Managing Projects
with
Milestone Trend Analysis

User Guide
## Summary of Changes

<table>
<thead>
<tr>
<th>Release</th>
<th>Date</th>
<th>Major Changes of the Product</th>
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<tr>
<td>R1.9</td>
<td>2017, May</td>
<td>First public availability of the product.</td>
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<td>R2.0</td>
<td>2017, July</td>
<td>Clipping of the week/day raster below the deadline.</td>
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<tr>
<td>R2.1</td>
<td>2017, August</td>
<td>The ability to select different symbols for trend indicators of a milestone.</td>
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<td>R2.2</td>
<td>2018, March</td>
<td>Selection of german or english language. Two new Buttons: <em>All</em> and <em>Today</em>. Improvement of date indication.</td>
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1 Introducing Milestone Trend Analysis

Milestone Trend Analysis (MTA) is a method to schedule and control projects. The project's milestones are identified and the temporal development of their estimated fulfillment is visualized in a MTA chart. The horizontal axis of the MTA chart is the reporting line. It shows the dates when an estimation (a trend indicator) is drawn into the chart. The vertical axis of the MTA chart is the planning line. The dates increase from bottom to top of the chart. A planning date indicates the estimated date a milestone is expected to be reached.

The following chart shows an example project 'Build a Carport' with four milestones.

On Sun. 16. April, the initial planning for the project is done. Four milestones: Start of Project, Prepare a Drawing, Buy all Material, and Construction Finished are identified and their estimated reach is drawn as first trend indicator into the chart.
On Wed. 19. April, the project actually starts, which is one day earlier as planned. The trend line goes down, which means this milestone is ahead of schedule. And the red deadline is reached. The deadline always shows when the time is over. The estimations for the other three milestones don't change. Therefore their trend lines are horizontal.

On Sat. 22. April, the remaining three milestones are estimated: Prepare a Drawing is easier than expected, and so its planning date is moved from Fri.28 to Thu.27. The planning dates for the other two milestones remain the same.

On Thu. 27. April, Prepare a Drawing is finished in time. But the drawing shows that more material is needed. Therefore the planned date to Buy all Material is shifted to three days later. Also the planned date for Construction Finished is delayed by three days.

Until Mon. 1. May, the work advances as planned. The trend indicators for the remaining two milestones both keep the same date and the trend indication is extended horizontally.

On Fri. 5. May, a further delay of one day to Buy all Material is expected and so the trend indication goes one day up. It is hoped to keep the planned date for Construction Finished. Its trend indication is extended horizontally.

On Tue. 9. May, the milestone Buy all Material is finally reached. But the estimation of the planned date for Construction Finished was too optimistic. The date has to be shifted to Tue. 16. May. The trend indication goes one day upwards, i.e. later.

On Tue.16. May, the project is finished with milestone Construction Finished. The last estimation on Tue. 9. was realistic, which is indicated by the last horizontal segment of the trend line.

The advantages of Milestone Trend Analysis are:

• The method can be applied with minimum effort. There is nearly no learning curve.

• It is clearly visible which estimations of the past have been realistic, and which have been too optimistic.

• Corrective actions can be taken as soon as an overrun is detected, and again it is easily visible, if they succeeded.
2 Working with the Web-Application

2.1 Elements of the User Interface

The user interface consists of (from top to bottom):

The **Message Area** with four fields:

- On the left two lines:
  - Version of *Milestone Trend Analysis* and Licence information.
  - Name and working state of your current project.

- On the right two lines:
  - Consecutively numbered messages.

The **Chart**:

- On the top: Horizontal calendar with *Reporting Dates*.
- On the left: Vertical calendar with *Planning Dates*.
- Center area: Current project with milestones and trend indicators.

The **Button Area** with eight main buttons:

- Logout: Exit the application
- New Project: Delete the current project
- Projects...: Open the *Your Projects* dialog
- Print as PDF...: Open the *Print as PDF* dialog
- Add Milestone: Creates a new milestone
- Undo: Reverts the last create, move, or delete operation
- Redo: Repeats the last reverted operation
- Administration...: Open the *Administration* dialog

Several pop-up **Dialogs** for lists, edit fields, or warnings:

You can change size and position of all dialogs. The latest change is always saved, and the dialog will be re-opened there.
2.2 Projects

All your projects are stored in a database on server side. A project is identified by its name which has to be unique. Your annual subscription allows to manage up to 12 separate projects. Main button Projects... displays a list of your projects in the database. Clicking in the column titles changes the sort order of the list. Fields in columns whose titles are written italic are editable.

Selecting a project in the list and clicking Load retrieves the project from the server and displays it in the chart. This project is now your current project. Its name and working state is displayed in the message area. The current project is always the project which is displayed in the chart. It may be empty, or it may contain milestones.

2.2.1 Shifting and Scaling of Calendars

By clicking and dragging the center area of the chart you can shift the reporting and the planning calendar at the same time.

Clicking and dragging (left-right) the horizontal calendar on the top shifts the reporting dates only, and dragging (up-down) the vertical calendar on the left shifts the planning dates only.

Pressing the key Shift ↑ while dragging up-down allows to scale both calendars.

2.2.2 New Project

With main button New Project you can delete the current project. All milestones are deleted and the project name is set to (untitled). If the current project is not saved in the database a confirmation dialog is displayed before the current project is really deleted. Your projects in the database are not affected when you delete the current project. NOTE: Undo/Redo is not possible.

2.2.3 Load

With main button Projects... you open the list dialog Your Projects. Click the line of the project to be loaded and then click button Load. The project from the database is now your current project and can be edited.

2.2.4 Save

With main button Projects... you open the list dialog Your Projects. Edit the name (in the yellow edit field) of the project to be saved or select a name by clicking in the list. Your current project is saved in the database with this name. The length of the name can be up to 40 characters.
2.2.5 Delete
With main button Projects... you open the list dialog Your Projects. Select the project to be deleted by clicking in the list and then click button Delete... After confirmation in dialog Delete Project the project is finally deleted in your database.
NOTE: Undo/Redo is not possible.

2.2.6 Rename
With main button Projects... you open the list dialog Your Projects. With button Rename or by double-clicking in a field of column Projects you start to edit the project name. The length of the name can be up to 40 characters.

When you press the key Enter or by mouse click in any other field of the list, the editing is finished and the project on server side is renamed.
With key Esc you can undo the editing and the previous name is displayed again.

2.2.7 Add Notes
With main button Projects... you open the list dialog Your Projects. You can assign two notes (comments) with up to 20 characters to each project. Editing is started by double-click in the field.

When you press the key Enter or by mouse click in any other field of the list, the editing is finished and the field is changed on server side.
With key Esc you can undo the editing and the previous note is displayed again.

2.2.8 Print as PDF
With main button Print as PDF... you open the dialog Print as PDF which allows to print the current project as PDF document.

Scale and position of both calendars in the PDF document will be the same as in the chart of the current project. Orientation (Portrait or Landscape) and size (A4: 210x297 mm ... A0: 841x1189 mm) can be selected in the dialog.

With button Print the PDF document is created on server side, transferred back to the browser, and then displayed either In New Browser Tab or In Acrobat Reader.

2.3 Milestones
2.3.1 Create
You create a new milestone by pressing the main button Add Milestone. A new milestone is created with a single initial trend indicator and the initial title 'Milestone_<x>', where <x> is the current number of milestones plus 1.
Undo/Redo is possible.
The reporting date of the new trend indicator is the current date and the planning date is the current date plus \(<n>\) days, where \(<n>\) is the current number of milestones.

### 2.3.2 Edit the Title

Move the mouse pointer over the title. The title is selected. Then click the white selection field.

Editing starts by displaying a yellow background and a red text cursor. Now you edit the title with the usual keys.

Editing is finished either with key `Enter` which assigns the new title or with key `Esc` which resets the title to its previous text. Clicking in the chart area or any other element also assigns the new title.

**NOTE:** Undo/Redo is not possible.

### 2.3.3 Move

You can either move the title of the milestone relativ to its first trend indicator or move the first trend indicator together with the connected milestone title.

Move the mouse pointer over the title. The title is selected. Then click the white selection field and drag the title to a new position. Undo/Redo is possible.

Move the mouse pointer over the first trend indicator. The trend indicator is selected. Then click the white selection field and drag the trend indicator to a new position. Undo/Redo is possible.

### 2.3.4 Delete

Move the mouse pointer over the title. The title is selected. Then click the red 'minus' field. The milestone and all related trend indicators are deleted.

Undo/Redo is possible.

### 2.4 Trend Indicators

To each milestone belongs one or more trend indicators which are initially drawn as cross symbol. The trend indicators are connected and make up the trend line.

#### 2.4.1 Create

Move the mouse pointer over any trend indicator of a milestone. The trend indicator is selected. Then click the green 'plus' field. The trend line is extended by a new trend indicator. Undo/Redo is possible.
2.4.2 Move
Move the mouse pointer over the trend indicator. The trend indicator is selected. Then click the white selection field and drag the trend indicator to a new position. Undo/Redo is possible.

2.4.3 Change Symbols
Move the mouse pointer over the trend indicator. The trend indicator is selected. Then click the white selection field. The next symbol (of 7 different symbols) is used to display all trend indicators of the respective milestone. Undo/Redo is possible.

2.4.4 Delete
Move the mouse pointer over the trend indicator. The trend indicator is selected. Then click the red 'minus' field. The trend indicator is deleted. Undo/Redo is possible.
NOTE: The first trend indicator of a milestone cannot be deleted separately. It is deleted only when the milestone is deleted.

3 Administration
With main button Administration... the Administration dialog is opened.

3.1 Change Password
You should change the initial password, which you have received via e-mail, immediately. Later you can change your password at any time. The length of the password must be between 4 and 16 characters. It is your own responsibility to select a non-trivial password.

3.2 Set Secret Date
If you have forgotten your password, you can request a new password. In this case, you have to enter a 'secret' date, and then a new password will be sent to your e-mail address.
You should enter this secret date immediately at the same time when you change your initial password. Also your e-mail address should always be up-to-date.

NOTE: You must never forget your Licence-ID because there is no possibility to retain access to your projects without your Licence-ID.

3.3 Change e-mail Address
You can change your e-mail address at any time. It is your own responsibility to enter the correct e-mail address and to keep it up-to-date.
3.4 Invoices

For each year of your subscription an invoice (for confirmation only) is created and can be printed as PDF document. You have to fill out the invoice address by yourself, because this address is not known to our accounting, and also it may change, when you have moved.

NOTE: When you Print an invoice, the one and only latest Invoice Address is used and assigned to this invoice. This means: After printing an invoice, the address of this invoice is frozen. Changes of your invoice address are possible, but are applied only to invoices which are printed later.

3.4.1 Your Invoice Address

When you click this button, the dialog Your Invoice Address is opened. Here you can edit and save your address which will be used afterwards when you print an invoice.

NOTE: You should fill out and save your correct invoice address before you print any invoice.

3.4.2 Your Invoices

When you click this button, a list with all your invoices is opened.

The column Address contains 'not filled out', if you have not yet edited and saved your invoice address.

It contains 'can be modified' when the respective invoice has not yet been printed. With button Check Address you can create a PDF document which shows your invoice address.

It contains 'frozen on <date>' when your current invoice address is assigned to this invoice and thus cannot be modified for this invoice.

The column Note allows to add a comment with up to 20 characters to this invoice. The note is only displayed in the list, it does not appear in the invoice.

Editing is started by double-click in the field.
When you press the key Enter or by mouse click in any other field of the list, the editing is finished and the field is changed on server side.
With key Esc you can undo the editing and the previous note is displayed again.