

Midius ProjectPlanner

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**User's Manual for Midius ProjectPlanner
version 1.0**

1.0 Introduction

Midius Project Planner is a tool for creating Gantt charts. It is suitable for small and mediumsized projects.

With the Midius ProjectPlanner you can...

- create Gantt charts
- customize default base week work hours
- customize team members' work hours
- customize default and team members calendar to adapt to local holidays and team members vacations.
- track slips in the time schedule

Example of a Gantt chart is shown below.

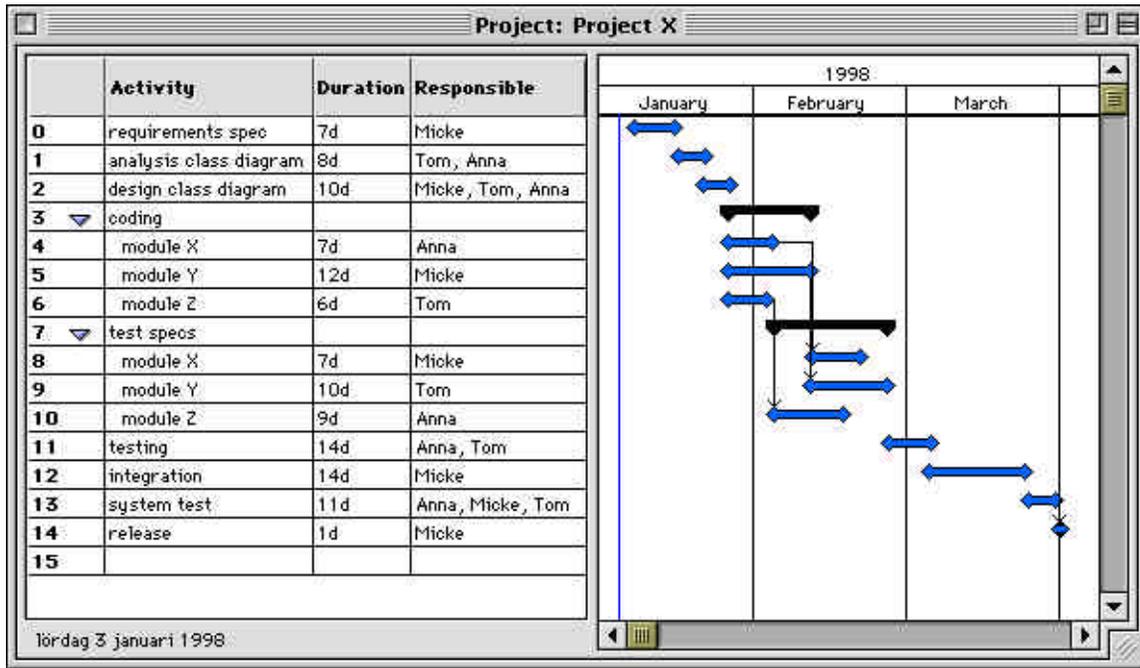


FIGURE 1. A Gantt chart

2.0 Acknowledgements and References

- The ProjectPlanner is written in C++ and some plain old C. No class library is used. It was modeled in ObjectPlant (<http://www.softsys.se/ObjectPlant/>) which also was used to generate code.
- The floating window is created with the Infinity Windoid 2.6 by Troy Gaul and some modified code from Apple's Develop issue 15.
- The menu shortcut extensions (e.g. shift-command-C) are created with Mercutio MDEF by Ramon M. Felciano.
(Mercutio MDEF from Digital Alchemy Copyright " Ramon M. Felciano 1992-1995, All Rights Reserved)
- The splash-screen picture is rendered with Persistence of Vision.
- The application icon is based on an icon created by The Iconfactory.
<http://www.iconfactory.com>
- Information about ProjectPlanner (known bugs, new releases etc) can be found at:

<http://www.softsys.se/ProjectPlanner/>

3.0 Typographical conventions

Menu choices are written in helvetica, e.g. Schedule->Calendar...

4.0 Registration

The ProjectPlanner is distributed as shareware. You are permitted to use it on a trial basis for up to 30 days. If you wish to continue using the product beyond that period, you are expected to pay a registration fee to obtain a license to use Project-Planner.

Entering the license code into the program will remove shareware popups and "Not registered" texts in printouts.

To register use the Register program to create a register form which then shall be sent to Kagi Shareware using mail, email or fax.

The price for a single license is 35 USD, there are also site and world licenses available for 600 USD resp. 2500 USD.

<http://www.kagi.com>

Email: sales@kagi.com (1 to 3 day processing time delay)

FAX: +1 510 652 6589 (4 to 8 day processing time delay)

Postal address: (4 to 8 day delay plus transit time to Kagi)

Kagi

1442-A Walnut Street #392-MU

Berkeley, California, 94709-1405

USA

5.0 System Requirements

The ProjectPlanner requires:

- 68020 or better (including any PowerPC processor)
- Colour display is preferred, but not required
- 1.5 Mb RAM
- 1 Mb disk space
- MacOS 7.1 or later

6.0 Preparing a time plan

6.1 Assumptions

The ProjectPlanner assumes the following:

- that a typical workdays starts at 8 am and ends at 5 pm
- that a typical workday includes one hour lunch during 12:00 - 1:00 pm

These assumptions does not normally create any problems, basically because most people do normally work between 8 and 5 and have a one-hour lunch during the day, but also because it only influences when doing time charts with a resolution in hours. Normally a time plan's smallest unit is a complete work-day.

6.2 What kind of timeplan do you need?

You can either go for a detailed plan including all activities, listing all project participants, their work schedule and so on. Doing this will give a more accurate time plan which will also be easier to use when doing follow-ups on a project.

The other alternative is to make a rough timeplan, just estimating the total cost for, e.g. s/w development, and not including any details about the personnel, holidays etc.

If you decide to make a rough time plan you can skip the first N sections and continue directly at section 6.8

6.3 Preparing the base week information

If you want the time plan to be as exact as possible, you should define the default base week used by most of the members in the project. When creating a new time plan, the default base week will be initialized by setting all weekdays (monday through friday) to consist of 8 workhours each. Saturday and sunday are set to zero workhours.

Change the default base week of a document by selecting **Schedule->Base Week...** This will bring up the Base Week dialog window.



FIGURE 2.

Base Week dialog

In this dialog it is possible to, for example, specify that you only work 7 hours on fridays, or that you normally work nine hours on weekdays.

6.4 Preparing the default calendar

You should also modify the default calendar to suit your “public holiday scheme”. When creating a new time chart, the default calendar will be initialize by setting all days equal to the defined base week.

Change the default calendar by selecting Schedule->Calendar.... This will bring up a calendar dialog window.

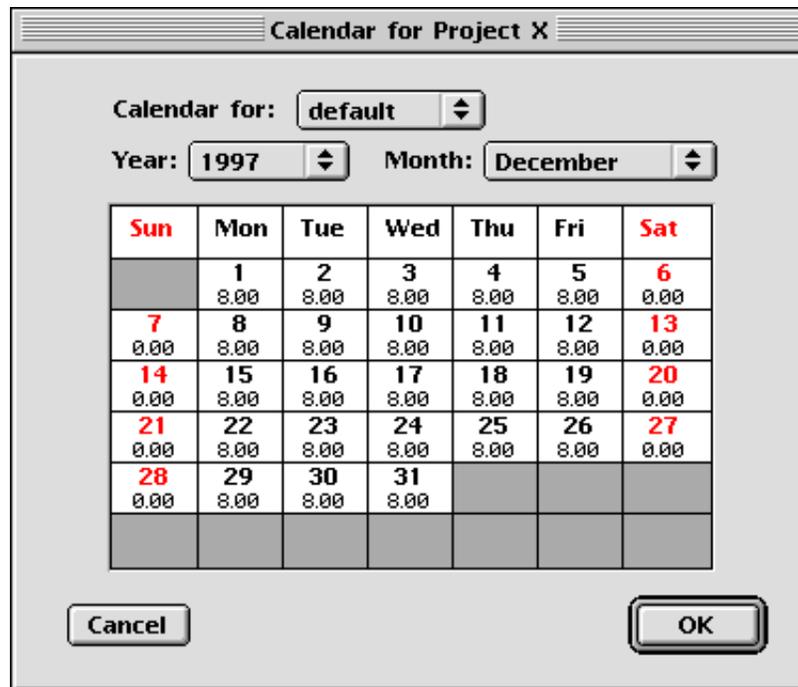


FIGURE 3. Calendar dialog

In this dialog you can specify the exceptions from the base week, e.g. you can set christmas day to be free, i.e. 0 workhours. This has to be done for every month and year that the project is running. (Once you have done it, the default calendar can be used for other time charts too using the File->Import calendar... command.)

6.5 Edit team members

If the time plan should include the name of the people actually performing a certain activity, it is best to enter all team members using the Edit Team Member dialog which you can bring up by selecting Schedule->Edit team member....



FIGURE 4.

Edit team member dialog

In a new project, the team member list will be empty. Add new team members by clicking the New... button. Then the “New team member dialog” will be displayed.

The edit and delete buttons will be enabled when any team member in the list is selected.



FIGURE 5.

New team member dialog (“kr” is the currency unit used in Sweden)

Just type the name of the team member (or some short form, initials for example) and the cost per hour (optional) and continue until all team members have been entered. Then click the Ready button.

6.6 Adjust base week for team members

If any of the team members work more or less than specified in the base week dialog, you can specify a customized base week for that member. This can be very useful when for example someone is working parttime on a project.

To specify a customized base week for a team member bring up the Base Week dialog again. Select the team member from the popup menu and then adjust the base week as appropriate.

6.7 Adjust calendar for team members

Each team member can have a customized calendar. By customizing a team member's calendar you can enter information such as the team member's vacation.

To specify a customized calendar for a team member bring up the Calendar dialog again. Select the team member from the popup menu and then adjust the calendar as appropriate. For example when the team member is on vacation, his/hers workhours should be set to zero.

In the figure below, team member Anna is on vacation starting on Saturday 10:th of January and will be back on work Wednesday 21:st.

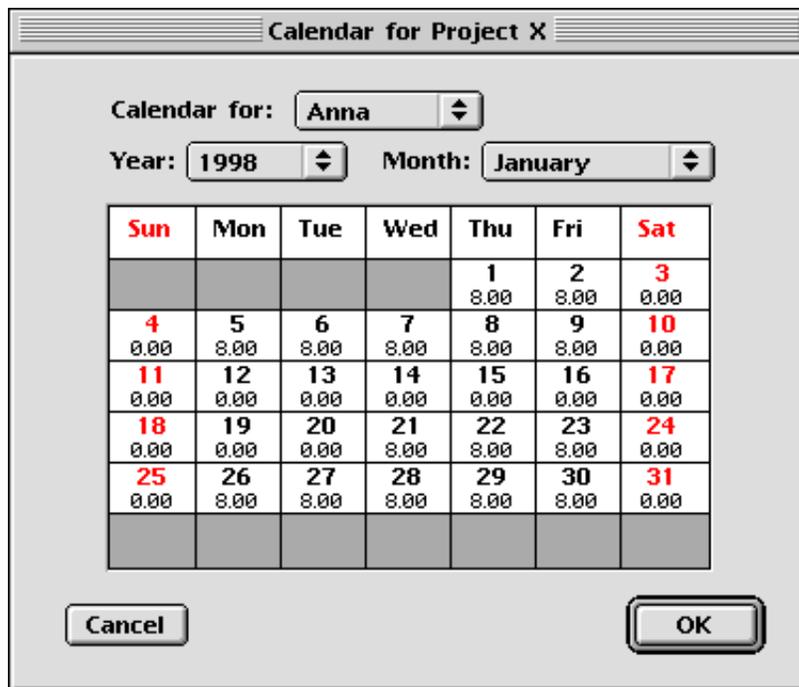


FIGURE 6.

Customized calendar

6.8 Setting up the time scale

The next step would be to select the most appropriate time scale to be used for the project's time plan. For most projects, "weeks" would be the most suitable. You can then specify activities to start on a specific day, and each activity must be at least one day long. For very long projects, "months" could be better since the time chart could then perhaps fit within a window without having to scroll back and forth to see the complete time chart.



FIGURE 7.

Time Scale dialog

In the Time Scale dialog you can also select if the duration of an activity shall be displayed in days only or weeks and days, e.g. an activity has a duration of 7 days. This could either be displayed as 7d (7 days) or 1w 2d (1 week and 2 days).

6.9 Setting the start date of the project

When creating a new project in ProjectPlanner, it will automatically set the start date of the project. Since the default time scale is weeks, it will set the start date to the last sunday. If this doesn't suit your needs, you can manually set the start date of the project by using `Schedule->Set start date...` menu command. This will bring up a dialog where you shall enter the start date. If you already have some activities in the project, you cannot set the start date to be later than the earliest startdate of any of the activities.

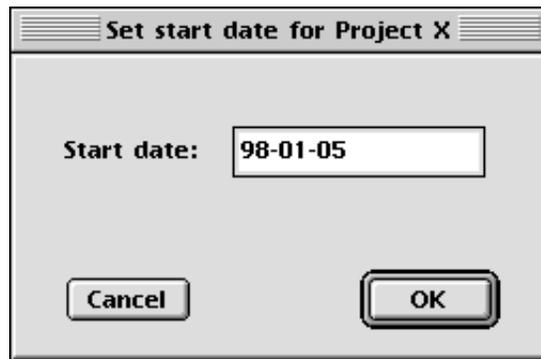


FIGURE 8. Set start date dialog

7.0 Activities and Summaries

With the ProjectPlanner you can enter all activities in project. An activity can either be SW development (high level of abstraction) or performing test of module Z (low level of abstraction). Before starting entering activities into the project time plan, you should decide what level of abstraction that is necessary for your particular project.

A set of activities can be displayed as a single summary activity, where the start and end dates of the summary equals the first startdate of any included activity and the enddate equals the last enddate of any included activity.

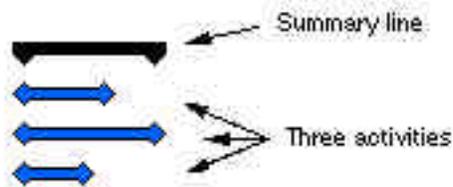


FIGURE 9. Three activities summarized

7.1 Work

An activity always requires a certain amount of work. The shortest possible required work for an activity in ProjectPlanner is one day. Work is always expressed in weeks and days, where a day equals 8 hours and a week equals 5 days. When estimating the required work for an activity always measure it in work-days, i.e. 8 hour increments, or work-weeks, 5-day increments. Even if your base week says that you work 7 days a week, the workweek equals only five duration days.

An activity always has a startdate and a duration. The stopdate may vary depending on the number of assigned team members, the calendar and team members' calendars and baseweeks.

Please note that the work is *not* always equal to the number of days between the start date and the end date but depends on the number of people assigned to the activity (listed in the responsible column).

7.2 Duration

The duration always equals the number of days between the start date and the end date but does only include work days as defined by the default calendar.

7.3 Entering an activity

There are two ways of entering the startdate and duration/work of an activity, using the mouse or using the keyboard. The name of the activity is always entered through the keyboard by positioning the textcursor inside the "Activity" column of the table of activities.

An activity can be entered using the mouse (select the activity tool) by clicking in the right area of the window and holding the mouse button down while dragging the mouse to get the appropriate duration. The point where you click at first will be the startdate of the activity and to create an activity you must release the button while pointing to a point to the right of the startdate. If you release the button when the mouse is pointing to the left of the startdate no activity will be created.

The other way of entering an activity is by positioning the textcursor in the "Duration" column in the table of activities, enter a duration, e.g. 12d, then move the textcursor to the next column in the table which should be the start date of the activity. There you shall enter the start date and time in the format that is currently selected (in the Date and Time control panel), e.g. 98-01-13 08.00

When moving the textcursor from the start date column (or just pressing return) the activity line will show up in the right area of the window.

7.4 Making a Summary

If you want to make a summary of a group of activities, for example four activities, there are two ways to do this. Either you can move the textcursor to the very first row of these four activities, and position the textcursor at the very first position of the Activity column. Then to make the first activity part of a summary, press the TAB-key. A new summary row will automatically be inserted right before the current activity row and the current activity row's activity name will be indented. Then continue with the following row. Put the textcursor at the very first position in the Activity column and press the TAB-key. This time no new summary-row will be created since the activity-row right above already is a part of a summary group. Finally do the same for the last two rows.

Another way to create a summary for the four activities is to select the four activities by shift-clicking in the leftmost column and then use the **Edit->Summarize** menu command.

If you have an activity which you now want to convert to a summary and split it into several activities, you can select the activity and then use the **Edit->Convert to summary** command. This will turn the selected row into a summary and a new activity will be added below the summary. The new activity will be a copy of the original activity, having the same name and same start- and end-dates.

The last of activities in a summary can be converted back to a “main”-activity by positioning the textcursor at the Activity’s first character position and then using the backspace key.

8.0 Dependencies

An activity can be dependent upon another activity, i.e. the first activity must be completed before the next activity can start. This kind of information can be added to the diagram using the “Dependency tool”. Select the dependency tool, click in the first activity’s end date “diamond”, hold the mouse button down while dragging the mouse cursor until you point it to the start date diamond of the depending activity. When you have the cursor correctly positioned, you will see a black circle round the start date diamond indicating that you can release the mouse button.

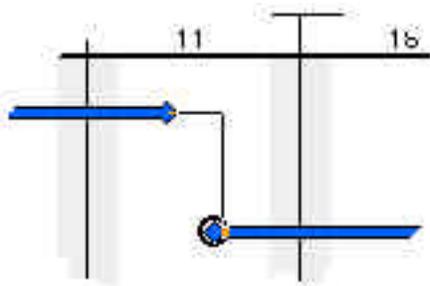


FIGURE 10.

How the dependency tool indicates when the mouse is positioned over an activity’s startpoint

9.0 Tracking time slips

To be able to track slips in the time plan you can save the original start and end date for one or several activities. If you then change the start or end date of an activity (with a saved original start and end date) the activity will be drawn with two bars one for the original start and end date and one bar for the current start and end date.

To set the original date for all activities just select **Schedule->Set Original Dates...**

If you have one or several activities selected, you can choose to set the original dates for the selected activities only.

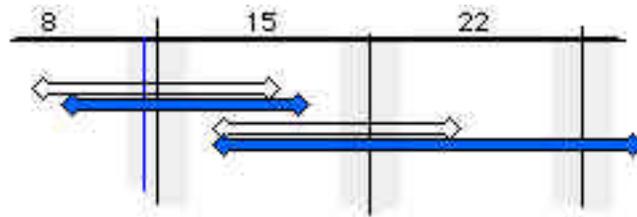
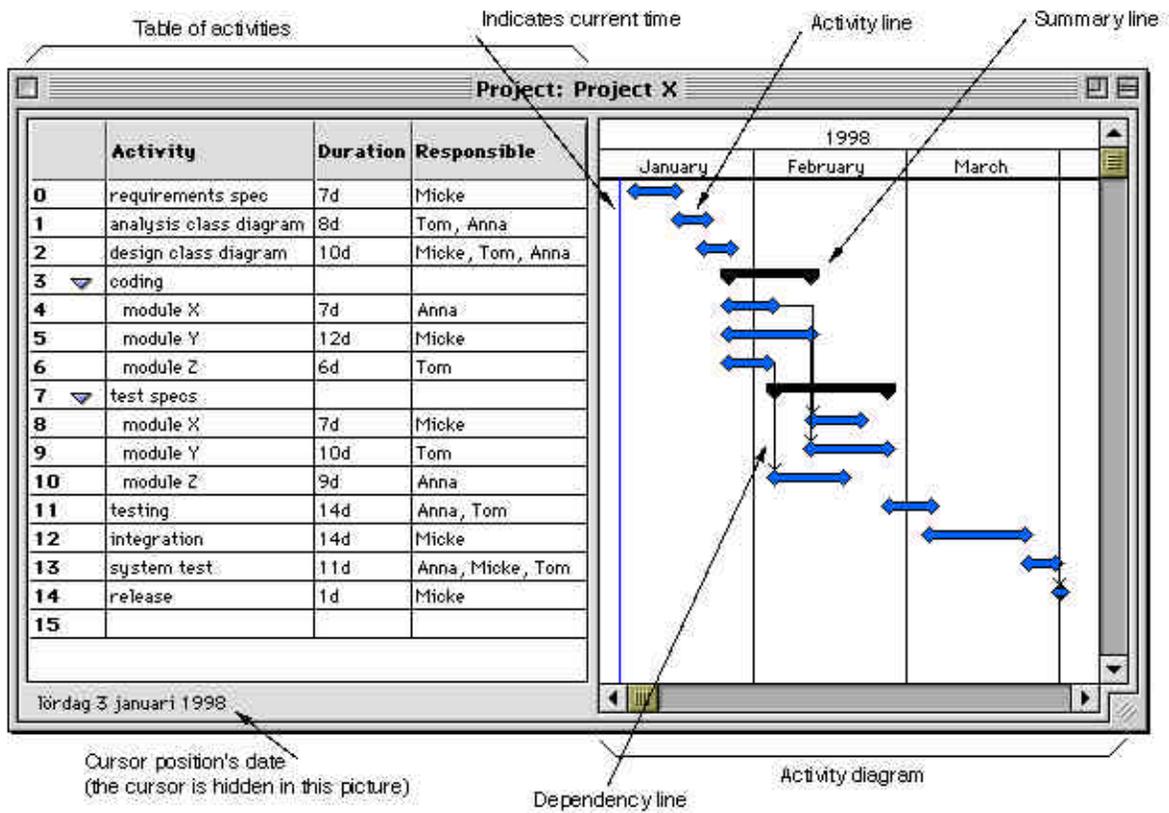


FIGURE 11. Two activities with original dates and current dates shown

10.0 Reference Manual

10.1 Terminology



10.2 Toolbox palette

The toolbox palette has four different tools:

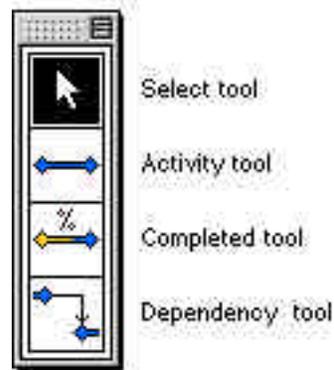


FIGURE 12.

The toolbox palette

10.2.1 Select tool

The Select tool is used mainly for three things:

- Moving an activity line in the activity diagram
- Resizing an activity in the activity diagram
- Selecting a dependency link to be able to delete it

You do not need to select the Select tool to position the textcursor in the table of activities or to select a row in the table of activities. Whenever you move the mouse-cursor over onto the table of activities it changes into a textcursor. And when you position the mouse cursor over the first column of the table, it will change to a select cursor automatically, regardless of which tool that is currently selected.

The select tool can also be used in the activity diagram to enable and disable display of the activity name to the left of the activity line. By option-clicking on an activity line, you will toggle the enable/disable of the name.

Several consecutive rows in the table can be selected by shift-clicking. Note that some menu items are only enabled under certain combinations of selected rows.

The Edit->Convert to summary item is enabled only when a single row (that isn't either a summary row or an activity row part of a summary) is selected.

The Edit->Summarize item is enabled only when more than one row is selected. None of the rows must be a summary row or an activity row part of a summary.

10.2.2 Activity tool

The Activity tool can be used in the activity diagram to add new activities.

10.2.3 Completed tool

The Completed tool can be used in the activity diagram to mark how much of an activity that has been completed. The completed part of an activity will be drawn in yellow while the remaining part of a task is painted in blue. The blue and yellow col-

ours used for remaining and completed activity can be adjusted. In the Edit->Preferences... dialog you can set the two colours individually.

You can also enter the Completed percentage by entering a percentage value in the "Completed" column.

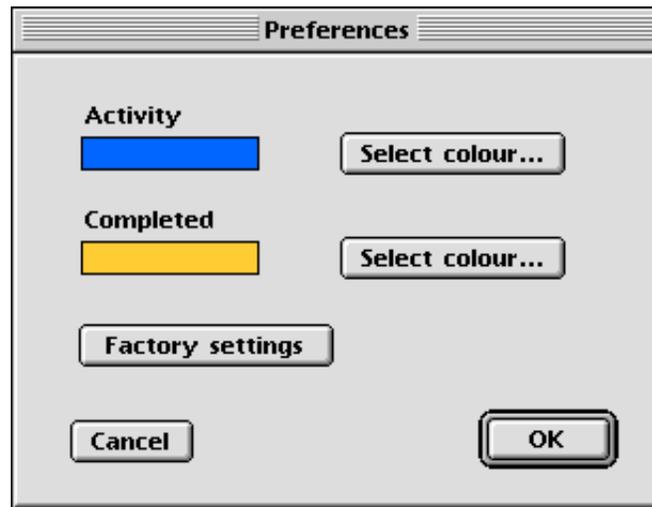


FIGURE 13.

The preferences dialog

To mark a part of an activity as completed select the Completed tool and position the mouse cursor over the activity line that is to be marked. Click the mouse when you have positioned it and the part of the activity to the left of the mouse cursor will be yellow (indicating completed part) and the right part of the activity stays blue.

10.2.4 Dependency tool

The dependency tool shall be used to create a dependency link between two activities.

Position the mousecursor over the endpoint of an activity, press the mousebutton and while holding it down, drag the mouse to position the mousecursor over the startpoint of the dependent activity then release the mousebutton.

To remove a dependency line, select it using the select tool and then use Edit->Clear.

When a dependency line goes between two adjacent activities and the dependency line consist of a single vertical line it is very hard to be able to select the dependency line (actually it is impossible!).

To be able to select the line, move an activity's end or startpoint making the dependency line change to consist of both a vertical and a horizontal line. Then the vertical line can be selected.

10.3 Time Schedule Window

The time schedule window is divided into two panes, the lefthand pane holding the table of activities and the righthand pane holding the activity diagram. The bar separating the two panes can be adjusted to change the panes sizes. When moving the mousecursor over the bar, the mousecursor changes into another type of cursor indicating that the bar can be moved. Then press the mouse button and drag the bar to the left or the right.

10.3.1 Table of activities

The table of activities is a table where each row is related to an activity (unless the row is empty of course). An activity has a name (the Activity column) a duration, a start date, an end date, a work, an original start date, an original end date and a list of "doers" (the Responsible column). Some of these columns may be hidden if you wish. If you bring up the Setup columns dialog by selecting **Schedule->Columns...** you can choose which columns to show. The first column showing the rownumbers and the Activity column can not be hidden.

10.3.1.1 Rearranging activity rows

You can rearrange the order of the rows in the table of activities by using drag-and-drop. Click in the leftmost column and while holding the mouse button down, drag the row to where you want to place it. A blinking line will indicate where the row will be inserted.

If you try to drag a row which is a part of a summary, you can only drop it within the own summary group. If you drag the summary row, the complete group of activities will be dragged.

10.3.1.2 Deleting an activity

You can delete an activity (and the corresponding row) by selecting the row(s) (click in the row's leftmost column) and then use **Edit->Clear** to delete the row(s).

10.3.1.3 Inserting a new activity row

If you want to insert a new activity row, you must select a row where the new row shall be inserted. If you select for example row 4, and then do **Edit->Insert row** and new empty row will be inserted at row 3 and the rows below will be pushed downwards.

If the textcursor is positioned on the last row and the return key is pressed a new row will be appended to the tablebut the text cursor will not move to the new row.

10.3.1.4 Rearranging columns

The columns can be adapted to suit your taste. First of all, the seven last columns, Duration, Work, Start Date, End Date, Original Start Date, Original End Date and Responsible can be included or excluded from the Gantt chart using the **Schedule->Columns...** dialog.

Furthermore the width of each column can be adjusted. By positioning the mousecursor above a border line between two columns, the mouse cursor changes and you can move the columnborder by clicking the mouse and then dragging the line in either direction. Release the mouse button when you have positioned the line at a suitable place.

The width of a column can be adjusted to fit the widest text in the column by doubleclicking on the header of the column.

The width of the leftmost column (activity number) has a minimum width so that the disclosure triangles used by summary rows, always fit within the column.



FIGURE 14.

Moving a column border

10.3.1.5 Moving around in the table

You can use the arrow keys to move the textcursor within the table. Up- and down-arrow keys will move to the adjacent row if the current column is editable in the row you're moving to, otherwise it will move to the next editable row. The left- and right-arrow keys can be used to move within a table cell but also to move between table cells.

The TAB-key can be used to step through the cells from left to the right, and from top to bottom. But the TAB-key has another function too. If the textcursor is positioned at the very beginning of the Activity column and the TAB-key is pressed, the current activity row will become a member of a summary-group.

If the row above is a common activity-row that is not a member of a summary group, a new summary row will automatically be inserted before the activity row. To indicate that the current row is a part of a summary row, the Activity text will be indented.

If the row above is an activity row that is part of a summary group, the current activity row will also become a member of that summary group.

The return key can be used to move to the beginning of the next row in the table.

10.3.1.6 Validation of input text

When you have entered a date or a duration, the format of the text will be checked. This validation will be done when leaving the current table cell. The validation may result in an error popup if the format of the date or duration could not be understood.

10.3.1.7 Computing the end date

When a startdate and a duration has been entered and validated, an end date will automatically be computed. If the Responsible column is empty, the program will assume that there is only one person (using the default calendar and default base week) that will perform the activity.

If there is a name of a team member in the Responsible column, that team member's calendar and base week will be used.

If there is two or more names separated with a comma character ',' each name will be assumed to correspond to a person working with the activity. There is no checks of the validity of the names. You may enter team members name, or any other name, e.g. consultant1.

The default calendar and base week will be used for all persons listed in the Responsible column that is not a direct match (case sensitive) to any of the team members.

If you assign a person to several activities running in parallel, the person is still assumed to work 100 % on all activities unless you have specified the percentage for that person's participation in an activity (see below).

10.3.1.8 Entering the responsible person(s)

In the Responsible column, the names of the team members responsible for that activity shall be listed. The easiest way to accomplish this is to use the popupmenu with all the team members that is displayed when clicking and holding the mouse cursor in the Responsible text field.



FIGURE 15.

Team member popupmenu

By selecting a name from the popupmenu, that name will be listed in the Responsible column. Note that it will erase any previous entry in the text field. If you option-click and hold, and then select a teammember from the popup menu, that team member's name will be added to the text field.

If only entering the name of a responsible person, that person is assumed to work 100 % on the activity. If a person only works, for example 50 % with a task, you can specify this by adding the percentage value after that person's name:

Anna 50, Micke .7, Tom 0.9

would mean that Anna works 50 %, Micke works 70 % and Tom works 90 %.

10.3.2 Activity diagram

10.3.2.1 Adjusting the activity lines

When the select tool is active, you can adjust the activity lines (not summary lines) in the right hand pane. If you want to move an activity line you can simply point the mousecursor over the activity line (anywhere except at the end), press the button and then drag the activity to where you want it located. You cannot move it to a position where the startdate would be a day which the default calendar specifies is a non-working day.

If you want to adjust the duration of an activity using the mouse you shall point to the endpoint of the activity line, press the button and drag the mouse until the desired duration is selected. If you release the mouse button when pointing to a date prior to the start date, no change of the duration will take place.

10.4 Export / Import

10.4.1 Exporting the activity table

The data in the activity table can be exported to a tab-delimited file using the File->Export data... command. The exported file be an ordinary textfile, with one row for each row in the activity table. Each row will hold the content of all columns except the first one.

The complete Gantt chart can be exported as a picture in either PICT or JPEG format using the File->Export picture... command.

10.4.2 Importing a calendar

If you once have prepared a calendar with all the public holidays for a year or two, you don't have to redo it for every project document you create. If you have an old project document containing a valid calendar you can use the File->Import Calendar... command to import just the calendar from the old document into the new document.

10.5 Printing

10.5.1 Print Options

The Print Options (File->Print Options...) can be used to specify the appearance of the printer output. Each printed page can have a header showing the column headers and the date header. If this option is not selected, only the "top row" of pages printed will have this information. This last alternative is suitable if you are going to "merge" several printed pages into one large diagram.

Each page can also have a footer including the project name, legend, print date and an additional free text area. The free text area can hold at most 255 characters and will be printed at the very bottom of the footer. You can also specify if the footer shall be ouput on every printed page or only the "bottom row pages" (in the case of a multipage printout).

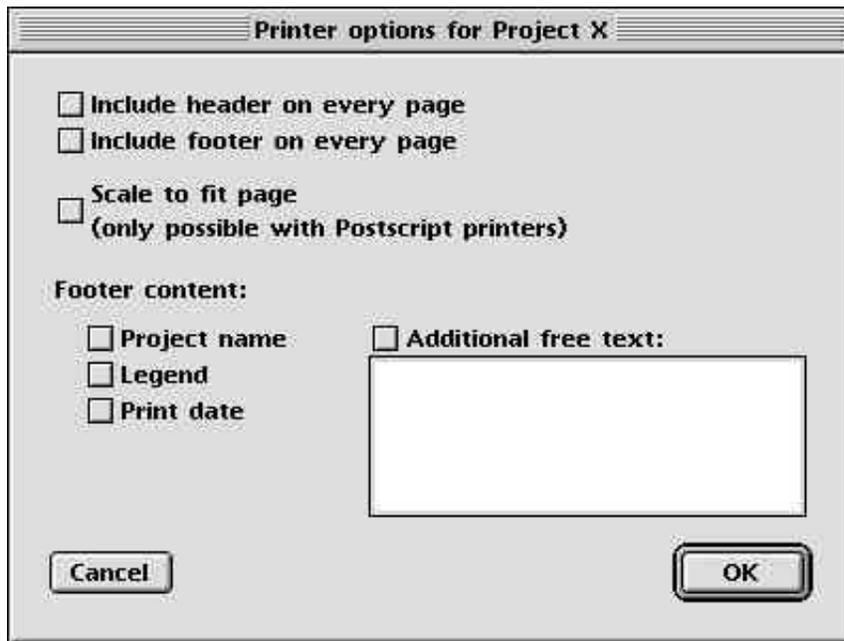


FIGURE 16.

Printer Options dialog

10.5.2 Printing Preview

The Printer Preview (File->Print Preview...) can be used to find out if the currently selected orientation (portrait or landscape) and the selected scale is suitable for the document to be printed.

In the Print Preview dialog, a paper sheet is represented by a red framed rectangle and the area needed by the time schedule is drawn in gray. Please note that the orientation of the paper is not shown in this dialog. The length of the sides of the red rectangle are not in proportion to the actual size.

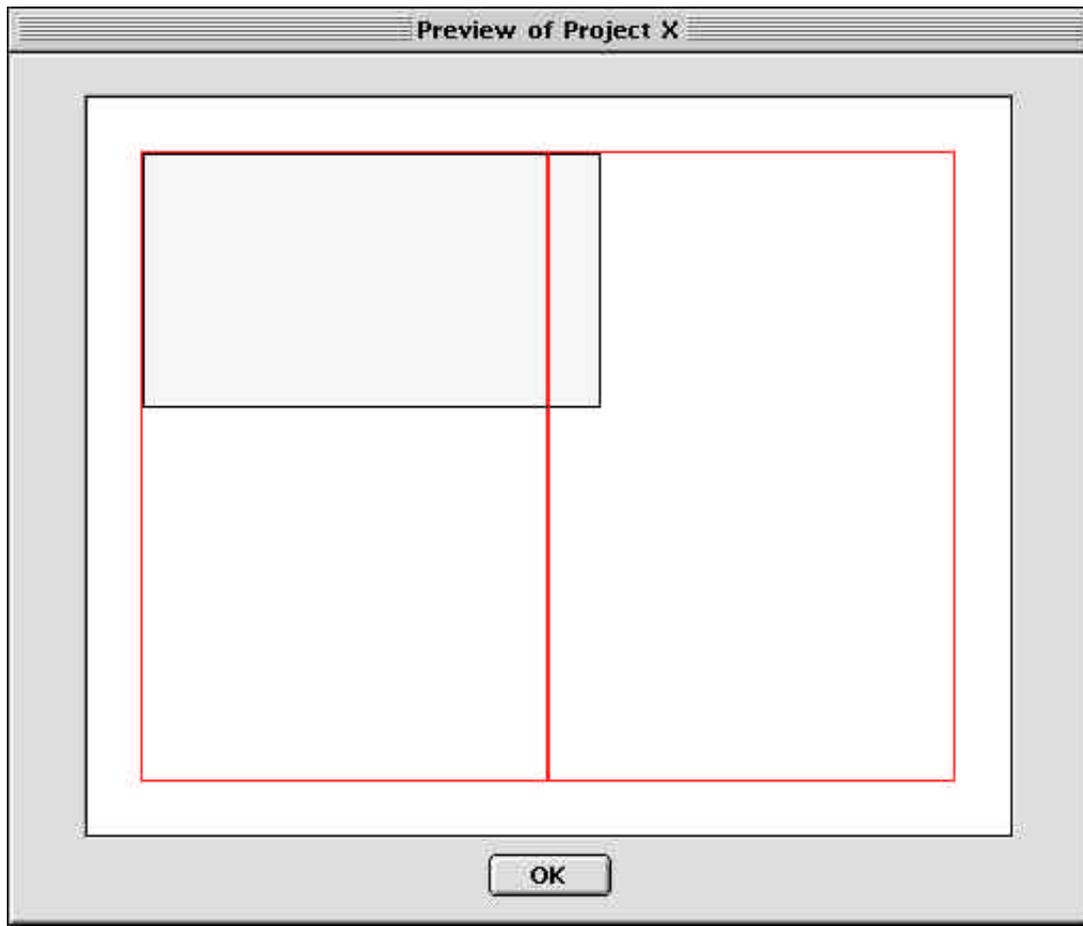


FIGURE 17. Print Preview showing a time schedule occupying two sheets of paper (but could possibly fit into one sheet if the orientation of the paper is changed)