

Help file produced by

**HELLLP!**

[www.guysoftware.com/helllp.html](http://www.guysoftware.com/helllp.html)  
(If this topic is presented in file testing the  
author should use the HELLLP! **I**  
button to define a contents topic)

yesyesyesyesMinuteMan31MinuteManyesyes15/04/01

## Welcome

Thank you for evaluating MinuteMan Project Management Software.

The Table of Contents below list the major topics covered in the Help File. If you have further questions, please send email to [info@minuteman-systems.com](mailto:info@minuteman-systems.com).

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Help file produced by **HELLLP!** v3.1b , a product of Guy Software, on 04/15/01 for Robert Kochem.

The above table of contents will be automatically completed and will also provide an excellent cross-reference for context strings and topic titles. You may leave it as your main table of contents for your help file, or you may create your own and cause it to be displayed instead by using the I button on the toolbar. This page will not be displayed as a topic. It is given a context string of `__` , but this is not presented for jump selection.

HINT: If you do not wish some of your topics to appear in the table of contents as displayed to your users (you may want them ONLY as PopUps), move the lines with their titles and contexts to below this point. If you do this remember to move the whole line, not part. As an alternative, you may wish to set up your own table of contents, see Help under The Structure of a Help File.

Do not delete any codes in the area above the Table of Contents title, they are used internally by HELLLP!

## 1.0 Introduction

1.1 Registration

1.2 Support

MinuteMan Project Management Software provides the basic functions needed to manage a project successfully;

**Scheduling:** via Outline, PERT, and TimeLine Diagrams.

**Budgeting and Resource Tracking:** Labor/headcount and fixed expenditures may be assigned and tracked.

**Progress Reporting:** A number of pre-formatted and customized report styles are available.

While this program has comprehensive features, a primary goal to be easy to use. To achieve this, the basic scheduling functions are available as soon as you launch the program, while the more comprehensive functions such as budgeting can also be found when you need them. Seldom used and complex functions are avoided.

MinuteMan employs a unique “row-and-column” approach to scheduling; the familiar functions of adding and deleting rows or columns may be used to create and edit schedules while maintaining orderly relationships between tasks.

## 1.1 Registration

### Terms

This is an evaluation copy of MinuteMan Project Management Software. If you find it useful, please register as indicated below.

The single-user registration fee is \$49.95 (US). Discounts are available for purchases of 10 or more copies, or for use in an educational environment. Send email to [info@minuteman-systems.com](mailto:info@minuteman-systems.com) for more information on this.

### How to Register

Payment of the \$49.95 (US) registration fee may be made by credit card (via the Internet or via FAX) or by check or money order.

On the Internet, go to [www.shareit.com](http://www.shareit.com) and register program 100735. You will receive by email a permanent license. You will also have access to free updates to the program for one year.

To order by FAX, use the menu entries for HELP and ORDER FORM and FAX. Fill in the indicated fields, including your credit card information, print out the form, and FAX your order to one of the indicated telephone numbers.

You can also send a check or money order for \$49.95 (US), with your return address and contact information (telephone, email, etc.) to;

MinuteMan Systems  
P.O. Box 152  
Belmont, MA 02478 USA

From the main menu use HELP + ORDER FORM and LAND MAIL to access an easy order form.

## 1.2 Support

If you have any questions about using the program or regarding an order, please contact us via email to [info@minuteman-systems.com](mailto:info@minuteman-systems.com)

## 2.0 Overview

[2.1 The Project Summary](#)

[2.2 Task-Data Area and Tool Bar](#)

[2.3 The Outline View](#)

[2.4 The PERT Chart](#)

[2.5 The TimeLine View](#)

MinuteMan allows you to work on a schedule from 3 different views

- The Outline View
- The Pert Chart View
- The TimeLine

The PERT Chart and TimeLine are industry-standard methods of viewing projects.

The Outline View is the default view when the program is launched. The Outline View is unique among Project Management tools in that it allows the easy development of a schedule that smoothly couples the dependencies between tasks with a hierarchical numbering system. This simplifies reporting and expense tracking. In short - you create an outline of the work that automatically generates a well-organized Pert Chart.

All functions related to creating or editing tasks can be done from any of the 3 views. Each has its strength's;

- The Outline View is focused on structuring the project
- The Pert view's main job is to identify task relationships
- The TimeLine view presents the occurrence of tasks, and their costs, over time

While this manual primarily uses the Outline View to demonstrate functions, you may find that one of the others is the preferred one for your specific needs.

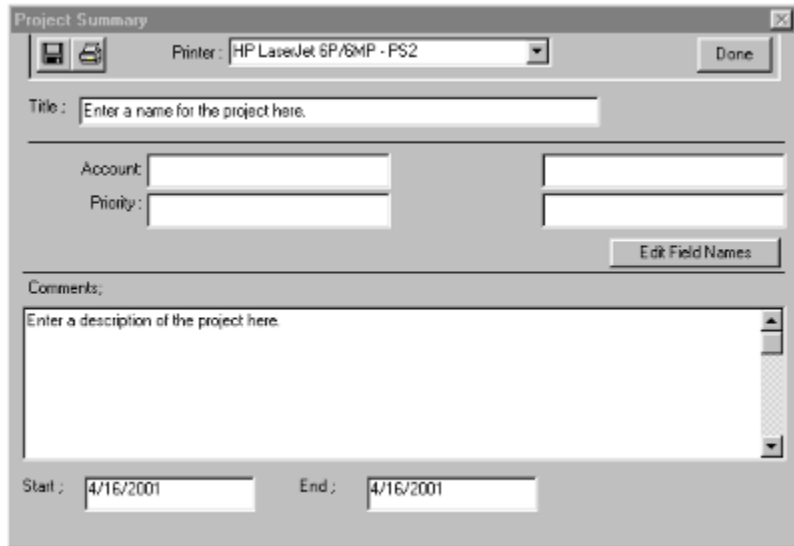
All 3 views are described in a bit more detail further on in this section.

MinuteMan also provides a 4th view, the "Project Summary" that displays information about the project overall.



## 2.1 The Project Summary

The Project Summary view, shown below, appears whenever you start a new project using use the FILE and NEW menus. It can also be accessed at any time using the menu for VIEW and PROJECT SUMMARY.



The screenshot shows a dialog box titled "Project Summary". At the top left, there are two icons: a floppy disk and a printer. To the right of these icons is a "Printer:" label followed by a dropdown menu showing "HP LaserJet 6P/6MP - PS2" and a "Done" button. Below this is a "Title:" label followed by a text input field containing the placeholder text "Enter a name for the project here.". Underneath the title field are two rows of input fields. The first row is labeled "Account:" and has two empty text boxes. The second row is labeled "Priority:" and also has two empty text boxes. To the right of these fields is a button labeled "Edit Field Names". Below the priority fields is a "Comments:" label followed by a large text area with a vertical scrollbar, containing the placeholder text "Enter a description of the project here.". At the bottom of the dialog, there are two date input fields: "Start:" followed by a box containing "4/16/2001", and "End:" followed by a box containing "4/16/2001".

The Title and Description fields are for brief and long descriptions of the project. There are four general purpose fields. You can edit the field contents directly. You can edit the field labels by clicking the button "Edit Field Names". You cannot edit the Start and End dates – those are filled in for you and updated as the project is entered.

With the icons in the upper left hand corner you can send the Project Summary to either a text file, or a printer.

## 2.2 Task-Data Area and Tool Bar

Regardless of which view you are using, the program always displays some common features across the top of the screen; there is an area for task-specific information, and a toolbar for accessing commonly used features. A Legend is also supplied to explain graphic symbols.

### The Task-Data Area

Outline:	1.0.1	Duration:	10	Days	Start:	3/24/97	08:00 AM	End:	4/4/97	05:00 PM
Description:	Develop Requirements		Links	Cost	\$ 0					

The data area presents information about the task that has been selected in the current View. The items in the data area are;

**Outline:** All tasks are tracked in a hierarchical outline structure which you can control. This box lists the outline number of the currently selected task.

**Duration:** The duration of the task. Calculations may be done using days or hours,

**Start:** The start-date and time of the selected task.

**End:** The End date and time of the selected task

**Description:** A brief description or "name" you can assign to identify the task. Longer text information can be supplied using the Note function on the toolbar.

**Cost:** A rollup of the total costs associated with the task. Clicking the Cost button calls up a menu where you can assign People or Expenditures to the task.

**Links:** A list of predecessors of the task. Clicking the Links button calls up a menu where you can add or remove predecessors to the Task.

You can edit the Description, Duration, and Start Date/Time for a task. (If the Task is assigned predecessors The Start Date/Time will be recalculated and updated by the program.) The End date and Outline Number are calculated.

### The Toolbar

The toolbar provides quick access to frequently used functions, which are also present in the overall menu-bar. The toolbar buttons are described below;



- Open An Existing Project



- Save Project away



- Print



- Links: Create/delete predecessor links for a Task



- Notes: Append a text note to a task.



- Costs: Assign People and Expenditures for a Task.



- Resources: Define pool of People or Job Categories



- Calendar: Define Working and Non-Working days



- Outline View



- Pert View



- TimeLine View




+Task - Add or Remove a Task in the current Project View

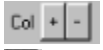



Ins - Insert One Task between two others



75 % - Set Percent Complete for task

 - Insert or Remove a Row in the current Project View

 - Insert or Remove a Column in the current Project View

 - Help ; Activate the help file.

Each of these functions will be described in more detail further on.

### Active Help

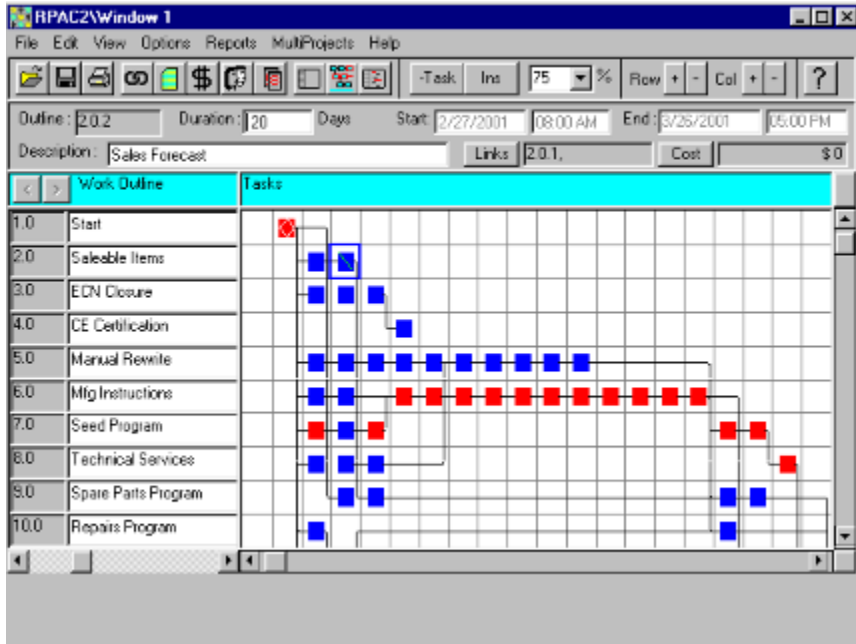
At the bottom of the screen, Help bar is provided which describes the function of whatever field is below the mouse/cursor;

 Click any empty box, then click '+Task' button to add a task

This Help bar can be dragged around the screen as desired. As you become familiar with the program, you will have less need for the Active Help. It can be removed with the cancel button ("X") on the right. If needed, the it can be restored at any time using the Menus for Options and Overall and Show Hint Bar.

## 2.3 The Outline View


The Outline View allows you to create an outline of the tasks in your project that is tightly coupled with displaying the relationships between tasks. The drawing below is for the Sample project supplied with the evaluation copy of MinuteMan.



The Outline View consists of two main areas - The Work Outline area and the Tasks area. Either can be used as the primary point of entering information. The Work Outline can be used to create a hierarchical numbering system for tasks. A block diagram of individual tasks and their relationships is created in the Tasks area.

Some people prefer to first create an outline of the work to be done, and then identify links between tasks. Others may wish to take a pictorial approach, sketching out a Network of tasks and their relationships. Either approach is easily supported using MinuteMan's Outline View.

### The Work Outline Area

You can use the "Work Outline" at the far left of the screen to start a project by writing a list or outline of the tasks to be done. Just type descriptions in the boxes, and use Arrow and Page Up/Down keys to navigate up and down the list. The  Promote/Demote buttons allow you to indent/outdent items in the outline.

You do not have to use the Work Outline feature. You may wish to just organize tasks and their dependencies using the Task Area.

### The Tasks Area

This area uses a Row and Column approach, much like a spreadsheet. Note that if you move the cursor around, a hint box appears identifying the names of the tasks as the cursor passes over them. By default, the hint box shows the task's name, start date, and end date. You can change this to show just the task's name by using the menu entry for Options and Outline and toggling "Large Info Box".

Often you will find that any one type of task really consists of several smaller tasks that occur sequentially.

To show this, MinuteMan allows the entry of multiple tasks along the same row of the Task Area.

The position of tasks in the grid approximates their location when a Pert Chart is printed later. You can have one, none, or multiple tasks in a row of the grid, depending upon the way you want to organize the appearance of the tasks and especially the Pert Chart.

In the Task Area;



- A milestone (task with duration of zero) is indicated by a diamond within a box.
- Tasks with non-zero duration are indicated by a plain box.

Tasks and milestones that are on the "Critical Path" to project completion are drawn in red.

Later on, if you elect to enter a Percent Complete for tasks, you can further show the status of each task in the Outline View. Under the OPTIONS menu, select OUTLINE - Mark Complete. A single stroke ("\"") will be drawn through each task that is underway, while a double stroke ("X") will be drawn through each task that is 100 Percent Complete.

By default, MinuteMan draws lines between tasks to show their dependencies. You can shut this OFF, which will slightly improve the speed of the program, by going to the menu for OPTIONS VIEW and OUTLINE and clicking the choice for Outline View.

On the grid, one box is always highlighted. You can move the highlight around using the arrow keys, or by clicking a desired box. If the box contains a task, its data is summarized in the Data Area across the top of the screen - description, duration, start and end dates, etc.


The + and - Column   buttons allow you to create more horizontal working space, or close up unused space.

#### Displaying Links In the Task Area

Links are easily created between any two tasks currently visible on the screen;

- Position the cursor over the predecessor task and press and hold down the left mouse button.
- Move the cursor to the successor task and then release the mouse button.

A line will be drawn between the two tasks to indicate a link.

You can also edit the task links in detail by clicking on the task box, and then clicking the LINKS button 

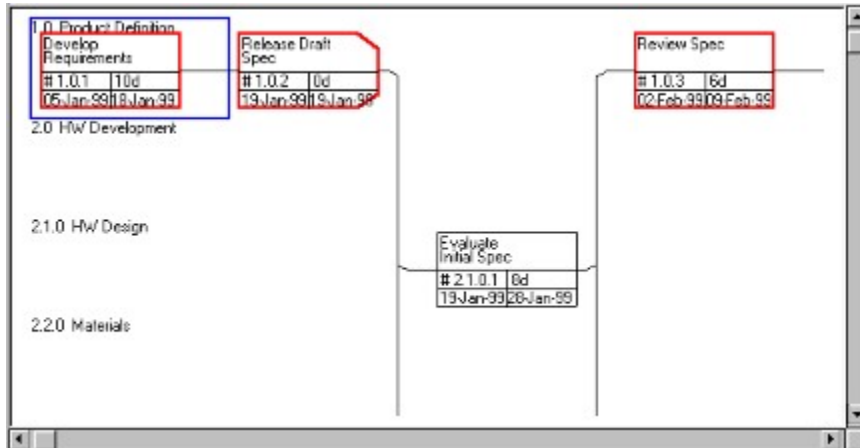
#### Using The Work Outline Area and The Task Area Together

You can enter a schedule by just making entries in the Work Outline. Or, you can enter tasks in the Task Area, and then use the rows of the Work Area to create a descriptive label for the group of tasks in one row.

When tasks and an outline are both used, expenses for similar groups can be collected for budget reporting.

## 2.4 The PERT Chart

This is a fairly standard way of representing a project. The focus is on identifying starting and ending relationships between tasks. Each box represents a task. The box contains information on the description of the task, its outline number, and start/end information.



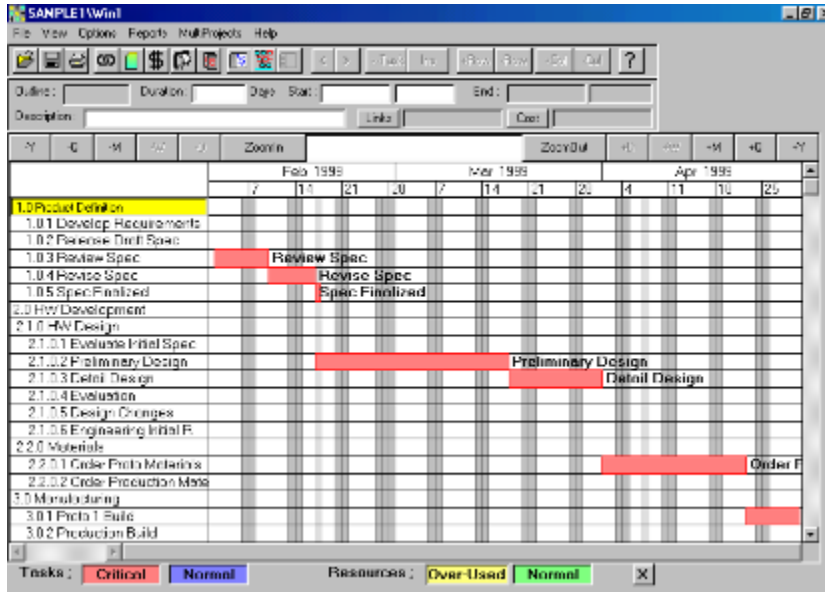
Lines from one task to another indicate a dependency - each rightmost task starts when all the predecessors to its left have completed.

A task with zero duration is considered to be a “milestone” and is drawn with rounded corners. The “critical path” traces the sequence of events that are directly responsible for the completion of the project. By definition; a task is on the critical path if extending that tasks duration adds to the end date of the latest task in the project. Tasks or milestones on the critical path are drawn in red.

**Note:** Pert Charts with a large number of tasks can take up a lot of space when printing! See section 6.4 for hints on compactly printing Pert Charts.

## 2.5 The TimeLine View

The TimeLine presents the schedule against a calendar. It is very similar to the industry-standard Gantt Chart, but with a few improvements.



In the above example, the tasks for one year are shown. By using the Zoom In/Out buttons (or the VIEW menu entry), you can select the timeframe shown as being a Day, Week, Month, Quarter (3 months) or Year. By using the buttons shown on the screen for +Y (plus Year), -Y (Minus year), and so on you can scroll the present view to the right or left.

From the TimeLine View, you can edit a task's data but you cannot create or delete tasks.

The diagram above shows task durations. In the VIEWS menu entry, you can select two other important ways to display the TimeLine; Resource Usage and Resource Usage by task. These are described in more detail in the later section on

## **3.0 Basic Task Entry and Editing**

[3.1 Editing a single task](#)

[3.2 Saving and Recalling Your Work](#)

[3.3 Creating a New Task](#)

[3.4 Creating a Link Between Two Tasks](#)

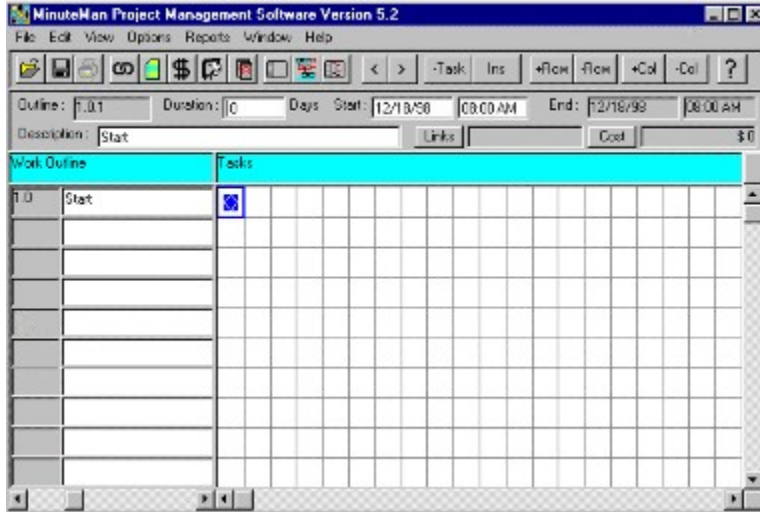
[3.5 Creating a Task and a Link At The Same Time](#)

We'll spend a bit of time here showing how to use the most basic functions. Once you're familiar with this program, these steps will go much faster.



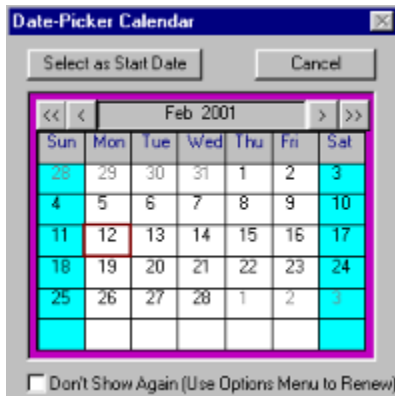
### 3.1 Editing a single task

When MinuteMan is launched, it begins with a simple project with only one zero-duration task (a milestone). Click the box in the grid representing the single task.



**Description** - You can edit the description field. Note that the title in the Work Area does not change; when you have multiple tasks in the same row, the title in the Work Outline Area serves as a general description for the whole row.

**Dates** - Clicking the Start Date field will cause a Pop-Up Calendar to be displayed.;



The calendar indicates in color days which have been designated as Working (white) , Non-Working (blue), or Special/Holidays (yellow). See section 5 for information on configuring the project calendar.

Click a date and then click "Select as Start Date" to set that date as the task's Start Date.

Important Notes;

- You cannot set the start date for a task that has predecessors. This date will be calculated. The Start Date and Start Time fields are disabled for tasks with predecessors. If you must force the Start date of a

task, use the Links button to remove its predecessors.

- If you select a Non-Working day as a Start Date, the entry will automatically be modified to the next available Working date.

If you click the box "Don't Show Again", the program will revert to a mode where you must manually type in the Start Date. You can resume use of the Pop-Up calendar using the menu entries for Options and Overall and Use Date/Time Picker.


There is also a Pop-Up box for selecting the Start Time, once the Start Date has been set;



You can also specify the duration for a task. Click on the duration box and enter some value other than 0. (Hit ENTER on your keyboard after making the entry.) Note that the END Date changes. Also note that with a non-zero duration the diamond disappears from the box indicating the task.

The program defaults to using Days as units of time. You can also make entries in Hours. All times, whether entered as days or hours, may be specified to a resolution of 15-minute-intervals. If you make an entry and follow it with the letter "d" or "h" (i.e. 1.5 d or 12.0h) the units will change accordingly. See the section on "Using The Calendar" for more information on how time units are specified and handled.

## 3.2 Saving and Recalling Your Work

Your edits can be saved using the Save icon  or using the SAVE or SAVEAS entry from the menu for FILE. You will be prompted for a filename when saving a project.


Projects can be opened using the menu for FILE and OPEN or by using the OPEN icon .

Note that when you save a project, two files are created

- filename.prm contains schedule data
- filename.rsc contains resource information

It's important to know about both these file types if you backup or copy you work on another media like a diskette or a zip drive.

### 3.3 Creating a New Task

You can create a new task at any unused point in the grid. Click the grid box immediately next to the existing task. Then click the +Task button . A new task will be created in the box, with a default description of “new”, and default duration of 1 day.


To delete any task, click the task and then click the -Task button.

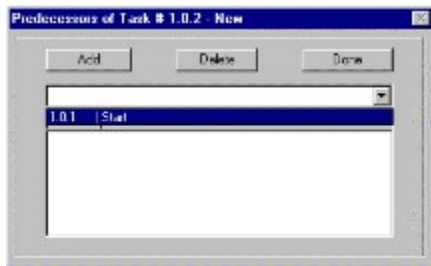
The task will initially not have any predecessors. Its start date will be the current date.

## 3.4 Creating a Link Between Two Tasks

There are two ways to create a link between tasks; using drag-and-drop, or via a menu.

To use drag-and-drop, position the cursor over the Start task, push down the left mouse button, drag the cursor over to the New task, and release the mouse button.

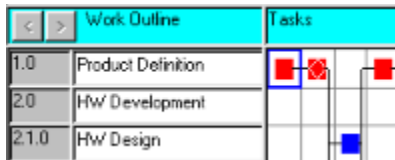
Alternatively, click the Links button  to call up this menu;



The scroll menu will list all available choices for predecessors; select one and click “Add”. This menu can also be used to remove links; all existing predecessors to the task will be listed in the lower box - click a predecessor and then click “Delete” to remove it.

As your project grows; the links menu will prove to be more useful for creating links to tasks that are not on the currently visible screen.

When you create links between tasks, lines are drawn between the tasks to show the relationship;



You can shut of this ability by toggling the menu choices for OPTIONS and OUTLINE and OUTLINE VIEW.

### **3.5 Creating a Task and a Link At The Same Time**

To create a new task that is automatically linked to an existing task;

Position the cursor over the existing task, push down the left mouse button, drag the cursor over to an unused grid point, and release the mouse button.

## 4.0 Additional Entry and Editing Techniques

4.1 Outlining A Project


4.2 Editing from the Pert and TimeLine Views

4.3 Earliest/Latest Date Calculations

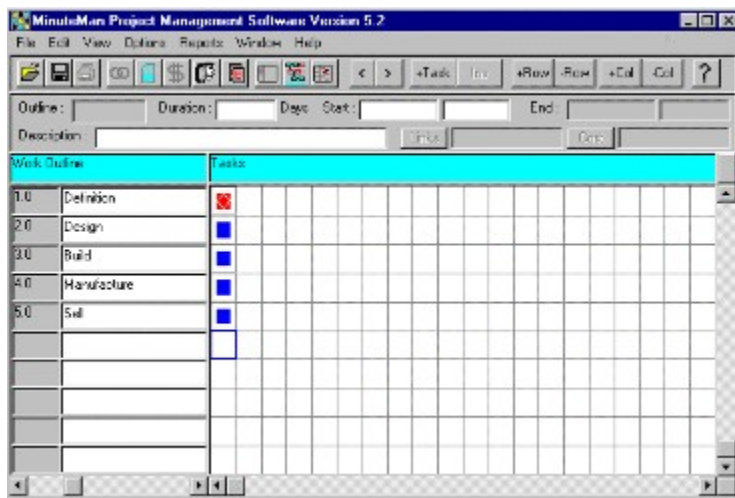
In the previous section, we demonstrated simple graphical techniques for entering tasks and creating links. In this section we will demonstrate further ways to enter a project and to make modifications.

## 4.1 Outlining A Project

First, use the menu for FILE and NEW to create a new project. Then, to start entering this sample project, click the top row of the Work Outline Area, containing the word “Start”, and edit it to say “Definition”. Hit “Return” or “Enter” on your keyboard. Proceed to enter the remaining outline terms “Design”, “Build” etc, one on each row.

Click the “Save” symbol , or use the menu bar entries for FILE and SAVE AS to save the project as “MAN1”.


The screen should now look like this;



Note that outline numbers have been automatically added on the left of the screen. Also note that every time you entered a new line in the Work Outline area, a corresponding task box was created in the Tasks Area.

The five tasks are presently not linked to each other. Create a link from the Definition task to the Design task by placing the cursor above the Definition task, pressing down the left mouse button, dragging the cursor to the Design task, and then releasing the mouse button.

A link will be drawn between the two tasks. Note that while you were dragging the cursor around, a hint box appearing identifying the names of the tasks being linked.

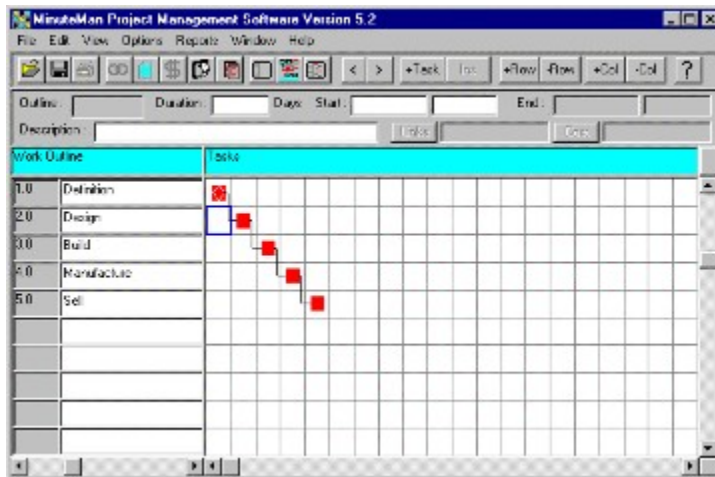
You could also have created a link between the two tasks by clicking the Design task, and then clicking the Links button . A menu would appear listing available tasks to select as predecessors to Design;





Using either the drag- or menu method, create a links from Design to Build, from Build to Manufacture, and from Manufacture to Sell.

The schedule should now look like this;



This chart now shows the “flow” of work between the tasks. Also, the start date of every task is set to the end date of its preceding task, and the task’s finish date is calculated using its duration.


Incidentally, note that all the boxes are red. This means that each task is on the “critical path” - by definition, a change in the duration of any task on the critical path results in a like change in the completion of the last task in the project.

When we entered the tasks above, we accepted the default duration of one day for each task. Clicking its Task box, and then clicking and editing the Duration field at the top of the screen can edit the duration of any task. (Always hit the Enter key after editing a field). Enter durations of 20 days each for Definition, Design and Build, and 10 days each for Manufacture and Sell.

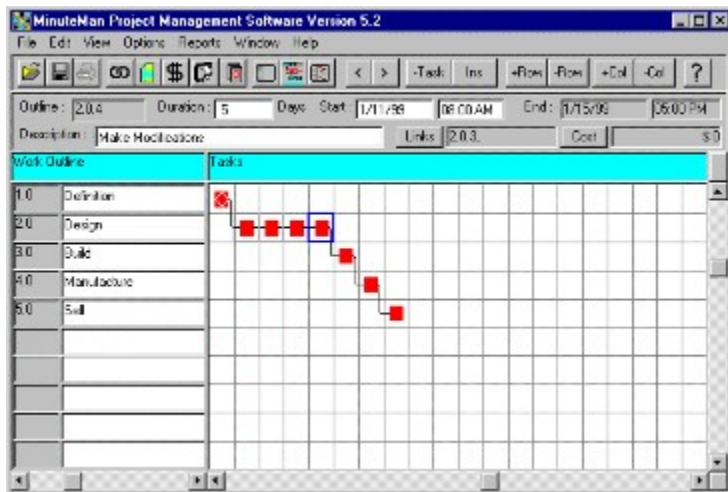
This is a very simple schedule so far. In the course of developing a schedule for a real project, you are going to want to add more detail after first doing an initial outline. MinuteMan provides several features to help do this.

As an example, let’s assume that you want to take the task for Design (duration = 20 days) and break it down into


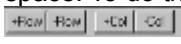


- Write Design Specs (Duration 4 days)
- Do Detail Design (10 days)
- Hold Design Review (1 day)
- Make Modifications. (5 days)

To expand the single task Design into these four tasks, click the box in the Task Area for the Design Task, and then click the Insert Task button, or “Ins”  three times. You will now have 4 tasks, linked in series, where before there was one.

Edit the four tasks, from left to right, to have the descriptions and durations listed above. The schedule will now look like this;



Besides expanding existing tasks, MinuteMan provides numerous other features to allow changing of the schedule as development of your project proceeds;

- Adding/Deleting Tasks ; You can add a task at any point in the task area by clicking that location, and then clicking the +Task button  . Similarly, you can remove a task by clicking the task and clicking the same button, which will be labelled -Task.
- Inserting/Removing Rows and Columns ; The Tasks area may be modified much like a spreadsheet. You can insert or remove rows and columns to create more working space, or close up unused space. To do this, just click a location, and then click the + and - row or columns buttons  .
- Moving Tasks ; You can move any one task around on the screen as follows. Use the mouse to position the cursor above the task. Press down the right mouse button. Move the mouse to the new desired location, then release the right mouse button. The task will be moved, and all its links and other tasks that will travel along with it. Note that if you move the task to a new row, its position in the overall task numbering scheme will be changed.
- Editing Outline Numbers; In the example provided so far, each row in the schedule makes up one major outline number. I.E 1.0, 2.0, 3.0, etc. You can raise or lower the outline level of any row (except the first row) using the Promote  and Demote  buttons.

**Note: When You Have Multiple Tasks in the Same Row.....**

If you have a single task in a row, editing the Work Area changes the description of the task. However, when you have multiple tasks in the same row, the descriptions no longer track the Work Outline Entry - the Work Outline entry is considered to be a separate description of the all tasks in the row, as a collection.

Multiple tasks in the same Work Outline Row are treated as a further level of indentation in the outline numbering system.

## 4.2 Editing from the Pert and TimeLine Views

So far we have used the default Outline View for viewing our work. There are two other views that are commonly used for planning; The TimeLine and the PERT Chart. The TimeLine shows the relative duration of tasks as placed on a calendar. The PERT Chart is a schematic representation of the “flow” of tasks.

You can use the VIEWS choice on the menu bar to select either the PERT or TimeLine, or to return to the Outline View.

In the Pert Chart, you can do almost all the same functions as in the Outline View for creating and editing tasks; you can add or delete tasks, create and remove links, move tasks around, and add or delete rows and columns. You are not able to edit the Outline directly, although certain task-editing functions will of course result in changes in the Outline.

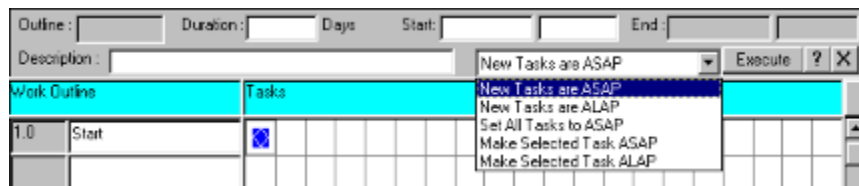
From the TimeLine View, you can edit a task's data but you cannot create or delete tasks.

## 4.3 Earliest/Latest Date Calculations

Normally MinuteMan calculates all dates on a "do it as soon as possible" basis. Each tasks' start date is set to the finish date of its last-completed predecessor. This is called the "As Soon As Possible" or "ASAP" method.

However, in some cases you may want to have one or more tasks actually occur As late As Possible or "ALAP", to defer expenses or labor.

Minuteman supports ASAP and ALAP methodologies, selectable on a per-task basis . By selecting the menu entries for Options and Overall and Select ASAP/ALAP the Data area of the screen will be changed to look as follows;



Note that the area formerly used to display Links and Costs has been replaced with a drop-down-list and the EXECUTE, Help ("?") , and Close ("X") buttons. The Links and Costs can still be accessed via the related Toolbar buttons. Operation of these new features is as follows;

- "X" reverts to the mode of displaying the Links and Costs.
- "?" Displays a very brief summary of this operation
- "Execute" is used to activate choices selected in the drop-down-list

The drop-down-list choices are;

- "New Tasks are ASAP" means whenever you enter a new task it will be treated as an ASAP task
- "New Tasks are ALAP" means whenever you enter a new task it will be treated as an ALAP task
- "Set All Tasks to ASAP" will convert all existing ALAP tasks to ASAP when Execute is clicked.
- "Make Selected Task ASAP" - Highlight an ALAP task, click "Execute", and the task will be converted to ALAP.
- "Make Selected Task ALAP" - Highlight an ASAP task, click "Execute", and the task will be converted to ASAP.

Note that the label "Start" for any ALAP task is modified to "Late Start", to allow it to be distinguished from ASAP tasks.

Here are a couple notes on how ASAP/ALAP timings are calculated;


All calculations are done in a two-pass mode; The entire project is first calculated with each task as ASAP (including the Critical Path identification). Then any tasks identified as "ALAP" are delayed as much as possible without delaying any ASAP tasks, and without changing the Critical Path. This dual calculation is transparent to you - all you see is the end result.

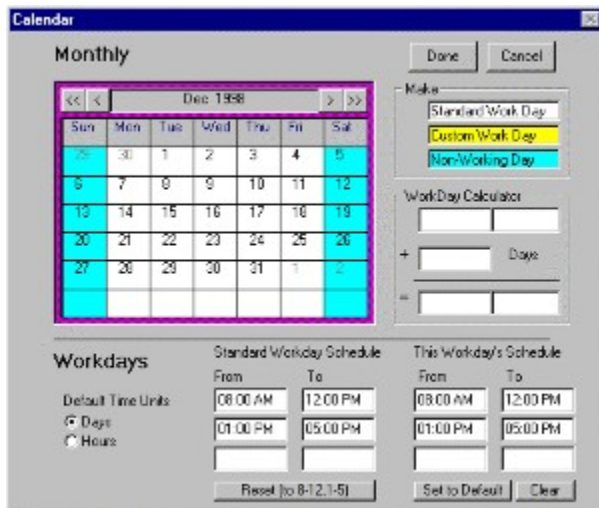
Note this means that if there is a conflict between tasks such as an ALAP task being the only predecessor to an ASAP task, the ASAP task "wins" and stays where it is, whether on the critical path originally or not.



## 5.0 Using The Calendar

It is important to be able to define regular working and non-working days, and events such as holidays, vacation days, or days with a different working schedule.

At the Main menu, under OPTIONS, click "Set Calendar". (Alternatively, click the toolbar button for the Calendar ) A calendar view will be presented. Standard working days are drawn in white. Days with non-standard schedules are drawn in yellow. Non-Working Days are indicated in shaded/gray. You can advance or back up by a month- or year at a time by clicking the buttons to either side of the current month.



### Units of Time

The program uses standard 12-Hour AM/PM nomenclature. The smallest resolution of time is the 15-minute interval. Entries can be made in terms of Days or Hours. You can change the default using the button at the lower left of the Calendar Screen. Alternatively, when typing in duration, if you follow it with an "h" or "d" (for "Hours" or "days"), the system default will be changed to reflect that.

### Working Shifts

You can specify up to 3 working shifts. A Standard (default) shift can be scheduled, and Custom shift schedules can be specified for individual days or groups of days. Shift hours are specified using the scheduling boxes at the bottom of the dialog box for this.

The three buttons at the lower right of the screen allow you to Reset the standard work day to an 8-hour default, copy the Standard Workday schedule to a Custom Day, or to clear the Custom Day entry to start over.

### Setting Work Days

When you click any one-day, its status as Standard Working Day, Custom Working Day, or Non-Working Day is displayed in the box to the right. The day's status can be changed, by clicking the adjacent button for "Standard Work Day", "Custom Work Day" or "Non-Working".

When you select an individual day as "Custom Work Day", you can the set the shift schedule for that day using the scheduling boxes at the bottom of the screen.

You can also select a day and click "Non-Working Day" to indicate that there are no working hours on that day - such as for a Holiday.

Note: The program allows the specification of a maximum of 100 Custom Days and a maximum of 100 Non-Working Days.

You can set periodic days off, typically weekend-days, by clicking that day name at the head of a column ("Sun") and then clicking the "Working" or "Non-Working" button.

Similarly, you can set periodic Custom-Day schedules by clicking that day name at the head of a column ("Wed") and then clicking the "Custom" button. Example - On Wednesdays we only work for a half-day.

All calendar settings are saved when you exit the program.

A simple "Working Day Calculator" is provided to the lower right of the calendar screen. Enter, or click, a starting date followed by duration, and an end-date will be displayed. This is the end date based on working days as opposed to just elapsed days.



## 6.0 Printing Reports

6.1 Output Formats

6.2 Data Reports

6.3 Exporting Data to A Spreadsheet

6.4 Using Graphics Outputs

We said earlier that its important to be able to send information about your project to people who need to know – people working on the project, people who may depend upon the completion of your project, or people who you report to.

MinuteMan provides a number of reports. Many are pre-formatted, and you can customize some. Its not practical here to go into the details of every report, but they will be described briefly further on.

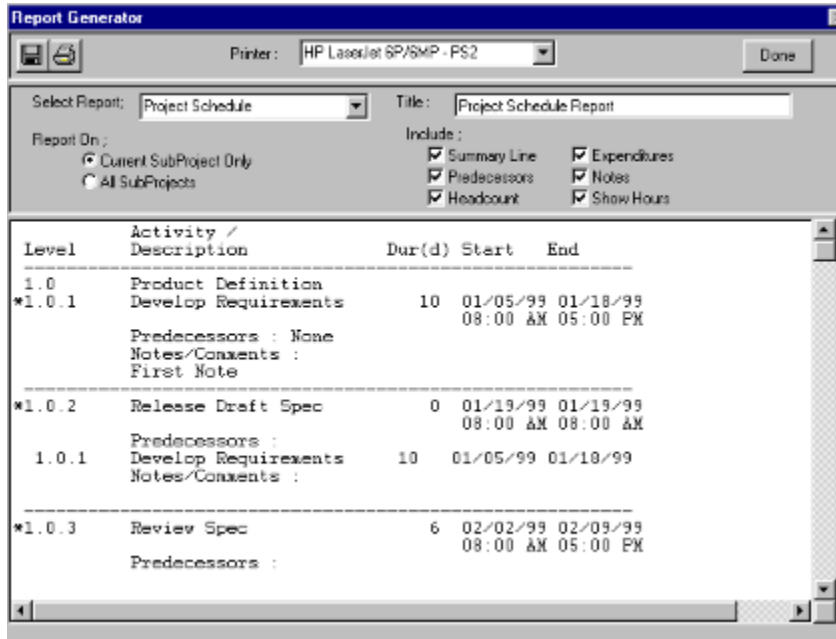
## 6.1 Output Formats

It is important though to mention that the majority of reports can be output in a variety of formats;

- Printed Output; Every report can be sent to any printer attached to your computer.
- Text Outputs; The majority of reports can be output to a text file. This means you can incorporate them in a word-processing document and send them by diskette or email to others.
- Graphics Output; The Outline, Pert Chart, and Timeline views may each be output to graphics files. This has several advantages that are described further on.

## 6.2 Data Reports

The Report Generator may be used to develop a number of reports.



The reports displayed on the screen may be sent to a text file or printed using the buttons in the upper left hand corner. Reports, which may be selected from the REPORT: Pull Down Menu include;

**Project Data** - This report presents the schedule information for all tasks in sequential order. The Headcount, Expenditures, Notes and Predecessors (Links) may each be optionally included or excluded in the report.

**Cost Summary** - This report lists the people and expenditures used across all tasks.

**Cost Summary by Task** - This report lists the people and expenditures used on a task-by-task basis.

**Expenditures** - This lists discrete purchases, by task and totalized, across the project. It may be used to track one-time purchases, general cash usage, and also key components that must be bought.

**Headcount:** This lists personnel utilization, by task and totalized, across the project.

**Earned Value** - This provides a way to view overall project progress by tracking the financial "worth" against budget of tasks as their completion is recorded.

There are several options available for most of the reports ;

**Summary Line** - Include the Summary Description of a group of related tasks (I.E. the label from the left-hand column of the Outline View.)

**Predecessors** - List all predecessors of each task.

**Headcount** - Include Headcount name/qty/cost information for each task.

**Expenditures** - Include individual expenditures by name/qty/cost for each task.

**Notes** - Include the next note for each task.

**Show Hours** - When reporting dates, include hours

The **Current/All Subprojects** option is available for all reports.

## 6.3 Exporting Data to A Spreadsheet

The EXPORT function in the FILE menu will create a spreadsheet-compatible file listing the schedule data for all tasks in the project.

The data is output as a comma-delimited text file, named yourprojectname.xls. Since it is a comma-delimited file, to insure proper input to the spreadsheet, commas in the task descriptions are replaced with a hyphen (-).

Following are the fields that are output to the spreadsheet, in order. (The first output line of the file contains these field titles)

"Task No." - A general identifying number  
"SubProj" - Name of the Subproject the task resides in  
"Outline" - The outline number of the task  
"Description"  
"Start Date"  
"Start Time"  
"End Date"  
"End Time"  
"Duration" - Duration in hours.  
"Cost" - Total Cost associated with task  
"Pct" - Percent Complete of task  
"Earned Value" - The Earned Value calculated for the task

## 6.4 Using Graphics Outputs

All three Project Views may be used to create graphics files. This has two advantages over hardcopy output;

- Graphics files can be read into word processor files. Those documents can then be emailed to other people.
- Within a Word Processor, the files can be re-sized, thus cutting down on the number of pages of hardcopy printed. The Pert Chart in particular has a feature to help minimize this.

For any View, when you select "Print" a conventional Print dialog box will come up. Under the list of Printer choices, the last says "Graphics File .BMP". Selecting this device will choose sending the output to a graphics file.

The graphics file(s) will be sent to a subdirectory /GRAPHICS off the directory in which MinuteMan is installed. There will be one file for each page of output. For the Pert chart they will be named PERT1.BMP, PERT2.BMP etc for each page. Files for the Timeline will start with TIME and for the Outline will start with OUTL

Please note that any time you do a graphics output of one view, all previously existing files of (only) that same type in the directory will be erased.

Pert Charts in particular can become quite large, and if printed on "standard" pages such as US 8.5"x11" can require taping a large number of pages together.

The Pert Chart Print Dialog Box supports paper sizes up to 17"x22" ( US Size 'C' ). This will fit more of the output on each physical page. They can be resized even further as graphics files within a word processor document. Legible results have been obtained with a 'C' formatted output reduced to 'A' on a single page within a Word processor.

It is recommended that you experiment with various page/orientation settings and your Word Processor to determine the optimal printed output.

## 7.0 Using Multiple Projects

### 7.1 Creating SubProjects

### 7.2 Creating Links Between SubProjects

### 7.3 Viewing Reports

We've demonstrated the basics of developing a schedule. Depending upon the nature and size of your project, you may find it helpful to develop your overall project as several smaller schedules tied together. For example, on a Product Development effort you may wish to have separate schedules for Engineering and Marketing, with certain key milestones or dates serving as interlock-points between them.

MinuteMan handles this by providing multiple sub-project windows, and allowing the creation of links between tasks in the different windows. The program can handle up to 5 sub-projects. The group of 5 is stored as a set in one master-project file.

For this section, and the remainder of this manual, a sample master-project has been developed (instead of leading you through entering it one entry at-a-time.) The master project is named "RES1". Two key reports are provided in the Appendix, to allow studying the project details. You can also study the RES1 project "real time" by loading the project into MinuteMan. The project is supplied as two files "RES1.PRM" and "RES1.RSC" along with this document.

## 7.1 Creating SubProjects

MinuteMan creates each new project with one initial “main” subproject. You add a new subproject by going to the menu entry for WINDOWS and selecting ADD WINDOW. A new subproject with a single task in it will be created.

You can have a total of 5 subprojects as part of one overall collection. You can assign the names of the subprojects using the menu entries for WINDOWS and NAME WINDOWS.

The list of currently existing subprojects is displayed as part of the WINDOWS menu. The currently selected subproject is checked. You can select another subproject for viewing by selecting it in the WINDOWS menu.

Note that in the upper left-hand corner of the MinuteMan screen, the name of the overall project is followed by the name of the currently selected subproject.



## 7.2 Creating Links Between SubProjects

Each subproject initially acts as an independent project. Links are created between tasks in the same project in the normal fashion. Links between different subprojects are created using the menu entries under WINDOWS for SELECT INTERLOCK SOURCE and SELECT INTERLOCK DESTINATION.

Click the task which is to be the predecessor task. Then click SELECT INTERLOCK SOURCE. Switch the current subproject to the one holding the successor task. Click the successor task. Then click SELECT INTERLOCK DESTINATION.

In reports or when using the LINKS button, inter-project Links are distinguished from within-subproject links by placing the name of the source subproject ahead of the link's description or task number.

## 7.3 Viewing Reports

Reports are set up to default to presenting information, or doing calculations, on the currently selected subproject. However, most of the reports also have an option button to allow the display of report data for all sub-projects.

## 8.0 Tracking Resources

8.1 Background: How Resources are Stored

8.2 Tracking Project Headcount Resources

8.3 Tracking Expenditures

8.4 Task Cost Summary

8.5 Viewing Resource Usage on the TimeLine

MinuteMan provides several features that allow you to track people, costs, purchases, and equipment. This can be used to prepare a budget, to track costs, or to help you keep track of how much equipment needs to be ordered and when.

MinuteMan breaks all resources into two general areas; Head-Count and Expenditures, but each can be used in different ways;

Headcount;

- 1) Track individuals by name (J. Williams, E. Martin, etc)
- 2) Track people by job category (Hardware Engineer, Accountant)
- 3) Calculate labor costs on an hourly basis

Expenditures;

- 1) Individual Purchases (5 Desks @ \$200 each, Tooling Charges \$3000, etc)
- 2) Piece Parts (5 Integrated Circuits, 10 Boxes Paper, etc)

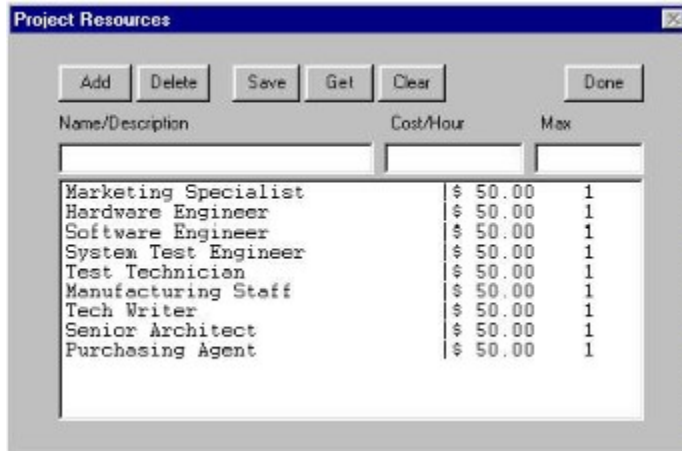
## 8.1 Background: How Resources are Stored

MinuteMan creates two files to store all the information for any one project;

- FILENAME.PRM stores the information on individual tasks, durations, links, etc and other general project information for project FILENAME. This information is unique to that one project.
- FILENAME.RSC stores a list of resources that have been defined by project FILENAME. That same list can be imported and used by any other project, to save having to redefine a commonly used resource list.

## 8.2 Tracking Project Headcount Resources

You must first build up a list of resources to be considered as available to all tasks within the project. To do this, click any task, click the COST button, and then click the DEFINE button. A screen will appear for defining resources;



This screen is taken from the RES1 project, and already has resources entered. When you start your first project, there will be no entries. You create an entry by typing a person name or other description, and an (optional) hourly labor rate, in the indicated boxes, then clicking ADD. Clicking any entry in the box below will bring it back to the entry window, where it may be edited, or you can click DELETE to remove it.

There is also a field to indicate the maximum number of resources available at one time. The TimeLine provides a graphical representation of when these limits are being exceeded. The program does not prevent you from defining tasks that exceed these limits. Report screens (below) will indicate resources that are over-used.

The project will save these resources later automatically, or you can save them now using the SAVE button. Instead of entering a whole resource list, the GET button can be used to read-in a list of resources defined by another project. (Any edits you make will be saved for the current project only, and won't affect the resource list for the other project. When you use GET, it writes over any existing entries you have made – it does not add to them.

When entering resources, you may wish to identify resources by individual names (Joe, Martha, etc.) or by a job category (Engineer, Machinist, etc). This will affect reports later, where multiple uses of the same resource are rolled up together. It can be used to help plan out a budget (We need so-many-dollars of Engineers.), or define job category needs (We'll need 8 machinists on this project) or to identify over-booking (We're using 80 hours of Martha in one week!)

Once you've defined resources, you can then start assigning them to different tasks. (You can always return to change the resource definitions later.) Clicking the DONE button returns you to the COST definition screen;

Costs : Task # 2.0.1 - Proto 1 Design

Headcount Resources :		
Qty	Description	Cost/Hour
5	Hardware Engineer	\$ 50.00
7	Software Engineer	\$ 50.00

Expenditures		
Qty	Description	Cost Each

Summary	
Headcount # :	12
Headcount :	\$ 96000.00
Expenditure :	\$ 0.00
Total Task :	\$ 96000.00
% Complete :	0
Earned Value :	\$ 0

Done

To add a resource to a task, use the pull-down menu to select a resource from the defined list. Enter a quantity used by the tasks, and then click ADD. The resource will be added to the list for that task, shown in the box below. At any time you can click one of the table entries to recall it to the entry line, where you can change the quantity, or click DELETE to remove it.

Note that when you assign a resource to a task, the resource is used for the entire duration of the task. If a task is 5 days long, the cost of the resource is going to be calculated as 40 hours use at that hourly rate. If a resource is going to be used for less than the time of the tasks' duration, it really deserves to have another tasks defined for it, at the proper duration.

## 8.3 Tracking Expenditures

Expenditures are assigned on a task-by-task basis. There is no central Expenditures list. However, in creating reports, Expenditures can be rolled up across the whole project; if you have an expenditure Qty=1, description = "Buy a Chair", in 3 different the expense reports can roll up that 3 Chairs total will be bought.

Entering Expenditures is straightforward; enter a quantity, a description, and the cost for one each of the resource. The program will calculate the task cost from there.

This can be a very powerful tool if used appropriately. The "usual" need is to identify costs to prepare a budget, to forecast what a project is going to cost. However, it can also be used to keep track of critical parts. Let's say that a special component is going to be needed at multiple points in the project. By assigning the component as an expenditure to the related tasks, the purchasing department (or your supplier) can find out exactly how many are going to be needed, and when. For custom parts, the quantities and dates are often at least as important as the costs associated with the parts.

## 8.4 Task Cost Summary

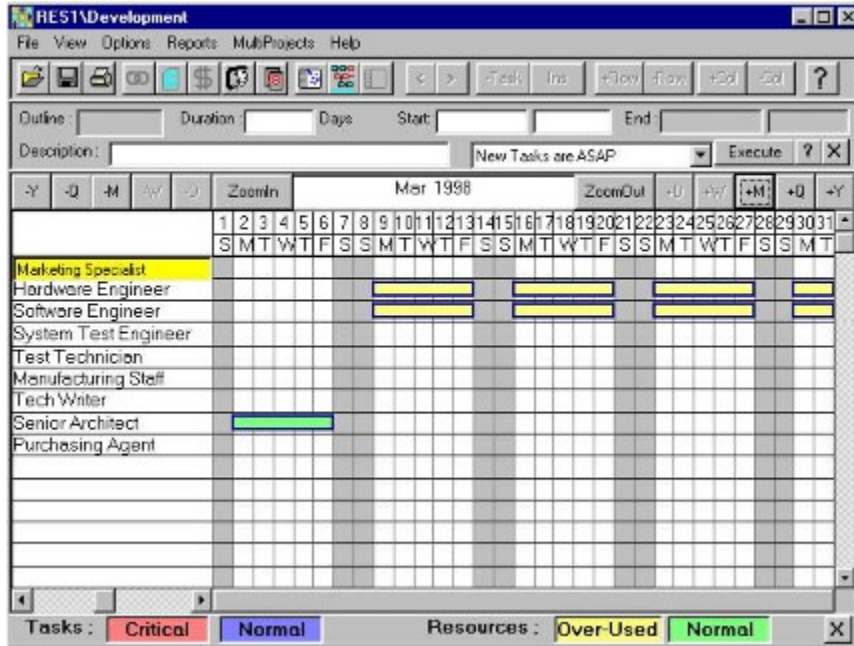
The SUMMARY box on the right of the COSTS form rollups up the costs associated with the task. It reports on the calculated Headcount and Expenditures costs, and provides a total. The Total is what is also displayed next to the COSTS button on the main Entry screen.

Note that there is also a field “% Complete” where you can track the amount of progress that has been made on a task. An “Earned Value” is calculated by multiplying the % Complete by the Total cost of the task. If you have a task worth \$50,000, and you’re 50% done with it, you have an earned value of \$25,000. Earned Value is a commonly used budget-tracking figure, especially on contractual work.

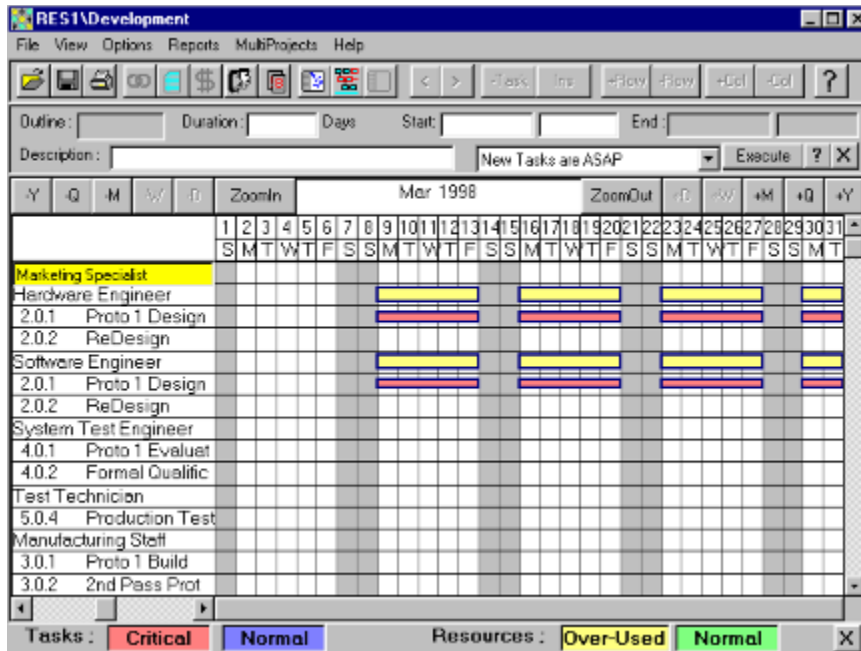


## 8.5 Viewing Resource Usage on the TimeLine

The VIEW menu enables you to call up two views of the TimeLine, which display resource utilization; Resources-Summary and Resources - By Task.



Resources Summary (above) lists the utilization of each resource over time. Tasks that are at or under their specified maximum usage are indicated in Green, while those being consumed above their specified usage are shown in Yellow.



Resources-By-Task provides additional detail on which task is calling for each resource. Critical-Path tasks are indicated in Red, and Non-Critical Tasks are shown in Blue.

## 9.0 Program Options

This section will summarize the features available on the OPTIONS menu.

### **Overall**

**Set Calendar** - Calls up a menu to select working and non-working days.

**Use Date-Time Picker** - Enables Pop-Up Calendar/Clock for selecting task Start Date/Time

**Currency Symbol** - Select a currency symbol (US Dollars, UK Pounds, an alphabetic character, or none/blank) for most data displays and report outputs.

**Critical Path** - Allows Normal Critical Path calculation, or the ability to mark all tasks as critical (red) or non-critical (blue)

**Select ASAP/ALAP** - Display a window to allow control of earliest/latest date Calculations.

**Clear History File** - Empties the list of recently used project names in the FILE menu column.

**Show Hint Bar** - Enable/Disable description of Graphical Symbols.

### **TimeLine**

**Show Description** - If enabled, each task's description is printed to the right of its timeline.

**Mark Completion** - Tasks that are 100%Complete are filled in as a solid box. Tasks that are started but not completed (%Complete >0 but less than 100%) have a cross-pattern drawn through them. Tasks that are not started (%Complete =0) are drawn as an empty rectangle.

**Auto-Fit Legend**- allows the width of the left hand column to be automatically adjusted, or manually set.

### **Outline View**

**Mark Completion** - Tasks that are 100%Complete have two lines drawn through them, making an "X". Tasks which are started but not completed (%Complete >0 but less than 100%) have a single line drawn through them as a "\". Tasks that are not started (%Complete = 0) have no line through them.

**Network Diagram** - Toggle ON/OFF if lines are drawn between tasks to show their dependency. Default is ON. Shutting this off may speed up the display of projects.

**Print Hours** - When printing the Outline View, Include (or not) hours as well as dates for task Start and End.

### **Pert Chart**

**Mark Completion** - Same as in Outline View

**Large Fonts** - Toggling this choice selects two different presentations of the Pert Chart Boxes on the screen (not when printing).

## 10.0 Copyright & Other Information

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