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Chapter 1: Introduction

Easy yet Powerful Scheduling

Milestones Professional makes planning, organizing, communicating and tracking projects fast and easy. Designed for anyone who spends time scheduling or managing projects, Milestones Professional makes fast work of scheduling efforts.

Click-and-drag to build schedules

Milestones Professional uses the same simple click-and-drag technique most project managers are already familiar with. Click-and-drag through even the most detailed projects in minutes!
Organize schedules with outline options

With outlining organize projects into tasks and sub-tasks. Use outline level shading to highlight rows for each level. A click of the mouse is all that’s needed to “roll-up” lower level tasks into a summary bar. See Chapter 4 for more information.

**Milestones Professional Outline Level**

<table>
<thead>
<tr>
<th>Outline Level</th>
<th>Task</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Project A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Task A-1</td>
<td>29</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Task A-2</td>
<td>19</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>SubTask A-2-1</td>
<td>19</td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>SubTask A-2-2</td>
<td>3</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Project B</td>
<td>4</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Task B-1</td>
<td>4</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>SubTask B-1-1</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>SubTask B-1-2</td>
<td>7</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Task B-2</td>
<td>25</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Work Breakdown Structure (WBS) and other task number options**

WBS numbers can be used in conjunction with outlining and appear automatically based on the outline levels. See Chapter 4 for more information.
**Easily show progress**

Fill bars and symbols to show activity progress. Choose a color and symbol for the progress up to the status date, and a different color and symbol after the status date. Individual tasks can be adjusted to reflect whether they are on schedule, behind schedule, or ahead of schedule. *See Chapter 5 for more information.*

<table>
<thead>
<tr>
<th>Task</th>
<th>First</th>
<th>Second</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>January</td>
<td>February</td>
</tr>
<tr>
<td>WEB SITE</td>
<td><img src="image" alt="Control the after-status fill color &amp; pattern" /></td>
<td></td>
</tr>
<tr>
<td>DATABASE</td>
<td><img src="image" alt="Ahead of Schedule" /></td>
<td></td>
</tr>
<tr>
<td>UPGRADES</td>
<td><img src="image" alt="Behind Schedule" /></td>
<td></td>
</tr>
</tbody>
</table>

**Dependencies**

Easily create dependency relationships (predecessor/successor) between tasks. In the following example, Build cannot start until Setup is complete.

With dependency mode turned on, if the Setup end date is delayed, then the dependent task Build will shift by the same amount of time. *See Chapter 3 for more information.*
Baseline the schedule

Baseline scheduling compares the original schedule to the actual schedule. Choose baseline symbology with the Baseline Setup Wizard. Then show, hide, highlight or lock-down the baseline information. See Chapter 5 for more information.

<table>
<thead>
<tr>
<th>Task</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Finish</th>
<th>Baseline Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10/19</td>
<td>10/19</td>
</tr>
<tr>
<td>Task A-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4/1</td>
<td>4/1</td>
</tr>
<tr>
<td>Task A-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7/1</td>
<td>7/24</td>
</tr>
<tr>
<td>Task A-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10/19</td>
<td>10/19</td>
</tr>
<tr>
<td>Task A-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5/22</td>
<td>5/22</td>
</tr>
<tr>
<td>Task A-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7/15</td>
<td>7/23</td>
</tr>
</tbody>
</table>

Symbol constraints

Any symbol can have a constraint which limits the symbol’s movement or triggers a user-defined condition, such as displaying a reminder note or launching a hyperlink. **Selection | Constraints.**

When the symbol is moved such that it does not conform to a date constraint that you have set, the symbol will be overlaid with a large exclamation point like the one shown: See Chapter 3 for more information.

Holidays

Make any day a holiday with the Milestones Professional Holiday Calendar. Optionally, holidays to show non-working days in a project. Holidays can be pulled from either a global holiday file or from a list embedded in the schedule. See Chapter 3 for more information.
Share and Present Schedules

Share schedules

Milestones Professional offers many ways for you to share and present schedules.

- Print your schedule to a variety of devices.
- Save to PDF.
- Easily publish any schedule to the Internet or company Intranet.
- Publish a complete hierarchy of schedules for Internet/Intranet use.
- Copy all Pages to PowerPoint.
- Include your schedules in other documents, such as PowerPoint, Word, Excel, and other Windows documents.
- Download the free Milestones Professional Viewer.

See Chapter 9 for more information.

Presentation view

Use the Presentation View mode to present one or a series of separate Milestone schedules as a “slide show” with a full screen option. Presentation view supports both full screen viewing as well as a view with limited controls visible. Toggle through the different view options by going to View | Viewing Options | Page View.
Manage Multiple Projects with Ease

Master schedules

Merge two or more sub-schedules into a single master schedule to get a top-level view of multiple projects. Simply update the master schedule to see the latest sub-schedule information. See Chapter 8 for more information.

Symbol links between and within schedules

Another way to manage multiple projects is through symbol linking. Symbol linking lets the user base the date of a symbol on a second symbol in another schedule or the same schedule. See Chapter 8 for more information.

When the “target” symbols move in the Detailed schedule, the “outgoing link” symbols in the Overview schedule move to the same date.
Hyperlinks: Attach files and web pages to symbols and tasks

Any symbol, task row, or image on a schedule can have hyperlinks to other schedules, documents or Internet web pages. Once linked, open the objects with a click of the mouse. A Milestones Professional schedule can be used to manage all aspects of a project. See Chapter 8 for more information.

Organize Task Rows

Sort tasks

In the Tools menu, choose Sort Schedule to rearrange schedule task rows based on symbol dates, selected columns, or multiple columns. Save settings to repeat similar sorts later.

Filter tasks

With large schedules, it might be desirable to see only a subset of the project steps. In the Tools menu, choose Filter to “sift out” task rows by:

- Date range
- Column Text Containing
- Numbers in column greater than
- Numbers in column less than
- Outline Level
- Task Number Range
- Symbol/Bar Type
- Some Symbols within Date Range
- All Symbols within Date Range
- Last Symbol within Date Range
- Numbers in Column in Range
- Symbol Type within Date Range
- Symbol Text/Notes Containing

Find and replace text

Use Edit | Find, Replace, Go to Page to quickly make detailed text changes. Apply Find and Replace to column text, freeform text, symbol notes, symbol text, symbol tags, and column tags.

Bookmark task rows

Add a bookmark name to any task row and then jump to that task row by choosing the bookmark name from a list of bookmarks. The task row which is “jumped to” will be highlighted. See Chapter 3 for more information.

Bookmarked tasks can show ▼ indicators for easy identification.

To access bookmarks, right-click a task row and choose Bookmarks.
Display Numbers and Project Status

With Milestones Professional it’s possible to track and graph numbers, make calculations between columns, and display status stoplights for at-a-glance reporting, along with the schedule.

Calculation/Indicator SmartColumns

A Calculation/Indicator SmartColumn can display calculation results; symbols, text, dates, or colors based on those results; symbols, text, dates, or colors based on another column’s values; or a combination of these choices, as well as convert calculation results to percentages with matching percent complete pies. See Chapter 6 for more information.

Quick and Easy Earned Value Reports

Produce reports showing Earned Value, Planned Value, Actual Costs, CPI, SPI, EAC, and EVMS fields from user-entered values, calculated values, imported values from MS Project, or a combination of these options. See Chapter 6 for more information.

Stoplight SmartColumns

The Stoplight SmartColumn offers easy-to-use methods for displaying stoplight symbols, text and colors based on user-entered numbers 1 to 4, or 1 to 10. See Chapter 6 for more information.

<table>
<thead>
<tr>
<th>Symbol + Letter</th>
<th>Fill Color + Text</th>
<th>Custom</th>
<th>Pre-Selects</th>
<th>Project</th>
<th>First</th>
<th>Second</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>Mary</td>
<td></td>
<td>&lt;0</td>
<td>Phase 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Bill</td>
<td>✔</td>
<td>=0</td>
<td>Phase 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>Joe</td>
<td>⭐</td>
<td>&gt;0</td>
<td>Phase 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>John</td>
<td></td>
<td>&lt;0</td>
<td>Phase 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Values SmartColumns

A Values SmartColumn contains user-entered values and can automatically total values from lower task levels to upper, summary levels. A symbol can also be displayed according to the value in each cell. See Chapter 6 for more information.
Percent complete pie indicators

The percent complete pie indicator symbol (#97) can be placed on any task row in the schedule area. Additionally, percent complete SmartColumns display the percentage with an optional percent complete pie, or just the percent complete pie symbol. The percent complete pie indicator is measured by the status symbol (here, the arrow symbol). See Chapter 5 for more information.

<table>
<thead>
<tr>
<th>Task</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>First</th>
<th>Second Date</th>
<th>Ahead/Behind</th>
<th>% Comp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11/9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11/1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11/25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9/30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9/22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10/22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11/26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project G</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9/30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project H</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9/6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DataGraphs and ValueSets

In addition to having powerful scheduling and tracking capabilities, Milestones Professional can also display graphs relating to the schedule. See Chapter 7 for more information.

Resource allocation for effort-driven tasks

Display the effort of a resource assigned to a particular task by using a resource allocation percentage. The resource allocation values can be entered in the Resource Allocation Percent SmartColumn for each task row.
Create Presentation Schedules from Project Files

Create Milestones Professional presentation schedules by importing Microsoft Project files when both Milestones Professional and Microsoft Project are installed. Milestones Professional offers a direct interface to Microsoft Project, which makes it easy to generate chart formats beyond the standard formats offered by Project.

Select from built-in report formats or create a custom presentation schedule format. See Chapter 10 for more information.

MPX, XML, CSV and TXT files

If Microsoft Project is not installed, then Milestones can open MPX, XML, CSV, and TXT files created from MS Project. Milestones Professional schedules can also be exported to the MPX, XML, CSV and TXT formats and then opened in Microsoft Project and other applications.
Create Presentation Schedules from Primavera

Transform a Primavera schedule into an executive-level presentation report with Milestones Professional. From Primavera, save the project in Microsoft Project XML format. Then create a wide variety of schedules using Milestones Professional’s XML import wizard. See Chapter 10 for more information.

Work with Other Applications

Beyond the direct interface to Microsoft Project, Milestones Professional interacts with other applications such as Microsoft Outlook and Excel, and offers a programming interface.

Many file formats supported

In addition to built-in interfaces for Microsoft Project, Milestones Professional offers a custom import capability. With the custom import feature, bring in information from other sources such as CSV, TXT, and XML files.

Turn a spreadsheet into a Milestones schedule

Getting schedule information into Milestones Professional from just about any other Windows software package is easy. Copy information from another application to the Windows clipboard, and then paste into Milestones Professional.

For example, import a spreadsheet like the Microsoft Excel spreadsheet shown here. See Chapter 12 for more information.
OLE Automation

Using OLE Automation, a programmer within a company can build automated systems that include scheduling. Sample programs which demonstrate the use of this powerful capability are available on the www.kidasa.com web site. These sample programs show how Milestones Professional can be linked to Microsoft Access, Visual Basic, and C++ applications.

For example, schedule data that is stored in a central repository (such as Access, Artemis, Project, Oracle, SQL, Excel, Word, and more) can be extracted in order to populate a Milestones Professional schedule for presentation purposes. Schedule automation insures the integrity of the database and the accuracy of the presentation schedule. Complete documentation for this interface is available.

Microsoft Outlook Import/Export

Milestones is capable of importing both Tasks and Calendar Appointments from Microsoft Outlook. Choose the type of import and pick an Outlook folder, and then Milestones will generate a schedule. A Milestones schedule can also be exported to an Outlook task folder. See Chapter 12 for more information.
Extensive Text Entry and Graphics Options

Symbol text
Enter up to three lines of symbol text. This text moves with the symbol. Position the text anywhere around the symbol or center it on the bar.

Automatically display column text as text next to a symbol; or have the symbol text automatically display as column text.

Symbol notes
Enter up to 10,000 characters in the symbol notes field. This note is embedded in the symbol, and appears when the cursor hovers over the symbol. Optionally, choose to display symbol notes on the schedule or print a separate notes page.

Freeform text
Type text anywhere on the schedule. Format the appearance of the text box. This text does not move with symbols or rows.

Column text
Use up to 20 columns to enter text, values, dates, and other schedule information.

Substitutable text strings
Enter “& commands” in the symbol text fields, column text, freeform text, and notes field.

…resulting in…

Link other text documents
Hyperlink Word documents, Excel spreadsheets, web pages and more, to symbols or tasks on the schedule.

Hover over the symbol to see the hyperlinks, and right-click to launch. See Chapter 8 for more information.

See Help File for more information.
Flexible Symbology

Toolboxes

The Milestones Professional toolbox contains 3 tools, 64 symbols, 32 horizontal bars, 8 vertical links, and 3 drawing tools to quickly build any schedule using the click-drag-and-drop method. See Chapter 2 for more details on toolboxes, the sidebar, symbol types, and horizontal bar types.

Sidebar

The optional sidebar is an extra toolbar anchored to the left or right side of the Milestones window. The sidebar contains the toolbox and a user-defined list of shortcut buttons for a variety of activities. Right-click the sidebar to change its properties.

Symbol types

Any symbol in the Toolbox can be changed to any of four symbol types:

- *Normal* symbols track actual start dates, end dates, and independent milestones.
- *Baseline* symbols track baseline start, end, and duration.
- *Status* symbols track percent complete, used duration, remaining duration, status date, and amount ahead/behind schedule.
- *Comment* symbols are ignored for SmartColumn purposes.

Wide assortment of symbols

The flexibility and customizability of Milestones Professional symbology is second to none, with over 130 symbol shapes filled with any color.

User-defined symbols

Not enough symbol shapes? Milestones Professional has a built-in Symbol Maker in Tools | Other Tools | Create or Edit Custom Symbol that lets users design simple or multi-part shapes.
Multiple independent milestones

As many as 500 milestones can be added to any task row on your schedule. They can be stand-alone milestones or can represent a series of start and end dates.

Include many milestones on a bar or have many bars represent several sub-tasks, plus their start and end dates all on one row.

Variety of horizontal bar shapes

Like the symbols, the 70+ horizontal bar shapes and 15+ vertical link shapes are fully customizable. The horizontal bars can be filled with any single color or two colors faded together, as well as shadowed with any color.

Eleven levels of symbol and bar positions

Symbols can be positioned at 5 upper levels, middle row level, or 5 lower levels on one task row. The bars automatically follow the positioning of the symbols.

Vertical percent spacing options help refine the placement of symbols and bars on dense schedules. Tools | Program Options | Edit | Vert Spacing: Upper/Lower Symbols

Always on top symbol or Bar

Further customize symbols and bars with the on top features. “Symbol on top” setting which controls which symbol appears on top, “Horizontal bars from this symbol are on top” setting which controls which bar appears on the surface, as shown below:
Flexible Format Options

Control the size and format of your schedules, including the physical page size of the schedule, the number and width of the columns, the number and height of the rows, the size of the optional legend, margin sizes and more. See Chapter 2 for more information.

Size schedules

It is possible to create schedules as small as a this...

...or wall size!

Many time-scale options

Schedules can show standard time scales ranging from minutes to years, and custom, user-defined periods. Choose minute, hourly, or daily for symbol placement; choose the top and/or bottom or within a task row for date heading placement; and use any frequency.
Format schedules with templates

Templates save time by preserving the customized toolbox, columns, column headings, page layout, indicator symbol conditions, and more.

Templates retain the formatting (the “look” of a chart) while charts preserve schedule details (task row entries, dates, column value entries, etc.). See Chapter 2 for more information.

Full international support

If English is not the user’s language of choice, or the user’s preference is the metric measurement system, Milestones Professional offers support. It provides the capability to set up custom language templates for any language. International Number and Currency Settings can be found on the Format menu.

Milestones Professional also picks up the date format and measurement type choices directly from the Windows Control Panel Regional Settings.

Number weeks with ISO standard

Milestones Professional supports the International Standards Organization’s standards for week numbering. The ISO week number heading type is available in our list of date headings.

Custom page numbers

Customize the page number of a Milestones schedule to match the pagination of the report, and then insert the schedule as a part of the report. Click on the page number in your Milestones schedule to see all of the formatting options.
Gradient fill patterns

Gradient fills fade the background or fill color from one color to another. These “special effects” can be chosen for many parts of the schedule, including bars, date headings, column headings, task shading, legends, DataGraphs, individual cells, and more. See Chapter 2 for more information.

Shade weekends and holidays

Saturdays, Sundays, and holidays can be shaded, each in its own color. Customize the holiday calendar globally or for a single schedule on the Dates menu.

Curtains

Curtains provide shading for a date range or for several date ranges. Repeat curtains at specified intervals. Show curtains on a specific task row or rows for a specific time period. See Chapter 2 for more information.

Milestones Professional Curtains

<table>
<thead>
<tr>
<th>Task</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Color Themes

Apply a color theme to a new or existing schedule for instant color formatting. Choose from more than 40 color themes or create your own. See Chapter 2 for more information.

### CAMPUS MASTER PLAN - 9711
Preliminary Cash Flow Projection - OPTION
Prepared by ABC Architects

<table>
<thead>
<tr>
<th>Phase</th>
<th>Construction Costs</th>
<th>Soft Costs*</th>
<th>Total Costs</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td>Schematic Design</td>
<td>$3,450</td>
<td>$1,000</td>
<td>$4,450</td>
<td>5/2</td>
<td>7/25</td>
<td>7/25</td>
</tr>
<tr>
<td>Design Development</td>
<td>$3,530</td>
<td>$1,500</td>
<td>$5,030</td>
<td>5/2</td>
<td>7/25</td>
<td>7/25</td>
</tr>
<tr>
<td>Construction</td>
<td>$3,200</td>
<td>$2,000</td>
<td>$5,200</td>
<td>7/19</td>
<td>1/25</td>
<td>1/25</td>
</tr>
<tr>
<td>Permitting</td>
<td>$1,220</td>
<td>$9,000</td>
<td>$10,220</td>
<td>1/7</td>
<td>1/31</td>
<td>1/31</td>
</tr>
<tr>
<td>Construction</td>
<td>$2,220</td>
<td>$800</td>
<td>$3,020</td>
<td>4/29</td>
<td>5/2</td>
<td>5/2</td>
</tr>
<tr>
<td>Admin-Phases 1</td>
<td></td>
<td></td>
<td></td>
<td>10/6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Soft costs are projected only.

### CAMPUS MASTER PLAN - 9711
Preliminary Cash Flow Projection - OPTION
Prepared by ABC Architects

<table>
<thead>
<tr>
<th>Phase</th>
<th>Construction Costs</th>
<th>Soft Costs*</th>
<th>Total Costs</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td>Schematic Design</td>
<td>$3,450</td>
<td>$1,000</td>
<td>$4,450</td>
<td>5/2</td>
<td>7/25</td>
<td>7/25</td>
</tr>
<tr>
<td>Design Development</td>
<td>$3,530</td>
<td>$1,500</td>
<td>$5,030</td>
<td>5/2</td>
<td>7/25</td>
<td>7/25</td>
</tr>
<tr>
<td>Construction</td>
<td>$3,200</td>
<td>$2,000</td>
<td>$5,200</td>
<td>7/19</td>
<td>1/25</td>
<td>1/25</td>
</tr>
<tr>
<td>Permitting</td>
<td>$1,220</td>
<td>$9,000</td>
<td>$10,220</td>
<td>1/7</td>
<td>1/31</td>
<td>1/31</td>
</tr>
<tr>
<td>Construction</td>
<td>$2,220</td>
<td>$800</td>
<td>$3,020</td>
<td>4/29</td>
<td>5/2</td>
<td>5/2</td>
</tr>
<tr>
<td>Admin-Phases 1</td>
<td></td>
<td></td>
<td></td>
<td>10/6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Soft costs are projected only.
**Change View Formats**

Milestones Professional offers many view modes in addition to the standard Gantt chart view. All of the following view modes can be found in View > Viewing Options. See Chapter 3 for more information.

**Expand or contract the time period viewed**

Instantly switch the time period displayed in the date headings to a daily, weekly, monthly, quarterly, or yearly view. Simply right-click the date heading and select a view, including the original view.

**Logarithmic View**

Set up date headings to have specific monthly time periods display wider.
Gantt roll-up views

Switch between three different Gantt chart views, including the normal Gantt view, a roll-up of single task bars, and a roll-up of lower level symbols and bars.

**Gantt – Normal View** displays the default Gantt chart view.

**Gantt – Rolled-Up to Single Bar** displays one summary bar for each outline level 1 summary task.

**Gantt – Rolled-Up to Multiple Bars** displays lower-level task bars and milestones as rolled-up to outline level 1 summary tasks.

Duration View and Percent Complete View

The Duration View mode replaces the Gantt bars and milestones with bar graphs indicating each task’s duration.

In the Duration View below, a bar’s length corresponds to a task’s duration value. The gray fill indicates the completed portion.

The Percent Complete view mode replaces the Gantt bars and milestones with bar graphs indicating each task’s percent complete.

Each task displays a colored bar indicating its percent complete. A bar’s length corresponds to a task’s percent complete value in relation to the date heading length. That is, a task which is 50% complete will display a colored bar which traverses half of the date heading’s length. Change the color of the percent complete and duration bars in **Tools | Program Options | General**.
Calendar View

A monthly calendar view of important events can be generated for any schedule. The schedule title, symbols, and symbol text are displayed.

February 2015

Date Heading scroll buttons

Use toolbar scroll buttons: found on the Dates menu to scroll through the schedule by any number of days using a “sliding” time window. For example, set the number of “days to scroll” to 30 to scroll a month at a time; or to 7 to scroll a week at a time.
Example Schedules

The examples in this section are offered to present ideas for setting up your own schedules. Each example uses a number of features available in Milestones Professional.

For additional examples, please visit the “Examples” section of our web site or explore the samples delivered with the Milestones Professional software File | Files and Templates: Open and Save Options | Open | Sample Chart.

Milestones Sampler
Birds on a Wire

Multiple Projects Master Schedule

<table>
<thead>
<tr>
<th>Phase</th>
<th>Revised Finish</th>
<th>Baseline Finish</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Baseline Cost</th>
<th>Current Costs</th>
<th>Cost Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Phase 1</td>
<td>11/27</td>
<td>12/7</td>
<td></td>
<td></td>
<td></td>
<td>$500,000</td>
<td>$400,000</td>
<td>$100,000</td>
</tr>
<tr>
<td>Phase 2</td>
<td>4/1</td>
<td>3/16</td>
<td></td>
<td></td>
<td></td>
<td>$750,000</td>
<td>$800,000</td>
<td>($258,333)</td>
</tr>
<tr>
<td>Phase 3</td>
<td>8/4</td>
<td>8/5</td>
<td></td>
<td></td>
<td></td>
<td>$450,000</td>
<td>$350,000</td>
<td>($27,059)</td>
</tr>
<tr>
<td>Phase 4</td>
<td>12/13</td>
<td>12/19</td>
<td></td>
<td></td>
<td></td>
<td>$500,000</td>
<td>$100,000</td>
<td>$282,353</td>
</tr>
<tr>
<td>Phase 5</td>
<td>5/18</td>
<td>5/18</td>
<td></td>
<td></td>
<td></td>
<td>$800,000</td>
<td>$0</td>
<td>$405,405</td>
</tr>
</tbody>
</table>

Baseline Costs: $600,000
Current Costs: $400,000
Cumulative Baseline Costs: $1,000,000
Cumulative Current Costs: $1,200,000

Design and Review

Project Status Report
Baseline vs. Current Costs and Finish Dates

<table>
<thead>
<tr>
<th>Percent Complete</th>
<th>Phase</th>
<th>Revised Finish</th>
<th>Baseline Finish</th>
<th>2015 Q3</th>
<th>2015 Q4</th>
<th>2016 Q1</th>
<th>2016 Q2</th>
<th>2017 Q3</th>
<th>2017 Q4</th>
<th>2017 Q1</th>
<th>2017 Q2</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>Phase 1</td>
<td>11/27</td>
<td>12/7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72%</td>
<td>Phase 2</td>
<td>4/1</td>
<td>3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72%</td>
<td>Phase 3</td>
<td>8/4</td>
<td>8/5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76%</td>
<td>Phase 4</td>
<td>12/13</td>
<td>12/19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45%</td>
<td>Phase 5</td>
<td>5/18</td>
<td>5/18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Development Scenario 1

Dates are assumptions based on...

Earned Value Report

<table>
<thead>
<tr>
<th>Project/ Tasks</th>
<th>% Comp.</th>
<th>TASK DONE?</th>
<th>SV</th>
<th>FY15</th>
<th>ACWP</th>
<th>EV</th>
<th>Cost Status</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project 1</td>
<td></td>
<td></td>
<td>$1,809</td>
<td>May</td>
<td>$1,485</td>
<td></td>
<td>$1,809</td>
<td>$2,975</td>
</tr>
<tr>
<td>Research</td>
<td></td>
<td></td>
<td>$0</td>
<td>Jun</td>
<td>$300</td>
<td></td>
<td>$300</td>
<td>$300</td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td>$0</td>
<td>Jul</td>
<td>$400</td>
<td></td>
<td>$400</td>
<td>$400</td>
</tr>
<tr>
<td>Procurement</td>
<td></td>
<td></td>
<td>$0</td>
<td>Aug</td>
<td>$175</td>
<td></td>
<td>$250</td>
<td>$250</td>
</tr>
<tr>
<td>Production</td>
<td></td>
<td></td>
<td>($293)</td>
<td>Sep</td>
<td>$200</td>
<td></td>
<td>$432</td>
<td>$725</td>
</tr>
<tr>
<td>Testing</td>
<td></td>
<td></td>
<td>($187)</td>
<td>Sep</td>
<td>$210</td>
<td></td>
<td>$213</td>
<td>$400</td>
</tr>
<tr>
<td>Review</td>
<td></td>
<td></td>
<td>($136)</td>
<td>Oct</td>
<td>$100</td>
<td></td>
<td>$214</td>
<td>$350</td>
</tr>
<tr>
<td>Delivery</td>
<td></td>
<td></td>
<td>($550)</td>
<td>Oct</td>
<td>$100</td>
<td></td>
<td>$0</td>
<td>$550</td>
</tr>
</tbody>
</table>

Legend:
- EV greater than BAC
- EV less than BAC
- EV equals BAC

Introduction 1-25
Integrated Master Schedule

Master Phasing

Program Milestones
- Award
- Del

Subcont Milestones
- Spec
- PDR
- Rel
- Prelim
- Design
- Benchmark
- Test
- Build
- Prod
- Test
- Deliver

Phase One
- Requirements
- Final Design
- Drawings

Phase Two
- Test 1
- Test 2
- Del
- Del
- Del

Phase Three
- Del
- Del
- Prof
- Del
## One Page Business Plan

### Hot New E-Company 1-page business plan

**Three Year Business Plan Timeline - For Investors**

<table>
<thead>
<tr>
<th>Elements of Three Year Plan</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>New E-Commerce Sites (Launch Dates)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Book Store</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software Store</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Store</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Newsletters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sports Channel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beauty Makeover</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing and Public Relations</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Tracking Client Payment

**Tracking Client Payments**

<table>
<thead>
<tr>
<th>Contract</th>
<th>2017</th>
<th>2018</th>
<th>Total x1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td></td>
<td></td>
<td>$70</td>
</tr>
<tr>
<td>Lotus</td>
<td></td>
<td></td>
<td>$85</td>
</tr>
<tr>
<td>Hewlett Packard</td>
<td></td>
<td></td>
<td>$115</td>
</tr>
<tr>
<td>BMC</td>
<td></td>
<td></td>
<td>$60</td>
</tr>
<tr>
<td>Panasonic</td>
<td></td>
<td></td>
<td>$88</td>
</tr>
<tr>
<td>Netscape</td>
<td></td>
<td></td>
<td>$70</td>
</tr>
<tr>
<td>Sony</td>
<td></td>
<td></td>
<td>$149</td>
</tr>
</tbody>
</table>

**Projected Sales**

- $5,000,000

**Total Expenses**

- $2,500,000

**Profit!**
## Project Status Report

### Monthly Status Report

<table>
<thead>
<tr>
<th>Project &amp; Phase</th>
<th>Delivery Date</th>
<th>2016</th>
<th>2017</th>
<th>Ahead / Behind</th>
<th>Percent Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Projects</td>
<td>3/27</td>
<td></td>
<td></td>
<td></td>
<td>14%</td>
</tr>
<tr>
<td>Project A</td>
<td>10/28</td>
<td></td>
<td></td>
<td></td>
<td>11%</td>
</tr>
<tr>
<td>Project B</td>
<td>2/5</td>
<td></td>
<td></td>
<td></td>
<td>16%</td>
</tr>
<tr>
<td>Phase 1</td>
<td>8/12</td>
<td></td>
<td></td>
<td></td>
<td>85%</td>
</tr>
<tr>
<td>Phase 2</td>
<td>9/26</td>
<td></td>
<td></td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>Phase 3</td>
<td>11/22</td>
<td></td>
<td></td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>Phase 4</td>
<td>2/5</td>
<td></td>
<td></td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>Project C</td>
<td>3/27</td>
<td></td>
<td></td>
<td></td>
<td>12%</td>
</tr>
<tr>
<td>Project D</td>
<td>3/13</td>
<td></td>
<td></td>
<td></td>
<td>22%</td>
</tr>
<tr>
<td>Project E</td>
<td>12/3</td>
<td></td>
<td></td>
<td></td>
<td>7%</td>
</tr>
</tbody>
</table>

### Project Roadmap

#### 2013
- Project Proposal
- Government

#### 2014
- Proc Auth
- CRB OffS
- Proposal
- Impact Assessment
- 2D Subrnt
- 2IF Substant

#### 2015
- 2IF Prep
- 2IF Merge
- 2IF Subrnt
- 2IF Substant

#### 2016
- 2IF Prep
- 2IF Merge
- 2IF Subrnt
- 2IF Substant

---

*Introduction 1-28*
Chapter 2: The Basics: Format the Schedule

This chapter contains valuable information concerning the basic aspects of formatting a schedule. Formatting options can be applied to new or existing schedules, and are the key to success throughout the scheduling and presentation process.

This chapter covers the following functions:

- The Schedule Setup Wizard
- The Milestones Professional Window
- Layout options
- Legend formatting
- Date headings
- Project start and end dates
- Sidebar – contains the toolbox and extra shortcut buttons
- Toolboxes – The Combo Toolbox and the Standard Toolbox
- Toolbox “tools”
- Symbol default options
- Horizontal bar default options
- Vertical link default options
- Curtains
- Create templates that retain the formatting aspects of a chart to give colleagues a head start on future Milestones schedules.
- Clone an existing schedule
- International support

For new users, the best way to get up and running quickly is to go through each of the Tutorials located in the toolbar under Help | Help Files | Tutorials.
Schedule Setup Wizard

To launch the **Milestones Professional Setup Wizard**, choose **File | Files and Templates: Open and Save Options | Wizard**. This wizard will walk through the setup of a schedule step-by-step or guide through using a pre-designed template. Follow the Wizard’s prompts to successfully complete the desired layout for a new schedule.

If starting a schedule with the intent of importing a file from Microsoft Project, the Project to Milestones wizard should be used instead. **See Chapter 10 for more information.**

Choose the **Select Predesigned Template** option to select from a wide variety of pre-formatted templates. Templates are organized by industry, such as engineering, software, and technology, or by common usage, such as baseline scheduling, earned value reports, and stoplight schedules.

Select a **Template Category** and then a specific template.
The Milestones Professional Window

In Milestones Professional, the user will see a screen similar to the one below:

- The **Standard Toolbar** is used to access frequently used options.
- Add a **Column Heading** to give a definition to a column.
- The schedule **Title** can be used to provide a heading.
- Choose from dozens of **Date Heading** styles, from minutes, years, or custom entries.
- **SmartColumns** automatically fill according to schedule data or entered data.
- Enter task bars and milestones into a **Task Row**. The **Schedule Area** is where task bars, milestones, and vertical links can be added.
- The **Sidebar** contains the **Toolbox** and a user-defined list of **Shortcut** buttons for a variety of common activities. The **Toolbox** provides the tools needed to build a schedule - including symbols, horizontal bars, and vertical links.
- The **Legend** contains user-entered definitions for bars and symbols.
- Values such as budget, cost, or man hours can be graphed in the **DataGraph** area.
- The **Status Bar** provides useful feedback while working with a schedule.
Format and Layout a Schedule

Milestones Professional offers the most complete and flexible layout of any project management package available. Control page size, rows per page, individual row height, and all other layout aspects of a schedule.

Layout

In the Standard Toolbar, choose the Layout menu to access formatting choices such as page size, legend size, and datagraph size.

Change the chart size and margins

![Image of layout settings in software]

2. Next to Chart Size, enter a horizontal and vertical value in inches.
3. Next to Page Margins, enter a value in inches for the Left, Right, Top and Bottom margin areas.
4. Next to Printer Orientation, choose Landscape or Portrait.
5. Choose Lock Layout to block any change to various formatting aspects of the schedule.
6. Next to Rows per Page, enter the number of rows that should appear on each page.

Rows per page and row height

Display 2 to 300 rows per page. If the height of one or more individual rows has been changed, then the actual number of rows on that page may be more or less than the rows per page value in Layout. That is, if a row height is decreased, then the rows per page may increase; if the height is increased, the rows per page may decrease.

The default row height is based upon the available space for rows divided by the number of rows per page. Choose Layout | Row/Symbol Sizes | Reset all Rows to Default Height, to reset all rows to the default value. The number of rows per page will also be restored.
Scale the chart size to the current paper size

To access the current paper size, click on the Full Page Layout dialog button found in the bottom right of the Page Size section.

Create stamp-size to wall-size schedules. The maximum horizontal and vertical chart size is approximately 300 inches, or 25 feet. When the schedule prints, Milestones Professional will either scale each page of the schedule to fit within the Current Paper Size, or it will allow each page to span as many sheets of paper as needed, depending upon the printing options selected. To avoid the need for scaling, it is best to make sure that the Chart Size exactly matches the Current Paper Size.

The measurements in the Page Layout dialog box are shown in U.S. inches. If the regional settings are set to use metric, then the measurements will be shown in centimeters.

The yellow border surrounding the sample chart (seen in the File | Printing | Print Preview screen) shows the unusable area of the paper where the printer cannot print, as reported by your current printer. Keep the margins large enough so that no part of the sample goes into the yellow area.

Change the number of columns

Milestones Professional offers up to 20 columns - 10 on each side of the schedule. Columns may contain text, dates, values and symbols.


2. Under Left Text Column Widths, enter a value in inches to create a column on the left side of the schedule.

3. Under Right Text Column Widths, enter a value in inches to create a column on the right side of the schedule.

4. A ☑️ under a column number means that column will be hidden.

The number and size of columns directly affects the amount of space available in the schedule area under the date headings. By increasing the horizontal chart size, there will be more horizontal space for columns and for the schedule area.
Column order

Columns are numbered from 1 to 10 on the left side of the schedule, and from 11 to 20 on the right side of the schedule, as shown in the column numbering graphic under the **Columns and Rows** tab.

Column 10 is closest to the schedule area on the left side of the schedule. Column 11 is closest to the schedule area on the right side of the schedule.

For example, if only one column is on the left side of the schedule, it would be column number 10.

Hide and unhide columns

If a column is hidden, then the width will be remembered and restored if it is later unhidden. Columns of zero width are automatically not displayed; however, zero width columns must always be on the outer edges of the schedule. For example, if column 10 is marked as 0.0 width and column 9 is marked as 1.0 width, then the 1.0 will be moved to column 10.

It is best to use the hide check boxes if you need to hide a column that has data in it, instead of entering a 0.0 width value to essentially “hide” a column. Unhidden columns marked as 0.0 width will eventually have their data blanked out.

Legend

Create a Legend

The **Legend** is the area reserved for documenting the usage of the various symbols, horizontal bars and vertical links on a schedule. The only meaning of a symbol or bar is that which is entered in the legend.

Access the full legend properties.

1. Choose **Layout | Legend Size**. Next to **Enter Legend Height**, enter a value in inches.
2. Choose the **Apply Legend Changes** button.
3. Choose the **Full Legend Settings** button to access more Legend options. This will display the **Selection** menu for full legend properties.

A value of 0 in **Enter Legend Height** results in no legend on the schedule.
Format a Legend

When the Full Legend Settings are accessed, there are many options available for customization.

1. The legend symbols and bars use the default symbol size setting. Enter a value next to Legend Symbol Size Override to override the default setting for legend entries.

2. Use the drop-down menu next to Entries Per Row to enter the number of legend entries to display on each row in the legend.

3. Choose Show Legend Text Under Symbols to place legend text directly underneath the legend symbols. This helps to condense overcrowded legend entries.

4. Floating Legend to position the legend anywhere.
   - Optionally choose, Limit the Floating Legend to just the following pages to assign a floating legend to particular pages within the schedule. Enter in the page numbers separated by commas and press the apply button.

5. Frame Legend to draw a border around the legend area.

6. Draw Shadow to display a shadow around the legend. Select the shadow size from the drop-down menu and choose a Shadow Color by selecting the color box next to the reset button.

7. Leave Gap between Chart and Legend to separate the last task row in the schedule from the legend border.

Legend Background color and font settings

In the Background section, click on the color box next to Background Color to change the color of the legend. To fade that color to a target color, click on the color box next to Target Color. Finally, choose from one of the Special Effects for the colors to fade together.

In the Font Settings section, choose the legend font, font size, Text Style, and Legend Text Color.
**Date Headings**

Up to 4 levels of Date Headings are available, shown above the schedule area, below the schedule area, within a task row, or all of the above. The Date Headings are used as a reference point for the symbols and bars on a schedule.

You should select headings that are appropriate for the time span of the schedule and the amount of horizontal space over the schedule area. For example, daily headings in a schedule displaying one year would not be appropriate for an 8.5" by 11" page size, since it would be difficult to squeeze 365 daily divisions into the amount of space available.

**Format the Date Headings**

Bring up the menu for formatting the date headings:

1. On the schedule, click once on the date heading. This should display the Selection menu. This menu can also be found under Dates | Date Headings | Date Headings Full Dialog:

2. For any of the four available headings, click the drop-down arrow ▼ and choose a heading type. Choose from 35 standard date heading styles ranging from years to minutes and 4 user-created custom headings.

3. Choose **Align month start with week starting day** in order to line up the month headings with the week headings.

4. Under Background, click the color box and choose a background color. Choose an optional Target Color and Effects for fading from the background color to target color.
Date Heading Start number

If the date heading type is a series of non-repeating numbers, then a **Start** number can be specified.

For example, the heading *Monthly 1, 2, 3,…12, 1* cycles from 1 to 12, then begins again at 1. A Start number would be ignored with this heading type.

The heading *Monthly 1, 2, 3,…12, 13* begins with 1 and does not start over; therefore, it is possible to use a **Start** number, like 3 as seen in the example below.

![Date Heading Start number example](image)

This is the resulting date heading with a **Start** number 3 on a one-year schedule:

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
</tbody>
</table>

For a countdown heading, enter a negative **Start** number, such as –12:

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>11</td>
<td>10</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Date Heading Frequency number

Any of the standard heading types can have the **Frequency** altered. For example, for a schedule that covers fifty years, the user might want to set the frequency to 10, so that on a yearly heading, only every 10th year is displayed, such as 2000, 2010, 2020, etc.

Below is the result of a date heading format in which the **Frequency** has been changed to 10. In this example, the schedule dates are from 1/1/2000 to 12/31/2059. The 2000 heading spans from 1/1/2000 to 12/31/2009; the 2010 heading spans from 1/1/2010 to 12/31/2019; and so on.

| 2000 | 2010 | 2020 | 2030 | 2040 | 2050 |
Custom Date Heading

There are also 4 custom heading settings, known as Custom Types. Set the text, the end date and time if necessary, and background color for each of the date heading divisions.

To edit the custom headings, on the schedule, click once on a date heading. This will display the Selection | Current Object: Date Heading menu. Choose Edit Custom Headings. or Dates | Date Headings | Date Headings Full Dialog.

Here is an example of a custom heading with user-entered text “Phase 1”, “Phase 2” and “Phase 3”.

An end date is entered to designate the end of each date division and the beginning of the next division.

A Background Color is selected for each date division.

The schedule’s start date determines when the first division begins.

The example below shows two standard headings, plus the above custom heading.

<table>
<thead>
<tr>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Phase 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Phase 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Phase 3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Choose Sort to arrange the custom heading entries in date order.
- Click on a line number and choose Insert Entry to insert a blank entry line.
- Click on a line number and choose Delete Entry to delete the text and date.
- Recommended: Choose Custom Heading Data is Embedded in Schedule to allow the custom heading to stay with the schedule in cases where the schedule might be shared with others.
- Share Custom Date Headings using the Copy Heading to Clipboard and Paste Heading from Clipboard options.
Set the Project Start and End Dates

The project start and end dates control the visible date range that appears in the Milestones window.

1. Choose **Dates | Start and End Dates** from the toolbar.
2. Under **Displayed Start Date**, enter a date. Press the apply button.
   - Click the for a date selection calendar.
3. Under **Displayed End Date**, enter a date. Press the apply button.

Symbols and bars can be added outside of this range by scrolling forward and backwards with the Shift+PgUp and Shift+PgDown keys or in **Date | Date Range Tools** Shift displayed range backward / Shift displayed range forward.

Change the amount of days by which the scroll buttons move through the calendar by going to **Dates | Start and End Dates | More Settings*** | Yearly/Monthly | Calendar Range Scrolling | Working days to scroll with Shift+PgUp/PgDn**.

Click on **Dates | Start and End Dates | More Settings** More Settings..., to find other **Schedule Details** options, including a place to change fiscal year formatting, shade weekends, work weekends, and allow hourly/minute detail.
Customize the Sidebar and Toolbox

The toolbox contains the building blocks of a schedule; symbols, horizontal bars, and vertical links. Any of these symbols and bars can be changed to a different shape, size, type, color, or pattern.

All of the toolbox settings are unique to the current schedule. Thus, if a toolbox changes on one schedule, it does not affect any other schedules.

Copy and paste the toolbox into other schedules or save the file as a personal template so that all toolbox settings are retained for future use. To copy the toolbox, right click and choose Copy Toolbox. See pg. 2-35 for more information on templates.

Sidebar

The optional sidebar is an extra toolbar anchored to the left or right side of the Milestones window. The sidebar contains the toolbox and a user-defined list of shortcut buttons for a variety of activities.

Changes made in the Sidebar Options dialog box apply to all schedules.

Add and remove selected Sidebar icons

1. Choose Tools | Customize | Sidebar Options.
2. Add sidebar icons: Select from the list of Available Sidebar icons and then click Add>>.
3. Remove sidebar icons: Select from the list of Current Sidebar icons and then click <<Remove.

If all of the sidebar shortcut icons selected are not selected, note that the number of visible sidebar icons is determined by the toolbox size, screen resolution, and Milestones window size. The fewer rows of symbols, bars, and links in the toolbox, the more sidebar shortcut icons are visible. A screen resolution of 1280x1024 will show more sidebar shortcut icons than a screen resolution of 800x600. Also, a maximized Milestones window will display more sidebar shortcut icons than a minimized window.
**Toolbox: Free-floating or Anchored in the Sidebar**

Choose to display the toolbox as free-floating or choose to display the sidebar, in which case the toolbox is automatically displayed within the sidebar.

**Display a free-floating Toolbox**

1. Choose **Tools | Customize | Sidebar Options**.
2. Select **Do not show Sidebar**.
3. Close and restart Milestones for these changes to take effect.

**Display the Toolbox within the Sidebar**

1. Choose **Tools | Customize | Sidebar Options**.
2. Select either **Show Sidebar on left** or **Show Sidebar on right**.
3. Close and restart Milestones for these changes to take effect.
Set Toolbox Size and Type

Since the toolbox can take up a significant amount of screen space, it can be customized with just a few symbols and bars that are needed.

1. Right-click the toolbox and choose Toolbox Properties.
2. Choose Use Standard Toolbox or Use Combo Toolbox.
3. For the Standard Toolbox, select the number of symbols and horizontal bars that should display. For the Combo Toolbox, select the number of symbol/horizontal bar/symbol rows that should display.
4. The Combo Toolbox offers the option of activating the Arrow Tool when this schedule is opened. This prevents accidentally adding symbols and bars.
5. Extra Highlighting provides a black outline for selected items in the toolbox.
6. Show Light Blue Background for Current Selection provides a blue background for selected items in the toolbox.
7. Choose to show or hide the drawing tools.
8. Choose to display 0, 1, or 2 rows of Vertical Links.
**Toolboxes**

Milestones Professional offers two types of customizable toolboxes. Both types contain the same schedule building-blocks for creating Gantt bars, milestones, and task dependencies. Toolbox settings are unique to each schedule. However toolboxes may be copied to another schedule when they are within the same session of Milestones. Right click the toolbox and choose **Copy Toolbox**. Right click the toolbox in the other schedule and choose **Paste Toolbox**.

**Combo Toolbox**

With the Combo Toolbox, it’s easy to add task bars in one step - simply click a small plus, then click-and-drag in the schedule area to add a symbol, horizontal bar, and symbol in one continuous mouse action.

**About the Combo Toolbox:**

- Double-click a symbol or horizontal bar in the toolbox to change its shape, color, and other properties.
- Each schedule can have a unique customized toolbox.
- A Combo Toolbox can have up to 32 rows of symbol/ horizontal bar/symbol combinations (64 symbols and 32 bars), and 8 vertical links.
- A toolbox row of symbol/ horizontal bar/symbol can be copied to another toolbox row or to another schedule. Select the row. Right-click the toolbox and choose **Copy Selected Row**. Select the row to be replaced then right-click the toolbox and choose **Paste Copied Row over Selected**.

- Right-click the toolbox and choose **Toolbox Properties** to change its size.
- Set-up a default toolbox that will appear every time a new schedule is started. Do this by saving a “template” called **Default.mtp**.
- Hide the toolbox by removing the check from the **View | Optional Items | Toolbox** option. Or, right-click the toolbox and choose **Hide Toolbox**.

*The toolbox will only hide if it is free-floating.*
Standard Toolbox

The Standard Toolbox makes it easy to add symbols and bars in separate steps.

About the Standard Toolbox:

- Double-click a symbol or horizontal bar in the toolbox to change its shape, color, and other properties.
- Each schedule can have a unique customized toolbox.
- A Standard Toolbox can have up to 64 symbols, 32 horizontal bars, and 8 vertical links.
- Right-click the toolbox and choose Toolbox Properties to change its size.
- Set-up a default toolbox that will appear every time a new schedule is started. Do this by saving a “template” called Default.mtp.
- Hide the toolbox by removing the check from the View | Optional Items | Toolbox option. Or, right-click the toolbox and choose Hide Toolbox.

The toolbox will only hide if it is free-floating.

Toolbox Tools

On the first two lines of the toolbox, there are six Tool buttons:

The **Plus, Arrow & Text** tools are the three main used you will use for scheduling activities.

The **Plus Tool** +: add and connect symbols, add horizontal bars, add vertical links.

The **Arrow Tool** ←: change the date of a symbol; move pictures and freeform text; select an object.

The **Text Tool** T: add or edit text.

**Line Tool** →: draw lines and arrows on your chart.

**Box Tool** □: draw squares and rectangles on your chart.

**Circle Tool** ⭕: draw circles and ellipses on your chart.
Set Drawing Tools Defaults

The default settings for lines, boxes, and circles added to a schedule are black for color and lightweight for line type. Alter these default values by double-clicking on the Line, Box, or Circle tool in the toolbox.

Line drawing tool

Change the Line Color, Line Pattern, and Line Ends (to create an arrow).

Box drawing tool

Change the Border Color, Border Pattern, Background Color, Target Color, and Special Effects. The Special Effects setting will fade the Background Color into the Target Color.

Circle drawing tool

Change the Border Color, Border Pattern, and Background Color. To add any of these shapes to a schedule, click once on the tool, then click-and-drag in the schedule area to draw. Once placed on a schedule, lines, boxes, and circles do not move unless dragged with the arrow tool to a different location.

Customize the attributes of any line, box, or circle that is already on a schedule by double-clicking directly on the object. When this is done, a similar dialog box appears that lets the user change the setting of just that object.

Manage Lines, Boxes and Circles

Select a Line, Box, or Circle on the schedule to select the Manage all Lines, Boxes, Circles option or Tools | Other Tools | Manage Pictures, Lines, Boxes, Circles | Manage Lines, Boxes, Circles. Once in the Manage Lines, Boxes, Circles dialog box, select a line, box or circle to Delete, Show on all pages or Show on top. This dialog box is very usefull for finding missssing lines, boxes or circles.
Set Symbol Defaults

To change the attributes of a symbol in the toolbox, double-click on the symbol in the toolbox. Any changes to the symbol in the toolbox will affect all occurrences of that symbol on the schedule. That is, when the new changes replace the old, all occurrences of the old symbol type on the schedule are replaced by the new settings.

Symbol Shape and type

To set a symbol’s defaults:

1. Double-click a symbol in the toolbox.
2. Click the Symbol Shape tab.
3. Click a drop-down arrow to view the options.

The Sample Symbol changes to match selections as they are made.

- Choose from 140 **Standard Shapes**.
- Apply **3D Look** attributes. 3D Look highlights a symbol with a simulated light source and adds a shadow. Not all symbols allow the 3D Look.
- **Letter Marking**: Enter one letter or number to appear with the symbol. Select Symbol Shape #28 or #33 to show the letter marking as the symbol.
- Choose from one of four symbol types
  - **Normal**: This is the default symbol type, used for most situations. It is used in start date, end date, duration, and other SmartColumns.
  - **Comment**: This symbol type is ignored for SmartColumn purposes. Use this symbol type for additional symbol text or symbol notes.
  - **Status**: This symbol type is used for controlling percent complete.
  - **Baseline**: This symbol type takes advantage of baseline features.
- User created symbols can be selected under **User-Defined Shapes**. Optionally, choose to embed it in the schedule so that the symbol is available when sending or sharing the chart. Find the Symbols folder path by selecting **Tools | Program Options | Folders**.
Symbol Color, Pattern, Size and Shadow

Set a symbol's defaults:

1. Double-click a symbol in the toolbox.
2. Click the Color/Pattern/Size/Shadow tab.
3. Click a drop-down arrow to view the options.

- Choose the Line Pattern and Outline Color for the symbol.
- Choose a Line Pattern and Outline Color for the symbol.
- Choose a Fill Pattern and Fill Color for the inside of the symbol.
- Choose a symbol Marking pattern and Mark Color, such as \ or \ through the symbol, a box or circle enclosing the symbol, and more.
- Set a Text Color Override. This override will apply to all symbols of this type that already exist on the schedule (optionally) and all future symbols of this type that are placed on the schedule. Press reset to remove the toolbox color override.
- The After Status Color is the fill color of the symbol after (to the right of) the status date.
- The After Status Symbol is what the current symbol will switch to after (to the right of) the status date.

☞ To activate the Fill to Status feature, choose Dates | Date Related Settings | Symbols: Fill to Status Date.

- Choose a Shadow color and size.
- Set an Override Size for this symbol only. This override will apply to all symbols of this type that already exist on the schedule (optionally) and all future symbols of this type that are placed on the schedule. Note that bars continue to be displayed at the size that is based upon the symbol size for the entire schedule.
Symbol Text /Date properties and position

Set the position of the symbol date, symbol text, marking letter, and the symbol itself. Choose the symbol text background colors as well as the text and date background degree of transparency.

Set a symbol's defaults:
1. Double-click a symbol in the toolbox.
2. Click the Text and Date Properties tab.
3. Select preferred options for Text and Date options.
4. Select preferred options for symbol placement.
5. Override the symbol date format.

- Set Date Placement as Above, Middle, Below (vertical positioning); and Left, Center, Right (horizontal positioning). Optionally, Hide the date.

- Set Text Placement as Above, Middle, Below (vertical positioning); and Left, Center, Right, or Bar (horizontal positioning) or Hide the text.

- To add a Text Background color, check Fill area around text and click Fill Color button to choose a color.
  - Choose Draw Border to frame the background.
  - Choose Draw Shadow color same as symbol shadow.
  - Choose a Target Color and Special Effects for fading from the Fill Color into the Target Color.

- For Date Background and Text Background:
  - Opaque causes a solid background to appear under the text
  - Transparent causes the text to not obscure any underlying graphics.
  - Default determined by the last text selection. For accuracy choose opaque or transparent.

- For Marking Letter, choose Upper, Middle, or Lower as the vertical placement within the symbol.
• Check **Draw text at angle** to force symbol text to display at the angle set in **Tools | Program Options | Edit | Angle for Angled Symbol Text**. This override will apply to all symbols of this type that already exist on the schedule and all future symbols of this type that are placed on the schedule.

• For **Symbol Position**, choose from 11 positions for the vertical placement of a symbol within a task row.

• Type in a **Symbol Date Format Override**, (selecting the question mark button for help on custom date format options). This override will apply to all symbols of this type that already exist on the schedule and all future symbols of this type that are placed on the schedule.

If settings for a symbol in the toolbox are changed and that symbol exists on the schedule, all the affected symbols are checked to see if they have individual settings that differ from the new settings. If so, the user is given the opportunity to keep the individual override settings by checking or unchecking the items in the **Select Items to Change** dialog box.

**Symbol Position**

Within each task row, the symbols are positioned vertically in 11 possible positions on the task row. The bars follow the positioning of the symbols to which they are attached.

**Change an individual symbol’s position:**

1. Click once on the symbol on the schedule.
2. Hold the **Shift** key.
3. Press the **up arrow** key or **down arrow** key to shift the symbol position.

**Change the vertical spacing between upper, middle and lower symbols:**

- The spacing percent changes are 10-300.

- **Tools | Program Options | Edit | Vert Spacing:Upper/Lower Symbols**

**Override the vertical symbol spacing task row by task row:**

1. Select the task row.
2. In the toolbar in the **Task Row Settings** section choose < the down arrow under **Upper /Lower Symbol Spacing %** and select the percentage.
Symbol Default Text

Assign up to three lines of text to each symbol in the toolbox. When a symbol with Default Text is added to the schedule, both the symbol and the text appear.

The text is based on user-entered text or text from a selected column.

Set a symbol’s text defaults:

1. Double-click a symbol in the toolbox.
2. Click the Default Text tab.
3. Click a drop-down menu to select a column. Each time the symbol is added to the schedule the chosen column information for that task row will appear as symbol text.
4. Type in text to be added to the symbol. Enter up to 56 characters for each default text line.

5. Tag a symbol to take advantage of the SmartColumn, “Date from automation tag” feature, which means imported or added symbols can be matched to a live column so that if the symbol moves then the column gets updated automatically.

Text attached to any symbol already on the schedule will not be affected by changes to the Default Text. That is, changes to the Default Text only affect symbols that subsequently get added, not those already on the schedule.

Text attached to added Red Triangles:

Line 1 is Column 10 information.

Line 2 is typed-in text “Complete”.

The symbols were Tagged so when they were added to the schedule their date would populate the Finish column.
Set Horizontal Bar Defaults

To change the attributes of a horizontal bar in the toolbox, double-click on the bar in the toolbox. Any changes to the bar in the toolbox will affect all occurrences of that bar on the schedule.

Bar properties

Set a horizontal bar’s defaults:
1. Double-click a bar in the toolbox.
2. Click a drop-down menu ▼ to view the options.
   - The Sample Bar changes to match the selections.
   - Select to have Bar: Fill to Status feature, On or Off. If this feature is off the bars will only use the Fill Color. If this feature is turned on the bars will use both the fill and after status features.

- Choose from 70 horizontal Bar Types.
- Choose a Fill Color that fills the inside of the bar. If the After Status feature is turned on then the fill color will be before status, to the left of the status date (Complete).
- Choose an After Status Fill Color that fills the inside of the bar after status, to the right of the status date (Incomplete). Bars 15, 27, 28, 29, 33, 38, 68, 69 and 70 ignore After Status Color.
- Choose Line Color for the bar.
- Choose from 57 Fill Patterns that fill the inside of the bar Before Status and also After Status.

Marbled bar fill patterns are full-colored bitmaps which will ignore any Fill Color settings. Fill patterns increase the size of printer files and metafiles. Thus, printing time may be increased.

- Choose the Line Pattern that encompasses the bar.
- Choose a Type of Effect to fade from the Fill Color to the Target Color for both Before Status and After Status.
- Choose an Arrowhead Size if the bar is a line with an arrow ending.
- Choose the Shadow Settings color and size.
Set Vertical Link Defaults

To change the attributes of a vertical link in the toolbox, double-click on the link in the toolbox. Any changes to the vertical link in the toolbox will affect occurrences of that link on the schedule.

Vertical Link properties

1. Double-click a vertical link in the toolbox.
2. Click the ▼ drop-down menu to view the options.
   • The sample link changes to match selections.
   • Choose a vertical link Color.
   • Choose from a variety of Line Patterns.
   • Choose from 19 vertical link Shapes.
   • Choose an Arrowhead Size if the link has an arrow ending.
   • Optionally, check Adjust (arrowhead size) for chart symbol size to scale the arrowheads based on the chart’s symbol size setting.
   • Optionally, check Show on top to have vertical links overlay all other objects.
   • Rounded Corners is a global setting that affects all other vertical links in the toolbox.
   • To have Vertical Links drawn across pages that do not contain the connected symbols choose Draw Line for page spanning Vertical Connections.
   • Choose Draw Off-page Connections Bubbles to keep track of vertical links that span pages on a multi page schedule. Bubble icons will be drawn in line with the vertical link at the top and bottom of the schedule area. The bubbles show an arrow in the direction of the link. The bubble at the top of the schedule area displays the task row number of the start symbol of the link. The bubble at the bottom of the schedule area displays the task row number of the end symbol of the link.
   • Choose 3-D Look to highlight the connections bubble with a simulated light source and shadow.
   • Choose Arrow Only to just have a directional arrow drawn in line with the vertical link at the top and bottom of the schedule area.
**Color Themes**

Color themes set predefined background shading for most areas of the schedule -- task rows, chart title, date headings, columns, column headings, schedule background, legend, DataGraphs and toolbox symbol and horizontal bar colors.

Choose from a list of preset themes or create your own, then apply the theme to a new or existing schedule for instant color formatting.

Color themes do not override column cell by cell settings. To reset all individual overrides made to column cell text color and size back to the schedule defaults, select an entire column, right-click and choose *Reset all Row and Cell Font/Color Overrides for all Columns*.

The program will remember the last color theme category used.

**Create a Color Theme**

Saved color themes are listed in the *Format | Color Themes* drop down categories of *Personal Themes* and *All Themes*.

1. Format the schedule’s background shading for task rows, chart title, date headings, columns, column headings, legend, DataGraphs and toolbox symbol and bar colors. Choose to create either outline level shading, gridline, and text formatting; or create default horizontal task row shading and gridline formatting.

2. After a schedule has the desired look, choose *Format | Color Themes | Manage Color Themes*.

3. In the *Manage Color Themes* dialog box, enter a theme name.

4. Click *Save Theme*, and then click *Close* to exit.

**Delete a Color Theme**

1. Choose *Format | Color Themes | Manage Color Themes*.

2. Click on a name from the color theme list.

3. Click *Delete Selected Theme* and then click *Close* to exit.

**Share a Color Theme**

1. Choose *Format | Color Themes | Manage Color Themes*.

2. Click on a name from the color theme list.

3. Choose *Export Selected Theme* to create a .TXT file to share.

4. Choose *Import Selected Theme* to select a .TXT file that has been shared.
Apply a Color Theme

A color theme can be applied to a new or existing Milestones schedule.

1. Choose **Format | Color Themes**.

2. Choose a color theme category. The **All Themes** category lists all available color themes.

3. Click on a color theme from the list, and see a preview of the theme as it applies to the schedule (click **Undo Color Theme** to return to the original schedule).

4. Click the drop-down menu to view the options.
   - **Use Outline Shading**: Applies the color theme shading to all schedule areas and uses the outline level shading for task shading, which overrides all other shade settings.
   - **Use Schedule Shading**: Applies the color theme shading to all schedule areas and uses the default horizontal task row shading for task shading (either no shading or odd/even row shading), instead of the outline level shading.
   - **Do not alter Task Shading**: Applies the color theme shading to all schedule areas, yet retains the schedule’s current outline level shading.
   - **No Task Row Shading**: Applies the color theme shading for all schedule areas, yet clears all task row shading. The schedule’s background shading is displayed.
   - ![Include Toolbox Colors](image)
     - Include Toolbox Colors: Applies the color theme’s toolbox colors to the existing toolbox.
   - ![Leave out Gridlines](image)
     - Leave out Gridlines: Applies the color theme without affecting existing gridlines.
Format Task Gridlines

Milestones offers many task row gridlines, shading, text, and summary bar formatting options, including:

- Default gridline and shading settings for all, only odd, or only even task rows. These settings are accessed in Format | Gridlines | Horizontal Gridlines and Shading....

- Override individual gridline and shading settings for selected task rows. These settings are accessed by selecting the rows to be overridden and using the Selection tab of the standard toolbar.

- Override gridlines, shading, text, and summary bar settings by outline level. These settings are accessed in Format | Gridlines | Gridlines, Shading, Font Sizes by Outline Level...

Horizontal Gridlines and Shading for entire schedule

When formatting the horizontal gridlines and shading for the entire schedule, keep in mind that these settings will override gridlines, shading, and font sizes that have been set up by outline level. Therefore, choose to define either horizontal gridlines and shading for the entire schedule or outline level settings.

Horizontal Gridlines between Task Rows

1. Choose Format | Gridlines | Horizontal Gridlines and Shading... The following dialog box appears:

2. Click the Gridlines tab.
   - Apply New Selections to all Three Sections to quickly format all three areas of the schedule—Left Columns, Graph/Schedule Area and Right Columns. Any choice in one section is applied to the other two sections.
   OR choose from the following:
   - Left Columns - all columns to the left of the schedule area.
• **Graph/Schedule Area** - the area in which the symbols and bars are located.

• **Right Columns** - all columns to the right of the schedule area

3. Under **Left Columns**, **Show Gridlines** to display gridlines between tasks
4. Under **Line Type**, choose a gridline pattern.
5. Under **Line Color**, click the **Color** button and choose a color.

If **Reset Gridline and Shades back to Schedule Defaults** is selected, then all settings will be cleared.

Press the **Remove all task by task gridline and shading overrides** button to remove previously set individual or selected task row overrides.

### Horizontal Task Row Shading

1. Click the **Shading** tab.

   - **Apply New Selections to all Three Sections** to quickly format all three areas of the schedule - **Left Columns**, **Graph/Schedule Area** and **Right Columns**. Any choice in one section is applied to the other two sections.

2. Under **Left Columns**, **Shade the Task Row** to shade task rows to the left of the schedule area.

3. Under **Shade Color**, click the **Color** button and select a color.

4. Under **Effects Target Color**, click the **Color** button and select a target color that the shade color will fade into.

5. To implement the target color, choose a **Special Effects** fading option.

6. Under **Alternating Pattern**, choose to shade only **Odd Rows** or **Even Rows**.

7. Click **OK** to apply the selections.
**Vertical Gridlines**

Vertical gridlines are aligned along time boundaries (years, fiscal years, quarters, months, weeks, days, hours, minutes, and custom headings) and extend from the date heading to the bottom of the schedule.

1. Choose **Format | Gridlines | Vertical Gridlines**.
2. Check the gridline boundaries to display.
3. Choose a **Frequency**. For example, *Monthly* and a **Frequency** of 2 displays a vertical gridline between every two months.
4. Choose a **Line Type** and a **Line Color**.
5. Check **Extend Vertical Gridlines into DataGraph Area** to display the gridline settings in the DataGraph area.

**Vertical Shade with Curtains**

Curtains are a way of highlighting a date range with a background color or a pattern. A single pattern can be repeated at a chosen interval. Each schedule can have multiple curtains with varying colors and patterns.

**Add, edit or delete Curtains**

1. Choose **Format | Vertical Shading | Curtains (Shade by Date Range)** to display the **Curtain Setup** dialog box.
2. Select an existing curtain to **Edit** or **Delete** it.
3. To add a curtain click **Add**.
4. Choose **Move Up** or **Move Down** to reorder the curtains.
5. Display options:
   - **Do Not Show Curtains** to hide curtains from the schedule area.
   - **Show Curtains in Schedule Area Only** to display curtains within the schedule area.
   - **Show Curtains in Date Heading Only** to display curtains within the date headings.
   - **Show Curtains in Schedule Area and Date Heading** to display curtains throughout the entire schedule.
   - **Show Curtains over Horizontal Gridlines** to show curtains overlaying any horizontal shading.
Curtain Add or Edit dialog box:

Under **Curtain Date Range or Recurring Pattern**, there are several options:

- **Date Range** to specify the time span that the curtain covers.
- **Repeat a Curtain of** to choose a time interval for the curtain to appear and reappear within a date range.
- **Use above date range as start/stop for this curtain** to apply the **Repeat a Curtain of** selection within the **Date Range** dates, instead of the schedule’s start and end dates.
- **Only show this curtain in Date Heading** add a curtain to just color a section of the Date Heading.
- **Only show this curtain in the Schedule Area** add a curtain to just color a section in the schedule area.
- **Name for task Row Usage** allows you to add a curtain to a specific task row or rows for a specified date range.

**Specified date range for Curtain:**

1. Choose **Date Range**.
2. Enter a **Start Date and Time** and an **End Date and Time**; or click the calendar icon to choose dates.
3. Choose a **Pattern Color, Background Color, Curtain Fill Pattern, and Special Effects**.

- Marbled fill patterns ignore the color selections and special effects. Use of these fill patterns increases the size of printer files and metafiles.
- If the first pattern is selected in the **Curtain Fill Pattern** drop-down list, optionally choose a **Special Effects** fade setting. The **Pattern Color** will fade to white, unless **Fade to Background Color** is checked, in which case the **Pattern Color** fades to the **Background Color**.
4. Click **OK**, and then **Done**.

<table>
<thead>
<tr>
<th>Task</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project 3</td>
<td></td>
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</tr>
<tr>
<td>Project 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*In this example the curtain is shown in the schedule area and date heading.*
Curtain repeat within a specified date range

1. Choose **Date Range**.
2. Enter a **Start Date and Time** and an **End Date and Time**; or click the calendar icon to choose dates.
3. **Repeat a Curtain of**, and make selections for duration and intervals.
4. **Use above date range**... to repeat the curtain within the date range as set in Step 1 and 2.
5. Choose a **Pattern Color**, **Background Color**, **Curtain Fill Pattern**, and **Special Effects**.
6. Click **OK**, and then **Done**.

Curtain repeat within the schedule’s start and end dates

1. Choose **Repeat a Curtain of**, and make selections for duration and intervals.
2. Choose a **Pattern Color**, **Background Color**, **Curtain Fill Pattern**, and **Special Effects**.
3. Click **OK**, and then **Done**.
Curtain in a Task Row or Rows

1. Choose **Date Range**.
2. Enter a **Start Date and Time** and an **End Date and Time**; or click the calendar icon to choose dates.
3. Choose a **Pattern Color**, **Background Color**, **Curtain Fill Pattern**, and **Special Effects**.
4. To define this curtain enter a name under **Name for Task Row Usage**.
5. Choose **OK** there will be no change to the schedule.
6. Right click the task row that will contain the curtain, in the displayed menu select **Curtain**.
7. The **Curtains for Current Task Row** dialog box displays.
8. Under **Curtain Names** select the named curtain. Leave the override date blank if you are using the original curtain date range.
9. Under **Curtain Names** select the named curtain. Select **Override Start Date** and **Override End Date**.

☀ Add up to five curtains per task row. These can be all the same curtain or a different named curtain. The curtains date range can be overridden.
Curtain example

In this example, there are repetitive curtains for a specific date range, a single date range curtain, repetitive curtains using the entire schedule range and task row curtains. The **Show Curtains in Schedule Area and Date Heading** option is turned on.

<table>
<thead>
<tr>
<th>Milestones Professional Curtains</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task</strong></td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>Project 1</td>
</tr>
<tr>
<td>Project 2</td>
</tr>
<tr>
<td>Project 3</td>
</tr>
<tr>
<td>Project 4</td>
</tr>
<tr>
<td>Project 5</td>
</tr>
</tbody>
</table>

**Holidays**

Make any day a holiday with the Milestones Professional Holiday Calendar. Optionally shade holidays to show non-working days in a project. Holidays can be pulled from either a global holiday file or from a list embedded in the schedule.

Choose **Dates | Date Range Tools | Holidays (schedule)** or **Holidays (global)**. Scroll to the month of the Holiday. Then select the holiday day.

Holiday calendars can be copied to other schedules. Choose the **Copy** button. Then open the new schedule and go to its calendar and choose the **Paste** button.

To delete a holiday date simply click on that date to deselect it. Choose **Clear All** to delete all Holidays.
Holidays as well as Saturdays, and Sundays can be shaded, each in its own color.

2. Select the Weekly/Daily/Holiday Shading option.
3. Check on Shade Saturdays, Shade Sundays and/or Shade Holidays.
4. Select the color button and choose the color for the shading from the color palette.
Charts and Templates

Charts preserve schedule details (such as task names, dates, value entries, etc.) and the schedule format. Templates retain the formatting (the “look” of a chart).

Chart samples for specific industries (Aerospace, Architecture, Software, Engineering, etc.) and styles (Gantt, Milestones, Earned Value, Stoppight, etc.) come with the software File | Open | Sample. These charts can be used as a starting point for a new schedule using Milestones cloning feature.

Standard Templates come with the software. Templates and can be applied at any time, even while using the Milestones Professional Setup Wizard, found by clicking File | Files and Templates: Open and Save Options | Wizard.

Personal Templates are user-created, saved, and then applied to charts.

Chart (schedule)

Once a chart is built in Milestones it should be saved as a chart, File | Saved As | Chart. If the format of the chart is to be a company standard then also save it as a Personal Template, File | Saved As | Personal Template. If the chart and all of its elements can be used for future projects, then use the cloning feature.

Clone the current schedule into a new file

Cloning is used to create a new schedule from an existing schedule. Choose a new start date for the schedule. The new schedule will be built using all of the project steps and dates of the original schedule.

1. Open an existing Milestones schedule.
2. Choose File | Files and Templates: Open and Save Options | New.
3. Choose Clone Current Schedule.
4. Select the calendar icon to set the Start Date of the Cloned Schedule. All dates will shift to this new starting date.

Merge Milestones charts

Milestones charts with similar format can be merged.

1. Open one of the Milestones schedule to be merged.
2. Choose File | Files and Templates: Open and Save Options | Open. | File to Merge select the file to be merged.

✔ The selected file will populate under the last task of the opened file.
Standard Templates and Personal Template

A Template can overlay a blank schedule (a chart) which can then be filled with data or it can overlay an existing chart with a template.

When saving a file as a Personal Template or Standard Template, these elements of the schedule are saved with the template:

- The schedule layout - chart size, margins, column widths, legend height, rows per page
- Background color, frame and shadow
- Calendar icons in date SmartColumns
- Chart title text format and background format (but not the chart title text)
- Column headings and SmartColumn settings
- “Column Text Containing” filters which were saved
- Current date line and text display
- DataGraph and ValueSet formatting
- Date headings and all timescale settings
- Date sensitivity options
- Default symbol size
- Default text styles
- Dependency mode setting
- Embedded graphics
- Gridline settings
- Legend entries and legend format
- Month and weekday name overrides
- Multi-Column Sort names which were saved
- Override Symbol Date and Text Display options
- Page number display
- Status line display toggle and properties
- Symbol date format
- Toolbox settings, including the size of the toolbox, and the symbols and bars used
- View modes: Gantt, Calendar, Duration, Percent Complete
When saving a file as a Personal Template or Standard Template, these elements of the schedule are NOT saved with the template:

- Bars and lines in the DataGraph
- Bookmarks
- Freeform text
- Graphics files that are not embedded
- Hidden menu items (this is a global setting applied to all schedules)
- Lines, circles or boxes drawn with the drawing tools
- Number and currency formats
- Schedule title
- Sidebar and toolbar shortcut button list (this is a global setting applied to all schedules)
- Symbols and bars on the schedule
- Task names on the schedule and any text entered into columns
- Values in the ValueSets

**Format a blank schedule with a selected Template**

Click File | Files and Templates: Open and Save Options | New to open a blank schedule. Choose File | Files and Templates: Open and Save Options | Open ▼ | Personal Template or Standard Template. Click on the file name of the template to open and then click Open (an .MTP file).

**New, Blank Schedule**

<table>
<thead>
<tr>
<th>Task</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jun</td>
<td>Jul</td>
<td>Aug</td>
<td>Sep</td>
</tr>
<tr>
<td></td>
<td>Oct</td>
<td>Nov</td>
<td>Dec</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Template</th>
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</thead>
<tbody>
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<td>Tasks</td>
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<td>Q3</td>
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<tr>
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<tr>
<td>Q1</td>
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<td>Q2</td>
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<tr>
<td>Q3</td>
</tr>
<tr>
<td>Q4</td>
</tr>
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<td>Budget</td>
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<tr>
<td>Actual</td>
</tr>
<tr>
<td>Status</td>
</tr>
<tr>
<td>$0</td>
</tr>
<tr>
<td>$0</td>
</tr>
</tbody>
</table>

Format the Schedule 2-37
Format an existing schedule with a selected Template

Open an existing schedule. Then open a template which instantly formats the schedule!

The columns in the existing schedule should match the column arrangement and column types in the template, as shown in the example below. The only exception: the template can have extra columns positioned at the far right or left, as shown by the “Budget Status” column in the template below.

The template’s symbols replace those of the original schedule, according to their positions in the toolbox.

To format an existing schedule (chart) with a template:

1. Open a schedule if it is not already open.
2. Choose File | Files and Templates: Open and Save Options | Open | Personal Template or Standard Template.
3. Locate the template (MTP file).
4. Click on the file name, and then click Open. The schedule opened in step 1 has a new look!

**Format the Schedule  2-38**
Setup Wizard Templates

When starting a new schedule using the Milestones Setup Wizard, choose from dozens of ready-to-go schedule templates.

1. Choose File | Files and Templates: Open and Save Options | Wizard.
2. Select Predesigned Template.
3. Under Template Category, choose a category.
4. Under Templates in current template folder, select a template.
5. Choose Next, and then enter a schedule title.
6. Choose Next, and then select a schedule start date.
7. Click Finish.

Most templates have basic instructions on how to use the schedule. These instructions are in a freeform text box that can be deleted by clicking on the box once with the arrow tool and pressing the Delete button on the keyboard.

Templates are categorized by industry and common usage. Here is a sampling of those categories—

- Basic Gantt
- Earned Value
- Resource
- Stoplight & Dashboard
- To Do List
- Budget Tracking
- Project Presentation
- Status Report
- Timeline

Create and save a Template

Open a blank schedule and format it - (see the beginning of this section for schedule areas whose format is retained by a template.)

Or, open an existing schedule that is already formatted.

1. Chose File | Files and Templates: Open and Save Options | Save As... ▼ | Personal Template.
2. Enter a template name in the field labeled File Name.
3. To use this template as the default, choose File | Files and Templates: Open and Save Options | Save As... ▼ | Standard Template and name the template default.mtp.
4. Click Save.

If the template was saved as default.mtp, when you click File | Files and Templates: Open and Save Options | New, the new default template will appear.
Full International Support

If English is not the user's language of choice, or if the user's preference is the metric measurement system, Milestones Professional provides the capability to set up custom language templates for any language. *International Number and Currency Settings* can be found on the **Format** menu.

Milestones Professional also picks up the date format and measurement type choices directly from the Windows Control Panel Regional Settings.

ISO week number format

Milestones Professional supports the International Standards Organization's standards for week numbering. The ISO week number heading type is available in Milestones' list of date headings.
Chapter 3: The Basics: Build your Schedule

This chapter offers the basic information needed for building a schedule. This information will help the user learn how to create a unique Gantt chart that encompasses a project plan.

This chapter covers the following:

- Add, move, and delete symbols and bars to a schedule
- Change or override existing symbols and bars on a schedule
- Add, change, and delete vertical links
- Use dependency mode for vertically linked symbols
- Add, edit, and move text
- Insert a chart title
- Add and edit legend entries
- Insert a picture
- Insert, change, move, and delete columns
- Sort, filter, and shade task rows
- Number or bookmark task rows
- Use right-click menus to help create or edit symbols, tasks, or columns
- Learn keyboard shortcuts for quick customizations
- Schedule viewing options

For new users, the best way to learn how to use Milestones Professional is to go through each of the Tutorials located in the toolbar under Help | Help Files | Tutorials.
Add Symbols and Horizontal Bars

Horizontal bars show the time span of a task for an activity in a project. A symbol must be on each end of the horizontal bar. Symbols can also be added individually, independent of a bar.

Which Toolbox should be used?

Using the Combo Toolbox, the user adds a task bar with start and end symbols in one click-drag-and-drop movement of the mouse.

Using the Standard Toolbox, symbols and bars are added separately, in several steps.

Combo - Add a Symbol, Horizontal Bar, Symbol combination

1. In the toolbox, click once on the small plus next to the symbol/horizontal bar/symbol combination to add. (All clicks are with the left mouse button.) When the toolbox is clicked, notice that the selection is sunken and highlighted.

2. Move the cursor to a task row in the schedule area under the date heading. Notice that the date is displayed next to the “crosshairs” cursor. This feature is part of the Milestones tooltips and can be toggled off and on in Tools | Program Options | Help.

3. Next, click and hold the mouse at the start date, drag to the right, and release at the task’s end date. Here, the end date is displayed next to the cursor, as well as the duration. This information can also be found at the bottom left of the Milestones window in the status bar.
**Combo or Standard - Add a single Symbol**

1. In the toolbox, click once on the large Plus tool, then once on the symbol to be added. The clicked on selections in the toolbox are sunken and highlighted.

   ![Toolbox](image)

2. Move the cursor (changes to “crosshairs”) to a task row in the schedule area.

3. Next, click and hold the mouse, drag to the right or left, then release at the date desired. The date is displayed next to the cursor as the mouse moves, looking for the correct date. By default, this tooltips feature is on but can be toggled off in Tools | Program Options | Help menu.

**Combo or Standard - Add a Horizontal Bar and Symbol to an existing Symbol**

Use this method when there is already a starting symbol on the schedule which needs a connecting symbol and bar.

1. Select the large Plus tool in the toolbox.

2. In the toolbox, click once on the bar to add.

   ![Toolbox](image)

   Notice that the selection is sunken and highlighted when clicked.

3. In the toolbox, click once on the symbol to add.

4. On the schedule, position the cursor directly on top of the start symbol. Click (and hold the mouse button) on the start symbol and drag to the left or right. Release the mouse button when the symbol is on its date.
Combo or Standard - Add a Horizontal Bar between two existing Symbols

1. Select the large Plus tool in the toolbox.
2. On the schedule, click once on the first (leftmost) symbol to connect.
3. In the toolbox, click once on the horizontal bar to add.
4. On the schedule, click once on the second symbol. The symbols will be connected.
   - or -

1. Select the Arrow tool in the toolbox.
2. In the toolbox select the horizontal bar to be added.
3. On the schedule, click once on the first (leftmost) symbol to connect.
4. Hold the SHIFT button down on the keyboard and click once on the second symbol to add. The two symbols should now be highlighted.
5. In the Selection tab, choose Connect found on the left side of the menu. The two symbols will then be connected.

Move an Existing Symbol on your Schedule

Once a symbol is placed on the schedule, several methods are available for moving the symbol to a different date.

Change a Symbol’s date using the mouse

1. Select the Arrow tool in the toolbox.
2. On the schedule click on the symbol and drag it to a new date, release the mouse button.

Add a Symbol or change its date with a Date SmartColumn

If the schedule has a date SmartColumn, manually type a date or use the date selection calendar to enter a new date or change an existing date in the column cell.

A new date (where none existed before) results in a symbol appearing on the schedule. Changing a date moves the existing start or end symbol.

Insert a date SmartColumn by selecting Insert | Rows, Columns | New Column | Dates... and choose from Start Date, End Date, Status Date, Baseline Start, and Baseline End.

Display calendar icons in date SmartColumns by selecting View | Optional Items | Show Calendar icons in date columns.
Other methods to change a Symbol’s date

1. Select the Arrow tool in the toolbox.
2. Click the symbol you want to change. The toolbar changes to **Current Object Symbol (1 Selected)**.
3. Enter a new date or use the calendar icon (picture) to change the date.
   - or -
   1. Select the Arrow tool in the toolbox.
   2. Single-click on the symbol.
   3. Hold the **Shift** key while using the left and right arrow keys on the keyboard.
   - or -
   1. Select the Arrow tool in the toolbox.
   2. Single-click on the symbol.
   3. Choose **Ctrl+E** on the keyboard.
   4. Key a new date in the dialog box that appears.

Highlight changed Symbols

Use the Highlight Changed Symbols feature to track symbols that have been changed since the last reset.

1. Before making changes to symbol dates, choose **Tools | Reports | Symbol | Highlight Changed Symbols Reset**.
2. Make changes to symbol dates and insert new symbols.
3. Choose **Tools | Reports | Symbol | Highlight Changed Symbols (since last reset)**. Changed and newly inserted symbols will be highlighted in orange. Choose **Highlight Changed Symbols Reset** to remove the highlight.

Delete Symbols, Bars, and Links from a Schedule

Delete a Symbol

1. Select the Arrow tool in the toolbox.
2. On the schedule, click on the symbol and press the Delete key on the keyboard.
Delete a Horizontal Bar

1. Select the Arrow tool in the toolbox.

2. On the schedule, right-click on the symbol from which the horizontal bar starts.

3. Choose Clear Horizontal Bars.

Delete a Vertical Link

1. Select the Arrow tool in the toolbox.

2. On the schedule, right-click on the symbol from which the vertical link starts.


Override Symbols, Bars and Links Properties

Symbol settings can be overridden on a symbol-by-symbol basis once a symbol is placed on the schedule.

Override a Symbol’s color, date/text placement, size

Override the symbol fill color, date and text placement, transparent or opaque background setting, symbol size, symbol’s vertical position within the task row, and symbol text color.

1. Select the Arrow tool in the toolbox.

2. Click once on the symbol (in the schedule area) to be changed. The Selection menu in the toolbar is now displayed.

3. In the Text tab, add or edit text; combine multiple lines of text into one; add a ten digit prefix or suffix to the symbol date; override the symbol date format; change the font, date and text placement; text alignment; transparent or opaque background setting; and angle symbol text and dates.

4. In the Size/Color tab, change the symbol size; choose to have text placement ignore symbol size override; change the symbol color, after status color, and outline color; change bar color; apply individual bar fill %; change vertical symbol position within the task row; select to have a bar and symbol on top.

5. In the Summary/Mark tab, choose to change or add a symbol mark and color.

6. In the Notes tab, add a visible or hidden note to a symbol (see pg. 3-16).
7. In the **Hyperlinks** tab, add or remove a symbol hyperlink (see *Chapter 8 pg. 8-14*).

8. In the **Constraint** tab, add a constraint date or expectation to a symbol (see pg. 3-9).

9. In the **Symbol Links** tab, link a symbol between Milestones schedules (see *Chapter 8 pg. 8-6*) or a task in a Microsoft Project file (see *Chapter 10*).

10. In the **ValueSets** tab, add values to a symbol for generating Datagrpahs (see *Chapter 7 pg. 7-10*).

11. In the **Vertical Links** tab, add or break vertical links, override vertical links color and line pattern (see pg. 3-10).

**Override Symbol text color and styles, line-by-line**

Each symbol can have three lines of symbol text. Each of those text lines can be individually formatted, as an override to the default symbol text settings.

1. Select the Arrow tool in the toolbox.

2. Click once on the symbol on the schedule. The **Selection** menu in the toolbar is now displayed.

3. In the **Text** tab, click the **Text Overrides** button for a symbol text **Line**.

4. Set color and text attributes, including bold, italic, and underline.

5. Repeat as needed for other symbol text entries. Click **Apply Text Changes**.

**Symbol date Prefix and Suffix**

Once a symbol has been placed on the schedule, enter any text to appear before and/or after that symbol's date display.

1. Select the Arrow tool in the toolbox.

2. On the schedule, click once on a symbol.

3. In the **Text** tab, next to **Date Prefix**, enter characters to appear before the symbol date.

4. In the **Text** tab, next to **Date Suffix**, enter characters to appear after the symbol date.

   - Enter a backslash (\) after the entry of the prefix to hide the date display, e.g. TBD\.
   - Add a blank space after the prefix text or before the suffix text to provide separation between the text and the date display.
Override Symbol Date Format

Enter custom date format for each symbol.

1. In the Custom Date field enter a string of characters. Select the question button for character information. ddd, MMM dd, yyyy.
2. Choose Apply Text Changes.

<table>
<thead>
<tr>
<th>DAY</th>
<th>Month</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>d</td>
<td>M</td>
<td>y</td>
</tr>
<tr>
<td>dd</td>
<td>MM</td>
<td>yy</td>
</tr>
<tr>
<td>ddd</td>
<td>MMM</td>
<td>yyyy</td>
</tr>
<tr>
<td>dddd</td>
<td>MMMM</td>
<td>gg</td>
</tr>
</tbody>
</table>

Override a Horizontal Bar’s default fill color

The bar fill color can be overridden on a bar-by-bar basis once a bar is placed on the schedule.

1. Select the Arrow tool in the toolbox.
2. On the schedule, click once on the left-most symbol to which the bar is attached. The Selection menu in the toolbar is now displayed.
3. Under the Size/Color tab, find the Override Symbol and Bar Colors section.
4. For 1st Bar Color, click the box to the right and choose a color.
5. For 2nd Bar Color, click the box to the right and choose a color.

Override a Horizontal Bar’s percent complete fill

The bar fill percent complete can be overridden on a bar-by-bar basis once a bar is placed on the schedule.

1. Select the Arrow tool in the toolbox.
2. On the schedule, click once on the left-most symbol to which the bar is attached. The Selection menu in the toolbar is now displayed.
3. Under the Size/Color tab, find the Override Symbol and Bar Colors section.
4. For 1st Bar Fill %, click the box to the right and choose a %.
5. For 2nd Bar Fill %, click the box to the right and choose %.
6. Select the question button for more information about the parameters of bar fill% option.
“Always on top” bars

This feature controls which bar appears “on top”, when two bars overlap.

1. Select the Arrow tool in the toolbox.
2. On the schedule, click once on the left-most symbol to which the bar is attached.
3. In the Selection menu, click the Size/Color tab.
4. ✔️ Horizontal bars from this symbol are on top of other bars.

“Always on top” Symbols

This feature controls which symbol appears “on top”, when two symbols overlap.

1. Select the Arrow tool in the toolbox.
2. On the schedule, click once on the symbol to show on top of other nearby symbols.
3. In the Selection menu, click the Size/Color tab.
4. ✔️ Symbol is on top.

Symbol Constraints

Any symbol can have a constraint which limits the symbol’s movement or triggers a user-defined condition. Using the arrow tool, click once on a symbol within the schedule area and choose Selection | Constraints. Choose from the available constraints. Then type in the constraint date or use the calendar icon.

- **Constraints**
  - Must be on this date
  - No later than
  - No earlier than
  - Lock to this date
  - Reminder: display notes on this date
  - Action: launch Hyperlink on this date
  - Initialize to current date of schedule

When the symbol is moved such that it does not conform to a date constraint that you have set, the symbol will be overlaid with a large exclamation point.

Symbol Count SmartColumn

The Symbol Count SmartColumn reports the number of symbols on a task row. Choose Insert | Rows, Columns | New Column | Symbol Count.
Add and Edit a Vertical Link

There are three methods for adding vertical links between symbols on different task rows: (1) Add a vertical link between two symbols using the mouse; (2) add a vertical link between two symbols using the Selection menu; (3) add vertical links between symbols on selected task rows using the Insert menu.

Add a Vertical Link with the mouse

1. In the toolbox, select the large Plus tool.
2. In the schedule area, click once on the parent symbol.
3. In the toolbox, click once on the vertical link to be used.
4. In the schedule area, click once on the dependent symbol that completes the vertical link. (Must be on a lower or higher task row).

If multiple links are being added at once, then repeat steps 2-4.

If vertical links are not shown, make sure the option to display task links is checked. Choose View | Optional Items | Task Links.

Add a Vertical Link using the toolbar

Use this method for linking symbols vertically on dense or multipage schedules.

1. Select the Arrow tool in the toolbox. Click on the vertical link to add. Click on the parent symbol of the vertical link to add. This will display the Selection menu for that symbol.
2. Go to Selection | Vertical Links | Create New Vertical Link.
3. Press the Set button on the From Symbol line. The boxes on this line should turn from red to green.
4. Click once on the dependent symbol of the vertical link to add. This will display the **Selection** menu for that symbol.

5. Go to **Selection** | **Vertical Links** | **Create New Vertical Link**.

6. Press the **Set** button on the **To Symbol** line. The boxes on this line should turn from red to green.

7. Press ![Connect Now button](image)

---

**Add Vertical Links between Symbols on multiple Task Rows**

This method is best when each of the task rows contains one start symbol and/or one end symbol. Baseline symbols or normal symbols can be connected.

1. Select ![Arrow tool](image) the Arrow tool in the toolbox. Click on the vertical link to add.

2. Hold the **Ctrl** key on the keyboard, and then click on each of the task rows whose symbols will be vertically linked (click in the column area of the task row). The chosen task rows will highlight in black.

3. Choose **Insert** | **Vertical Links** | **Vertical Links between selected task rows**.
   - Choose to **Link Normal symbols** or **Link Baseline symbols**.
   - Choose to make **Downward** or **Upward** links between symbols.
   - Choose the type of link. **(FS) - Finish to Start**  **(FF) - Finish to Finish**  **(SS) - Start to Start**  **(SF) - Start to Finish**
**Edit an existing Vertical Link**

Chapter 2 discusses how to change the default settings for vertical links. Here is how to change a single vertical link that is already on the schedule from one type to another.

1. Select the Arrow tool in the toolbox.
2. On the schedule, click once on the symbol from which the link extends.
3. In the toolbox, click once on the new vertical link. The new vertical link appears.

**Override a Vertical Link's default Color and Line Pattern**

Any symbol can be the origin of up to 5 vertical links. Each of those vertical links can have both their color and line pattern overridden.

1. Select the Arrow tool in the toolbox.
2. On the schedule, click once on the symbol from which the link extends.
3. The **Selection** tab is now activated, choose **Vertical Links | Vertical Links from the Current symbol** choose the button to override the color of a vertical link. Choose the button to override the line pattern of a vertical link.
Remove Vertical Links

Vertical links can be removed from their originating symbols in several ways.

Remove a single Vertical Link

1. Select the Arrow tool in the toolbox.
2. On the schedule, right-click the parent symbol from which the link extends.
3. Choose *Clear Vertical Links*.

Remove Vertical Links from all Symbols on a single Task Row

1. Right-click the task row (in the column area) that contains parent symbols whose vertical links you wish to remove.
2. Choose *Clear Vertical Links*.

Remove Vertical Links from all Symbols, selected Task Rows

1. Select the Arrow tool in the toolbox.
2. Hold the Ctrl key and click once on each task row (in the column area) that contains parent symbols whose vertical links to remove. This will display the Selection menu.
3. Choose Selection | Task Row Settings | More Task Row Options | *Clear Vertical Links*.

Remove selected Vertical Links from a single Symbol

1. Select the Arrow tool in the toolbox.
2. Click once on the parent symbol from which the links extend.
3. Choose the *Vertical Links* tab.
   - The vertical links are numbered Link 1 - Link 5
   - Row, Symbol indicates the task row number at which the vertical link ends and the symbol at which the vertical link ends. The symbol number is the symbol's position counting from left to right with a base of 1.
4. Click the *Break Link* button for the appropriate vertical link.
Dependencies and Vertical Links

Milestones Professional’s dependency (predecessor/successor; parent/child) capabilities make it possible to link task dates so that when one date changes, the dates that are dependent upon that date also change.

See Chapter 8 for more information on symbol linking between files.

Dependency Mode and Display

Dependency Mode may be on or off. If Dependency Mode is on, then symbols that are dependent upon other symbols (successors) will move when the parent (predecessor) symbol moves. When Dependency Mode is off, then dependent symbols do not move.

The on/off status of Dependency Mode is shown in the Status Bar at the bottom of the Milestones Professional screen.

Turn Dependency Mode on and off

Dependency Mode is either on or off for the whole schedule. It is a global setting.

1. Choose Dates | Date Related Settings | Dependency Mode turned on.

- or -

1. Select the Arrow tool in the toolbox.
2. Right-click any symbol.
3. Choose Turn On Dependency Mode or Turn Off Dependency Mode.

Show or hide the Vertical Links

The vertical links which establish dependencies may be visible or hidden.

1. Choose View | Optional Items | Task Links to have vertical links display.

- Even when the vertical links are hidden, the rules for the movement of parent (predecessor) and dependent (successor) symbols still apply.

- Right-click any parent symbol and choose Highlight Dependent Symbols all dependent symbols will be highlighted.
Symbol Dependencies and Movement

When Dependency Mode is on, a symbol is dependent (successor) if it comes after (to the right of) the parent symbol (predecessor) on the same row, or if a vertical link runs from the parent symbol to the dependent symbol on another task row. Vertical links can go both up and down, so dependent symbols can actually be on task rows above the parent symbol.

If Dependency Mode is on, then dependent symbols will always shift if the parent symbol is moved with the mouse. If an individual symbol’s date is changed via the Selection menu or the Symbol Properties dialog box, the user will be prompted to allow/not allow dependent symbols to shift.

Parent Symbol Shifted 30 Days

If a symbol move would cause a locked baseline symbol to move or a symbol with a “Lock to Date” constraint, then the symbol move is not allowed and a warning message is displayed. However, if when creating the constraint the user selected “If checked, then Lock to Date constraints do not prevent other symbols from moving...” all dependent symbols up to the locked symbol will move.

Move dependent Symbols based on duration

By default, when moving a parent symbol, that symbol’s dependent symbols may be moved to a date outside the workday time period or to a non-working day.

By checking Always move dependent symbols based upon duration as found under Tools | Program Options | Dates, the dependent tasks will move the amount of working time the parent symbol was moved. This prevents tasks from being pushed into non-working times and ensures duration values remain constant for the dependent tasks.

• Note that if a parent symbol is shifted within a block of non-working time (e.g. from a non-working Saturday to a non-working Sunday), then the dependent symbols will not shift since the parent’s date change had a net zero effect on duration.
Add Text to your Schedule

Add Text to a Column
Choose Insert | Rows, Columns | New Column | Text.

1. Select the Text tool in the toolbox.
2. Click once in a column cell.
3. Once the flashing cursor displays, begin typing. Use the arrow keys on the keyboard to move from column cell to cell.

Add Text to a Symbol
Symbol text is displayed adjacent to a symbol and moves with the symbol.

1. Select the Arrow tool in the toolbox. On the schedule, click once on the symbol that will contain the symbol text.
2. Select the Text tab in the toolbar and enter up to three lines of symbol text. Press the Apply Text Changes button.

Add a Note to a Symbol
Enter up to 10,000 characters in the symbol notes field. This text is embedded in the symbol, and appears when the cursor hovers over the symbol. Optionally, choose to display symbol notes on the schedule or print a separate notes page. View notes under Tools | Reports | Symbol | Symbol Notes.

1. Select the Arrow tool in the toolbox. Select the symbol to contain the note by either double clicking the symbol to display the Symbol Properties dialog box or clicking once on the symbol to activate the toolbar.
2. Select the Notes tab in the dialog box or the toolbar and enter the text. Press the Apply Text Changes button in the toolbar to have text display. Choose OK in the toolbox when all choices have been selected.
3. In the Symbol Note Display section of the toolbar or in the Symbol Properties dialog box:

- **Highlight Symbols with Notes** to display a small notes icon on symbols with notes in the schedule area.

- **Show Note Numbers** to number the symbols that contains notes.
Display Symbol Notes on schedule

Symbol notes can be displayed on the schedule. They are attached to their parent symbol but can be moved around by using direction controls in the toolbar or clicking and dragging the notes to a new position.

In the **Symbol Note Display** section of the toolbar or the **Symbol Properties** dialog box:

- **Display Note on Schedule** to show notes in the schedule area.
- **Display Note Shadow** to surround the current note with a shadow.
- **Connect to Center of Note** to move the connector to the bottom central point of the note box.

In the **Symbol Note** section:

1. Add text, including optional images or formatting available with recognized tags. Press Apply Text Changes. For more detailed information on adding images and code formatting refer to Help | Help Topics | Milestones Help | Index keyword “note”.

2. Use the blue arrow buttons next to the text box to move the symbol note around the schedule or click and drag the symbol note to a new position.

3. Change the **Background Color**, **Target Color**, **Frame Color**, and **Shadow Color** of the note. Use the **Special Effects** drop down option to fade colors from the background color to the target color.

4. Select a **Frame Type** from the drop down menu.

5. Choose the **Connector Type** and **Color**. This connector will start at the symbol and end with the note.

To set symbol notes defaults choose **Format | Default Text | Symbol Notes**.

إسرائيل היא possible to convert all or some of the symbol text within a schedule to symbol note text. This option can be found on the **Tools** tab under **Tools | Other Tools | Convert Symbol Text to Note Text**.
Add Freeform Text
Freeform text is text that is not associated with symbols, task rows, columns, or any other specific area of the schedule. Therefore, it does not move when those areas move.

1. Select the Text tool in the toolbox.

2. Click once somewhere inside or outside of the schedule, but not on an object. Once the flashing cursor displays, begin typing.

◆ Copy freeform text by right-clicking the text box and selecting Copy. Right-click the text box again and select Paste Text Block to paste the freeform text block, which can then be moved around the schedule with the arrow tool.

Add a SmartColumn which displays Symbol Text or Notes
The Symbol Text SmartColumn displays, within the column cell, either the symbol text or symbol notes from a selected symbol type on all task rows.

1. Choose Insert | Rows, Columns | New Column | Symbol Text.

2. Under Choose symbol, select the symbol source as the first or last symbol on a task row and the type of symbol.
   - The "first" symbol has the earliest date on the task row.
   - The "last" symbol has the latest date on the task row.
   - Choose "(any type)" on the task row, or a specific symbol type.

3. Under Choose text source, select the symbol field whose text should appear in the column.
   - Symbol Text: The text from all three lines of symbol text will appear in the column.
   - Symbol Note: The text found in the symbol notes field will display in the column.
Hide all Symbol Date and Text displays

To hide date and text display for all symbols on the schedule, choose View | Other | Override Symbol Text and Symbol Date Display. Under Dates, choose to Hide all symbol dates on the schedule. Under Text, choose to Hide all symbol text on the schedule.

This setting overrides toolbox settings and individual settings for each symbol on the schedule. Revert to the toolbox and individual symbol settings by selecting Use Toolbox and individual symbol date/text settings.

Chart Title

Enter up to three lines of text for the chart title. The title can have a background color, frame, shadow, text highlights, and special effects shading.

1. To add a chart title, choose Insert | Title | Insert/Edit Chart Title.
2. Under Title Text, click once and enter text.
3. Under Title Background Color Override, click the color box and select a color from the color palet.
4. Choose Effects for fading from the background color to the target color.
5. Under Target Color for Special Effects, click the color box and select a color from the color palet.
6. Choose a text Justification.
7. Under Border, Title Width, Shadow, choose to Draw Border around the title. The border can extend the width of the Title Text or the width of the Schedule.
8. Choose to Draw Shadow and choose its Color and Size.
9. Under Text Highlights, choose None, Engrave, Emboss, or Shadow.
10. Insert Extra Space Under Chart Title to increase the amount of space between the title and the schedule.
Legend Entries

The Legend height should be large enough to hold the number of entries that you plan to have. Legend entries are placed left to right, in the order in which they are created. Once created, these entries can be edited, moved, or deleted.

Add a Legend Entry

2. Next to Line 1 and Line 2, enter the Legend Text. Press the Apply Text Changes button.
3. Override Text Color and Override Symbol Size will change the text color or symbol display size for this legend entry only. The bar size is not affected.
4. Select any or all of the Show Symbol One, Show Bar, and Show Symbol Two options; or select a Show Vertical Link to appear with the text.

All symbols and bars in the drop-down boxes under Show Symbol One, Show Bar, Show Symbol Two, and Show Vertical Link are those available in the toolbox. If the symbol or bar is not available in the legend entry dialog box, then add it to the toolbox.
5. Click a drop-down arrow to view and make selections.
6. Choose an optional Override Color for symbols and horizontal bars.

Move a Legend Entry

Once two or more legend entries are present, simply click-and-drag to move them.

1. Select the Arrow tool in the toolbox.
2. Position the cursor over the legend entry to be moved.
3. Click and hold the left-mouse button, and then drag to a new location in the legend. As the mouse is moved, the cursor will look like this:
4. Release the mouse button, and the legend entry will appear, shifting all other entries to the right and down, if there is more than one row of entries.
Move and resize a Floating Legend

Resize a floating legend by moving the cursor to the right or left edge or a corner. Then click-and-drag with the ← or → cursor. Move a floating legend by moving the cursor to the bottom or top edge of the legend, and then click-and-drag with ↑ or ↓ the cursor.

Delete a Legend Entry

To delete a Legend entry, either right-click on the entry and select the **Delete Legend Entry** option, or click once on it and select the **Delete This Entry** option from the **Selection** menu (or press the Delete key on the keyboard).

Add Pictures to the Schedule

Paste pictures anywhere on a schedule.

1. Copy an image (e.g. by right-clicking on an image and choosing “copy”).
2. In Milestones, choose **Edit** | **Paste** | **Picture**.
3. The Paste Picture cursor appears: ☐ .
4. Move the cursor to the appropriate location, and then click to paste the image.

   - or -

   1. Choose **Insert** | **Picture, Legend** | **Picture from file**.
2. Browse to the picture file, select it, and choose **Open**.
3. The Paste Picture cursor appears: ☐ .
4. Move the cursor to the appropriate location, and then click to paste the image.

Inserted pictures can be managed in the **Manage Pictures** dialog box. Choose **Tools** | **Other Tools** | **Manage Pictures**.

To resize the picture, click once on it, hold down the **Shift** key, click-and-hold on a corner of the picture, and drag to make it larger or smaller. (The Shift key keeps it in proportion).
Columns, Column Headings and Task Rows

Display as many as ten columns on the left side of the schedule and ten columns on the right side of the schedule. Columns can be inserted, deleted, moved or resized.

The column heading contains many formatting controls, including the column and column heading formats, and SmartColumn settings.

Display 2 to 300 task rows per schedule page. Row heights can be adjusted individually. This option can be toggled on or off in Tools | Program Options | Edit | Allow Task Row Height Adjustments.

Columns

It's possible to use the Columns and Rows tab in the Full Page Layout Dialog box to insert columns by changing a width from 0.0 to some other value, but the easiest way to insert columns is to use the Insert menu.

Insert a Column

Insert a column next to the schedule area:

1. Choose Insert | Rows, Columns | New Column and select from the list of column types.

   ☑️ The column will appear closest to the schedule area, on the left side. When the left side of the schedule contains 10 columns (maximum number allowed), the new column will appear on the right side.

Insert a column between two existing columns:

1. Select the Arrow tool in the toolbox.

2. Right-click the column heading and choose Insert Column. The new column will appear to the left of the selected column.
Move a Column

1. Select the Arrow tool in the toolbox.

2. Move the cursor to the top edge of the column to be moved, until the cursor becomes a .

3. Click and hold the mouse button, and then drag to the new location. As the mouse moves, a faint outline of the column moves with the cursor.

4. An insert point will display, showing where the column will be placed when the mouse button is released.

   - When moving a column to the far left or right edge, grab the column near the column’s left or right edge to allow room for the column to clear the edge of the chart.

   - The total width of all the columns together takes away from the area reserved for the schedule. If the column widths must be so wide that there is no room left over for the schedule, then the horizontal chart size should be increased.

Delete a Column

1. Select the Arrow tool in the toolbox.

2. Right-click the column heading and choose Delete Column.

   - or -

1. Select the Arrow tool in the toolbox.

2. Select the column by left-clicking the mouse at the bottom of the column heading cell, the entire column will highlight.

3. Press the Delete key on the keyboard.

Move between Column Cells

Press the arrow keys ← → ↓ ↑ on the keyboard to move between columns and cells.
**Column and Column Heading Color and Text**

Set the color and text properties for the columns and column headings.

**Column Text and Color**

Change the default setting for text and values displayed in all columns (not column heading text) under **Format | Default Text | Column Text**.

To override the default column text and background settings for an individual column:

1. Click once on the column heading of the column whose properties are to be changed. This will display the Selection menu. Choose **Selection | Current Object: Column Heading | Switch to Column**.

2. In **Selection | Column Background**, choose the **Background Color** and **Background Target Color** by clicking `None` the box.

3. Change the **Background Color Special Effects** for the color fading from the Background Color to the Background Target Color.

4. In **Selection | Column Type and Format**, make selections for **Text Style, Text Color, Alignment, and Text Size** to override the defaults.

5. Under **Indent per Outline Level**, enter a value in inches to indent the text by outline level.

6. Under **Decimal Places**, choose the number of decimals that will display for numbers in a SmartColumn.

7. Under **Width**, enter a size for the column. Press `enter` the apply button.

8. **Currency** to add a currency sign to values in the column.

   The currency symbol is controlled under **Format | International | International, Number, and Currency Settings**.
Column Text Color override for individual Column Cell

Text in column cells can be formatted for a specified color, on a line-by-line basis, for the first five lines in the cell.

1. Select the Arrow tool in the toolbox.
2. Click once on the column cell. The Selection menu displays. Choose Selection | Current Object: Task Row | Switch to Selected Cell.
4. Choose an override color for up to five lines of text.
5. Choose OK to return to the schedule.

Column Heading Text and Color

1. Click once on the column heading of the column whose properties are to be changed. This will display the Selection menu.
2. In Selection | Column Heading Text, enter up to two lines of text.
3. In Selection | Column Heading Text Display Settings, make selections for Text Style/Size, Horizontal Alignment, and Vertical Alignment.
   • Apply Changes to all column headings to apply the format settings to all other column headings.
4. Choose a Text Color.
5. Under Text Attributes choose embossed, engraved or shadowed text; and text to be at 90 or -90 angle.
6. Next to Background Color, click the box to change the color.
7. Next to Background Target Color, click the box to change the color.
8. If the user chooses one of the Background Color Special Effects for fading, the Background Color selection fades into the Background Target Color.
Task Rows

Sort Tasks

In the Tools menu, choose Sort Schedule to rearrange schedule task rows based on symbol dates, selected columns, or multiple columns. Save settings to repeat similar sorts later.

Filter Tasks

With large schedules, the user might want to see only a subset of the project steps. On the Tools menu, choose Filter to “sift out” task rows by:

- **Filters**
  - *Date Range*  Some Symbols within Date Range
  - *Column Text Containing*  All Symbols within Date Range
  - *Numbers in column greater than*  Last Symbol within Date Range
  - *Numbers in column less than*  Numbers in Column in Range
  - *Outline Level*  Symbol Type within Date Range
  - *Task Number Range*  Symbol Text Containing
  - *Symbol/Bar Type with option to hide all other symbols.*

Gridlines and Shading for selected Task Rows

It’s possible to set the gridlines and shading options for specific task rows.

1. Select the Arrow tool in the toolbox.

2. While holding the Ctrl key, click once on the appropriate task rows (click in the column area). Use the Shift key to select a range of task rows. This will display the Selection menu.


   ☐ A message may appear that requires turning off Automatically Apply Outline Level… before the user can set gridline and shading options for selected tasks. To have the software do this, click Yes.

4. In the Horizontal Grid Properties for Selected Task Rows dialog box, make gridline and shading selections.

   ☐ Apply only to visible tasks: Check this option if there are hidden task rows, as found in a filtered or rolled-up schedule. When using the Shift key to select contiguous task rows for formatting, non-visible task rows will also be formatted unless this option is checked.
**Task Number SmartColumn**

The Task Number SmartColumn numbers the project steps.

**Create a Task Number SmartColumn**

1. Choose **Insert | Rows, Columns | New Column | Task Number...** The Task Number Options dialog box appears.
   - Choose the Starting Task Number. This number will begin the task row numbering.
   - Number all rows to number each task row, including blank and summary rows.
   - Skip rows with no task descriptions to number each row except for those without text located in a text column.
   - Skip rows with no normal or baseline symbols to number each row except for those with no user-entered symbols. Summary rows and rows with no symbols are skipped.

**Find and Replace text**

Use **Edit | Find, Replace, Go to Page** to quickly make detailed text changes. Apply Find and Replace to column text, freeform text, symbol notes, symbol text, symbol tags, and column tags.

**Find Text in other files**

Use **Edit | Find, Replace, Go to Page | Find in Files** to search any given folder or drive (optionally included subfolders) to locate Milestones files with a specified word or phase.

ckaOnce the list of files with the specified term is populated, click on any file path and a picture of that file is placed in the upper right hand corner of the dialog box for easy identification. If this is the file needed, click **Open Selected File**.
**Bookmark Task Rows**

Add a bookmark name to any task row and then jump to that task row by choosing the bookmark name from a list of bookmarks.

**Bookmark a Task Row**

1. Select the Arrow tool in the toolbox.
2. Right-click once on the task row to be bookmarked.
3. Choose *Bookmarks* in the right-click menu.
4. Select *Create a new Bookmark*.
5. **Key a Name**: The text in the text column closest to the schedule area on the left will display as the default bookmark text. The bookmark name is limited to 29 characters.
6. Click *Create a Bookmark Now* to bookmark the task row.

**Display Bookmark icons**

![Show Bookmark indicator on task row display](image)

This icon will be displayed in the column directly to the left of the schedule area on the bookmarked task row.

**Jump to a bookmarked Task Row**

1. Right-click any task row and choose *Bookmarks*.
2. Select *Jump to a Bookmark or Delete a Bookmark*.
3. Under *Select Bookmark*, choose from the list of bookmark names.
4. Click *Jump to a Bookmark Now*.

**Delete one or more Bookmarks**

1. Right-click any task row and choose *Bookmarks*.
2. Select *Jump to a Bookmark or Delete a Bookmark*.
3. Under *Select Bookmark*, choose a bookmark name to be deleted.
4. Choose *Delete Selected Bookmark Now or Delete all Bookmarks Now*.
5. Choose *OK / Leave* to exit the dialog box.

The **Current Task line** number or **Task line of Bookmark** number indicates the row location of the selected task. Numbering is 1-based, begins with the top-most task row, and includes any hidden tasks.
**Right-Click “Context Sensitive” Menus**

A right-click on any part of the schedule will display a shortcut menu with a list of options.

Right-click a column heading to hide it, show all columns, access column properties.

Right-click the toolbox to change its properties, access the sidebar options.

Right-click a task row on the schedule to access these functions:

- **Zoom**
- **Edit task information**
- **Turn Dependency Mode On/Off**
- **Date Offset/Status Date/% Complete**
- **Increase/Decrease Outline Level**
- **Shift Dates**
- **Insert Task Row**
- **Bookmarks**
- **Link to active MS Project task with...**
- **Edit task’s ValueSets**
- **Cut/Copy/Paste task or cell text**
- **Expand, collapse, hide tasks**
- **Delete Task/Text in Selected Cell**
- **Edit Font/Gridlines/Shading**
- **Clear symbols/bars/links**
- **Insert page break**
- **Blank SmartColumn cells’ entries**
- **Attach Date Heading**

**Attach Date Heading Example**

---

**Comprehensive Facility Master Plan - Proposed Workplan**

<table>
<thead>
<tr>
<th>Work Element</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reviews</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Strategic Plan</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Space Utilization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Plan Element</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Building Needs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Master Plan</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

[Diagram of schedule layout with dates and tasks]
Right-click a symbol on the schedule to access these functions:

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoom</td>
<td><strong>Link to Active MS Project Task</strong></td>
</tr>
<tr>
<td>Turn Dependency Mode On/Off</td>
<td><strong>Link to Active MS Project Task, date, identifier</strong></td>
</tr>
<tr>
<td>Copy Symbol/Bar for Paste</td>
<td><strong>Access symbol properties</strong></td>
</tr>
<tr>
<td>Delete</td>
<td><strong>Select symbol and Bar in Toolbox</strong></td>
</tr>
<tr>
<td>Font</td>
<td><strong>Highlight/Dehighlight Dependent Symbols</strong></td>
</tr>
<tr>
<td>Select Task</td>
<td><strong>View Notes (only for symbols with notes)</strong></td>
</tr>
<tr>
<td>Schedule Recurring Task</td>
<td></td>
</tr>
</tbody>
</table>

**Right-click to edit Column**

When the cursor turns to an arrow for selection of a column and you right-click, the menu display offers many editing choices.

Choose **Clear Column Text** to delete text or values in the column cells without deleting the column.

Choose **Reset Column Font and Font Colors to Default** to revert to default column text font, color and size settings in the selected column.

Color themes do not override a column’s cell-by-cell settings. To reset all individual overrides made to column cell text color and size back to the schedule defaults, choose **Reset all Row and Cell Font/Color Overrides for all Columns**.

**Page Number Properties**

Customize the page number of a Milestones schedule to match the pagination of a report, and then insert the schedule as a part of the report. Click on the page number in the Milestones schedule to see all of the formatting options. If there is no page number on the schedule select **View | Optional Items | Page Number**.

**View Schedule Thumbnails**

Instead of the generic Milestones file icon, view thumbnail images of saved Milestones schedules when viewing file lists in Windows Explorer’s Thumbnails View mode.

By default this save option is on. You can toggle this option on and off in **Tools | Program Options | Files and Automation | Save Thumbnail image when saving this file**.
### Keyboard Shortcuts

Keyboard shortcuts are useful when editing a schedule. The following is an abbreviated list of function and key combination shortcuts. For complete shortcut documentation, consult the Help Topics available under Help | Help Files | Help Topics. Index keyword: “shortcuts.”

<table>
<thead>
<tr>
<th>Pressing this key…</th>
<th>Causes this action…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escape key</td>
<td>Halts current activity when possible.</td>
</tr>
<tr>
<td>Tab (or Shift + Tab)</td>
<td>Indents (or outdents) one outline level if the Use Tab key for Outlining option is selected – See Tools</td>
</tr>
<tr>
<td>F1</td>
<td>Starts Help. If in dialog box, displays context help for selected control.</td>
</tr>
<tr>
<td>F8</td>
<td>Continuous View (toggle).</td>
</tr>
<tr>
<td>F9</td>
<td>Screen Refresh, redraws the current schedule.</td>
</tr>
<tr>
<td>F11</td>
<td>Switches between Fit in Window view and current Zoom setting.</td>
</tr>
<tr>
<td>F12</td>
<td>Toggles through the first six tools in the toolbox.</td>
</tr>
<tr>
<td>Alt+F12</td>
<td>Select horizontal bar in toolbox.</td>
</tr>
<tr>
<td>Alt+Shift+Right Arrow</td>
<td>Indents (promotes) a task by one outline level.</td>
</tr>
<tr>
<td>Alt+Shift+Left Arrow</td>
<td>Outdents (demotes) a task by one outline level.</td>
</tr>
<tr>
<td>Ctrl+F12</td>
<td>Select next vertical link in toolbox.</td>
</tr>
<tr>
<td>Ctrl+Spacebar</td>
<td>Select next column.</td>
</tr>
<tr>
<td>Ctrl+W</td>
<td>Change vertical link coming from selected symbol to type currently selected in toolbox.</td>
</tr>
<tr>
<td>Alt+Spacebar</td>
<td>Select next task row.</td>
</tr>
<tr>
<td>Ctrl+Alt+Spacebar</td>
<td>Select next column heading.</td>
</tr>
<tr>
<td>Ctrl+Shift+Spacebar</td>
<td>Select next Date heading.</td>
</tr>
<tr>
<td>Alt+Shift+F7</td>
<td>Displays a screen which enables you to selectively reset symbol settings for all symbols.</td>
</tr>
<tr>
<td>Ctrl+Alt+*(on number pad)</td>
<td>Show all task rows.</td>
</tr>
<tr>
<td>Shift+F10</td>
<td>Display right-click menu for selected item.</td>
</tr>
<tr>
<td>Pressing this key…</td>
<td>Causes this action…</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Shift F12</td>
<td>Select next symbol in toolbox. If an entire row in the Combo toolbox is highlighted, then Shift+F12 highlights the next row.</td>
</tr>
<tr>
<td>Shift+Right Arrow</td>
<td>When a symbol is selected, changes date forward by one minute, hour, day or week (see Tools</td>
</tr>
<tr>
<td>Shift+Left Arrow</td>
<td>When a symbol is selected, changes date back by one minute, hour, day or week (see Tools</td>
</tr>
<tr>
<td>Page Down</td>
<td>Moves to the next page on the schedule.</td>
</tr>
<tr>
<td>Page Up</td>
<td>Moves to the previous page.</td>
</tr>
<tr>
<td>Ctrl+Home</td>
<td>Moves to the first page.</td>
</tr>
<tr>
<td>Ctrl+E</td>
<td>Edits currently selected item.</td>
</tr>
<tr>
<td>Ctrl+F</td>
<td>View Full-screen toggle.</td>
</tr>
<tr>
<td>Ctrl+End</td>
<td>Moves to the last page.</td>
</tr>
<tr>
<td>Ctrl+L</td>
<td>Select next left cell (if a task row or cell is currently selected). Selection will only move on one side of the schedule.</td>
</tr>
<tr>
<td>Ctrl+M</td>
<td>Change selected symbol to type currently selected in toolbox.</td>
</tr>
<tr>
<td>Ctrl+N</td>
<td>Start new schedule.</td>
</tr>
<tr>
<td>Ctrl+O</td>
<td>Open a file.</td>
</tr>
<tr>
<td>Ctrl+R</td>
<td>Select next right cell (if a task row or cell is currently selected). Selection will only move on one side of the schedule.</td>
</tr>
<tr>
<td>Ctrl+U</td>
<td>Change selected horizontal bar to type currently selected in toolbox.</td>
</tr>
<tr>
<td>Ctrl+Alt+G</td>
<td>Switch to Calendar View.</td>
</tr>
<tr>
<td>Ctrl+Alt+S</td>
<td>Start Symbol Maker Program.</td>
</tr>
<tr>
<td>Ctrl+Z</td>
<td>Undo.</td>
</tr>
</tbody>
</table>
**View Options, Page View**

In the View menu, the Viewing Options section enables the user to select additional views, including different chart types and page views.

**Continuous View**

Continuous view allows the user to scroll through the list of tasks (vertically) and scroll the timescale forwards and backwards (horizontally). In Continuous view, the columns are locked-down, while scroll buttons allow for moving the timescale and task rows in view.

Choose View | Viewing Options | Page View | Continuous or press F8 to toggle Continuous view mode.

Use the PageUp and PageDown keys to scroll through a specified number of task rows, from 1 to 40, as set under Tools | Program Options | Edit. Enter a value next to Lines to Scroll for PgUp/PgDn in Continuous View.

**Full Screen View**

Full Screen mode displays the schedule at the largest size possible for the monitor, by eliminating the toolbar and menus. The sidebar and/or toolbox are available if needed, but can be hidden.

Choose View | Viewing Options | Page View | Full Screen or press Ctrl+F to toggle the Full Screen view.

To exit Full Screen view, press Ctrl+F or the Esc key.

**Presentation View Mode**

Use the Presentation view mode to present one or more Milestones schedules as a “slide show” with a full screen option and schedule manipulation controls.

Before using Presentation Mode, change the File | Printing | Printing Options setting to Scale to Fit Selected Paper Size. This ensures that the schedule pages will be scaled to fit the screen. If presenting multiple schedules in this view, create a master schedule list in File | Master Update | Master Schedule.

Choose View | Viewing Options | Page View | Presentation Mode to display the Presentation view.

Use the left and right mouse buttons to zoom in and zoom out, respectively. Use the arrows keys to pan around the schedule.

Press the Esc key to exit Presentation view mode.
**View Options, Chart Type**

**Gantt views**

A Milestones schedule can be toggled between three Gantt chart view modes. To switch from one Gantt view to another choose View | Viewing Options | Chart Type.

**Gantt – Normal View** displays the default Gantt chart view.

**Gantt – Rolled-Up to Single Bar** displays one summary bar for each outline level 1 summary task. This changes the Summary Bar Settings, When to Draw to Always.

**Gantt – Rolled-Up to Multiple Bars** displays lower-level task bars and symbols rolled-up to outline level 1 summary tasks. This changes the Summary Bar Settings, When to Draw to Always and turns on the option Split Summary Bars using Lower Level Symbols/Bars.

**Gantt - Calendar View**

Any schedule can be viewed as a Calendar. Choose View | Viewing Options | Chart Type | Gantt - Calendar View.

Milestones and symbol text in the schedule area are displayed in Calendar View (horizontal bars are not displayed due to space limitations). Symbol and bar color overrides are not recognized in Calendar View.

If a single task row has been selected prior to entering Calendar View, then the bars as well as the symbols on the row will be shown.

If two or more task rows are selected, only symbols from those task rows will be displayed. Hidden task row symbols will not display.

Right click on a day in Calendar View and set a background color. To continue using that same color for different day’s background, hold down the C keyboard key and left click in the day to be colored.

Any free-form text entered in Gantt view will not be shown. Any text entered in Calendar View will be shown just in Calendar View.

Use the PageUp and PageDown keys to scroll from month to month.
Gantt - Duration View

The **Duration View** mode replaces the Gantt bars and milestones with bar graphs indicating each task’s duration.

A bar’s length corresponds to a task’s duration value. The gray fill indicates the completed portion. The longest duration uses the full width of the schedule area.

To display the Duration View, choose **View | Viewing Options | Chart Type | Gantt - Duration View**. The default bar color is red but can be changed to another color under **Tools | Program Options | General | Bar fill color for Duration and Percent views**.

The duration values and duration bars are based on the settings found in **Layout | Other | Duration Settings**.

Gantt - Percent Complete

The Percent Complete view mode replaces the Gantt bars and symbols with bar graphs indicating each task’s percent complete.

Each task displays a bar indicating its percent complete. A bar’s length corresponds to a task’s percent complete value in relation to the date heading length. That is, a task which is 50% complete will display a bar across half of the date heading’s length.

The percent complete bars do not represent start and stop dates. The summary percent complete bar ignores any overriding status symbol placed on the summary row.

To display the Percent Complete view, choose **View | Viewing Options | Chart Type | Gantt - Percent Complete**.
Logarithmic View

Set up date headings to have specific monthly time periods display wider.

1. Select View | Viewing options | Chart Type | Gantt - Logarithmic: Setup.

2. Select the expansion period. To expand a year, click the button for that year. To expand only certain months just check the months to be expanded.

3. For the expansion factor, choose 2, 3 or 4 times, to indicate the relative factor to use for expansion of the selected months/years.

4. Select Use more characters for month names in expanded months when possible. If this option is not selected Milestones will only put in the number of characters that can fit in the smallest time segment in the heading.

5. Select Do not display anything in Date heading block if not enough space to prevent text overrun in time segments.

6. Click OK to complete the setup.

7. After completing the logarithmic view setup, choose View | Viewing options | Chart Type | Gantt - Logarithmic: View to switch to logarithmic view.
Chapter 4: Outline and Summarize

Outlining is useful for organizing parts of a schedule. It’s best to outline a schedule with enough levels so that each task level has a clear, definable item of work that can be identified, budgeted, assigned, and tracked.

Summary bars are shown automatically for lower level tasks. Once a schedule is outlined, use the roll-up feature to present different levels of schedule complexity to various audiences.

Costs, budgets and other numerical values associated with lower-level tasks can automatically roll-up (sum) to each upper outline level.

This example is outlined to four levels. The “Task” column uses the outline level indent feature. The “Outline Level” and “WBS” columns are SmartColumns which automatically fill according to the indented text in the task column.
Outline Tools Format

To create an outlined schedule, at least one of the schedule’s columns should display indented text in order to see which tasks are outlined to which levels—as in the “Task” column on the previous page.

Set the Indentation amount for Column Text

1. Click once on the column heading with the arrow tool. This will display the Selection menu.
2. Under **Current Object: Column Heading**, choose **Switch to Column**.
3. Under **Column Type and Format | Indent per Outline Level**, enter an amount in inches, such as .25 or .30. Press the apply button.

   The minimum indenting value is .10.

   This is the amount of space that each successive outline level will be indented for this column. For example outline level 2 will be indented .30 inches from the cell’s left margin, level 3 will be indented .60 inches from the left, and so on.

4. If using one of the methods described on the following pages to outline task rows without first setting the text indentation amount for a column, the **Indent Column** dialog box will appear. This will allow the user to choose which column to indent and the indent amount.

Outline tools

1. The Tab key on the keyboard can be used to indent tasks for outlining purposes. This feature can be customized as follows:
   a. Choose **Tools | Program Options | Edit**.
   b. In the **Tab key usage** section, choose **Outlining**.

      Now, by selecting a task row and then pressing Tab, the outline level increases by 1 (e.g. from level 2 to 3). By pressing Shift+Tab, the outline level decreases by one (e.g. from level 3 to 2).

2. By selecting a task row with the arrow tool, the user can quickly indent task rows using the (outdent) and (indent) icons found in **Selection | Task Row Settings | Outline Level**.

3. Yet another way to indent for outlining is using Alt+Shift+Left Arrow key for outdenting and Alt+Shift+Right Arrow key for indenting.
Outline Tasks

It's possible to outline existing tasks or outline tasks as they are entered.

Outline Tasks as they are entered

1. Click the arrow tool in the toolbox.
2. Click once in the first cell below the column heading, and type an Outline Level 1 task name.
3. Click the ↓ down arrow key on the keyboard to go to the next cell in the column.
4. Press the Tab key (or click the indent icon), and type the Outline Level 2 task name. For tab key usage, see pg. 4-2.
5. Click the ↓ down arrow key on the keyboard to go to the next cell in the column.
6. Use Tab key (or click the indent icon), and enter the next task name.

Outline existing Tasks

If the task names are already entered, they can also be outlined.

1. Click the arrow tool in the toolbox.
2. Hold the Ctrl key on the keyboard.
3. In the task column, click once on all tasks that should be indented (below left).
4. Click the indent icon. The selected tasks indent one outline level (below right).
Outline Level SmartColumn

This column is a great tool to keep track of each task row’s outline level, yet it is not necessary for the outlining process. As each task row is indented/oudented, the Outline Level SmartColumn changes automatically.

Add an Outline Level SmartColumn

1. Choose Insert | Rows, Column | New Column | Outline Level.
2. To edit the column’s properties (such as column title), click once on the new column’s heading. This will display the Selection menu.

As the user indent/oudent the schedule tasks, the outline level value changes automatically. Likewise, when a value is entered in the Outline Level SmartColumn, the tasks will indent/oudent accordingly.

WBS SmartColumn

Standard WBS

Another type of SmartColumn that can display the current outline level of a task is the WBS (Work Breakdown Structure) number. A WBS number combines the task number and outline level in one number. Task 1 would have WBS number “1” and Sub-task 1 of Task 1 would have WBS number “1.1” and so on.

Here is a Project schedule with both Outline Level and WBS SmartColumns:

In this example, the WBS scheme uses numbers only. It’s also possible to use letters.

Activities with outline Level number 1 correspond to the WBS numbers 1, 2, 3, ...

The tasks with Outline Level number 2 correspond to the WBS numbers 1.1, 1.2, 1.3.

Level number 3 correspond to the WBS numbers 1.2.1,1.2.2,1.3.1, 1.3.2.

Level number 4 correspond to the WBS numbers 1.2.1.1,1.2.1.2.
Alphanumeric WBS

Again, the WBS hierarchy can contain letters as well as numbers. For example, a task with a WBS of 1.1.1 can be formatted to read 1.a.1, or A.1.1, or a.a.A, etc.

In the dialog that appears when a WBS SmartColumn is defined, check any level that should use letters instead of numbers.

In this example…

WBS levels 2, 3 and 4 will display a number.

WBS levels 2, 3 and 4 will display a capital letter.

The schedule below uses these settings as applied to a schedule with four levels of outlining:

<table>
<thead>
<tr>
<th>WBS</th>
<th>Outline Level</th>
<th>Task name</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>I</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Program Plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.A</td>
<td>2</td>
<td>Application</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.B</td>
<td>2</td>
<td>Order &amp; Style Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.B.A</td>
<td>3</td>
<td>Release 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.B.A.A</td>
<td>4</td>
<td>Simple Orders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.B.A.B</td>
<td>4</td>
<td>Product Set-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.B.B</td>
<td>3</td>
<td>Release 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.C</td>
<td>2</td>
<td>Reporting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.C.A</td>
<td>3</td>
<td>Release 1 - Ad hoc</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.C.B</td>
<td>3</td>
<td>Release 2 - Standard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To access SmartColumn properties when a column is already placed on the schedule, click once on the column heading. Then, go to **Current Object: Column Heading | Switch to Column.** Choose **Column Type and Format | Properties.** If the column has no other properties, this option is not available.
Summary Row Display

Optionally, Summary Bars automatically appear on all upper task levels, as either a single bar summarizing the lower-level tasks’ dates or as a roll-up of all lower level bars and single symbols (milestones).

Summary rows also can summarize lower level column data such as hours worked, duration, budget, costs, and more.

Symbols and bars on summary rows move automatically when symbols on lower level task rows move. They are drawn automatically based on the dates in the lower level tasks. Therefore, summary row symbols cannot be selected or moved.

Summary Bar display options and format

1. Choose Layout | Other | Summary Bar Settings.
2. Choose When to Draw the summary bars:
   - Never show summary symbols and bars.
   - Only When Rolled Up to display summary bars when lower-level tasks are collapsed to the summary row.
   - Always display the summary bars.
3. Under For Normal Summary Bar Symbols and Bars, select a start symbol, end symbol, and bar for the default summary row display. The available choices match those in the toolbox.

Baseline can be displayed separately from normal symbols on the summary row.

1. Choose Layout | Other | Baseline Settings.
2. Follow the Baseline Wizard to create baseline symbology for the sub-task rows and summary bars.

✔ To hide the baseline summary bars and symbols (while displaying normal summary bars), choose View | Baseline | Hide Baseline Summary Bars.
Override Summary Row Symbols, Horizontal Bars and fill colors

Override the default summary bar formatting for both normal and baseline summary display, for individual summary rows, or by outline level.

Override a selected Summary Task’s bar color

This setting overrides the summary bar’s fill color for the selected summary task row. Set the normal and baseline bar colors separately.

1. Click once on any column cell on the summary row. This will display the Selection menu.
2. Under Selection | Summary Bar Color | Summary Bar Color Override, select a color for the horizontal bar by clicking on the colored box.
3. Next to Baseline Summary Bar Color Override, select a color for the horizontal bar.

Set properties for each Outline Level

Each outline level can have its own task row background shading, gridlines, text and summary bar formatting. The settings can be automatically applied as the user outlines each task row and add new task rows. These settings override any formatting done in Horizontal Gridlines and Shading or horizontal gridlines for selected task rows.

   • ✅ Apply New Grid/Shade Selections to all Three Sections to quickly format all three areas of the schedule—Left Columns, Graph/Schedule Area and Right Columns. Any choice in one section is applied to the other two sections.
   • ✅ Automatically Apply Outline level properties while editing schedule must be checked for outline properties to be applied to the schedule.
   • Remove Overrides for this level: Clears all gridlines, shading, text and summary bar settings for the selected outline level.
   • Remove Overrides for all levels: Clears all gridlines, shading, text, and summary bar settings for all outline levels.
2. From the drop-down menu, choose the Outline Level that will be formatted. After making selections for this outline level, choose from one of twenty other outline levels.
Outline Gridlines

Gridline settings apply to the task row’s lower gridline border.

1. Under Left Columns, click once on Show Gridlines. (If ☑️ appears next to Show Gridlines, the default settings in Horizontal Gridlines and Shading are being displayed).
2. Click again to ✔️ Show Gridlines, or leave as ☐️ to hide gridlines.
3. Choose a Line Type.
4. Under Line Color, click Change and choose a color.
5. Repeat for Graph/Schedule Area and Right Columns unless Apply New Grid/Shade Selections to all Three Sections is checked.

Outline Shading

1. Under Left Columns, click once on Shade the Task Rows to turn-off the default settings.
2. Click again to ✔️ Shade the Task Rows, or leave as ☐️.
3. Under Shade Color, click Change and choose a color.
4. Under Effects Target Color, click Change and choose a color.
5. Under Special Effects, choose a fade setting for the two colors.
6. Repeat for Graph/Schedule Area and Right Columns unless Apply New Grid/Shade Selections to all Three Sections is checked.
Outline Text

1. Choose a **Text Color** for the text in the columns (not the schedule area).

2. Under **Bold/Italic** and **Underline**, click once on **Bold**, **Italic**, and/or **Underline** to turn-off the default settings.

3. Click again on any of these to **on Bold, Italic, and/or Underline**, or leave as off.

4. Note that if **Bold** is on or off, then **Italics** must have the same setting or be set to **Using schedule default**. For example, you cannot set **Bold** to on and **Italics** to off.

5. Choose a **Text Size**.

Outline Summary Bars

1. Under **Summary Bar Overrides**, choose a summary bar **Start Symbol**, **Bar** and **End Symbol** for this outline level.

2. Set baseline summary symbology under **Baseline Summary Bar Overrides**. This does not change the selected symbols to Baseline in the toolbox.

3. Click **Clear the symbol and bar overrides for this level** to clear only the settings under the **Summary Bars** tab.

The outline level summary bar settings override the default summary bar settings *(Layout | Other | Summary Bar Settings and Baseline Settings).*
Display Column values on Summary Rows

Lower-level values in a Values SmartColumn, ValueSet SmartColumn and Calculation/Indicator SmartColumn can be automatically summed and displayed on summary task levels. Summary bars must be drawn for the values to appear.

1. Choose **Layout | Other | Summary Bar Settings**.

2. **Compute Rolled-Up Values for Value/Calc SmartColumns.**

3. Choose either **Only When Rolled Up** or **Always** for when to draw the summary rows.

As shown to the right, values from Outline Level 2 are summed and displayed on Outline Level 1.

Values SmartColumns also have the option of displaying an average of lower level values instead of a sum, or any overriding, user-entered value. Select from these options in the **Indicators for Values Column** dialog box, found by selecting a Values column and choosing **Selection | Column Type and Format | Properties**.

Display Column Duration values on Summary Rows

Duration can be displayed in calendar time or as a total of lower-level duration values. The default duration is a total of the lower-level durations. Calendar duration is the duration of the summary bar.

1. Choose **Layout | Other | Summary Bar Settings**.

2. For a summary duration value in calendar time, **Show Summary Duration in Calendar Time**

Summary Duration in Calendar Time is the duration of the summary bar.
Display lower-level Symbols / Horizonatl Bars on Summary Rows

By default, the summary row displays a single start symbol, end symbol and horizontal bar. Optionally, display “duplicates” of all the sub-task’s symbols and bars on the summary row.

1. Choose **Layout | Other | Summary Bar Settings**.

2. **Split Summary Bars using Lower Level Symbols/Bars**

   ![Diagram of symbols]

   In the Summary Bar Settings dialog box, “turn-off” the symbol date or text display for summary row symbols, by checking **Hide Dates on Roll-Up Symbols** or **Hide Text on Rolled up Symbols**.

Display selected Symbols on specified Summary Rows

Each symbol on the schedule can be individually rolled-up to any single upper summary row or all summary rows. For example, a symbol on an outline level 4 task row can be rolled-up to just the 1st outline level – thereby skipping the 2nd and 3rd outline levels.

1. Click the arrow tool in the toolbox.

2. Click once on the symbol to be rolled-up. This will display the Selection menu.

3. Click the **Summary/Mark** tab.

4. Choose to **Include this symbol on all Summary Bar levels**.

5. Or, choose **Include this symbol on this Summary Bar level**.

6. For step 5, select an upper outline level for the symbol to appear on.
Summary Row Roll-up

Another useful feature of outlining is the ability to “roll-up” lower level tasks to the summary level—in effect, hiding lower-level task rows. Use Collapse/Expand Indicators, right-click menus, and filters to collapse for a summary view or expand to a detailed view.

Use Collapse/Expand Indicators for roll-up and down

1. Choose View | Optional Items | Collapse/Expand Indicators. Icons ▼ ▼ will appear on the left side of the schedule.
   - The expand indicator ▼ appears when there are hidden lower level tasks which can be expanded (shown).
   - The collapse indicator ▼ appears when lower level tasks are visible and can be collapsed (hidden).
   - Task rows without lower level tasks will not display either indicator.
2. To collapse (roll-up/hide) lower level tasks, click ▼.
3. To expand (roll-down) to show lower level tasks, click ▼.

Click on the collapse indicator ▼ to roll-up (hide) the lower-level tasks, as seen in the schedule below.

Click on the expand indicator ▼ to roll-down (show) the lower-level tasks.

While task rows are rolled-up, it’s possible to copy and paste all the rolled-up tasks as if they were just one row. This makes it easy to rearrange an outlined schedule.
Use the right-click menu for roll-up and down

1. Right-click the task row whose sub-tasks are to be rolled-up (hide).
2. Choose to:
   - **Collapse Selected Task Row** – only rolls-up (hides) that task’s subtasks.
   - **Collapse All Tasks to Selected Level** – rolls-up (hides) all tasks with the same outline level.
3. Right-click the task row whose sub-tasks are to be rolled down (show).
4. Choose to:
   - **Expand Selected Task Row** – only rolls down (shows) that task’s subtasks.
   - **Show All Tasks Rows** – rolls down (shows) all tasks.

Filter Task Rows for roll-up and down

With the filter option, quickly set an entire schedule to hide all tasks beneath a certain outline level.

1. Choose **Tools | Filter | Filter Task Rows**.
2. Select **Outline Level** as the type of filter.
3. Enter the outline level to which all sub-tasks should roll-up.

This schedule (below, left) has two outline levels. By entering 1 as the filter roll-up level, the summary schedule (below, right) is produced.

To remove the filter, choose **Tools | Filter | Show All Task Rows**.
Summary Bar Status Fill Control

When “Bars - Fill to Status Date” is active (under Dates | Date Related Settings), the summary bar is filled to match the percent complete of the sub-tasks.

The summary % complete value is calculated as the total completed duration of the activities divided by the total overall duration of the activities for the project.

Note that even if all sub-tasks are tracking exactly to the current date, the summary bar may be filled to a point either before the current date or after the current date since it is merely a gauge of the progress of all the sub-tasks, and not tied to the current date.

To have summary bars fill to the current date choose Layout | Other | Summary Bar Settings and check Summary Bars Always Fill to Current Date. This option ignores any status symbols or computed percent complete on the lower level tasks.

To completely fill summary bars, choose Layout | Other | Summary Bar Settings and check Summary Bars Ignore Fill to Status Setting.
**Chapter 5: Progress and Status**

**Display Progress**

Milestones offers many ways to display and revise progress on a schedule. An activity’s progress can be updated by changing the percent complete value, the duration value, the status date, or the status symbol.

Status can be changed for an entire schedule or for individuals tasks. Individual tasks can be adjusted to reflect whether they are on schedule, behind schedule, or ahead of schedule.

![](Projects%20Status%20Overview.png)
**Current Date, Current Date Line, and Status Line**

**Display the Current Date and Current Date Line**

By default, the status date of a schedule is the same as the current date. The current date, as set by the computer’s clock or an override date, can be displayed above the upper right corner of the schedule. The current date line is drawn vertically down the schedule area at the appropriate date heading location.

1. Choose **Dates | Current Date** from the toolbar.
2. **Display Date** to show the current date.
3. **Display Date Line** to show the date line.
4. To override the current date, and thus the status of the schedule, click on the Calendar icon next to **Set Override**.
5. To access other Date Line properties, choose **More Current Date Options**. In the **Date Line** section, choose the line type, thickness, and color. Extend the date line into the datagraph or place the line behind the horizontal bars in the schedule area.

**Display and format the Status Line**

Show at-a-glance ahead/behind status with the status line. The status line extends vertically along the current date line and bulges to the left or right according to each task row’s status date.

1. Choose **Dates | Current Date**.
2. **Display Status Line**.
3. To access other Status Line properties, choose **More Current Date Options**. In the **Status Line** section, choose the line thickness and color.
4. To make sure the status line displays bulges correctly, make sure the options **Symbols: Fill to Status Date** or **Bars: Fill to Status Date** are checked.
Fill to Status Date

With the Fill Symbol/Bar to Status Date feature, the symbols and bars before the status date are filled with color, while the symbols and bars after the status date are hollow or filled with a user-defined color/pattern. Choose Dates | Date Related Settings | Symbols/Bars Fill to Status Date to turn on this feature.

Status Symbol

When using a Percent Compete SmartColumn to enter progress values for an activity, it’s best to create and add status symbols to each task row. When a new percent complete value is entered, the status symbol moves to the corresponding date. Or, if the status symbol is moved, the percent complete value changes accordingly.

The yellow arrow symbols in the schedule below are status symbols.

To create a status symbol, double-click on a symbol within the toolbox. In the Symbol Shape tab of the Symbol Options dialog box, select Status Symbol. Add the status symbol to the row. Refer to Chapter 3 pg. 3-3 for instructions on adding a symbol.

If status symbols are not used in conjunction with a Percent Compete SmartColumn, then percent complete values are converted to Date Offset values. The Date Offset from the current date is a value in days, hours and minutes that the activity is ahead/behind schedule. As the current date changes, the resultant status date and percent complete change (thus, the recommendation to use status symbols).

<table>
<thead>
<tr>
<th>Projects Status Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Project 1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Project 2</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Project 3</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Project 4</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Project 5</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Status Symbol | Complete | To be completed
**Status Date SmartColumn**

The Status Date Smartcolumn displays the status date of each activity.

1. Choose **Insert | Rows, Columns | New Column | Dates...**
2. Next, choose Status Date. This column will display the date of the first status symbol on the task row or the computed status date based on percent complete.

**Add a Percent Complete Symbol to a Task Row**

The Percent Complete symbol can be used to show a percent complete value. These symbols can be added to the schedule directly to show the current percent complete of a task row.

1. In the toolbox, double-click on a symbol to be used as the percent complete symbol.
2. In the **Symbol Shape** tab, choose #97 from the list of **Standard Shapes**.
3. To have the numerical percent show, select the **Default Text** tab and type in `&percentcomplete` in **Line 1:**. In the **Text and Date Properties** tab make sure **Hide** is not selected in **Text Placement**.
4. If the user does not want the symbol to be computed in duration values for the task row, change the symbol to a **Comment Symbol**.
5. Add the symbol to a task row.

**Percent Complete SmartColumn**

The Percent Complete SmartColumn displays the completed portion of each activity as a value, based on an activity’s completed duration divided by its total duration. Create a Percent Complete SmartColumn to display the percent complete value, the percent complete pie, or both.

---

Progress and Status  5-4
Create a Percent Complete SmartColumn

1. Choose Insert | Rows, Columns | New Column | Percent Complete. The Percent Complete Settings dialog box displays, as shown:

2. **Include Percent Complete Symbol in column** to display the percent complete pie.

3. **Show symbol only** to hide the percent complete value and display the pie, only.

4. Value and pie formatting options:
   - If the Percent Symbol is not the shape as shown above, Milestones will automatically convert a symbol to this shape.
   - Choose a **Symbol Size** for the percent pie.
   - Choose left, right or center alignment for the pie symbol.
   - **Show Decimal Point on Duration and % Complete** for detailed percent complete values.

5. Summary Row Percent Complete options:
   - **Use Earned Value method** and select existing columns which contain the BCWP Column values and Budget Column values.
   - Choose the **More info** button for an extended explanation and additional schedule formatting instructions.

6. Press the **Setup Percent Complete Gridlines** button to create shading based on the percent complete for each task row. (Refer to pg. 5-6).

7. **Allow Hourly Accuracy** and **Allow Minute Accuracy** to ensure accurate percent complete values on schedules of less than 100 working days.

8. Choose **Split Duration Across Bars (just count duration for Bars and Symbols)** if using percent complete overrides on individual symbols and bars.

9. Choose **OK** to return to the Column Properties dialog box to add a column heading title and format the column data.
% Complete Gridlines

The Percent Complete Gridlines option is a horizontal shading feature that fills in the task row within the schedule area by an amount determined from the percent complete of a given task. Percent complete gridlines use the length of the available schedule area to determine the amount shaded per task row. Therefore, a task that is 100% complete will have percent complete gridlines that fill the entire task row.


2. **Draw Percent Complete Gridlines** to show the percent complete gridlines in the schedule area.

3. Under Colors and effects, press the Change button to choose a Shade Color and an Effects Target Color.

4. Change the Special Effects for the color fading from the Shade Color to the Effects Target Color.

5. Under Select where to obtain percent, choose:
   - **Use computed percent complete for each task** to fill in the schedule area of the task row according to its percent complete status.
   - **Use value from column below** to pick a column from the drop-down menu which will compute the amount of fill for the schedule area of the task row.

6. Under Gridline Height and Position, choose to have the width of the gridline match the task row height, one of four symbol sizes used on the schedule or fill the upper or lower half of the task row.

---

**Factory Automation & Control System**

<table>
<thead>
<tr>
<th>Task</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>% Comp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Definition</td>
<td>5/4</td>
<td>6/11</td>
<td>5/18</td>
<td>45%</td>
</tr>
<tr>
<td>Hold kick-off meeting</td>
<td>5/5</td>
<td>7/20</td>
<td>9/29</td>
<td>18%</td>
</tr>
<tr>
<td>Assign roles &amp; resp.</td>
<td>5/4</td>
<td>8/6</td>
<td>10/11</td>
<td>100%</td>
</tr>
<tr>
<td>Develop Statement of Work</td>
<td>5/18</td>
<td>8/6</td>
<td>9/29</td>
<td>48%</td>
</tr>
<tr>
<td>Determine objectives</td>
<td>6/11</td>
<td>9/14</td>
<td>11/5</td>
<td>34%</td>
</tr>
<tr>
<td>Identify deliverables</td>
<td>6/8</td>
<td>7</td>
<td>9/9</td>
<td>39%</td>
</tr>
<tr>
<td>Objectives and Deliverables</td>
<td>6/26</td>
<td>9/9</td>
<td>9/9</td>
<td>87%</td>
</tr>
</tbody>
</table>

---

Progress and Status  5-6
**Duration SmartColumn**

A Duration SmartColumn can be used to show the amount of time worked. The duration value can be shown in minutes, hours, days or weeks. Optionally, indicator symbols, text and colors can appear based on the duration values.

**Create a Duration SmartColumn**

1. Choose **Insert | Rows, Columns | New Column | Duration...**

2. Choose a type of Duration column to insert:

Each column checked will be added to the schedule. Also, previously added columns that are later un-checked in this dialog box will be removed from the schedule.

The duration display settings are found under **Layout | Other | Duration Settings**, and are global for all duration SmartColumns.

**Duration Settings** options

- **Show Duration in**: Choose days, hours, minutes or weeks.

- **Customize Notation**: Change the letter notation next to the duration values.

- **Show Hourly as HH:MM**: to display hourly duration as HH:MM (available for selection only if the user chooses to show duration in Hours). 47 hours and 17 minutes will display as 47:17.

- **Show Decimal Point on Duration and % Complete** to display duration SmartColumn values with two decimal places and Percent Complete SmartColumns values with one decimal place.

- **Split Duration Across Bars** select to count only the bars’ and symbols’ duration amounts. If not selected duration will be counted from the first symbol on the task row to the last symbol on the task row, which may include non-working “gaps” between activities.
• **Show Summary Duration in Calendar Time** to display the duration of the summary bar, not the total of lower task rows’ duration values.

• **Apply Resource Allocation Percent** to display the duration value as duration \([x]\) the resource allocation percent. For example, if the duration is 10 days and the resource allocation percent is 50%, then the displayed value will be 5 days. Note that this option does not apply to the Remaining Duration SmartColumn.

3. Click once on the column heading of the new column to display the **Selection** menu and make changes to the **Column Heading Text**.

4. Choose **Switch to Column** to access the **Selection** menu for the entire column. Click the **Properties** button (located next to the SmartColumn type) to access graphical indicator and duration display options.

**Graphical Indicators for Duration SmartColumns**

While the **Duration Settings** apply to all duration SmartColumns, the **Graphical Indicator** settings apply to individual duration SmartColumns (e.g., Duration, Baseline Duration, Time Ahead/Behind, Used Duration, Remaining Duration).

To display symbols, text or colors based on duration values:

1. For the appropriate column, click once on the column heading. This will display the **Selection** menu for the column heading. To the left of the menu, choose **Switch to Column**.

2. In the **Column Type and Format** section next to the Smart Column Type, click the **Properties** button.

3. Select the **Graphical Indicators** tab.

**Factors which impact duration computation**

• The workday start and end times affect hourly duration values, to change **Dates | Start and End Dates | More Settings... | Hourly Minute**.

• Whether or not Saturdays and Sundays are set as working days. Change this setting in **Dates | Start and End Dates | More Settings... | Weekly/Daily/Holiday Shading**.

• Holidays that might have been indicated. Set up holidays for either the current schedule or all schedules in **Dates | Date Range Tools | Holidays (schedule) or Holidays (global)**.
**Resource Allocation Percent SmartColumn**

Control the effort of a resource assigned to a particular task by using a resource allocation percentage. The resource allocation values can be entered in the Resource Allocation Percent SmartColumn for each task row.

According to the Duration SmartColumn Settings, the resource allocation percent will or will not be applied to the Duration SmartColumn’s values.

**Create a Resource Allocation Percent SmartColumn**

1. Choose **Insert | Rows, Columns | New Column | Resource Allocation Percent**.
2. Click once on the new column’s heading and enter a column title under **Selection | Column Heading Text**. Press the Apply Text Changes button.

**Enter a Resource Allocation Percent**

Click the text tool in the toolbox, and enter values into the column cells.

- or -

1. Click a column cell, the task row highlights and the toolbar changes to **Selection**.
2. In **Selection | Task Row Settings** enter a value under % of Listed Resource Allocated to task:

**Resource Allocation Percent example**

In the example, Team Alpha will be working on Project 2, 50% of the time, and Project 4, 50% of the time. This does not change the durations of the tasks, yet better indicates the effort needed to complete the tasks. Thus, the overall usage of this resource is 100% for this time period.

Here, the “Allocated Duration” column is a Duration SmartColumn. To show the impact of the resource allocation percent on duration choose **Apply Resource Allocation Percent for each task row to resultant Duration Display**.
Baseline a Schedule

Baseline scheduling is another great way to display progress on the schedule. Directly compare how the original schedule compares to the actual schedule. Using the Baseline Setup Wizard, the user can establish baseline symbology for the task rows and summary rows. To access the Baseline Setup Wizard, choose View | Baseline | Baseline Setup. This wizard will walk through the setup of the baseline symbology as well as other baseline formatting options.

Insert and remove Baseline

Once baseline is set-up and the schedule tasks have start and end date information placed on the schedule, Milestones can insert a baseline. Choose Insert | Baseline, DataGraph, ValueSet | Insert or Remove a Baseline | Insert Baseline. A prompt will ask whether the baseline symbols and bars should be placed in the upper, middle or lower symbol position.

To remove Baseline choose Insert | Baseline, DataGraph, ValueSet | Insert or Remove a Baseline | Remove Baseline or Edit | Delete | All Baseline Symbols.

Baseline SmartColumns

There are three SmartColumn options designed to display baseline data. The Baseline Start Date column and the Baseline End Date column will show the date of the first and last baseline symbols found on the task row. To add a Baseline Start Date or Baseline End Date SmartColumn, go to Insert | Rows, Columns | New Column | Dates...

The user can also insert a Baseline Duration SmartColumn. This column will show the total duration represented by the baseline symbols on a task row. Go to Insert | Rows, Columns | New Column | Duration...

Other Baseline format options

Choose to show baseline symbols, lock baseline symbols, highlight baseline symbols, or hide summary baseline symbols as additional baseline formatting options. Choose View | Baseline to select any or all of these options.
Chapter 6: SmartColumns and Indicators

SmartColumns

SmartColumns automatically fill according to schedule data or entered data. For example, the Duration SmartColumn calculates the length of time between the first symbol and last symbol for each task row. Some SmartColumns can also display indicators. The schedule below has five SmartColumns, two of which have indicators.

<table>
<thead>
<tr>
<th>% Comp.</th>
<th>PROJECT ITEM</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Duration</th>
<th>Budget</th>
<th>Actual Cost</th>
<th>Cost Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>45%</td>
<td>Proposal Team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>539d</td>
<td>$29,000</td>
<td>$27,000</td>
<td>$2,000</td>
</tr>
<tr>
<td>100%</td>
<td>Initialized</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1d</td>
<td>$5,000</td>
<td>$4,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>56%</td>
<td>Engineering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>280d</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$0</td>
</tr>
<tr>
<td>28%</td>
<td>Materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>214d</td>
<td>$3,000</td>
<td>$3,500</td>
<td>($500)</td>
</tr>
<tr>
<td>63%</td>
<td>Finance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>43d</td>
<td>$6,000</td>
<td>$5,500</td>
<td>$500</td>
</tr>
<tr>
<td>0%</td>
<td>Finalized</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1d</td>
<td>$5,000</td>
<td>$4,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>0%</td>
<td>Proposal Signed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1d</td>
<td>$5,000</td>
<td>$6,000</td>
<td>($1,000)</td>
</tr>
</tbody>
</table>

SmartColumns:
- In Chapter 3:
  - Dates
  - Symbol Count
  - Symbol Text
  - Task Number
- In Chapter 4:
  - Outline Level
  - WBS Number
- In Chapter 5:
  - Resource Allocation Percent
- In Chapter 10:
  - Date from Symbol Automation
  - Microsoft Project Column

SmartColumns with optional Indicators:
- In Chapter 5:
  - Percent Complete
  - Duration
- In Chapter 7:
  - ValueSet
- In this chapter:
  - Stoplight
  - Values
  - Calculation/Indicator
  - Earned Value
**SmartColumns with Optional Indicators**

How do you know if a project activity is costing more than the expected budget? In a project schedule with hundreds of activities, it's helpful to display status “indicators” to show (at-a-glance) which activities are under, on, or over budget; of long, medium, or short duration; and complete, started or not started.

Milestones displays these status “indicators” in specialized SmartColumns. Not only can any toolbox symbol be displayed in these SmartColumns, the “indicator” displayed can also be text, a number, color, percent pie or combinations of these items.

Indicators can be based upon conditions inherent to the column. This is true of two columns: the Percent Complete SmartColumn and the Stoplight Smartcolumn. In the Percent Complete SmartColumn, the percent complete pie is an indicator based upon the percent complete calculation. In the Stoplight SmartColumn, the stoplights are subsequently based upon the numbers 1-4 or 1-10.

In all other SmartColumns with optional indicators, the indicators must be based upon user-entered conditions. The user can choose from a list of three pre-defined indicator conditions or set up each condition individually. Indicators based upon user-entered conditions may appear in these SmartColumns: Duration, Values, Calculation/Indicator, ValueSet, and Earned Value.
Predefined Indicators

Optionally, choose to use predefined indicators for indicator SmartColumns. Predefined indicators are located to the right of the *Pick indicator symbology based on the following conditions* drop down menu in the *Graphical Indicators* tab of SmartColumns in which indicators can appear. When chosen, the indicators in the drop-down menu will automatically switch to the predefined selections.

Pre-Selects available:

- The Red indicator will be placed in cells with a value less than zero, the Yellow indicator with a value of zero, and the Green indicator with a value greater than zero.

- The Red indicator will be placed in cells with a value less than zero, the Amber indicator with a value of zero, and the Green indicator with a value greater than zero.

- The Green indicator will be placed in cells with a value less than one, the Yellow indicator with a value of two, the Red indicator with a value of three, and the Blue indicator with a value of four.
Stoplight SmartColumn

The Stoplight SmartColumn offers two basic methods for displaying stoplight symbols, text and colors based on user-entered numbers 1 to 4, or 1 to 10.

Standard Stoplights: Built-in stoplights appear based on user-entered numbers. G, Y, R, and B can appear with the stoplights, or fill the cell with the designated color instead of the stoplights.

Custom Stoplights: Assign numbers 1 through 10 to any symbol, color and optional text. Optionally, fill the cell with the designated color instead of the stoplights.

Create a Stoplight SmartColumn

1. Choose Insert | Rows, Columns | New Column | Stoplight.

For Standard Stoplights:

- When 1 is entered in a column cell, a green stoplight symbol displays. 2 displays a yellow stoplight; 3 displays a red stoplight; 4 displays a blue stoplight.
- Check Include G, Y, R, B Text to display these letters with their appropriate stoplights or color-fills.

For Custom Stoplights:

- Under Custom Stoplight, choose Custom. Pick your own...
- Select any Number, 1 through 10.
- Select a Symbol to appear when that number is entered in a column cell.
- Select a Color for the symbol or column cell fill-color.
- Optionally, enter Text (up to 29 characters) to appear with the symbol or cell fill-color.
2. Optionally, **Fill the cell with color instead of displaying a symbol.** The selected color, instead of the symbol, fills the column cell.

3. Select the **Stoplight symbol size** from .10 to 5.0.

4. Choose **OK**.

The list of available symbols for stoplights is generated from the symbols in the toolbox. Therefore, it is necessary to change the available symbols in the toolbox to change the list of available symbols for stoplights.

For displaying indicator symbols or text based on other column’s values or text, ranges of numbers, and calculation results, use Calculation/Indicator SmartColumns, Values SmartColumns or ValueSet SmartColumns.

**Stoplight SmartColumn example**

In this Stoplight SmartColumn sampler, the two columns to the far left use the Standard option of green, yellow, red, and blue symbols or color-fills with the optional letters. The other two columns use the Custom option of matching any symbol, color and text to numbers 1-10.

<table>
<thead>
<tr>
<th>Standard Stoplight</th>
<th>Custom Stoplight</th>
<th>Description</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fill Color + Letter</td>
<td>Symbol + Letter</td>
<td>Custom 1 to 10</td>
<td>Custom 1 to 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>G</td>
<td>ON TARGET</td>
<td>△</td>
<td>Project A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>G</td>
<td>ON TARGET</td>
<td>▽</td>
<td>Activity 1A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>ALERT</td>
<td>✔</td>
<td>Activity 3A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>R</td>
<td>ALERT</td>
<td>✔</td>
<td>Activity 3A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>G</td>
<td>ON TARGET</td>
<td>◆</td>
<td>Project B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>ALERT</td>
<td>✔</td>
<td>Activity 1B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>B</td>
<td>ALERT</td>
<td>✔</td>
<td>Activity 2B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>G</td>
<td>ON TARGET</td>
<td>◆</td>
<td>Activity 3B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Values SmartColumn**

A Values SmartColumn contains user-entered values that can automatically total (roll-up) from lower task levels to upper, summary levels. A Values SmartColumn can display values only; symbols, text or colors based on those values; symbols, text, or colors based on another column’s values; or a combination of these options.

Additional options include showing an average of lower level values instead of a total on summary rows; converting the entered value to a percentage; adding a % sign to the entered value; and overriding the summary row values.

**Values SmartColumn example**

In this example, the Cost column values for Task A1 and A2 are automatically totaled and displayed in Project A’s Cost cell. Cost values for Project A and Project B are automatically totaled and displayed in All Project’s Cost cell. The symbols are displayed according to the values in each Cost column cell. The symbols and conditions are user-defined.

Here are the user-defined value ranges that cause the symbols to display in the “Cost” Values SmartColumn.

<table>
<thead>
<tr>
<th>Task</th>
<th>Cost</th>
<th>First</th>
<th>Second</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Jan</td>
<td>Feb</td>
</tr>
<tr>
<td>All Projects</td>
<td>43,100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project A</td>
<td>13,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task A1</td>
<td>7,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task A2</td>
<td>6,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project B</td>
<td>29,600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task B1</td>
<td>21,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task B2</td>
<td>8,600</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Create a Values SmartColumn with optional Indicators

1. Choose Insert | Rows, Columns | New Column | Values.

2. The Indicators for Values Column dialog box appears, as shown. Here, choose which indicators appear based on the value in each column cell.

3. To create a Values SmartColumn without indicators, click OK.

4. For Column to compare, the newly inserted column No Name Assigned should already be selected.
   - Or, choose an existing column that contains numbers or text to display indicators based on those values.

5. **Display numerical value also** to show the entered values.
   - **Display numerical value also** to only show the symbol indicator based on the entered values (the values will be hidden).

6. Align the indicator symbols left, center, or right in the column cell.

7. **Pick indicator symbology based upon the following conditions** to display symbols, text, and/or color based on the column values.

8. Choose a **Symbol size**.

9. Click the drop-down arrow to view 10 active/ignored indicators and their conditions.
• Any of these symbols can be changed to another symbol from the toolbox. Optionally, choose from the Pre-Selects drop-down menu to automatically assign indicators to the listed conditions.

• All symbols are set to Ignore until the user creates a condition for them to appear, becoming Active.

10. Choose one of the ten symbols. The Indicator Condition Settings dialog box opens, as shown below:

   - Choose an Indicator Symbol. They are the symbols from the toolbox.
   - OR, choose to Fill the cell with the symbol color, not the symbol itself.
   - Optionally, enter Indicator Text to appear with the symbol or color fill.
   - Choose the Symbol Color for the symbol or color fill.

11. The indicator can appear based on a value in the column cell.

   - Choose Condition is based upon the value in a cell.
   - The indicator will appear when a cell's value is greater than the first value and less than/equal to the second value.
   - Do not use commas or currency signs when entering values.
12. The indicator can appear based on text in another column’s cells. This would require a **Column to compare** reference (Step 4) which contains text.

- Choose *Condition is based upon finding text in a cell in column*.
- The indicator will appear when a cell contains text entered by the user.

13. Choose **OK** to return to the *Pick indicator symbology based upon the following conditions* list.

14. Repeat Steps 9 - 13 to display other indicators.

15. More options:

- **Show result as a percent** to have the values multiplied by 100, with a % sign added (.35 becomes .35 x 100 = 35%).
- **When shown on Summary Bar, show average** to have the summary row values to be an average of lower-level values instead of a sum.
- **Just add a % sign after value** to add % to the value (35 becomes 35%).
- **On Summary Rows show value in cell** to override summary row values (which are normally sums or averages of lower-level values) with user-entered summary row values.
- **Automatic EV BCWS calculation is based on Baseline Dates (if possible)** to assign an earned value calculation to baseline symbols.
- **Interpret column value as a Julian date and display as a date** to designate that a column of numbers can be displayed as dates. When date SmartColumns are used in calculations, they are first converted to their Julian date. To have the result of the calculation be displayed as a date, then use this option.
- **Display resultant value as a Duration**. Converts values entered into duration values.
- **Treat Subtraction between two date columns as a duration calculation** select so non-working days are not included in the result.

16. Choose **OK** to return to the **Column Properties** dialog box to add a column heading title and format the column data.

17. Finally, exit all dialog boxes. Enter values into the column cells and see the indicators appear accordingly.

For extensive instructions for Values SmartColumns, press the **Help** button in the **Indicators for Values Column** (Values SmartColumn) dialog box.
**Calculation/Indicator SmartColumn**

Calculation/Indicator SmartColumns display values and/or value-driven indicators through these methods:

- Multiply, divide, add, or subtract any two columns with values.
- Multiply a column by percent complete or percent not complete.
- Display symbols, colors, or text based on calculated values, user-entered values from another column, or text from another column.
- Multiply, divide, add or subtract a column by a constant value.

The results of one calculation column can be used in another calculation, or shown as a percent.

**Calculation SmartColumn**

<table>
<thead>
<tr>
<th>Items</th>
<th>Units Sold</th>
<th>Price per Unit</th>
<th>Total Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Items</td>
<td>377</td>
<td>$43</td>
<td>$16,211</td>
</tr>
<tr>
<td>Item 1</td>
<td>45</td>
<td>$35</td>
<td>$1,575</td>
</tr>
<tr>
<td>Item 2</td>
<td>77</td>
<td>$35</td>
<td>$2,695</td>
</tr>
<tr>
<td>Item 3</td>
<td>122</td>
<td>$62</td>
<td>$7,564</td>
</tr>
<tr>
<td>Item 4</td>
<td>133</td>
<td>$40</td>
<td>$5,320</td>
</tr>
</tbody>
</table>

**Calculation/Indicator SmartColumn Example**

The symbols in this schedule have numbers associated with them, shown in the symbol text.

These numbers, which are part of a Symbol ValueSet, are added up in the “Units Sold” column (a ValueSet SmartColumn).

“Total Sales” is a Calculation/Indicator SmartColumn that multiplies the “Units Sold” column by the “Price per Unit” column.
Calculation/Indicator SmartColumn options

1. Make a calculation between two columns and show the resulting values.

<table>
<thead>
<tr>
<th>Budget</th>
<th>Cost to Date</th>
<th>Budget minus Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,250</td>
<td>$800</td>
<td>$450</td>
</tr>
<tr>
<td>$1,000</td>
<td>$1,000</td>
<td>$0</td>
</tr>
</tbody>
</table>

2. Make a calculation between two columns and show the resulting values with symbols, text or colors.

<table>
<thead>
<tr>
<th>Budget</th>
<th>Cost to Date</th>
<th>Budget minus Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,250</td>
<td>$800</td>
<td>$450</td>
</tr>
<tr>
<td>$1,000</td>
<td>$1,000</td>
<td>$0</td>
</tr>
</tbody>
</table>

3. Make a calculation between a column and a constant value (10 in the example below) and show the resulting values and/or symbols.

<table>
<thead>
<tr>
<th>Budget</th>
<th>Cost to Date</th>
<th>Budget minus Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,250</td>
<td>$800</td>
<td>$450</td>
</tr>
<tr>
<td>$1,000</td>
<td>$1,000</td>
<td>$0</td>
</tr>
</tbody>
</table>

4. Make a calculation between a date column and the current date and show the resulting values and/or symbols.

<table>
<thead>
<tr>
<th>Start Date</th>
<th>Start Date minus Current Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/2/2001</td>
<td>50</td>
</tr>
<tr>
<td>3/4/2001</td>
<td>20</td>
</tr>
</tbody>
</table>

5. Make a division calculation and convert the results to percent values and pies.

<table>
<thead>
<tr>
<th>Units</th>
<th>Units Sold</th>
<th>Percent Sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>625</td>
<td>355</td>
<td>57%</td>
</tr>
<tr>
<td>425</td>
<td>400</td>
<td>94%</td>
</tr>
</tbody>
</table>

6. Show various symbols, text or colors based on the values in another column

<table>
<thead>
<tr>
<th>Sales</th>
<th>Indicator Target $4500</th>
</tr>
</thead>
<tbody>
<tr>
<td>$5,000</td>
<td>Over</td>
</tr>
<tr>
<td>$4,000</td>
<td>Under</td>
</tr>
<tr>
<td>$4,900</td>
<td>Over</td>
</tr>
</tbody>
</table>

7. Use a calculation result in another calculation.
   “Target vs. Actual Sales” uses the “Units (x) $ per Unit” results in its calculation.

<table>
<thead>
<tr>
<th>Units Sold</th>
<th>$ per Unit</th>
<th>Units(x) $ per Unit</th>
<th>Target Sales</th>
<th>Sales Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>100</td>
<td>$4,500</td>
<td>$5,000</td>
<td>($500)</td>
</tr>
<tr>
<td>50</td>
<td>100</td>
<td>$5,000</td>
<td>$4,000</td>
<td>$1,000</td>
</tr>
</tbody>
</table>
Create a Calculation/Indicator SmartColumn

These instructions assume the user has created two Values SmartColumns whose column values can be used in a calculation.

1. Choose Insert | Rows, Columns | New Column | Calculation/Indicator.
2. Under the Calculations tab, choose Calculation of Two Columns.
3. Choose two columns and a calculation operator (- + x /).
4. More options:
   - Do not do calculation on Summary Rows if the values should roll-up (add up) from lower levels to upper levels.
   - Show result as a percent to have the resulting calculation values multiplied by 100, with a % sign added (.35 becomes .35 x 100 = 35%).
   - Just add a % sign after value to add % to the value (35 becomes 35%).
   - Automatic EV BCWS calculation is based on Baseline Dates (if possible) to assign an earned value calculation to baseline symbols in the schedule.
   - Interpret column value as a Julian date and display as a date to designate that a column of numbers can be displayed as dates. When date SmartColumns are used in calculations, they are first converted to their Julian date. To have the result of the calculation be displayed as a date, use this option.
   - Display resultant value as a Duration. Converts values entered into duration values.
   - Treat Subtraction between two date columns as a duration calculation to display the difference between two date columns as a duration value. Holidays and non-working time will be excluded from the result.
5. Select the Graphical Indicators tab. This is where the user chooses which indicators appear based on the calculated values in each column cell.
6. For **Column to compare**, the newly inserted column *No Name Assigned* should already be selected:

7. Align the indicator symbols left, center, or right in the column cell.

![Image of column comparison settings](image)

8. **Display numerical value also** to show the entered values.

   - **Display numerical value also** to only show the symbol indicator based on the entered values (the values will be hidden).

9. **Pick indicator symbology based upon the following conditions** to display symbols, text, and/or color based on the calculated values.

10. Choose a **Symbol size**.

11. Click the drop-down arrow to view 10 active/ignored indicators and their conditions.

   - Any of these symbols can be changed to another symbol from the toolbox.

   ![Image of symbol selection](image)

   - All symbols are set to **Ignore** until a condition is created for them to appear, becoming **Active**.

   - Optionally, choose from the **Pre-Selects** drop-down menu to automatically assign indicators to the listed conditions.
12. Choose one of the ten symbols. The **Indicator Condition Settings** dialog box opens, as shown below:

- Choose an **Indicator Symbol**. These are the symbols found in the toolbox.
- OR, choose to **Fill the cell with symbol color**, not the symbol itself.
- Optionally, enter **Indicator Text** to appear with the symbol or color fill.
- Choose the **Symbol Color** to override the symbol fill color.

13. The indicator can appear based on a value in the column cell.

- Choose **Condition is based upon the value in a cell**.
- The indicator will appear when a cell’s value is greater than the first value and less than/equal to the second value.
- Do not use commas or currency signs when entering values.

14. The indicator can appear based on text in another column’s cells. This would require changing the **Column to compare** to a column which contains text.

- Choose **Condition is based upon finding text in a cell in column**.
- The indicator will appear when a cell contains specific text that is entered.

15. Choose **OK** to return to the **Pick indicator symbology based upon the following conditions** list.

16. Repeat Steps 10 - 14 to display other indicators.

17. Choose **OK** to return to the **Column Properties** dialog box to add a column heading title and format the column data.

For extensive instructions, press the **Help** button in the **Calculation Settings** (Calculation/Indicator SmartColumn) dialog box.
Earned Value Management

Earned Value Management (EVM) is a project management system that combines schedule performance and cost performance to answer the question, “What did we get for the money we spent?”

Basic concepts of EVM:

1. All project steps “earn” value as work is completed.
2. The Earned Value (EV) can then be compared to actual costs and planned costs to determine project performance and predict future performance trends.
3. Physical progress is measured in dollars, so schedule performance and cost performance can be analyzed in the same terms.

Earned Value has been used since the 1960’s by the Department of Defense as a central part of the C/SCSC (Cost/Schedule Control Systems Criteria). Recently, the DOD revised the 35 criteria contained in the C/SCSC and produced the 32 criteria for EVMS (Earned Value Management Systems).

These criteria have since been accepted by the American National Standards Institute/Electronic Industry Association as a new standard, called ANSI/EIA 748. Now, EVM is being used in a wider variety of government contracts, and is spreading through the private sector as a valuable tool for project managers.
Earned Value SmartColumns

Milestones Professional makes it easy to show Earned Value metrics with a simplified SmartColumn selection screen. Choose **Insert | Rows, Columns | New Column | Earned Value...**

Budget-at-Completion and Actual Cost are necessary fields to derive further EV calculations, so those two columns are pre-selected.

Any columns that are checked will be added to the schedule; any columns that are un-checked will be deleted.

The following list provides the basic calculation performed and description of each main EV SmartColumn. Note that there are multiple versions of EAC and VAC; for a detailed description of these columns see the Earned Value section of the Milestones Professional Help Topics in the Help menu:

- **Budget at Completion (BAC)** - Overall approved budget for a task.
- **Actual Costs (AC or ACWP)** - Total amount spent on a task up to the current date.
- **Planned Value (PV or BCWS)** - The point along the time-phased budget that crosses the current date. Shows the budgeted cost of scheduled work as of the current date.
- **Earned Value (EV or BCWP)** - BAC x Percent Complete. The budgeted cost of completed work as of the current date.
- **Cost Performance Index (CPI)** - Earned Value / Actual Costs. Cost variance related as a ratio instead of a dollar amount. A ratio less than 1.0 indicates that the value of the work that has been accomplished is less than the amount of money spent.
- **To-Complete Performance Index (TCPI)** - (BAC-EV) / (BAC-AC). Indicates the CPI required throughout the remainder of the project to stay within the stated budget.
- **Cost Variance (CV)** - Earned Value – Actual Costs. The difference between the work that has been accomplished (in dollars) and how much was spent to accomplish it.
- **Schedule Performance Index (SPI)** - Earned Value / Planned Value. Schedule variance related as a ratio instead of a dollar amount. A ratio less than 1.0 indicates that work is being completed slower than planned.

- **Schedule Variance (SV)** - Earned Value – Planned Value. The difference between what was planned to be completed and what has actually been completed as of the current date.

- **Estimate at Completion (EAC)** - AC + ((BAC-EV)/CPI). A forecast of total costs that will be accrued by project completion based on past cost performance trends.
  - Overrun-to-Date method: EAC = (Budget-at-Completion - Earned Value) + Actual Cost. Assuming spending patterns remain the same, EAC: Overrun-to-Date forecasts the total amount to be spent by adding costs incurred to date to the remaining work to be earned.
  - Cumulative CPI Method: EAC = ((Budget-at-Completion - Earned Value) / CPI) + Actual Cost. The EAC: Cumulative CPI Method forecasts the total amount to be spent by adding costs incurred to date to the remaining work to be earned, which has been weighted against the current CPI performance value.
  - Cumulative CPIxSPI Method: EAC = ((Budget-at-Completion - Earned Value) / CPIxSPI) + Actual Cost. The EAC: Cumulative CPIxSPI Method forecasts the total amount to be spent by adding costs incurred to date to the remaining work to be earned, which has been weighted against the combined current CPI and SPI performance values.

- **Variance at Completion (VAC)** - EAC – BAC. The difference between the new Estimate at Completion and the original Budget at Completion.
  - Overrun-to-Date method: VAC = EAC: Overrun-to-Date minus Budget-at-Completion.
  - Cumulative CPIxSPI Method: VAC = EAC: Cumulative-CPIxSPI-Method minus Budget-at-Completion.

Once values have been entered into the Budget and Actual Costs columns, the Earned Value SmartColumn will perform the necessary calculation and display the results automatically.

Any of the EV SmartColumns can be used to drive a Type 3 ValueSet and graphed either below or overlayed on the schedule.

EV SmartColumns are capable of displaying indicators, while the CPI and TCPI columns have pre-programmed indicators.
Earned Value Reports

Any schedule that has the appropriate Earned Value SmartColumns in use can generate several types of EV Reports.

Choose Tools | Reports | Earned Value to choose a report:
**SmartColumn Summary Level Value Roll-up**

Numbers in a Values SmartColumn, ValueSet SmartColumn and Calculation/Indicator SmartColumn can be automatically summed and displayed on summary task levels. Summary bars must be drawn for the values to appear, as instructed below.

To automatically total lower level values on summary rows:

1. Choose **Layout | Other | Summary Bar Settings**.
2. Select **Compute Rolled-Up Values for Value/Calc SmartColumns**.
3. Under **When to Draw** choose **Always** to have Milestones draw summary bars.

See Chapter 4 for more about outlining and summary bar controls.

**Currency and Numbers Format**

When a schedule is initially created and saved, the currency and number formats (based on **Regional and Language Options**) are saved and carried with the schedule. Thus, if numbers are originally set to display with a comma as the grouping symbol, then they will continue to display as such, even if the schedule is displayed on a system where the default separator is a period.

For example, if a Milestones user in the UK who is using pounds for currency sends a Milestones schedule to someone in the United States who is using dollars for currency, then the Milestones schedule will retain the pounds setting.

In previous Milestones versions, numbers displayed in Values SmartColumns and ValueSet SmartColumns did not display grouping separators, such as commas. To retain this setting found in previous versions, choose **Tools | Program Options | General**, and uncheck **Use current regional settings to format numbers**. Unchecking this default setting will, for example, display a number as 10000 instead of 10,000.

**Change the number format and number grouping options**

Number and currency settings apply to the current schedule only.

1. Choose **Format | International | International, Number, and Currency Settings | Number Format**.
2. Select from the display settings options:
   - **Leading zeros**
   - **Negative Number Format**
   - **Decimal Symbol**
   - **Digit grouping symbol**
   - **Digit grouping**
Change the number of decimal places displayed in a Column

1. Click once on the column heading of the column containing the values. This should display the Selection menu.
2. Choose Selection | Current Object: Column Heading | Switch to Column.
3. In Selection | Column Type and Format | Decimal Places select a number from 0 to 5.

Display the currency symbol with a Column’s values

1. Click once on the column heading of the column containing the values. This should display the Selection menu.
2. Choose Selection | Current Object: Column Heading | Switch to Column.
3. In Selection | Column Type and Format, choose Currency.

Change the currency symbol and other currency formats

2. Select from the display settings options:
   - Currency Symbol, enter up to four characters (e.g. $)
   - Positive Currency Format
   - Negative Currency Format
   - Decimal Symbol
   - Digit grouping symbol
   - Digit grouping

In the Currency Format dialog box, the Positive Currency Format and Negative Currency Format options show the $ symbol in the examples, yet will use the Currency Symbol entry chosen when applied to the schedule.
Chapter 7: Track and Graph Values

Milestones Professional offers many ways to enter, display, calculate, and graph numbers. These numbers can represent values such as budget, cost, earned value, man-hours, units, and materials.

Milestones offers specialized columns for entering and calculating values; ValueSets for entering values in groups, and three graph areas (DataGraphs) for displaying line and bar graphs of ValueSets.

Each of the three available DataGraphs can contain up to 8 ValueSets.

A sample of a DataGraph with three ValueSets (“Budget,” “Costs to date” and “Remaining Funds”) is shown below:

Values can be displayed as cumulative. The same DataGraph above, with the same ValueSets set to be cumulative, is shown below:

ValueSet SmartColumns sum and display values from specific ValueSets for each task row, with optional indicator symbols, text or colors:

Grant Proposals and Project Tracking

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Funding Status</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Budget Amount</th>
<th>Costs to Date</th>
<th>Remaining Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project 1</td>
<td></td>
<td>Feb</td>
<td>Mar</td>
<td>Apr</td>
<td>May</td>
<td>Jun</td>
<td>Jul</td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td>2/10</td>
<td>3/07</td>
<td>5/6</td>
<td>7/0</td>
<td>7/01</td>
<td>6/0</td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td>2/6</td>
<td>2/12</td>
<td>2/18</td>
<td>5/16</td>
<td>5/11</td>
<td>5/6</td>
</tr>
<tr>
<td>Project 2</td>
<td></td>
<td>2/21</td>
<td>3/11</td>
<td>5/12</td>
<td>6/11</td>
<td>6/0</td>
<td>5/0</td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td>2/21</td>
<td>3/11</td>
<td>5/12</td>
<td>6/11</td>
<td>6/0</td>
<td>5/0</td>
</tr>
</tbody>
</table>
Generally, the overall process of entering and displaying values in a DataGraph is as follows:

1. Create ValueSets that will contain values (e.g. “Budget”).
2. Enter values into those ValueSets (e.g. $200 for January’s budget; $450 for February; $350 for March; and so on).
3. Create a DataGraph that displays those values (e.g. a bar graph for each of the $200, $450 and $350 values for January, February and March, respectively).

The **DataGraph and ValueSet Wizard** (under the **Tools | Graph Options | DataGraph and ValueSet Wizard** menu) steps through the creation and display of these ValueSets and DataGraphs.

It’s also possible to create and edit ValueSets and DataGraphs directly, without the wizard. The process is described in the following sections.
ValueSets

ValueSets are user-defined categories which contain numbers ($400 in sales, 52 hours, 135 purchases, etc.) associated with a time period, such as days, weeks, months, quarters, or years. All ValueSets within a schedule must use the same time period. For example, daily and weekly ValueSets cannot be combined in the same schedule.

Values from ValueSets can be graphed in one or more of the schedule's DataGraphs.

ValueSets are created and formatted under Tools | Graph Options | Setup ValueSets.

There are five different types of ValueSets available:

- **Type 1: Keyed-in Global Values**: Enter values by time period for the whole schedule - such as monthly budget values.

- **Type 2: Sum of Values Keyed into Task Rows**: Numbers are entered by time period for each task - such as separate monthly budget values for Task 1, Task 2, etc. When the schedule is outlined, only the lowest outline level tasks should receive values because entered values roll-up to upper level tasks.

- **Type 3: Allocate Column Values Across Timeline**: Values are entered into a column. The column value for each task is spread across the task’s duration. Optionally, values can be allocated to the current date, or allocated from the current date to the end of the task’s time span. Also, the values can be allocated to the task’s baseline time span.

- **Type 4: Use Values from Symbols**: Values can be attached to any symbol. Those values are graphed according to the time period in which each symbol resides.

- **Type 5: Total of other ValueSets**: Values from selected ValueSets are totaled and graphed, such as “Overhead Cost” ValueSet + “Labor Cost” ValueSet = “Total Cost” ValueSet.

Any of the five different types can be used in the same schedule and placed in the same DataGraph. The chapter sections that follow describe each type of ValueSet in more detail.
Type 1 ValueSet: Keyed-in Global Values

In this type of ValueSet, values are entered by time period. These values apply to the entire schedule.

Values are displayed in the DataGraph as bars or lines. Also, numeric values can be displayed above or below the DataGraph.

1. Choose **Tools | Graph Options | Setup ValueSets**.
   - The **Create or Edit ValueSets** dialog box displays, revealing 9 **Available ValueSets**, as shown below, left.

2. At the bottom left of this dialog box, next to **Set Alignment for ValueSets**, choose a time period by which the values will be entered, totaled and graphed.
   - In the example above, the Alignment is Monthly.

3. Click any **Create/Edit** button with **No Named Assigned**. The **ValueSet Properties** dialog box displays, as shown below, right.

4. Type in a name for the **ValueSet Name** - here, “Budget” is entered.

5. Click **Type 1: Keyed-in Global Values**.

<table>
<thead>
<tr>
<th>TASK</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modeling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Budget</strong></td>
<td>$200.00</td>
<td>$300.00</td>
<td>$200.00</td>
<td>$300.00</td>
</tr>
<tr>
<td><strong>Budget</strong></td>
<td>$300.00</td>
<td>$150.00</td>
<td>$300.00</td>
<td>$0.00</td>
</tr>
<tr>
<td><strong>Budget</strong></td>
<td>$0.00</td>
<td>$150.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
</tbody>
</table>

---

**Create or Edit ValueSets**

Press the Create/Edit... button to define a new valueSet or to change the values or source of an existing valueSet.

**Available ValueSets**
- 1. No Name Assigned. Contains 0 Values.
- 2. No Name Assigned. Contains 0 Values.
- 3. No Name Assigned. Contains 0 Values.
- 4. No Name Assigned. Contains 0 Values.
- 5. No Name Assigned. Contains 0 Values.
- 6. No Name Assigned. Contains 0 Values.
- 7. No Name Assigned. Contains 0 Values.
- 8. No Name Assigned. Contains 0 Values.
- 9. No Name Assigned. Contains 0 Values.

**Set Alignment for ValueSets**

- Monthly

---

**ValueSet Properties**

ValueSet Name: Budget

Data Source: Graph Properties
- Type 1: Keyed-in Global Values
- Display/Edit Values

Type 2: Sum of Values Keyed into Task Rows

Type 3: Allocate Column Values Across Timeline
- Select Column: [3D TASK]
- Allocate to Current Date
- Allocate from Current Date
- Allocate using baseline symbols instead of named symbols

Type 4: Use Values from Symbols
- Ignore Values after Status Date
- Ignore Values outside Schedule Start and End Dates

Type 5: Total of other ValueSets
- Ask ValueSets to Sum...
6. Click the **Display/Edit Values** button to enter the values.

   • The **Edit Values** dialog box displays, as shown:

   ![Edit Values dialog box]

   • The dates in the **From** and **To** columns follow the time period Alignment chosen in Step 2 - monthly increments, in this example.

   • The first date, 1/1/18 in this example, is the schedule’s displayed start date.

7. Under **Value**, enter numbers for each time period.

   • Do not include any commas or symbols such as $.

8. Choose **OK**.

9. Choose the **Graphic Properties** tab and make selections (see pg. 7-13).

10. Choose **OK** to return to the **Create or Edit ValueSets** dialog box.

11. Repeat Steps 3 - 10 to create or edit additional ValueSets.

12. When finished, click **OK** to return to the schedule.

To learn how to use DataGraphs to graph values see pg. 7-15.
Type 2 ValueSet: Sum of Values Keyed Into Task Tows

In this type of ValueSet, values are entered by time period for each task row.

These values are displayed in the DataGraph as bars or lines. Also, numeric values can be displayed above or below the DataGraph.

1. Choose **Tools | Graph Options | Setup ValueSets**.
   - The Create or Edit ValueSets dialog box displays, revealing 9 Available ValueSets, as shown below, left.

2. At the bottom left of this dialog box, next to **Set Alignment for ValueSets**, choose a time period by which the values will be entered, totaled and graphed.
   - In the example above, the Alignment is Monthly.

3. Click any **Create/Edit** button with **No Named Assigned**. The ValueSet Properties dialog box displays, as shown below, right.

4. Type in a name for the **ValueSet Name** - here, “Costs” is entered.

5. Click **Type 2: Sum of Values Keyed into Task Rows**.

6. Choose the **Graphic Properties** tab and make selections (*see pg. 7-13*).

7. Click **OK** to return to the Create or Edit ValueSets dialog box.

8. Repeat Steps 3 - 7 to create or edit additional Type 2 ValueSets.

9. Click **OK** to return to the schedule.
Enter values for Type 2 ValueSets

When the schedule is outlined, only the lowest outline level tasks should receive values because entered values roll-up to upper level tasks.

1. Right-click the task row in the column area and choose **Edit ValueSet** - in this example, the “Analysis” task row has been selected.
   - The **Select ValueSet to Edit** dialog box displays:

2. Click the **Edit** button for the ValueSet that will contain the values. The **Edit Values** dialog box displays:
   - The dates in the **From** and **To** columns follow the time period Alignment from the ValueSet - monthly increments, in this example.
   - The first date, 4/1/18 in this example, is the schedule’s displayed start date.

3. Under **Value**, enter numbers for each time period. Usually, values are only entered for time periods that the symbols and horizontal bars cover - here, April and May.
   - Do not include any commas or symbols.
   - To see the total values that have been entered so far for each month, choose **Chart Total**.

4. Click **OK** and **OK** to return to the schedule.

5. Repeat for other task rows.

To learn how to use DataGraphs to graph values see pg. 7-15.
Type 3 ValueSet: Allocate Column Values Across Timeline

In this type of ValueSet, values are entered in a column. Those values are then spread across each task’s time span.

For “Analysis” task, the $300 is distributed evenly between the days in April, May and June.

The amount for each month is based upon the total number of days in that month that are included in the time span.

Notice that the value for May is larger since it is a full month.

For how to display the numbers under each task bar, as shown here, see pg. 7-14.

Create a Values SmartColumn and enter values

First, create a Values SmartColumn which will contain these values, such as the “Budget” column in the example above. Then, create the Type 3 ValueSet which references this column and graphs this column’s values.

A Type 3 ValueSet can reference any column containing values, such as a Values SmartColumn, a Calculation/Indicator SmartColumn, a Duration SmartColumn, and an Earned Value SmartColumn.

1. Choose Insert | Rows, Columns | New Column | Values.
2. Choose OK to view the Column Properties dialog box.
3. Choose the Column Heading tab and name the column.
4. Choose the Column Formatting tab and make decimal and currency selections, if applicable.
5. Choose OK to return to the schedule.
6. Click the text tool, click in a cell in the new column, then enter the values.

When the schedule is outlined, only the lowest outline level tasks should receive values because entered values roll-up to upper level tasks, as set under Layout | Other | Summary Bar Settings.

7. Repeat for other column cells.
Create a Type 3 ValueSet that references a Column that contains values

1. Choose **Tools | Graph Options | Setup ValueSets**.
   - The **Create or Edit ValueSets** dialog box displays, revealing 9 **Available ValueSets**.

2. At the bottom left of this dialog box, next to **Set Alignment for ValueSets**, choose a time period by which the values will be totaled and graphed.

3. Click any **Create/Edit** button with **No Named Assigned**. The **ValueSet Properties** dialog box displays.

4. Type in a name for the **ValueSet Name** - here, “Budget” is entered.

5. Click **Type 3: Allocate Column Values Across Timeline**.

6. From the **Select Column** list, choose the appropriate column.
   - **Allocate to Current Date**: Values will be spread evenly from the task’s start date to the current date.
   - **Allocate from Current Date**: Values will be spread evenly from the current date to the task’s end date.
   - **Allocate using baseline symbols**: Values will be allocated to task bars with baseline start and end symbols, instead of normal start and end symbols.

7. Choose the **Graphic Properties** tab and make selections (see pg. 7-13).

8. Click **OK** to return to the **Create or Edit ValueSets** dialog box.

9. Repeat Steps 3 - 8 to create or edit additional Type 3 ValueSets.

10. Click **OK** to return to the schedule.

To learn how to use DataGraphs to graph values see pg. 7-15.
Type 4 ValueSet: Use Values From Symbols

In this type of ValueSet, values are entered for each symbol and remain attached to the symbol when moved.

These values are displayed in the DataGraph as bars or lines, and the numeric values can be displayed above or below the DataGraph.

The employee attendance example has three Type 4 ValueSets.

1. Choose Tools | Graph Options | Setup ValueSets.
   - The Create or Edit ValueSets dialog box displays, revealing 9 Available ValueSets, as shown below, left.

2. At the bottom left of this dialog box, next to Set Alignment for ValueSets, choose a time period by which the values will be totaled and graphed.
   - In the example above, the Alignment is Weekly.

3. Click any Create/Edit button with No Named Assigned. The ValueSet Properties dialog box displays.

4. Type in a name for the ValueSet Name - here, “WORK” is entered.

5. Click Type 4: Use Values from Symbols.
   - **Ignore Values after Status Date**: Only the values attached to symbols before (to the left of) the status date will be displayed and graphed.
   - **Ignore Values outside Schedule Start and End Dates**: Only the values attached to symbols within the schedule’s displayed start and end date range will be displayed and graphed.

Symbol values can only be entered after the ValueSet has been created.
6. Choose the **Graphic Properties** tab and make selections *(see pg. 7-13).*
7. Click **OK** to return to the **Create or Edit ValueSets** dialog box.
8. Repeat Steps 3 - 7 to create or edit additional Type 4 ValueSets.
9. When finished, click **OK** to return to the schedule.

**Add values to Symbols**

1. In the toolbox, click the **arrow tool**.
2. On the schedule, click once on a symbol. This should display the **Selection** menu.
3. In the **Selection** menu, go to the **ValueSets** tab.
4. Enter a value for any or all of the **ValueSets**, as shown to the right.
5. Click the apply button as shown on the right.
6. Repeat for other symbols.

To learn how to use DataGraphs to graph values see pg. 7-15.

Here is another example of a Type 4 ValueSet.

Additionally, this schedule uses ValueSet SmartColumns to total symbol values by task row *(see pg 7-18).*
Type 5 ValueSet: Total of Other ValueSets

In this type of ValueSet, other ValueSets are totaled.

These values are displayed in the DataGraph as bars or lines, and the numeric values can be displayed above or below the DataGraph.

This example has three ValueSets: The “Cost 1” and “Cost 2” ValueSets are Type 1, and “Total Costs” is a Type 5 ValueSet that totals “Cost 1” and “Cost 2.”

1. Choose **Tools | Graph Options | Setup ValueSets**.
   - The **Create or Edit ValueSets** dialog box displays, revealing 9 **Available ValueSets**, as shown below, left.

2. At the bottom left of this dialog box, next to **Set Alignment for ValueSets**, choose a time period by which the values will be totaled and graphed.
   - In the example above, the **Alignment is Monthly**.

3. Click any **Create/Edit** button with **No Named Assigned**. The **ValueSet Properties** dialog box displays, as shown. Two ValueSets must already exist so that they can be totaled.

4. Type in a name for the **ValueSet Name** - here, “Total Costs” is entered.

5. Click **Type 5: Total of other ValueSets**.

6. Click the **Pick ValueSets to Sum** button.

7. In the **Select ValueSets to Sum** dialog box, **✓** the ValueSets to total.

8. Click **OK**.
9. Choose the **Graphic Properties** tab and make selections (see pg 7-13).

10. Click **OK** to return to the **Create or Edit ValueSets** dialog box.

11. Repeat Steps 3 - 10 to create or edit additional Type 5 ValueSets.

12. Click **OK** to return to the schedule.

To learn how to use DataGraphs to graph values see pg. 7-15.

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**ValueSet Graphic Properties**

ValueSet graphic display options allow the user to independently format how each ValueSet is displayed as numbers and graphs of numbers.

Each ValueSet can have different settings for line/bar/point graph colors and patterns; cumulative and non-cumulative display of values and graphing of values; adding currency symbols; decimal place control; summing and averaging of values.

1. Choose **Tools | Graph Options | Setup ValueSets**.

2. Click **Create/Edit** for the appropriate ValueSet. The **ValueSet Properties** dialog box displays.

3. Click the **Graphic Properties** tab, as shown:

   This tab has two sections: the **ValueSet Display Properties** and the **Graph Properties**.
4. Under **ValueSet Display Properties**:

- **List Numeric Values Above Graph**: Values appear above DataGraph.
- **Show as Cumulative**: Numeric values appear above DataGraph as cumulative values.
- **Graph Values**: Values are converted to line or bar graphs.
- **Graph as Cumulative**: Cumulative values are converted to line or bar graphs.
- **Values Represent Currency**: Add currency symbol to numeric values. Affects ValueSet values above/below DataGraph, Y-axis values, and ValueSet values under each task row. Y-axis currency display is controlled by the first ValueSet’s setting for that DataGraph.
- **Number of Decimals to Display**: Choose 0 - 6 decimal places when displaying values. Affects ValueSet values above/below DataGraph, Y-axis values, and ValueSet values under each task row.
- **Show Values Under Each Task row**: For Type 2, 3 and 4 ValueSets, only. Display numeric values on task rows and within the time period.
- **Exclude Name of ValueSet in Task row**: For Type 2, 3 and 4 ValueSets, only. Hide the name of the ValueSet which will otherwise display in the column area, in line with its value on the task row. The example above does not exclude ValueSet names in the task rows.
- **Suppress Values of Zero**: Values of 0 (zero) are not displayed above/below the DataGraph or on task row ValueSet value displays.
- **Suppress Leading Values of Zero**: For ValueSet numbers such as 0.35 to appear as .35.
- **Show Average instead of Sum**: Normally, ValueSet values are totalled by time period, then displayed and graphed as summed values. This option changes that computation to an average of values.
- **Ignore Zero values when computing average**: Does not consider ValueSet values of zero when computing average.

5. Under **Graph Properties**:

The choice of displaying the values as lines, bars, wide bars or points in the DataGraph is made in the **DataGraph Options** dialog box, as discussed in the next section.

- **Line Style**: For line graphs in the DataGraph, choose a thin, dotted, dashed or thicker line.
- **Line/Bar Color**: Choose a line color or bar fill color.
- **Bar Pattern**: For bar graphs in the DataGraph, choose a pattern which fills...
each bar. Marbled patterns are full-colored bitmaps which will ignore any foreground or background color settings. Use of these increases the size of printer files and metafiles. Thus, printing time may be increased.

- **Solid Bar Target Color**: For the solid Bar Pattern only, choose a Target Color for fading from the Line/Bar Color to this Target Color. For other bar patterns, the Target Color fills the white area of the pattern.

- **Solid Bar Effects**: For the solid Bar Pattern only, choose a gradient fill pattern for fading from the Line/Bar Color to this Target Color.

- **Symbol for Point Graphs**: Pick a symbol that will show up on the DataGraph at the value point for the time period. The available symbols reflect the symbols in the toolbox.

- **Size override**: To set the symbol size for the symbols that will be placed as points on the DataGraph.

- **High low Graph connection**: Place a line between a symbol point from the current ValueSet to another ValueSet symbol point. The line pattern and color selected above will be used for the connection.

6. Choose **OK** and **OK** to return to the schedule.

**DataGraphs**

DataGraphs display values from ValueSets as bar or line graphs. One DataGraph can display up to 8 ValueSets.

A schedule can have up to 3 DataGraphs, none of which is allowed to take up more than ½ of the available space.

A DataGraph can be created before or after creating ValueSets, yet a main component of formatting the DataGraph is choosing which ValueSets to display. Thus, normally, ValueSets are created first.

1. Choose **Tools | Graph Options | Setup DataGraphs**. The DataGraph Options dialog box displays, with tabs for three available DataGraphs.

2. Choose the **DataGraph 1** tab.

3. For **Graph Height**, enter a value in inches. Make sure **Show This Graph** is selected.
4. **Plot ValueSets and Y-Axis in Schedule Area** to display the graph on the schedule.

5. **Overlay ValueSets from DataGraph 2 (or 3)** to display the ValueSets from the DataGraph 2 or DataGraph 3 tab on top of the DataGraph 1 ValueSets. This makes it possible to overlay line graphs onto bar graphs. See schedule on pg 7-17.

6. Under **Data Display Format**, choose to graph values as **Lines** (line graph), **Bars** (bar graph) or **Wide Bars** (bars which fill the full width of the available area) **Points** (symbols as value points on the graph). Bars or Wide Bars from different ValueSets can be on top of each other choose **Stack Bars**.

7. Under **Background Color**, click the **Change** button and choose a color.

8. Choose a fade setting under **Color Effects** and then choose an **Effects Target Color**. The Background Color will fade into the Effects Target Color.

9. Under **Y-Axis**, customize the numeric value increments that display in the DataGraph.
   
   • Leave all values at 0 for Milestones to calculate high, low and increment values based on the powers of 10 when possible, for values up to 1,000,000,000. For graphing negative numbers, 0 may not appear on the Y-axis when Milestones calculates the Y-axis values.
   
   • For a custom display of Y-Axis values, enter a **High Number** representing the highest number to be displayed along the Y-axis; enter a **Low Number** representing the lowest number; enter an **Increment** which controls the incremental values between the high and low numbers along the Y-axis.

10. Choose to **Include Horizontal Gridlines** that extend from the Y-Axis values, across the DataGraph area, cutting through the line and bar graphs.

11. Click the **Assign ValueSets to this Graph** button. The Assign ValueSet to DataGraph dialog box displays, as shown.

12. The **Available ValueSets** that should appear in this DataGraph. Click **OK**.

13. Click the **DataGraph 2** or **DataGraph 3** tab to format and add ValueSets to the other two available graph areas.

14. Options which apply to all DataGraphs:
   
   • **Extend Chart Gridlines into DataGraph area** to display vertical gridlines in the DataGraph as well as the schedule area.
- **Plot Numbers under Graphs** to display numbers from ValueSets under the DataGraph, instead of above the DataGraph.

- **Use Single Lines for DataGraph Legend Entries** to display the name of the ValueSet and the graph color for that ValueSet along a single horizontal space.

- **Float DataGraph** to undock the DataGraph from the bottom of the schedule.

- **Show DataGraphs on last page only** to display floating DataGraphs on only the last schedule page.

- **Extend Frame Shadow into DataGraph area** to display the schedule’s shadow along the edge of the DataGraphs as well.

- **Center Displayed Values** to align the values above or below the graph in the center of the time period in which the values display.

- **Number Angle**: to place ValueSet values at an angle within the DataGraph. Choose this angle from the drop down menu.

- **Extra Space**: increase to allow the angled values more room to be displayed.

15. Click OK to return to the schedule. The values from the selected ValueSets should now display in the appropriate DataGraphs.

**Datagraph Overlay Example**
**ValueSet SmartColumn**

The ValueSet SmartColumn is used to display the row total (task row total) of any Type 2 or Type 4 ValueSet in a column cell.

Why only these two ValueSets? Type 2 values are entered in time period increments, row-by-row; therefore, they can be totaled by row. Type 4 values are attached to symbols that appear on task rows; therefore, those values can also be totaled on a row-by-row basis.

These instructions assume that a Type 2 or Type 4 ValueSet has been created (as described previously.)

1. Choose **Insert | Rows, Columns | New Column | ValueSet**.
2. Under **ValueSet to Use**, choose the ValueSet whose values will be totaled in this column.

**Optional Indicators:**

3. Select **Pick indicator symbology based upon the following conditions** to display symbols, text, and/or color based on the column values.
4. Click the drop-down arrow to view 10 active/ignored indicators and their conditions.

- Any of these symbols can be changed to another symbol from the toolbox.
- All symbols are **Ignored** until a condition is created for them to appear, becoming **Active**.
5. Click on one of the ten symbols. The Indicator Condition Settings dialog box opens, as shown below:

- Choose an Indicator Symbol. The available choices are the symbols from the toolbox.
- OR, choose to Fill the cell with the symbol color instead of drawing symbol, not the symbol itself.
- Optionally, enter Indicator Text to appear with the symbol or color fill.
- Choose the Symbol Color for the symbol or color fill.

6. The indicator can appear based on a value in the column cell.

- Condition is based upon the value in a cell.
  - The indicator will appear when a cell’s value is greater than the first value and less than/equal to the second value.
  - Do not use commas or currency signs when entering values.

7. Choose OK to return to the Pick indicator symbology based upon the following conditions list.

8. Repeat Steps 3 - 7 to display other indicators.


10. Display numerical value also to show the values.

11. Choose OK to return to the Column Properties dialog box where a column heading title can be added and the column can be formatted for currency, decimals, and other selections.

12. Choose OK to return to the schedule.
The example below has two Type 2 ValueSets, “Budget” and “Costs.” Monthly budget values and cost values are entered for each task. The values are totaled for each month, then displayed and graphed as cumulative below the schedule.

The “Budget per Task” and “Costs per Task” columns are ValueSet SmartColumns. The “Budget per Task” ValueSet SmartColumn totals the “Budget” Type 2 ValueSet values for each task row. The “Costs per Task” ValueSet SmartColumn totals the “Costs” Type 2 ValueSet values for each task row.

Thus, ValueSet SmartColumns can total values from selected Type 2 or Type 4 ValueSets.

The “Budget per Task” column also displays indicator symbols based on the column cell values.

Datagraph SmartColumn Example

<table>
<thead>
<tr>
<th>TASKS</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>Budget</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>![Triangle]</td>
<td>$500</td>
<td>![Triangle]</td>
<td>$1,600</td>
<td>![Triangle]</td>
<td>$2,100</td>
</tr>
<tr>
<td>Test</td>
<td>![Triangle]</td>
<td>$800</td>
<td>![Triangle]</td>
<td>$1,600</td>
<td>![Triangle]</td>
<td>$2,100</td>
</tr>
<tr>
<td>Manufacture</td>
<td>![Triangle]</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>![Triangle]</td>
<td>$1,500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Budget</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4,000</td>
<td>$2,000</td>
</tr>
<tr>
<td>$2,000</td>
<td>$0</td>
</tr>
<tr>
<td>$1,300</td>
<td>$900</td>
</tr>
<tr>
<td>$2,100</td>
<td>$1,900</td>
</tr>
<tr>
<td>$2,600</td>
<td>$2,100</td>
</tr>
<tr>
<td>$4,100</td>
<td>$3,300</td>
</tr>
</tbody>
</table>

- Budgets over $2,000
- Budgets under $2,000
Chapter 8: Manage Multiple Files

Manage multiple projects by creating multiple Milestones schedules and linking them with a master Milestones file or symbol to symbol links. Also, hyperlinks can be added to symbols. These will allow the user to open other documents or websites directly from a Milestones schedule.

With these features, a Milestones schedule can become the project hub with quick links to all project related information - a great way to cross-reference or drill-down for more detail on any project activity.

**Project Status Overview**

<table>
<thead>
<tr>
<th>% Comp</th>
<th>Task</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Cost</th>
<th>Budget</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>57%</td>
<td>Project 1</td>
<td></td>
<td></td>
<td></td>
<td>$55,000</td>
<td>$50,000</td>
<td></td>
</tr>
<tr>
<td>70%</td>
<td>Project 2</td>
<td></td>
<td></td>
<td></td>
<td>$45,000</td>
<td>$40,000</td>
<td></td>
</tr>
<tr>
<td>75%</td>
<td>Project 3</td>
<td></td>
<td></td>
<td></td>
<td>$35,000</td>
<td>$35,000</td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td>Project 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61%</td>
<td>Project 5</td>
<td></td>
<td></td>
<td></td>
<td>$45,000</td>
<td>$40,000</td>
<td></td>
</tr>
</tbody>
</table>

**Under Budget**  **On Budget**  **Over Budget**

**Project 1 Detailed Report**

<table>
<thead>
<tr>
<th>Task</th>
<th>January</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td></td>
<td>29d</td>
</tr>
<tr>
<td>Task 1</td>
<td></td>
<td>4d</td>
</tr>
<tr>
<td>Task 2</td>
<td></td>
<td>5d</td>
</tr>
<tr>
<td>Task 3</td>
<td></td>
<td>5d</td>
</tr>
<tr>
<td>Task 4</td>
<td></td>
<td>6d</td>
</tr>
<tr>
<td>Task 5</td>
<td></td>
<td>5d</td>
</tr>
<tr>
<td>Task 6</td>
<td></td>
<td>4d</td>
</tr>
</tbody>
</table>

**Target Symbols**

**Outgoing Link Symbols**  **Hyperlinked Symbol**

**Milestones PROFESSIONAL 2012**

The easy way to schedule, manage and report your projects.

**Manage Multiple Files 8-1**
Master Schedule

A Milestones Professional master schedule is a compilation of separate Milestones schedules (sub-schedules). Usually, the sub-schedules are each maintained by different people or departments, each responsible for one or more projects. Thus, the master schedule gives a summary view of all projects or all parts of a single project.

Changes to data in the sub-schedules appear in the master schedule. Any changes to the master schedule will not appear in the sub-schedules.

Master Schedule Example

Review this general master schedule scenario, and then continue to the more detailed instructions for formatting, creating and updating a master schedule.

Assume that we have two sub-schedules, Project One, and Project Two; which need to be reviewed and presented at a high level.

To combine these sub-schedules into a master schedule, first create a blank Milestones file with the same formatting as the sub-schedules. This blank schedule (the master schedule) will fill with the data from the sub-schedules.

Add sub-schedules to the list of source schedules to populate the master schedule.

When a master schedule is updated, any graphics, titles, or free-form text originally in the master schedule, will remain. Only the task rows are read from the sub-schedules, not titles, graphics, formatting information, or free-form text. In this example, the outline level 1 shading is set in the master schedule not “brought in” from the sub-schedules.
Format the Master Schedule and Sub-schedules

Before sub-schedules are merged into a master schedule, all sub-schedules and the master schedule should have basically the same format.

- **All columns should be the same type and in the same location.** That is, if the master schedule has one column with text on the left side of the schedule, then all sub-schedules should also have such a column in the same position.

- **The symbols and horizontal bars should be the same or similar, and in the same positions in the toolbox.** When the sub-schedules are merged into the master schedule, the master schedule’s symbology is used.

- **The date range should be the same**, as set under Dates | Start and End Dates. If the date range in the master schedule is different than the sub-schedule’s date range the information will still be merged into the master schedule; yet it may be necessary to scroll to see the symbols and bars.

The formatting in the master schedule (rows per page, symbol size, text size, chart size, shading, etc.) is applied to all symbols and text that are merged into it.

How can formatting all of these schedules be made easier? Use or create a template and apply it to all existing schedules (see Chapter 2 pg. 2-35). Optionally, choose **Lock Layout** from the Layout tab to prevent other users from changing formatting aspects of a schedule.

Create a Master Schedule

The master schedule references one or dozens of sub-schedules which will merge together into the master schedule.

1. Open the Milestones schedule that will be the master schedule.

2. Choose File | Master/Update | Master Schedule. The Master Schedule Properties dialog box displays:

3. **Treat the Current Schedule as the Master Schedule.**

4. **Insert Page Breaks Between Sub-Schedules:** Sub-schedules will be separated by page breaks in the master schedule.

5. **Insert Hyperlinks in each task row to the source Sub-Schedule:** Every task row will have a task row hyperlink shortcut to the source sub-schedule from which that task originated.
6. **Automatically Update when Master Schedule is Opened**: Each time the master schedule is opened, the latest sub-schedules automatically populate the master schedule.
   - Otherwise, the master schedule has to be updated through **File | Master/Update | Master Schedule**.
   - It’s important that all of the sub-schedules be available when this update is done or they will be left out of the update.

7. Click the **Add Schedule** button to launch the *Windows* browser. Locate and select sub-schedules to be added to the master schedule. Click **Open** to add the schedule(s) to the master schedule list.
   - Sub-schedules will fill the master schedule in the order shown.

8. Use the **Move Up** and **Move Down** buttons to change the order of the schedules.

9. Use the **Change** button to replace a selected file from the sub-schedule list with another *Milestones* schedule.

10. Use the **Delete** button to remove a selected file from the sub-schedule list.
   - When deleting a sub-schedule from the list, the schedule itself is removed only from the master schedule, not deleted from the hard drive of the computer.

11. Click **OK** when finished adding sub-schedules.

**Update the Master Schedule**

After adding the sub-schedules to the master schedule, the master schedule is not automatically populated with the sub-schedules’ data. The master schedule is either updated when opened, as described in the previous section, or the update is “forced” by choosing **File | Master/Update | Master Schedule**.

- Keep in mind that once a master schedule is built, any changes made to tasks in the master schedule are **NOT** also made to the sub-schedules.
The **Master Schedule Update Results** dialog box appears:
All sub-schedules which were selected to merge into the master schedule are listed, along with the path to each schedule.

- If the master schedule found and merged the sub-schedule, then the message is **Updated Successfully**.
- If the master schedule did not merge the sub-schedule, then the message is **Update Failed**.

Failed updates are usually the result of renamed, moved, or deleted sub-schedules.

Sub-schedules can be located on other computers and referred to by a UNC path, such as `\server2\schedules\master1.mlf`. If the “server2” machine was not available when the update was done, then the update for “master1.mlf” would fail and its task rows would be left out of the master schedule.

**Master Schedule tips and considerations**

- The typical use of a master schedule is to see the progress of selected projects in a single Milestones Professional file. Generally, all sub-schedules should have the same format, especially column types and locations. Create a template or blank chart to meet this need.
- If changes are made to a master schedule, those changes are not retained when it is updated with the latest sub-schedule data.
- All sub-schedules should follow an agreed-upon hierarchy when displaying various levels of detail. Even agreeing on the names of the various project stages is a good idea.
- If the master schedule is to contain a single summary row for all merged projects, then all sub-schedules need to begin at outline level 2. This allows for an outline level 1 roll-up summary of all projects in the master schedule.
- Sub-schedules should be saved in a static location, such as a network folder, to ensure the master schedule has access to the latest sub-schedules’ data.

For more detailed information, examples and guidance on creating master schedules, refer to **Help | Help Files | Help Topics**, Index keywords “master schedule”.

Manage Multiple Files 8-5
Symbol Links

With symbol linking, a symbol’s date in one schedule can be based on a symbol’s date in another schedule or the same schedule.

Symbol linking involves a few steps, including naming the target symbol, establishing the link from the outgoing symbol to the target symbol, and updating the linked symbols.

Symbol Link Example

In the example below, there are two schedules. The “Project Status Overview” schedule is used by top-level management to track status, dollars, and percent complete across multiple projects. The “Project 1 Detailed Report” schedule is used by mid-management to track the details of the project, including task assignments, task flow, and task durations.

In the Project Status Overview schedule, the start date on the Project 1 task row is linked to the first start date in the Project 1 Detailed Report schedule. Likewise, the arrow status symbol in the Overview schedule is linked to the arrow status symbol in the Detailed schedule. Finally, the end dates are linked, as shown below.

When the “target” symbols move in the Detailed schedule, the “outgoing link” symbols in the Overview schedule move accordingly.
**Link Symbols Between Separate Schedules**

Linking symbols located on two separate schedules involves setting up two things:

1. The symbol to be used as the “target” of the link must be given a unique name, so that it can be found when the “outgoing link” symbol needs to check the target symbol’s date and update its own date.

2. The symbol with the outgoing link must reference the target symbol using the full path (UNC path or Drive path) and schedule filename along with the target symbol name.

**Name the Target Symbol**

The date of this target symbol will drive the date of any symbol whose outgoing link references it.

1. Click the arrow tool in the toolbox.

2. In the schedule that will control the dates of symbols in another schedule, click once on the appropriate symbol. This will display the **Selection** menu.
   - In the example on the previous page, this would be the “Task 1” start date of the “Detailed Report” schedule.

3. In the **Selection** menu, click the **Symbol Links** tab and go to the **Incoming Link and Automation Tag** section as shown below:

4. Under **Unique Symbol Name for Incoming Links - Used when this symbol is a Link Target**, enter a symbol name.

5. Click the apply button.

6. Repeat this process to name other target symbols, and then **Save** the schedule.
Link a Symbol to the named Target Symbol

When a target symbol’s date changes, the symbol linked to the target symbol will also change to that date.

1. Click the arrow tool in the toolbox.

2. In the appropriate schedule, click once on the symbol whose outgoing link should point to a target symbol. This will display the Selection menu.

3. In the Selection menu, click the Symbol Links tab and go to the Outgoing Link: the Target Symbol of the Link section:

![Symbol Link Menu]

4. Choose the Browse button.

5. Locate the schedule that contains the target symbol, click on the file name, and click Open.

6. To the right of Symbol Name, all available target symbol names for that schedule will be listed in the drop-down menu.
   - If the target symbol names do not appear, then click the Refresh List button. If they still do not appear, it is possible that the schedule containing the target symbols has not yet been saved.

7. Choose the appropriate Symbol Name (the target symbol’s name) from the list.

8. Also update this symbol’s text from target symbol’s text: The symbol text displayed by the outgoing symbol will automatically display the symbol text used by the target symbol. When changes are made to the target symbol’s text, the outgoing symbol’s text is updated.

9. Choose Clear Link to break the link between this symbol and the File Name and Symbol Name that is displayed.
Symbol Link Options

With a symbol selected, in Selection | Symbol Links | Options, choose to:

- **Update Symbol Links when Schedule is Opened**: All symbols with outgoing links in the newly opened schedule will look for the target symbols and update symbol dates accordingly.

- **Highlight symbols with names or outgoing links**: Attaches an icon to all symbols involved in symbol linking, as follows
  - outgoing link
  - target
  - outgoing link and a target

- **Do Not Update Dependent Symbols**: If a symbol with an outgoing link has dependent tasks, normally those tasks will move when their parent symbol is updated with the target symbol’s date. Check this option to prevent any dependent symbols from moving to new dates.

Update Linked Symbols

1. Open the schedule containing the symbols with outgoing links.
   - If **Update Symbol Links when Schedule is Opened** was checked for this schedule, then all symbols with outgoing links will look for the target symbols and update symbol dates accordingly.

2. If no update occurred, choose File | Master/Update | Update Master Schedule, Linked Symbols | Linked Symbols.

A dialog box reports the successful and failed updates:

The name of each target symbol that was searched for is listed along with the schedule name and location. The bracketed message reports if the [Update Failed] or [Updated Successfully].

If any of the updates failed, the schedule containing the target symbols or the computer containing the schedule may not be available or the target symbol’s name may have changed or may have been deleted.
**Link Symbols within the Same Schedule**

The use of symbol links within the same schedule involves setting up two things:

1. The symbol to be used as the “target” of the link must be given a unique name, so that it can be found when the “outgoing link” symbol needs to check the target symbol’s date and update its own date.

2. The symbol with the outgoing link must reference the target symbol.

---

### Project 1 Detailed Report

<table>
<thead>
<tr>
<th>Task</th>
<th>January</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td></td>
<td>30d</td>
</tr>
<tr>
<td>Task 1</td>
<td></td>
<td>4d</td>
</tr>
<tr>
<td>Task 2</td>
<td></td>
<td>5d</td>
</tr>
<tr>
<td>Task 3</td>
<td></td>
<td>5d</td>
</tr>
<tr>
<td>Task 4</td>
<td></td>
<td>6d</td>
</tr>
<tr>
<td>Task 5</td>
<td></td>
<td>5d</td>
</tr>
<tr>
<td>Task 6</td>
<td></td>
<td>4d</td>
</tr>
</tbody>
</table>

In this example, the arrow symbol pointing upwards in “Task 4” (Target Symbol) controls the date of the arrow symbol pointing downwards on the “Summary” row (Symbol with outgoing link). Thus, when the arrow pointing up (target) moves, the arrow pointing down (outgoing link) will move accordingly.

**Name the target symbol**

1. Click the arrow tool in the toolbox.

2. Click once on the symbol that will control the date of another symbol. This will display the **Selection** menu.

In the example above, this would be the arrow symbol pointing up.

---

Manage Multiple Files 8-10
3. In the **Selection** menu, click the **Symbol Links** tab and go to the **Incoming Link and Automation Tag**.

4. Under **Unique Symbol Name for Incoming Links - Used when this symbol is a Link Target**, enter a symbol name.

5. Click the apply button.

6. Repeat this process to name other target symbols in this schedule, and then **Save** the schedule.

**Link a Symbol to the named Target Symbol**

1. Click the arrow tool in the toolbox.

2. Click once on the symbol whose outgoing link should point to a target symbol. This will display the **Selection** menu.

   In the example above, this would be the arrow symbol pointing down.

3. In the **Selection** menu, click the **Symbol Links** tab and go to the **Outgoing Link: the Target Symbol of the Link**.

4. Choose the **This File** button.

5. To the right of **Symbol Name**, all available target symbol names for this schedule will be listed in the drop-down menu.

   If the target symbol names do not appear, then click the **Refresh List** button.

6. Choose the appropriate **Symbol Name** from the list.

7. Repeat this process to link other symbols to target symbols.

8. To update the linked symbols, choose **File | Master/Update | Update Master Schedule, Linked Symbols | Linked Symbols**.
View a Report of Symbol Links, Names, and Attributes

Generate reports on data embedded in symbols, including symbol target names and links between symbols (i.e. symbol linking).

Generate a report by selecting Tools | Reports | Symbol and choose a report.

Each report can be copied to the clipboard for pasting into another program for printing.

Symbol to Symbol Links Report

The Symbol to Symbol Links Report displays data for each symbol which has an outgoing link to another symbol, including the task row on which the symbol appears, the symbol’s ordinal placement from left to right along the task row, the symbol’s date, the target name of the symbol to which it is linking, and the full path to the file containing the named symbol.

Symbol Names Report

The Symbol Names Report displays data for each symbol which has a target name, including the task row on which the symbol appears, the symbol’s ordinal placement from left to right along the task row, the symbol’s date, and the symbol’s link target name as found under the Selection | Symbol Links tab when the symbol is selected.

Symbol Attributes Report

The Symbol Attributes Report displays data for each symbol which has either a hyperlink, note, outgoing link, target name, or tag. The information displayed includes the task row on which the symbol appears, the symbol’s ordinal placement from left to right along the task row, the symbol’s date, and the symbol’s attributes. If a symbol has a target name, NA is placed in the attribute column. If a symbol has an outgoing link, OL is placed in the attribute column.

Symbol Links versus Master Schedule

Schedules with symbol links are another way to maintain a type of “master schedule,” but without the task rows being replaced each time an update is done (as is true in the Master Schedule feature). When symbols are updated via symbol links, only the dates are updated, nothing else (unless the symbol text option is chosen). However, in using a symbol linking method to update a top-level schedule, there is no way of knowing about new or deleted sub-tasks. Thus, the method used depends upon user needs and methods of operation.
**Hyperlinks**

Any symbol or task row on a schedule can have hyperlink shortcuts to other Milestones schedules, documents or web pages. Launch a hyperlink to open the linked file or URL.

Using the Internet Publishing Wizard, a schedule with symbol hyperlinks is automatically transformed into a graphic with “hotspot” links from symbols to the schedules, documents, and web pages that are hyperlinked to the symbols. That graphic is included in an HTML document, ready for uploading to the Internet or an Intranet site. In addition, the first hyperlink for each task row and all hyperlinked symbols are displayed as clickable links when saved as a PDF.
Add a Hyperlink to a Symbol

Dozens of hyperlinks can be attached to any symbol on the schedule.

1. Click the arrow tool in the toolbox.
2. Click once on the symbol to which the hyperlink will be attached. This will display the Selection menu.
3. Choose Selection | Hyperlinks | Hyperlink Options.

Hyperlink a Symbol to a file

4. Click the Add File button.
5. In the Select the Document File to Link dialog box, locate and select the file to hyperlink.
   - It may be necessary to change the Files of type to All Files(*.*).
6. Click Open to add the file as a hyperlink.

Hyperlink a Symbol to a URL

7. Click the Add URL button the Add Internet or Intranet URL dialog box displays.
8. Enter the complete address to the site, and then click OK.
9. View hyperlinks by clicking the drop arrow to the left of Add File.

Edit a Hyperlink

10. Click the Edit Links button the Edit Hyperlink List dialog box displays.
11. Change, copy or paste Hyperlinks in this dialog box.

Symbol Hyperlink Options

With a symbol selected, in Selection | Hyperlinks | Hyperlink Display choose to.

- **Highlight Symbols With Hyperlinks** to add an arrow icon to all symbols that contain hyperlinks, as shown here:
- **Include Hyperlink References When Creating HTML Files** to include a numbered list of hyperlink URLs in the HTML document created by the Internet Publishing Wizard. This setting will be overridden if Include Symbol Hyperlinks in HTML File is checked/unchecked during the Internet Publishing Wizard process.
**Launch a Hyperlink from a Symbol**

When the user selects a hyperlinked file or URL, the selected file or URL will launch in the appropriate program.

1. Click the arrow tool in the toolbox.
2. Hover over the symbol to see the available hyperlinks. For this feature, tooltips must be turned on for the schedule area in Tools | Program Options | Help.
3. Right-click the symbol that contains the hyperlink, and view the list of hyperlinks at the bottom of the right-click menu.
4. Click once on the hyperlinks wish to launch.
5. The hyperlink will open in the appropriate application (e.g. Word, Internet Explorer, Milestones, etc.).

The length of time and space for the tooltip display when hovering over a symbol can be increased. Choose Tools | Program Options | Help. Under Normal Tooltip Display, choose a different length of time. For more space, check the box next to **Expanded Symbol Hover information display**.

**Remove a Hyperlink from a Symbol**

Delete one or all hyperlinks attached to a symbol on the schedule.

1. Click the arrow tool in the toolbox.
2. Click once on the symbol which has the hyperlink(s).
3. Choose the Selection | Hyperlinks tab.
4. Click the drop-down arrow to view all available hyperlinks, and select the link to be deleted.
5. Click the **Break Link** button.
**Add a Hyperlink to a Task Row**

Dozens of hyperlinks can be attached to any task row on the schedule. Custom import (see Chapter 12 pg. 12-9) allows hyperlinks to be imported from a spreadsheet into a Milestones task row.

1. Click the arrow tool in the toolbox.
2. Click once on any column cell on the appropriate task row. The row should now be highlighted. If the cell only is highlighted, click **Selection | Current Object: Task Row | Switch to Selected Task**.
3. Find the **Hyperlink Settings** section.

**Hyperlink a Task Row to a file**

4. Click the **Add File** button.
5. In, the **Select the Document File to Link** dialog box select the file to hyperlink.
   - It may be necessary to change the **Files of type** to **All Files(*.*)**.
6. Click **Open** to add the file as a hyperlink.

**Hyperlink a Task Row to a URL**

7. Click the **Add URL** button the **Add Internet or Intranet URL** dialog box displays.
8. Enter the complete address to the site, and then click **OK**.

**Task Row Hyperlink Options**

With a task row selected, in **Selection | Hyperlink Settings** choose to:

- **Show Hyperlink icons** to add an arrow icon to all task rows that contain hyperlinks. The icon appears in the column cell on the left side of the schedule, closest to the schedule area.

```
<table>
<thead>
<tr>
<th>Information Systems</th>
<th>Spreadsheet</th>
<th>Upgrades</th>
<th>Software Purchases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/17</td>
<td>2/12</td>
<td>3/13</td>
<td></td>
</tr>
</tbody>
</table>
```

- View all hyperlinks for that task row by clicking the drop down arrow.
Launch a Hyperlink from a Task Row

When the user opens (or launches) a hyperlinked file or URL, the selected file or URL will launch in the appropriate program.

1. Click the hyperlink icon associated with the task row.

—if the icon is not visible, then skip to the next method described.

2. In the Select Hyperlink to Launch dialog box, choose the file or URL from the list and then OK.

- or -

1. Right-click a task row that has a hyperlink.

2. Choose Hyperlink and select from the list of hyperlinked files and URLs.

Launch a Hyperlink while in Calendar View

Only hyperlinks attached to symbols while in the Gantt View are carried over to the Calendar View. Note that symbols on summary rows will not display symbol hyperlinks in the Calendar View. Only symbol hyperlinks attached to symbols at the lowest outline level will appear in the Calendar View.

1. Move the cursor to the arrow next to the calendar day.

2. Click the arrow to launch the list of hyperlinks for that day; or right-click and choose Hyperlinks.

3. Choose the hyperlink and then OK.

Edit Hyperlink Filenames

Change the names of multiple referenced files within hyperlinks at once.

1. Go to Tools | Other Tools | Update Filename Links.

2. Enter the text to change in the From: box. Enter a replacement text string in the To: dialog box.

3. Press the Update Strings in Links button.
**Remove a Hyperlink from a Task Row**

1. Click the arrow tool in the toolbox.
2. Click once on the task row. The task row will be highlighted.
3. In the Hyperlink Settings section click the drop-down arrow to view all available hyperlinks, and select the link to be deleted.
4. Click the **Break Link** button.

**Hyperlinks as Column Text or Freeform Text**

A hyperlink can be added as a column cell text entry or as a freeform text entry. The link can be to a URL or document.

1. Click the text tool in the toolbox.
2. Click once in the column cell that will contain the hyperlink (or anywhere in or outside the schedule for freeform text).
3. Type the URL (e.g. http://www.kidasa.com) or document link (e.g. C:\Financial\ProjectXBudget.xls).
4. To launch the hyperlink, use the text tool and highlight the entire document path and name.
5. With the URL highlighted, press and hold the **CTRL, ALT, then L** key on the keyboard. This should launch the highlighted hyperlink.

**Add a Hyperlink to a Graphic**

A hyperlink can be added to a graphic file placed in the schedule.

1. Click the arrow tool in the toolbox.
2. Click once on any graphic. This will display the Selection menu for that graphic.
3. In the **Selection** menu, next to **Hyperlink:** input the hyperlink path and press the apply button.
4. Open by right-clicking the graphic and selecting the hyperlink.

**Hyperlinks Report**

Generate a Hyperlinks Report. Select **Tools | Reports | Schedule | Hyperlinks**. This report displays data for each task row and symbol with hyperlinks. The report includes the task row on which the hyperlink or symbol with hyperlink appears, the symbol’s ordinal placement from left to right along the task row, the symbol’s date and the full path to the hyperlinked file or URL.
Chapter 9: Share Schedules

Milestones Professional offers many ways to share schedules with others:

- Save schedules as PDF files to share via e-mail or internet distribution.
- Copy all pages to PowerPoint.
- Copy and paste a schedule to other Windows applications.
- Print for paper distribution or display.
- Publish a complete hierarchy of schedules as HTML pages for Internet or local Intranet.
- Have others download and install the free Milestones Viewer. Then, send them schedules which they will be able to view but not change.
- Use Full Screen mode to both present and modify the schedule in a working meeting.
- Use Presentation Mode to display schedules in a slide-show format.
Save to PDF

The built-in “Save As” option “Save As PDF” saves a Milestones Professional schedule in the PDF format.

Select File | Files and Templates: Open and Save Options | PDF and enter a filename. Then, when the file has been created, click OK to view the new PDF. Milestones will attempt to launch the file using the default PDF viewer.

The PDF file includes a bookmark section made up of any bookmarks in the schedule, and optional buttons for hyperlinks. (Only the first hyperlink on each symbol or task row is included.)

Copy all Pages to PowerPoint

In addition to copying and pasting single metafiles of schedule pages, it is possible to copy all pages to a PowerPoint presentation with one click. PowerPoint 2007 or later must be installed.

1. Choose Connections | Microsoft PowerPoint | Copy all pages to PowerPoint.

2. The prompt Create a New PowerPoint Presentation? will display. Choose Yes to create a new PowerPoint document, or No to include slide in the active presentation.

3. Optionally, choose Connections | Microsoft PowerPoint | Create PowerPoint Slides from Project to open the Project to Milestones Wizard and paste the imported Milestones schedule into a PowerPoint presentation (see Chapter 10).
**Paste a Picture of the Schedule into another Application**

When only a static image of the schedule is needed, generate a metafile (enhanced picture) or bitmap of the schedule and paste it into another application.

**Copy a single page to Clipboard as a Metafile or Bitmap**

1. In Milestones, choose **Edit | Copy Schedule | Copy Metafile to Clipboard** or **Copy Bitmap to Clipboard**.
2. Click **OK** when the **Metafile/Bitmap is on the Clipboard** message appears.
3. In the other application (Word, Excel, etc.), choose **Edit | Paste Special**.
4. In the Paste Special dialog choose **Picture (Enhanced Metafile)** for a metafile copy or **Bitmap**, for a bitmap copy and then **OK**.

**Copy to Clipboard Bitmap (Selected Rows)**

1. In Milestones, choose the arrow tool to select the lines to be pasted. Hold the **Shift** key to select contiguous task rows. Hold the **Ctrl** key to select specific task rows.
2. Choose **Edit | Copy Schedule | Copy Bitmap to Clipboard (Selected Rows)**.

- **Copy Selected Rows and Date Heading**

- **Copy Only Selected Rows**

> To accomplish the selected lines image, all rows are hidden except for the selected rows. Then the image is made. This means that any free form text or other graphics previously near these lines will not move while the line does.
3. Click **OK** when the **Bitmap is on the Clipboard** message appears.

4. In the other application (Word, Excel, etc.), choose **Edit | Paste Special**.

5. In the **Paste Special** dialog choose **Bitmap**, and then **OK**.

   - **Set bitmap scale factor**: The larger the scale factor, the larger the bitmap.

     - When pasting a bitmap into a document to be printed use a larger scale factor than for a document only being viewed on the screen.

     - A printed metafile output is usually better than a printed bitmap output. Scaling up usually helps with a bitmap’s printed output.

     - When used on screen a bitmap takes advantage of anti-aliasing. Metafiles do not.

**Link and Embed Schedules in other Applications**

Because Milestones Professional is an Object Linking and Embedding server, it is possible to paste entire schedules into other OLE compliant applications.

Once embedded or linked, it’s possible to launch the schedule in Milestones from that application, by double-clicking the schedule.

**Link verses Embed**

Use linking to automatically update the linked schedule in the destination document when the schedule is updated. Linking is the best approach when maintaining the schedule separately from the document in which it is included. Remember that if a document containing links to other objects is moved, from one computer to another computer, those documents will need to be relinked.

Embedding is a better choice to keep a document portable.

If different pages of the schedule need to be displayed in another document, then use neither linking nor embedding - instead paste each schedule page as a picture, as described in the previous section.
Embed a schedule in another document

An embedded schedule becomes a part of the document in which it is embedded. The embedded schedule is not linked to the original source schedule - meaning a change in the source schedule does not equate to a change in the embedded schedule. Changes to the embedded schedule, will be retained in the embedded schedule in the Windows document.

1. In Milestones, choose Edit | Copy Schedule | Copy Schedule to Clipboard (OLE).
2. In the other Windows document (any OLE application like word), click Edit | Paste Special. The document’s Paste Special dialog box displays.
3. In the Paste Special dialog box choose Paste and Milestones Professional Schedule Object and then click OK.
4. Close the Milestones schedule used in Step 1, and then double-click on the embedded schedule. The schedule opens in Milestones.

Link a schedule in another document

When a Milestones schedule is inserted into a document as a “linked object,” a connection is maintained between the source schedule and the inserted schedule—meaning a change in the source schedule equates to a change in the schedule that was inserted in the document.

1. In Milestones, choose Edit | Clipboard | Copy Schedule to Clipboard.
2. In the other Windows document (any OLE application), click Edit | Paste Special. The document’s Paste Special dialog box appears.
3. In the Paste Special dialog box choose Paste Link and Milestones Professional Schedule Object and then click OK.
4. Double-click on the linked schedule. The schedule will open within Milestones.

_changes to the source schedule will appear in the linked schedule.
**Print a Schedule**

With Milestones Professional it’s possible to print miniature to wall-size schedules using a variety of printing options.

**Print Preview**

Use the *Print Preview* feature to see a sample of how the schedule will print.

1. Choose **File | Printing | Print Preview**.
2. Click the **Prev** and **Next** buttons to move from schedule page to page.
3. Click **Printing Options** for output format selections (addressed in the next section).
4. Click **Page Layout** to change the chart size, margins, and rows per page.
5. Point the cursor to a part of the schedule and zoom-in by clicking the left mouse button. Zoom-out with the right mouse button.

The light blue dashed line around the edges shows the margins that have been selected. The yellow border identifies the unprintable portion of the schedule. If the chart extends into this yellow area, it may be cut off when it is printed.
**Print Setup**

Use the Print Setup option to change to a different printer or to make changes to the current printer’s settings.

Choose **File | Printing | Print Setup**. Choose the **Printer**, the printer **properties**, the **Paper Size** and **Source**, and the page **Orientation**.

**Print Options**

To format the printing output of the schedule, choose **File | Printing | Printing Options**.

**General tab**

**Symbol Notes and Collapse/Expand Indicators**

- **Include Symbol Notes Page** to print a separate page containing the Symbol Notes entries. These will be numbered according to the numbered symbols on the schedule, to match the notes to the symbols.

  To print the symbol notes without printing the schedule, choose **Tools | Reports | Symbol | Symbol Notes**. Press the **Copy Report to Clipboard** button and then paste into another application for printing.

- **Only Print Symbol Notes for Printed Symbols** to print only notes within the specified date range (as set under the **Print by Date Range** tab); thus ignoring notes from symbols that are outside the date range being printed.

- **Include Collapse/Expand Indicators on Output** to print summary roll-up indicators if they are shown on the schedule.

- **Always include note indicators on prints and metafiles** to print symbol note indicators if they are shown on the schedule.

**Color**

- **Print Colors in Shades of Gray** to cause the software to use shades of gray on non-color printers. Generally, this should be selected.

- **Force Color Output** to ensure that color commands are sent to color printers. It is ignored on non-color printers. Generally, this should be selected.

**Background Colors (Also Affects Column Background)**

- **Include on Prints and Metafiles** to print the background color as set in **Format | Frame, Highlights | Background color, border, frame corners**.

- **Interior Areas Only** to print the background color only within the schedule frame. Areas outside of this frame will not be shaded.
Specify Output Size

- **Use Specified Size** to retain the schedule’s horizontal and vertical size settings as set in the Layout menu. This setting allows the schedule page to span across multiple sheets of paper. This option is also important to choose if the schedule includes graphics or free-form text.

- **Scale to Fit Selected Paper Size** to force the size of the schedule to scale down or up to the size of the printing paper.

- **Use Custom Scaling Specified** to increase or decrease the horizontal and vertical scale of the schedule. For example, change the Horizontal factor to .5 to reduce the schedule size horizontally by 50%. The default scaling factor of 1 is for 100%. Note that with custom scaling, a schedule page will not span across multiple sheets of paper. Only the **Use Specified Size** option allows that.

If the Print Options dialog box is invoked while in Print Preview, the option **Preview Selected Lines Only** is visible. This option allows preview of selected task rows within the Print Preview screen.

Print by Date Range tab

Choose to print the entire schedule date range or a specific date range portion of the schedule.

- **Print Entire Date Range** to print the schedule from start date to end date as set under Dates | Start and End Dates.

- **Print Date Range Below Only** to specify the start and end date range to be printed. Enter a **Start Date** and **End Date**, or click the calendar icons to choose each date.

- **Print Using the Time Periods Below** to select a time period to be printed on each page.

Exclude Columns for Print

Under the Exclude Columns tab, check each column that should be hidden while printing. Column heading text appears next to column numbers.

Default printer

The Default Printer tab is useful if using a different printer for Milestones than the printer set as the default on the computer. Check **Use this printer as the default**, then each time Milestones starts, it pre-selects this printer as the current Milestones printer.
Publish for the Internet/Intranet

Milestones Professional’s built-in Internet Publishing Wizard offers several HTML and graphics output options:

- Generate a graphic file of each page of the Milestones Professional schedule.
- Create a single HTML document that contains a picture of each page of the schedule, a table of schedule data; the start and end date of the schedule, the schedule title, and symbol notes and symbol hyperlinks.
- Create HTML and graphics for a collection of hyperlinked schedules. Symbol hyperlinks become hotspots in the HTML page. See the example below.
- Create a tiered, interactive picture of the rolled-up schedule. Then click a task on the HTML page to drill-down for more details. Includes any hyperlinks from symbols and task rows to URLs and other non-Milestones files.

In this example, the top-level schedule “Milestones Chart” has hyperlinks to other Milestones schedules.

The Internet Publishing Wizard creates HTML and graphics of the top-level schedule and all hyperlinked schedules.
Graphics Output and Bitmap Options

All of the following settings are available in the Internet Publishing Wizard. When applicable, refer to these suggestions and explanations for making optimal choices.

Create a Bitmap for each page of the schedule or Include a bitmap of each page: Generates a picture of each schedule page.

Include a Hyperlink Image Map: Creates a hotspot for each symbol that has a hyperlink. Up to nine hotspots are supported for any one symbol.

Bitmap Format (for the graphics output): PNG is usually the best choice if the image will be viewed with a browser. Not all browsers support BMP files. GIF is limited to only 256 colors, so any included bitmaps or gradient fills will degrade in quality. JPEG is a format best suited for photos (not charts and graphs). All browsers support PNG (Portable Network Graphics) files; it is not limited to 256 colors and is a lossless format; and is an alternative to GIF. PNG files are about the same size as GIF files.

JPEG Compression factor: A factor from 10 to 99 (or none). The lower the JPEG Compression number selected, the smaller the file will be. However, the image quality will degrade accordingly.

Image Scale ratio: Determines how large the resultant bitmap is. 1.0 is full size according to the Page Size set in the Layout tab. 0.5 is 50% of the Page Size.

Graphic File Name Starter: Adds a letter which prefixes all graphics file names, e.g. G0001.jpg.

Show Roll-up Indicators in Graphics Output: Displays an expand indicator ▼ next to tasks that have sub-task information hidden below them. If this is not selected it is still possible to right click a task and view sub-tasks.

Create a Graphic only of each schedule page

With the Internet Publishing Wizard, create a picture (bitmap) of each page of the schedule.

1. Choose Connections | Other | Internet Publishing Wizard.
2. Choose Graphic File Only, then Next.
3. Check Create a bitmap for each page of the schedule to create a graphic file for all schedule pages. □ to create a graphic file of the first page only.
4. Select the Graphic Output Options, then Next.
5. Choose Browse to find a folder for the output files, then Next.

To save a schedule as a Metafile (.WMF or .EMF), choose File | Export Options | Graphics | Export Graphics Metafile, then name the file and choose Save.
Create an HTML file with Graphics and optional Hyperlinks

With the *Internet Publishing Wizard*, create a picture of each page of the schedule and display those graphics in a web page. Optionally, create HTML and graphics pages for schedules hyperlinked to symbols in that schedule. Those links become web page hotspots.

1. Choose **Connections | Other | Internet Publishing Wizard**.

2. Select **HTML file with optional graphics**.

   ![Internet Publishing Wizard](image)

3. The two checkboxes are used to specify how symbol hyperlinks within the published Milestones file are handled, as follows:
   - If neither box is checked, then no symbol hyperlinks are processed.
   - **Create HTML Files for Hyperlinked schedules from this file and all linked schedules.** All hyperlinks are processed. If any refer to other Milestones schedules, then the hyperlinks within those schedules are also processed, and so on, until the entire tree of hyperlinked schedules has been processed. Each schedule results in its own HTML file.
   - **Create HTML Files for Hyperlinked schedules from this file only.** Just the hyperlinks for the current schedule are processed.

4. Choose **Next**.

5. Click **Change** to choose an **HTML Background Color** for the HTML page, then **Next**.

6. **Enter a Title** for the HTML page, optional HTML code for the `<body>` section, then click **Next**. For no title, just key an HTML command, such as `<br>`.

7. Select the **Bitmap Options** and then **Next**.
   - **Graphic File Name Starter** is only used when creating an HTML page and images for just the current schedule. The starting letters or numbers will be added to the beginning of the saved graphic file name.
8. Select from **Task Table Options** and then **Next**:

- **Exclude Symbols from Task Table** to exclude symbol dates from the Task Table portion of the HTML file.

- **Exclude Task Table from HTML File** to exclude the Task Table from the HTML file.

9. Select **Additional Options** and then **Next**:

- **Exclude File Name from HTML File** to exclude the name of the Milestones file from the HTML file.

- **Exclude Start and End Date from HTML File** to exclude the schedule start and end date (Format | Dates | Schedule Details) from the HTML file.

- **Include Symbol Hyperlinks in HTML File** to display a number in the Task Table next to the symbol dates. This number is a hyperlink to the appropriate file or URL. The same link is included with the file’s path name in the Hyperlinks: list directly below the task table. If this option is selected, then the Task Table and Symbol dates must also be included.

- **Exclude hidden tasks from table**. Tasks can be hidden in a Milestones chart. If they are, choose this option to have them not show in the table.

10. Choose **Browse** to select the file name and location for the HTML and graphics files. All other HTML files and graphic image files will be placed in the same folder.

- It is recommended that the HTML files and images for any one publishing session be saved in a separate folder.

- When publishing an entire tree of hyperlinked schedules and images, quite a few files can be produced. All references to files created by the wizard are relative to the folder chosen. That is, no referenced file or image has a path in front of the filename. This makes it easy to move the contents of the entire folder to a web server.

- HTML files or images created that are based upon filenames that have blanks, will have underscores where the blanks were. This is done because some browsers cannot handle blanks in filenames.

11. Choose **Next**.

12. In **Summary of Selections** dialog box review selections and press **Finish**.
The imaging and HTML process will begin. The Status Bar indicates the progress. When the process is complete, a Message Box displays offering to view the output. Press Yes, the browser is started with the first HTML page created.

If a symbol on the schedule contained a hyperlink (which is now a hotspot in the HTML document), position the cursor over that symbol and notice that the cursor changes to the finger-pointer. The browser status bar shows the location of the referenced hyperlink.

For symbols with multiple hyperlinks, move the cursor slightly when hovering over the symbol hotspot in the web page and see the different linked files in the Status Bar.

**Tiered Hierarchy: Web drill-down with optional Hyperlinks**

Use the *Internet Publishing Wizard* to create an HTML document containing a graphic of an outlined schedule. On this picture of the schedule that displays in the browser, click an upper level task to reveal the lower-level details, including any hyperlinks from symbols to URLs and other non-Milestones files.
1. Choose Connections | Other | Internet Publishing Wizard.

2. ✅ Tiered Hierarchy (HTML with Graphics)

3. ✅ PDF also to generate a pdf file of each page, then Next.

4. Click Change to choose an HTML Background Color for the HTML page, then Next.

5. Enter a Title for the HTML page, optional HTML code for the <body> section, then click Next. For no title, just key an HTML command, such as <br>.

   - ✅ Include a Hyperlink Image Map will create a hotspot for each symbol that has a hyperlink to a URL or non-Milestones file. Hyperlinks to Milestones schedules are not processed.

7. Choose Next.

8. Choose Browse to select the file name and location for the HTML and graphics files. All other HTML files and graphic image files, including optional pdf files, will be placed in the same folder.
   - Create a folder in which to place these numerous HTML and graphics files.
   - When an entire tree of hyperlinked schedules and images is published, quite a few files can be produced. All references to files created by the wizard are relative to the folder chosen. That is, no referenced file or image has a path in front of the filename. This makes it easy to move the contents of the entire folder to a web server.
   - HTML files or images created that are based upon filenames that have blanks, will have underscores where the blanks were. This is done because some browsers cannot handle blanks in filenames.

9. Choose Next.


The initial rolled-up HTML page and graphic is named after the MLF file name. Subsequent HTML files and graphics are named using WBS numbers.
**Free Milestones Viewer**

Using the free Milestones Viewer, clients and co-workers can view Milestones schedules. The free Viewer shares these features with Milestones Professional:

- Open a Milestones schedule.
- Full printing and preview options.
- View symbol notes.
- Launch symbol hyperlinks.
- Copy a metafile of the schedule to the clipboard (then paste into another application).
- Complete task filtering options.
- Tooltip and hover time control.
- Target shared charts, holidays, and symbols folders for better collaboration.
- Zoom controls.
- Calendar and Continuous view modes.
- Find and Go To Page options.

In the Viewer, schedules cannot be edited, nor can they be saved.

Right-click a symbol to launch a hyperlink or view the symbol notes. Set folder locations, tooltip options, color settings and more under **File | Preferences**. To Window-over to another schedule opened in the Viewer, choose from other files listed at the bottom of the **File** menu.

**Full-Screen Mode**

Need to make changes to a schedule during a meeting? Full-Screen mode displays a schedule at the largest size possible by eliminating the toolbar, status bar and menus. The sidebar and/or toolbox can also be hidden.

1. Choose **View | Viewing Options | Page View | Full Screen**, or press **Ctrl+F**.
2. Use the **Esc** key or **Ctrl+F** to exit full screen mode.

**Presentation Mode**

Use the Presentation view mode to present one or a series of separate Milestones schedules as a “slide show” with a full screen option and schedule manipulation controls.

Before using Presentation Mode, change the **File | Printing | Printing Options | General** setting to **Scale to Fit Selected Paper Size**. This ensures that the schedule pages will be scaled to fit the screen.
Present a single schedule

1. Choose View | Viewing Options | Page View | Presentation Mode.
2. Choose Present the Current Schedule.
3. ✔ Use Full Screen to fill the entire screen with the Milestones schedule, without any visible controls.
4. ✔ Use All Monitors if the computer has multiple monitors (the schedule will span all the monitors).
5. Click Close Presentation or press the Esc key to exit Full Screen and Presentation mode.

Present many schedules

To present multiple schedules, first use the Master Scheduling option to input a list of schedules. The presentation schedules’ formatting does not have to be the same as it does when merging master schedules.

1. Click File | Files and Templates: Open and Save Options | New.
2. Choose File | Master/Update | Master Schedule....
3. ✔ Treat the Current Schedule as a Master Schedule.
4. Click the Add Schedule button, find the schedule, and double-click to add it.
5. Repeat Step 4 to add more schedules to the presentation list.
6. Click Move Up or Move Down to rearrange the order of the schedule presentation.
7. Click Delete to remove any schedules from the presentation list.
8. Click OK.
10. Choose Master Schedule List contains Schedules to Present, then OK.

⇨ Note that the Automatically Update option should not be checked as in this case the schedules will not be merged.
Presentation Mode controls

Manipulate the schedules while in Presentation Mode with these controls. On-screen buttons are not available with the Full Screen option.

- **Esc** or **Close Presentation** button: exit Presentation Mode
- **Left Mouse Button**: zoom in
- **Right Mouse Button**: zoom out
- **Left/Right/Up/Down Arrow keys**: when zoomed in use to scroll the direction
- **< Prev** button: view previous page
- **Next >** button: view next page
- **Zoom Reset** button: return the zoom to fit-in-window
- **|<<** button: exit Presentation Mode when only presenting one schedule; return to first schedule when presenting multiple schedules
Chapter 10: Work with Microsoft Project

Milestones Professional makes it easy to import information from Microsoft Project (2007 and later) and Oracle Primavera (via XML). Presentation-ready Milestones schedules can be created using the Project to Milestones Wizard. These Milestones schedules can later be refreshed to stay up to date with any changes made in the original Project or Primavera schedule.  

(For a lesson on this topic see Help | Help Files | Tutorials | Lesson 16)

The Connections Tab

The toolbar at the top of the Milestones window includes the Connections tab. Choose Create Report from Project or Create Report from Project Server to create a presentation schedule (or, for Primavera, use Import Schedule from XML file option in the Other section).

To refresh any imported Milestones schedule select the Refresh option found in the Microsoft Project section. Then select the appropriate refresh option.
Create Presentation Reports from Microsoft Project

Milestones Professional offers a direct interface to Microsoft Project 2007 or higher. The wizard makes it easy to generate chart formats beyond the standard formats offered by Project. (Microsoft Project must be installed).

Microsoft Project to Milestones Wizard

Use the wizard to choose from built-in report formats for creating presentation-ready schedules from Microsoft Project files.

1. Choose Connections | Microsoft Project | Create Report from Project.

   • If opening a Microsoft Project Server file, choose Connections | Microsoft Project | Create Report from Project Server. (Be sure to log on to Microsoft Project Server before beginning the wizard).

2. Select the Microsoft Project schedule and click Open.

3. The Microsoft Project to Milestones Wizard will start.

4. At the top of the initial screen of the Microsoft Project to Milestones Wizard, there are four options.

   • Only import tasks with this level or lower: Choose the outline level of tasks from that level and above in Project to be imported into Milestones.

   • Only import tasks with this Flag Yes: Set up a flag field in Microsoft Project. Then select it in the wizard to have only the task rows flagged “Yes” import into Milestones.
• **Tag with this ID field for future updates:** Choose a unique identifier to use for refreshing the Milestones schedule when Project dates change.

When information is imported from Microsoft Project to Milestones Professional, all task rows, columns, and symbols are “tagged” with an identifier. This is important for schedules which will be refreshed later. By default the Milestones Wizard is set to choose Microsoft Project’s unique id field. Any text field or WBS field in Microsoft Project can be selected as the identifier.

• **File nickname for multi-project refresh:** The Microsoft Project file can be assigned a nickname of up to 8 characters. This nickname uniquely identify the task with its Microsoft Project file. The nickname field is important if the schedule will be updated from more than one Microsoft Project schedule.

5. On the initial screen of the Microsoft Project to Milestones Wizard, there are four main options:

• **Use a built in template:** Select from 10 categories Top Templates, Gantt, Stoplight, Milestones, Summary, Earned Value, Resource, Status, Dashboard and Special. Each category has a variety of formats. Click **About the Format** to view details.

• **Let the wizard guide you:** The wizard guides through Microsoft Project import choices of symbology, column, datagraph, stoplight, text and more.

• **Create swimlane schedules using codes:** Add codes to text, number, and/or outline code fields in a Microsoft Project file that will allow import of specific information in a specific format into the Milestones schedule.

• **Start with a custom template:** Once a Microsoft Project schedule has been imported, it can be saved as a custom import template. Schedules saved as custom import templates will be listed in the wizard as an import option under this choice.

6. Choose **Next** to follow the Microsoft Project to Milestones Wizard prompts to create a Milestones schedule. The Wizard shows the effects of the formatting choices made.

*For more on importing from Microsoft Project, see Help | Help Topics.*
Use a Built-In Template

The Project to Milestones Wizard offers 10 categories for built-in formats. These built-in formats offer a foundation for importing information into Milestones Professional.

Categories for Built-In Formats:

- **Top Templates** contains the templates most often used for importing.
- **Gantt** contains layouts for a basic Gantt chart, including start and finish dates.
- **Stoplight** formats offer several commonly used presentation red, yellow, green stoplight charts for easy viewing of key indicators.
- **Milestone** charts show tasks with zero duration or finish dates only.

Summary charts are condensed presentation formats.

Earned Value charts display earned value columns and show an earned value graph along with the project schedule. Most use Project’s timescaled values.

Resource charts show work variance, resources and other data by task, often with a graph below the schedule.

Status charts display current, remaining, or slipping tasks.

Dashboard charts offer several unique formats with the popular “dashboard” appearance and content.

Special charts offer three formats which did not fall into one of the previous categories: Work remaining versus money remaining, percent complete bar graph, and finish variance.

Once a format has been selected, follow the prompts to transform the Microsoft Project information into a presentation schedule.

Work with Microsoft Project 10-4
Let the Wizard Guide You

The Let the Wizard guide you option offers the most flexibility. Follow along and choose options for: symbology, symbol and bar type, columns, graphs, stoplight column, title, symbol text and notes, layout, and format.

Let the Wizard guide you Symbology options

Choose how dates should be displayed in Milestones. Options include: Gantt bars - current and baseline, Gantt bars - compact sequential, Gantt bars - spacesaver, Milestones - condensed finish dates, Milestones - finish dates, Milestones - finish and baseline, or Milestones - finish dates rolled up to summary level. The Wizard shows the effects of the symbology choices as they are made.

For greater customization choose Gantt bars - custom to pick Microsoft Project date fields to add to Milestones schedule. Dates can be added as milestones or as two symbols with a connecting bar. Several combinations are possible.

Create Swimlane Schedules Using Codes

Use a simple coding scheme and choose from schedule types Birds on a Wire, Coded Finish Dates, Coded Gantt Bars, Coded Gantt Chart, Dynamic Rollup, Coded Presentation Timeline, Coded Symbols, Coded Symbols and Bars, Coded Symbols With Slips, Coded Symbols and Bars 2.

Choose code fields, symbology, symbol type, symbol colors, symbol text, and layout.

How to Code

There are several aspects to coding the variety of Swimlane schedule options available in the Project to Milestones import Wizard. All coded formats require the use of a “code” to bring information onto specific rows or swim lanes. For more control, some of the coded formats allow specification of symbology. Some of the formats offer even more control such as specific symbols and bars, specific rows on the Milestones schedule and more.

Each coding option requires text, number and/or outline fields to be set up in the Microsoft Project file.
Code to have information import into a Swimlane

Coded options **Birds on the Wire, Coded Finish Dates, Coded Gantt Chart, Dynamic Rollup, Coded Presentation Timeline, and Coded Symbols with Slips** use predesigned Milestones templates that import specific date information, in a specific format into a Milestones schedule. By coding, the user determines which swimlanes of the Milestones schedule will include specific Microsoft Project tasks. All tasks with the same code will be displayed on the same swimlane. See the example below. On the “Birds on the Wire” format, finish dates for many tasks are shown as triangles above a bar.

![Image of Coded Presentation Timeline]

<table>
<thead>
<tr>
<th>Task Name</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Milestones</td>
<td>Alpha, Omega</td>
<td>Beta, Delta</td>
</tr>
<tr>
<td>Design Milestones</td>
<td>Gamma, Epsilon</td>
<td>Zeta, Eta</td>
</tr>
<tr>
<td>Test Milestones</td>
<td>Alpha, Gamma</td>
<td>Delta, Beta</td>
</tr>
<tr>
<td>PDR Milestones</td>
<td>Alpha, Omega</td>
<td>Beta, Delta</td>
</tr>
<tr>
<td>CDR Milestones</td>
<td>Gamma, Epsilon</td>
<td>Zeta, Eta</td>
</tr>
<tr>
<td>PPR Milestones</td>
<td>Alpha, Omega</td>
<td>Beta, Delta</td>
</tr>
<tr>
<td>Review Milestones</td>
<td>Gamma, Epsilon</td>
<td>Zeta, Eta</td>
</tr>
</tbody>
</table>

In Microsoft Project:

1. Open a Microsoft Project .mpp file.
2. Insert a Text or Number field to code. In some cases it may be possible to use a text or number field already in the Microsoft Project file.
3. Code the Microsoft Project field. Milestones will look for a 3 to 20 digit code. Add a code only for tasks to be shown on the presentation schedule.

In Milestones Project to Milestones Wizard:

4. In the initial dialog box choose **Create Swimlane Schedules Using Codes**.
5. In the **Project to Milestones Wizard Coded Summary** dialog box under **Pick a type** choose one of these options **Birds on the Wire, Coded Finish Dates, Coded Gantt Chart, Dynamic Rollup, Coded Presentation Timeline, or Coded symbols with slips**.
6. For the **Code Field** select the Microsoft Project text or number field used for coding in step 2.

7. For **Field Length** enter the number of characters used in the code.

8. Also in this dialog there are other options to select based on the schedule type chosen.
   - **Symbol Text**: Pick a Microsoft Project field from the drop down menu. The task information from that field will be attached to the imported finish symbol.
   - **Set % for indiv. bars**: Symbols and horizontal bars will fill with color based on the percent complete.
   - **Show Baseline**: If Baseline start and finish dates are present in the Microsoft Project file then they will be imported if this option is selected.
   - **Show Summary**: A summary bar will be generated based on date information in each swimlane.
   - **Use Matching Colors**: The date symbol’s color and its baseline symbol’s color will be the same. (Dynamic rollup only).
   - **Get Template**: Select to import Microsoft Project information into any Milestones file (.mlf). Any information in the selected file will be overwritten.

9. Select **Set Code Names and Colors** to enter the corresponding codes from the Microsoft Project file into Milestones along with the text for the swimlane rows and the color of the swimlane rows. By choosing a **Set (1-10)** and then **Save**, Codes with their text and color settings will be available for future imports.

10. Choose **OK** to get back to the Project to Milestones Wizard Coded Summary dialog box. Continue through the rest of the wizard to finish importing.
Code to import specific Symbology into Swimlanes

Coded options include **Coded Gantt Bars** and **Coded Symbols and Bars 2**. These options use one coded Microsoft Project text or number field to import Microsoft Project task’s as specific symbology (date information as symbols, or symbol, bar, symbol combinations) into swimlanes of a Milestones schedule.

**Coded Gantt Bars** uses a predesigned Milestones template with symbols, and symbol, bar, symbol combinations all being the same style in the toolbox. During import this option uses the code to order the tasks into a swimlane. Symbology and the symbology color can be set for each code.

In Microsoft Project, code as described in **Code to have Information Import into a Swimlane** (see pg. 10-6).

In the Milestones Project to Milestones Wizard, follow steps 4, 5 (pick **Coded Gantt Bars**), 6,7,8, and 10 for **Code to have Information Import into a Swimlane** (see pg. 10-6).

Note that Step 9, **Set Code Names and Colors** dialog box is different. Use the following directions for Step 9.

9. **Coded Gantt**: Select **Set Code Names and Colors** to enter the corresponding codes from the Microsoft Project file into Milestones. Enter the text for the swimlane. Select the drop down arrow to choose the Symbology. Select the color for each code’s symbology.
Coded Symbols and Bars 2 lets the user import into a custom Milestones Professional (Get Template) file. During import this option uses the code to place the Microsoft Project task information on the Milestones row that was selected, the type of symbology to be used and the symbols and symbol, bar, symbol combinations from the toolbox row selected.

In Microsoft Project: code as describe in **Code to have Information Import into a Swimlane** (see pg. 10-6).

In Milestones Project to Milestones Wizard follow steps 4, 5 (pick **Coded Symbols and Bars 2**), 6,7,8, and 10 for **Code to have Information Import into a Swimlane** (see to pg. 10-6).

Note that Step 9, **Set Code Names and Colors** dialog box is different. Use the following directions for Step 9.

9. **Coded Symbols and Bars 2**: Select **Set Code Names and Colors** to enter the corresponding codes from the Microsoft Project file into Milestones. For each entered code, first select the Milestones row to place the selected symbology. Then the type of symbology to be added for the code. *(For more information about symbology options see pg. 10-10).* Finally select the toolbox row containing the symbol or symbol, bar, symbol combination to represent the symbology.
Code to import into Swimlanes, Symbology as user defined Symbols and/or Bars.

Coded option **Coded Symbols and Bars** uses three fields in Microsoft Project for coding and lets the user import into a selected Milestones Professional file.

In Microsoft Project

1. Code three number or outline code fields.
   - Code with a number for the Milestones row.
   - Code with a number between 1-11 for Symbology.

<table>
<thead>
<tr>
<th>Code</th>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><img src="image1" alt="Symbol" /></td>
<td>Milestone: Finish(F) Finish date milestone</td>
</tr>
<tr>
<td>2</td>
<td><img src="image2" alt="Symbol" /></td>
<td>Milestones: Start(S) Start date milestone</td>
</tr>
<tr>
<td>3</td>
<td><img src="image3" alt="Symbol" /></td>
<td>Milestones: Start(S) and Finish(F) Start and finish date milestones</td>
</tr>
<tr>
<td>4</td>
<td><img src="image4" alt="Symbol" /></td>
<td>Milestones: S+F and BS+BF Start, finish, baseline start and baseline finish date milestones</td>
</tr>
<tr>
<td>5</td>
<td><img src="image5" alt="Symbol" /></td>
<td>Bar: S+F Start and Finish milestones with a horizontal bar on a task row</td>
</tr>
<tr>
<td>6</td>
<td><img src="image6" alt="Symbol" /></td>
<td>Bar: BS+BF Baseline start and baseline finish milestones with a horizontal bar</td>
</tr>
<tr>
<td>7</td>
<td><img src="image7" alt="Symbol" /></td>
<td>Bar: F with Slip Finish date with a slip date milestone and a connecting horizontal bar</td>
</tr>
<tr>
<td>8</td>
<td><img src="image8" alt="Symbol" /></td>
<td>Bar: S+F and BS+BF Start, finish, baseline start and baseline finish milestones with horizontal bars</td>
</tr>
<tr>
<td>9</td>
<td><img src="image9" alt="Symbol" /></td>
<td>Bar: S+F with Status Start and Finish milestones with a horizontal bar showing symbols and bar filling to status</td>
</tr>
<tr>
<td>10</td>
<td><img src="image10" alt="Symbol" /></td>
<td>Bar: S+F with Slips Start, finish, with slip milestones and connecting horizontal bars</td>
</tr>
<tr>
<td>11</td>
<td><img src="image11" alt="Symbol" /></td>
<td>Bar: BS+BF with Slips Baseline Start, Baseline finish, with slip milestones and connecting horizontal bars</td>
</tr>
</tbody>
</table>

- Code with a number between 1-32 for the Milestones Toolbox row. (See Chapter 2 pg. 2-17).

![MS Project File](image12)

Work with Microsoft Project   10-10
In Milestones

2. **Pick a type: Coded Symbols and Bars.**

3. Select **Symbol Text** to be added to the finish symbols of each task imported.

4. Select **Get Template** to choose the Milestones file to be used for importing.

5. Select the Microsoft Project coded fields used for *Milestones row, Symbology* and *Toolbox row*.

6. When symbology option 9 is coded, select the **Status Field** to have the symbols and bars fill to status based on the selected field.

**Start with a Custom Template**

Can’t find a chart format in the Project to Milestones wizard that is exactly what is required? Import a Microsoft Project Schedule, customize the presentation Milestones chart and save it as a Milestones Custom Project Template.

1. After bringing the information into Milestones using the Project to Milestones Wizard, customize the Milestones schedule to meet schedule requirements.

   Schedule changes which are appropriate:
   - Date headings.
   - Legend.
   - Freeform text and arrows.
   - Columns to the left or right of already existing columns.

   Things to avoid changing:
   - The symbol type (from normal, baseline, comment or status).
   - The “automation tag” for a column.
   - The order of the original columns (Do not move the original columns).
2. Save the customized chart as a Custom Project Template. Choose Connections | Microsoft Project | Save Custom Project Template.

There will be a prompt to enter a description of the template and save the file. The description of the template only appears in the Manage Custom Project Templates dialog box. The saved name appears in the Start with a custom template option in the Import Wizard.

3. The Custom Project Template created is then available by selecting the option Start with a custom template in the initial screen of the Project to Milestones Wizard.

4. To delete or change templates previously saved, go to Connections | Microsoft Project | Manage Custom Project Templates.
   - To change a template, select the template from the menu and choose Open Selected Template.
   - To delete a template, select the template from the menu and choose Delete Selected Template.

Finish Dates - Rolled UP

<table>
<thead>
<tr>
<th>Name</th>
<th>Finish Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Alpha</td>
<td>1/31/2013</td>
</tr>
<tr>
<td>Design</td>
<td>5/3/2013</td>
</tr>
<tr>
<td>Test</td>
<td>6/30/2013</td>
</tr>
<tr>
<td>Review</td>
<td>1/31/2013</td>
</tr>
<tr>
<td>Project Beta</td>
<td>6/6/2013</td>
</tr>
<tr>
<td>Design</td>
<td>1/1/2012</td>
</tr>
<tr>
<td>Test</td>
<td>3/7/2013</td>
</tr>
<tr>
<td>Review</td>
<td>8/6/2013</td>
</tr>
<tr>
<td>Project Gamma</td>
<td>4/13/2013</td>
</tr>
<tr>
<td>Design</td>
<td>1/31/2013</td>
</tr>
<tr>
<td>Test</td>
<td>6/6/2013</td>
</tr>
<tr>
<td>Review</td>
<td>4/13/2013</td>
</tr>
</tbody>
</table>

Project Summary
Manually Tag/Build a Free-Form Presentation Schedule

It's possible to design a Milestones presentation chart “free-form” and link it to Microsoft Project schedules for future updates. There are two options to build and tag a schedule to Microsoft Project. The first option start with a blank Milestones schedule building the schedule as it is linked to Microsoft Project. The second option is to build a schedule in Milestones, then manually tag the symbols, columns and rows to the Microsoft Project file.

Build a schedule, Tag Symbols & Task Row Cells simultaneously

In Microsoft Project:

1. Open a Microsoft Project .mpp file.
2. Select the row within the Microsoft Project file that contains the information for the corresponding Milestones task row.

In Milestones:

3. In the column area right-click a Milestones task row to which the Microsoft Project task will be added. Select Link to Active MS Project Task.
4. The Tag Task dialog box will display. Make selections.
   - **Tag Task Rows**: Check on to have all column cells in the task rows tagged with the unique identifier from the Microsoft Project task that is selected.
   - **Tag with this ID field for future updates**: Choose a unique identifier to use for refreshing the Milestones schedule from an updated Microsoft Project file. The unique id field or any text field or the WBS field can be selected as the identifier. All symbols and columns’ cells on the task row will be tagged with the unique identifier.

   ✨ Text and WBS fields are commonly used when a Milestones schedule will be refreshed from multiple Microsoft Project files.

   - **File nickname for multi-project refresh**: Give the Microsoft Project file a nickname of 1 to 8 characters or an up to five digit generic name like File with a number starting at 1 like File1, File2 etc. (no spaces). This is a step to uniquely identify the task with its Microsoft Project file. The nickname will be used in the tagging process as another tier of unique identification.
All symbols and columns’ cells on the task row will be tagged with the nickname. *For more information about refresh and nickname see pg 10-20.*

- The Nicknaming unique identification step prevents having to alter a Microsoft Project file with a unique identification field for Refresh.

- **Add Symbology:** Check to have symbols and bars added to the schedule.

- **Standard:** There are 11 symbology options Milestones can add to a task row *(see pg. 10-10).*

- **Custom:** Pick a Microsoft Project date field from the drop down menu of the top option to add that date as a tagged symbol on the schedule. Pick Microsoft Project date fields from the drop down menu for both options to add those dates as 2 tagged symbols with a bar between them.

- **Outline task:** Check on to have an outline level assigned to the tasks.

- **Optimize Symbology:** Check on to have Milestones use specific symbols already set-up in the toolbox.

- **Pick Symbology:** Check on to select the symbols and bars from the schedule’s toolbox. Setup the symbol’s attributes, like type, color, level, text placement etc. before tagging. **Verical Level** is shown for symbols.

- **Toolbox Row:** Pick the symbol, bar, symbol combination from the list that reflects the symbols and bars from the toolbox in the current schedule.

- The left symbol of the symbol, bar, symbol, combination in the toolbox row will be used for any start symbol. The right symbol will be used for any finish symbol.

- For start and finish date with baseline start and finish date combinations choose the toolbox row for the start and finish date. The toolbox row directly below will be used for the baseline start and finish dates. It is important to make sure symbols used for baseline are set to be baseline symbols *(see Chapter 5 pg. 5-10).*

- **Set percent complete:** The percent complete for the task will be shown by the symbols and bars filling to status *(see Chapter 5 pg. 5-3).*

- **Tag Symbol Text and Notes:** Check on to have selected text and notes be associated with symbols.

- **Symbol Text Line 1, 2, and/or 3:** Choose the text to be associated with the symbol from the drop-down menu.

- **Symbol Note:** Choose the note to be associated with the symbol from the drop-down menu.

- **Symbol Notes** can be displayed or hidden on a Milestones schedule.
Build a schedule then Tag Symbols

First Build a schedule in Milestones. Then tag it back to a Microsoft Project file.

In Microsoft Project:

1. Open a Microsoft Project .mpp file.
2. Select the row within the Project file that contains the information for the corresponding Milestones symbol.

In Milestones:

3. Right-click the symbol to link to the Project file.
4. Choose **Link to Active MS Project Task**. **Tag Symbol** dialog box displays.

- **Date Field**: Choose the date field for the tag from the drop-down menu.
- **ID for tag**: Choose the unique identifier for the tag from the drop-down menu.
- **File nickname**: Give the Microsoft Project file a File nickname of up to 8 characters or an up to five digit generic name like File with a number starting at 1 like File1, File2 etc. (no spaces). This is a step to uniquely identify the task with its Microsoft Project file. The nickname will be used in the tagging process as another tier of unique identification. The Nicknaming unique identification step prevents having to alter a Microsoft Project file with a unique identification field for refresh.

 File nickname tag option is only necessary if using multiple Microsoft Project files to refresh the Milestone file being tagged.

- **Symbol Text Line 1, 2, and/or 3**: Choose the text to be associated with the symbol from the drop-down menu.
- **Symbol Note**: Choose the note to be associated with the symbol from the drop-down menu.

 **Symbol Notes** can be displayed or hidden on a Milestones schedule.

- **Tag Symbol Text**: Check on to have the text and note selections take effect if **Update Now** is selected.
- **Update Now**: Check to have the tagging take immediate effect on the Milestones schedule once the **Tag** button is selected.

 If **Update Now** is not selected choose the **Refresh** option to have the tagging take effect on the Milestones schedule (*see pg. 10-18*).
5. Once the **Link to active MS Project Task** feature has been used, Milestones will retain the previous settings. Tag other symbols with the same selections by choosing the option directly below **Link to active MS Project Task** on the right-click menu.

The tag of a symbol can be seen by selecting a symbol and choosing the **Symbol Links** tab on the toolbar. A tag can be entered manually. The format is:

Unique Identifier,Date Field,Symbol Text 1,Symbol Text 2,Symbol Text 3,Symbol Note, Nickname

An actual tag with all fields selected will look like the following example. There are no spaces, and commas define the fields to be populated.

3,finish,name,%complete,actualcost,%complete,File1

The minimum required to tag a symbol is the unique identifier and date field.

6,start

Refresh makes it possible to add symbol text and notes fields, so tagging those fields manually is not necessary (see pg. 10-18).

**Add a Microsoft Project SmartColumn to a schedule**

For Milestones to import Microsoft Project information into a column, first the column needs to be tagged with the name of the Microsoft Project field to populate that column. Next each cell of each column needs to be tagged with the Microsoft Project task’s unique identifier that is to populate the cell.

 poblating the cell.

- Inserting columns before tagging symbols is convenient. When a task row is selected in Microsoft Project for Milestones symbol tagging it’s also possible to tag the corresponding Milestones task row. By tagging the Milestones task row, each column cell on that task row will be populated with the unique identifier and optionally the file nickname.

1. Insert a Microsoft Project SmartColumn **Insert | Rows, Columns | New Column | Microsoft Project Column...**

- If building a Milestones schedule from scratch, make sure that you do not have Microsoft Project open as several dialog boxes will appear that will not pertain to your adding a Microsoft Project SmartColumn.

- If adding a column to a tagged or imported Milestones schedule from a Microsoft Project file, open that Microsoft Project file. Several dialog boxes display that will help make tagging an added Microsoft Project SmartColumns’ cells quick and easy.
2. Choose which *Microsoft Project field* to use to populate the column.

3. Tag each task row.

   In Microsoft Project:
   a. Open a Microsoft Project .mpp file.
   b. Select the row within the Project file that contains the information for the corresponding Milestones task row.

   In Milestones:
   c. Right-click any column cell in the task row to be populated with the information from the Microsoft Project file.
   d. Choose *Link to Active MS Project Task*, the *Tag a Milestone task* dialog box displays.
   e. Under *Tag with this ID field for future* updates select from the drop down menu the unique identifier being used for the task row.
   f. Optionally under *File nickname for multi-project refresh* enter the file nickname or choose from the drop down menu if a refresh list has been set *(see pg. 10-20)*.
   g. Click the Tag button. Now every cell in the Milestones task row will be tagged with the Microsoft Project selected task unique identifier and optionally the file nickname. No change will take place in the schedule until *Refresh option* is run *(see pg. 10-18)*.
   h. Continue tagging each task row, however select the option above *Link to Active MS Project Task*. The option above is *Link to Active MS Project Task...* which includes the unique identifier previously selected.

4. Tag a cell.
   a. Click once on the cell to tag. This will highlight the task row. Click again on the cell and the cell will highlight. The Selection menu for that cell is now active.
   b. In Selection | Cell and Tag Text | Update Tag enter the unique identifier and optionally the file nickname.

```
8,File1
```
   c. Press Update Tag. No change will take place in the Milestones schedule until the Refresh operation is executed. *(see to pg. 10-18).*
Refresh a Presentation Schedule

When the Milestones Project Wizard creates a presentation schedule from a Microsoft Project schedule, symbols, columns, task rows, and cells are tagged with a Unique ID and optionally a File Nickname. Free-form schedules are manually tagged in the same format.

During the refresh process, tagged items in Milestones are matched to their counterparts in the selected Microsoft Project file. All tagged items are updated with the latest data from the Microsoft Project file thus, if a start date changes in the Microsoft Project file, the refresh will change the date of the symbol with the corresponding tag in the Milestones schedule.

Refresh to update a Milestones schedule

1. Go to Connections | Microsoft Project. Click on the drop down arrow next to Refresh Previously Imported Project.
2. Choose the refresh option that correlates to the type of file imported.
3. The Milestones Refresh Options - Refresh from Microsoft Project dialog box will appear.

Refresh Options

- **Refresh Using**: Select the identifier used when importing or tagging symbols.

- **Refresh Symbol Text**: Updates text/values attached to symbols with the source field’s text/values.
  - **Update only symbols with symbol text tags**: Symbol text on symbols without a symbol text tag will not be updated.
  - **Update start and finish symbols**: Symbol text on all start and finish symbols will be updated with the field selected under Start: and Finish:

- **Refresh Symbol Note**: Updates text/values attached to symbols with the source field’s text/values.
  - **Update only symbols with symbol note tags**: Symbol notes on symbols without a symbol note tag will not be updated.
» **Update start and finish symbols:** Symbol notes on all start and finish symbols will be updated with the field selected under **Start:** and **Finish:**.

- **Refresh percent complete:** Select from percent complete, percent work complete, physical percent complete or a number field to have Milestones’ symbols and/or horizontal bars fill to the value based on the task rows tagged unique id.

- **Update individual bars & symbols:** Will refresh the fill to status based on the selected value (percent complete, percent work complete, physical percent complete or a number field) for each symbol, or symbol, horizontal bar, symbol combination. Very useful when multiple task are on a single task row in the Milestones schedule.

- **Refresh tagged columns:** Updates column text/values with the source field’s text/values.

- **Update dependent symbols:** Any symbol in the Milestones schedule that is not tagged and is dependent on a tagged symbol will move the same number of days the tagged symbol moved during the refresh process.

- **Ignore Times:** When checked only changes the date not the time (hour or minute) of a symbol.

- **Highlight Changed Dates:** Causes any dates which are changed during the refresh process to be highlighted. Once highlighted, it’s possible to toggle the display on and off by checking or un-checking the **Refresh Highlighting** in **Connections | Other**.

- **Highlight obsolete milestones:** Tagged symbols in the Milestones schedule that are no longer in the Microsoft Project file will be reported in the Refresh Report.

- **Reset Date Range:** Check this if the date range (start/end dates) of the Milestones chart should be changed to reflect the changes made during the refresh process. If this option is not checked, the schedule’s date range will not be changed and new dates might not be visible.

- **Append New Tasks from Project:** Choose to add tasks to the end of a presentation chart. Note that if a number of tasks have been added in the Microsoft Project schedule, re-importing is usually best.

- **Constraint Field:** Milestones Professional has symbol constraints: **must be on this date, no later than, no earlier than, lock to this date, display notes on this date**, and launch hyperlink on this date that can be applied to imported symbols during the refresh process.

» Set up a date field in Microsoft Project containing the constraint date. In the first drop down box pick that Microsoft Project date field.
» In the second drop down box pick the date field in Microsoft Project that the constraint is applied to.

» In this drop down box pick the constraint type: must be on this date, no later than, no earlier than, lock to this date, display notes on this date, or launch hyperlink on this date.

4. **Refresh**: Select this button, Milestones will update all tagged symbols to their new dates and any refresh options selected will also be applied to the schedule. A **Refresh Report** will be generated containing changes made to the schedule. The report can be printed.

**Update a Milestones Schedule from Multiple Project files**

It is possible to update a single Milestones presentation schedule from multiple Microsoft Project files. There are two ways to approach a multiple file refresh. The first is in Milestones by nicknaming a Microsoft Project file, this gives all the tasks from that file a unique file identification. The second is setting up a unique identifier field in all of the user’s Microsoft Project files.

**Nickname a schedule**

During import using the Project to Milestones wizard or when manually tagging, Milestones offers the option to nickname a Microsoft Project file which in turn tags all symbols, task rows and cells from that file with its nickname.

For Milestones to associate the assigned nicknames with the Microsoft Project file a refresh list needs to be set up for the Milestones schedule built from multiple Microsoft Project files.

1. Choose **Connections | Microsoft Project | Refresh Previously Imported Project | Create/Edit Refresh File List.**
2. **Nickname for use in Tagging**
   - *Current File Nickname* type in a 1 to 8 character nickname (no spaces). Click *Update Nickname*.
     - or -
   - *Nickname Starter Characters*. Assign up to 5 characters to be used as the generic nickname then milestones will number each file as it is added. This will make each file’s nickname unique by adding the number.

3. Next add all Microsoft Project files used to build the Milestones schedule.
   - **Add schedule**: Select to add a Microsoft Project file to the refresh list.
   - **Add Project Server Schedule**: Select if using Project Server to add a Microsoft Project file to the refresh list.
   - **Add Project XML Schedule**: Select to add a Microsoft Project XML Schema file to the refresh list.
   - **Delete Schedule**: Choose to remove a previously added schedule from the list.
   - **Move Up / Move Down**: Select a schedule. Then select these options to reorder the refresh list of files.
   - **Change**: Select a file. Then choose this option to change the current file to a different file. The nickname will not change (only the file path).

☞ At any time a file’s nickname can be changed. Select that file. Next type the new nickname into the *Current File Nickname* box. Select [Press to Update Nickname](#).

4. Once all the Microsoft Project files are added choose **OK Save above Changes**. This only has to be done one time and the Milestones file will remember the refresh file list for any further updates.
Refresh a Nicknamed schedule

1. Choose Connections | Microsoft Project | Refresh Previously Imported Project |

2. Choose the refresh option that correlates to the type of file imported.

3. The Refresh Options (Refresh using Milestones refresh file list) dialog box will appear.

4. Refresh Using: Select the identifier used when importing or tagging symbols.

5. Select Schedule is tagged with file nicknames.

6. Select refresh options (see pg. 10-18).

    ☐ Append New Tasks from Project and Constraint Field options are not available in multiple Project file refresh.

7. Refresh: Select this button, Milestones will update all tagged symbols to their new dates and any refresh options selected will also be applied to the schedule. A Refresh Report will be generated containing changes made to the schedule. The report can be printed.

Refresh using a Unique Identifier in multiple Microsoft Project files

Each task in multiple Microsoft Project files linked to a single Milestones schedule has to have a unique identity for refresh. To accomplish this In Microsoft Project set up the same text field (1-30) in all the Microsoft Project files. Then enter a unique identifier string in the text field for each task that will be linked to the Milestones schedule.

During import or when manually tagging a schedule, select the text field for the unique identifier.

For Milestones to refresh using multiple files it’s necessary to set up a refresh list.


2. Next add all Microsoft Project files that were used to build the Milestones schedule, to create a refresh list (see pg 10-20).

    ☐ Ignore all nickname options.

3. Once all the Microsoft Project files are added select OK Save above Changes.

4. Choose Connections | Microsoft Project | Refresh Previously Imported Project |

5. Choose the refresh option that correlates to the type of file imported.

Work with Microsoft Project  10-22
6. The **Refresh Options - Refresh from Milestones Master schedule list** dialog box will appear.

7. **Refresh Using**: Select the text field set-up in all the Microsoft Project files containing the unique identifier.

8. Important do not select **Schedule is tagged with file nicknames**.

9. Select from the other refresh options *(see pg. 10-18)*.

10. **Refresh**: Select this button, Milestones will update all tagged symbols to their new dates and any refresh options selected will also be applied to the schedule. A **Refresh Report** will be generated containing changes made to the schedule. The report can be printed.

### Symbol Tags Report

It’s possible to generate a report on all tagged symbols in a Milestones presentation schedule. The Symbol Tag Report displays data for each symbol that has a tag, including the task row on which the symbol appears, the symbol’s ordinal placement from left to right along the task row, the symbol’s date, the symbol’s text, and the full tag text.

1. Select **Tools | Reports | Symbol 📋 | Symbol Tags…**

2. Press **Copy Report To Clipboard** to place the entire text of the report on the clipboard.

3. Paste the report into another program to print and/or edit.

### Display Symbol Tags Next to Symbols

Symbol Tags can be displayed above all tagged symbol for easy reference. There are three display options **ID only**, **ID and Date field** and **Entire tag**. This option is global and applies to all open schedules within the same instance of Milestones. This information is also shown in PDFs, metafiles, and prints. **View | Others | No symbol tags Overlay, Overlay tags: ID only, Overlay tags: ID and Date field, or Overlay tags: Entire tag**.

```
Tag: 21
Project Zeta

Tag: 21.finish
Project Zeta

Tag: 21.finish.name....
Project Zeta
```
Direct to Microsoft Project Export

Export Milestones tasks to Microsoft Project. Then update the Project file when the Milestones file changes.

Choose Connections | Microsoft Project | Export to Project.

The Milestones to Project Export Options dialog box displays.

- **Generate multiple Microsoft Office Project schedules for this Master Schedule**: Select if the schedule is a Milestones Professional master schedule to export the entire hierarchy of schedules.

- **Adjust row height in Microsoft Office Project as needed**: Select to allow Microsoft Project to adjust row height based on information in the task row.

- **Tag this Schedule for later Refresh**: Select to have the Milestones chart tagged for a later refresh from the exported Microsoft Project file.

- **Place all independent milestones on separate tasks in Project**: Select this option to have every symbol or symbol bar symbol combination in Milestones import into a task row.

- **Map this column to the Microsoft Project Name field**: Choose from the list of Milestones’ column headings to import that column’s information into the Name field in Microsoft Project.
Chapter 11: Work with Primavera

Transform Primavera schedules into executive level presentation reports with Milestones Professional. Create a wide variety of schedules using Milestones Professional’s **Project to Milestones Wizard**. *(For a lesson on this topic see Help | Help Files | Tutorials | Lesson 18)*

**Import from Primavera using the Wizard**

1. Save a Primavera schedule in the Microsoft Project XML format.
2. In Milestones Professional, choose **File | Import Options | XML** and select the XML file.
3. Choose the **XML: MS Project Schema via MS Project Wizard**. This will launch the modified **XML Project to Milestones Wizard**.
4. Import into one of the 47 built in templates found under the following six categories **Gantt**, **Stoplight**, **Milestone**, **Status**, **Dashboard** or **Earned Value**.
5. For help with the selections to make, on the initial screen of the wizard choose the About this Format button. Choose Next.

6. On the Symbology Options screen make selections. Then choose Next.
   - **Color Critical Task Red**: Tasks marked critical in the XML will be colored red on the Milestones schedule.
   - **Show Dependencies**: Vertical links will display between dependent tasks.
   - **Shade Symbol + bar % complete**: The symbols and bars fill to status option will be turned on in Milestones and the symbols and bars will be colored based on the percent complete of the task row. *(See Chapter 5 pg. 5-3).*
   - **Set % for individual bars**: Each symbol or symbol, bar, symbol combination will fill to status based on the task’s percent complete. This is very useful when multiple tasks are on a single row on the Milestones schedule.
   - **Show Status Line**: The status line extends vertically along the current date line, bulging left or right according to each task’s status.
   - **Show Current Date Line**: A line will be drawn from the top to the bottom of the Milestones schedule at the current date.

7. On the Choose Additional Columns screen, pick fields to add to columns on the schedule. Choose Next.

8. On the Symbol Notes and Text screen, choose symbol or note text to attach to the start and/or finish date symbol. Choose from the available fields in the drop down menu to have that information import as symbol text or note text. Choose Next.

   Symbol text can have up to three lines. Each line can import a different field.

9. On the Choose Layout Options screen, choose the schedule’s size, number of lines per page, or whether to have a legend in the Layout Options dialog box.

10. Choose Finish to generate the Milestones schedule.
Manually Tag a Milestones Schedule to Primavera for Refresh.

It's possible to design a Milestones presentation chart “free-form” and link it to a Primavera schedule for future updates.

Tag a symbol to link with a Primavera task:

4. Select the **Create/edit tag for Refresh**.

   - **Unique ID**: Enter the Unique ID or other unique identifier that allows this task to be found in the file being used for Refresh.
   - **Date Field**: Select the date field that controls this symbol's date.
   - **Symbol Text Line 1, 2, 3**: Select the field(s) to place in this symbol's text lines.
   - **Symbol Note**: Select the field(s) to place in this symbol's note text.
   - **File Nickname**: Select a nickname if this Milestones schedule will be refreshed from multiple files. See Help | Help Files | Help Topics for more details.

1. Build a schedule in Milestones.
2. In Milestones select a symbol to be tagged. The toolbar changes to Selection.
3. At the bottom of the toolbar select the Symbol Links tab.
Tag a row to link it with a Primavera task

1. In Milestones double-click a task row. The Column Text and Task Row Properties dialog box displays.

2. Choose the Cell Settings tab. In the Automation Tag box enter the appropriate unique identifier.

3. If refreshing from multiple Microsoft Project files enter a comma next to the unique identifier. Then type in the file nickname with no spaces.

Once the schedule is tagged, view the refresh directions below to synchronize the schedule and keep it updated with the latest Primavera information.

Refresh a Presentation Schedule

To refresh a Milestones Professional schedule using dates from Primavera, do the following:

1. Save the Primavera schedule in the Microsoft Project XML format.

2. In Milestones Professional, on the Connections tab, choose the arrow next to Refresh Previously Imported Project.

3. Choose Refresh from Project XML file.

4. After choosing the XML file, make selections in the dialog box and press OK.

- Refresh Using: Select the identifier used when importing or tagging symbols.
• **Refresh Symbol Text**: Update text/values attached to symbols with the source field’s text/values.
  
> **Update only symbols with symbol text tags**: Symbol text on symbols without a symbol text tag will not be updated.

> **Update start and finish symbols**: Symbol text on all start and finish symbols will be updated with the field selected under **Start:** and **Finish:**.

• **Refresh Symbol Note**: Update text/values attached to symbols with the source field’s text/values.
  
> **Update only symbols with symbol note tags**: Symbol notes on symbols without a symbol note tag will not be updated.

> **Update start and finish symbols**: Symbol notes on all start and finish symbols will be updated with the field selected under **Start:** and **Finish:**.

• **Refresh percent complete**: Select from percent complete, percent work complete, physical percent complete or a number field to have Milestones’ symbols and/or horizontal bars fill to the value based on the task rows tagged unique id.

• **Update individual bars & symbols**: Will refresh the fill to status based on the selected value (percent complete, percent work complete, physical percent complete or a number field), for each symbol, or symbol, horizontal bar, symbol combination. This option is very useful when multiple task are on a single task row in the Milestones schedule.

• **Refresh tagged columns**: Updates column text/values with the source field’s text/values.

• **Update dependent symbols if Dependency Mode is active**: Any symbol in the Milestones schedule that is not tagged and is dependent on a tagged symbol will move the same number of days the tagged symbol moved during the refresh process.

• **Automatically Recompute Date Range when Refresh is complete**: Check this if the date range (start/end dates) of the Milestones chart should be changed to reflect the changes made during the refresh process. If this option is not checked, the schedule’s date range will not be changed and new dates might not be visible.

• **Ignore Nicknames when refreshing from a file list**: Select this option if the Milestones file has been tagged with nicknames but in this case the refresh should ignore the nicknames.

• **Copy Serialized XML file to clipboard**: It’s possible to paste the clipboard information into a spread sheet program like Excel for easier reading of the XML file information. If multiple files are being used for refresh only the last file will be copied to the clipboard.
Chapter 12: Work with other Applications

Milestones Professional can read information from other sources including Microsoft Outlook tasks or calendar events; comma delimited files; Excel and other spreadsheet data copied to the clipboard (For a lesson on this topic see Help | Help Files | Tutorials | Lesson 9); XML files; ODBC data sources and more.

For moving data from Milestones to other applications, Milestones schedules can be exported to MPX, CSV, and XML formats.

For programmers, Milestones Professional also supports a custom interface between Milestones and any OLE compliant application. Using Visual Basic, C++ or other programming languages, it’s easy to interchange data programmatically with other applications and databases. The programming that makes use of this automation feature is created by the user.

The Connections and File Tabs

The enhanced toolbar at the top of the Milestones window includes a Connections tab. This menu contains most of the options for interfacing with Microsoft Office applications and other programs, as well as the Windows clipboard.

Other importing options can be found in the File tab in the Import Options section.
Import Tasks and Appointments from Microsoft Outlook

Milestones can import both Tasks and Calendar Appointments from Microsoft Outlook (version 2000 or later). The following import choices are available in Connections | Microsoft Outlook | Import Outlook Tasks or Calendar:

- **Completed Tasks Only:** Imports all tasks in the selected folder that are marked completed.
- **Pending Tasks Only:** Imports all tasks in the selected folder that are not marked completed.
- **Tasks on or after Date:** Allows the user to select a start date and generate a schedule that includes all tasks in the selected folder with a start date on or after the chosen date. Includes incomplete and completed tasks.
- **Calendar:** Allows the user to select a date range and generates a schedule that includes all calendar appointments in the selected folder within that date range.
- **Shared Calendar:** Allows the user to select a date range and generate a schedule that includes all calendar appointments from pre-selected shared calendars. (Note: You will need to open the shared calendars in Outlook before importing).
- **Shared Tasks:** Allows the user to import all tasks in a pre-selected shared task list. Open the shared task list in Outlook before importing.
- **Set Microsoft Outlook Import Options:** This dialog box lets the user specify that the default folder for Tasks and/or Calendar Appointments should always be used when importing. If these options are checked, the user will not be prompted to choose an Outlook folder.

Microsoft Outlook Export

Tasks can also be exported from Milestones to Outlook by choosing Connections | Microsoft Outlook | Export Tasks to Outlook. Choose which column in Milestones contains task names and select an existing or new task folder in Outlook for the exported task list.
Smart Import from Clipboard

Importing into Milestones from a spreadsheet is made easier with the Smart Import From Clipboard feature. This feature allows the user to import a schedule from a spreadsheet without mapping individual fields to corresponding columns in Milestones.

Import a spreadsheet using Smart Import from Clipboard

1. Open both Milestones Professional and the spreadsheet application.
2. In Milestones, format the schedule to accept the data from the spreadsheet.
   - In order for the Smart Import to recognize corresponding columns without mapping, column headings in the spreadsheet and in the Milestones schedule must match exactly and be a single line heading. For accepted SmartColumns see pg 11-4.
   - Set the Milestones date range to accommodate the dates in the spreadsheet (Dates | Start and End Dates).
   - If importing an outline structure using an Outline Level and/or WBS SmartColumn, set up outline features such as summary bars (Refer to Chapter 4) and an indentation value for column text.
   - If importing status using a Percent Complete SmartColumn, set up status features such as Dates | Date Related Settings | Symbols/Bars: Fill to Status Date and Dates | Start and End Dates | More Settings | Hourly/Minute | Allow Hourly/Minute Detail (to portray exact percent complete as shown on spreadsheet).
3. In the spreadsheet, highlight and copy the cells to be pasted into Milestones.
   - Each record is expected to be on a line by itself and have the same field layout. Date fields must be formatted in the default date order for the computer. When using a different separator, choose the format with two digits for each, dd.mm.yy.
4. In Milestones, choose File | Import Options | Custom | Smart Import from Clipboard.
Accepted SmartColumns for Smart Import from Clipboard

Milestones SmartColumns must be built and formatted before selecting **Smart Import from Clipboard**. Remember, in order to populate a schedule in Milestones from a spreadsheet accurately, the column headings in the spreadsheet and in Milestones must match exactly and be a single line heading in Milestones.

The following SmartColumns can be populated using **Smart Import from Clipboard**:  

- **Start Date** - brings in a milestone*
- **Baseline Start Date** - brings in a milestone*
- **End Date** - brings in a milestone*
- **Baseline End Date** - brings in a milestone*
- **Outline Level** - defines an outline structure
- **WBS** - defines an outline structure
- **Percent Complete** - defines percent complete with a status symbol

лей All other columns will be brought into the Milestones schedule as text columns.

* If both a start date and an end date or a baseline start and a baseline end date are on the same row, they will be connected with a bar.

* The 32nd symbol in the toolbox becomes the status symbol. Double click this symbol in the toolbox to change its properties.

<table>
<thead>
<tr>
<th>Outline Level</th>
<th>Project Tasks</th>
<th>Start</th>
<th>End</th>
<th>Baseline Start</th>
<th>Baseline End</th>
<th>% Comp</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Project</td>
<td>3/9/18</td>
<td>11/20/18</td>
<td>3/9/18</td>
<td>11/20/18</td>
<td>73%</td>
</tr>
<tr>
<td>2</td>
<td>Computer Checkout</td>
<td>3/9/18</td>
<td>11/20/18</td>
<td>3/9/18</td>
<td>11/20/18</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>Upgrade</td>
<td>3/9/18</td>
<td>7/16/18</td>
<td>3/9/18</td>
<td>7/16/18</td>
<td>80%</td>
</tr>
<tr>
<td>2</td>
<td>Requirements</td>
<td>9/26/18</td>
<td>9/26/18</td>
<td>9/26/18</td>
<td>9/26/18</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>Guide</td>
<td>7/16/18</td>
<td>7/16/18</td>
<td>7/16/18</td>
<td>7/16/18</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>Systems Development</td>
<td>3/9/18</td>
<td>7/2/18</td>
<td>3/9/18</td>
<td>7/2/18</td>
<td>60%</td>
</tr>
<tr>
<td>2</td>
<td>Procedures Guide</td>
<td>7/10/18</td>
<td>8/11/18</td>
<td>7/10/18</td>
<td>8/11/18</td>
<td>60%</td>
</tr>
<tr>
<td>2</td>
<td>Test Plans &amp; Procedures</td>
<td>3/17/18</td>
<td>8/11/18</td>
<td>3/17/18</td>
<td>8/11/18</td>
<td>34%</td>
</tr>
<tr>
<td>3</td>
<td>Test event 1</td>
<td>3/17/18</td>
<td>5/11/18</td>
<td>3/17/18</td>
<td>5/11/18</td>
<td>60%</td>
</tr>
<tr>
<td>3</td>
<td>Test event 2</td>
<td>5/11/18</td>
<td>8/11/18</td>
<td>5/11/18</td>
<td>8/11/18</td>
<td>30%</td>
</tr>
</tbody>
</table>

Work with other Applications   12-4
Create a Milestones Schedule from a Spreadsheet

Milestones’ Custom Import feature is designed to bring in data from any application that can copy data to the Windows Clipboard or to a comma delimited ASCII file.

For example, Excel cells can be selected and then pasted and mapped into Milestones Professional.

Import a spreadsheet using Custom Import from Clipboard

1. Open both Milestones Professional and the spreadsheet application.

2. In Milestones, create columns to accept the data from the spreadsheet. Choose Insert | Rows, Columns.
   - Dates need to be mapped to Task Start Date and Task End Date fields to be plotted in the schedule area. Dates can also be mapped to text columns. Added Date SmartColumns will automatically pick-up their information from the schedule area.
   - If you are importing an outline structure using an Outline Level and/or WBS SmartColumn, set up outline features such as summary bars (Refer to Chapter 4) and an indentation value for column text.
   - If you are importing status using a Percent Complete SmartColumn, set up status features such as Dates | Date Related Settings | Symbols/Bars: Fill to Status Date and Dates | Start and End Dates | More Settings | Hourly/Minute | Allow Hourly/Minute Detail.

3. Set the Milestones date range to accommodate the dates in the spreadsheet. Choose Dates | Start and End Dates.

4. In the spreadsheet, highlight and copy the cells to be pasted into Milestones.
   - Each record is expected to be on a line by itself and have the same field layout. Date fields must be formatted in the default date order for the computer. When using a different separator, choose the format with two digits for each, e.g. dd.mm.yy.

5. In Milestones, choose File | Import Options | Custom | Custom Import from Clipboard.

6. On the Import: Custom Format dialog box, select an existing filter and choose Retrieve Settings. Or, create a new import filter using the Create a new filter.

7. Append Imported Data if the data on the clipboard should appear below existing data in the Milestones schedule. Otherwise, existing data will be overwritten.

8. Click Continue Import Using Current Filter to import using the selected filter’s column mapping.
Create a new Filter in the *Import: Custom Format* dialog box

Designate where data should be placed in Milestones by mapping spreadsheet fields to Milestones columns or fields. This mapping of fields will then be saved as a “filter”.

1. Click **Clear Settings** to clear any mapping lines.

2. Under **Fields from line 1 of input file**, click once on a spreadsheet field; under **Field Usage in Schedule**, click on a Milestones column or field where that data should appear.

   - **A connecting line will appear to show the mapping. Double-click a field on the right to remove the mapping line.**

   - **Field 1** is the left-most column in the spreadsheet. **Field 2** is the second column, and so on.

   - Milestones columns are numbered 1 to 10 on the left side of the schedule, with column 10 being closest to the schedule area. For example, if your schedule only has three columns on the left, then they are numbered 8, 9 and 10 respectively.

   - Milestones columns are numbered 11 to 20 on the right side of the schedule, with column 11 being closest to the schedule area.

   - **To have symbols import into the schedule area**, map start dates from start-to-finish task bars to **Task_1_Start_Date** and their finish dates to **Task_1_End_Date**. Map the milestone dates (zero duration tasks) to **Milestone_Date_1**.

   - To map multiple start and end dates per task row (per record), map the first set of dates to **Task_1_Start_Date** and **Task_1_End_Date**; map the next set of dates to **Task_2_Start_Date** and **Task_2_End_Date**.

   - Map multiple milestone dates per task row to **Milestone_Date_1,... Milestone_Date_4**.

3. Continue mapping fields. *Refer to pg. 12-8* for accepted Milestones fields and SmartColumns.

4. Under **Current Filter Name**, enter a name for these mapping settings.
5. Click **Save Settings**. These settings can now be retrieved during subsequent uses of Custom Import.

6. Click **Continue Import Using Current Filter** to populate the Milestones schedule with the spreadsheet information.

7. If a filter needs to be shared with other Milestones users, choose **Export Filter** and save the filter as a .txt file. Send the .txt file to colleagues or other Milestones users. They can use the **Import Filter** option to transfer the .txt file from a saved location to the Import: Custom Format dialog box.

![Excel Column mapped to Milestones Result](image.png)
Custom Import: Accepted Milestones fields and SmartColumns

Column Custom Fields
When mapped into the Milestones fields you see to the right, information from a spreadsheet will display in a Milestones text column. Milestones text columns just display text and do not populate the schedule or calculate values.

Task Start and End Date Custom Fields
When mapped into both the start and the end date of the Milestones fields to the right, date information from a spreadsheet will display symbols connected with a bar. When a date column from a spreadsheet is mapped to either the Task_#_Start Date or the Task_#_End field a single milestone will be added to the schedule.

Task Milestone Date Custom Fields
When mapped into the Milestones fields to the right, date information from a spreadsheet will display individual symbols in a Milestones schedule.

Task Date and Time Custom Fields
When mapped into the following Milestones fields, date and time information from a spreadsheet will display symbols connected with a bar or just a symbol in a Milestones schedule. These symbols will be placed on the schedule at the date and time as specified in the spreadsheet columns.

When Milestones imports from a spreadsheet, it uses the symbols from the toolbox in a specific order. For more information see Help | Help Topics | Milestones Help | Index type in custom choose toolbox symbology numbering.

Outline Level/WBS Custom Fields
When mapped into the Milestones fields Outline_Level or WBS_Number, Outline Level and/or WBS information from a spreadsheet will create an outline structure in the Milestones schedule.
Chart Title
When mapped to the Chart Title field Milestones uses the text in the spreadsheet’s last cell of the column as the chart’s title.

Successors Custom Field
When mapped into the Milestones field Successors, successor information from a spreadsheet will display vertical links between tasks in the Milestones schedule. To accurately import successors, format the spreadsheet as follows:

- Click on the cell within the successor field where the link is to start.
- Enter the task row number for the successor of the link (the end symbol). Note: The first task row in a spreadsheet is counted as 0.
- Finally, enter the direction of the link. Choose from one of the following options: SF (Start to Finish) SS (Start to Start) FS (Finish to Start) FF (Finish to Finish).

Duration Custom Field
When mapped into the Milestones fields Duration or Negative_Duration, duration information from a spreadsheet will display as a task bar with start and end symbols in the Milestones schedule.

- A positive duration value in the spreadsheet is used to generate a task bar with an end symbol when the task’s start date is available in the spreadsheet and imported.
- A negative duration value in the spreadsheet is used to generate a task bar and start symbol when the task’s end date is available in the spreadsheet and imported.
- The Negative_Duration import field in the Milestones custom import should be used only when a negative number can not be used in the duration field.

Percent Complete Custom Field
When mapped into the Milestones field Percent_Complete, Percent Complete information from a spreadsheet will display the percent complete of a task by establishing a status symbol.

Hyperlink
A column of Hyperlinks in a spreadsheet can be mapped to the Milestones Hyperlink field to have the hyperlinks import into the task row of the Milestones file. After the import the task rows with hyperlinks will be marked with the hyperlink icon, which can then be right clicked to select the Hyperlink option to view and launch the hyperlink.
Create a Milestones Schedule from CSV, TXT, XML Files

This same Custom Import procedure can be used to read TXT and CSV files (ASCII files with fields separated by commas) into Milestones.

1. Choose File | Import Options | Custom | Custom Import.
2. Select the CSV file, or change the Files of Type to TXT and select a TXT file.
3. Follow the mapping procedure in the previous section.

Paste Text and Numbers into Single Columns or Cells

Instead of copying multiple columns of information from another application and using Custom Import to map those columns to Milestones, you can copy and paste single columns or cells of data into Milestones columns.

Copy and paste text into Column Cells

A column of cells or a single cell in another application can be copied and pasted into any Milestones Column.

1. In the other application, highlight and copy the column of text, as shown.
2. In Milestones, select the column that will receive the text, as shown to the right. The Selection menu will display for that column.
3. Choose Selection | Column Type and Format | More Column Options | Paste Column Text. The results are shown to the right. Any text already existing in the column will be overwritten with the pasted text.
Copy and paste text into Column Cells below existing Text

It's possible to paste information below existing text.

1. In the other application, highlight and copy the column of text.
2. In Milestones, click the arrow tool in the toolbox.
3. Click once in the cell below the existing text - pause - then click again to highlight just that cell.

Copy and paste text into a single Column Cell

Cells can also be pasted into a single column cell in Milestones.

1. In the other application, highlight and copy the column of text (or single text entry).
2. In Milestones, click the text tool in the toolbox.
3. Click once in the cell in which the text should appear.

Copy and paste Column Text and numbers into other Applications

It is possible to copy an entire Milestones column to the clipboard. First select the entire column. Then select Selection | Column Type and Format | More Column Options | Copy Column Text.

Once the column of text is on the clipboard, it can be pasted into a spreadsheet, another Milestones column, or any program that allows columns to be pasted from the clipboard.
Paste text and values into multiple Columns and Rows

As described earlier in this chapter, the Custom Import feature uses “column mapping” to populate the Milestones schedule. Here, it is possible to paste cells from a spreadsheet directly into the Milestones column cells, across many rows.

1. In the other application, highlight and copy the cells, as shown.

<table>
<thead>
<tr>
<th>B</th>
<th>H</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Project</td>
<td>Resource</td>
</tr>
<tr>
<td>2</td>
<td>Computer Checkout</td>
<td>Jones</td>
</tr>
<tr>
<td>3</td>
<td>Upgrade</td>
<td>Smyth</td>
</tr>
<tr>
<td>4</td>
<td>Requirements</td>
<td>Taylor</td>
</tr>
<tr>
<td>5</td>
<td>Guide</td>
<td>Vincent</td>
</tr>
<tr>
<td>6</td>
<td>Systems Development</td>
<td>Barry</td>
</tr>
<tr>
<td>7</td>
<td>Procedures Guide</td>
<td>Boxer</td>
</tr>
<tr>
<td>8</td>
<td>Test Plans &amp; Procedures</td>
<td>Douglas</td>
</tr>
<tr>
<td>9</td>
<td>Test event 1</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Test event 2</td>
<td></td>
</tr>
</tbody>
</table>

2. In a Milestones schedule that is prepared to accept this specific data (i.e. the columns match the information in the spreadsheet), click the arrow tool in the toolbox.

3. Click once in the cell that will “anchor” the pasted information - pause - then click again to highlight just that cell, as shown below. This cell is where the pasting of information will begin.


❖ You can also paste cells below existing column cells in Milestones.

❖ SmartColumn cells will not accept the paste of information using this method. To have a SmartColumn accept copied information refer to pg.12-10 Copy and paste text into column cells.
Copy and paste numbers into a ValueSet

Numbers from the clipboard can be pasted into a Type 1 or Type 2 ValueSet. Refer to Chapter 7 to set up these ValueSets.

1. In the other application, highlight and copy the column of values.

2. In the Type 1 or Type 2 ValueSet’s Edit Values dialog box, click the Import Values from Clipboard button, as shown to the right.

Values and dates from Type 1 or Type 2 ValueSets can be copied to the clipboard.

Copy Milestones schedule information to another application

Milestones Professional schedule information can be pasted into the columns and cells of a spreadsheet or a word processing document.

1. In Milestones, select the Edit | Copy Schedule to Clipboard (OLE).

2. In the other application select Paste Special, and select the Text option.
**Export as XML**

A Milestones Professional schedule can be exported in an XML format. Map the columns in Milestones to selected fields, save those preferences as an XML file, then open that file in another application which reads XML files. The same basic method applies to MPX exporting.

Choose which Milestones columns to export to XML:

1. Choose **Connections | Other | Export Schedule to XML | XML Column Mapping**.
2. On the **XML Export Preferences** dialog box, choose <NAME> next to the column heading for the project activities. This is the only required field to export. Other critical data is exported by default.
3. Choose other fields next to any other Milestones columns to be exported.

Export the selected data to an XML file:

1. Choose **Connections | Other | Export Schedule to XML | Export Schedule**.
2. Enter a File name and **Save**.

**Other Export and Import Formats**

Milestones Professional supports several older (legacy) CSV based import and export formats. The primary proprietary format is the “Expanded 20 Column” format. This format gives you access, via a CSV file, to most task row and symbol properties.

When Milestones is started from a command line or by another application, it is possible to pass it a CSV file, and other information needed, via the command line. This is an alternate method of controlling Milestones via another application.

**Automation**

The automation interface, built into Milestones Professional, makes it possible for programs written in Visual Basic, or any other language which support automation, to interchange data programmatically between Milestones Professional and other automation capable applications, such as Microsoft Project, Access, Excel, and more.

Complete documentation of all the methods and properties supported by this interface, as well as program examples, are given under **Help | Help Files | Automation Help**.

For more information: [http://www.kidasa.com/support/supportdevelopers.html](http://www.kidasa.com/support/supportdevelopers.html).
### Appendix A: Quick Reference Tables

#### Scheduling Basics

<table>
<thead>
<tr>
<th>TO ADD OR SET:</th>
<th>DO THIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project tasks or other column text</td>
<td>Click the <strong>T</strong> tool. Click in a column cell and begin typing.</td>
</tr>
<tr>
<td>Symbol</td>
<td>Click the <strong>+</strong> tool. Click once on the symbol to add, click with the mouse in the schedule area, and drag.</td>
</tr>
<tr>
<td>Horizontal bar between two symbols</td>
<td>Click the <strong>+</strong> tool. Click once on the left-most symbol on the schedule. Click once on the horizontal bar type in the toolbox. Then, click once on the right-most symbol on the schedule.</td>
</tr>
<tr>
<td>Vertical link</td>
<td>Click the <strong>+</strong> tool. Click once on the “from” (top) symbol. Click once on the vertical link type in the toolbox. Then, click once on the “to” (bottom) symbol.</td>
</tr>
<tr>
<td>Many vertical links at once</td>
<td>Click the <strong>-</strong> tool. Hold the Ctrl key and click once on each task row whose symbols will be connected vertically. Choose **Insert</td>
</tr>
<tr>
<td>Task row, in-between two existing task rows</td>
<td>Click the <strong>H</strong> tool. Select the task row above which you want to insert the new row. Choose **Insert</td>
</tr>
<tr>
<td>Current date line</td>
<td>Choose **Dates</td>
</tr>
<tr>
<td>Date headings</td>
<td>Click once on the date headings within the schedule with the <strong>H</strong> tool. This will activate the Selection menu. Or choose **Dates</td>
</tr>
<tr>
<td>Start and/or end date for the schedule</td>
<td>Choose **Dates</td>
</tr>
</tbody>
</table>
### Scheduling Basics

<table>
<thead>
<tr>
<th>TO ADD OR SET:</th>
<th>DO THIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>To turn on date sensitivity</td>
<td>Click Dates</td>
</tr>
<tr>
<td>Progress of a task row using a status symbol</td>
<td>Add a status symbol by double-clicking on one of your toolbox symbols and clicking the Status Symbol option. Add the symbol on any task row to adjust the task’s progress.</td>
</tr>
<tr>
<td>Constraint date for a symbol</td>
<td>Click the tool. Click once on the symbol, then choose Selection</td>
</tr>
<tr>
<td>Set up a column for indenting</td>
<td>Click once on the column heading. Choose Selection</td>
</tr>
<tr>
<td>Change the outline level of task row(s)</td>
<td>Click the tool. Select the task row you want to indent or outdent. The outline level settings are located under Selection</td>
</tr>
<tr>
<td>Roll up all tasks to a certain level</td>
<td>Right-click a task that is at the level you want to roll all tasks to. Then click Collapse All Tasks to Selected Level.</td>
</tr>
<tr>
<td>Work-week starting day</td>
<td>Choose Dates</td>
</tr>
<tr>
<td>TO ADD OR SET:</td>
<td>DO THIS:</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Color themes</td>
<td>Choose Format</td>
</tr>
<tr>
<td></td>
<td>Choose Format</td>
</tr>
<tr>
<td>Date range override for single page</td>
<td>Choose Dates</td>
</tr>
<tr>
<td>Shading, gridlines, text and summary bars by outline level</td>
<td>Choose Format</td>
</tr>
<tr>
<td>Custom coloring for “after-status” fill-colors for symbols and bars</td>
<td>In the toolbox, double-click the symbol or bar.</td>
</tr>
<tr>
<td></td>
<td>For symbols, click the Color/Pattern/Size/Shadow tab and then choose an After Status Color.</td>
</tr>
<tr>
<td></td>
<td>For bars, change the After Status Fill Color.</td>
</tr>
<tr>
<td>Page number format</td>
<td>Click the tool. Click once on the page number at the top left part of the schedule.</td>
</tr>
<tr>
<td></td>
<td>If the page numbers are not displayed, choose View</td>
</tr>
<tr>
<td>Workday hours</td>
<td>Choose Dates</td>
</tr>
<tr>
<td></td>
<td>✔️ Allow Hourly Detail, and then enter the working hours and the hours to display.</td>
</tr>
<tr>
<td>Fiscal year starting month</td>
<td>Choose Dates</td>
</tr>
</tbody>
</table>
# Add Graphics, Text and Legend

<table>
<thead>
<tr>
<th>TO ADD:</th>
<th>DO THIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Select **Insert</td>
</tr>
<tr>
<td>Freeform text</td>
<td>Click the <strong>T</strong> tool. Click in the area you want to place the text, and begin typing.</td>
</tr>
<tr>
<td>Text to a symbol</td>
<td>Click the <strong>H</strong> tool. Click once on the symbol on the schedule. Click the <strong>Text</strong> tab.</td>
</tr>
<tr>
<td>Symbol notes</td>
<td>Click the <strong>H</strong> tool. Click once on the symbol on the schedule, then click the <strong>Notes</strong> tab. Symbol notes can be viewed by hovering over the symbol, or choose **Tools</td>
</tr>
<tr>
<td>Current date, system date, page number, max page number, or filename as free-form text</td>
<td>Click the <strong>T</strong> tool. Click on the schedule and type: &amp;date for the current chart date &amp;sysdate for the computer date &amp;curpage for the current page number &amp;maxpage for the maximum page # &amp;systime for the computer time &amp;filename for the name of the chart</td>
</tr>
<tr>
<td>Line, box or circle</td>
<td>Click the <strong>(line)</strong> tool, the <strong>(box)</strong> tool or the <strong>(circle)</strong> tool, and then click-and-drag on the schedule to add a line, a box or a circle.</td>
</tr>
<tr>
<td>Legend</td>
<td>Choose **Layout</td>
</tr>
<tr>
<td>Legend entry</td>
<td>Choose **Insert</td>
</tr>
<tr>
<td>Graphic</td>
<td>Choose **Insert</td>
</tr>
<tr>
<td>Column heading text</td>
<td>Click once on the column heading and edit text.</td>
</tr>
</tbody>
</table>
## Format the Schedule

<table>
<thead>
<tr>
<th><strong>TO ADD OR CHANGE:</strong></th>
<th><strong>DO THIS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chart size</td>
<td>Choose Layout</td>
</tr>
<tr>
<td>Number of task rows per page</td>
<td>Choose Layout</td>
</tr>
<tr>
<td>Page to a schedule</td>
<td>Choose Insert</td>
</tr>
<tr>
<td>Column</td>
<td>Choose Insert</td>
</tr>
<tr>
<td>Background color or frame options</td>
<td>Choose Format</td>
</tr>
<tr>
<td>Margins</td>
<td>Choose Layout</td>
</tr>
<tr>
<td>Column width</td>
<td>Click the tool. Click-and-drag on the column edge with your mouse. The cursor will change to at the column edge.</td>
</tr>
<tr>
<td>Date format for symbol dates</td>
<td>Choose Dates</td>
</tr>
<tr>
<td>Date headings</td>
<td>Click once on the date headings. Or, click Dates</td>
</tr>
<tr>
<td>Gridlines between task rows</td>
<td>Choose Format</td>
</tr>
<tr>
<td>Task row shading</td>
<td>Choose Format</td>
</tr>
<tr>
<td>Curtains</td>
<td>Choose Format</td>
</tr>
<tr>
<td>Holiday and weekend shading</td>
<td>Choose Format</td>
</tr>
</tbody>
</table>
## Format the Schedule

<table>
<thead>
<tr>
<th>TO ADD OR CHANGE:</th>
<th>DO THIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default symbol date and text location for a symbol in your toolbox</td>
<td>Double-click the symbol in the toolbox. Click the <strong>Text and Date Properties</strong> tab.</td>
</tr>
<tr>
<td>Default symbol size</td>
<td>Choose **Format</td>
</tr>
<tr>
<td>SmartColumns</td>
<td>Choose **Insert</td>
</tr>
<tr>
<td>Default text styles</td>
<td>Choose **Format</td>
</tr>
<tr>
<td>A page break</td>
<td>Click the tool. Right-click the task row you want at the top of the next page, and then click <strong>Insert Page Break</strong>.</td>
</tr>
<tr>
<td>Default symbol text</td>
<td>Double-click the symbol in the toolbox. Click the <strong>Default Text</strong> tab. Enter text or choose a column and press <strong>Insert</strong>.</td>
</tr>
</tbody>
</table>
## Make Changes

<table>
<thead>
<tr>
<th>TO CHANGE:</th>
<th>DO THIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A legend entry</td>
<td>Click once on the legend entry you want to change.</td>
</tr>
<tr>
<td></td>
<td>To move a legend entry, first click the tool. Click the legend entry, drag to the new location and drop.</td>
</tr>
<tr>
<td>A single link on your schedule from one type to another type that is in your toolbox</td>
<td>Click the tool. Select the left-most symbol (or in the case of vertical links, select the symbol from which it originates). Click once on the new link type in your toolbox.</td>
</tr>
<tr>
<td>Selected symbol(s) on your schedule from one type to another type that is in your toolbox</td>
<td>Click the tool. Select the symbol(s) to be changed (hold down Shift to select more than one symbol). Next, click once on the new symbol type in your toolbox.</td>
</tr>
<tr>
<td>All symbols or bars of one type, on your schedule, to another type</td>
<td>Double-click the symbol or bar in your toolbox. Choose a new symbol type (shape).</td>
</tr>
<tr>
<td>The dates of a group of tasks linked with vertical links</td>
<td>Choose **Dates</td>
</tr>
<tr>
<td>The dates of all the tasks on your schedule</td>
<td>Choose **Dates</td>
</tr>
</tbody>
</table>
## Make Changes

<table>
<thead>
<tr>
<th>TO CHANGE:</th>
<th>DO THIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text size of an individual symbol or an individual task row’s column text</td>
<td>Click the tool. Select the item to be changed. Next, choose the <strong>Text</strong> tab and change the <strong>Font Size</strong> or <strong>Color</strong>.</td>
</tr>
<tr>
<td>Individual symbol color</td>
<td>Click the tool. Select the symbol on the chart. Next, choose the <strong>Size/Color</strong> tab and change the <strong>Symbol Fill Color</strong>.</td>
</tr>
<tr>
<td>Height of individual task rows</td>
<td>Choose **Tools</td>
</tr>
<tr>
<td>Summary bar preferences</td>
<td>Choose **Layout</td>
</tr>
<tr>
<td>The date of a symbol</td>
<td>Click the tool. Then click-and-drag the symbol on the schedule. Or, click once on the symbol you want to change. Enter a new date under **Selection</td>
</tr>
</tbody>
</table>
## Delete Items

<table>
<thead>
<tr>
<th>TO DELETE:</th>
<th>DO THIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol(s)</td>
<td>Click the tool. Select the symbol to be deleted. Press the <em>Delete</em> key on your keyboard. To delete several symbols at once, hold down the <em>Shift</em> key while selecting the symbols. Then press the <em>Delete</em> key.</td>
</tr>
<tr>
<td>Horizontal bar(s)</td>
<td>Click the tool. Right-click the symbol on the left most end of the bar. Click <em>Clear Horizontal Bars (Bars)</em>.</td>
</tr>
<tr>
<td>Vertical link(s)</td>
<td>Click the tool. Right-click the starting symbol for the vertical link. Click <em>Clear Vertical Links</em>.</td>
</tr>
<tr>
<td>Task row(s)</td>
<td>Click the tool. Right-click a task row. Then click <em>Delete Task</em>. To delete several task rows, hold down the <em>Shift</em> key while selecting the task rows and then press the <em>Delete</em> key. To delete several non-contiguous task rows, hold down the <em>Ctrl</em> key while selecting the task rows and then press the <em>Delete</em> key.</td>
</tr>
<tr>
<td>Legend entry</td>
<td>Click the tool. Click once on the legend entry you want to delete. Press the <em>Delete</em> key.</td>
</tr>
<tr>
<td>Column</td>
<td>Click the tool. Select the column you want to delete (move the cursor to the lower edge of the column heading cell—the cursor changes to a downward pointing arrow—click once to select—the whole column highlights in black. Press the <em>Delete</em> key.</td>
</tr>
<tr>
<td>Page on your schedule</td>
<td>Choose *Edit</td>
</tr>
</tbody>
</table>
### Customizing Milestones Professional

<table>
<thead>
<tr>
<th>TO CUSTOMIZE:</th>
<th>DO THIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The starting template</td>
<td>Create the format you need, including customization of your toolbox and page layout.</td>
</tr>
<tr>
<td></td>
<td>Click File</td>
</tr>
<tr>
<td>The default file locations</td>
<td>Choose Tools</td>
</tr>
<tr>
<td>A bar or link in your toolbox</td>
<td>Double-click on a horizontal bar or vertical link in the toolbox.</td>
</tr>
<tr>
<td>A symbol in your toolbox</td>
<td>Double-click on a symbol in the toolbox.</td>
</tr>
<tr>
<td>The toolbox size, other options</td>
<td>Right-click the toolbox and choose Toolbox Properties. Select the number of symbol/bar/symbol combinations, and other options.</td>
</tr>
<tr>
<td>The sidebar</td>
<td>Choose Tools</td>
</tr>
<tr>
<td>Month and week day names</td>
<td>Choose Format</td>
</tr>
</tbody>
</table>
## Work with Other Applications

<table>
<thead>
<tr>
<th>TO DO THIS:</th>
<th>DO THIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copy a picture of the schedule to a document</td>
<td>Choose **Edit</td>
</tr>
<tr>
<td>Embed a schedule into another document</td>
<td>Choose **Edit</td>
</tr>
<tr>
<td>Copy a schedule with a transparent background</td>
<td>Before copying the schedule to the clipboard, choose **Format</td>
</tr>
<tr>
<td>Export schedule pages as graphics (JPG, PNG, BMP or GIF files)</td>
<td>Choose **File</td>
</tr>
<tr>
<td>Copy schedule information from another application</td>
<td>Select and copy data from a spreadsheet, document table, or database table to the clipboard. In Milestones Professional choose **File</td>
</tr>
<tr>
<td>Import information from a file</td>
<td>Choose from the options under **File</td>
</tr>
</tbody>
</table>

Quick Reference Tables A-11
## Print Your Schedules

<table>
<thead>
<tr>
<th>TO DO THIS:</th>
<th>DO THIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print the schedule using the default settings</td>
<td>Choose **File</td>
</tr>
<tr>
<td>Print the schedule and choose options</td>
<td>Choose **File</td>
</tr>
<tr>
<td></td>
<td>[Options are described below:]</td>
</tr>
<tr>
<td>Print a large chart on one sheet</td>
<td>In the <strong>Printing Options</strong> dialog box, choose <em>Scale to Fit Selected Paper Size</em>.</td>
</tr>
<tr>
<td>Print a large chart in “pieces”</td>
<td>In the <strong>Print Options</strong> dialog box choose <em>Use Specified Size</em>.</td>
</tr>
<tr>
<td>Enlarge a small schedule to fit on a larger paper size</td>
<td>In the <strong>Print Options</strong> dialog box, choose <em>Scale to Fit Selected Paper Size</em>.</td>
</tr>
<tr>
<td>Scale your schedule by horizontal and vertical scaling factors you set</td>
<td>In the <strong>Print Options</strong> dialog box, choose <em>Use Custom Scaling Specified</em>.</td>
</tr>
<tr>
<td></td>
<td>Next, enter a scaling factor for <strong>Horizontal</strong> and <strong>Vertical</strong>.</td>
</tr>
<tr>
<td>Print color schedules on a black and white printer</td>
<td>In the <strong>Print Options</strong> dialog box, <strong>Print Colors in Shades of Gray</strong>.</td>
</tr>
<tr>
<td>Print all open schedules</td>
<td>Choose **File</td>
</tr>
</tbody>
</table>
# Print Your Schedules

<table>
<thead>
<tr>
<th>TO DO THIS:</th>
<th>DO THIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set up your printer</td>
<td>Choose File</td>
</tr>
<tr>
<td>Exclude certain columns when printing</td>
<td>In the <strong>Print Options</strong> dialog box, choose the <strong>Exclude Columns</strong> tab. Check the columns to exclude from printing.</td>
</tr>
<tr>
<td>Print symbol notes on a separate page</td>
<td>In the <strong>Print Options</strong> dialog box, <strong>Include Symbol Notes Page</strong>. Or, choose <strong>Tools</strong></td>
</tr>
<tr>
<td>Print your schedule by time period</td>
<td>In the <strong>Print Options</strong> dialog box, click the <strong>Print</strong> tab. <strong>Print Using the Time Periods Below</strong>. Next, choose a frequency from the left list box and a time period from the right list box. For example choosing 3 and <em>months</em> will result in 3 month printing on each page for the date range specified.</td>
</tr>
<tr>
<td>For example, one page for each month</td>
<td></td>
</tr>
<tr>
<td>Print a certain date range</td>
<td>In the <strong>Print Options</strong> dialog box, click the <strong>Print</strong> tab. <strong>Print Date Range Below Only</strong>. Next, specify both a start date and an end date for the range you want to print.</td>
</tr>
</tbody>
</table>
Appendix B: Support and Where to Get More Information

Help Reference Information
Milestones Professional offers extensive reference information in an easy-to-use manner. In fact, the Milestones Professional Help Topics contain more detail than this manual.

To access the reference information, just choose Help | Help Files | Help Topics. Browse the Contents, or search for keywords under the Index and Search tabs. Help is well organized and extensive, giving you precise answers and instructions.

Online Support
Choose Help | Internet Support for a list of useful links to our website, including the Main Support Home Page, Quick Tips, Knowledge Base, The latest news, and more.

E-Mail Support
You can e-mail us at support@kidasa.com with any questions or suggestions that you may have. We try to answer e-mail questions 7 days a week.

Technical Support by Telephone
You can call us at 1-512-328-0168 or 1-800-765-0167 between 9:00 am and 4:30 pm Central Time on normal workdays.

There is no charge for technical support.

Web Site
Our web site is at http://www.kidasa.com. It contains a significant amount of information: white papers, question and answer sections, movies, samples, additional documentation, and more.

Automation Help
Choose Help | Help Files | Automation Help for everything you need to know for programming your own interface to Milestones.

Movies
Choose Help | Internet Support | Online Movies to go to our movies page on our website.
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