be removed or replaced.

List of contents

General 2
next wbs 2
next wbs light 2
Manual 2
Right of use and Customizing 2
List of contents 3
Basic configuration 4
System requirements and notes on how to use MS Excel 4
Restrictions 4
next wbs 4
next wbs light 4
1. General 5
Data entry 5
Basic functionality of the navigation bar 8
Mask "Task-details" 10
Advanced functionality of the navigation bar 11
Options menu 12
Saving and deleting the baseplan 12
Layout settings 13
Import depth 13
Language 13
2. Work breakdown structure 13
3. Importing WBS and MS Project tasks 16
Defining the import link 16
Handling import areas 17
Importing data 17
Defining import depth 18
Handling non-updatable tasks 18
One-time activation of the MS Project export 19
Setting up an on-going export file for next wbs 20
Requirements for a task import 21
Customizing next wbs 22
List of abbreviations 22

 © next level holding

Basic configuration

System requirements and notes on how to use MS Excel

In order for next wbs to work properly, systemic frame conditions and some restrictions in the use of MS Excel are to be considered. next wbs requires at least MS Excel 2007 and VBA. Be careful not to work with Drag & Drop or Cut & Paste.

General information on handling all next level solutions' tools based on MS Excel can be found in a separate document "Important technical notes when working with MS Excel based tools".

If, by the incorrect use of next wbs, formulae and formatting are no longer correct, but the position of the editable and calculated cells were preserved by the sheet and workbook protection, any damaged version of the file can be "saved" via a version import (as the project data are transferred into the undamaged blank template).

In case of the project handbook not working properly, it is possible via a button on the "Cover" page to import the project data from the corrupted file in a blank template.

Restrictions

Based on technical conditions, the reasonable interpretation of typical projects and ensuring adequate performance and an acceptable file size, the following restrictions in next wbs should be noted:

next wbs

- 500 tasks (incl. summary tasks and milestones)
- 9 input levels (incl. project level)
- 5 levels and 20 project phases in the WBS display (depending on the layout)

next wbs light

- 50 tasks (incl. summary tasks and milestones)
- 4 input levels (incl. project level)
- 3 levels in the WBS display
- WBS or MS Project import is not available

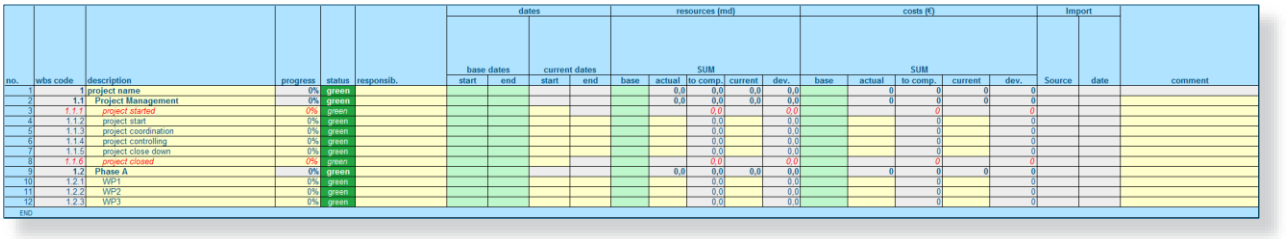
© next level holding

1. General

Data entry

The central functionality of next wbs lies in the "Data" sheet. Data entry here basically works like in MS, but some cells are not editable or restricted as to the validity.

Data is entered into the yellow fields, this colour can be removed by clicking the "Hide contents" button (the fields will be coloured white).



						dates				resources (md)					costs (€)					import		
						base dates		current dates				SUM					SUM						
no.	wbs code	description	progress	status	responsib.	start	end	start	end	base	actual	to comp.	current	dev.	base	actual	to comp.	current	dev.	Source	date	comment
1	1	project name	0%	green							0,0	0,0	0,0	0,0		0	0	0	0			
2	1.1	Project Management	0%	green							0,0	0,0	0,0	0,0		0	0	0	0			
3	1.1.1	project started	0%	green								0,0		0,0			0		0			
4	1.1.2	project start	0%	green								0,0		0,0			0		0			
5	1.1.3	project coordination	0%	green								0,0		0,0			0		0			
6	1.1.4	project controlling	0%	green								0,0		0,0			0		0			
7	1.1.5	project close down	0%	green								0,0		0,0			0		0			
8	1.1.6	project closed	0%	green								0,0		0,0			0		0			
9	1.2	Phase A	0%	green							0,0	0,0	0,0	0,0		0	0	0	0			
10	1.2.1	WP1	0%	green								0,0		0,0			0		0			
11	1.2.2	WP2	0%	green								0,0		0,0			0		0			
12	1.2.3	WP3	0%	green								0,0		0,0			0		0			
END																						

Simply put, the sheet deals with "Tasks" in which one task occupies a row. A task can be a WP, as well as a summary task or a milestone. In order to find your way through the performance planning, the different terms and their technical interrelationships are explained below. The columns contain the relevant detailed information on the individual tasks, the editable fields are calculated or imported, depending on the type of task.

Terms for activities/tasks used in next wbs		
Name	**Description**	**Technical details**
Task	Task is a neutral description of the cells of the "Data" sheet (MS Project also uses the term "task").	Every cell in the "Data" sheet holds information about a task. This is the basis for graphically creating the WBS.
Type of task	next wbs differentiates between 4 different task types: Project (first row), Work Package (the respective lowest level of a "WBS-branch"), Milestone and Summary Task (to which a minimum of one WP has been assigned).	The task type controls both the information's input method as well as its display in the WBS. The different task types thus allow different entry methods, calculations or node displays within the WBS.
Work package	A WP is usually the smallest package in the overall performance planning for the project team.	next wbs normally uses WPs as its foundation. Planning and editing is done at this level.
Milestone	A milestone is actually not an event, but rather provides a time-line definition of a time-critical event (as the PM software is set up in such a way that these events are included in performance planning, milestones are also a type of task).	A milestone is defined as such using a button.Generally, very little information is handled within a milestone, as this only has a deadline and has no effort allocated to it. Only a WP can be changed to become a milestone.
Summary task	As its name suggests, a summary task "summarises" a range of detailed tasks (regardless of whether these are further summary tasks, WPs or milestones).	Besides editable fields, summary tasks mostly comprise calculated fields. The "vertical" calculation of the underlying tasks is performed by clicking the appropriate navigation button. A summary task would therefore for example calculate the sum of the effort for the underlying tasks.
Project	A project is simply the highest form of summary task.	In terms of the system, the project is characterised in that at its highest level (Level 1), it only provides a single task.
Phase	The tasks on Level 2 are usually defined as phases if the project is structured in a process-oriented manner.	Technically, phases do not exist. In some analyses, however, a consolidated calculation is performed and displayed at the phase as well as project level (for example, for distributing effort by phase).

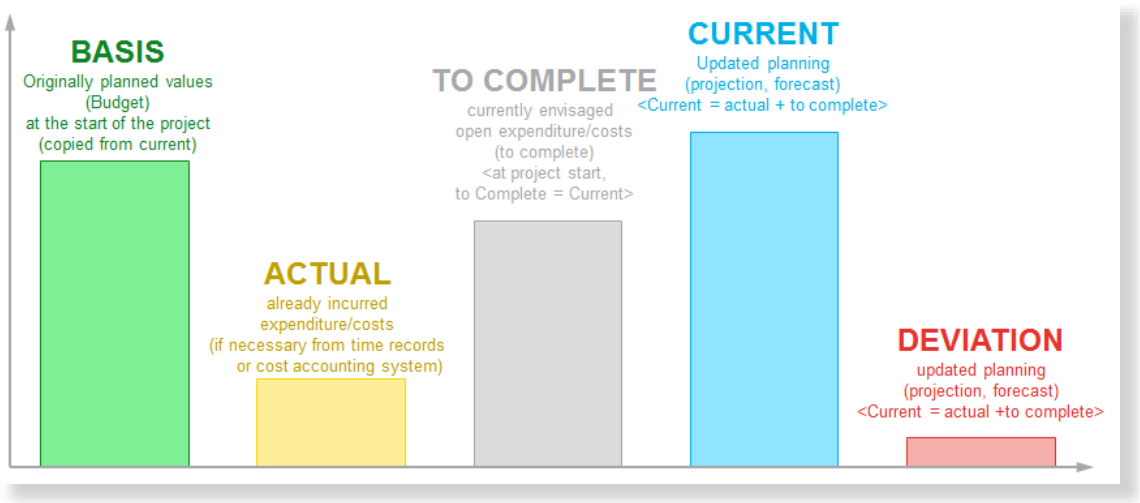
If necessary, a navigation bar can be selected using the "Navigation" button. The navigation bar is part of next wbs and can be freely positioned on the worksheet; when you switch worksheets, the navigation bar will disappear.

Before explaining the functions of the navigation bar, find below an overview of all the fields (columns) in the "Data" sheet.

Field descriptions (columns) of the "Data" sheet			
Name	**Field type**	**Field description**	**Example**
No.	Fixed, whole number	A serial number which is automatically generated and is thus unique to a single point in time. An "!" indicator may appear to the left of it following a data import. Tasks are indicated by the colouring of the number when the underlying tasks are hidden.	5
WBS code	Fixed, text	Fixed defined code system which separates levels with a period ".", and generates serial numbers within each level.	1.2.1
Description	Free, text	Freely editable field for the task name (WP, summary task, milestone). The name of the task should be short and meaningful so that the text is for example still fully displayed in the WBS.	Perform actual status analysis
Progress	Drop-down, percentage	Progress of the task which can be measured from 0% to 100% in 25%-steps; in summary tasks, the average value of the directly underlying sub-tasks is calculated (all tasks have equal weight, only milestones are not considered in the calculation).	25%
Status	Drop-down, text	Traffic light status display of the task to show problems and/or need for support. Drop-down list: green, yellow, red	green
Responsibility	Free, text	Freely editable name(s) of the person(s) responsible for this task. In technical terms, it is possible to define multiple responsible persons, in organisational terms, there should ideally only be one WP manager for each WP.	Peschke A.
Base start date	Locked, date	Scheduled start date for the task; the baseline is copied from the current plan by a system function.	02.02.13
Base end date	Locked, date	Scheduled end date for the task, see also "Base start date".	15.02.13
Current start date	Free, date	Freely editable date for the current start of the task.	28.01.13
Current end date	Free, date	Freely editable date for the current end of the task.	12.02.13
Resources base	Locked, positive number	Scheduled effort (in man-hours or man-days) for the task; the baseline is copied from the current plan by a system function.	10,0
Resources actual	Free, positive number	Freely editable effort (in man-hours or man-days) of the tasks that have already incurred.	5,0
Resources to complete	Calculated, number	Effort required to complete the task as currently anticipated (in man-hours or man-days), according to the difference between "actual" and "current".	7,0
Resources current	Free, positive number	Freely editable current scheduled effort on the task (in man-hours or man-days). This plan should be adjusted periodically in accordance with the current understanding of the situation of the project team.	12,0
Resources deviation	Calculated, number	The calculated difference between the current and originally scheduled effort for the task (in man-hours or man-days). This deviation is positive when the current schedule	2,0

		exceeds the original baseline and negative when the effort is expected to be lower than originally scheduled.	
Costs base	Locked, positive number	Scheduled costs (e.g. in €) for the task, such as in expenses.	2.000
Costs actual	Free, positive number	Freely editable already incurred costs (e.g. in €) for the task, such as in expenses.	1.000
Costs to complete	Calculated, positive number	The outstanding costs required to complete the task, as currently estimated (e.g. in €) which are only calculated at the summary task on the "Data" sheet.	800
Costs current	Free, positive number	Freely editable current costs (e.g. in €) for the task, such as in expenses.	1.800
Costs deviation	Calculated, number	Calculated difference between the current and originally scheduled costs (e.g. in €) for the task, such as in expenses.	-200
Import source	Fixed, text	Indicator showing whether this is imported task information and the file that this information was imported from; more information at import.	msp
Import date	Locked, date	Shows the date of the last import, if the WP is linked.	12.03.13
Commentary	Free, text	Freely editable field for short comments, an optional field for use as required.	Verify costs with accounting

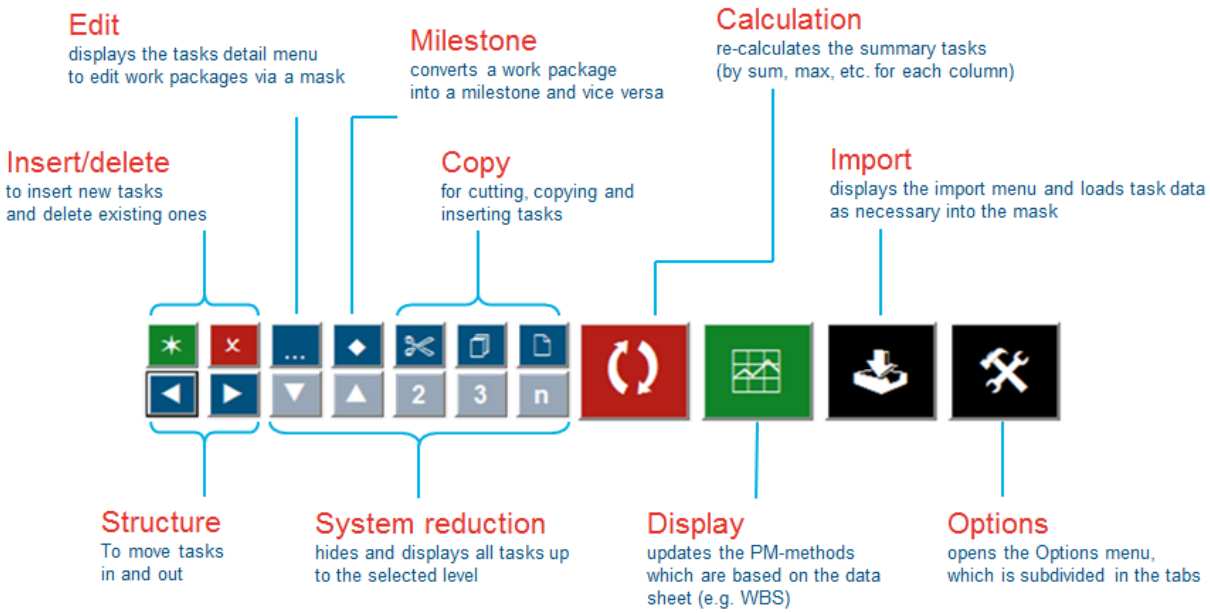
Because effort and costs generally raise the highest number of questions, the 5 categories are once again displayed graphically. Different applications might also use different terms for the very same values, and vice-versa.



© next level holding

Basic functionality of the navigation bar

The following graphic shows the navigation bar with an overview of the buttons and the associated functions, their uses are then explained in detail. The buttons on the navigation bar also have functional descriptions in the PM tool.



The navigation bar is divided into four groups in terms of functionality. They comprise basic functionality which is required in the first steps of project planning, processing functionality for altering the existing structure, filter functionality and special functionality to change options or to set up an import interface.

© next level holding

Basic functionality (of the navigation bar on the "Data" sheet)			
Icon	**Function**	**Description**	**Restrictions**
	Insert one or more tasks	Inserts a new row above the currently selected cell at the level of the task above it. When several consecutive cells are selected, the same number of cells is inserted above the selected cells.	No separate areas must be selected. A task can only be inserted below the Project row and above the "END" row. If the insertion exceeds the maximum number of tasks, the entire action is cancelled.
	Set milestone	A task can be converted from the lowest level (WP) to a milestone, and/or a milestone can be converted back again to a WP. The field limitations and cell layout change accordingly.	Only a task can be converted to a milestone (this is not possible with a summary task). Every milestone must be converted individually.
	Classify task(s) at lower level	The selected tasks are classified one level lower. If several tasks which comprise different levels are selected; all sub-tasks are automatically classified as a summary task.	No separate areas must be selected. Nothing should be classified below the defined level limit and this classification should not create "gaps" in the levels (e.g. Level 3 should be classified as Level 4, meaning that Level 2 would be directly followed by Level 4).
	Classify task(s) at higher level	The selected tasks are classified one level higher. If several tasks which comprise different levels are selected, all sub-tasks are automatically classified as a summary task.	No separate areas must be selected. They must not be classified as Project-level tasks. In imported areas, no imported task may be raised to the level of the Import Master task.
	Calculate	This will re-start the calculations for all summary tasks (at all levels). If PERT is activated.	In general, buttons cannot be clicked when a cell is still being edited. There are no other restrictions.
	Refresh graphics	Built on data structure-based methods. Clicking this button to perform the update based on the latest set options for the WBS.	The number of levels displayed in the WBS is dependent on the data, the level restrictions of next wbs and the selected layout.

Setting milestones and raising/lowering the task classifications automatically create summary tasks. If a project sub-tree (such as a programme project) is imported, the tasks and all imported sub-tasks are automatically displayed as imported tasks. These different task types have consequences on the functionality as well as on the layout of these tasks, and these will be described in more detail later on.

Changes may be required as early as the planning stage; primarily in project controlling, where adaptations to the project data may be required, tasks may need to be expanded, removed, and/or tasks moved or copied.The following section deals with these changes and provides further descriptions of the data input process.

Basically, all data in fields which are also editable can be changed. To do this, simply select the relevant cell and overwrite, adapt or add to the existing content. You should note, however, that summary tasks as not constantly re-calculated. These are re-calculated following appropriate actions such as sub-divisions, but this process can also be started by clicking the "Re-calculate summary tasks" button.

© next level holding

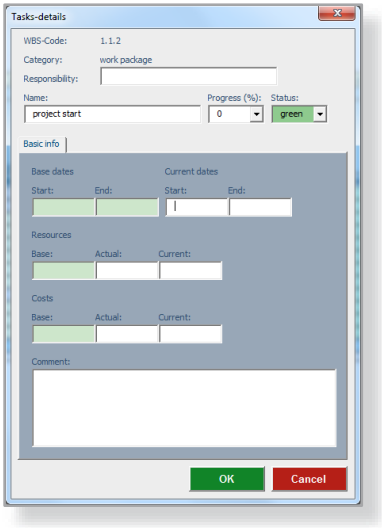
Editing functionality (of the navigation bar on the "Data" sheet)			
Icon	**Function**	**Description**	**Restrictions**
	Delete one or more tasks	Deletes the row of a selected cell.When a summary task is selected, its sub-tasks are also automatically selected. When a number of consecutive cells are selected, the deletion must be confirmed after which all selected tasks (as well as their associated sub-tasks) are permanently deleted.	No separate areas must be selected. A task can only be deleted below the project row and above the "END" row.
	Edit tasks	Opens the detailed mask of the selected task. This can also be done by double-clicking on the WBS-code.	If several cells are selected this action will be performed on the first selected cell.
	Cutting content	Transfers the rows of selected cells to the next wbs clipboard and removes them from the "Data" sheet. If several tasks are selected which comprise different levels, all sub-tasks of the summary task are also cut.	Tasks which cannot be deleted cannot be cut either (e.g. Level 1 project task).
	Copying content	Transfers the rows of selected cells to the next wbs clipboard; they remain in the "Data" sheet. If several tasks are selected which comprise different levels, all sub-tasks of the summary task are also copied.	Copying content deletes the IDs of imported tasks! There is therefore a difference between cutting tasks, and copying and then deleting them.
	Pasting content	Inserts the appropriate number of new tasks above the row of the selected cell; they are then filled with the content of the next wbs clipboard. As part of this process, the structure of the clipboard is shifted on the basis of the tasks above, including levels. If the content of the clipboard is copied, it can be inserted several times; if it is cut, the clipboard is emptied after a single insertion.	Only one task may be selected. Content can only be inserted below the Project row and above the "END" row. If the insertion exceeds the maximum number of tasks, the entire action is cancelled. The content of the clipboard cannot be inserted into an import area.

Note that the next wbs clipboard has nothing to do with the normal MS Excel and/or operating system clipboards.
When inserting content, a number of structure and formatting checks are performed; this will take more computing time than normal cutting and pasting, depending on the number of tasks and CPU performance.

Mask "Task-details"

The mask "task-details" is an alternative to entering task data in the table, where you have to scroll horizontally; it thus allows you to compactly manage the task data. You can activate the mask by highlighting any cell of the corresponding task and the button "Edit" in the "Data" sheet or by double-clicking in the column "WBS-code". It is also possible to double-click any field of the task node in the WBS.

© next level holding



Similar to the tabular input of the "Data" sheet, not all displayed fields are editable.
If the mask is left with "Cancel", all entries will be discarded and the process remains unchanged. Only through the "OK" button will the mask's information be transferred into the data sheet.

Advanced functionality of the navigation bar

Several features can, if necessary, change the visible rows and columns in the data sheet. Details on the reduction of the visible columns can be found under Options. The following table describes how to easily turn the display of the subtasks of summary tasks on and off, either manually or through the system.

Filter functionality (of the navigation bar on the "Data" sheet)			
Icon	**Function**	**Description**	**Restriction**
	Displaying sub-tasks	Displays the sub-tasks of a selected summary task.	Obviously, sub-tasks can only be displayed if they form part of a summary task.
	Hiding sub-tasks	Hides the sub-tasks of a selected summary task.	Obviously, sub-tasks can only be hidden if they form part of a summary task.
	Hiding sub-tasks below Level X	All tasks below Level X are hidden, while all tasks at Level X and above are displayed. The X stands for the respective button.	Tasks that are shifted in hidden levels will not be automatically hidden.
	Displaying all sub-tasks	All tasks are displayed.	No restrictions.

The filter functionality in next wbs provides one way of filtering the tasks in the "Data" sheet according to the different levels of the project structure. Hiding tasks on the "Data" sheet will not affect other PM methods which are generated on this basis (such as the WBS).
When a "branch" of the project structure is "collapsed" and its sub-tasks hidden, the serial numbering of the tasks is no longer consistent, and the task number will be coloured red.

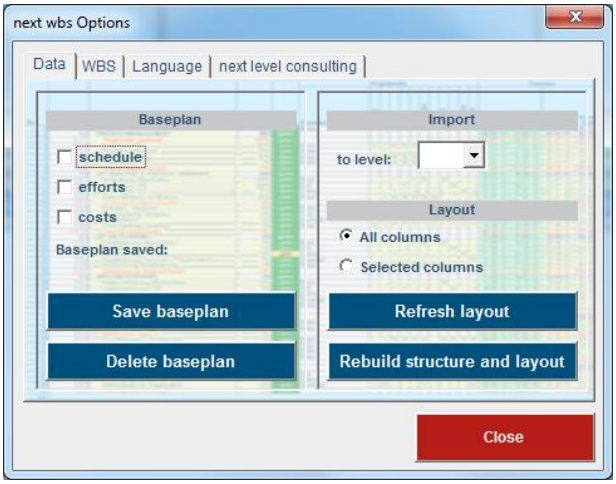
19	1.2.10	*Alternatives decided*
20	1.3	DETAIL PLANNING
27	1.4	IMPLEMENTATION

Further special functions can be activated by further sub-masks. These are shown in the overview below, and will be explained in more detail later on.

Special functionality (of the navigation bar on the "Data" sheet)			
Icon	**Function**	**Description**	**Restrictions**
	Open Options menu	Opens a dialogue window with options which are not normally required. Options include for example allowing you to select resource and cost types or to save the baseline.	No restrictions.
	Open Import menu	Displays the "Import" menu. The Import menu can be used to define a link to another project handbook or an MS Project export file. Furthermore, links and/or selecting of tasks or selected tasks themselves can be deleted. The task import itself is also started from this menu.	The availability of the buttons and the functions available to you are partially dependent on the task you have selected. If, for example, a higher-level summary task is linked, the task itself can no longer be linked.

Options menu

Clicking the "Open Options menu" button displays a dialogue window with a number of tabs. The options and functions of the "Data" sheet are explained below; the options for the respective further PM methods are described later on.



General functions in "Options"		
Button	**Description**	**Technical details**
	Close	Closes the "Options" window and saves all current settings in all tabs.

Saving and deleting the baseplan

General functions in "Options"		
Button	**Description**	**Technical details**
	Save baseline	Deadlines, effort and/or costs can be "saved" depending on the selected items. "Saving" here means that the current data (the current number of WPs, current deadlines, current effort, current costs) are copied to an appropriate plan column (original number of WPs, base deadlines, base effort and base costs). Resources and costs here include all resource and cost types. Furthermore, the date of saving the baseline is saved (visible on the cover and in the "Options" mask).

Delete baseplan	Delete baseline	Baseline deadlines, effort and/or costs can be "deleted" depending on the selected items. "Deleting" here means that the contents of the baseline (scheduled deadlines, scheduled effort and scheduled costs) are removed. Furthermore, the date of saving the baseline is deleted.
Refresh layout	Refresh layout	Depending on whether "All columns" or "Selected columns" is selected, the columns in the "Data" sheet are hidden or displayed.
Rebuild structure and layout	Rebuild structure and layout	This function analyses all of the tasks once again and where required, makes structural or layout-related changes. In fact, the user will not really require this function.

Layout settings

The user can use the "Refresh layout" function to decide which columns should be temporarily displayed in the "Data" sheet. When "Selected columns" is selected, only the columns in the "Data" sheet which were selected by the user will be displayed, while the rows in these selected columns will be hidden. Select the appropriate cells by double-clicking on these (they are then marked with an "x").

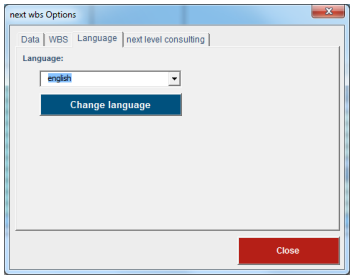
Should problems arise from wide-ranging adaptions or imports of tasks, it may be possible to eliminate any error in next wbs by clicking the "Rebuild structure and layout" button. This function once again calculates the current number of tasks, corrects structural errors (such as "gaps" in the levels or exceeding the level limits), re-calculates summary tasks, renews the layout of all the tasks according to the task type, and verifies the import areas. Depending on the number of tasks and the levels in use as well as your CPU performance, this can take a few minutes.

Import depth

You can also find the configuration of the import depth for the PHB task import and the MS Project task import on the tab "Data". The level determines how many levels of the imported files are transferred (e.g. if in a PHB import you select "2" only the project and the phases will be displayed as phases from the project handbook, even if 4 or 5 levels were scheduled there.

Language

On the tab "Language" you can change the language of next wbs. By default, English and German are available. Changing the language will change all system messages, buttons, headings, and spreadsheets, but not the content editable by the user.

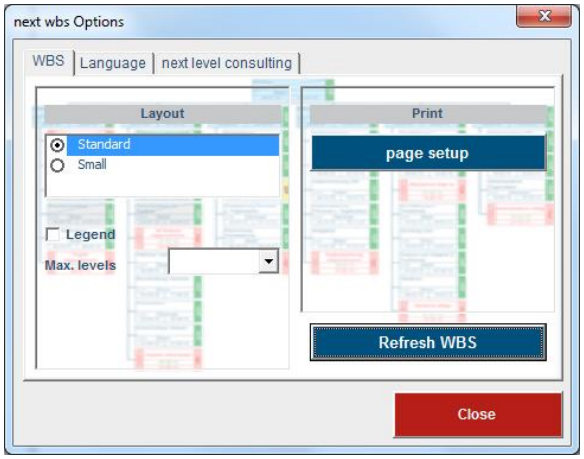


The other tabs of the "Options" menu are explained below in the corresponding planning steps

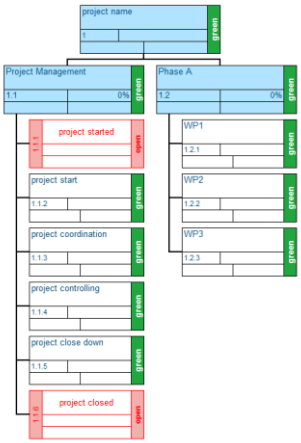
2. Work breakdown structure

The WBS can be generated at any time, and is not updated on a regular basis following every new entry onto the "Data" sheet; instead, it must be manually triggered. Depending on the number of tasks, this process can take from a few seconds to a few minutes. There is also the option of providing detailed specifications for the WPs.

The WBS is updated by using the "Generate WBS" button in the "Options" menu. The WBS is also updated by clicking the "Refresh WBS" button in the navigation bar of the data sheet.



Since the WBS displays a smaller number of levels than can be created in the "Data" sheet, it is possible that the WBS will display summary tasks at the lowest levels. It is also possible to further reduce these technical restrictions manually (e.g. to only display the first 3 levels of the project).
The WBS will be displayed differently depending on the layout. The layout can be altered via the "Options" menu. Normally, the tasks are distributed into task types for which different displays are defined (Project, Summary task, WP, Milestone). The display can vary in terms of its format, field contents, colours and fonts. The displays can also be altered using further criteria; in the standard version of next wbs, they are also differentiated in terms of their progress.

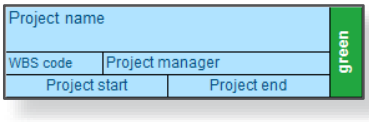
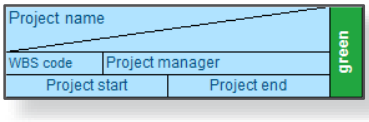
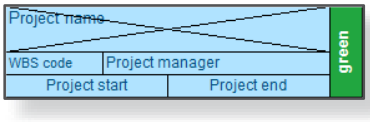
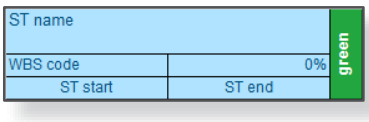
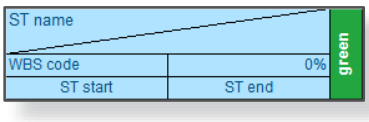
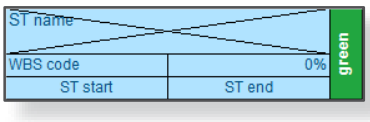
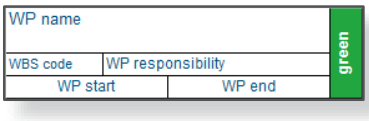
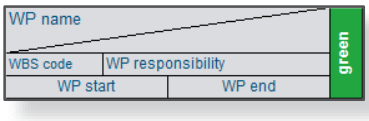
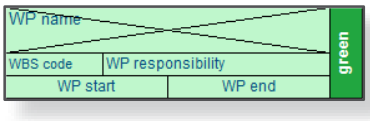
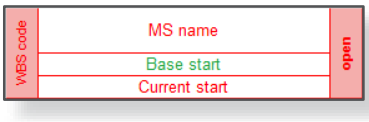
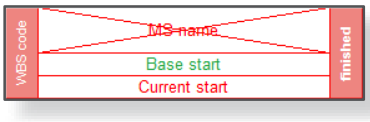


The "WBS" tab contains options for the work breakdown structure. These options can be found in the "Data" sheet navigation, by clicking the "WBS Options" button on the "WBS" table.
The standard next wbs contains two layouts to choose from. The layout sets how many levels of the WBS are displayed, how wide and high the nodes are, and the level of detail of the node contents, node layout and header content. There are different layouts for the different task types – Project, Summary task, WP and Milestone (which will also differ according to the level of progress).

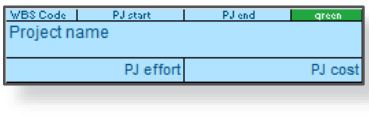
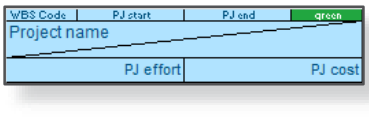
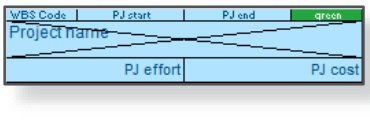
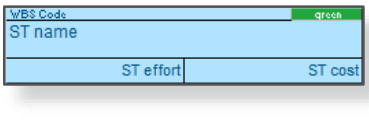
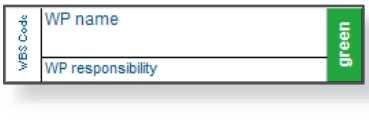
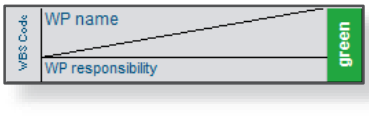
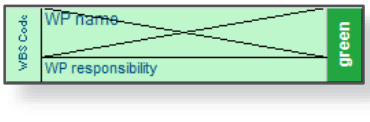
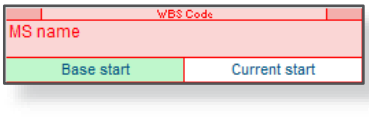
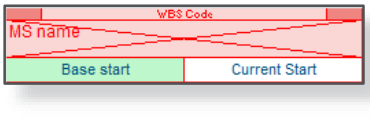
© next level holding

Overview of WBS node layouts

Layout: Standard

Task type	Progress 0%	Progress 1 – 99 %	Progress 100%
Project			
Summary task			
Work package			
Milestone			
General information	Grid requirement: 11 cells horizontally, 8 cells vertically Restrictions: 5 levels, 18 phases		

Layout: Small

Task type	Progress 0%	Progress 1 – 99 %	Progress 100%
Project			
Summary task			
Work package			
Milestone			
General information	Grid requirement: 10 cells horizontally, 6 cells vertically Restrictions: 4 levels, 20 phases		

You can also display the legend beneath the WBS.
There are also settings for the orientation of the page when it is printed Printing can be done using the normal MS Excel print functionality or the general print function incorporated in next wbs, on the "Content" page.
You can display the page view of the WBS via the button "Page setup" to change specific settings.

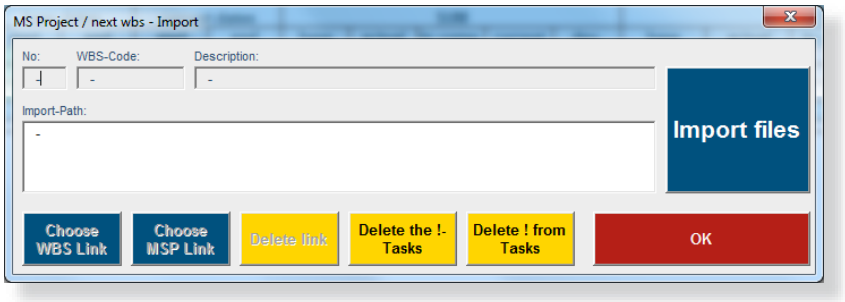
© next level holding

The layouts of the WBS can only be further expanded or altered through customization. There is a wide range of layout choices in which everything is placed in a grid; two horizontal cells per level are removed for space reasons. Due to special restrictions the field contents at the detailed levels can no longer be fully displayed. The number of different cell formats in MS Excel is restricted, meaning that in the standard version only two layouts are initially provided.

3. Importing WBS and MS Project tasks

Task imports are available as an optional method of importing the entire task data or a sub-tree of tasks from another next wbs or from MS Project. During the task import, it is important to ensure that the correct export format is used in MS Project, and that only project handbooks with an identical data structure are imported.

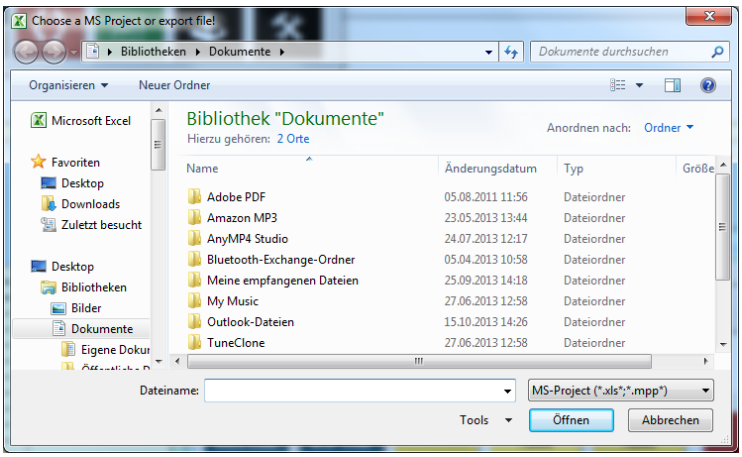
To open the "Import" menu, select a cell in the relevant task row and click the "Open import menu" button in the navigation bar on the "Data" sheet. This opens the "Import" dialogue window. Its upper section contains information on the selected task.



Defining the import link

The import path can be edited manually, but should normally be defined using the "Choose PHB Link" and "Choose MSP Link" buttons. Clicking these buttons only defines the path of the import files for a task, whereas the actual data import only occurs once you click on the "Import files" button.

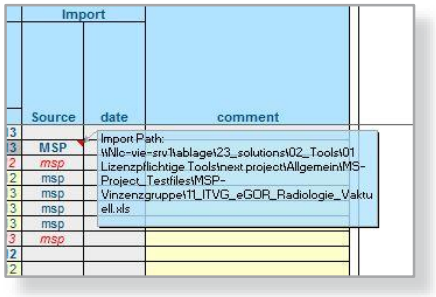
Restrictions apply to the types of task which can be assigned a link. It is not possible to set up a next wbs import as well as an MS Project import to one task at the same time. Similarly, a new import cannot be assigned to a subordinate task in an import area. When a next wbs import is for example assigned to a task, the link must first be removed using the "Delete link" button.



Tasks from a project handbook can be directly imported from the WBS file; tasks from MS Project on the other hand must be either imported from an appropriate export file or (if MS Project is installed on the PC) directly from an MS Project file. How to set up an appropriate export file will be explained in detail in a later section.

Handling import areas

When a link is set on a task, colouring of the relevant fields in the topmost linked row will indicate that affected fields will be refreshed by an import process (not possible on the project level). Furthermore, the row the link has been assigned to (in the Import Master task) is marked in the "Import" column with either "MSP" or "PHB" in capital letters, and the path is indicated in a comment. The comment is displayed when you move your cursor over the relevant cell. The tasks which underlie the linked summary tasks are labelled in the "Import" column as either "msp" or "phb" in lower case letters. After the import the date of the last import will be displayed in the column "Import" /" Date".



When a link is set on a summary task, whose sub-tasks had already been assigned a link, the underlying links as well as the corresponding import IDs are removed. This is crucial, as these import IDs allow tasks to be identified within next wbs and the import file. Once they have been linked again, all tasks have to be imported with their unique import IDs.

Importing data

Click the "Import files" button to perform the actual data import. This processes row after row, until an assigned link is found.If a link is assigned, the relevant file is opened, and the data in the import file is processed row after row using a specified logical system; after that the import file is closed again.Depending on the number of tasks which have been created and linked in next wbs, and/or the number of tasks to be imported, this process can take a few seconds or several minutes.

The import of individual import files always follows the same system.The import file is processed each row at a time, while a so-called level adjustment is applied to the import tasks.This means that regardless of the level of the first task in the import file (normally Level 1), the import happens at the level of the linked task.This means that individual tasks are dropped to an appropriate level during the import process.The import process proceeds from the first import task to the last task, but at most to the next import task on the same level as the first import task (in practical terms, this means that for example, in MS Project, an individual manually created summary task for the subproject must always be set at the uppermost level).

Once a task from the import file has been read, the task segments for the linked task in next wbs are searched for a matching import ID.Once a task with a matching ID is found, it is moved to a position at the appropriate level and the fields to be imported are transferred, regardless of its position.If no task with a matching ID is found, a new task is created and the appropriate ID is transferred, together with all of the fields to be imported.

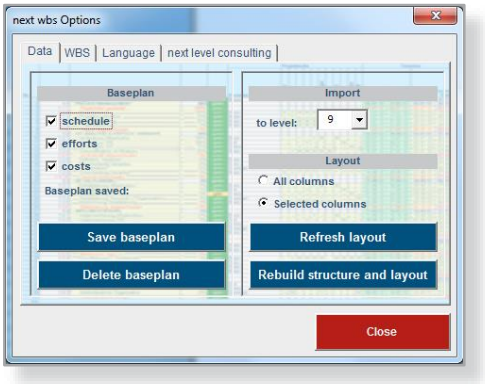
At the end of the import process for an individual import file, the structure of the import file and of the sub-tree in next wbs should be identical (in terms of the row series and the relative structuring of the tasks).During a first import, deleting tasks in the output file to be imported or manually creating tasks in the target file can lead to tasks in the target file that have no matching IDs with the output file.These tasks are moved to an identical level at the end of the sub-tree, and are marked with an "!" in front of the task number.

© next level holding

no.	wbs code	description	progress	status	Import Source	Import date	comment
1	1	project name	11%	green			
2	1.1	Project Management	0%	green			
3	1.1.1	project started	0%	green			
4	1.1.2	project start	0%	green			
5	1.1.3	project coordination	0%	green			
6	1.1.4	project controlling	0%	green			
7	1.1.5	project close down	0%	green			
8	1.1.6	project closed	0%	green			
9	1.2	Test-Projekt Alex	22%	green	MSP	15.10.13	
10	1.2.1	Phase A	58%	green	msp	15.10.13	
11	1.2.1.1	WP 1	100%	green	msp	15.10.13	
12	1.2.1.2	WP 2	75%	green	msp	15.10.13	
13	1.2.1.3	WP 3	0%	green	msp	15.10.13	
14	1.2.1.4	MSt A	0%	green	msp	15.10.13	
15	1.2.2	Phase B	0%	green	msp	15.10.13	
16	1.2.2.1	WP 4	0%	green	msp	15.10.13	
17	1.2.2.2	WP 5	0%	green	msp	15.10.13	
18	1.2.2.3	WP 6	0%	green	msp	15.10.13	
19	1.2.2.4	MSt B	0%	green	msp	15.10.13	
20	1.2.3	Phase C	8%	green	msp	15.10.13	
21	1.2.3.1	WP 7	0%	green	msp	15.10.13	
22	1.2.3.2	WP 8	25%	green	msp	15.10.13	
23	1.2.3.3	WP 9	0%	green	msp	15.10.13	
24	1.2.3.4	MSt C	0%	green	msp	15.10.13	
END							

Defining import depth

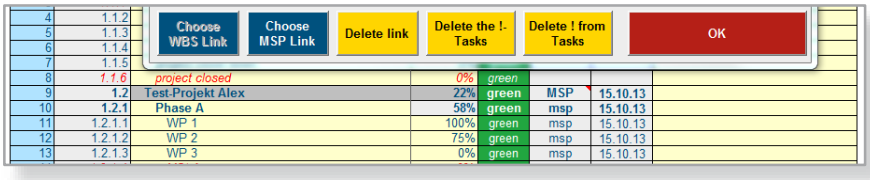
As long as the max. number of tasks or levels is not exceeded, all tasks from another PHB or from MS Project can be imported. However, often it is not necessary to transfer the same detailed information into next wbs. The import depth can be configured via the "Data" tab in the "Options" of the navigation bar of the "Data" sheet.



How many levels of the relevant import files are transferred can be defined via the setting in the area "Import".

Handling non-updatable tasks

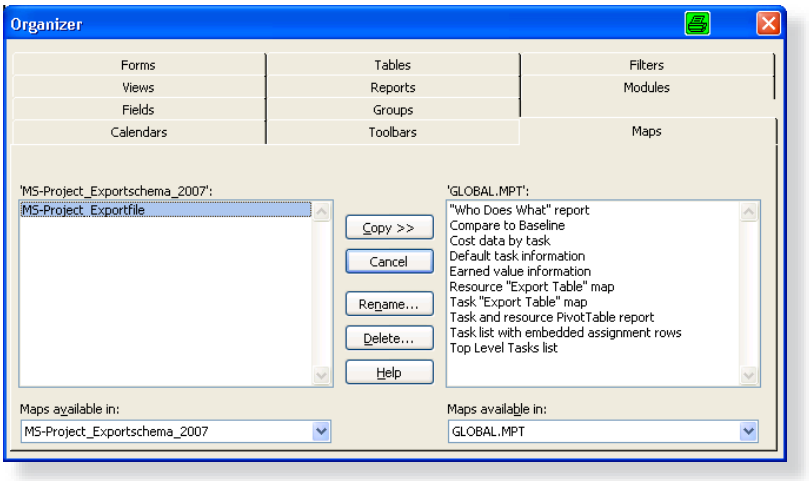
Tasks that are marked with "!" must be processed manually by the user. It is possible that a task was directly entered in next wbs ad hoc prior to or during a meeting in which case it should also be created in the output file to be imported. If this is not done, this problem will occur with each new import. If this has already been done, the task was transferred from the import file, but since there is no matching ID, the task is re-created from the import file. In this case, the user may have to import the data into manually editable fields from the manually created task and/or to the task that was created by the import. Manually editable fields are fields that are available in next wbs, but are not transferred from the import file, because this information is not available in the imported source file. It is now possible to delete the task marked with "!" manually or via an appropriate routine. The button "Delete the !-tasks" automatically removes all tasks that are marked with a "!" from next wbs. The button "Remove the ! from tasks" removes the "!" marker from all tasks.



One-time activation of the MS Project export

If MS Project is not installed on the user's PC, a so-called schema has to be installed in MS Project before the user can first work with MS Project, so that data can be transferred into next wbs. (if MS Project is installed on the PC of the user of next wbs, this routine is not necessary.)

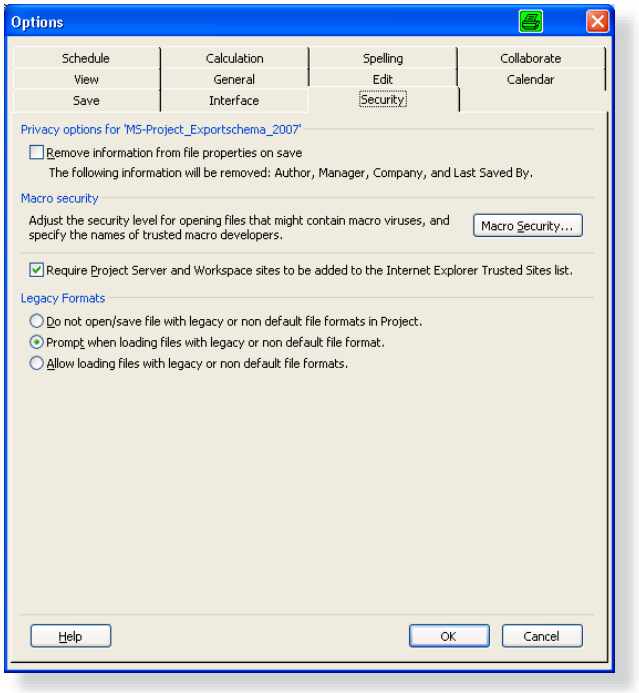
To do this, open the template file "MS-Project_Exportschema_xxxx.mpp" in MS Project. Then, open the "Organiser" mask using the "Tools/Organizer" menu and select the tab "Maps"
As there are differences in MS Project file formats from MS Project Version 98 to Version 2000 and from Version 2003 to Version 2007, it is necessary to use the appropriate template file. Use the "MS Project_Exportschema_2000 +.mpp", template for MS Project 2000, 2002, and 2003, the "MS Project_Exportschema_2007.mpp" template for MS Project 2007, and the "MS Project_Exportschema_2010.mpp" template for MS Project 2010.



One side of the screen should now display, "GLOBAL.MPT" (the MS Project standard template), and the other should show the selected template, and/or the maps contained in these files. Now, select the "MS Project_Exportfile" map in "MS-Project_Exportschema_xxxx.mpp" and click the "Copy" button. You can then close the window.
The import map is now available in MS Project on this computer under the respective user profile. It is only necessary to be set up once.
Where necessary, a similar map can be set up in MS Project.

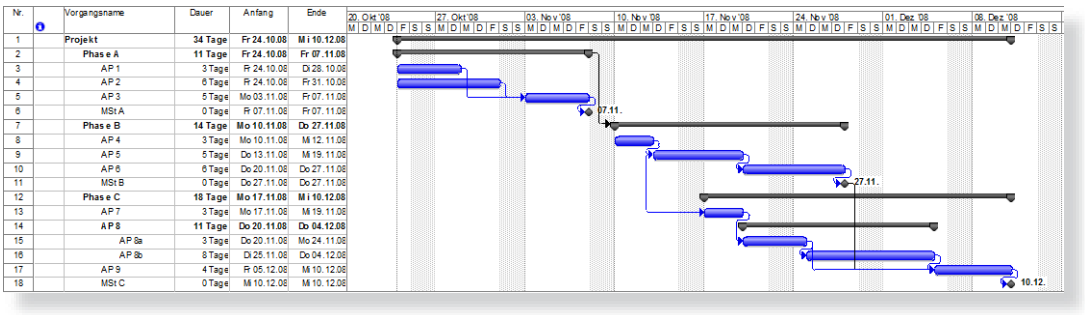
You should also ensure that the security settings in MS Project do not block non-standard exports. The security settings can be found under Tools / Options / Security / Legacy Formats. The settings should be set to "Prompt when loading files with legacy or non-default file formats".

© next level holding



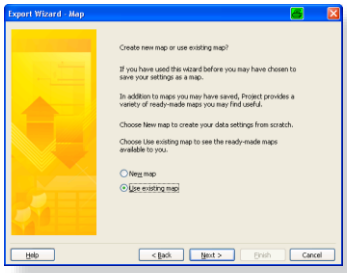
Setting up an on-going export file for next wbs

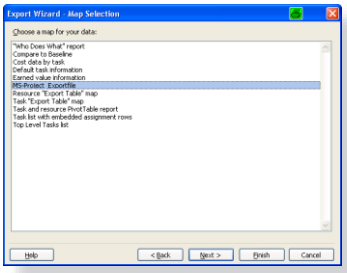
There are certain crucially important criteria for the export of MS Project data.An identical structure to the one in MS Project is expected, since the import process transfers both the structure and sequence of the tasks.It is important that MS Project only ever contains one task (a project or subproject) at Level 1, and that this first task provides the relative level references to the "linked" task in next wbs.

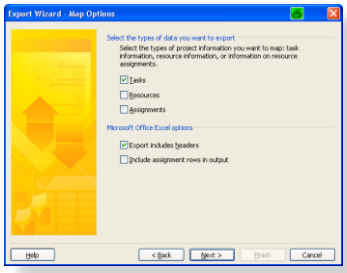


Nr.	Vorgangsname	Dauer	Anfang	Ende
1	Projekt	34 Tage	Fr 24.10.08	Mi 10.12.08
2	Phase A	11 Tage	Fr 24.10.08	Fr 07.11.08
3	AP 1	3 Tage	Fr 24.10.08	Di 28.10.08
4	AP 2	6 Tage	Fr 24.10.08	Fr 31.10.08
5	AP 3	5 Tage	Mo 03.11.08	Fr 07.11.08
6	MSt A	0 Tage	Fr 07.11.08	Fr 07.11.08
7	Phase B	14 Tage	Mo 10.11.08	Do 27.11.08
8	AP 4	3 Tage	Mo 10.11.08	Mi 12.11.08
9	AP 5	5 Tage	Do 13.11.08	Mi 19.11.08
10	AP 6	6 Tage	Do 20.11.08	Do 27.11.08
11	MSt B	0 Tage	Do 27.11.08	Do 27.11.08
12	Phase C	18 Tage	Mo 17.11.08	Mi 10.12.08
13	AP 7	3 Tage	Mo 17.11.08	Mi 19.11.08
14	AP 8	11 Tage	Do 20.11.08	Do 04.12.08
15	AP 8a	3 Tage	Do 20.11.08	Mo 24.11.08
16	AP 8b	8 Tage	Di 25.11.08	Do 04.12.08
17	AP 9	4 Tage	Fr 05.12.08	Mi 10.12.08
18	MSt C	0 Tage	Mi 10.12.08	Mi 10.12.08

To create an export file for the MS Project plan, click the "File/Save As ..." menu.The file name can be freely selected (although the location and file name are vital to the link in next wbs), and the file type must be set to "Microsoft Excel Workbook (.xls)".Then, simply click on the "Save" button to open the Export Wizard dialogue window which operates independently of the MS Project version (the following screenshots were taken from the MS Project 2007 Wizard).

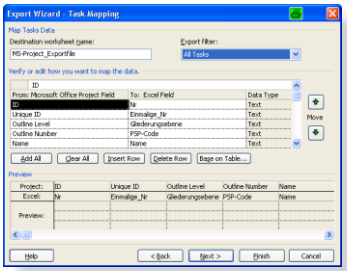




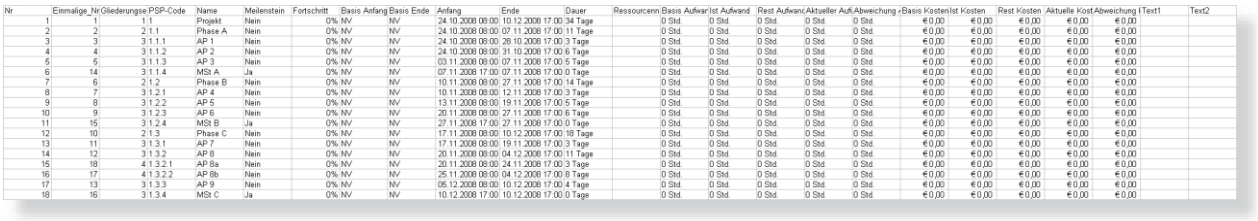


AUSTRIA
CROATIA
GERMANY
SLOVAKIA
SOUTH AFRICA
SWITZERLAND

 © next level holding



The standard settings of the Export Wizard can be used, however, you should ensure that the "selected data" is exported using an "existing map" with the name "MS-Project_Exportfile".In all MS Project versions, the wizard is closed by clicking on the "Finish" or "Save Map ..." buttons (the map itself does not need to be loaded every time, since it is not changed).You should now have a small-sized Excel file at the location you specified which can be imported into next wbs.
The file does not have to be opened or altered, and can be imported directly.Following the PHB task import, the export file can be deleted, or overwritten during the next MS Project export session (only a screenshot is provided to – in the case of problems – be able to check if the data was generally imported correctly; the file contains more fields than are transferred in the standard task import).



Requirements for a task import

Besides the basic technical requirements, it is also important to understand the background of the content.Particularly in a PHB task import, the data structures must match; otherwise the consolidated results must be interpreted with caution.
A PHB task import transfers the data in the columns, cell by cell.If the persons shown in the function diagrams or the resource types are laid out differently, the letter R may for example be displayed in the first column.If another person is listed, the responsibility for the WP is changed in the "Programme handbook".It is therefore important to ensure that the resource and cost types match, otherwise effort from one department may end up in another organisational unit.

Customizing next wbs

According to the specifics of the company, next level solutions provide customizing of next wbs. Customizing can range from the simple replacement of the logo to adjustments of the entire corporate design, to extending functionality and creating additional forms. The costs depend heavily on the requirements in terms of functionality.

next wbs is a tool that adequately supports the project management approach according to the PM of next level consulting. On this established basis next level solutions has developed specific IT solutions in project management for several clients in the private and the public sector. If needed, next level solutions support the entire process of professionalization of project management and the implementation of an IT tool.

next wbs is not seen as competition to powerful PM planning systems, but is positioning itself as an alternative IT support for small and medium projects (situational tool application). Therefore next wbs offers an interface to MS Project. If required, other interfaces to PM or ERP systems can be added.

Our trainers and consultants are happy to discuss mix of products and services that are suitable for your specific situation (initial situation, conditions, requirements). For questions and suggestions do not hesitate to contact us.

List of abbreviations

The following table displays relevant or commonly used terms and abbreviations of the manual which are briefly explained.

Abbreviation	Full name	Meaning
MD	man-day	This is the amount of work performed by an average worker in one day, app. 8 hours.
MH	man-hour	A man-hour or person-hour is the amount of work performed by an average worker in one hour. It is used in written "estimates" for estimation of the total amount of uninterrupted labour required to perform a task
PERT	Project Evaluation and Review Technique	A method to analyse the involved tasks in completing a given project, especially the time needed to complete each task, and to identify the minimum time needed to complete the total project.
PHB	project handbook	next wbs, filled with project-specific data is also known as the project handbook. A project handbook includes the PM-specific documentation and therefore includes all project plans.
PM	project management	In practice, there are many terms which are abbreviated as PM. In this manual, the abbreviation always stands for project management which includes the planning and controlling of an individual project.
SP	Service Pack	Used by software producers to fix numerous errors with one update. For this tutorial, primarily the SP of MS Office is relevant, as errors in the basic application can also affect the functionality and performance of next wbs.
V	Version	Different version numbers are used. On the cover there is the version no., the standard version and possibly the Build no. of the customized version. In the change log, however, a version no. can be maintained for the project handbook.
VBA	Visual Basic for Applications	A complementary programming language for the applications of MS Office, in the style of Visual Basic, e.g. to expand existing functions and formulae in MS Excel; also known as macros.
WBS	work breakdown structure	A WBS is a hierarchical decomposition of the project into phases, deliverables and WPs. It is a tree structure, which shows a subdivision of effort required to achieve an objective
WP	work package	A WP is the smallest common unit of planning the scope in the WBS. They are defined in the "Data" sheet.

© next level holding