Milestones Professional 2023
User Manual

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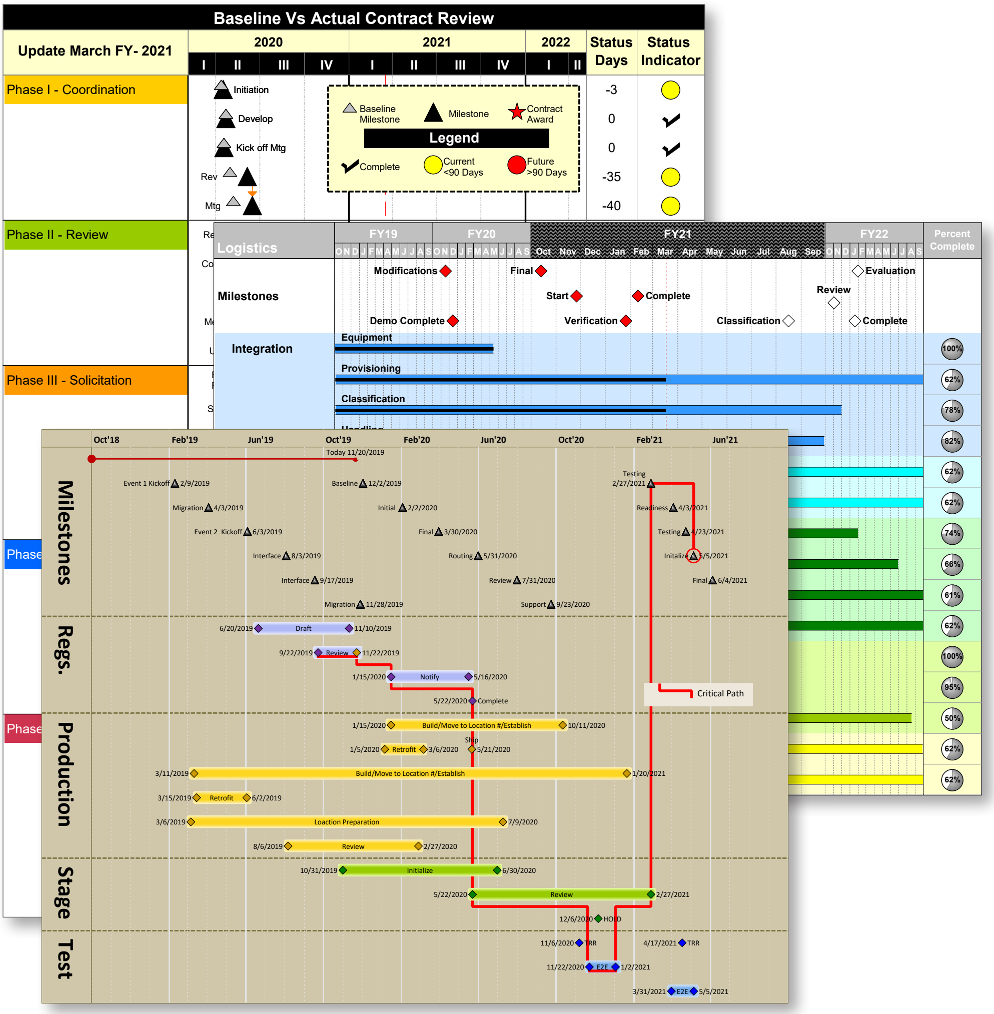
Chapter 1: Introduction

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.

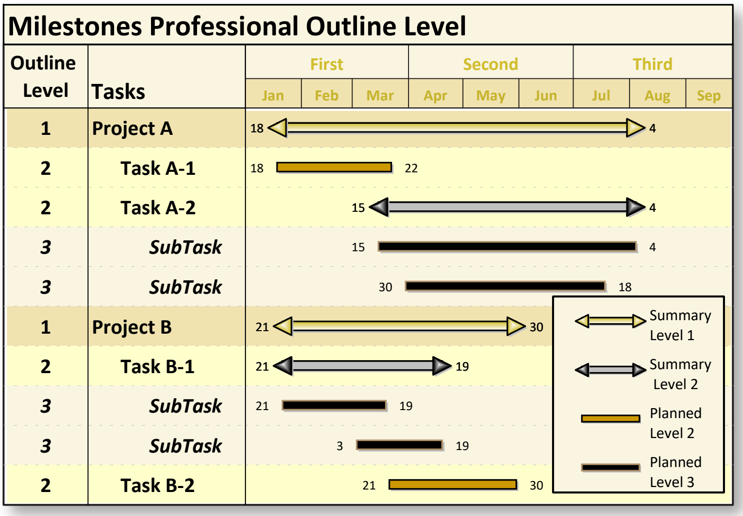
Click-and-Drag to Build Schedules

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!



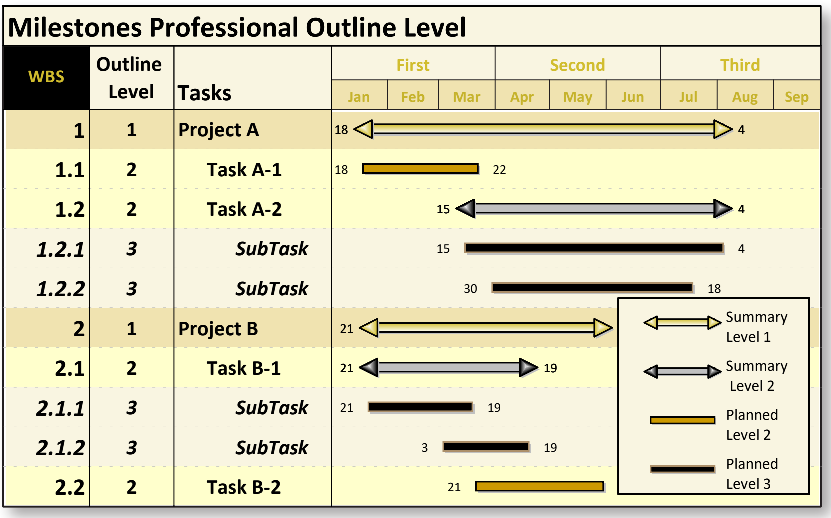
Outline the Schedule

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*.



Work Breakdown Structure (WBS)

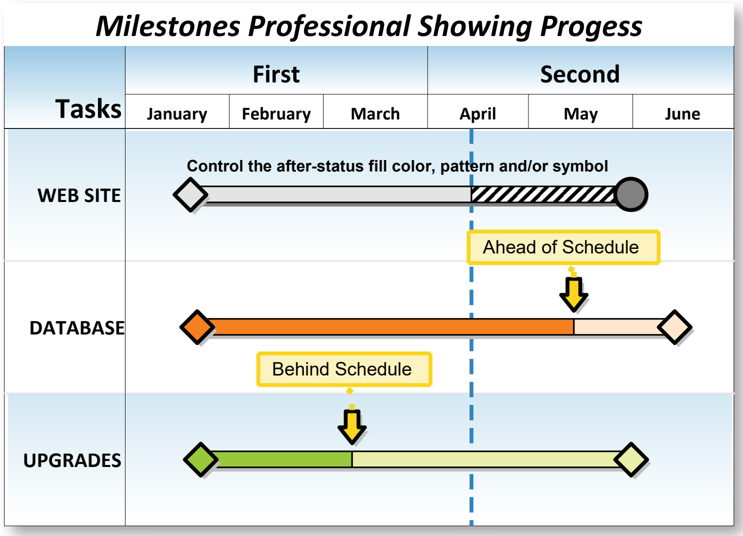
WBS numbers, task numbers and outline levels can display automatically by inserting SmartColumns. *See Chapter 4 for more information*.



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.

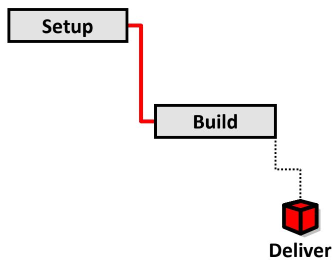
Individual tasks can be adjusted to reflect whether they are on schedule, behind schedule, or ahead of schedule. *See Chapter 5 for more information.*



Dependencies

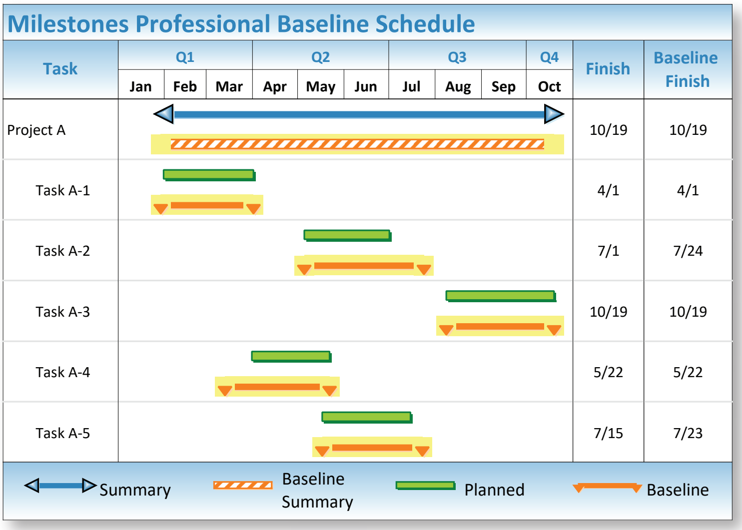
Easily create dependency relationships (predecessor/successor) between tasks. The links can be customized with color, line pattern and arrowheads. 19 unique shapes are available.

In the example to the right, **Build** cannot start until **Setup** is complete. With Dependency Mode feature 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

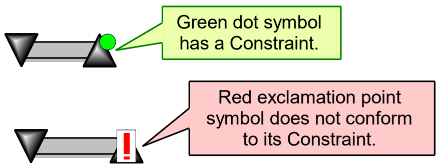
Baseline scheduling compares the original schedule to the actual schedule. Choose baseline symbology with the Baseline Setup Wizard. Then show, hide, highlight or lock the baseline information. *See Chapter 5 for more information.*



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.

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



Holidays

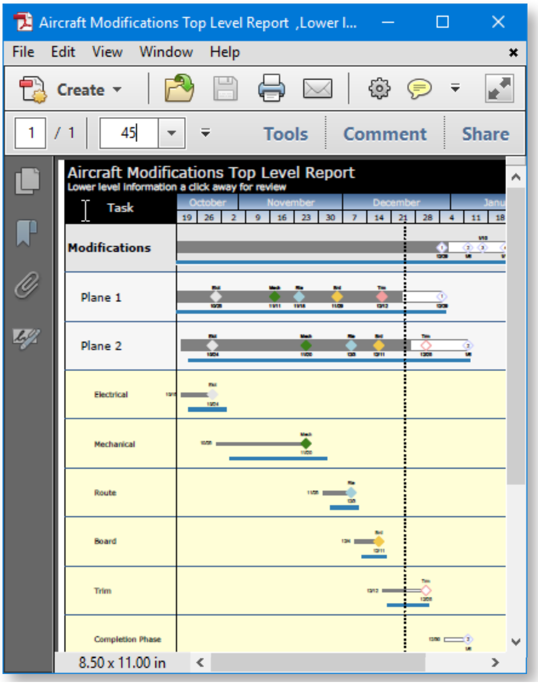
Make any day a holiday with the Milestones Professional Holiday Calendar. Optionally, shade holidays. Holidays can be pulled from either a global holiday file or from a list embedded in the schedule. *See Chapter 2 for more information.*

Share and Present Schedules

Share Schedules

Milestones Professional offers many ways to share and present schedules.

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



See Chapter 9 for more information.

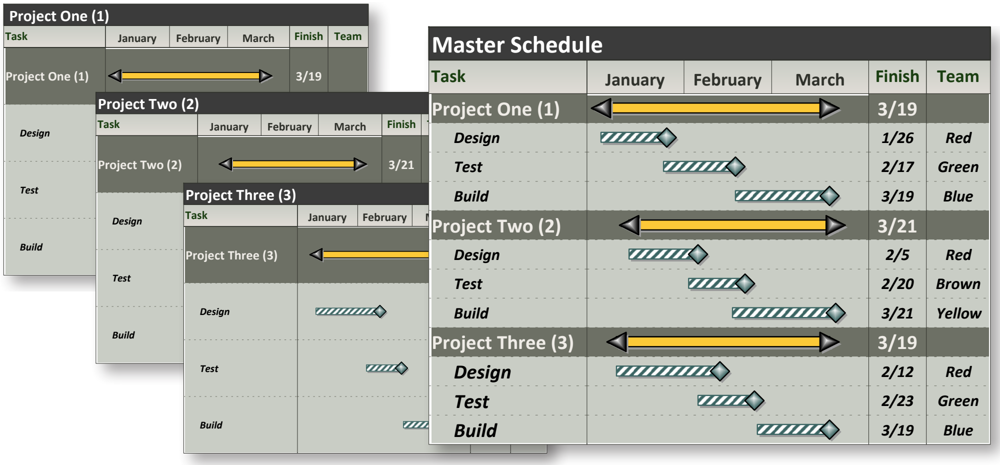
Presentation View

Use the Presentation View mode to present one or a series of separate Milestones schedules as a “slide show”. Presentation View supports full screen viewing as well as a view with limited controls visible. *See Chapter 9 for more information*.

Manage Multiple Projects with Ease

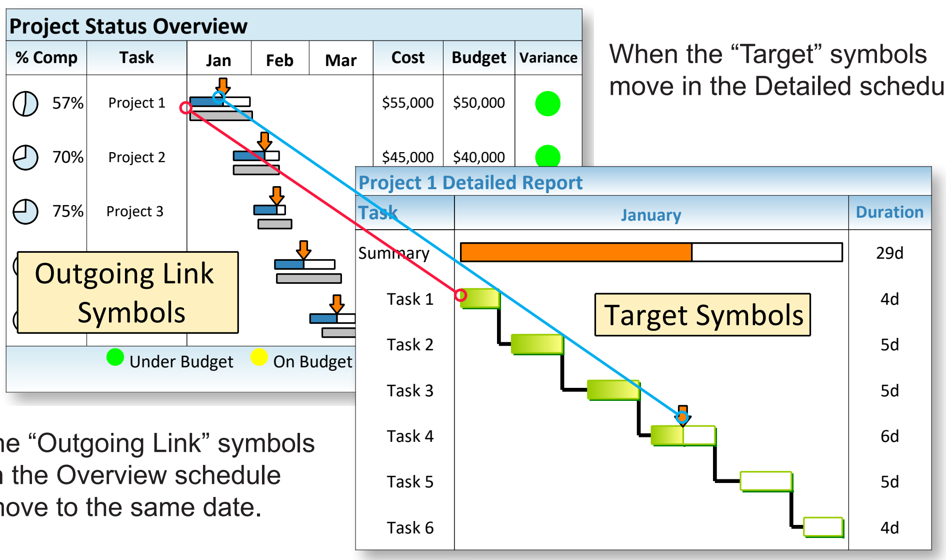
Master Schedules

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



Symbol Links

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

Any symbol, task row, freeform text block 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.*

Find a Schedule

Locate any Milestones schedule on a computer. Search by using a key word or words from the schedule. *See Chapter 3 for more information*.

Organize Task Rows

Sort Tasks

Rearrange schedule task rows based on symbol dates, selected columns, or multiple columns. Save settings to repeat sorts later. S*ee Chapter 3 for more information.*

Filter Tasks

Organize tasks,"sift out" task rows by the following parameters:

- ***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***
- S***ymbol Text/Notes Containing***

See Chapter 3 for more information.

Find and Replace Text

Make detailed text changes to column text, symbol text, freeform text, symbol notes, symbol tags, and/or column cell tags. *See Chapter 3 for more information*.

Bookmark Task Rows

Add a bookmark and optional indicator to any task row. *See Chapter 3 for more information.*

Page Break

Add a page break to any task row. Use the automatic option to add page breaks to multiple selected rows or by outline level. *See Chapter 3 for more information.*

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 or colors based on those results; symbols, text, 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.*

Budget	Actual Cost	Cost Variance
$3,750	$3,700	$50
$1,100	$1,100	$0
$750	$800	($50)
$1,000	$900	$100
$900	$900	$0

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.*

Stoplight SmartColumns

The Stoplight SmartColumn offers an easy way to display stoplight symbols, text and colors based on user-entered numbers 1 through 4, or 1 through 10. *See Chapter 6 for more information.*

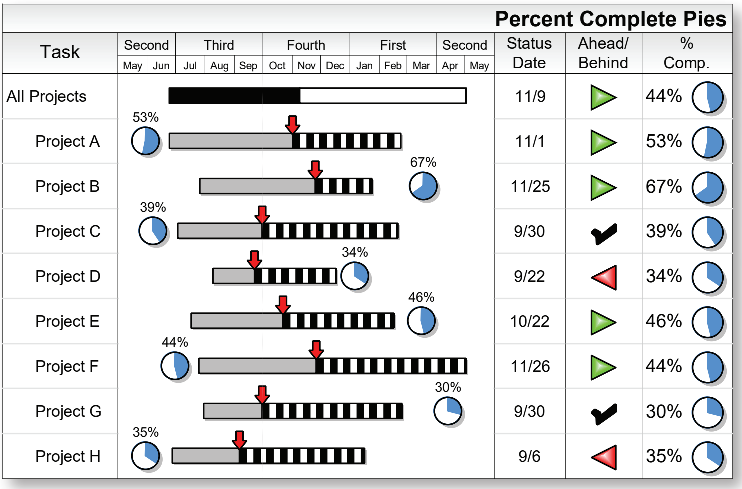
Symbol + Letter	Fill Color + Text	Custom	Pre-Selects	Project	First	Second	
					Mar	Apr	May
G	Mary		<0	Phase 1			
R	Bill		=0	Phase 2			
Y	Joe		>0	Phase 3			
B	John		<0	Phase 4			

Earned Value Reports

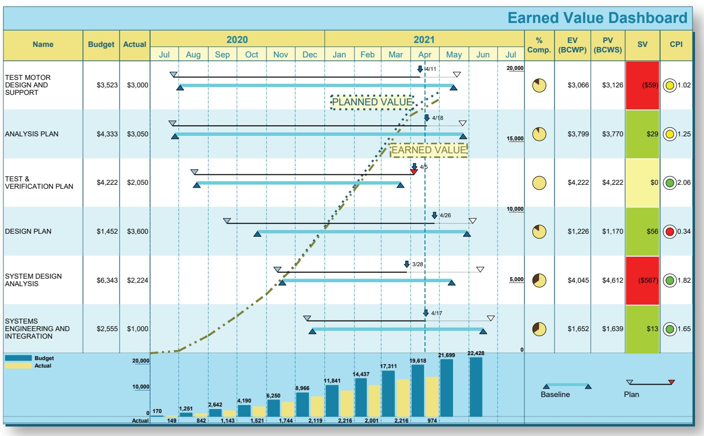
Produce reports showing Earned Value, Planned Value, Actual Costs, CPI, SPI, EAC, and EVMS fields from user-entered values, calculated values, imported values from Microsoft Project, or a combination of these options. *See Chapter 6 for more information.*

Percent Complete Pie Indicators

The percent complete pie indicator symbol (#97) can be placed on any task row in the schedule area. Additionally, a percent complete SmartColumn displays the percentage with an optional percent complete pie, or just the percent complete pie symbol. The percent complete pie indicator and SmartColumn value is calculated based on current date or, as in the picture, placement of a status symbol in a task row (here, the arrow symbol). *See Chapter 5 for more information.*



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.*

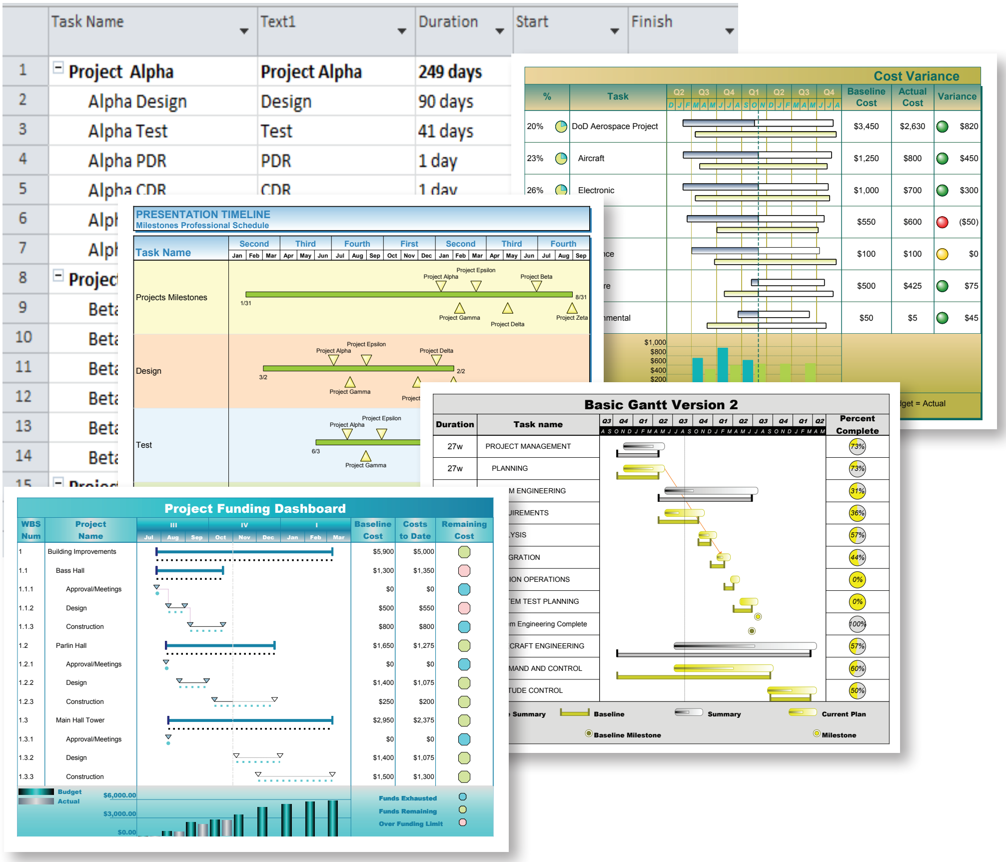
Resource Allocation For Effort-Driven Tasks

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 schedule 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 Microsoft 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, export the project to a XER file. Then create a wide variety of schedules using the Project to Milestones Wizard. *See Chapter 11 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. *See Chapter 12 for more information.*

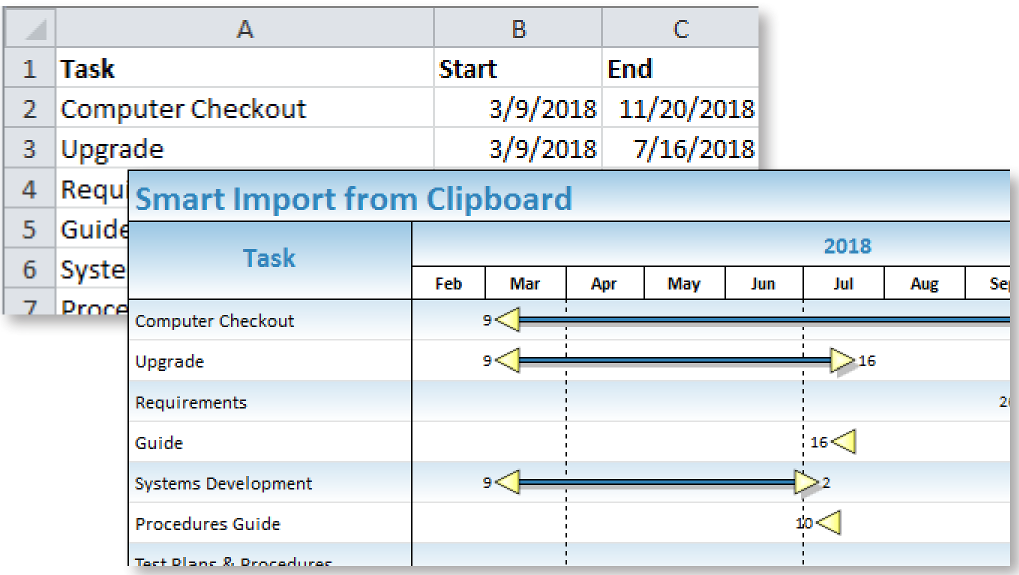
Supported Formats

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.

Import a Spreadsheet

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.*



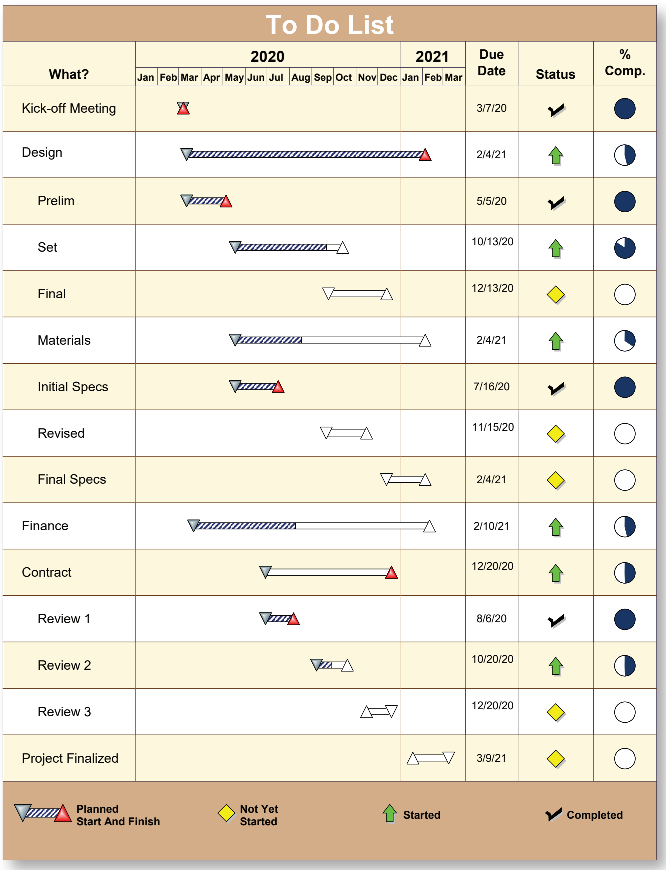
OLE Automation

Using OLE Automation, a programmer 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. *See* **Help | Help Files | Automation Help** *for more information.*

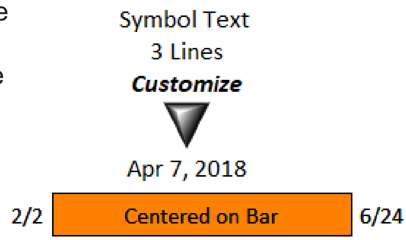
Microsoft Outlook Import/Export

Milestones can import both Tasks and Calendar Appointments from Microsoft Outlook (version 2010 or later) using the Outlook to Milestones Import Wizard. A Milestones schedule can also be exported to an Outlook task folder. *See Chapter 12 for more information.*



Text Options

Symbol Text & Date

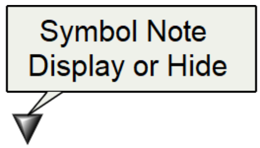


Enter up to three lines of symbol text. Show or hide the symbol date. Symbol text and date move with the symbol. Position the text and/or date anywhere around the symbol. Center text on the bar.

Automatically display column text as text next to a symbol (Default Symbol Text); or have the symbol text automatically display as column text (Symbol Text SmartColumn).

See Chapter 2 & 3 for more information.

Symbol Notes



Enter up to 10,000 characters and, optionally a picture as a note. Notes are embedded in the symbol, and appear when the cursor hovers over the symbol. Optionally, choose to display symbol notes on the schedule or print a separate notes page. *See Chapter 3 for more information.*

Column Text

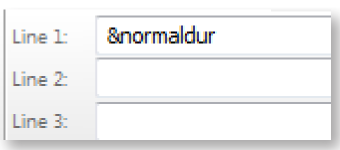
Use up to 20 columns to enter text, values, dates, and other schedule information. *See Chapter 3 for more information.*

Freeform Text

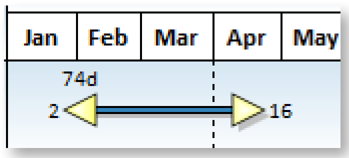
Type text anywhere on the schedule. Format the appearance of the text or text box. This text does not move with symbols or rows. *See Chapter 3 for more information.*

Substitutable Text Strings

Enter “& commands” in the symbol text fields, column text, freeform text, and notes field. *See* **Help | Help Files | Help Topics** *for more information.*



Enter a Substitutable Text String...



…result.

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 information.*

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. *See Chapter 2 for more information.*

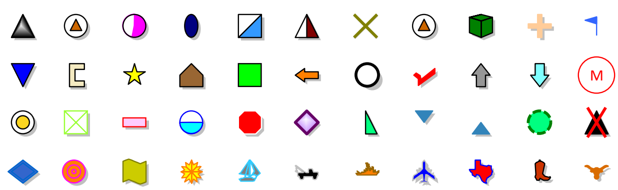
Symbol Type

Any symbol in the Toolbox can be changed to any of four symbol types: *See Chapter 2 for more information*.

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

Symbol Shape

Milestones Professional has 147 symbol shapes that can be customized with color, marking, line and fill pattern also a shadow. *See Chapter 2 for more information.*



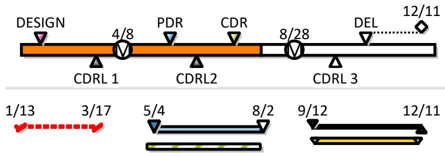
User-Defined Symbols

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.

Save pictures as bitmaps to the symbol folder to use as symbols. *See* **Help | Help Files | Help Topics** *for more information.*

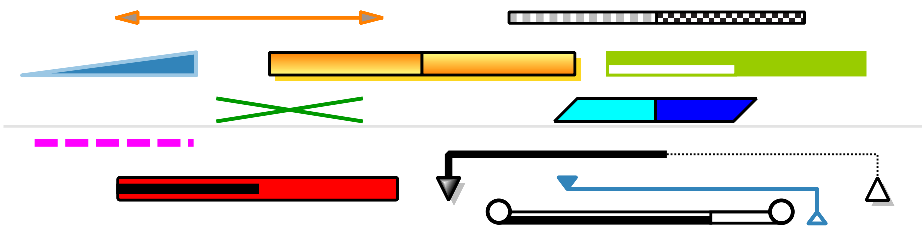
Multiple Independent Milestones

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.



Horizontal Bar Assortment

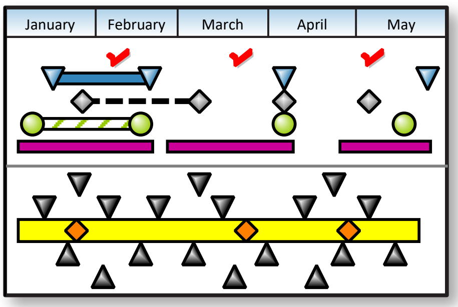
Like the symbols, the 75 horizontal bar shapes and 19 vertical link shapes are fully customizable. The horizontal bars can be filled with any single color or two colors faded together, as well as shadowed with any color. *See Chapter 2 for more information.*



Symbol and Horizontal Bar Vertical Position

Symbols can be positioned at 5 upper levels, middle row level, or 5 lower levels on a task row. The bars automatically follow the position of the start symbol to which it is attached.

Vertical percent spacing options help refine the placement of symbols and bars on dense schedules. *See Chapter 2 for more information*.



Always On Top Symbol and Horizontal Bar

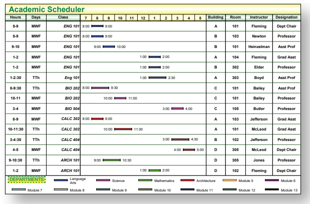
Further customize symbols and bars with the on top features. **Symbol on top setting** controls which symbol appears on top. **Horizontal bars from this symbol are on top** setting controls which bar appears on the top, as shown below: *See Chapter 3 for more information*.

Flexible Format Options

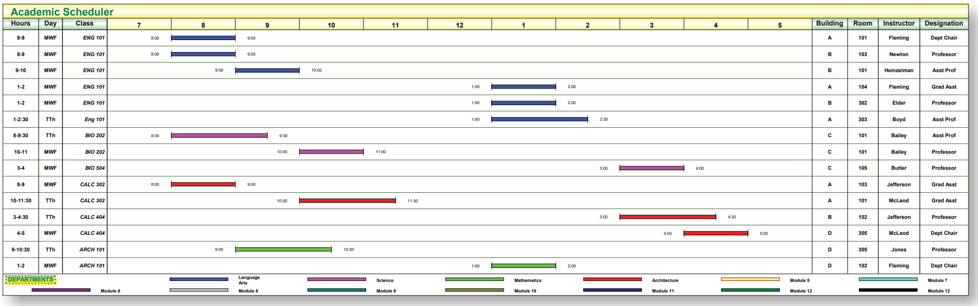
Control the size and format of your schedules, including the physical page size of the schedule, the number and width of the columns, the number and height of the rows, the size of the optional legend, margin sizes and more. *See Chapter 2 for more information.*

Size Schedules

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

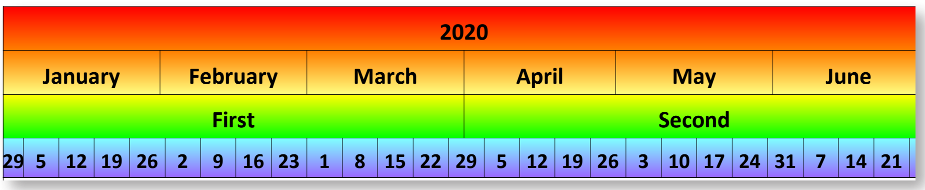


...or wall size!



Many Time-Scale Options

Schedules' date headings 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. *See Chapter 2 for more information.*



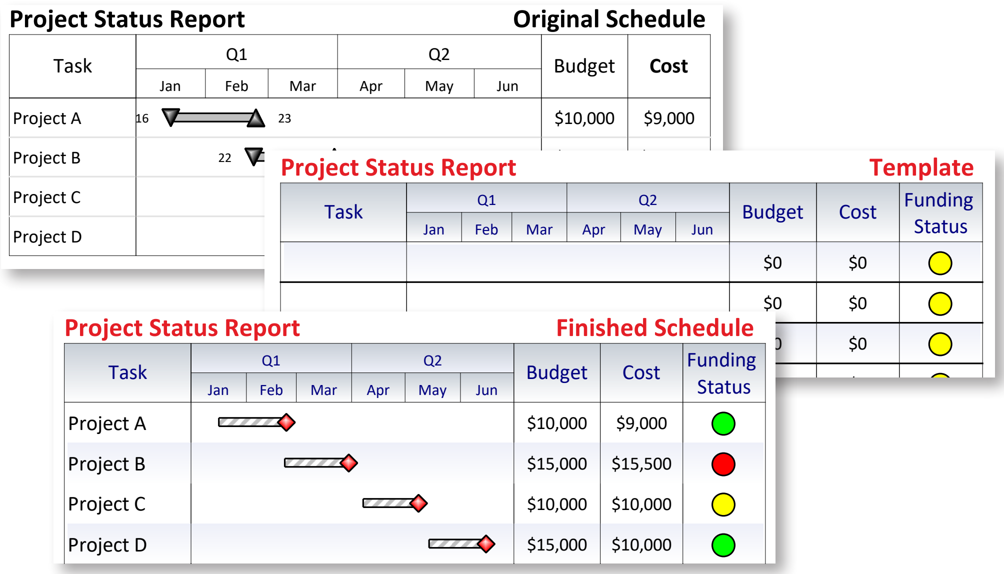
Custom Page Numbers

Customize the page number of a Milestones schedule with a variety of formatting options. Optionally customize to match the pagination of a report, and then insert the schedule as a part of the report. *See Chapter 3 for more information.*

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.

Milestones Professional also picks up the date format and measurement type choices directly from the Windows Control Panel Region and Language settings. *See Chapter 2 for more information.*

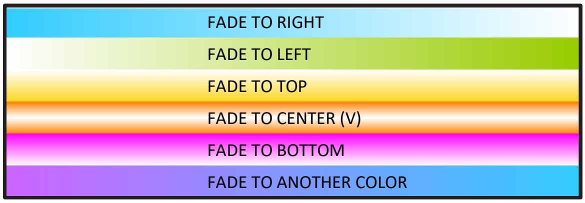
Number Weeks with ISO Standard

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

Gradient Fill Patterns

Gradient fills fade the background color or fade the fill color to the target color.

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.*

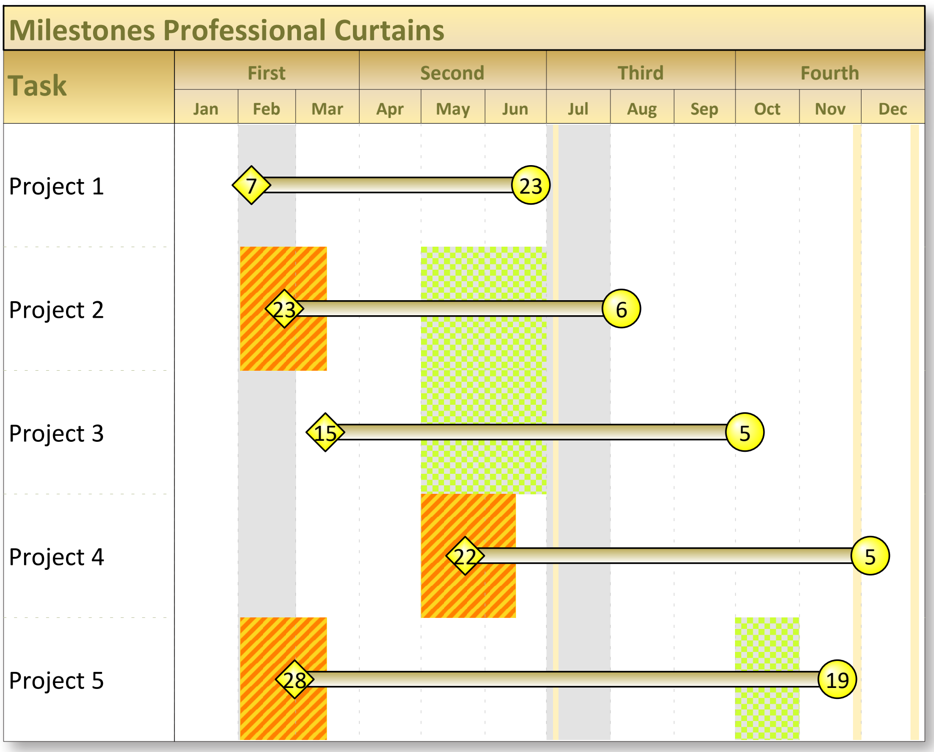


Shade Weekends and Holidays

Saturdays, Sundays, and holidays can be shaded, each in its own color. *See Chapter 2 for more information*.

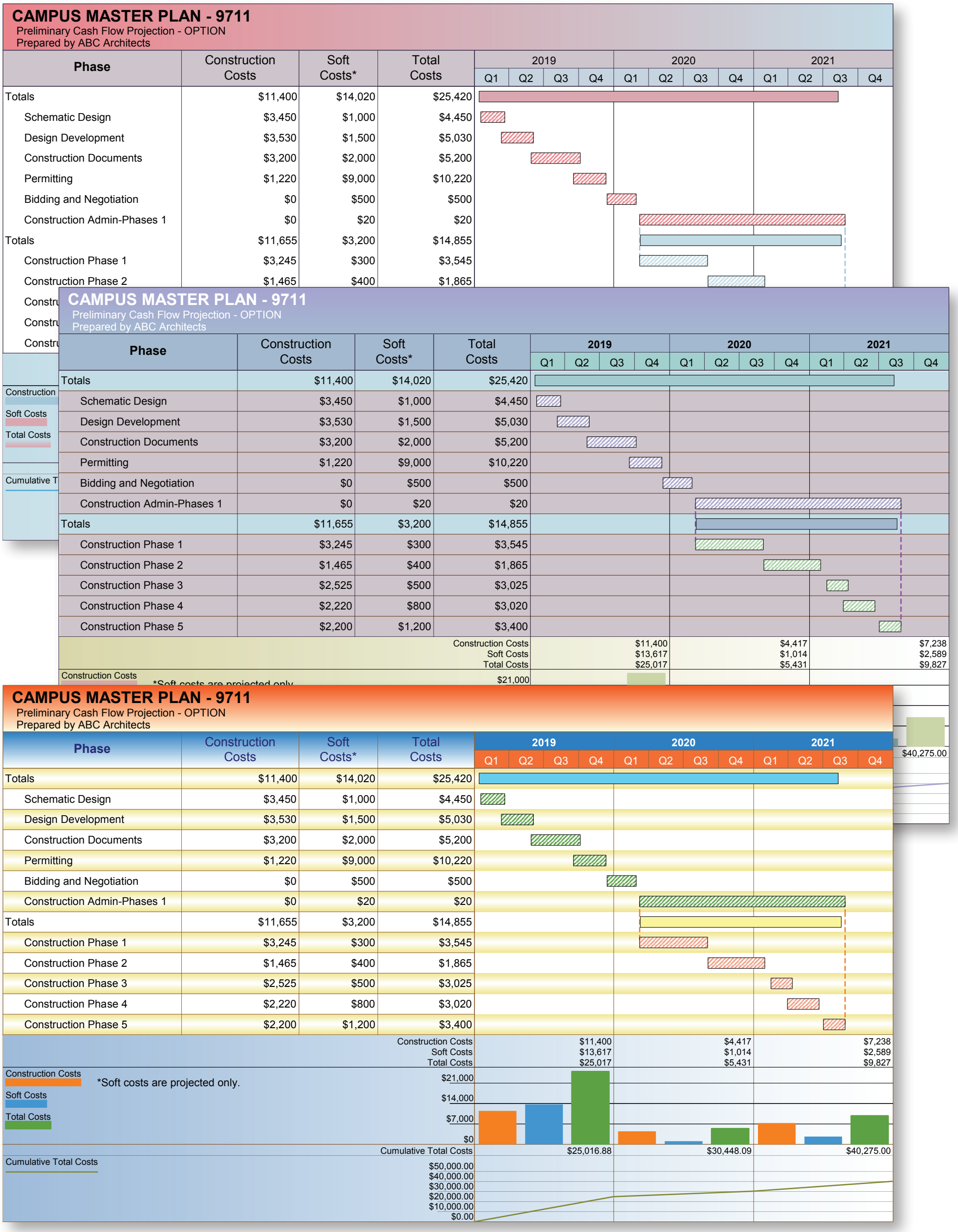
Curtains

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.*



Color Themes

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

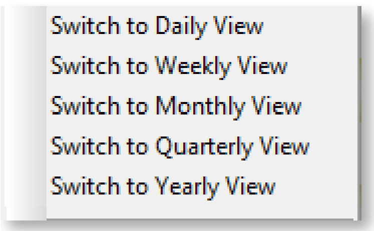


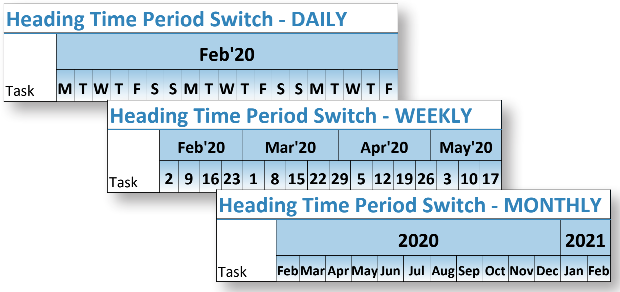
Change View Formats

Milestones Professional offers many view modes in addition to the standard Gantt chart view.

Switch Time Period View

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.



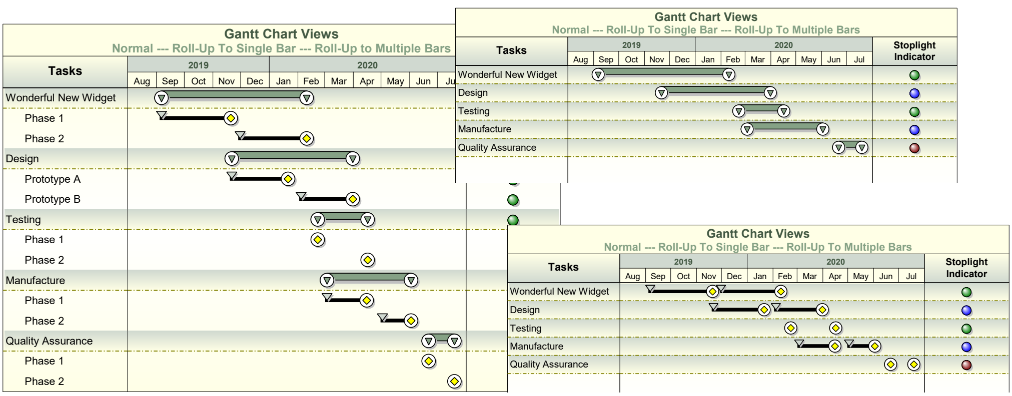


Date Heading Scroll Buttons

Use the ***Shift displayed range backward*** and ***Shift displayed range forward*** 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. *See Chapter 2 for more information.*

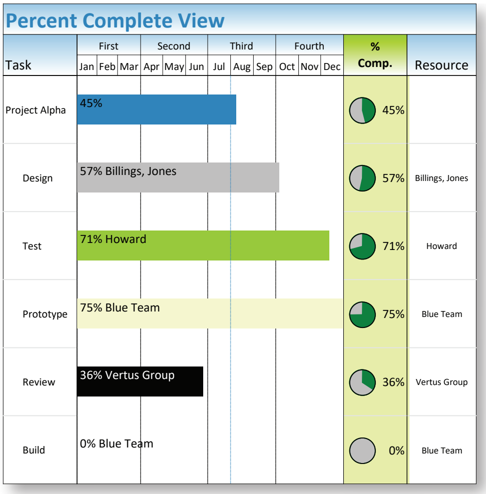
Gantt Roll-Up Views

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. *See Chapter 3 for more information.*



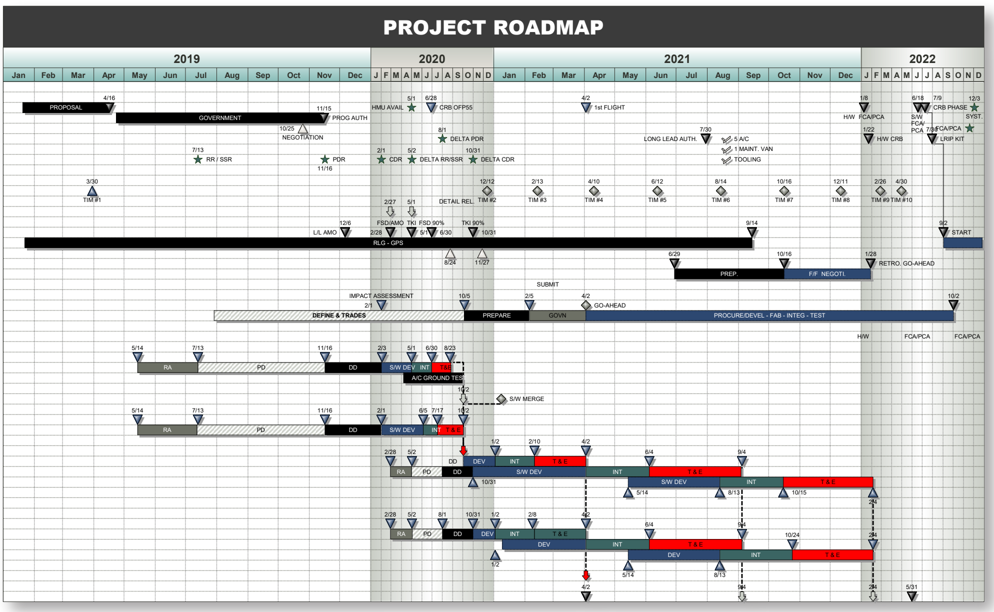
Percent Complete View

The Percent Complete view mode replaces the symbols and horizontal bars on the schedule with bar graphs indicating each task's percent complete. *See Chapter 3 for more information.*



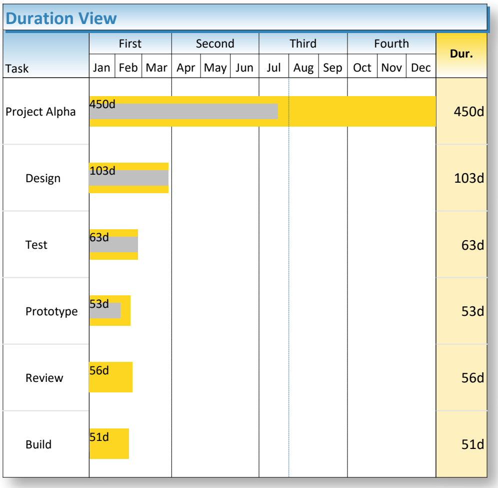
Logarithmic View

Set up date headings to have specific monthly time periods display wider. *See Chapter 3 for more information.*



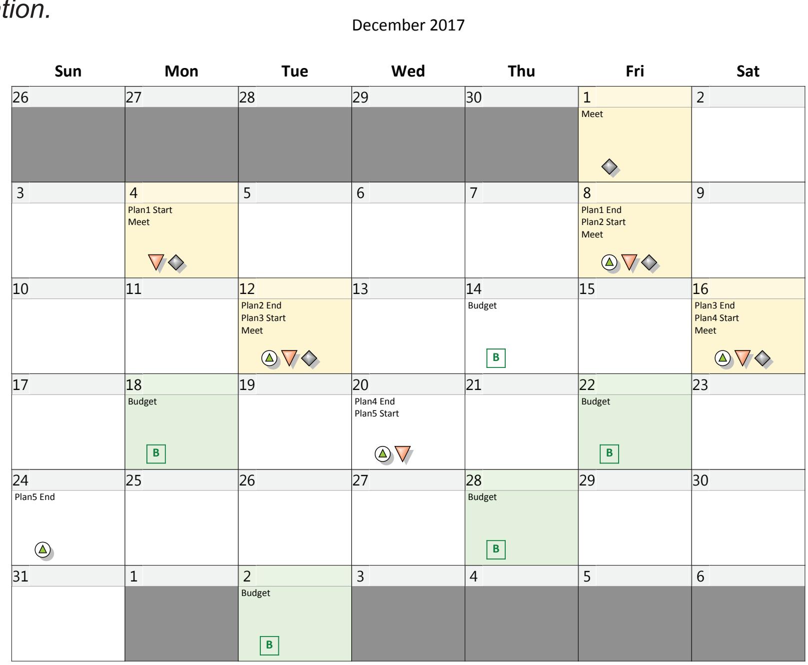
Duration View

The Duration View mode replaces the symbols and horizontal bars on the schedule with bar graphs indicating each task's duration. *See Chapter 3 for more information.*



Calendar View

A monthly calendar view of important events can be generated for any schedule. The schedule title, symbols, and symbol text are displayed. *See Chapter 3 for more information.*

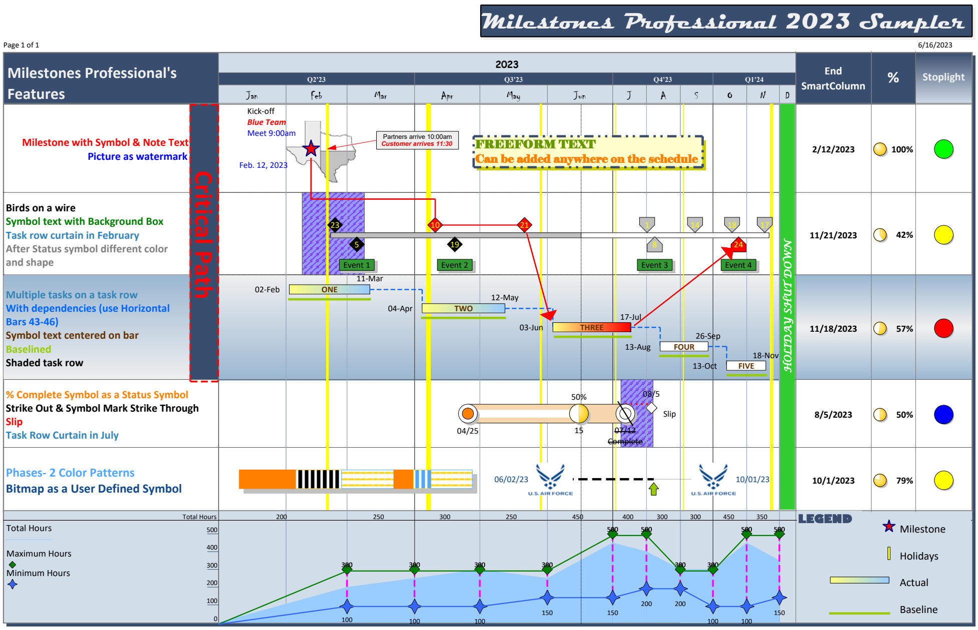


Example Schedules

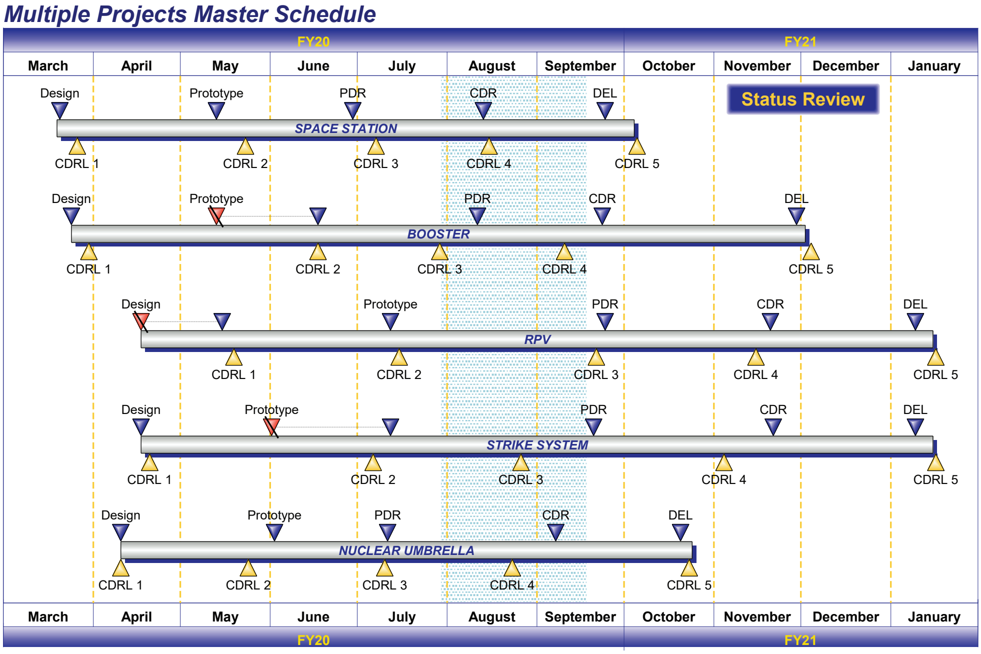
The examples in this section are offered to present ideas for setting up your own schedules. Each example uses a number of features available in Milestones Professional.

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 Samples or Lessons**.

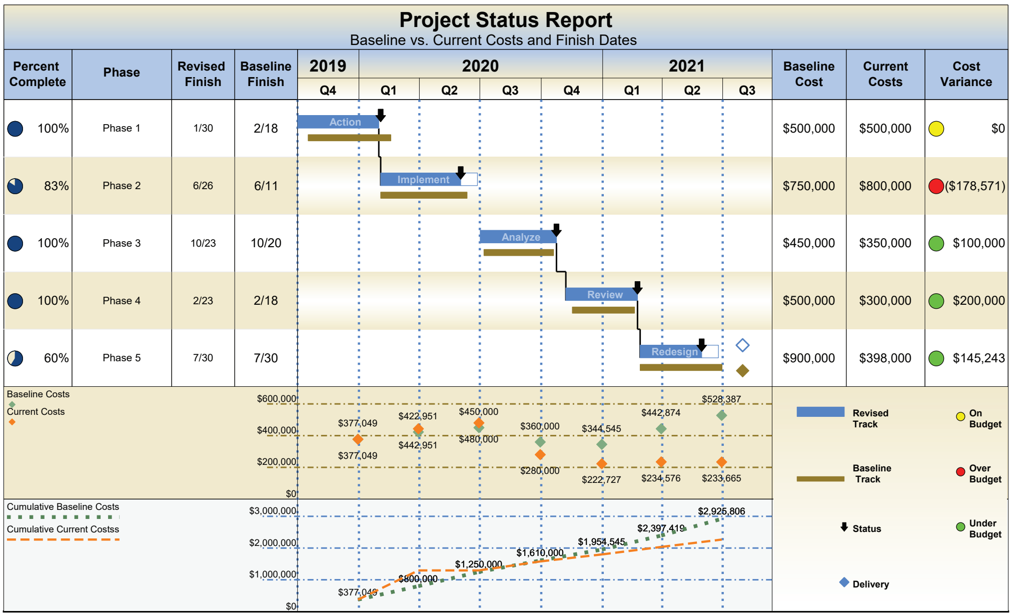
Milestones Sampler



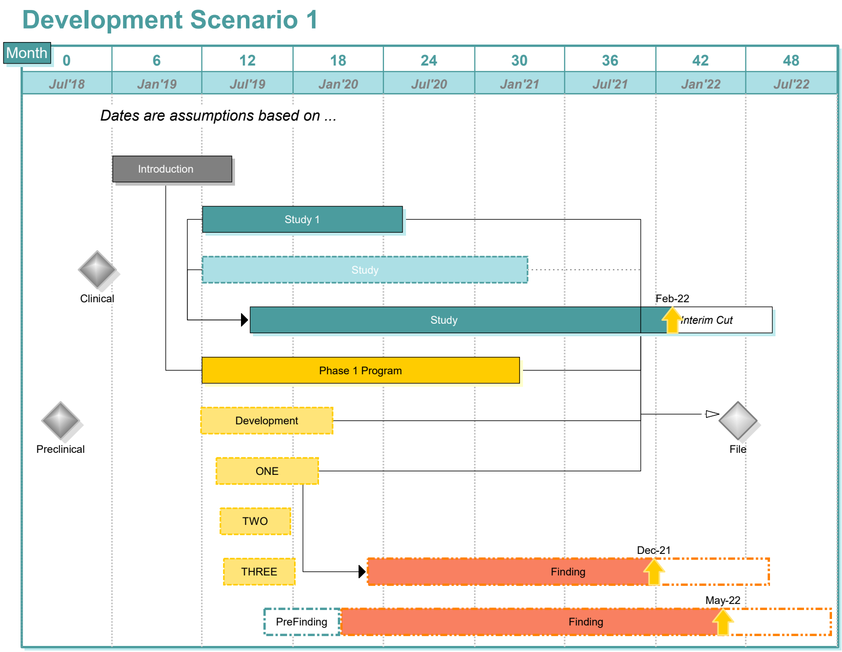
Birds on a Wire



Design and Review



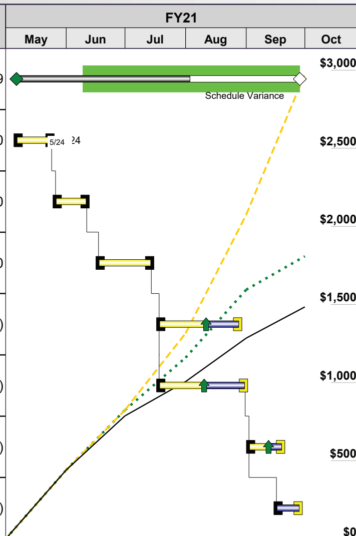
Development Scenario 1



Earned Value Report

6-Month Earned Value Report with Schedule Variance

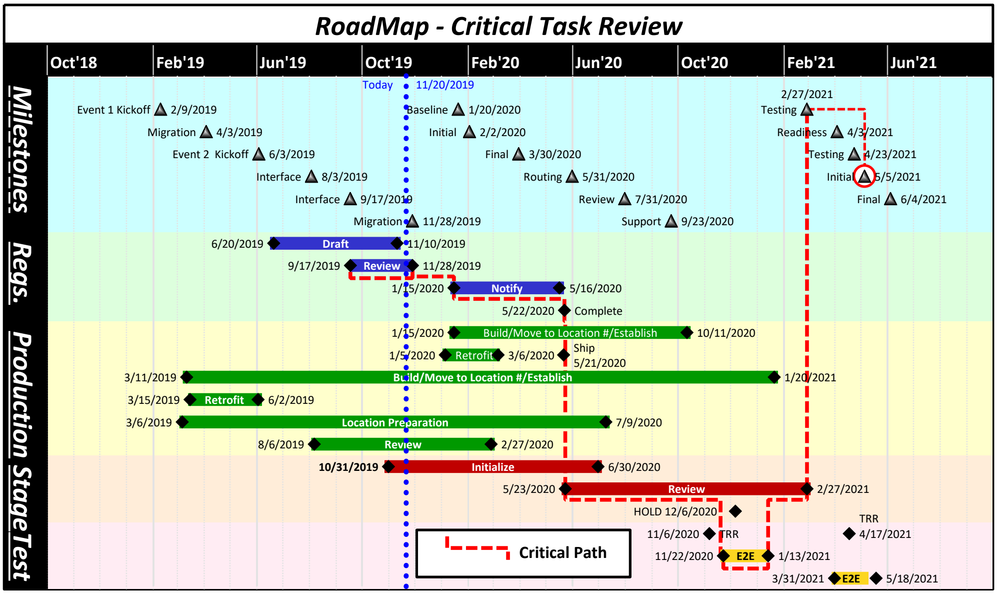
Project/ Tasks	% Comp.	TASK DONE?	SV	ACWP	EV	Cost Status	Budget
Project 1		N	$1,809	$1,485	$1,809	>	$2,975
Research		✓	$0	$300	$300	=	$300
Design		✓	$0	$400	$400	=	$400
Procurement		✓	$0	$175	$250	>	$250
Production		N	($293)	$200	$432	>	$725
Testing		N	($187)	$210	$213	>	$400
Review		N	($136)	$100	$214	>	$350
Delivery		N	($550)	$100	$0	<	$550



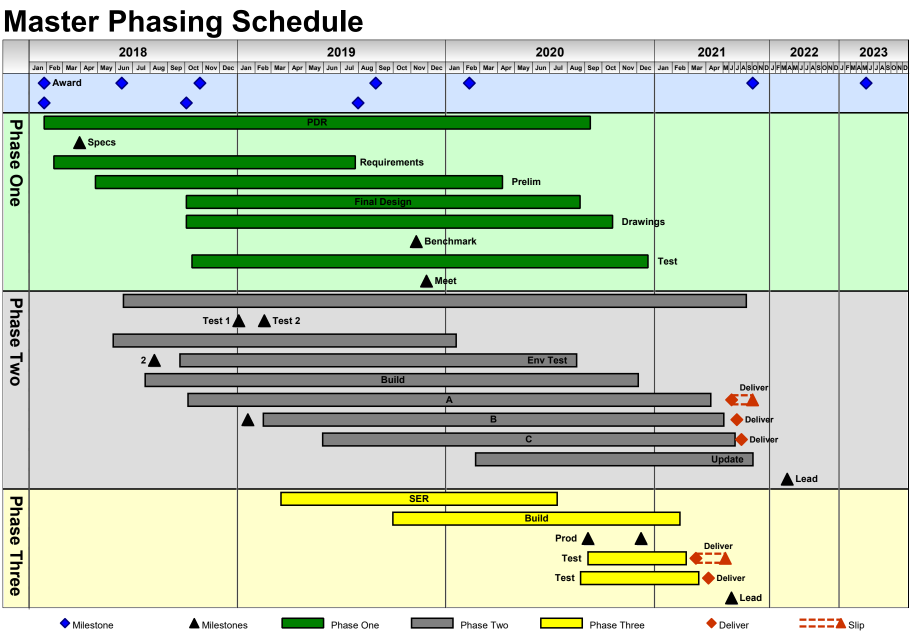
EV
Budget
ACWP

> Earned Value greater than BAC
< Earned Value less than BAC
= Earned Value equals BAC

RoadMap



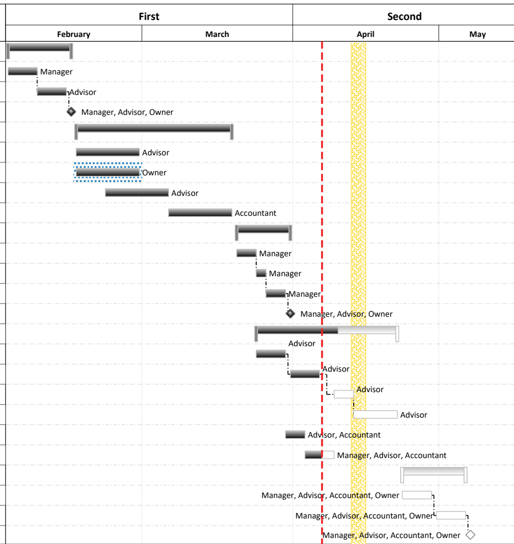
Master Phasing



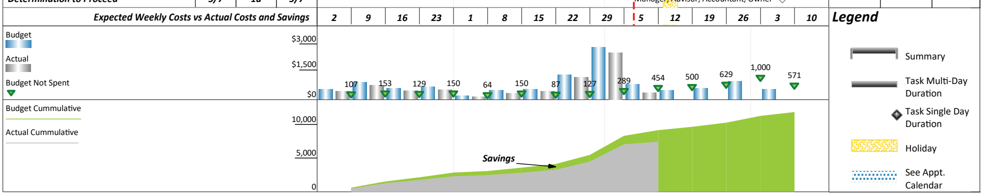
One Page Business Plan

NEW BUSINESS EVALUATION PLAN

Task	Start Date	Dur.	End Date	Budget	Actual Cost	Cost Status
Assessment	***2/2***	***15d***	***2/15***	***$1,500***	***$1,240***	
Define Plan	2/2	7d	2/8	$500	$400	
Information, Skills, Support	2/8	7d	2/14	$500	$450	
Determination	2/15	1d	2/15	$500	$390	
Define	***2/16***	***56d***	***3/19***	***$2,400***	***$1,800***	
Research	2/16	14d	2/29	$1,000	$800	
Fact Gathering	2/16	14d	2/29	$200	$150	
Resources	2/22	14d	3/6	$200	$150	
Costs	3/6	14d	3/19	$1,000	$700	
Evaluate Approach	***3/20***	***14d***	***3/31***	***$1,400***	***$1,350***	
Requirements	3/20	5d	3/24	$500	$550	
Opportunities	3/24	3d	3/26	$200	$150	
Expansion	3/26	5d	3/30	$200	$200	
Summarize	3/31	1d	3/31	$500	$450	
Risk Assessment	***3/24***	***41d***	***4/22***	***$4,500***	***$3,000***	
Assets Stability	3/24	7d	3/30	$1,000	$850	
Competition Assessment	3/31	7d	4/6	$1,000	$900	
Resource Availability	4/9	5d	4/13	$500	$0	
Market Share	4/13	10d	4/22	$500	$0	
Finance Requirement	3/30	5d	4/3	$1,000	$1,000	
Evaluate Profitability	4/3	7d	4/9	$500	$250	
Strategic Plan	***4/23***	***14d***	***5/6***	***$2,000***	***$0***	
Review	4/23	7d	4/29	$1,000	$0	
Modify	4/30	7d	5/6	$1,000	$0	
Determination to Proceed	***5/7***	***1d***	***5/7***			



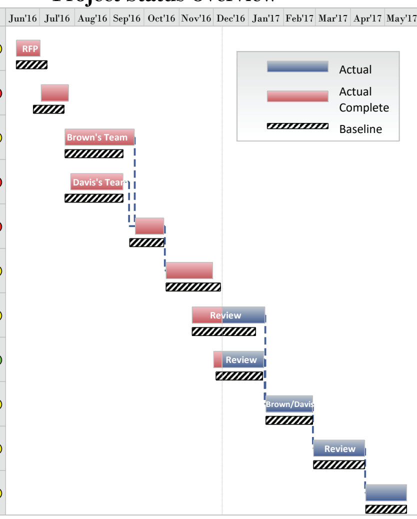
Expected Weekly Costs vs Actual Costs and Savings



Project Status Overview

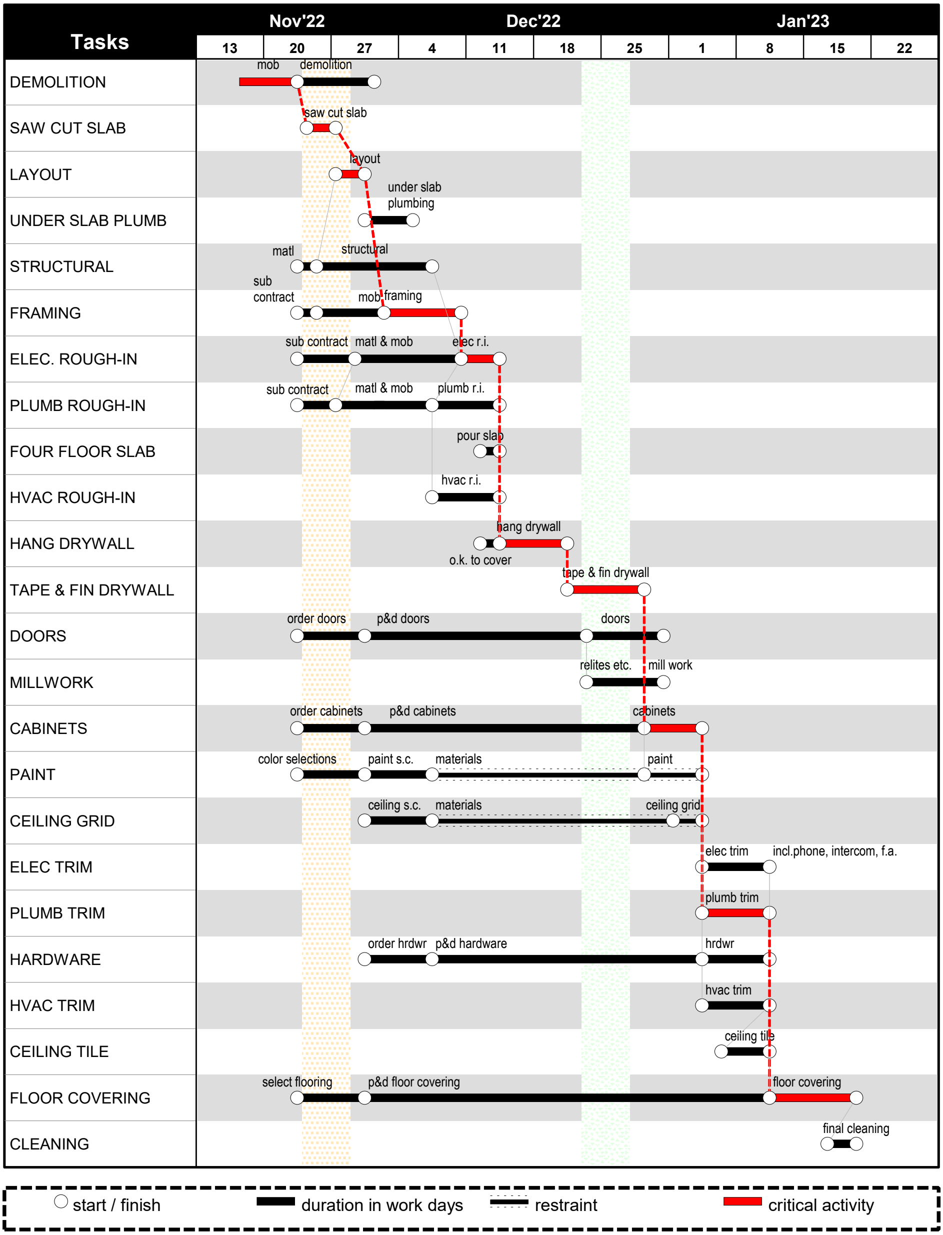
Project Status Overview

Plan Elements	Baseline Start	Actual Start	Start Variance	Baseline Finish	Actual Finish	Finish Variance
Requirements	*6/10/2016*	*6/10/2016*	*0*	*7/7/2016*	*7/1/2016*	*6*
Planning	*6/25/2016*	*7/2/2016*	*-7*	*7/22/2016*	*7/26/2016*	*-4*
Design 1	*7/23/2016*	*7/23/2016*	*0*	*9/12/2016*	*9/22/2016*	*-10*
Design 2	*7/23/2016*	*7/28/2016*	*-5*	*9/12/2016*	*9/12/2016*	*0*
Prototype	*9/18/2016*	*9/23/2016*	*-5*	*10/18/2016*	*10/18/2016*	*0*
Implementation	*10/20/2016*	*10/20/2016*	*0*	*12/7/2016*	*11/30/2016*	*7*
Testing 1	*11/12/2016*	*11/12/2016*	*0*	*1/7/2017*	*1/15/2017*	*-8*
Testing 2	*12/3/2016*	*12/1/2016*	*2*	*1/13/2017*	*1/14/2017*	*-1*
Redesign	*1/16/2017*	*1/16/2017*	*0*	*2/26/2017*	*2/26/2017*	*0*
Testing	*2/27/2017*	*2/27/2017*	*0*	*4/13/2017*	*4/13/2017*	*0*
Manufacture	*4/14/2017*	*4/14/2017*	*0*	*5/20/2017*	*5/20/2017*	*0*



Critical Path

Construction Project



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.

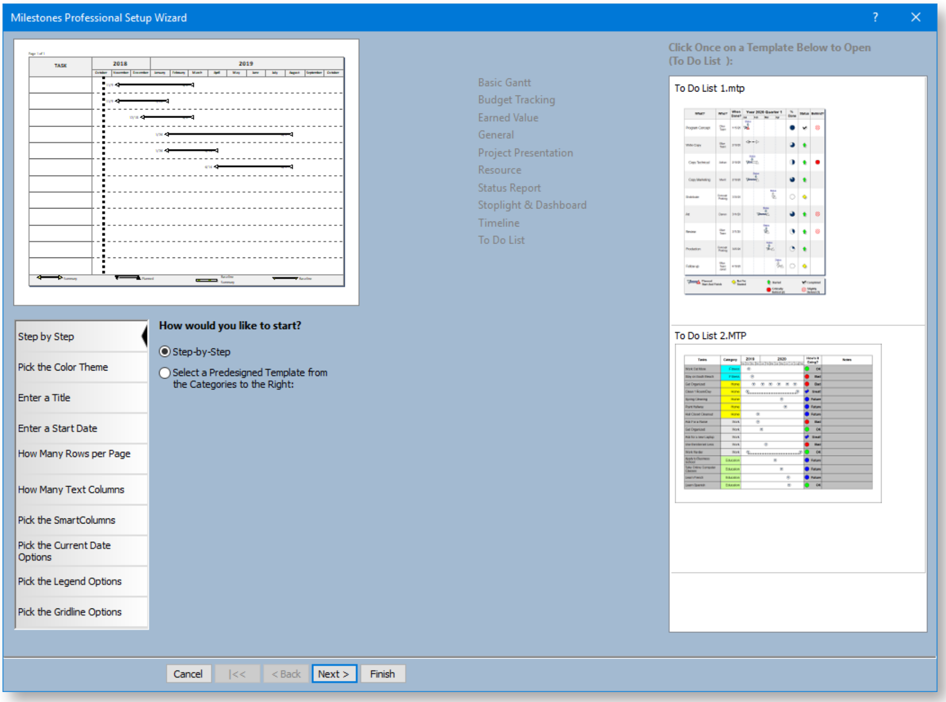
This chapter covers the following functions:

- The Schedule Setup Wizard
- The Milestones Professional Window
- Format and Layout a Schedule
- Page and Page Numbers
- Frame and Background
- Legend
- Date Headings
- Schedule Start and End Dates
- Schedule Date and Time Details
- Toolbox and Sidebar
- Toolbox Tools
- Symbol Default Options
- Horizontal Bar Default Options
- Vertical Link Default Options
- Color Themes
- Horizontal Gridlines and Shading
- Vertical Gridlines
- Vertical Shading (Curtains)
- Holidays
- Chart and Templates Defined
- 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

The **Milestones Professional Setup Wizard**, provides a step-by-step guide to create a schedule. Choose **File | Files and Templates: Open and Save Options | *Wizard***.



Step-by-Step

Choose ***Step-by-Step*** to start with Milestones Professional's default template, previewed in the display window. Then choose the ***Next*** button to step through setting color theme, title, start date and date range, rows per page, number of text columns, SmartColumns, current date options, and more. Choose ***Finish*** to generate a schedule ready to have tasks added.

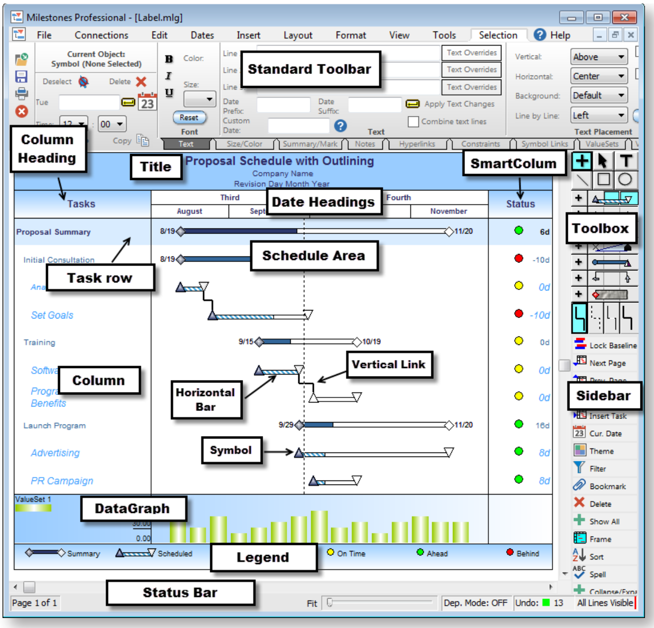
✍The displayed template will change as selections are made.

Select a Predesigned Template

Choose **Select a Predesigned Template**. Then select a category (***Basic Gantt***, ***Budget Tracking***, ***Earned Value***, ***General***, ***Project Presentation***, ***Resource***, ***Status Report***, ***Stoplight & Dashboard***, ***Timeline*** and ***To Do List***). Select the template to be used. It will appear in the display window. Choose the ***Next*** button to add a title and start date. Choose ***Finish***.

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. To switch to Legacy Toolbar choose **Alt+Shift+Y** or **Tools | Program Options | General**.
- Add a **Column Heading** to give a definition to a column.
- The schedule **Title** can be used to provide a heading for the schedule.
- Choose from dozens of **Date Heading** styles, from minutes to years, or custom entries.
- **SmartColumns** automatically fill according to schedule or entered data.
- The **Schedule Area** is where **Symbols, Horizontal Bars**, and **Vertical Links** can be added onto a **Task Row**. **Task Rows** can also contain text, values and symbols in columns.
- The **Sidebar** contains the **Toolbox** and a user-defined list of **Shortcut** buttons for common activities. The **Toolbox** provides the tools needed to build a schedule - including symbols, horizontal bars, vertical links and text.
- The **Legend** contains user-entered definitions for symbols, horizontal bars and vertical links.
- Graph values such as budget, cost, or man hours in the **DataGraph** area.
- The **Status Bar** provides useful feedback while working with a schedule.

Format & Layout a Schedule

Milestones Professional offers flexible layout options for any project schedule.

Layout

In the Toolbar, choose the **Layout** menu to access formatting choices such as page size, legend size, datagraph size, global symbol size, task row height.

Chart Size and Margins

To set the schedule's size and margins choose **Layout | Page Size**.

- **Chart Size**: Enter ***Horiz.*** (horizontal) and ***Vert.*** (vertical) values in inches. Press the ***Apply*** button.
- **Margins**: Enter a value in inches for the ***Left***, ***Right***, ***Top*** and ***Bottom*** margin areas. Press the ***Apply*** button.
- ***Ignore Automatic Top Margin***: By default, schedules have a top margin of .5 inches. By checking this option the margin is eliminated.
- ***P*****rinter Orientation**: Choose Landscape or Portrait. Make sure that this matches to the printer's orientation under **File | Printing | *Setup***.
- ***Lock Layout***: Check on to block any change to formatting of the schedule.
- ***Rows per Page***: Enter the number of rows to display 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 less than the rows per page value in **Layout**.

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.

Chart Size to the Current Paper Size

To see the current paper size, go to **Layout | Page Size | *Full Page Layout Dialog***.

To set **Current Paper Size** choose **File | Printing | Setup**.

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 scaling, it is best to exactly match the **Chart Size** to the **Current Paper Size**.

✍Measurements are shown in U.S. inches. If the regional settings are set to use metric, then the measurements will be shown in centimeters.

The **Usable Area of Paper** measurements are also shown in the **Page Layout** dialog box. These measurements are reported by the current printer. **Paper Margins** can be increased or decreased to have the schedule fall within the usable paper area. To see a print preview of the schedule go to **File | Printing | *Print Preview***. Note the yellow border shows the unusable area of the paper, where the printer cannot print. Increase the margins so that no part of the schedule falls into the yellow area.

Chart Columns

Milestones Professional offers up to 20 columns. (10 on each side of the schedule). Columns are numbered 1 - 10 on the left and 11 - 20 on the right of the schedule. Therefore column 10 is closest to the schedule area on the left side of the schedule and column 11 is closest to the schedule area on the right side of the schedule.

Columns may contain text, dates, values and symbols. To add, hide and delete columns choose **Layout | Page Size | *Overall Column Layout***. When the toolbar change to the **Selection *Column Layout*** tab, corresponding column numbers will appear in the schedule's column headings. These numbers will only display when the Selection Column Layout tab is active.

- Enter a value in inches under any column number to create a column. Press the ***Apply*** button.

  ✍Columns of zero width are automatically not displayed; however, zero width columns must always be on the outer edges of the schedule. Columns will reorder so 0 width columns are on the outer edges.

  ✍The number and size of columns affects the amount of space available in the schedule. Increase the horizontal chart size, for more space.

  ✍Alternative to add a column **Insert | Rows, Columns | *New Column***.

- Use the red X under the numeric value to delete a column. (Also: right click a column heading and choose ***Delete Column***.)

- Click on a column number to hide or show a column. Right click the column heading and choose ***Hide Column***. To show hidden columns right click any column heading and choose ***Show Hidden Columns***.

  ✍Never enter 0.0 width value to hide a column with data because the column's data eventually will be lost.

Pages and Page Numbers

Add a Page

To add a page choose **Insert | Page | *Insert a New Page Before the Current Page*** or ***Insert a New Page After the Current Page***.

Milestones will also add a page automatically when you reach the bottom of a page when entering text in a column.

Delete a Page

To delete a page go to that page then choose **Edit | Delete | *Current Page***.

Add and Format a Page Number

To add a page number to the upper left above the schedule select **View | Optional Items | *Page Number****.*

To customize the page number click on the page number. The toolbar is now active for the page number making the formatting options of start and end number, page words as well as size, color and style available.

Add a Page Number Anywhere on the Schedule

Use the toolbox's T tool, type ***&curpage*** anywhere on the schedule. The numeric number for the current page will display. Type any text before or after. Type ***&maxpage*** to get the numeric value of total number of the schedule's pages. Example: Type anywhere on page one of a four page schedule: ***Page &curpage of &maxpage***. Result: ***Page 1 of 4***

Move between Pages

Use the keyboard PgUp or PgDn or use the **Page Navigation** options found on the **View** tab.

Frame and Background

The schedule's frame is the border of the schedule and all interior line separators. The interior and exterior of the schedule can have background colors and special fade effects. The page border is drawn around the outside of the schedule, as opposed to the schedule frame. **Format | Frame, Highlights | *Background, color, border, frame corners*.**

Background Color

- Choose a background color that will fill the schedule area, DataGraph, legend and the exterior area of the schedule.
- ***Include On Prints and Metafiles***: Selecting will include background color in the schedule area. Exterior background color will only appear when Printed.

- ***Interior Areas Only***: Select to have the background color appear only within the schedule's frame, leaving the exterior area of the schedule with no color.

- ***Background Special Effects***: Choose a fade pattern. Special effects option is only available if ***Interior Area Only*** is selected.

- ***Background Effects Target Color:*** If a special effects option is chosen the background color will fade into the selected target color.

✍The legend and DataGraph(s) will not adhere to the background special effects as they have their own background color options.

✍Horizontal gridlines and shading, as well as curtains color over the background color.

Frame Color

- Choose a color which will color the frame around the schedule, the page border and all interior line separators.
- ***No Interior Column Dividers***: Suppress column borders in the schedule.
  - » ***Except on Left***: Column separators will be on the left side of schedule.
  - » ***Except on Right***: Column separators will be on the right side of schedule.
- ***Override Color for Column Heading Dividers***: Select a color for the separators between the date headings and column headings.

Outer Frame Settings

- ***Variable Thickness Solid Lines***: When ***Default*** line type for the schedule's frame is selected choose from four thickness options. Also the title, DataGraph and legend will be affected, not the column and heading dividers.
- The schedule frame can have an ***Alternate Line Type and Color***. The title, DataGraph and legend will be affected, but not the column and heading dividers.

✍The title, DataGraph and legend can have their own frame settings.

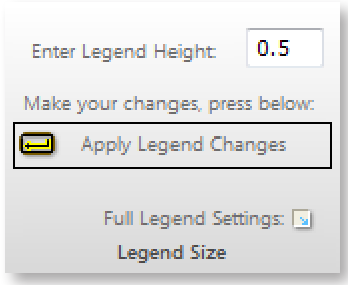
Frame Edges and Shadow

- ***Draw page border around schedule***: Select to draw a border around the schedule. The border indicates the paper size found on the layout tab.
- ***Corners***: ***Square or Rounded***: Choose to have square or rounded corners for the schedule frame. Rounded corners can be ***Small***, ***Medium*** or ***Large***. This option rounds the corners of the schedule, legend and Datagraph(s).
- ***Draw Shadow***: Can be selected only for square corners. Select a ***Shadow Color:*** and a **Shadow Size: S*mall***, ***Medium*** or ***Large***.
- ***Extend Frame Shadow into DataGraph area***: Select to extend the shadow onto a DataGraph. A floating DataGraph will retain the shadow however the shadow size will be small.

Legend

Create and Delete a Legend

The **Legend** is the area reserved for documenting the usage of the various symbols, horizontal bars and vertical links on a schedule.



1. To add a legend choose **Layout | Legend Size**. Next to ***Enter Legend Height***, enter a value in inches.

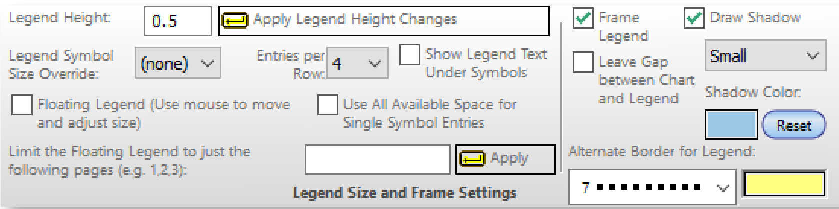
2. Choose the ***Apply Legend Changes*** button.

   ✍To delete a legend, enter a value of 0 in ***Enter Legend Height***. Make sure to press the ***Apply Legend Changes*** button or Right click the legend and choose ***Hide Legend***.

Format a Legend

Choose **Layout | Legend Size |** ***Full Legend Settings*** button 

to display the Selection menu for **Current Object: Legend**.



In the **Legend Size and Frame Setting** section the following options can be set.

- ***Legend Height***: Enter a value in inches. Press the ***Apply*** button. A zero value will delete the legend.

- ***Legend Symbol Size Override***: Enter a value in inches to alter the size of symbols appearing in the legend to override the charts default symbol size.

- ***Entries Per Row***: Choose between 1-20 legend entries to display on each row in the legend.

- ***Show Legend Text Under Symbols***: Check on to place legend text directly underneath the legend symbols.

- ***Floating Legend***: Check on to move the legend anywhere. Use the **(↖) Arrow** tool to move the legend or resize by dragging the legend's edges or corners.

- 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. Then press the ***Apply*** button.

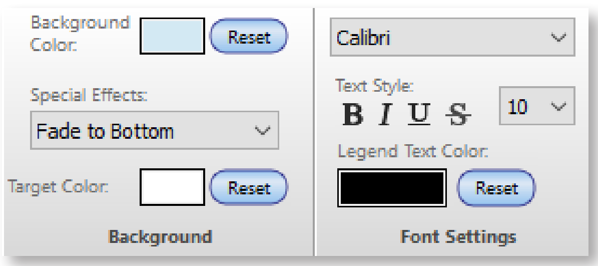
- ***Frame Legend***: Check on to draw a border around the legend area.

- ***Draw Shadow*** : Check on to display a shadow around the legend. Select the drop down arrow to view and choose the shadow size ***Small***, ***Medium*** or ***Large***. Choose a ***Shadow Color***.

- ***Leave Gap between Chart and Legend***: Check on to add space between the last task and the legend.

- Select an **Alternate Border for legend** and color. This will override the page border.

In the **Background** and **Font** sections the following options can be set.



- ***Background Color***: Change the color of the legend by selecting the color window.

- ***Special Effects***: Choose a fade pattern for the legend.

- ***Target Color***: If a special effects option is chosen the background color will fade into the selected target color.

- Choose the drop down arrows to set the legend's font, font size.

- **Text Style**: Choose ***Bold***, ***Italic, Underline*** and/or ***Cross out***.

- ***Legend Text Color:*** Change the color of the legend text by selecting the color window.

  ✍Default legend text can also be set by choosing **Format | Default Text | *Legend Text***.

To add entries to the legend (*see Chapter 3 pg. 25*).

Date Headings

Up to 4 levels of Date Headings can be shown above, below and/or within the schedule area. Date Headings are reference points for schedule symbols and bars.

Format the Date Headings

1. On the schedule, click once on the date heading. This displays the **Selection** tab **Current Object: Date Headings**.
2. In the **Date Headings** section select the drop down arrow for any of the four available headings. Choose from 41 standard date heading styles ranging from years to minutes and 4 user-created custom headings.
   - Select each date heading's horizontal placement and text's attributes, color, font and font size.
   - Select ***Show at Top*** and/or ***Show at Bottom*** for date heading placement on the schedule.
   - Choose ***Align month start with week starting day*** in order to line up the month headings with the week heading.
   - Choose Minimize Height to decrease the default spacing for all headings.
3. Under **Background**, choose a background color. Choose **Effects** for fading. Optionally, choose a **Target Color** to fade with the background color.
4. If the Prefix and Suffix edit boxes are not grayed out, then you may enter a prefix and suffix to the selected heading. Most numbered headings allow this. Importantly press the apply  buttons.

Task Row Date Heading

Place a date heading on a task row and then customize the heading.

1. In the column area, right click the task row to contain the date heading.
2. In the menu that displays choose ***Attach Date Heading***. The **Single Row Date Heading Overlay** dialog box will display.
   - Select ***Use current date headings***, to add the date heading that is currently on the schedule.
   - Select ***Pick a single heading from the list below***, to add a heading from the list. For more information about ***Start*** and ***Freq***. *see pg. 2-11*.
3. Select options under **Single Heading Background** to customize the task row date heading.
4. Select options under **Single Heading Font Settings** to customize the task row date heading.

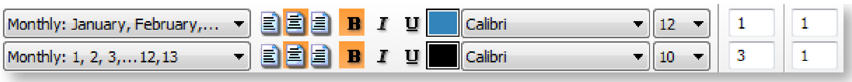
Remove Task Row Date Heading

To remove the task row date heading, in the column area right click the task row. In the menu that displays choose ***Attach Date Heading***. The **Single Row Date Heading Overlay** dialog box displays, select ***Do not overlay a date heading***.

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.

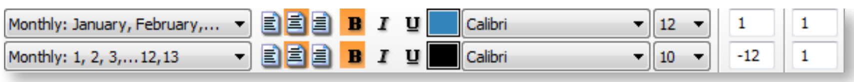
The heading *Monthly 1, 2, 3,…12, 13* begins with 1 and does not start over; therefore, it is possible to use a **Start** number, like 3 as seen in the example below.



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

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
3	4	5	6	7	8	9	10	11	12	13	14

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



This is the resulting date heading with a **Start** number -12 on a one-year schedule:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1

To show a negative sign, choose **Tools | Program Options | Dates |.** Then check on ***Show negative sign on generic numbered date headings that have a negative start number***.

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

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.

2000	2010	2020	2030	2040	2050

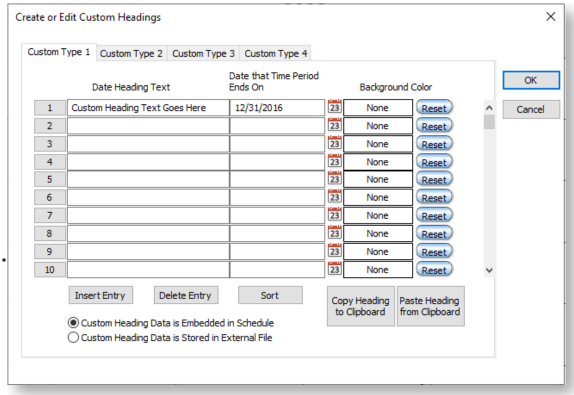
Custom Date Heading

There can be up to four custom date headings. Set the text and the end date (along with time if necessary), and background color for each of the date heading divisions.

To add or edit the custom date headings:

1. On the schedule, click once on the date heading. This displays the **Selection** tab **Current Object Date Headings**.
2. Choose ***Edit Custom Headings***.

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



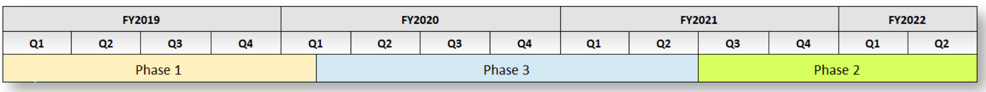
   An end date is entered to designate the end of each date division and the beginning of the next division.

   ✍The Calendar icon can be used to select the dates.

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

   A Background Color is selected for each date division.

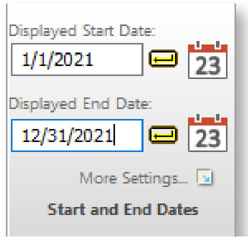
The example below shows two standard headings, plus the above custom heading.



- 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 above the selected line.
- Click on a line number and choose ***Delete Entry*** to delete an entry.
- 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 by choosing ***Copy Heading to Clipboard.*** The copied heading can then be pasted into an e-mail. The e-mail receiver then copies the sent heading text to their clipboard. Finally the receiver chooses the ***Paste Heading from Clipboard*** option.

Schedule Start & End Dates

The schedule start and end dates control the visible date range that displays in the Milestones window.



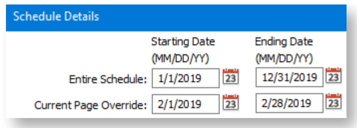
1. In the toolbar choose **Dates | Start and End Dates**.
2. Under ***Displayed Start Date***, enter a date.
3. Under ***Displayed End Date***, enter a date.

   ✍Important click the ***Apply*** button.

   ✍Click the Calendar icon for a date selection.

Schedule Date and Time Details

Go to **Dates | More Dates Setting** to find schedule date and time detail options.



- ***Page by Page Date Overrides***: Choose to set different dates on each page of a multi page schedule. Enter the page's override date **Current Page Override *Starting Date*** and ***Ending Date***
- ***Yearly/Monthly/Fiscal Year Settings***:
  - » **Fiscal Years** options: Choose the ***Fiscal Year Starting Month*** for fiscal year heading and vertical gridline placement. Choose ***Add 1 to Computed Fiscal Year*** or ***Subtract 1 to Computed Fiscal Year*** to align yearly headings with fiscal year headings. Check on **Fixed Length Month Option** to have ***Months all same length*** and set number of ***Days in a Month***.
  - » **Calendar Range Scrolling:** Enter the number for ***Working days to scroll with Shift+PgUp/PgDn***. The headings shift by the number of days entered. To scroll the date headings use the keyboard ***Shift+PgUp/PgDn*** or **Date | Date Range Tools | *Shift displayed range backward*** / ***Shift displayed range forward***.
- ***Weekly/Daily/Holiday Shading***:
  - » ***Work Saturdays*** and/or ***Work Sundays*** for inclusion(check on) or exclusion (check off) from calculations.
  - » ***Show Saturday*** and/or ***Show Sundays***: Check on to have Saturdays and Sundays display on the schedule.
  - » ***Shade Saturdays*** and/or ***Shade Sundays*** Check on to shade Saturdays and Sundays with a selected color.
  - » ***Shade Holidays***: Check on to shade selected holidays with a selected color *(see pg. 2-38)*.
  - » Select the ***Week Starting Day***.

- ***Hourly/Minute***:
  - » Check on these options to ensure accurate duration and percent complete calculations. ***Allow Hourly detail*** and ***Allow Minute Detail*** on the schedule.
  - » Set a ***Displayed Time*** (ex: 8:00-17:00, 9 hour day). The schedule will only show the hours, and calculate based on the displayed time.
  - » Set ***Workday Time.*** The schedule will calculate duration based on the split shift (ex: 8:00-12:00, 1:00-17:00).

    ✍Symbols must fall in the specified time periods or they will not display. However,the symbols are still present in the schedule.
  - » By default, a single milestone's duration is 0 days. To have a milestone's duration calculate as 1 day select ***Set single milestone to a full day duration even if Hourly detail is active***.
- ***Schedule Tags***:

  Shows the Microsoft Project to Milestones Wizard import options used if the schedule was imported.

Shift Schedule Dates

A schedule's dates can be shifted backwards or forwards at any time using **Dates | Date Range Tool | *Shift all Tasks***.

- ***Enter the Number of Working Days to Shift***: Enter a value 1 through 4000.
- ***Backward*** or ***Forward***
- ***Reset Schedule Start and End Dates by the Same Amount:*** Changes the date view of the schedule and the date headings.
- ***Shift Curtain Dates by the same amount***: *(see pg. 2-33)*.
- ***Shift ValueSet Dates by the same amount***: *(see Chapter 7)*. (**Reset Schedule Start and End Dates by the Same Amount** must be active to choose this option.)

Selected symbols and task rows can also be shifted.

1. Select either the symbol(s) or task row(s) to be shifted. See about symbol dependency (*Chapter 3 pg. 3-14).*
2. Choose **Dates | Date Range Tool | *Shift all Tasks***.
3. Enter a values for ***Enter the Number of Working Days to Shift***.
4. If symbol(s) or task row(s) are selected there will now be this option: (***#)Task Rows are selected. Check this box if you wish to just shift the dates for the symbols in the selected rows***.

   ✍With this option selected all other options in the ***Shift all dates for Schedule*** dialog will be grayed out.

Customize the Toolbox and Sidebar

The toolbox contains the essential tools for adding, changing, and selecting information on the schedule. The toolbox properties can be changed by right clicking the toolbox. Change the properties of symbols, horizontal bars, vertical links, lines, squares, and circles by double clicking on them in the toolbox.

There are two toolbox views: Standard (recommended) and Legacy. Right-click the toolbox, select ***Switch to Legacy Toolbox*** or Tools **|** Program Options **|** Edit **|** check on ***Use Legacy Toolbox*** to use the Legacy Toolbox. To return to Standard Toolbox right-click the toolbox, select ***Switch to Standard Toolbox***. Both views can be free-floating or anchored in the sidebar.

The toolbox settings are unique to the current schedule. If a toolbox changes on one schedule, it does not affect any other schedules. Toolboxes can be copied and pasted between schedules.

Free-Floating Toolbox

The free floating toolbox allows placement of the toolbox anywhere in the Milestones window below the toolbar. Do the following to have the toolbox free-floating:

1. Choose **Tools | Customize |** ***Sidebar Options*** or right click the toolbox and choose ***Sidebar Options***.
2. Select ***Do not show Sidebar***.
3. Milestones must be closed and restarted for the change to take effect.

Hide/Show Free-Floating Toolbox

When free-floating, the toolbox can be hidden.

1. Right click the toolbox then choose ***Hide Toolbox***.
2. Select **View | Optional Items** and check on **Toolbox** to make it reappear.

Sidebar with the Toolbox

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. Do the following to have the toolbox in the sidebar:

1. Choose **Tools | Customize |** ***Sidebar Options*** or right click the toolbox and choose ***Sidebar Options***.
2. Select either ***Show Sidebar on left*** or ***Show Sidebar on right***.
3. Milestones must be closed and restarted for the change to take effect.

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***.

The number of sidebar shortcut icons visible, 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 1280 x 1024 will show more sidebar shortcut icons than a screen resolution of 800 x 600. Also, a maximized Milestones window will display more sidebar shortcut icons than a minimized window.

Show Symbol and Bar Numbers in the Toolbox

Right-click the toolbox and choose ***Show Symbol and Bar Numbers in the Toolbox*** to populate numbers that overlay symbols and bars in the toolbox. This option helps with &symbol command, in a substitutable text string and for automation.

Switch to Legacy Toolbox

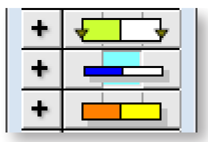
Right-click the toolbox, select ***Switch to Legacy Toolbox*** or Tools | Program Options | Edit | check on ***Use Legacy Toolbox*** to use the Legacy Toolbox. To return to Standard Toolbox right-click the toolbox, select ***Switch to Standard Toolbox***.

Toolbox Size and Look

Right-click the toolbox and choose ***Toolbox Properties*** to make selections to customize the toolbox's size and look for the current schedule.

Customize Toolbox Size, Highlight Dialog

- ***Symbol, Bar, Symbol Combinations:*** Up to 32 rows of symbol, horizontal bar, symbol combinations (64 symbols and 32 horizontal bars) can be shown in the toolbox.
- ***Open file with Arrow Tool Active*** When the schedule is opened this prevents accidentally adding symbols and bars.
- Check on ***In bars, show both before and after status colors (if Bars Fill to Status is active)*** to have the Toolbox display horizontal bars with before and after status look *(see Chapter 5 pg. 5-3)*.



- Check on ***Extra Highlighting*** to activate a black outline for selected items in the toolbox.

- Check on ***Show Background for Current Selection*** to highlight the selected items background. Also select the color for the highlight.
- Check on ***Show Line, Box,and Circle Tools***. Uncheck to hide the drawing tools.
- Choose to display 0, 1, or 2 rows of **Vertical Links**.

Global Settings

- ***Change the Toolbox Display...*** Select from Default (Milestones will attempt to automatically adjust to monitor resolution), 100%, 150%, or 200% to have the toolbox increase in size for easy viewing or when using a high resolution monitor.

  ✍Milestones must be closed and restarted for the change to take effect.

  ✍This is a global setting and affects all schedules.

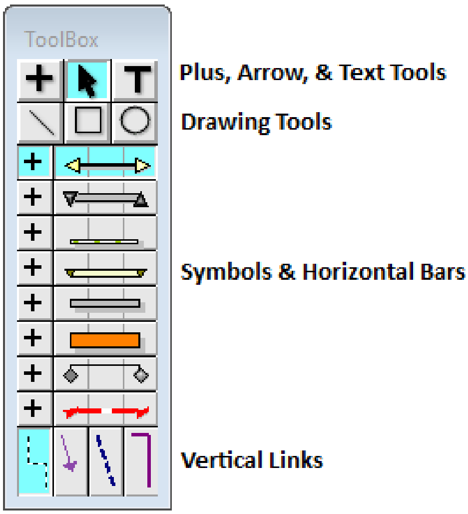
- ***Show Symbol and Bar numbers...*** These numbers are useful to specify symbol and horizontal bars for importing and automation.

  ✍This is a global setting and affects all schedules opened in the same instance of Milestones Professional. This option does not save with the schedule. It needs to be turned on each time the schedule is opened.

Toolbox Elements

The toolbox is made up of controls; **Plus**, **Arrow** and **Text** tools and items to be added to the schedule; symbols, horizontal bars, vertical links, lines, squares and circles.

- The Toolbox rows designated by the **Small Pluses** are divided into three sections symbol - horizontal bar -symbol. Double click one of the sections to change the symbol's or horizontal bar's properties.
- Double click a vertical link, to change its properties.
- Double click draw tools to change its properties.
- Each schedule can have a unique customized toolbox. Toolboxes can be copied to another schedule *(see pg. 2-19)*.
- A toolbox row of symbol-horizontal-bar, symbol can be copied to another toolbox row or to another schedule's toolbox row *(see pg. 2-19)*.



Toolbox Tools

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

The **Plus (+)**, **Arrow (↖)** and **Text** (T) are the three main tools used for scheduling.

The **(+) Plus Tool** adds symbols, horizontal bars, and vertical links to the schedule.

The **(↖) Arrow Tool** is a selection tool for choosing objects on the schedule to changes their properties or move objects on the schedule like symbols, columns, pictures, freeform text, etc.

The **(T) Text Tool** adds or edits text anywhere on the schedule.

The second row of the toolbox contains the draw tools. These shapes when added to the schedule are static and will not move when the schedule shifts or changes.

Line Tool (\ ) draws lines and arrows on the schedule.

Box Tool (□) draws squares and rectangles on the schedule.

Circle Tool (O) draws circles and ellipses on the schedule.

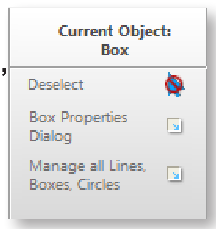
Use Lines, Boxes and Circles

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 (O)** tool in the toolbox.

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 clicking once on the shape to activate the toolbar **Selection** tab for that shape or double clicking the shape to display its attribute dialog box. Make changes to border, and background. Also choose to show the object on all pages and/or on top.

Manage Lines, Boxes and Circles



To manage lines, boxes or circles on the schedule go to **Tools | Other Tools | Manage Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides | *Manage Lines, Boxes, Circles*** or select any line, box, or circle on the schedule to select the ***Manage all Lines, Boxes, Circles*** option in the toolbar. 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 option is very useful for finding missing lines, boxes or circles.

Copy and Paste a Toolbox Row

1. To select the row to be copied, click the **Small Plus** at the beginning of the row. The entire row will highlight.
2. Right-click the toolbox and choose ***Copy Selected Row***.
3. To select the row to be replaced click the **Small Plus** at the beginning of the row. The entire row will highlight.
4. Right-click the toolbox and choose ***Paste Copied Row over Selected***.

   ✍To copy a row between schedules the schedules must be in the same instance of Milestones. Open both schedules. To verify that they are in the same instance choose **View | Windows Controls | *Switch Windows***. Both file names should display.

Copy a Toolbox to Another Schedule

Once a toolbox has been customized, it can be used in another schedule by creating a personal template *(see pg. 2-39)* *or by c*opying and pasting.

1. Both schedules must be in the same instance of Milestones. To verify that they are in the same instance choose **View | Windows Controls | *Switch Windows***. Both file names should display.
2. Right click the toolbox to be copied and choose ***Copy Toolbox***.
3. Go to **View | Windows Controls | *Switch Windows.*** Select the schedule to have the copied toolbox.
4. In the selected schedule right click the toolbox and choose ***Paste Toolbox***.

Symbol, Horizontal Bar and Vertical Links Toolbox Numbers

Right click the toolbox to select ***Show Symbol and Bar Numbers in the Toolbox*** for numbers to appear in toolbox next to the symbols, horizontal bars and vertical links. Toolbox numbering is helpful for embedded symbol save, spreadsheet importing and automation.

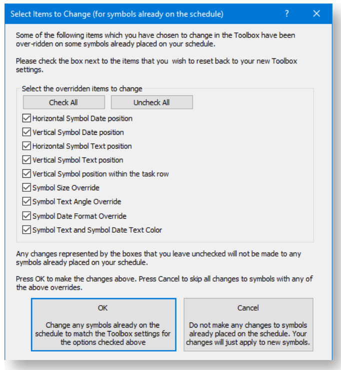
Toolbox Tool Tips

Helpful hints can appear when the mouse is hovered over elements of the toolbox Right click the toolbox to select ***Turn on Tooltips*** or ***Turn off Tooltips***. All tooltip options can be customized by choosing **Tools | Program Options | Help**.

Symbol Defaults

Symbols are the backbone of the schedule. All horizontal bars and vertical links originate from symbols. Symbol text, date and position are controlled by the symbol. Best practice is to set up all symbol properties in the toolbox prior to building a schedule, as any changes to the symbol in the toolbox will affect occurrences of that symbol on the schedule.

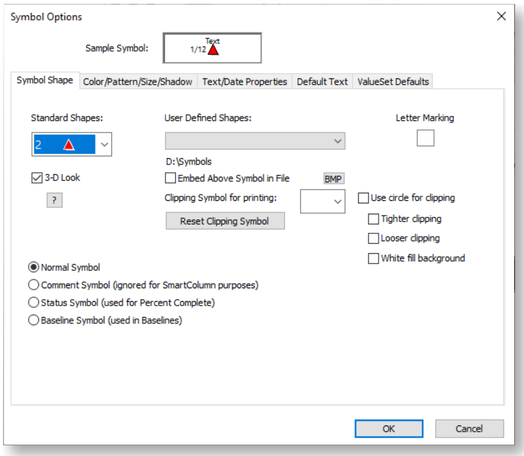
✍If settings for a symbol in the toolbox are changed and that symbol exists on the schedule, all the affected symbols are checked to see if they have individual settings that differ from the new settings. If so, the user is given the opportunity to keep the individual override settings by checking or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

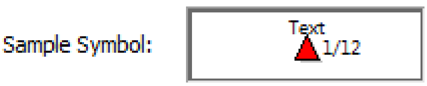


Symbol Shape and Type

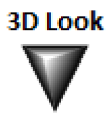
Set a symbol's defaults:

1. Double-click a symbol in the toolbox. The **Symbol Options** dialog displays.
2. Click the **Symbol Shape** tab.
   - Choose from 147 ***Standard Shapes***. The **Sample Symbol** changes to show selections as they are made.





   - Select ***3D Look*** to add 3D highlight (a simulated light source) to a symbol. Not all symbols allow the 3D look.



   - Enter one letter or number in ***Letter Marking*** to display it with the symbol. Select a blank symbol (**Symbol Shapes** 28 or 33) to only show the letter marking as the symbol. The letter mark vertical placement within the symbol is set on the **Text and Date Properties** tab.

- 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 *(see Chapter 5 pg. 5-3)*.
  - » ***Baseline***: This symbol type takes advantage of baseline features *(see Chapter 5 pg. 5-10)*.
- User created symbols and bitmap symbols can be selected under ***User-Defined Shapes***. To learn more about creating or using bitmaps choose **Help | Help Topics | Index** type in ***symbol marker*** and/or ***bitmap symbol***.

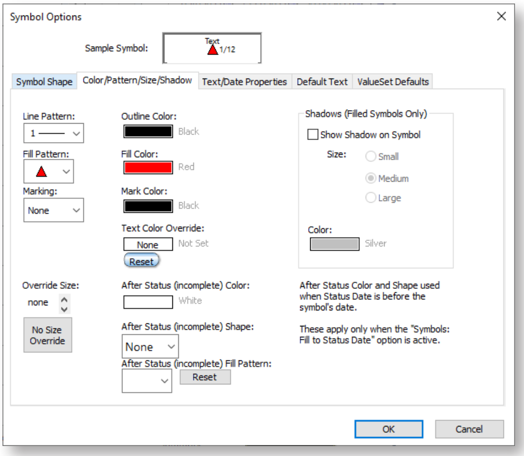
  ✍Symbols are saved in a folder defined by the path found directly under the **User Defined Shapes** selection box. To change the **Symbols** folder's location choose **Tools | Program Options | *Folders***.
- Recommended: Check on ***Embed Above Symbol in File*** to embed user defined symbols in the schedule so that the symbol is available when sending or sharing the chart.
- Choose the ***BMP*** button to get access to embedded symbols to add to your symbols folder. By selecting ***BMP*** the symbol will be added to a temp folder. Milestones will give you the address of the folder and ask you if you would like to open the folder. To find the symbol look for the following ***EmbedSym#*** (the number will be the symbol's position in the toolbox).

  ✍Right click the toolbox to select ***Show symbol and connector numbers in the toolbox*** for numbers to appear in toolbox next to the symbols.
- **Clipping Symbol for printing** eliminates white space around bitmap symbols on printed schedules. For step by step instructions choose **Help | Help Topics | Index** type in ***clipping***.

  ✍Bitmap symbols with white backgrounds, background will appear transparent on the computer screen. All other color backgrounds will be visible on the computer screen. Microsoft Paint can be used to change the bitmap's background color.
- **Use circle for clipping** Milestones automatically clips the white area around a circular symbol**.**
  - » ***Tighter clipping*** white area clipped closer to the symbol.
  - » ***Loser clipping*** along with ***White fill background*** smooth edges of the circle and clipping edge bleed through.

Symbol Color/Pattern/Size/Shadow

Set a symbol's defaults:



1. Double-click a symbol in the toolbox. The **Symbol Options** dialog displays.
2. Click the **Symbol Color/Pattern/Size/Shadow** tab.
   - Choose a ***Line Pattern*** and ***Outline Color*** for the outline of the symbol. The **Sample Symbol** changes to show selections as they are made.
   - 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, box or circle enclosing the symbol, and more.
   - Set a ***Text Color Override***. This affects current and new symbols. Press ***Reset*** to remove the override.

     ✍Default symbol text color **Format | Default Text | *Symbol Text***.

     ✍***Remove all symbol text override colors*** go to **Tools | Other Tools | Manage: Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides | Manage Symbols**.
   - The ***After Status (incomplete) Color*** is the fill color of the symbol after (to the right of) the status date.
   - The ***After Status (incomplete) Symbol*** is what the current symbol will switch to after (to the right of) the status date.
   - The ***After Status (incomplete) Fill Pattern*** is the pattern the fill color will display after (to the right of) the status date.

     ✍To activate the **After Status** feature, choose **Dates | Date Related Settings | *Symbols: Fill to Status Date***.
   - Set an ***Override Size*** for this symbol only. This affects current and new symbols.

     ✍Set the global symbol size for all symbols on the schedule. **Format | Frame, Highlights | *Symbol Size***.

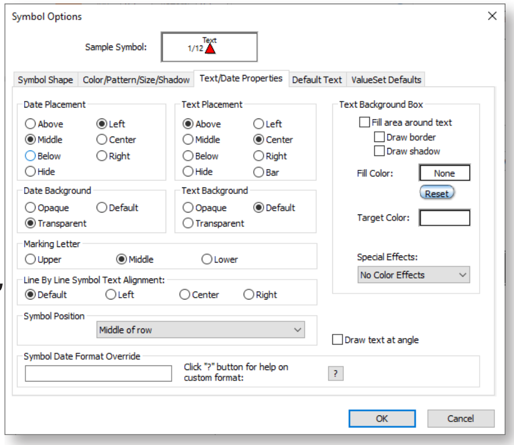
     ✍Horizontal bar width is determined by the global symbol size and is not affected by the symbol size override.
   - Check on ***Show Shadow on Symbol*** then choose **Size** and **Color.**

Symbol Text and Date Properties

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. The **Symbol Options** dialog displays.



2. Click the **Text and Date Properties** tab.

   - Set **Date Placement** as ***Above, Middle, Below*** (vertical positioning); and ***Left, Center, Right*** (horizontal positioning). Optionally, ***Hide*** the date. The **Sample Symbol** changes to show selections as they are made.

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

     ✍***Bar*** centers text on the bar of a symbol-bar-symbol combination.

     ✍For symbols off the schedule to have text centered on a bar choose **Tools | Program Options | Edit** check on ***Show Centered Symbol Text even if the symbol is off the schedule***.

     ✍To Globally hide all symbol dates and text on the schedule choose **View | Other |** ***Override Symbol Text and Symbol Date Display***.

   - To add a **Text Background** color, check on ***Fill area around text*** and click ***Fill Color*** button to choose a color.

     » Check on ***Draw Border*** to frame the background.

     » Check on ***Draw Shadow***. The symbol shadow color is used for the shadow around the text box.

     » 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 **Marking Letter**,choose ***Upper, Middle,*** or ***Lower*** as the vertical placement within the symbol. The letter mark is set on the **Symbol Shape** tab.
- Check ***Draw text at angle*** to force symbol text for just this symbol to display at the angle set in **Tools | Program Options | *Edit* | *Angle for Angled Symbol Text***. Set the angle degree of 30, 45, 60, 90, 120, 135 or 150 in **Tools |Program Options | Edit | *Angle for Angled Symbol Text***.

  ✍Text at an angle can only be a single line.

  ✍Symbol dates can be drawn at an angle. Selecting the symbol. Then, on the schedule **Selection | Text | Text Placement |** check on ***Date also***.
- 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 affects current and future symbols

  ✍To Globally set the symbol date format **Dates | Dates Related Settings | *Set Symbol Date Format***.

Symbol Position

Within each task row, the symbols can be positioned vertically in 11 possible positions. Horizontal bars follow the positioning of the symbols to which they are attached. (Globally set a symbol's position in the toolbox **Symbol Text and Date Properties**.)

Change an individual symbol's position:

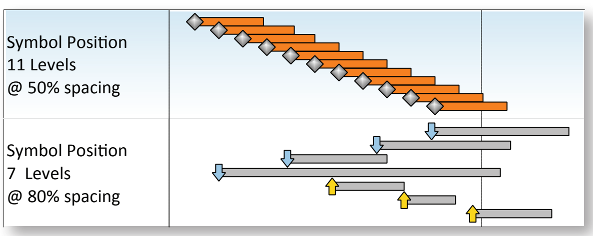
1. Click once on the symbol on the schedule.
2. Hold the **Shift** key.
3. Use the keyboard **up arrow** or **down arrow** to shift the symbol position.

Change the vertical spacing between symbols:

Choose **Tools | Program Options | Edit | *Vert Spacing:Upper/Lower Symbols*** to change the vertical spacing value. The spacing value ranges from 10% - 300%. This is a global setting.

Override the vertical symbol spacing by task row:

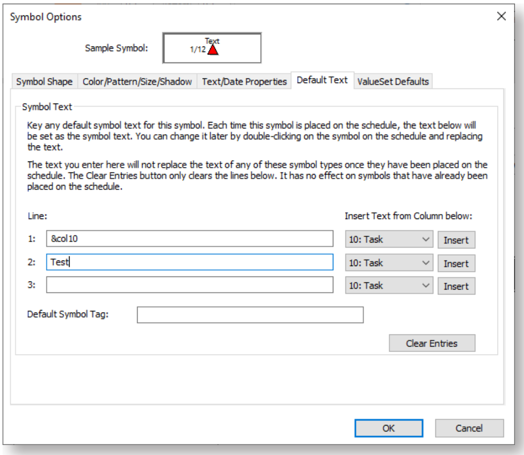
1. Select the task row.
2. In the toolbar in the **Task Row Settings** section select the percentage for spacing under ***Upper / Lower Symbol Spacing %***.



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 display.

The default text can also be based on text from a selected column.



Set a symbol's text defaults:

1. Double-click a symbol in the toolbox. The **Symbol Options** dialog displays.
2. Click the **Default Text** tab.
3. Click a ▾ drop down arrow to select a column. Each time the symbol is added to the schedule the chosen column information for that task row will display as symbol text.

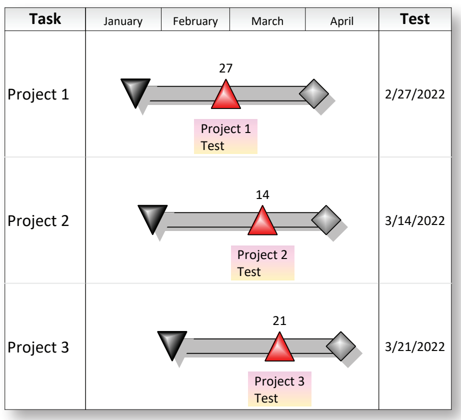
-ADD/OR-

4. Type in text to be added to the symbol. Enter up to 56 characters for each default text line.

   ✍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.

5. Tag a symbol to take advantage of the **SmartColumn**, **Date from Symbol Automation Tag** feature *(see Chapter 6 pg. 6-15)*, 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.

See Symbol Option dialog box above to view how default symbol text was assigned to the red triangle symbols when they were added to the schedule.



Default Symbol Text on red triangle symbol

Line 1 is ***Column 10 (Task)*** information.

Line 2 is typed-in text ***TEST***.

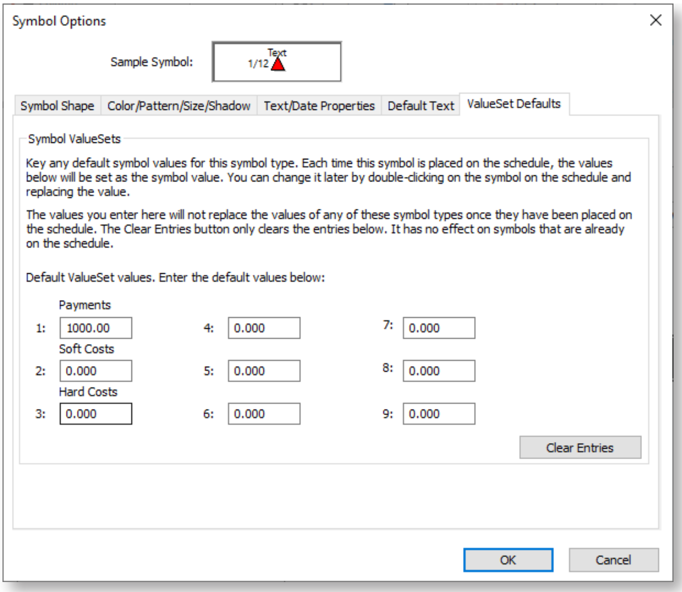
Default Values

For a selected symbol, specify default values for any of the 9 possible ValueSets. When the symbol is added to the schedule its default values will be added to the specified ValueSet.

✍The symbol default values only work with **Type 4: Use Values From Symbols** ValueSet *(see Chapter 7 pg. 7-11).*

✍First setup both a **Type 4: Use Values From Symbols** ValueSet and a **DataGraph** *(see Chapter 7 pg. 7-18)* before adding default values to symbols and the symbols to the schedule.

Set a symbol's default values:



1. Double-click a symbol in the toolbox. The **Symbol Options** dialog displays.
2. Click the **Default Values** tab.
3. Enter a value for this symbol in any/or all of the possible 9 ValueSet boxes on the **Default Values** tab.
4. Add symbols to the schedule to have the default value added to the specified **Type 4: Use Values From Symbols** ValueSet.

Choose ***Clear Entries*** button to clear all values in the nine value boxes.

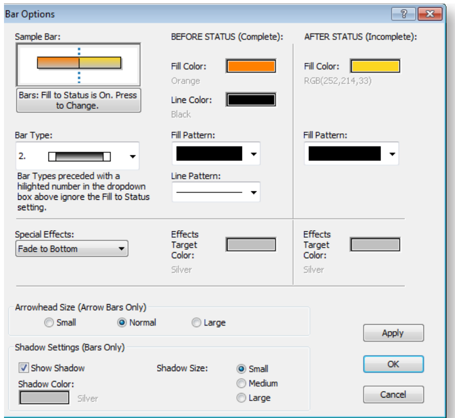
Horizontal Bar Defaults

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

✍Some individual overrides may supersede toolbox changes.

Set a horizontal bar's defaults:

1. Double-click a horizontal bar in the toolbox. The **Bar Options** dialog displays.



- If **Bar: Fill to Status** is off, the Horizontal bars will only use the **Before Status Fill Color**. If **Bar: Fill to Status** is on, the horizontal bars will use both **Before Status** and **After Status Fill Color**. The **Sample Bar** match the selections.
- Choose horizontal ***Bar Types***.
- Choose a ***Fill Color*** that fills the inside of the bar. If **Bar: Fill to Status** feature is turned on then the fill color will be before status, to the left of the status date (Complete).
- **Bar: Fill to Status** is on,choose an ***After Status Fill Color*** that fills the inside of the horizontal bar after status, to the right of the status date (Incomplete). Yellow highlighted numbers 15, 27, 28, 29, 33, 38, 68,69, 70 and 71 bars ignore After Status Color.
- Choose ***Line Color*** for the outside edge of the horizontal bar.
- ***Fill Patterns*** fill the inside of the horizontal bar. Different ***Fill Patterns*** can be selected for **Before Status** and **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*** for the outside edge of the horizontal bar.
- Choose a ***Special Effects*** to fade from the **Fill** to the **Target Color.** Different ***Target Colors*** can be selected for **Before** and **After Status**.
- Check on ***Use Special Effects Target Color for Background Color when Filling with a Pattern*** to have two color fill patterns.
- Choose an ***Arrowhead Size*** if the horizontal bar has an arrow head.
- Check on ***Show Shadow***, then select ***Shadow Color*** and ***Shadow Size***.

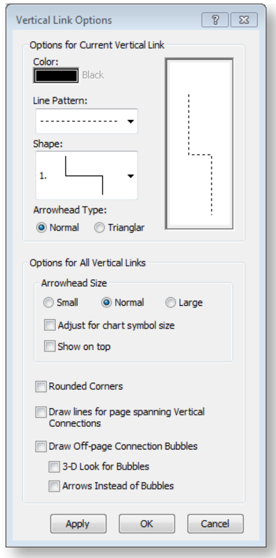
Vertical Link Defaults

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.

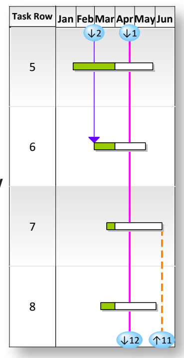
✍Some individual overrides may supersede toolbox changes.

Set a vertical link's defaults:

1. Double-click a vertical link in the toolbox. The **Vertical Link Options** dialog displays.



- Choose a vertical link ***Color***. The sample link changes to match selections.
- Choose from a variety of ***Line Patterns***.
- Choose from 19 vertical link ***Shapes***.
- Choose an ***Arrowhead Type*** for arrow ending links.
- Choose an ***Arrowhead Size*** for arrow ending links.
- 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.
- 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 colors and shading effects for most areas of the schedule: task rows, chart title, date headings, columns, column headings, schedule area, legend, DataGraphs, holidays, weekends and the toolbox's symbols, horizontal bars,vertical links.

Color themes are preset or can be created. They can be applied to a new or existing schedule.

Create a Color Theme

1. Format all areas of a schedule with colors and shading effects.

   ✍Individual cell coloring and task row shading and gridline formatting are not saved in color themes.

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.

Import a Color Theme from Previous Versions

1. Choose **Format | Color Themes | *Manage Color Themes***.
2. Choose ***Import Theme from Prior Version***
3. Select the **Milestones Professional Version** (only versions 2015 and 2017). The color theme list for that version will populate.
4. Select the color theme to be imported.
5. Select the ***Import*** button.

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 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 the ***Format*** tab.
2. In the **Color Themes** section click the drop down arrow to view the shading options. Select one.
   - ***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 **Format | Frame Highlights | Background color, border, frame corners |** ***Background Color***.
   - ***Do not alter TaskGrids/Shade***: No changes will be made to gridlines or shading on any task row.
3. The following options can be checked on if preferred.
   - ***Include Toolbox Colors***: Applies the color theme's toolbox colors to the existing toolbox.
   - ***Leave out Gridlines***: Select to remove gridlines. Will not affect outline level gridlines.
   - ***Override all symbol notes***: Applies the color theme' symbol notes default settings.
4. Click on a color theme from the list, and the schedule changes to that color theme including the selections made in steps 2 and 3.

   ✍Click ***Undo Color Theme*** icon to return to the original schedule's color format.

   ✍To change the shading option or checkable option once the color theme has been selected, select the new shading option and/or check or uncheck the checkable options. Then select the color theme again.

   ✍Color themes do not override column cell by cell settings. To reset all individual overrides, select the column, right-click and choose ***Reset all Row and Cell Font/Color Overrides for all Columns***.

Format Task Row Gridlines & Shading

Milestones offers many task row gridlines and shading 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 a selected task row(s) by using the **Arrow** tool to select the task row(s) then:
  - » Use the activated toolbar **Selection | Task Row Settings | More Task Row Options | *Gridline/Shade***. -or- Right click a single task row or when using the shift key to select contiguous task rows then choose ***Gridline /Shade.*** The ***Horizontal Grid Properties for Selected Row(s)*** displays see **Horizontal Gridlines and Shading for Entire Schedule** section below for options to select.
- 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** (*see Chapter 4 pg. 4-7*).

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 **Horizontal Grid and Shading Properties** dialog displays:
2. Click the **Gridlines** tab.
   - Under **Left Columns** choose ***Show Gridlines*** to add gridlines to all columns to the left of the schedule area.
   - Under **Graph/Schedule Area** choose ***Show Gridlines*** to add gridlines to the schedule area.
   - Under **Right Columns** choose ***Show Gridlines*** to add gridlines to all columns to the right of the schedule area.

     ✍To quickly format all three areas of the schedule (Left Columns, Graph/Schedule Area and Right Columns) choose ***Apply New Selections to all Three Sections.*** A choice in one section is applied to all sections.

For each section:

3. Under ***Line Type***, choose a gridline pattern.
4. Under **Line Color**, click the color window and choose a color for the gridlines.

   ✍Should task rows not take on the gridlines as expected there may be individual task row overrides. To remove these overrides select ***Remove all tasks by task gridlines and shading override***s.

   ✍Select ***Reset Gridline and Shades back to Schedule Defaults*** to clear settings.

Horizontal Task Row Shading

1. Choose **Format | Gridlines | *Horizontal Gridlines and Shading***. The **Horizontal Grid and Shading Properties** dialog displays.
2. Click the **Shading** tab.
   - Under **Left Columns** choose ***Shade the Task Row*** to add shade to each task row for all columns to the left of the schedule area.
   - Under **Graph/Schedule Area** choose ***Shade the Task Row*** to add shade to each task row in the schedule area.
   - Under **Right Columns** choose ***Shade the Task Row*** to add shade to each task row for all columns to the right of the schedule area.

     ✍To quickly format all three areas of the schedule (Left Columns, Graph/ Schedule Area and Right Columns) choose ***Apply New Selections to all Three Sections.*** A choice in one section is applied to all sections.

For each section:

3. Under ***Shade Color***, click the color window and select a color.
4. Under **Effects Target Color**, click the color window 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.

   ✍Should task rows not take on the shading expected there may be individual task row overrides. To remove these overrides select ***Remove all tasks by task gridlines and shading override***s.

   ✍Select ***Reset Gridline and Shades back to Schedule Defaults*** to clear settings.

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.

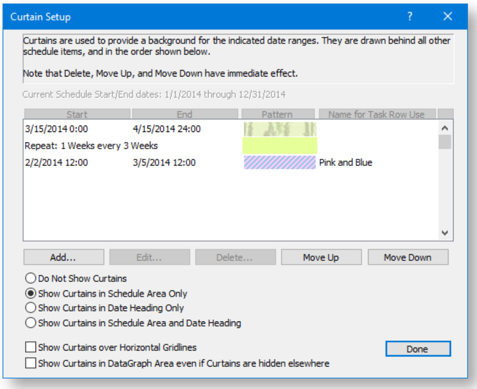
1. Choose **Format | Gridlines | *Vertical Gridlines***.
2. Check the vertical gridline boundary(s) to display, Yearly to Minute or Custom Heading (*see pg 2-12*).

   ✍To set fiscal year starting month **Dates |Start and End Dates | More Settings...| Yearly/Monthly/Fiscal Year Settings... | *Fiscal Year Starting Month***.
3. Choose a **Frequency** for boundaries, Yearly through Minute. 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. ***Extend Vertical Gridlines into DataGraph Area***: Choose to display the gridline settings in the DataGraph area.

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. To add a curtain click ***Add*** to get to the **Curtain Add or Edit** dialog (*see pg. 2-34*).
3. Select an existing curtain to ***Edit*** or ***Delete*** it.
4. Choose ***Move Up*** or ***Move Down*** to reorder the curtains.
5. Display options:
   - ***Do Not Show Curtains***: Choose to hide curtains from the schedule area.
   - ***Show Curtains in Schedule Area Only***: Choose to display curtains within the schedule area.

- ***Show Curtains in Date Heading Only***: Choose to display curtains within the date headings.
- ***Show Curtains in Schedule Area and Date Heading***: Choose to display curtains throughout the entire schedule.
- ***Show Curtains over Horizontal Gridlines***: Choose to show curtains overlaying any gridlines or shading.
- ***Show Curtains in DataGraph Area even if Curtains are hidden elsewhere***: Choose to show curtains in DataGraphs. Task row curtains will not display in the DataGraph.

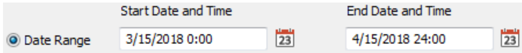
Curtain Add or Edit Dialog Box:

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

- ***Optional Curtain Name***: Optionally type in a name to appear on the curtain. Select the ***Position*** and ***Alignment*** for the curtain name. Also select the ***Font***, ***Size***, ***Color***, ***Angle*** and attributes for the curtain name.
- ***Date Range***: Specify the time span that the curtain covers.
- ***Repeat a Curtain of***: Choose the time duration for a curtain and the interval to repeat the curtain.
- ***Use above date range as start/stop for this curtain***: Choose to apply the Repeat a Curtain options within the Date Range dates selected, instead of the schedule's start and end dates.
- **Curtain Colors**: Choose a ***Curtain Fill Pattern*** then select its ***Pattern Color and*** a ***Background Color*** to go behind the pattern. Choose ***Special Effects*** if choosing the solid pattern to have the fill color fade to white.
- Select ***Fade to Background color*** when the solid pattern is selected to have the pattern color fade to the background color.
- ***Show Border on sides of Curtain*** the border uses the pattern color.
- ***Only show this curtain in Date Heading***: Select to have the curtain just color a section of the schedule's date headings.
- ***Only show this curtain in the Schedule Area***: Select to have the curtain just color a section in the schedule area.
- ***Only show this curtain in the DataGraph Area***: Select to have the curtain just color a section in the DataGraph(s).
- ***Name for task Row Usage***: Enter a name to add the curtain to a specific task row(s) for a specified date range.

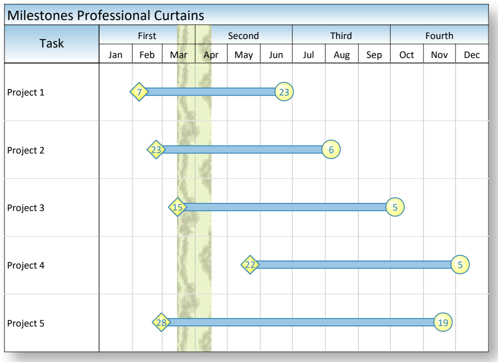
Specified Date Range for a Curtain:

See page 2-33, under **Shade with Curtains** follow steps ***1*** and ***2*** or ***3*** to open the **Curtain Add or Edit** dialog.



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/or ***Special Effects***.

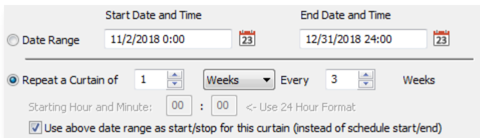
   ✍The Marbled fill pattern is a bitmap. All patterns ignore the color selections and special effects. Use of these fill patterns increases the size of printer files and metafiles.
4. Click ***OK***, and then ***Done***.



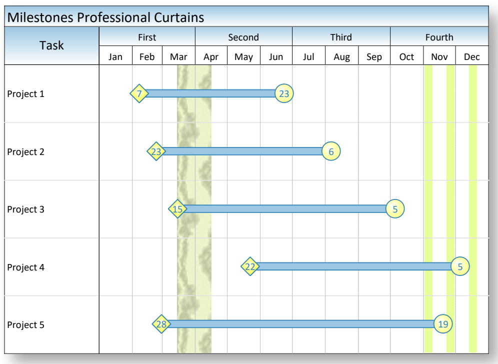
In this example the curtain is shown in the schedule area and date heading.

Curtain Repeat within a Specified Date Range

See page 2-33, under **Shade with Curtains** follow steps ***1*** and ***2*** or ***3*** to open the **Curtain Add or Edit** dialog.



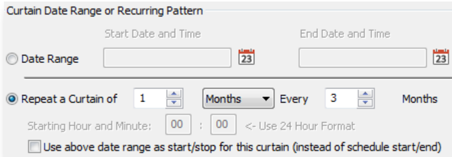
1. Choose ***Date Range***.
2. Enter a ***Start Date and Time*** and an ***End Date and Time***; or click the calendar icon to choose dates.
3. ***Repeat a Curtain of***, and make selections for duration and intervals.
4. Select ***Use above date range…*** to repeat the curtain within the date range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



In this example the curtains are shown only in the schedule area.

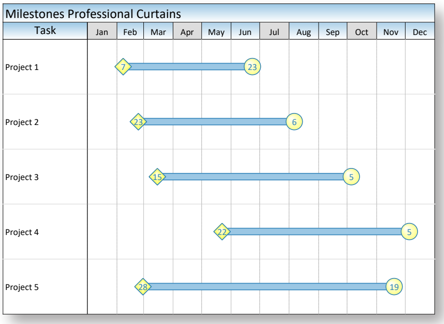
Curtain Repeat within the Schedule's Start and End Dates

See page 2-33, under **Shade with Curtains** follow steps ***1*** and ***2*** or ***3*** to open the **Curtain Add or Edit** dialog.

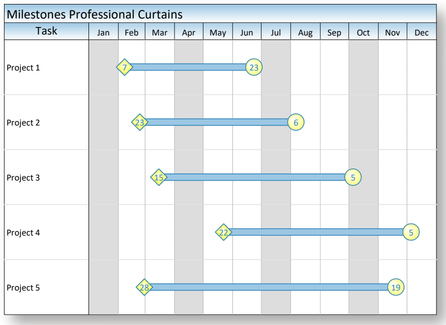


1. Choose ***Repeat a Curtain of***, and make selections for duration and intervals.

2. Choose a ***Pattern Color, Background Color, Curtain Fill Pattern***, and ***Special Effects***.



In this example the curtains are shown only in the date headings.



In this example the curtains are shown only in the schedule area.

3. Click ***OK***, and then ***Done***.

Curtains in a Task Row or Task Rows

See page 2-33, under **Shade with Curtains** follow steps ***1*** and ***2*** or ***3*** to open the **Curtain Add or Edit** dialog.

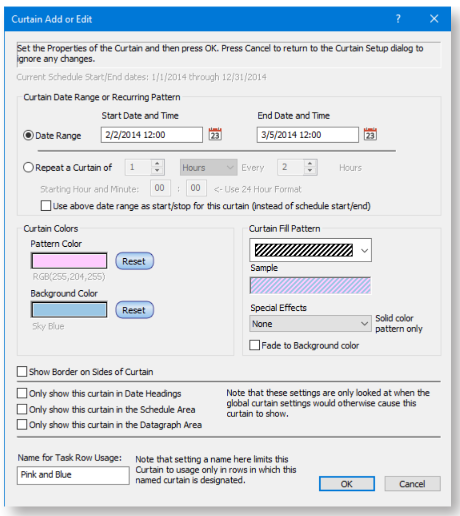
1. Choose ***Date Range***.

2. Enter a ***Start Date and Time*** and an ***End Date and Time***; or click the calendar icon to choose dates.

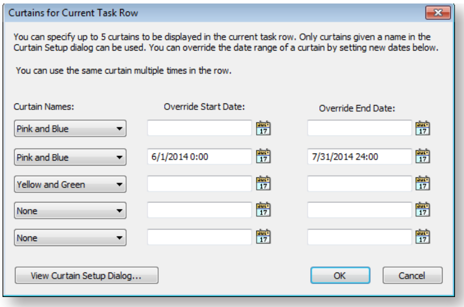
3. Choose a ***Pattern Color, Background Color, Curtain Fill Pattern,*** and/or ***Special Effects***.

4. To define this curtain enter a name under ***Name for Task Row Usage***.

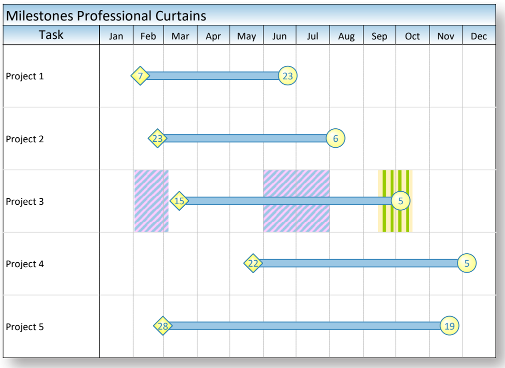
5. Choose ***OK*** there will be no change to the schedule.



6. Select a task row or use the **Shift** (contiguous rows) or **Ctrl** (non contiguous rows) keyboard key to select the task rows to have the curtain(s). The toolbar at the top of the Milestones' window is now active for the task row(s).
7. In the **Task Row Settings** section choose ***More Task Row Options***.
8. In the menu that displays choose ***Curtain***.
9. The ***Curtains for Current Task Row*** dialog box displays.



10. Under ***Curtain Names*** select the named curtain. Leave the override date blank if you are using the original curtain date range.
11. To use a different date range for the curtain in the task row under ***Curtain Names*** select the named curtain. Next enter an **Override Start Date** and **Override End Date** or use the calendar icons.



✍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.

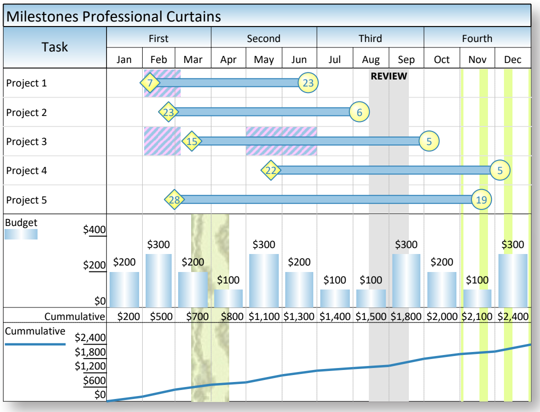
✍Globally ***Remove task row curtains*** choose **Tools | Manage Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides, Task Row Overrides |** ***Manage Task Row Overrides..***

Curtains in DataGraphs

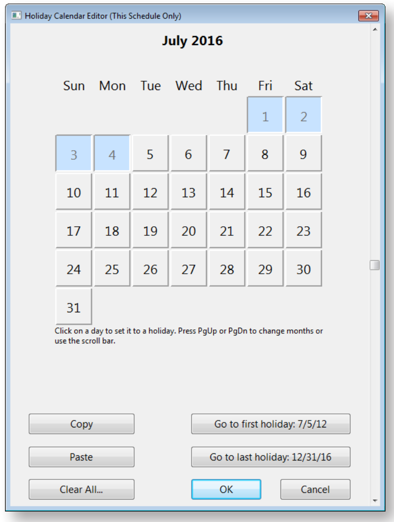
Set up curtains as describe under Specified Date Range for a Curtain and Curtain Repeat instructions (*see pg. 2-35, 2-36*).

To have the curtain display in DataGraphs check on ***Show Curtains in DataGraph Area even if Curtains are hidden elsewhere*** (*see pg. 2-34*).

To have a curtain only display in the DataGraph check on ***Only show this curtain in the DataGraph Area*** (*see pg. 2-34*).



Holidays



Make any day a holiday with the Milestones Professional Holiday calendars. Optionally shade holidays to show non-working days in a project. The ***Holiday (global)*** calendar effects all schedules opened in Milestones on the computer the Holiday (global) calendar was set. Each schedule can have its own ***Holiday (schedule)*** calendar which overrides the Holiday (global) calendar.

Choose **Dates | Date Range Tools | *Holidays (schedule*)** or ***Holidays (global)***. Use PgUp & PgDn keys or the scroll bar to change months. 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.

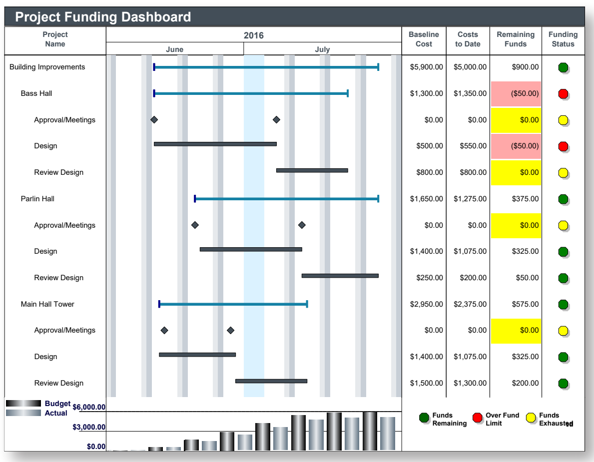
To delete a holiday date click on that date to deselect it. Choose ***Clear All*** to delete all Holidays.

Holidays as well as Saturdays, and Sundays can be shaded, each in its own color.

1. Choose **Format | Vertical Shading | *Weekend and Holiday Shading***.
2. Check on ***Shade Saturdays***, ***Shade Sundays*** and/or ***Shade Holidays***.
3. Select the color window and choose the color for the shading.

Holiday Example

In this example, Saturday and Sundays are shaded, using a different shade color for Saturday and Sunday. Also the Fourth of July holiday weekend is shaded in a different color.



Charts & 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 (Schedule)

A variety of schedule samples are available in Milestones Professional under the following categories ***Basic Gantt***, ***Cost and Schedule***, ***Earned Value***, ***General***, ***Project Presentation***, ***Resource***, ***Status Report***, ***Stoplight & Dashboard***, ***Timeline*** and ***To Do List***. Choose **File | Files and Templates: Open and Save Options | *Open Samples or Lessons***. These charts can be used as a starting point for a new schedule using Milestones cloning feature.

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

> ✍The total length of the file name, including the full path and the trailing “.mlh or .mtp” file type is 250 characters.

Clone the Current Schedule into a New file

Cloning is used to create a new schedule from an existing schedule. The cloning option lets a start date for the new schedule be chosen. The cloned schedule keeps all the task information in the columns from the original schedule and updates any smart column information, symbols, horizontal bars, vertical links, curtains and ValueSets, thus the DataGraphs, based on the new start date entered.

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***.

Merge Milestones Charts

Milestones charts with similar formats can be merged.

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

> ✍The selected file will populate under the last task of the opened file.

Standard Templates and Personal Template

Standard Templates come with the software. Templates 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.

✍Templates are saved as a .mtp files. The only way to open an .mtp file is within Milestones. **File | Files and Templates: Open and Save Options | Open | *Personal Template*** or ***Standard Template***

A Template can overlay a blank chart which can then be filled with data or it can overlay an existing schedule. The existing schedules data while not change just the look of the schedule.

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

✍Also these elements will be applied when a template is opened over a schedule.

- 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
- Curtains
- 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:

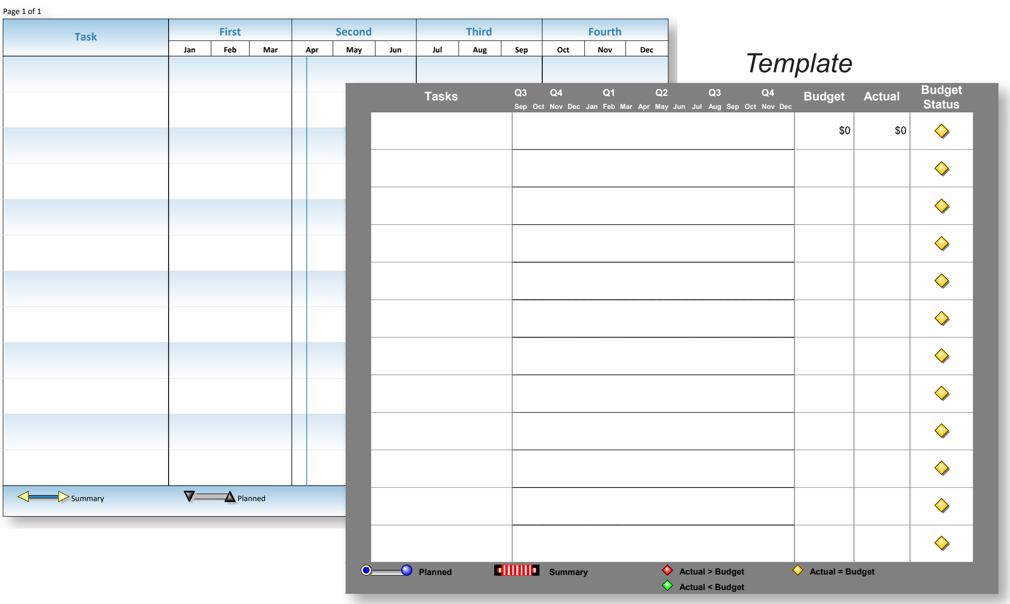
- Bars and lines in the DataGraph
- Bookmarks
- Freeform text
- Graphics files that are not embedded
- Values in the ValueSets
- Lines, circles or boxes drawn with the drawing tools
- Number and currency formats
- Schedule title
- Sidebar and toolbar shortcut button list (this is a global setting applied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

Format a Blank Schedule with a Selected Template

1. Open a blank schedule. **File | Files and Templates: Open and Save Options | *New***.
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 template (.mtp file), and then click ***Open***. The schedule opened in step 1 has a new look!

New,Blank Schedule

Template



Format an Existing Schedule with a Selected Template

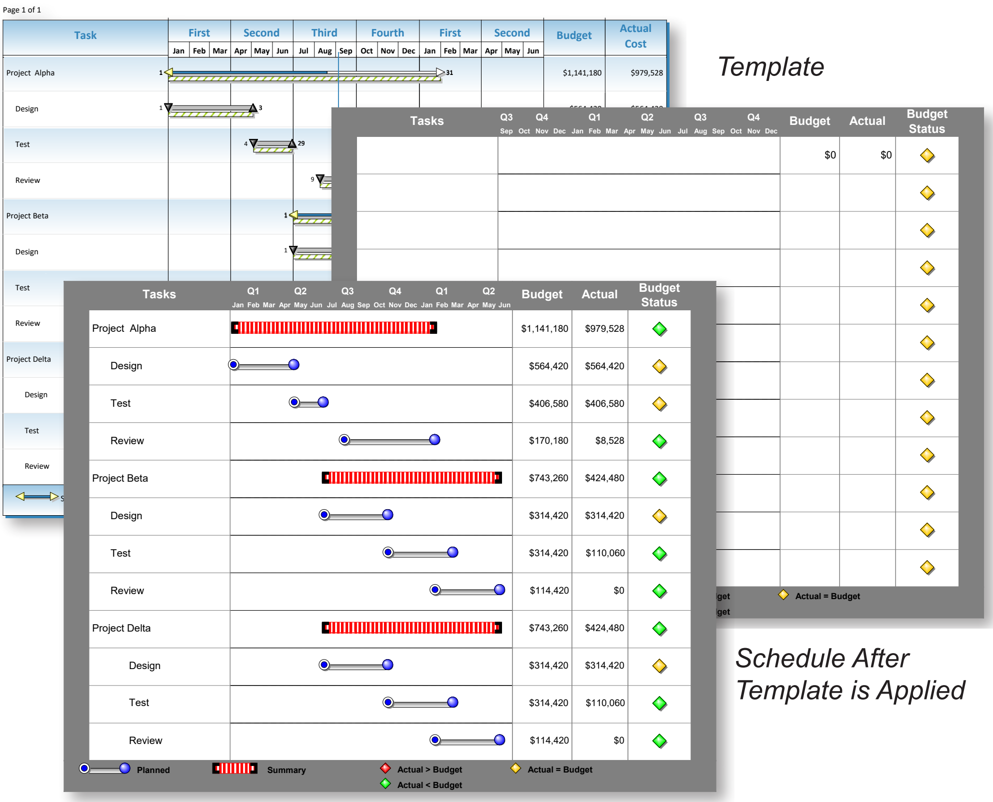
Open an existing schedule. Then open a template which instantly formats the schedule!

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.

To format an existing chart with a template:

1. Open the 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 template (.mtp file), and then click ***Open***. The schedule opened in step 1 has a new look!

Existing Schedule



Template

Schedule After Template is Applied

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. Click on ***Select Predesigned Template***.
3. Select from the categories to the right to activate a visual of all the categories' templates.
4. Select the template to be used. It will appear in the display window.
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. The instructions will display when the Template opens.
Templates are categorized by common usage.

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

Create and Save a Template

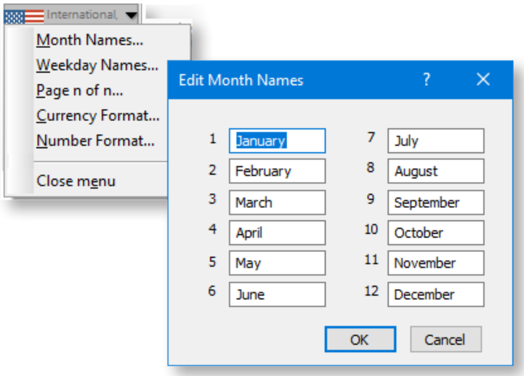
Open a blank schedule and format it (*see pg. 2-40 for schedule elements that are retained by a template.*) Or, open an existing schedule that is already formatted.

1. Choose **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 | *Personal Template*** and name the template ***default.mtp***.

   ✍The default.mtp, is the empty schedule that displays when the software is opened or when selecting **File | Files and Templates: Open and Save Options | *New***.
4. Click ***Save***.

International Support

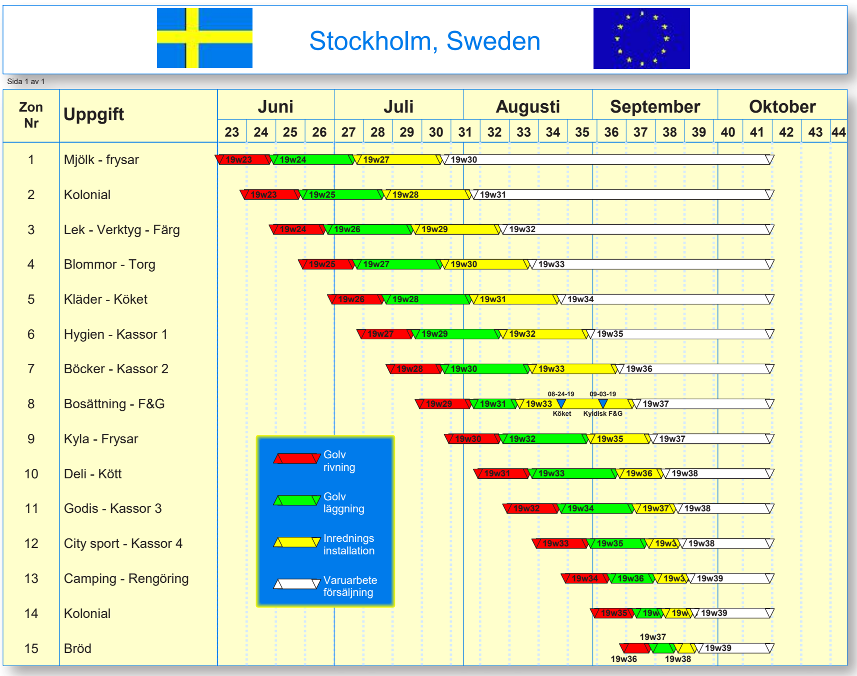
If English is not the user's language of choice, or if the user's preference is the metric measurement system, Milestones Professional provides the capability to set up custom language templates for any language. Choose **Format | International | *International Number and Currency Settings*** to substitute a different language for month, weekday and page names. Choose the appropriate currency and number format for an international customer. This is a schedule change so other schedules will not be affected.



Milestones Professional also picks up the date format and measurement type choices directly from the **Windows | Setting | *Time & Language*** settings.

ISO Week Number Format

Milestones Professional supports the International Standards Organization's standards for week numbering. The ISO week numbering is available in Milestones' list of **Date Headings** and **Symbol Date Format**, find these options on the **Dates** tab.



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 Symbols and Horizontal Bars
- Move a Symbol or Symbol, Horizontal Bar Combination
- Delete a Symbol, Horizontal Bar, or Vertical Link
- Override a Symbol's Horizontal Bar's, or Vertical Link's Properties
- Add and Edit a Vertical Link
- Symbol Dependencies and Vertical Links
- Add Symbol Text, Symbol Note or Freeform Text to a Schedule
- Substitutable Text
- Chart Title
- Legend Entries
- Add Pictures
- Columns, Column Cells, Column Headings
- Task Rows
- Page Breaks
- Bookmarks
- Find Milestones Files Based on a Text Search
- Find and Replace Text
- Undo
- Right-Click Menus
- Keyboard Shortcuts
- Schedule View Options

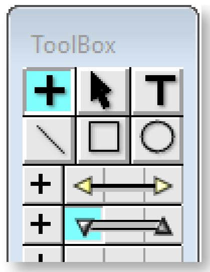
For new users, the best way to learn how to use Milestones Professional is to go through each of the Tutorials located in the toolbar under **Help | Help Files | *Tutorials***.

Add Symbols & Horizontal Bars

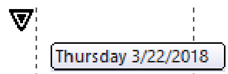
A symbol on the schedule shows a single day event (milestone). A symbol-horizontal bar-symbol combination shows the time span of a task. A horizontal bar cannot exist on the schedule without symbols on each end.

✍ A task can have the appearance of a horizontal bar using symbol shape #28 (null symbol) as the start and end symbol. Null symbols on the schedule can be highlighted for viewing and selection by choosing **View | Optional items | *Highlight invisible symbols***. Change the highlight color **Connections | Other | *Color***.

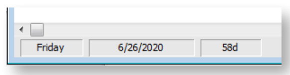
Add a Single Symbol



1. In the toolbox, select the large **(+) Plus** tool. Then click once on the symbol to be added. Selections made in the toolbox are sunken and highlighted.
2. Move the cursor (it changes to a crosshair) to a task row in the schedule area.
3. Next, left click and hold the mouse. Drag to the right or left, and release at the desired date.

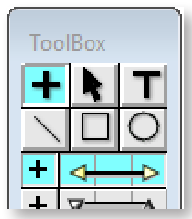


✍The date is displayed next to the cursor (now an upside down triangle) as the mouse moves. This Tooltip feature can be toggled off and on in **Tools | Program Options | Help | *No Tooltips in Schedule area***.

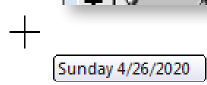


✍The date information can also be seen at the bottom left of the Milestones window in the status bar.

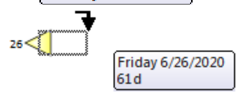
Add a Symbol-Horizontal Bar-Symbol Combination



1. In the toolbox, click once on the **Small Plus** next to the symbol-horizontal bar-symbol combination to be added to the schedule. The symbol-horizontal bar-symbol next to the Small Plus selected will be sunken and highlighted.
2. Move the cursor to a task row in the schedule area. Notice that the date is displayed next to the crosshair cursor.



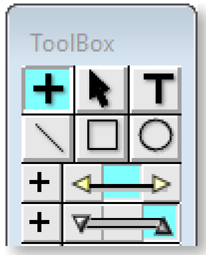
3. Once the cursor shows the task's start date left click and hold the mouse, drag to the right, and release at the task's end date.



✍The start symbol is added and the cursor changes to a black down arrow that can display the dates and duration as it is dragged. The date and duration are a Tooltip feature that can be toggled off and on in **Tools | Program Options | Help | *No Tooltips in Schedule area***.

Add a Horizontal Bar and Symbol to an Existing Symbol

Use when a symbol is already on a schedule.



1. Select the large **(+) Plus** tool in the toolbox.
2. In the toolbox, click once on the horizontal bar to add. The selections are sunken and highlighted.
3. In the toolbox, click once on the symbol to add.
4. On the schedule, position the cursor directly on top of the existing start symbol. Left click on the symbol and hold down the mouse button. Drag to the left or right. Release the mouse button when the symbol is on its date. View the status bar to see dates as the symbol is dragged.

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 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. They are now 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 symbol to connect.
4. Hold the keyboard Shift key and click once on the symbol to be connected. The two symbols should now be highlighted.
5. The Toolbar's **Selection** tab is activated for both symbols. Choose Connect.

Add a Recurring Task

1. On the schedule, select a symbol or the first symbol of a symbol-horizontal bar-symbol combination.
2. Select **Insert | Recurring Task | *Insert a recurring task***. The ***Schedule Recurring Task*** wizard displays.
3. The task information will display in each dialog. In the first dialog select the task recurrence pattern ***Daily***, ***Weekly***, ***Monthly***, ***Yearly***. Choose ***Next***.
4. Each time interval option has specific recurrence settings set. Choose ***Next***.
5. Set the recurrence range either by number of ***Occurrences*** or an ***End by*** date. Choose ***Next***.
6. A **Summary of Recurrence Settings** displays. Review and press ***Finish***.

Add Symbol and/or Horizontal Bar with Date SmartColumns

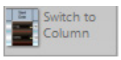
If the schedule has date SmartColumns, manually type in dates or use the calendar icon to enter dates in the column cells. This results in a symbol and/or a symbol, horizontal bar, symbol combination to display on the schedule.

✍Display calendar icons in date SmartColumns by selecting **View | Optional Items |** ***Show Calendar icons in date columns***.

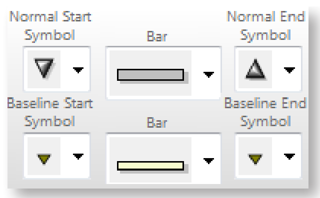
There are five date SmartColumns Start Date, End Date, Baseline Start Date, and Baseline End Date that allow addition of a symbol or a symbol-horizontal bar-symbol combination to the schedule. To add any of these columns to a schedule choose **Insert | Rows, Columns | New Column |** ***Dates*** check the columns to be inserted.

Choose Symbol and Horizontal Bar Style for Date SmartColumns

After any of the date SmartColumns are added to the schedule select the symbol and horizontal bar style to be added to the schedule when a date is entered into one of the column's cells.

1. Click anyone of the date SmartColumn headings. The Toolbar's **Selection** tab becomes active for that column's heading.
2. Choose ***Switch to Column***. 

3. The **Selection** tab is now active for the column. In the **Date SmartColumn Display Settings** section choose the drop downs for ***Normal Start Symbol***, ***Bar*** and ***Normal End Symbol***. The selected symbols and horizontal bar will be placed on the schedule when dates are entered in the cells under the Start Date and End Date SmartColumns.



   ✍Symbols available in the drop downs reflect the symbols in the toolbox.

   ✍If both a start and end date are entered in the date SmartColumns, a horizontal bar will be drawn between the two dates.

4. In the **Date SmartColumn Display Settings** section choose the drop downs for **Baseline Start Symbol**, **Bar** and **Baseline End Symbol**. The selected symbols and horizontal bar will be placed on the schedule when dates are entered in the cells under the Baseline Start and Baseline End Date SmartColumns.

   ✍To have symbols take on baseline characteristics they must be set as a Baseline symbol in the toolbox *(see Chapter 2 pg. 2-21)*. Or, use the Baseline Setup Wizard *(see Chapter 5 pg. 5-10)* to choose the symbols and horizontal bar to be used. Thus, eliminating the need to select symbols in step 4.

   ✍Another way to access the symbols and horizontal bar style for date SmartColumns, double click the column heading. The **Column Properties** dialog displays. Choose the **Column Type (SmartColumn) Settings** tab.

Move a Symbol or Symbol-Horizontal Bar-Symbol Combination

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

With 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. Then release the mouse button.

✍Movement of a symbol may effect the movement of other symbols, horizontal bars and vertical links based on Dependency Mode settings *(see pg. 3-13).*

With a Date SmartColumn

If the schedule has a Start Date, End Date, Baseline Start Date, Baseline End Date or Status Date SmartColumn, manually type a date or use the calendar icon to change an existing date in the column cell. Changing a date moves the existing symbol.

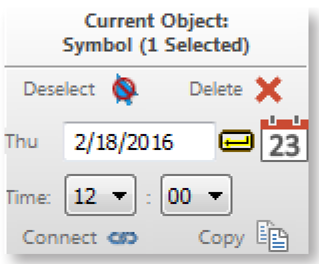
✍Insert a date SmartColumn by selecting **Insert | Rows**, **Columns | New Column |** ***Dates...*** and choose from ***Start Date***, ***End Date***,***Baseline Start***, ***Baseline End*** or ***Status Date***.

✍Display calendar icons in date SmartColumns by selecting **View | Optional Items |** ***Show Calendar icons in date columns***.

Other Methods

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)**.

   ✍A selected symbol highlights with a box around it.



3. Enter a new date and press the apply button or use the calendar icon 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.

Highlight Moved 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.

✍Change highlight color **Connections | Other | *Color***.

Copy symbol or symbol-horizontal bar-symbol combination

1. Select the **(↖) Arrow** tool in the toolbox.
2. Select symbol or start symbol of the symbol-horizontal bar-symbol combination.
3. Hold down the keyboard ***Ctrl*** key and drag to anther task row.

Delete a Symbol, Horizontal Bar

Delete a Symbol

1. Select the **(↖) Arrow** tool in the toolbox.
2. On the schedule, click on the symbol and press the keyboard Delete key.

   ✍A selected symbol highlights with a box around it.

Delete a Horizontal Bar

1. Select the **(↖) Arrow** tool in the toolbox.
2. On the schedule, right-click the originating symbol for the horizontal bar. The right click menu displays.
3. Select ***Clear Horizontal Bars***, ***Clear Horizontal Connection from Symbol 1 or Clear Horizontal Connection from Symbol 2***.

Delete all Symbols and Horizontal Bars on a Task Row

1. In the task row column, right click to get the right click menu.
2. Select ***Clear Symbols*** to delete all symbols and horizontal bars on that task row.

   ✍Horizontal bars can not exist on a schedule without symbols on either end. Thus if all symbols are deleted all horizontal bars will be deleted.

3. Select ***Clear Horizontal Bars*** to delete all horizontal bars between symbols on that task row. Symbols will not be affected.

Override Individual Symbol & Horizontal Bar, Properties

Symbol and horizontal Bar settings can be overridden on an individual basis once a symbol or horizontal bar is placed on the schedule.

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. Select from one of the nine tabs at the bottom of the **Selection** tab.

Text Tab

Select the **Text** tab to add up to three lines of text to a symbol. Change the default properties of the entered text to individual properties by selecting from the following options available on the Text tab. Also reset individual properties back to the default.

- **Font Size, Color, B, *I*, <u>U</u>**
- **Line by Line Text , Color, B, *I*, <u>U</u>**
- **Combine Text Lines**
- **Date Suffix & Prefix**
- **Custom Date Format**
- **Text & Date Vertical Placement**
- **Text & Date Horizontal Placement**
- **Text & Date Opacity**
- **Text Alignment**
- **Text & Date Angled**
- **Text Centered on Horizontal Bar**

✍To change global symbol text settings choose **Format | Default Text | *Symbol Text***.

✍Globally change symbol text position and color for each type of symbol in the toolbox.

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.

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.

Combine Text Lines

Check on ***Combine Text Lines*** to merge symbol text line 1, 2 and/or 3 into a single line of symbol text. Uncheck to have text return to original lines as entered.

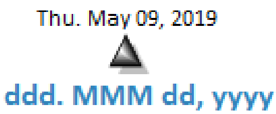
Symbol Date Prefix and Suffix

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. The selected symbol will highlight with a box around it.
3. In the **Text** tab, next to ***Date Prefix***, enter up to 9 characters to appear before the symbol date.
4. In the **Text** tab, next to ***Date Suffix***, enter up to 9 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.
2. Choose ***Apply Text Changes***.

Character Strings for Custom Dates. ISO Formats are available but not displayed.

DAY	
d	1
dd	01
ddd	Sun
dddd	Sunday

Month	
M	1
MM	01
MMM	Jan
MMMM	January

Year	
y	1
yy	01
yyy	2001
gg	A.D.

Angled Text and Date

Symbol text for the selected symbol will be angled when this option is selected. Select to also have that symbol's date at an angle.

The angle degree is a global setting. Go to **Tools | Program Options | Edit |** ***Angle for Angled Symbol Text***.

Size/Color Tab

Select the **Size/Color** tab to override default properties of the selected symbol and horizontal bar.

Override an Individual Symbol's Size

1. Select the **(↖) Arrow** tool in the toolbox.
2. On the schedule, click once on the symbol. The **Selection** menu in the toolbar is now displayed. Select the **Size/Color** tab, in the **Symbol Size Override** section. Key in an override size (.10 to 5.00). Choose ***Reset*** to have the symbol size revert to the chart default.

   ✍Set the global default symbol size by choosing **Format | Frame, Highlights | Symbol Size**. Symbol default properties, like size, can be set in the toolbox.

Uncheck ***Ignore size override for text and date placement*** to have the placement of symbol text and symbol date position adjust with the size of the symbol.

✍Symbol text position can be adjusted horizontally closer or further from the symbol by choosing **Tools | Program Options | Edit | Adjust Horizontal Symbol Text Position**.

Override an Individual Symbol's Color

1. Select the **(↖) Arrow** tool in the toolbox.
2. On the schedule, click once on the symbol. The **Selection** menu in the toolbar is now displayed. Select the **Size/Color** tab. Find the **Override Symbol and Bars Colors** section. Select ***Symbol Fill Color***, and/or ***Symbol Outline Color*** color button to display the color palette to change the symbol's colors.

Choose ***Reset*** to have the symbol color revert to the symbol's default. Symbol default properties are set in the toolbox.

✍To remove all individual symbol color overrides from all symbols choose **Tools | Other Tools | Manage: Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides | Manage Symbols | *Remove all individual symbol override colors***.

Check on ***Also override after status color*** to have the symbol take on the **Symbol Fill Color** if **Symbols: Fill to Status Date** is turned on.

✍**Symbols: Fill to Status Date** option is found on the **Dates** tab.

Check on ***All colors are light gray*** to have the selected symbol, its symbol text and any horizontal bar linked from it gray out.

Override a Horizontal Bar's Default Fill Color

Horizontal bars, on the schedule, color can be overridden on a bar-by-bar basis.

✍Any symbol can originate two horizontal bar connections.

1. Select the **(↖) Arrow** tool in the toolbox.
2. On the schedule, click once on the symbol from which the horizontal bar originated. The **Selection** menu in the toolbar is now displayed. Select the **Size/Color** tab, find the **Override Symbol and Bar Colors** section.
3. For ***1st Bar Color***, click the color box to display the color palette. Choose the override color. Optionally choose ***1st Bar Outline*** color palette.
4. If exists, choose ***2nd Bar Color*** box to display the color palette. Choose the override color. Optionally choose ***2nd Bar Outline*** color palette.

Reset reverts the horizontal bar's color to the default as set in the toolbox.

✍***Remove all bar override colors and bar outline colors*** go to **Tools | Other Tools | Manage: Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides | Manage Symbols**.

Override a Horizontal Bar's Percent Complete Fill

Bars, on the schedule, fill percent complete can be overridden on a bar-by-bar basis.

✍Any symbol can have two horizontal bar connections.

1. Select the **(↖) Arrow** tool in the toolbox.
2. On the schedule, click once on the symbol from which the horizontal bar originated. The **Selection** menu in the toolbar is now displayed. Select the **Size/Color** tab. Find the **Override Symbol and Bar Colors** section.
3. For ***1st Bar Fill %***, click the drop down box choose a %.
4. For ***2nd Bar Fill %***, click the drop down box choose a %.
   - Select the ? Question button for rules about bar fill %.

✍**Bars: Fill to Status Date** option found on the **Dates** tab needs to be checked on to have the bars fill with color to the % complete selected.

A selected symbol can have a percent override, so that it will fill if any percent is given. If a symbol should not fill until it is at 100% check on the option ***100% needed to fill milestone***.

✍To remove individual % override set the ***Bar Fill %*** to **None**.

✍***Remove all percent complete overrides from every symbol*** go to **Tools | Other Tools | Manage: Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides | Manage Symbols |** .

Override an Individual Symbol's Vertical Task Row Position

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

1. Select the **(↖) Arrow** tool in the toolbox.
2. On the schedule, click on symbol. The **Selection** menu in the toolbar is now displayed. Select the **Size/Color** tab. In the **Other Overrides** section. select the ***Vertical Symbol Position*** drop down choose from 11 possible vertical positions.

   ✍Set symbol default vertical task row position in the toolbox *(see Chapter 2 pg. 2-24*).

"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 originating symbol of the horizontal bar.
3. In the **Selection** menu, click the **Size/Color** tab.
4. In the **Other Overrides** section check on ***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.

   ✍Use the keyboard arrows for better selection of symbols on dense schedules.
2. On the schedule, click on the symbol to be shown on top.
3. In the **Selection** menu, click the **Size/Color** tab.
4. In the **Other Overrides** section check on ***Symbol is on top***.

Summary/Mark Tab

Select the symbol on the schedule. Then click the **Summary Mark** tab, use **Override Symbol Summary Bar Settings** options to roll-up symbols to the summary level.(*see Chapter 4 pg. 4-11).*

Select a symbol on the schedule. Then click the **Summary Mark** tab. In the **Override Symbol Mark Settings** section change or add a symbol mark and its color.

✍Globally change symbol mark properties for symbols in the toolbox.

Notes Tab

Add a visible or hidden note to a symbol (*see pg. 3-18).*

Hyperlinks Tab

Add or remove a symbol hyperlink (*see Chapter 8 pg. 8-14).*

Constraint Tab

Add a constraint date or expectation to a symbol.

- ***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***

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.

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

✍To remove all constraints from all symbols choose **Tools | Other Tools | Manage: Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides | Manage Symbols | *Remove constraints from every symbol***.

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*), Primavera file (*see Chapter 11*) or Excel (*see Chapter 12 pg.12-12*).

Value Set Tab

Add values to a symbol for generating DataGraphs (*see Chapter 7 pg. 7-11*).

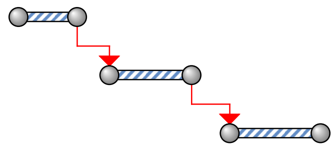
Vertical Link Tab

Add or break vertical links; override their color, shape or line pattern *(see pg. 3-15).*

Symbol Count SmartColumn

The Symbol Count SmartColumn reports the number of symbols on a task row. Choose **Insert | Rows, Columns | New Column | *Symbol Count***.

Symbol Dependencies & Vertical Links



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

Dependency Mode and Display

When 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 and controlled in the Status Bar located at the bottom right of the Milestones Professional window.

Turn Dependency Mode On and Off

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

1. Check on **Dates | Date Related Settings | *Dependency Mode*** to turn on dependency mode
   - 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***.

   ✍When dependency mode is on, right-click any parent symbol. Choose ***Highlight Dependent Symbols.*** The parent (predecessor) symbol will highlight with a red circle on top of it. All dependent (successor) symbols will be highlighted with a red circle behind them. Right click the parent symbol again and select ***Dehighlight Dependent Symbols*** to turn off highlighting.

Show or Hide the Vertical Links

When vertical links are established they may be visible or hidden.

1. Choose **View | Optional Items |** select ***Task Links***, vertical links will display.

Vertical links from a specific symbol can be hidden.

1. Select the **(↖) Arrow** tool in the toolbox. Select the symbol with the vertical link.
2. Choose **Vertical Links |** and check on ***Hide Vertical Links from this symbol***.

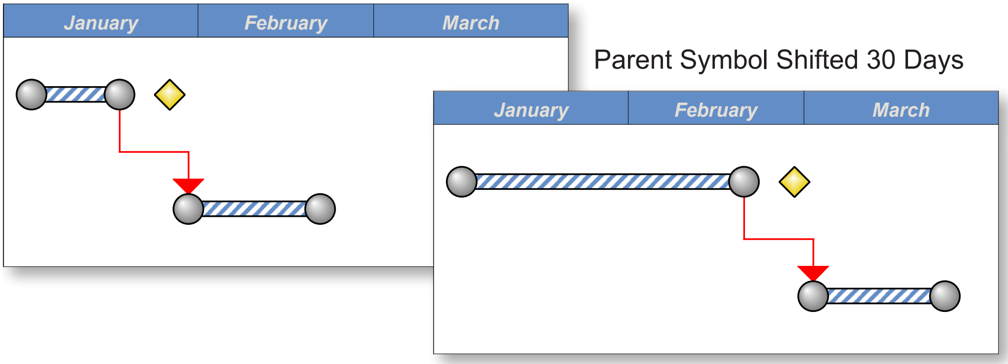
   ✍Even when the vertical links are hidden, the rules for the movement of parent (predecessor) and dependent (successor) symbols still apply.

   ✍***Remove all hide vertical connection settings from every symbol*** go to **Tools | Other Tools | Manage: Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides | Manage Symbols**.

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.



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.

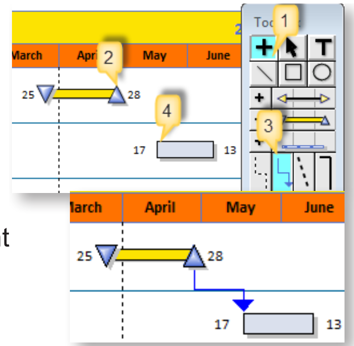
By checking ***Always move dependent symbols based upon duration*** (as found under **Tools | Program Options |** ***Dates)***, the dependent tasks will move the amount of working time the parent symbol was moved. This prevents tasks from being pushed into non-working times and ensures duration values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

✍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 & Edit a Vertical Link

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

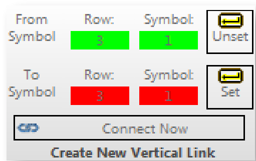
   ✍Must be on a lower or higher task row.

If vertical links are not showing 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 schedule.

1. Select the **(↖) Arrow** tool in the toolbox. Also, in the toolbox click on the vertical link to add.
2. On the schedule, click the parent symbol. The toolbar is now active for that **s**ymbol.
3. On the bottom of the toolbar, choose the ***Vertical Links*** tab.



4. In the **Create New Vertical Link** section, press the ***Set*** button on the **From Symbol** line. The boxes now display the row and ordinal number of the selected symbol and have turned from red to green.
5. In the schedule area, click once on the dependent symbol for the vertical link. The toolbar is now active for that symbol.

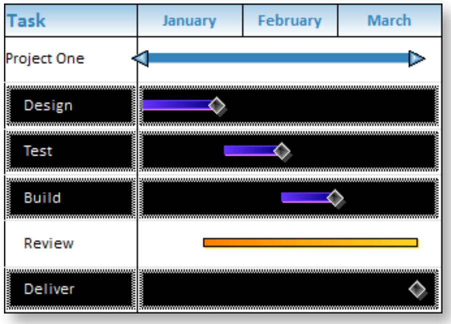
   ✍Must be on a lower or higher task row.

7. In the **Create New Vertical Link** section, press the ***Set*** button on the **To Symbol** line. The boxes now display the row and ordinal number of the selected symbol and have turned from red to green.
8. Press ***Connect Now***.

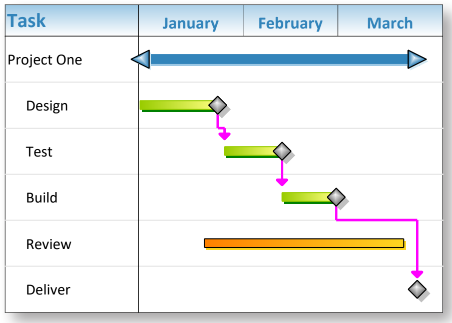
   ✍After the connection is established choose the ***Unset*** buttons next to **From Symbol** and **To Symbol** before adding the next vertical connection.

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 the (↖) **Arrow** tool in the toolbox. Also, 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***, ***(SS) - Start to Start***, ***(FF) - Finish to Finish***, ***(SF) - Start to Finish***.
- Check on ***Display Vertical Task Links***.

  ✍Vertical links can be shown or hidden. Choose **View | Optional Items |** ***Task Links***.

Edit an Existing Vertical Link

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, Line Pattern, Shape

Up to five vertical links can originate from a symbol. Each of those links can have its color, line pattern and/or type modified from its default setting.

1. Select the (↖) **Arrow** tool in the toolbox.
2. On the schedule, click once on the symbol from which the link(s) originated.

3. The **Selection** tab is now activated for that symbol. Choose ***Vertical Links*** tab. In the **Vertical Links from the Current symbol** section, under **Link 1** through **5** choose the button above **Reset** to override the link's color. Choose the down arrow in box next to the color override to override the link's line pattern. Choose the down arrow in box below the line pattern override to override the link's type.

   ✍Vertical links override type is limited to the eight shapes currently set-up in the toolbox.

   ✍Choose ***Reset*** to set the vertical link back to the toolbox default.

Delete Vertical Links from all Symbols on a Task Row

1. In the column area, right-click the task row with the parent symbols.
2. Choose ***Clear Vertical Links***.

Delete Vertical Links from all Symbols, on selected Task Rows

1. Select the **(↖) Arrow** tool in the toolbox.
2. Holding the **Ctrl** key, click (in the column) for each task row that contains parent symbols. This activates the toolbar's **Selection** tab for the task rows.
3. Go to **Task Row Settings | More Task Row Options |** ***Clear Vertical Links***.

Delete 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**: The row's numeric value indicates the task row number at which the vertical link ends. The symbol's numeric value is the connected symbol's numeric position on the task row, counting from left to right with a base of 1.
4. Click the ***Break Link*** button for the appropriate vertical link.

Delete all Vertical Links

To remove all vertical connection links from all symbols choose **Tools | Other Tools | Manage: Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides | Manage Symbols |** ***Remove all vertical connection links from every symbol***.

Add Text to the Schedule

Set Default Text Style

Globally change ***Chart***, ***Column***, ***Legend***, ***Symbol***, ***Symbol Mark***, ***Freeform Datagraph*** and ***Symbol Notes*** text font, style, color and size under **Format | Default Text**.

Add Text to a Column

To insert a text column choose **Insert | Rows, Columns | New Column |** ***Text***.

1. Select the **(T) Text** tool in the toolbox.

2. Click once in a column cell. Once the flashing cursor displays, begin typing.

   ✍Use the keyboard arrow keys 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. Global symbol text settings for font, style, color, size and reset choose **Format | Default Text |** ***Symbol Text***.

1. Select the **(↖) Arrow** tool in the toolbox. On the schedule, click once on the symbol to contain the symbol text. The toolbar is now active for that symbol.

2. At the bottom of the toolbar, select the **Text** tab. Enter up to three lines of symbol text in ***Line 1***, ***2*** and/or ***3***. Press the ***Apply Text Changes*** button.

   ✍Remove text from all symbols **Tools | Other Tools | Manage: Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides | Manage Symbols |** ***Remove all three lines of symbol text from every symbol***.

Symbol Note

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 notes on the schedule.(**Format | Default Text | Symbol Notes |** ***Display Note on Schedule*** or print a notes page **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 dialog when all choices have been selected. Important, in the **Symbol Note Display** section of the toolbar ***Display Note on Schedule*** must be checked on to show note on the schedule.

- ✍To have a round symbol note, check on ***Note is Circular*** in the **Symbol Note Display** section of the **Symbol Note** tab. ***Special Effects*** options will change to have circular highlighting options.
- ✍Symbol notes are attached to their parent symbol but can be moved around by using the direction controls in the toolbar or clicking and dragging the notes to a new position.
- ✍While also in the dialog or the notes tab of the toolbar, select to have symbols with notes ***Show Note Numbers*** or be highlighted with the symbol note icon, ***Highlight Symbols with Notes***. These are global settings therefore all symbols with notes will display a number and/or note icon.
- ✍To remove symbol notes from all symbols **Tools | Other Tools | Manage: Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides | Manage Symbols|** ***Remove symbol notes from every symbol***.

Format Symbol Notes

Enhance symbol notes with text features **(B, *I*, U, ~~S~~).** Optionally use codes to have text features applied line-by-line. Include images within the note. Enhance the symbol note block with a variety of color, frame, and connector options. To set symbol notes defaults choose **Format | Default Text |** ***Symbol Notes***.

The following codes can be inserted to modify the formatting of the text on a line by line basis. These codes are <r> right justified. <c> centered.<b> bold.<i> italic. The command <rgb:r,g,b>, e.g. <rgb:80,192,80> causes the text in the line to be the color specified by the red, green, blue values. These commands can be anywhere in the line and the justification is applied to the entire line.

- ✍Hard line breaks must be used to control the line breaks in the displayed note. Each line can be up to 150 characters.

Add a picture to a note.

1. For a picture to appear in a note, the picture (original) must be added to the schedule. Pictures (original) can be placed to the right of the schedule's border or on an unused page of the schedule (for this option send the picture to a new page after you have inserted it into the note). Either placement choice will not show the picture when the schedule is printed, saved to a PDF or imported into PowerPoint. Add a picture by inserting a picture from a file using **Insert | Picture, Legend | Picture from File** or paste a picture copied to the clipboard.

   - ✍To resize the symbol note picture, the original picture added to the schedule must be resized.
   - ✍After adding the picture to the note, to move the original picture to an unused page. Then select the picture. The toolbar is now active for the picture. In **Page |** ***Current Page*** enter an unused page number and press the ***Update Page*** button.

✍To manage the location of a picture on an unused page choose **Tools | Other Tools | Manage: Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides |** ***Manage Picture***.

2. Tag the picture.

   a. Using the **Arrow** tool click the original picture. The toolbar is now active for the picture.

   b. In the yellow ***Automation Tag*** field, enter a name for the picture. (Like: ***MyPicture***). Click the update button.

   c. If sharing the schedule, in the **Properties** section select ***Convert to Embedded Picture***. This insures the picture is contained in the file.

3. Add the tagged picture to a symbol note.

   a. Using the **Arrow** tool, click once on the symbol. The toolbar is now active for that symbol.

   b. Select the **Notes** tab.

   c. Type the following into the symbol note space: <image tag=“MyPicture”> (no spaces around the =). (MyPicture is the name given in step2b.)

   d. Press the ***Apply Text Changes*** button.

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

- Change the ***Background Color***, ***Target Colo***r, ***Frame Color***, and ***Shadow Color*** of the note. Use the ***Special Effects*** drop down option to have opaque, transparent, or a faded background.

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

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

- To have a shadow on the note, check on ***Display Note Shadow.***

- Check on ***Connect to Center of Note*** to move the connector to the bottom central point of the note. All circular note connectors are set to the bottom central point of the note.

- Select the drop down choose the Frame type to surround the symbol note.

  ✍Choose **Tools | Other Tools |** ***Convert Symbol Text to Note Text*** to convert all or some of the symbol text within a schedule to symbol notes.

Hide all Symbol Dates,Text and Notes on a Schedule

To hide date, symbol text and note display for all symbols on a schedule, choose **View | Other | *Override Symbol Text and Symbol Date Display***. Under **Dates**, choose to ***Hide all symbol dates***. Under **Text**, choose to ***Hide all symbol text*** and /or ***symbol notes***. These setting override 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***.

Add a Symbol Text SmartColumn to Display 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. Any coding in notes will display as text, thus pictures and specifed code text charateristics will not display in the column as in the note.

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 is stationary and does not move.

1. Select the **(T) 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.

    ✍Manage all freeform text blocks’ location, hyperlink, tag, or deletion by choosing **Tools | Other Tools | Manage: Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides | *Manage Freeform Text***.

Format Freeform Text

Set freeform text default properties **Format | Default Text | Freeform Text**.

Set individual freeform text block properties.

1. Select the **(↖) Arrow** tool in the toolbox.

2. Click once on the freeform text. The toolbar is now active for the freeform text.

   In the toolbar in the **Text** section:

   - Type in a url or file path in the ***Hyperlink*** box to attach a hyperlink to freeform text. Be sure to select ***Update Link***. Check on ***Auto Launch*** to enable clicking of the freeform text box to launch the hyperlink.

   In the toolbar in the **Background Color** section:

   - Choose ***Fill Color*** for the background. Uncheck ***Transparent*** to show background color. Select ***Effects*** to select a fade type to the ***Target*** color.
   - To have more margin around the text check on ***Extra Space Around Text***.
   - ***Watermark Layer***: Freeform text is drawn on top of any gridlines, shading, and watermark layered pictures but under symbols, horizontal bars, vertical links, text bars. Freeform text used in this layer should be a light color to avoid obscuring the text, bars, and symbols that lie on top.

   In the toolbar in the **Page** section:

   - Select ***Current Page*** to show freeform text, then choose ***Update Page*** or select to have freeform text ***Show on All Pages***.

   In the toolbar in the **Font** section:

   - Change the font type and size, ***Text Style*** **(B, *I*, U, ~~S~~),** text's ***Horizontal Alignment***, text's ***Angle*** (***0***, ***90°***, ***-90°***, ***30° no BG***, ***45° no BG***) and/or ***Text Color***. To override line-by-line text color use the command <rgb:r,g,b>, e.g. <rgb:80,192,80>.

     ✍Freeform text at ***30°*** and ***45°*** (***no BG***) does not allow background colors and outlines.

   In the toolbar in the **Border** section:

   - Choose ***Color*** and ***Line Type*** for the border. Check on ***Draw border*** to show border around freeform text.

     ✍Check on ***Show Shadow*** and ***Set Shadow Color*** to add highlight to the freeform text block.

Copy, Paste and Move Freeform Text

To copy, right-click a freeform text box and choose ***Copy***. Right-click the freeform text box again and select ***Paste Text Block*** to paste.

To move freeform text, select with the **(↖) Arrow** tool in the toolbox and drag to the new location.

SubstitutableText

Substitutable text (text strings, preceded by an ampersand “&”) can be added to certain areas of the schedule. These text strings will be filled with actual values.

Symbol Text and Notes

Substitutable Text String	**Displays**
&col01, &col02,...&col19, &col20	Column Text
&normaldur	Used Duration
&completeddur	Computer system date
&remainingdur	Remaining Duration
&aheadbehinddur	Ahead or Behind Duration
&durtoconnectedsym	Duration of symbol, horizontal bar, symbol
&percentcomplete	Percent Complete for the task row
&barfill1percent	Percent complete for the first bar originating from the symbol.
&barfill2percent	Percent complete for the second bar originating from the symbol.
&date	Displays the symbol date as symbol text.
&wbs	The wbs value for the task row. There must be a WBS column defined.
&vs1 for ValueSet 1, &vs2 for ValueSet2, ... &vs9 for ValueSet 9	The value for any Symbol ValueSet which is defined. &vs1 will display the value for ValueSet 1, &vs2 for ValueSet 2.
&yearnumber	The year number (2015, ...)
&monthnumber	The month number (1-12)
&daynumber	The day of the month (1-31)
&monthname	The name of the month (January-December)
&dayname	The day of the week (Monday-Sunday)

Freeform Text

Substitutable Text String	**Displays**
&date	Schedule’s current date
&systime	System time
&sysdate	System date
&curpage	Current page number
&maxpage	Maximum page number
&filename	Current file name

Column Text

Substitutable Text	Displays
&coltot	Column total
&colavg	Column average
&colmin	Column minimum
&colmax	Column maximum
&sysdate	System date
&systime	System time
&date	Schedule's current date
&curpage	Current page number
&maxpage	Last page number
&filename *	Current file name

*Display the file name without the path choose **Tools | Program Options | Edit |** ***Leave out path when displaying &filename substitutable strings***.

Chart Title

Enter up to three lines of text for the chart title. To add a chart title, choose **Insert | Title |** ***Insert/Edit Chart Title.*** The **Specify Title** dialog box will display.

- Under ***Title Text***, click once and enter text.
- Choose a text **Justification**.
- Under **Title Background Color Override** select a background color. Choose ***Effects*** for fading of the background color to the ***Target Color for Special Effects***.
- 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***. Choose to check on ***Draw Shadow*** and choose its ***Color*** and ***Size***
- Under **Text Highlights**, choose ***None, Engrave, Emboss***, or ***Shadow*** to give dimension to the title text.
- Check on ***Insert Extra Space Under Chart Title*** to increase the amount of space between the title and the schedule.

To edit the chart title use the **Arrow** tool to click once on the title. The toolbar at the top of the Milestones window is now active for the chart title and has title options. Or, double click the chart title to get the **Specify Title** dialog box to display.

The top of Chart title is set with an automatic top margin. To eliminate this margin choose **Layout | Page Size |** check on ***Ignore Automatic top Margi***n.

Legend Entries

The Legend height should be large enough to contain all entries to be inserted. To adjust the legend height go to **Layout | Legend Size | *Enter Legend Height***. 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

1. Choose **Insert | Picture, Legend | *New Legend Entry*** or Select the + next to the symbol-horizontal bar-symbol combination in the toolbox, the row will highlight. Right click the + and select ***Insert Selected Row into the Legend***.
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.

   ✍Set default legend text properties with **Format | Default Text | *Legend Text***.
4. Click one or all of the 4 drop-down arrows for ***Show Symbol One, Show Bar, Show Symbol Two***, and ***Show Vertical Link*** to view and make selections. Check the box to have the symbols, horizontal bar and/or vertical link display.

   ✍All symbols, horizontal bars and vertical links in the drop-down boxes under ***Show Symbol One, Show Bar, Show Symbol Two***, and ***Show Vertical Link*** are in the toolbox. If a different symbol, horizontal bar or vertical link style is is not available, then add it to the toolbox.
5. Choose an optional ***Override Color*** for symbols and horizontal bars.

   ✍To have legend symbols and horizontal bars show after status coloring check on ***Show After Status Settings***.
6. Text changes made in the **Common Settings** section affect all legend entries.

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.

Delete a Legend Entry

To delete a Legend entry, right-click on the entry and select the ***Delete Legend Entry***.

Copy and Paste a Legend between Schedules

Legend entries use symbols and connectors from the toolbox in the schedule in which they reside. To insure symbols reflect the copied legend, the toolbox of the target schedule needs to have the symbols used in the legend set up in the toolbox exactly as they are in the copied legend's toolbox. Copy a toolbox to another schedule (*see Chapter 2 pg. 2-19*). All other characteristics of the copied legend will be reflected when pasted into the target schedule.

1. Choose **File | Chart** to open both schedules in the same instance of Milestones.
2. On the Legend to be copied right-click and select ***Copy Legend***.
3. To paste the Legend, right click in the Legend area on the target schedule and select ***Paste Legend***.

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***.
   - 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.

✍To access picture options: ***Rotate***, ***Copy***, ***Delete***, ***Show on top***, ***Watermark Layer***, ***Show on all pages*** or specify a page, ***Increase or Decrease*** size ***by %***, or add a ***Hyperlink***. Use the **Arrow** tool to select the picture, activating the toolbar for the picture's options or right click the picture and choose an option or ***Properties***.

✍Watermark Layer: Objects are drawn on top of any gridlines or shading, but under symbols, horizontal bars, vertical links, text bars. Images used in this layer should be a light color to avoid obscuring the text, bars, and symbols that lie on top.

✍To resize the picture, click once on it, hold down the **Shift** key (to keep it in proportion), click-and-hold on a corner of the picture, and drag.

✍To insure the picture is contained in the schedule when sharing the file. Use the **Arrow** tool to select the picture. Select **Properties |** ***Convert to Embedded Picture***.

✍If a template is set up for a company containing a logo, use the **Arrow** tool to select the picture (logo). Select **Properties |** ***Convert to Template Picture***.

Inserted pictures can be managed in the **Manage Pictures** dialog box. Choose **Tools | Other Tools | Manage: Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides | *Manage Pictures***. In this dialog box find page where picture is placed. Usually used when pictures are put on a nonexistant page for the purpose of symbol notes or not selectable background picture shown on all pages.

Columns, Column Cells and Column Headings

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.

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 per side), the new column will appear on the right side.

   ✍Inserted SmartColumns display an additional dialog with options to select.

Insert a column between two existing columns on the schedule:

1. Select the **(↖) Arrow** tool in the toolbox.
2. Left side of the schedule: Click the column heading (it will highlight) to have the column insert to the left of the selected column heading.
   Right side of the schedule: Click the column heading (it will highlight) to have the column insert to the right of the selected column heading.
3. Choose **Insert | Rows, Columns | New Column** select column type to insert.

Insert multiple columns and/or adjust column widths:

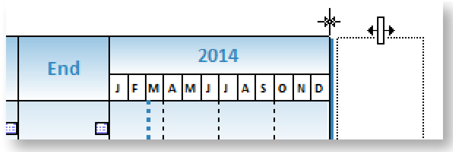
1. Choose **Layout | Page Size | *Overall Column Layout***.
2. Enter values for columns on the left and/or right. Press the ↵ apply changes button.

Select a Column

1. Select the **(↖) Arrow** tool in the toolbox.
2. Select the Column's heading (it will highlight) and the toolbar's **Selection** tab becomes active for the column heading.
3. Choose ***Switch to Column*** 

(the column will highlight).

Move a Column



1. Select the (↖) **Arrow** tool in the toolbox.
2. Move the cursor to the top edge of the column, until the cursor changes to the move column cursor.
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. When the insertion cursor displays at the point to place the column, release the mouse button.

   ✍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. Go to the **Layout | Page Size |** ***Horiz:***.

Delete a Column

1. Select the (↖) **Arrow** tool in the toolbox.
2. Right-click the column heading and choose ***Delete Column***.

- or -

1. Choose **Layout | Page Size |** ***Overall Column Layout***.
2. Select the **Red X** below the column to delete. Left side remaining columns will shift to the right, right side remaining columns will shift left, to be closer to the schedule's edge.

Hide a Column

1. Select the (↖) **Arrow** tool in the toolbox.
2. Right-click the column heading and choose ***Hide Column***.

- or -

1. Choose **Layout | Page Size |** ***Overall Column Layout***.
2. Select the column number to show or hide the column. Column numbers are colored **Grey when** hidden.

Move Between Column Cells

Press the arrow keys ← → ↓ ↑ on the keyboard to move between columns and cells.

Set Column Properties

Select a column heading. The toolbar changes to **Selection** for the **Column Heading.** Then, use the ***Switch to*** button to toggle to **Column** to set the column's properties. Column properties can also be accessed by double clicking the column heading (the **Column Properties** dialog box displays.)

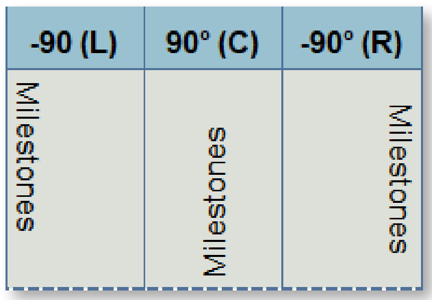
In toolbar section **Column Type and Format** or in the **Column Properties** dialog box on the **Column Type (SmartColumn) Settings** and the **Column Formatting** tabs set the following properties:

- Set the column type. Choose ***none*** for a basic text column. Choose the drop down arrow to select a SmartColumn. Most SmartColumns will have a variety of features that can be accessed by choosing the ***Properties*** button.

- Set ***Text Style***, ***Text Size***, ***Alignment*** (horizontal text alignment in cells), ***Text Color***, ***Cell Text °*** (for vertical text and alignment in cells).

  ✍Set default column text under **Format | Default Text | *Column Text***.

  ✍Set-up an individual column with 0°, 90°(L), -90°(L), 90°(C), -90°(C), 90°(R), or -90°(R) vertical cell text and alignment. This is a global setting for the column therefore all cells in the column will have vertical text.



- Set the column indention value ***Indent per Outline Level***. By the default the indention is from left, optionally check on ***Indent from right***.

- Select to display values as ***Currency*** and select the ***Decimal Places***.

  ✍The currency symbol is controlled under **Format | International | *International, Number, and Currency Settings***.

- Enter a value for the column's ***Width***. -or- Adjust the column width through **Layout | Page Size | *Column Layout***. **-**or- Use the toolbox **Arrow** tool to drag columns on the left, right border or columns on the right, left border.

- Select ***More Column Options*** to delete, insert, hide, and/or show column. Also clear, copy, paste, the column's text. ***Reset Columns Font and Font Colors to Default*** settings or ***Reset All Row and Cell Font/Color Overrides for all columns***.

In the toolbar section **Date SmartColumn Display Settings** or in the **Column Properties** dialog box on the **Column Type(Smart Column) Settings** tab set the following global properties (all Date SmartColumns on the schedule will be affected):

- ***Show time as 24 Hours***

  ✍Set hourly minute detail **Dates | More Date *Settings* | *Hourly, Minute, and Shift Settings***.

- Select to ***Hide Year, Hide Month Day and Year,*** and/or ***Hide Time.***
- ***Show Calendar*** icons for easy selection of dates in Date SmartColumns.
- ***Use Custom Date Format*** e.g. ***MMM. dd, yy*** will display as Oct. 3, 2020. Select the ? for character information or *(see pg. 3-8)*.
- If using **Start Date** and **End Date SmartColumns** to add a symbol, horizontal bar, symbol combination to the schedule select the style for the ***Normal Start Symbol,*** then the ***Bar,*** then the ***Normal End Symbol*** from the drop down menu.
- If using **Baseline Start Date** and **Baseline End Date** SmartColumns to add a symbol, horizontal bar, symbol combination to the schedule select the style for the ***Baseline Start Symbo***l, then the ***Bar,*** then the ***Baseline End Symbo***l from the drop down menu.

  ✍The symbols and horizontal bars in the drop down are those available in the toolbox. If the symbol or bar style necessary is not available then add it to the toolbox *(see Chapter 2 pg. 2-20, 2-27)*.

In the **Column Background** section of the toolbar set the column's ***Background Color*** choose ***Background Color Special Effects*** to have a gradient fill to a ***Target Color***. If using the **Column Properties** dialog box, these options are found on the **Column Formatting** tab.

Set Cell Properties

Use the **Arrow** tool to select the cell once. The toolbar changes to **Selection** for the **Object Task Row**. Use the ***Switch to*** button to toggle to the **Selected Cell**. The toolbar is now active for that cell. **- or -** Double click the cell to have the **Column Text and Task Row Properties** dialog box display.

In the toolbar section **Cell Text Setting** or the **Cell Settings** tab in **Column Text and Task Row Properties** dialog box set the following cell properties.

- Set the text: ***Size***, ***Color***, **Text Style (B, *I*, U, ~~S~~)**, ***Horizontal Alignment***.

  ✍Vertical cell text is a global column setting (*see pg. 3-29)*.

- Select ***Set Line by Line Text Color Overrides*** to display the ***Text Color Properties*** dialog to set different text colors for the first five lines of text in that cell.

- Select ***Allow Text to Overflow from Cell*** to allow text to continue into the next cell, horizontally, instead of wrap in the current cell. Use this feature with **Hide Right Grid** found in the **Background Cell Color** section of the toolbar.

- ***Copy, Cut, and Paste cell text .*** Choose ***Multiple Paste*** to have copied text fill a selected cell and all subsequent cells in that column, on that page.

In toolbar section **Cell and Tag Text**:

- Add or update cell text. If using the toolbar select ***Update Cell Text***.

  ✍Cell text word wraps automatically on the schedule. If using the **Task Row Properties** dialog box to add text ***Word wrap Text in box below*** to have the text wrap in the dialog box text window.

  ✍By default ***Automatically Adjust Task Row Height when Entering Text*** is turned on in **Tools | Program Options | Edit**.

- (This option only available in the toolbar) ***Blank SmartColumn Data in this Cell*** check on to hide SmartColumn data for this cell only. To eliminate SmartColumn data for the entire task row right click a cell in the row, choose the option **Blank SmartColumn Cells**.

  ✍When there are task rows in a schedule with no information in the schedule area SmartColumn cells may fill with information. Choose **Tools | Program Options | General** and check on ***Blank SmartColumn Cells on all Blank lines***.

- Add an automation tag for importing (*see Chapter 10,11,12*). If using the toolbar be sure to select ***Update Tag***.

In toolbar section **Background Cell Color:**.

- Choose the ***Background Color*** also choose to have a gradient fill, ***Special Effects***, blend to the ***Target Color***.

- (These Options only available in the toolbar) Choose ***Hide Bottom*** or ***Right Grid*** to eliminate borders and combine cells. These cell borders are created by interior column dividers and horizontal gridlines *(see Chapter 2 pg. 2-31)* that separate task rows.

  ✍Turn on/off ***Interior Column Dividers*** **Format | Frame, Highlights | Background color, border, frame corners**.

In toolbar section **Cell Border.**

- Add a border, in addition to or in lieu of interior column dividers and horizontal gridlines, to the cell or cells. Choose ***Color*** and ***Line Type*** for the border, ***Click*** each ***border edge to show or hide*** in the selected cell.

Remove various cell by cell overrides for the entire schedule or for a specific column only by choosing **Tools | Other Tools | Manage Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides | *Manage Cell Overrides***.

✍For the ***Remove selected overrides for selected column only*** option to be active you must first select either the column heading, column, or column cell of the column to be modified before selecting the Manage Cell Overrides option.

Set Column Heading Properties

Set the column heading properties by selecting the column heading to have the toolbar change to **Selection** for the **Column Heading**. Also accessed by double clicking the column heading to have the **Column Properties** dialog box display.

In toolbar section **Column Heading Text** or the **Column Heading** tab in **Column Properties** dialog box set the following properties:

- Enter up to two lines of text for a column heading. Be sure to select ***Apply Text Changes***.

- If importing a field from Microsoft Project select the field for the ***Automation Tag***. Select ***Apply Tag Changes***. In the **Column Properties** dialog choose the **Column Formatting** tab to set an ***Automation Tag***.

In toolbar section **Column Heading Text Display Settings** or the **Column Heading** tab in **Column Properties** dialog box set the following properties:

- Set the text: Font, Size, ***Text Color***, **Text Style (B, *I*, U, ~~S~~)**, ***Horizontal Alignment***, ***Vertical Alignment,*** **Text Attributes *(engrave emboss shadow)*** and angle (***0°***, ***90°*** or ***-90°***) (Found only on the toolbar).

- Choose the ***Background Color*** also choose gradient fill, ***Background Color Special Effects***, blend to the ***Background Target Color***.

- Choose ***Exclude Inner Heading Divider*** to have a merged cell look.

- Choose ***Allow Text Overflow*** to have text flow to the next column heading.

Check on ***Apply Changes to all column headings*** to apply all selected properties to all other column headings.

✍Right click the column heading to zoom, access heading and column properties delete, insert, hide column and clear column text.

Task Row

Display 2 to 300 task rows per schedule page **Layout | Page Size | *Rows per Page***.

✍Turn on or off task row line guides **View | Optional Items | *Line Guides***. Line Guides do not display over Horizontal Gridlines.

Insert a Task Row

Select a task row . Then, choose **Insert | Rows, Columns | *New Task Row***. The inserted task will insert above the selected task row. Or, right-click a task row. In the menu that displays select ***Insert Task Row.*** The inserted task will insert above the right clicked task row.

Task Row Properties

To set individual task row properties click a column cell, the entire task row will highlight. The toolbar change to **Selection** and is now active for that task row.

✍Double clicking a cell in a task row brings up the **Column Text and Task Row Properties** dialog. On the **Task/Row Settings and Info** tab see task row symbol type and date information. Also set row height, add Hyperlinks and override summary bar colors.

In the toolbar section **Task Row Settings** set the following properties, all cells in the task row will be affected.

✍A when using the toolbar you can select more than one task row, using the shift or controls keys, to change properties of the selected task rows.

- Text: ***Size***, ***Color***, **Text Style (B, *I*, U, ~~S~~)**, and/or horizontal ***Alignment***
- **Row Height Override:** Enter a value and select the apply button.

  ✍Row height can be adjusted by dragging the bottom margin of a task row, if ***Allow Task Row Height Adjustments*** is turned on in **Tools | Program Options | Edit**.
- Choose 1-20 for a tasks row(s) ***Outline Level*** for summary purposes *(See Chapter 4)*.
- Enter a value for ***Upper/Lower Symbol Spacing %*** for vertical distance between symbols *(see pg. 3-11)*.
- Select ***More Task Row Options*** (only applies to the task row(s) selected).
  - » Select only a single task row to ***Insert a task row*** which will insert above the selected task row.
  - » ***Clear Horizontal Bars***, ***Clear Vertical Links*** and ***Clear Symbols*** delete all symbols,horizontal bars and vertical links on the selected task rows.
  - » ***Blank SmartColumn Cells*** eliminates SmartColumn data for the entire task row.

- Select ***Set Date Offset/Status Date/ %*** to view, set, and delete status values for the task.
- ***Bookmarks*** add, jump to or show *(see pg. 3-38)*.
- ***Show all Task Rows*** to view any hidden, filtered or collapsed task rows.
- ***Show or Collapse Task Rows to hide or view summary leveled tasks.*** *(See Chapter 4).*
- ***Gridline/Shade*** *(see Chapter 2 pg. 2-32)*.
- ***Insert Page Break*** *(see pg. 3-37)*.
- ***Attach Date Heading*** *(see Chapter 2 pg. 2-10)*.

In the toolbar section **Hyperlink Settings**: ***Add, Edit* or *Break*** files or url hyperlinks. Check to ***Show Hyperlink Icons*** *(see Chapter 8 pg. 8-13).*

In the toolbar section **Cut, Copy, Paste, Delete, Hide** select the option. Check on ***Cut/Copy Only Visible Rows*** when a schedule has hidden task rows.

In the toolbar section **Summary Bar Color** if a task row contains a summary bar (*See Chapter 4*) or baseline summary bar the default color can be overridden as well as the after status default color.

✍Right click any task row in the column area to display a list of task row options.

Hide/Show Task Row

1. Select the **(↖) Arrow** tool in the toolbox.
2. In the column area right-click the task row(s) choose ***Hide Task(s)***. To show hidden task rows select ***Show all Task Rows***.

Copy Task Row(s)

Task rows can be copied within a schedule or between schedules. For step by step instructions choose the **Help | *Help Topics***. In the Milestones Professional Help dialog choose the ***Index*** tab. Type in ***copy*** select ***task row***.

Manage Task Row Overrides

Manage Task Row Overrides allows a global removal of task row overrides. Including, ***Remove days/hours/minute offset ahead/behind status override***, ***Remove all tasks by task gridline and shading overrides***, ***Remove all task by task font attribute overrides*** (This also resets any cell by cell font attribute overrides within the task row), ***Remove task row curtains***.
Choose **Tools | Manage Symbols, Pictures, Freeform Text, Lines, Boxes, Circles, Cell Overrides, Task Row Overrides | *Manage Task Row Overrides...***.

Task Number SmartColumn

The Task Number SmartColumn numbers the project steps. Choose **Insert | Rows, Columns | New Column | *Task Number***.

- Choose the ***Starting Task Number***. This number will begin the task row numbering.
- Choose ***Number all rows*** to number each task row, including blank and summary rows.
- Choose ***Skip rows with no task descriptions*** to number each row except for those without text located in a text column.
- Choose ***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 comment or no symbols are skipped.

Sort Tasks

In the **Tools** menu, in the **Sort Schedule** choose the following options to rearrange task rows:

- ***By Date*** in ***Ascending*** or ***Descending*** order. Then choose to sort ***By First Date in Task*** or ***By Last Date in Task***. When choosing ascending order choose to ***Maintain Outline Structure***. Optionally choose ***Max Level to Sort***.
- ***By Selected Column***: Use toolbox **Arrow** tool to select the column to sort in ***Ascending*** or ***Descending*** order. Pick the type of column text ***Numeric***, ***WBS Number***, ***Text*** or ***Date***. Choose to maintain the outline structure.
- ***By Multiple Columns*** in ***Ascending*** or ***Descending*** order. Select subset of task rows to be sorted prior to selecting multiple column sort, then in the **Multi-Column Sort** dialog box choose ***Selected Task Rows***. Finally select up to three columns to use in the sort . Selecting the column's text **Data Type** for an accurate sort.

  ✍Have up to 10 saved sort options (***Save Settings/Name***),which can be given a name and saved. To use sort again choose the sort name from list, then choose ***Retrieve Settings***. Reset a saved sort name back to Sort # by selecting the name then selecting ***Reset Name***.

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" information by task row(s).

When a filter is used to look at column information Milestones will look at all columns' information unless a specific column is selected. Use the **Arrow** tool in the toolbox to select a single column. Filter options that look at column information are ***Column Text Containing***, ***Numbers in columns greater than***, ***Numbers in columns less than***, ***Numbers in a Column range***.

The following options should be selected first if they apply to the filtering needs.

- ***Always include the parent tasks of any tasks selected by filter*** to keep family tasks grouped together.
- ***Only examine currently visible tasks***: This option allows use of more than one filter or eliminates hidden task rows from filter.
- ***Do not show rolled up symbols and bars from hidden rows on filter results:*** This option is used when Milestones summary bars individual symbol roll up is being used *(See Chapter 4)*.

Now select the type of filter.

- ***Date Range*** displays task rows with symbols falling in the date range entered.
- ***Column Text Containing*** displays task rows with or with out text entered (as selected) in a column or columns. Choose up to 8 text entries to filter by. Name and save up to 10 filters to a schedule. To use named filter select it then choose ***Retrieve Settings***.
- ***Numbers in column greater than*** displays only task rows with numbers in a column or columns that are greater than the entered number.
- ***Numbers in column less than*** displays all task rows with numbers in a column or columns that are less than the entered number.
- ***Outline Level*** displays task rows at and above the level selected, 20 outline levels available.
- ***Task Number Range*** displays task rows with in the number range selected. View task row task numbers, insert a Task Number SmartColumn *(see pg 3-34)*.
- ***Symbol/Bar type*** displays task rows with the selected symbol and/or bar types selected. Choose to ***Hide all symbols that do not match filter.***
- ***Some Symbols within Date Range*** displays task rows with at least one symbol within the date range entered.
- ***All Symbols within Date Range*** displays task rows that contain only symbols within the date range entered.

- ***Last Symbol within Date Range*** displays task rows with the last symbol in the task row falling within the date range entered.
- ***Numbers in Column in Range*** displays task rows with a column or columns that contain a value less than or greater than the values entered.
- ***Symbol Type within Date Range*** displays task rows with a selected symbol within an entered date range set.
- ***Symbol Text/Notes Containing*** displays task rows with symbols with symbol text and symbol notes that contain the entered text to filter by. Symbols with the entered text will be highlighted.

Page Break

A page break can be applied to a task row.

Add a Page Break:

Use the **(↖) Arrow** tool to select the task row below where the page should break. Choose **Insert | Page Breaks | *Break before selected row***. **- or -** Right-Click the task row below where the page should break. From the displayed menu select ***Insert Page Break***.

✍The task row selected will be at the top of the new page.

Automatic Page Breaks

By selecting ***Insert page breaks (automatic)*** on the **Insert** tab Milestones provides a timesaving option to automatically insert page breaks based on outline level or on the selected number of rows.

Based on outline level select to place each outline level 1 task and all of its subtask on separate pages.

Based on number of rows select a number to have Milestones place a page break after the selected number of rows.

Remove a Page Break:

Right-click the first row of the page with the page break. From the displayed menu select ***Remove Page Break***. **- or -** Use the **(↖) Arrow** tool to select the first row of the page with the page break. Choose **Insert | Page Breaks | *Remove break from selected row***.

Remove all Page Breaks:

Click **Insert | Page Break | *Remove All Page Breaks***

Format Page Break Page:

When using page breaks on a schedule with a legend it is best to check on one of these options: ***Leave Gap between Chart and Legend*** or ***Floating Legend*** (*see Chapter 2 pg. 2-9*). If one of the above options is not applied to the legend it will attach to the bottom of the schedule and may not look the same on all pages.

Page breaks truncate the bottom of the chart. To fill the page with task rows insert task rows (*see pg. 3-33*) before the break or increase the row height of the task rows (*see pg. 3-33*) on the page.

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: 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 to delete all bookmarks choose ***Delete all Bookmarks Now***.

The ***Task row of Bookmark*** number indicates the row location of the selected task. Numbering is 1-based, begins with the first task row, and includes any hidden tasks.

Find Milestones Files with Text Search

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

Once the list of files 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***.

Find Text

Use **Edit | Find, Replace, Go to Page | *Find*** to quickly find specified text. To limit the scope of the schedule search check on the specific areas of the schedule to search: column text, freeform text, symbol notes, symbol text, symbol tags, and cell tags.

Use **Edit | *Instant Text Find*** to enter specified text, then click the arrow to move to the next task row containing the specified task the task row containing the text will highlight and the results of where the text can be found in the task row s displayed.

Find and Replace Text

Use **Edit | Find, Replace, Go to Page | *Find and Replace...*** to make individual text changes. To limit the scope of the schedule search, check on the specific areas of the schedule to search: column text, symbol text, freeform text, symbol notes, symbol tags, and column cell tags.

Use **Edit | Find, Replace,Go to Page | *Find/Replace All...*** to find and review the result list of found text, before checking on ***Replace with:*** to make global text change. To limit the scope of the schedule search, check on the specific areas of the schedule to search: column text, symbol text, freeform text, symbol notes, symbol tags, column cell tags, and all hyperlinks (symbol,task row, freeform text and graphics).

✍To verify the find selections before replacing all text finds review the ***Results*** list displayed. To verify selections, choose an individual result then select ***Go to Current Selection*** to jump to that found text on the schedule. Symbols, Freeform text, graphics containing the text will highlight with a box around them, task rows containing the text will highlight in black.

✍Once the replace is complete the dialog box remains open with the option to ***Undo***. If you should close the dialog box and decide you do not want the replace all, use the ***Undo*** feature found on the **Edit** tab.

Multiple Undos

By default Milestones allows 20 undos **Edit | Undo | *Undo:(last action)***. The undos can be set from 1 to 100 undos for the active file, go to **Tools | Edit |** set ***Max Undos to Save (1 to 100)***. To redo last undo go to **Edit | Undo | *Redo:(last undo action)***.

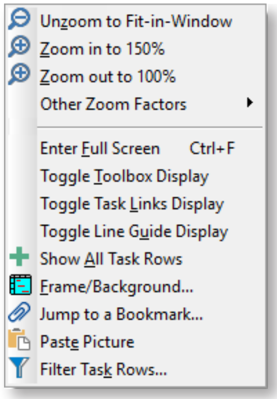
✍To review undo and redo information choose **Edit | Undo | *Undo List***.

✍Number of undos are visible in the status bar. Select to undo.

Right-Click "Context Sensitive" Menus

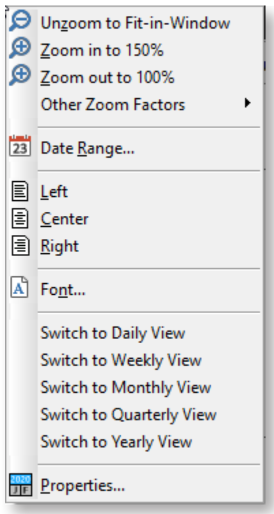
Right-clicking parts of the **Schedule** displays a menu with a list of options.

Right-click the **Schedule Area** to access the following functions:



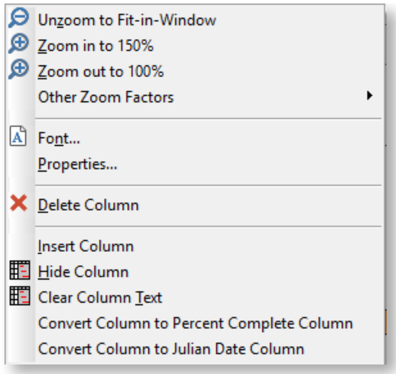
- ***Zoom to 100%***
- ***Other Zoom Factors***: Zoom into the right clicked area to a factor from ***Custom - 500 %***. Set up custom zoom **View | Viewing Options | Zoom: | *Set Custom***.
- ***Enter Full Screen***: To exit full screen mode use the escape key or ***Ctrl+F***.
- ***Toggle Toolbox***: Hides a free floating toolbox (*see Chapter 2 pg. 2-15)*.
- ***Toggle Task Links Display***: Shows or hides vertical links (*see pg. 3-13).*
- ***Toggle Line Guide Display***: Shows or hides task row line guides.
- ***Show All Task Rows***: Displays hidden, filtered or rolled up task rows.
- ***Frame/Background***: Displays **Frame and Background** dialog *(see Chapter 2 pg. 2-6).*
- ***Jump to a Bookmark***: Displays **Bookmark** dialog *(see pg. 3-38).*
- ***Filter Task Rows***: Displays **Filter Task Row** dialog *(see pg. 3-35).*

Right-click the **Date Headings** to access the following functions:



- ***Zoom***: Zoom into the date headings by choosing a zoom factor from ***Custom - 500 %***. Set up custom zoom **View | Viewing Options | Zoom: | *Set Custom***.
- ***Date Range***: Displays **Schedule Details** dialog *(see Chapter 2 pg. 2-13).*
- ***Left Center Right***: Right click each heading to set the alignment.
- ***Font:*** Right click each heading to set font type, size and color.
- ***Switch View, Daily, Weekly Monthly, Quarterly*** or ***Yearly***: Select the time period to change the schedule's view. Use Shift +PgUp/PgDn to scroll the schedules dates. Change the scroll factor **Dates | More Date Settings | Page by Page Date Overrides | *Working days to scroll with Shift +PgUp/PgDn***.
- ***Properties***: Displays **Date Headings** dialog *(see Chapter 2 pg. 2-10).*

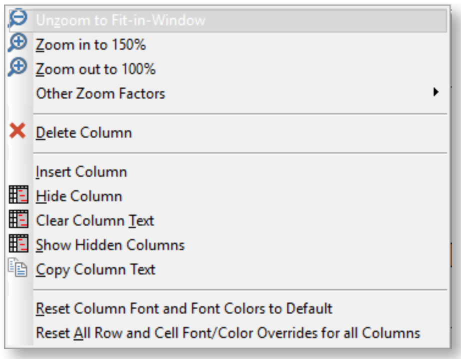
Right-click a **Column Heading** to access the following functions:



- ***Zoom***: Zoom into the column heading by choosing a zoom factor from ***Custom - 500 %***. Set up custom zoom **View | Viewing Options | Zoom: |** ***Set Custom***.
- ***Font:*** Right click a column heading to set text style, size and color.
- **Properties:** Displays Column Properties dialog *(see pg. 3-29)*.
- ***Delete***, ***Insert***, ***Hide*** or ***Show*** columns.
- ***Clear Column Text***: Only deletes text or values in the column.
- ***Convert Column to Percent Complete Column***: A text column of values can be converted to percent complete values along with the symbol(s) and horizontal bar filling to status *(see Chapter 5 pg. 5-4)*.
- ***Convert Column to Julian Date Column***: A text column of dates can be converted to assign a Julian date in the background for calculation purposes.

  ✍Date SmartColumns do not have to be converted for calculation purposes.

Select a **Column** using the **Arrow** tool. Move cursor to the bottom of the column heading, when it changes to a black arrow right click to access the following functions:



- ***Zoom***: Zoom into the column by choosing a zoom factor from ***Custom - 500 %***. Set up custom zoom **View | Viewing Options | Zoom: |** ***Set Custom***.
- ***Delete***, ***Insert***, ***Hide*** or ***Show*** columns.
- ***Clear Copy or Paste Column Text***: Only deletes copies or paste right clicked column's text or values.
- ***Reset Column Font and Font Colors to Default***: Resets selected column's text color, size, and style settings to the default *(see pg. 3-29)*.

  ✍ Task row text overrides will not reset.
- ***Reset all Row and Cell Font/Color Overrides for all Columns***: Resets all columns' text color, size, and style settings to the default *(see pg. 3-30)*.

Right-click a **Task Row** in the column area to access these functions:

- ***Zoom***: Zoom into the task row by choosing a zoom factor from ***Custom*** - ***500 %***. Set up custom zoom **View | Viewing Options | Zoom: | *Set Custom***.
- ***Turn Dependency Mode On/Off***: *(see pg. 3-13).*
- ***Increase/Decrease Outline Level***: *(see Chapter 4 pg. 4-2).*
- ***Insert Task Row***: The row will insert above the right clicked task row.
- ***Link to active MS Project Task with...***:*(see Chapter 10 pg. 10-27).*
- ***Link to active MS Project Task...***: *(see Chapter 10 pg. 10-25).*
- ***Cut/Copy/Paste task or cell text***
- ***Delete Task(s)***: Use the shift key if a group of task rows need to be deleted, then right click.
- ***Clear Horizontal Bars***: Only horizontal bars will be deleted not symbols. Use the shift key to select a group of tasks rows to right click and clear horizontal bars.
- ***Clear Vertical Links***: Symbols will not be deleted just all vertical links originating from symbols on the right clicked task row. Use the shift key to select a group of tasks rows to right click and clear vereical links.
- ***Clear Symbols***: All symbols, horizontal bars and vertical links will be deleted. Use the shift key if a group of tasks rows have symbols that need to be deleted.
- ***Blank SmartColumns Cells***: *(see pg. 3-31).*
- ***Edit Task***: Displays Column Text and Task Row Properties dialog *(pg. 3-33).*
- ***Date Offset/Status Date/% Complete***: Choose to view, set, and delete status values for the task.
- ***Shift Dates***: Displays the **Shift all Dates for Schedule** dialog which gives the option, #***Task Rows are Selected. Check this box if you wish to just shift the dates for the symbols in the selected rows.***,check on to just shift the information in the right clicked task row.
- ***Bookmarks***: Displays Bookmark dialog *(see pg. 3-38).*
- ***Edit task's ValueSets***: Is available if ValueSet 1 and 2 are being used *(see Chapter 7)*.
- ***Show, Expand/Collapse, Selected or All task rows, Hide Task(s)***: These are commands for schedules with filtered, outlined or hidden tasks.
- ***Gridlines/Shade***: Displays ***Horizontal Grid Properties for Selected Rows*** dialog *(see Chapter 2 pg. 2-31).*
- ***Curtain***: Displays ***Curtians for Current Task Row*** *(see Chapter 2 pg. 2-33).*
- ***Font***: Change column cells in a task row, text style, size and color.
- ***Insert page break***: Break will go above right clicked task row *(see pg. 3-37).*
- ***Attach Date heading***: Displays ***Single Row Date Heading Overlay*** dialog *(see Chapter 2 pg. 2-10).*

Right-click a **Symbol** on the schedule to access these functions:

- ***Zoom***: Zoom into the symbol by choosing a zoom factor from ***Custom*** - ***500 %***. Set up custom zoom **View | Viewing Options | Zoom: | *Set Custom***.
- ***Turn Dependency Mode On/Off***: *(see pg. 3-13).*
- ***Copy Symbol/Bar for Paste***: Right click the starting symbol of a symbol, horizontal bar, symbol combination or a symbol select ***Copy Symbol/Bar for Paste***. Once copied right click the task row in a column area and select ***Paste Symbol(s)***.
- ***Delete***: Horizontal bars or vertical links attached to the symbol will also be deleted.
- ***Clear Horizontal Bars***: If a right clicked symbol is a starting symbol of a symbol, horizontal bar, symbol combination select this option to delete the horizontal bar.

  ✍Two horizontal bars can originate from a single symbol. Both bars will be deleted if Clear Horizontal Bars is selected.
- ***Clear Vertical Links***: If a right clicked symbol is a starting symbol of a vertical link select this option to delete the vertical link.

  ✍Five vertical links can originate from a single symbol. All five vertical links will be deleted if Clear Vertical Links. To delete individual vertical links *(see pg. 3-17)*.
- ***Hide /Show Vertical Links***: If a right clicked symbol is a starting symbol of a vertical link select these options to hide or show the vertical links originating from this symbol.
- ***Font:*** Right click a symbol to change it's symbol text style, size and color.
- ***Select Task:*** Right click a symbol to highlight the task row on which it resides.
- ***Schedule Recurring Task:*** Displays Schedule Recurring Task dialog *(see pg. 3-3)*.
- ***Link to Active MS Project Task***: *(see Chapter 10 pg. 10-28).*
- ***Link to Active MS Project Task, date, identifier***: *(see Chapter 10 pg. 10-28).*
- ***Edit Text, Notes, Size or Color, Edit Text Date or Position***s: Opens the symbol's **Symbol Properties** dialog box to the appropriate tab to change the symbol's characteristic.
- ***Create or Update Hyperlink***: Opens the symbol's **Symbol Properties** dialog box to the appropriate tab to work with the symbol's Hyperlinks *(see Chapter 8 pg. 8-14).*
- ***Edit Constraint***: Opens the symbol's **Symbol Properties** dialog box to the appropriate tab to work with the symbol's constraint *(see pg. 3-12)*.

- ***Edit Symbol to Symbol Links***: Opens the symbol's **Symbol Properties** dialog box to the appropriate tab to work with the symbol's symbol links *(see Chapter 8 pg. 8-6).*
- ***Edit Symbol ValueSet***: Opens the symbol's **Symbol Properties** dialog box to add values to the symbol when a ValueSet Type 4 is set up in the schedule (see Chapter 7 pg. 7-11).
- ***Select Symbol and Bar in Toolbox***: The symbol selected and the horizontal bar originating from it will highlight in the toolbox.
- ***Select all Instances of this Symbol Type***: The selected symbol is a specific symbol used from the toolbox, all symbols placed on the schedule using the same symbol from the toolbox will highlight. Once highlighted the symbols can have some characteristics changed, like type.
- ***Select all Symbol***: All symbols on the schedule will highlight. Once highlighted the symbols can have some characteristics changed, like type.
- ***All Hyperlinks Dialog***: Displays the entire list of Hyperlinks for the symbol, which can then be clicked to go to the URL or document.
- ***Hyperlinks***: Displays the up to five Hyperlinks from that symbol that can be clicked to go to the URL or document.
- ***Highlight/Dehighlight Dependent Symbols***: All symbols that will move when the selected symbol moves will highlight. Right click again to unhighlight.
- ***Symbol Shift+Arrow Key Amount***: Select to use ***Shift+Arrow to*** move a symbol in ***Day***, ***Hour*** or ***Minute*** increments. Set minute increments: **Tools | Program Options | Dates | Symbol Placement | *"Snap" to Minute Increment***
- ***View Notes***: Only symbols with notes will have this option available. When selected the symbol note will be displayed.

Right-click the **Toolbox** to access the following functions:

- ***Hide Toolbox***: Only works with a floating toolbox *(see Chapter 2 pg. 2-15).*
- ***Toolbox Properties***: Displays Customize Toolbox Size, Highlight dialog *(see Chapter 2 pg. 2-16).*
- ***Copy/Paste Toolbox***: *(see Chapter 2 pg. 2-19).*
- ***Copy/Paste Selected Row***: *(see Chapter 2 pg. 2-19).*
- ***Sidebar Options***: Displays Sidebar Options dialog *(see Chapter 2 pg. 2-15).*
- ***Turn on/off Tooltips***: Just for the toolbox. All tooltips see **Tools | Program Options | *Help***.

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.”

Pressing this key…	**Causes this action…**
Escape key	Halts current activity when possible.
Tab (or Shift + Tab)	Indents (or outdents) one outline level if the ***Use Tab key for Outlining*** option is selected – See **Tools | Program Options | *Edit*** menu.
F1	Starts Help. If in dialog box, displays context help for selected control.
F3	Repeat Last Find.
F8	Continuous View toggle.
F9	Screen Refresh, redraws the current schedule.
F11	Switches between ***Fit in Window*** view and current Zoom setting.
F12	Toggles through the first six tools in the toolbox.
Alt+F12	Select horizontal bar in toolbox.
Alt+Shift+Right Arrow	Indents (promotes) a task by one outline level.
Alt+Shift+Left Arrow	Outdents (demotes) a task by one outline level.
Ctrl+F12	Select next vertical link in toolbox.
Ctrl+Spacebar	Select next column.
Ctrl+W	Change vertical link coming from selected symbol to type currently selected in toolbox.
Alt+Spacebar	Select next task row.
Ctrl+Alt+Spacebar	Select next column heading.
Ctrl+Shift+Spacebar	Select next Date heading.
Alt+Shift+F7	Displays a screen which enables you to selectively reset symbol settings for all symbols.
Ctrl+Alt+*(on number pad)	Show all task rows.

Pressing this key…	Causes this action…
Shift+F4	Tile Windows
Shift+F5	Cascade Windows
Shift+F10	Display right-click menu for selected item.
Shift + F12	Select next symbol in toolbox. If an entire row in the Combo toolbox is highlighted, then Shift+F12 highlights the next row.
Shift+Right Arrow	When a symbol is selected, changes date forward by one minute, hour, day or week (see **Tools | Program Options | Dates |** ***Amount to Adjust Symbol Date...***).
Shift+Left Arrow	When a symbol is selected, changes date back by one minute, hour, day or week (see **Tools | Program Options | Dates |** ***Amount to Adjust Symbol Date...***).for current setting).
Page Down	Moves to the next page on the schedule.
Page Up	Moves to the previous page.
Ctrl+Home	Moves to the first page.
Ctrl+C	Copy the selected item.
Ctrl+E	Edits currently selected item.
Ctrl+F	View Full-screen toggle.
Ctrl+End	Moves to the last page.
Ctrl+L	Select next left cell (if a task row or cell is currently selected). Selection will only move on one side of the schedule.
Ctrl+M	Change selected symbol to type currently selected in toolbox.
Ctrl+N	Start new schedule.
Ctrl+O	Open a file.
Ctrl+R	Select next right cell (if a task row or cell is currently selected). Selection will only move on one side of the schedule.

Pressing this key…	Causes this action…
Ctrl+S	Save current schedule.
Ctrl+U	Change selected horizontal bar to type currently selected in toolbox.
Ctrl+V	Paste text from clipboard into an active text block.
Ctrl+X	Cut the highlighted text.
Ctrl+Alt+G	Switch to Calendar View.
Ctrl+Alt+S	Start Symbol Maker Program.
Ctrl+Z	Undo
Shift+Page Up	Changes the schedule starting and ending date backward by the number of days specified in the Schedule Details dialog box.
Shift+Page Down	Changes the schedule starting and ending date forward by the number of days specified in the Schedule Details dialog box.
Ctrl+ALT+ plus key on number pad	Expands the selected task by one outline level.
Ctrl+ALT+ minus key on number pad	Collapses the selected task by one outline level.
Ctrl+ALT+ forward slash key on number pad	Expands the selected task to show all of its sub-tasks.
Alt+M	Access the Format menu.
Alt+Tab	Displays the icons of all active programs.
ALT + Ctrl + Arrow keys	Change the date position of the selected symbol on the schedule.
ALT + Arrow Keys	Change the text position of the selected symbol on the schedule.
CTRL+ ALT+ E	Removes file import reference when refreshing.

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. To toggle this option on and off **Tools | Program Options | Files and Automation | *Save Thumbnail image when saving this file***.

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 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 (*see Chapter 9 pg. 15*).

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

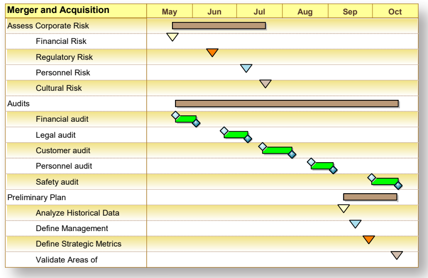
Gantt Views

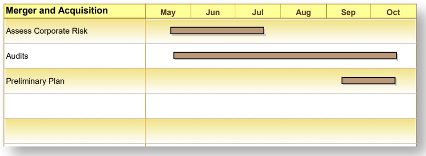
A Milestones schedule can be toggled between three Gantt chart view modes. To switch from one Gantt view to another choose **View | Viewing Options | Chart Type**.

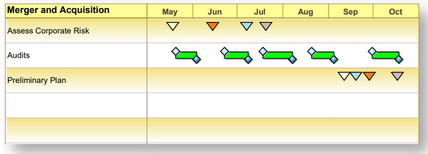
Gantt – Normal View displays the default Gantt chart view.

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**.



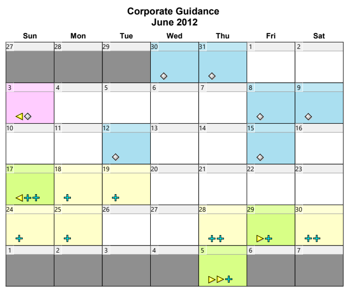




Gantt - Calendar View

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.

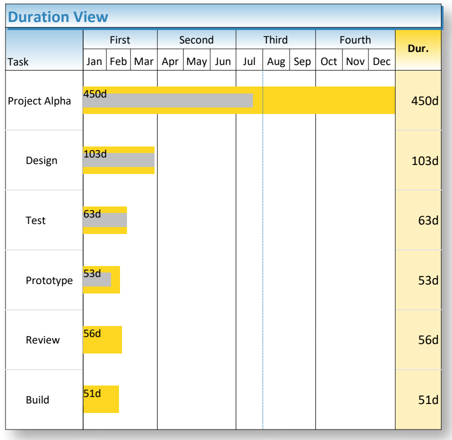
Right click on a day in Calendar View and set a background color. To continue using that same color for different day's background, hold down the C keyboard key and left click in the day to be colored.

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.

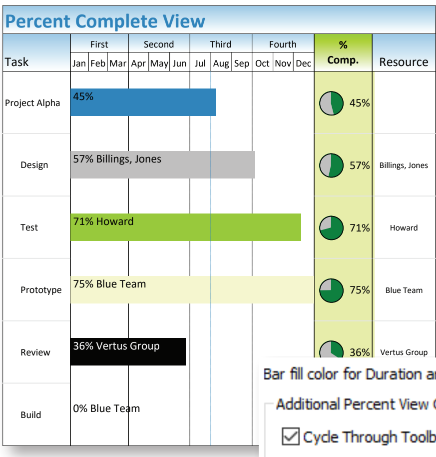


A bar's length corresponds to a task's duration value. The gray fill indicates the completed portion. The longest duration uses the full width of the schedule area.

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***.

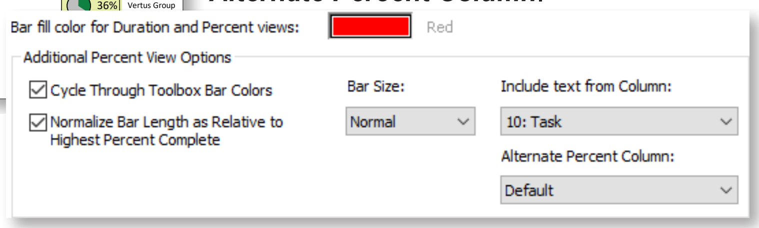
Gantt - Percent Complete



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

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

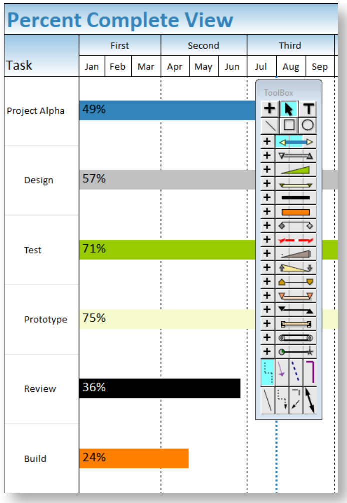
Optionally an alternate column of values can be selected to be represented by bar graphs, **Tools | Program Options | General |** ***Alternate Percent Column***.



Each task displays a bar indicating its percent complete or value in column selected. A bar's length corresponds to a task's percent complete value or value in selected column in relation to the date heading length. Optionally the bar's length can be normalized relative to the highest percent complete or value in selected column, **Tools | Program Options | General |** ***Normalize Bar Length as Relative to Highest Percent Complete***.

The bars graphed can have widths of **Normal**, **Medium** or **Large** select, **Tools | Program Options | General |** ***Bar Size***.

The bars graphed can all be the same color **Tools | Program Options | General |** ***Bar fill color for Duration and Percent views***.

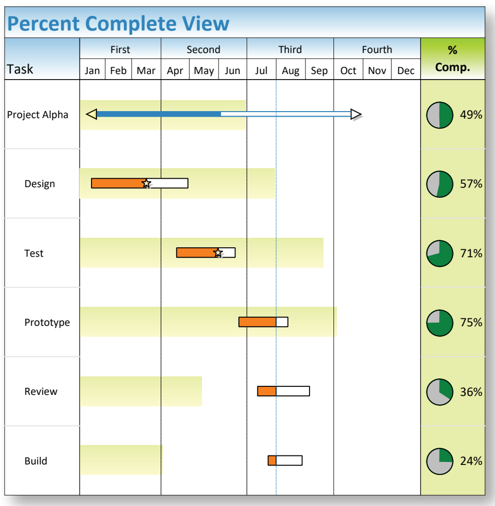


The bars graphed can be colored based on the toolbox horizontal bar colors. **Tools | Program Options | General |** ***Cycle Through Toolbox Bar Colors***. The toolbox contains 32 horizontal bars. If the option ***Cycle Through Toolbox Bar Colors*** is selected the first bar graphed will be the color of the first horizontal bar's fill color in the toolbox. Then the second bar graphed will be the color of the second horizontal bar's fill color in the toolbox and so on. If the chart contains more than 32 tasks then the cycling of color will begin back at the first horizontal bar's fill color in the toolbox.

By default, the percent value will be added as text to the bars graphed. Optionally column text can be displayed in the bars graphed (**Tools | Program Options | General |** ***Include text from column***.)

Percent Complete Gridlines

An alternate option to show Percent Complete as shading in a task row while maintaining the tasks symbols and horizontal bars is to choose **Format | Gridlines |** ***Percent Gridlines***.

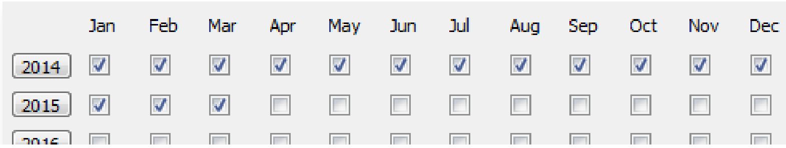


- Check on ***Draw Percent Complete Gridlines.***
- Set the ***Shade Color*** choose ***Special Effects*** to have a gradient fill to the ***Effects Target Color***.
- Choose percent gridlines to shade task rows based on computed percent complete or a value from a selected column. Values must to be between 0 - 100.
- Choose the percent gridlines shade's height or position: ***Height of Row, Symbol Height 2, 3, or 4 times Symbol Height, Upper Half of Row,*** or ***Lower Half of Row***.

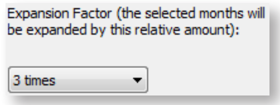
Logarithmic View

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 2014 (the button for that year.) To expand only certain months just check the months to be expanded.

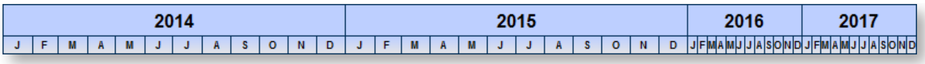


3. For the expansion factor, choose 2, 3, 4, 5, 6, 7 or 8 times, to indicate the relative factor to use for expansion of the selected months/years.

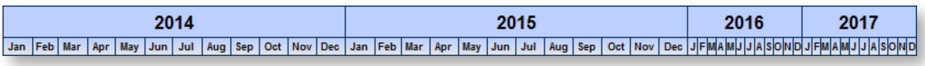


4. Select ***Use more characters for month names in expanded months when possible***. If this option is not selected Milestones will only put in the number of characters that can fit in the smallest time segment in the heading.

Not Selected

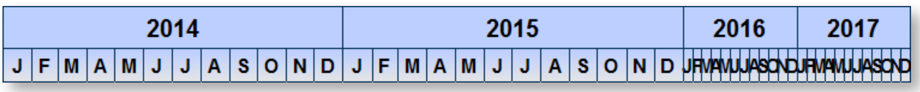


Selected

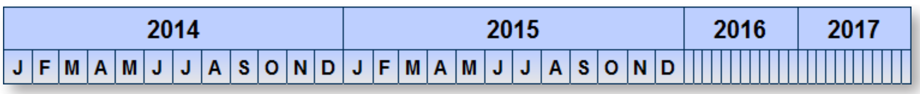


5. Select ***Do not display anything in Date heading block if not enough space*** to prevent text overrun in time segments.

Not Selected



Selected



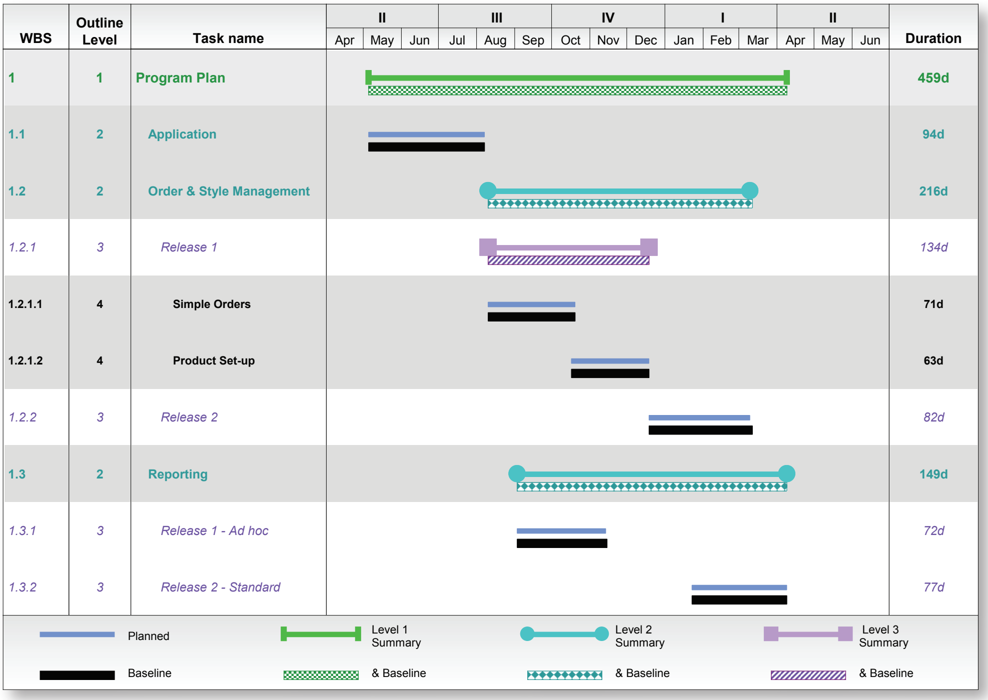
6. Click **OK** to complete the setup.
7. After completing the logarithmic view setup, choose **View | Viewing options | Chart Type |** ***Gantt - Logarithmic: View*** to switch to logarithmic view.

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 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.



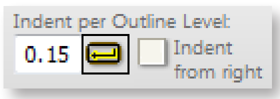
This example is outlined to four levels. The "Task Name" column uses the outline level indent feature. The "Outline Level" and "WBS" columns are SmartColumns which automatically fill according to the outline level of the text in the task column. The "Duration" column is also a SmartColumn that fills based on the lower level symbol information. Summary levels are drawn based on the summation of lower level information.

Outline Tools Format

An outlined schedule's columns can be set individually to display indented text, which helps to see which tasks are outlined to which levels.

Set the Indentation Amount for Column Text

1. Click once on the column heading with the **(↖)** ***Arrow*** tool. This will display the **Selection** menu in the toolbar.
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 1 indent .15 then outline level 2 will be indented .30 inches from the cell's left margin, level 3 will be indented .45 inches from the left, and so on.

✍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 on **Selection | Task Row Settings |** ***Outline Level***.
3. Another way to indent is to select the (**T**) ***Text*** tool. Then, place the cursor in a column cell and use ***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 *(see pg. 4-2)* or in the toolbar select ***Switch to Selected Task*** then click the indent icon, and type the Outline Level 2 task name.

✍When moving to a different outline level select the indent or outdent icons as many times as necessary to get the task row to its outline level. In the toolbar between the indent and outdent icons the outline level of the task row is displayed.

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 they will highlight in black.
4. Click the indent icon. The selected tasks indent one outline level. Continue selecting the indent icon until the task rows are at the correct outline level.

WBS	Outline Level	Task name
1	1	Program Plan
2	1	Application
3	1	Order & Style Manageme
4	1	Release 1
5	1	Simple Orders
6	1	Product Set-up

WBS	Outline Level	Task name
1	1	Program Plan
1.A	2	Application
1.B	2	Order & Style Management
1.C	2	Release 1
1.D	2	Simple Orders
1.E	2	Product Set-up

Outline Level SmartColumn

Use this smartcolumn to outline tasks or keep track of each task row's outline level, it is not necessary for the outlining process. As you change the outline level in this column each task row indents our outdents based on the number entered. As each task row is indented/outdented, the Outline Level SmartColumn changes.

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.

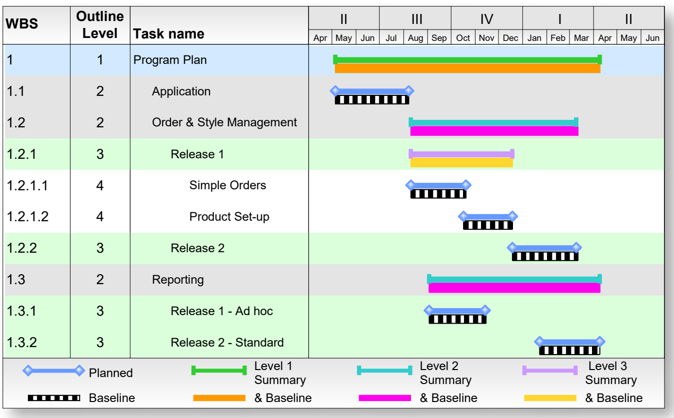
As the user indents/outdents the schedule tasks, the outline level value changes automatically. Likewise, when a value is entered in the Outline Level SmartColumn, the tasks will indent/outdent accordingly.

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 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,…

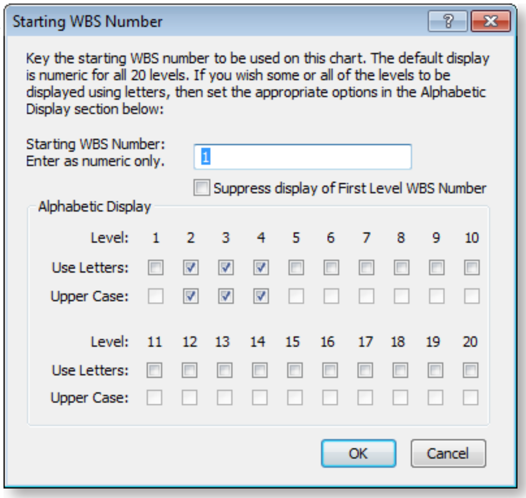
The tasks with Outline Level number 2 correspond to the WBS numbers 1.1, 1.2, 1.3.

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.



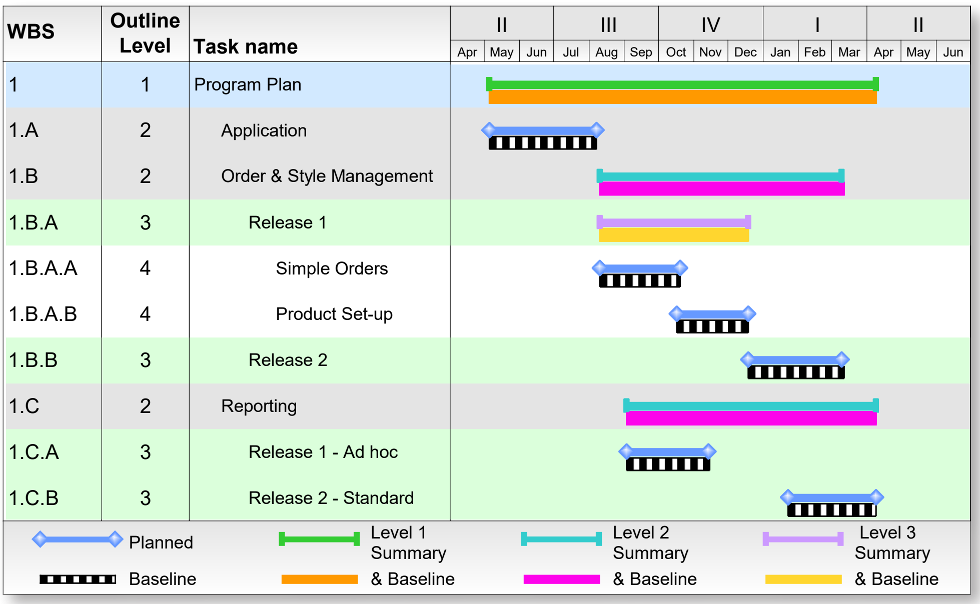
In the dialog that appears when a WBS SmartColumn is defined, check any level that should use letters instead of numbers.

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:



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***. Then **Current Object: Column # | Column Type and Format | *Properties.*** If the column has no other properties, this option is not available.

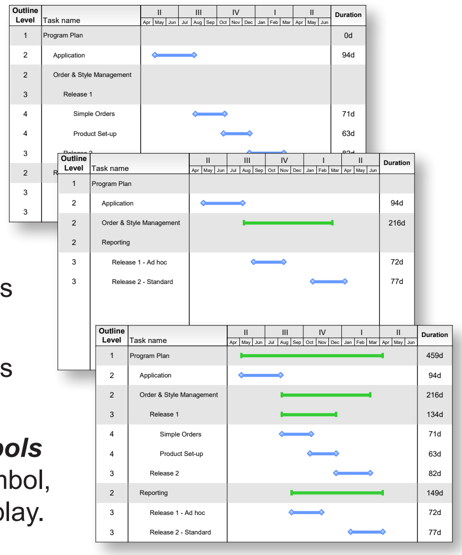
Summary Row Display

Summary Bars can be set to 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 symbols and bars or just symbols. Symbols and bars on summary rows are drawn and move automatically based on the dates in the lower level tasks.

Summary row symbols and bars are mirrors of the lower level information, therefore cannot be selected or moved.

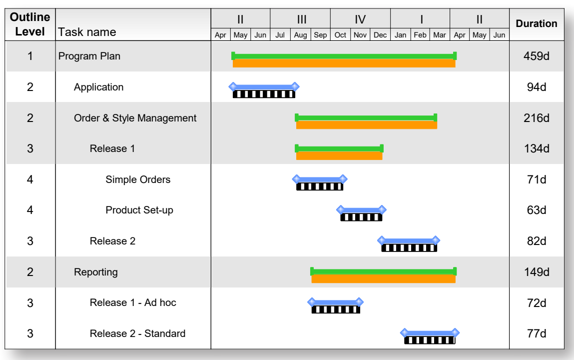
Summary rows can summarize lower level SmartColumn data such as hours worked, duration, budget, and costs.

Summary Bar Display Options and Format



1. Choose **Layout | Other | *Summary Bar Settings***.
2. Choose **When to Draw** the summary bars:
   - ***Never***: No summary symbols and bars will display.
   - **Only When Rolled Up:** Displays summary bars when lower-level tasks are collapsed to the summary row.
   - ***Always***: Summary symbols and bars will display.
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 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** *(see Chapter 5 page 5-10)* to create baseline symbology for the sub-task rows and summary bars.

   ✍To hide the baseline summary (while displaying normal summary), 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

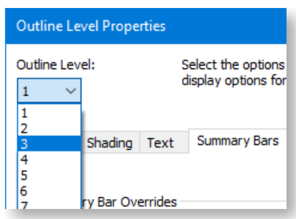
This setting overrides the summary horizontal bar’s fill color for the selected summary task row.

1. Click once in any column cell on the summary row. This will display the **Selection** menu in the toolbar.
2. Under **Selection | Summary Bar Color | *Summary Bar Color Override***, select a color for the horizontal bar by clicking on the colored box. Optionally select ***Summary Bar Color Override (After Status)*** *(see pg. 4-14)*.
3. Optionally next to ***Baseline Summary Bar Color Override***, select a color.

Set Properties for Each Outline Level

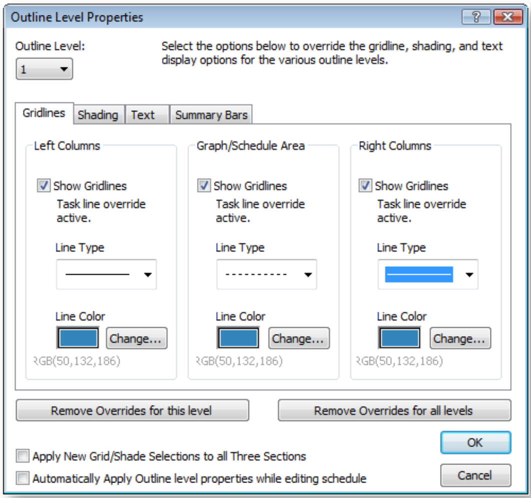
Each outline level can have its own task row background shading, gridlines, text and summary bar formatting. The settings can be automatically applied as the user outlines each task row and adds new task rows. These settings override any formatting done in **Horizontal Gridlines and Shading** or horizontal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

1. Choose **Format | Gridlines | *Gridlines, Shading, Font Sizes by Outline Level***.
   - Check on ***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.
   - Check on ***Automatically Apply Outline level properties while editing schedule*** 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. Under ***Outline Level:*** choose the outline level that will be formatted. After making selections for this outline level, choose from one of twenty other outline levels.



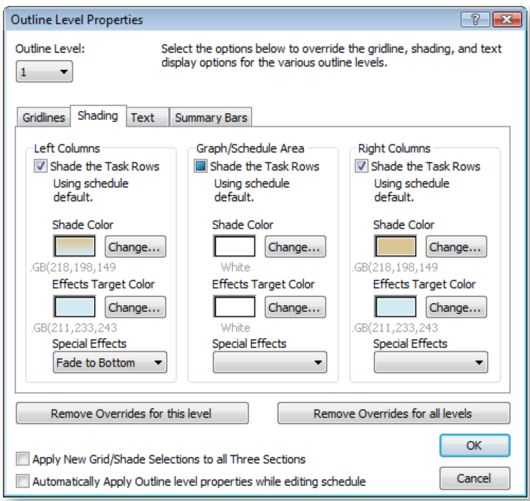
Outline Gridlines

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



1. Under **Left Columns**, click ***Show Gridlines*** until the option needed is displayed. If ■ displays, the schedules default settings in **Horizontal Gridlines and Shading** are being applied to the schedule If ☐ displays, gridlines do not display and task row overrides are active. If ☑ displays, then the options for the outline level selected can be set.
2. Choose a ***Line Type***.
3. Choose a ***Line Color***.
4. Repeat for **Graph/Schedule Area** and **Right Columns** unless ***Apply New Grid/Shade Selections to all Three Sections*** is checked.

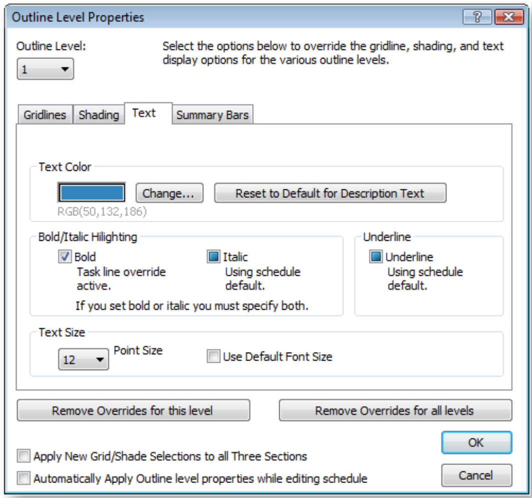
Outline Shading



1. Under **Left Columns**, click ***Shade the Task Rows*** option until the option needed is displayed. If ■ displays, the schedule's default settings in **Horizontal Gridlines and Shading** are being applied to the schedule. If ☐ displays, shading does not display and task row overrides are active. If ☑ displays, then the options for the outline level selected can be set.
2. Under ***Shade Color***, choose a color.
3. Under ***Effects Target Color***, choose a color that blends with the Shade Color when a Special Effects is chosen.
4. Under ***Special Effects***, choose a fade setting for the two colors.
5. 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 task rows' column area (not the schedule area) at the outline level selected.



2. Under **Bold/Italic Highlighting** and/or **Underline** click until the option needed is displayed. If displays, the schedule's default settings found under **Format | Default Text | *Column Text*** will be applied. If displays, task row overrides are active. If displays, then the options ***Bold***, ***Italic***, and/ or ***Underline*** can be set for the outline level selected.

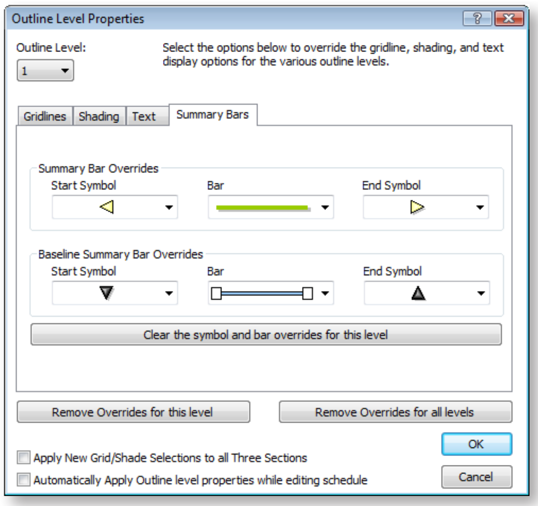
3. Choose a ***Text Size*** or check on ***Use Default Font Size***.

   ✍Font size in the task row's columns may be affected by column or cell font override.

Outline Summary Bars

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

   ✍The selection of symbols and bars reflect the symbols and bars in the toolbox.



2. Set baseline summary symbology under ***Baseline Summary Bar Overrides***. This does not change the selected symbols to Baseline in the toolbox. To make symbols baselines *see Chapter 2 pg. 2-21.*

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

Cost	Outline Level
$38,000	1
$9,000	2
$8,000	2
$10,000	2
$11,000	2

1. Choose **Layout | Other | *Summary Bar Settings***.
2. Check on ***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, 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. (Select a Values column and choose **Selection | Column Type and Format | *Properties***.)

Display Column Duration Values on Summary Rows

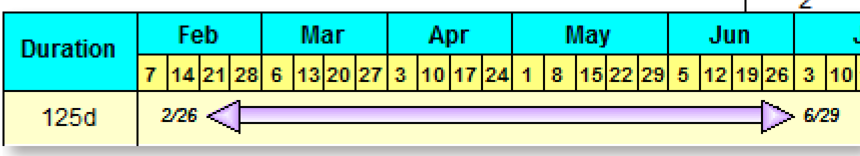
Duration can be displayed in calendar time or as a total of lower-level duration values. The default duration is a total of the lower-level durations. Calendar duration is the duration of the summary bar.

1. Choose **Layout | Other | *Summary Bar Settings***.
2. For a summary duration value in calendar time, check on ***Show Summary Duration in Calendar Time***.

Default Summary Duration total of lower-level durations.

Outline Level	Duration
1	120d
2	30d
2	40d
2	30d
2	20d

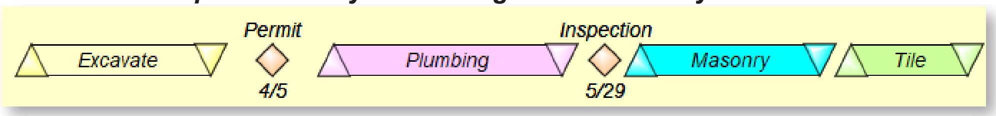
Summary Duration in Calendar Time is the duration of the summary bar which draws from the first start date of the lower level task to the last finish date of the lower level task.



Display Lower-Level Symbols/Horizontal Bars on Summary Rows

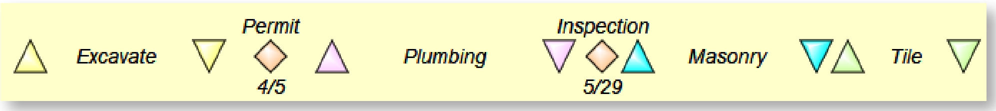
By default, the summary row displays a single start symbol, end symbol and horizontal bar. Optionally, display “duplicates” of all the sub-task’s symbols and bars on the summary row or just “duplicates” of the symbols.

1. Choose **Layout | Other | *Summary Bar Settings***.
2. Check on ***Split Summary Bars using Lower Level Symbols/Bars***.



Or

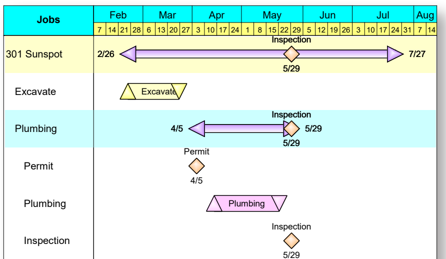
2. Check on ***Show symbols only***.



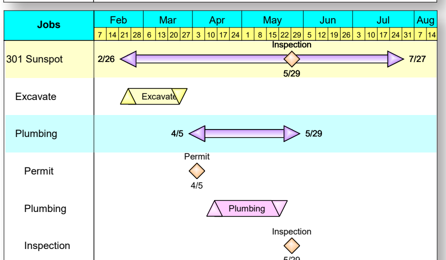
✍In the *Summary Bar Settings* dialog box, turn-off the symbol date or text display for summary row symbols, by checking ***Hide Dates on Roll-Up Symbols*** or ***Hide Text on Rolled up Symbols***.

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.



Symbol labeled *inspection* is included on all summary levels.



Symbol labeled *inspection* is included only on summary level 1.

1. Click the (↖) **Arrow** tool in the toolbox.
2. Click once on the symbol to be rolled-up. The toolbar will display the **Selection** menu active for this symbol.
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

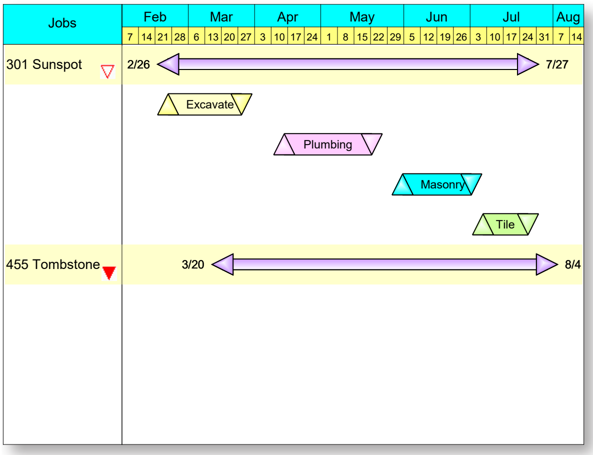
Another useful feature of outlining is the ability to “roll-up” lower level tasks to the summary level - in effect, hiding lower-level task rows. Use Collapse/Expand Indicators, right-click menus, and filters to collapse for a summary view or expand to a detailed view.

Use Collapse/Expand Indicators for Roll-Up and Down

1. Choose **View | Optional Items | *Collapse/Expand Indicators***. Icons will display in the left column closest to the schedule.

   ✍If the schedule does not have a left column the icons will not display.

   - The collapse indicator appears when lower level tasks are visible and can be collapsed (hidden).
   - The expand indicator appears when there are hidden lower level tasks which can be expanded (shown).



   - Task rows without lower level tasks will not display either indicator.

     ✍The color, look and size of the indicators can be changed **Tools | Program Options | General | *Roll-up indicator color,type, size***.

2. To collapse (roll-up/hide) lower level tasks, click .
3. To expand (roll-down) to show lower level tasks, click .

✍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

To hide lower level tasks

1. Right-click the task row whose sub-tasks are to be rolled-up (hidden).
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.

To show lower level tasks

1. Right-click the task row whose sub-tasks are to be rolled down (shown).
2. Choose to:
    - ***Expand Selected Task Row*** – only rolls down (shows) that task's subtasks.
    - ***Show All Tasks Rows*** – rolls down (shows) all tasks.

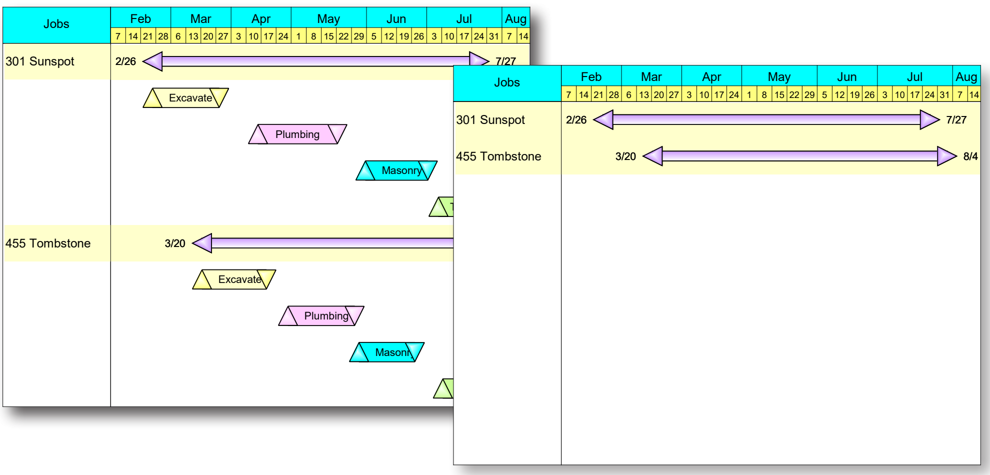
Filter Task Rows for Roll-Up and Down

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.

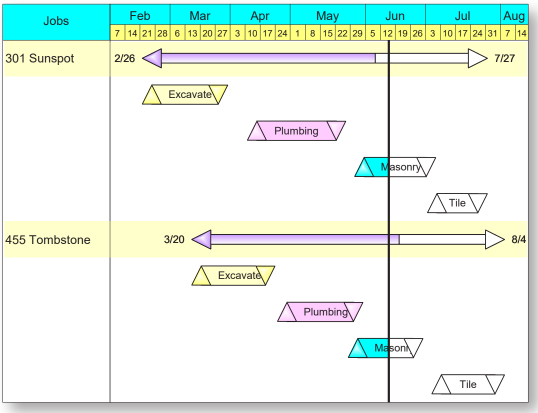
To remove the filter, choose **Tools | Filter | *Show All Task Rows***.



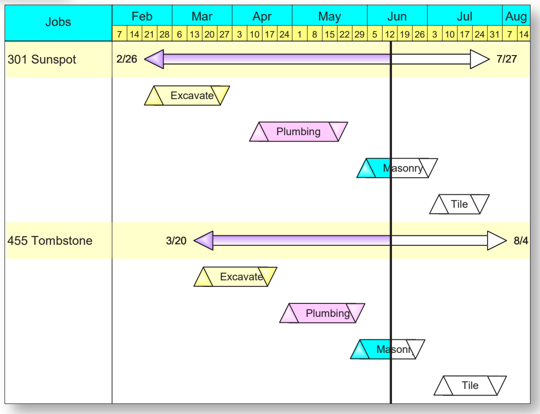
Summary Bar Status Fill Control

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.

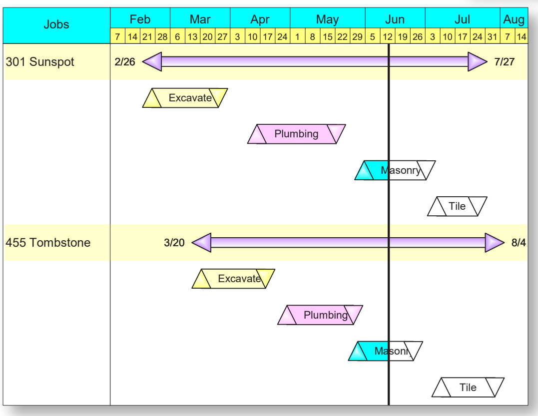
The summary % complete value is calculated as the total completed duration of the activities divided by the total overall duration of the activities for the project.



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 on ***Summary Bars Always Fill to Current Date***. This option ignores any status symbols or computed percent complete on the lower level tasks.



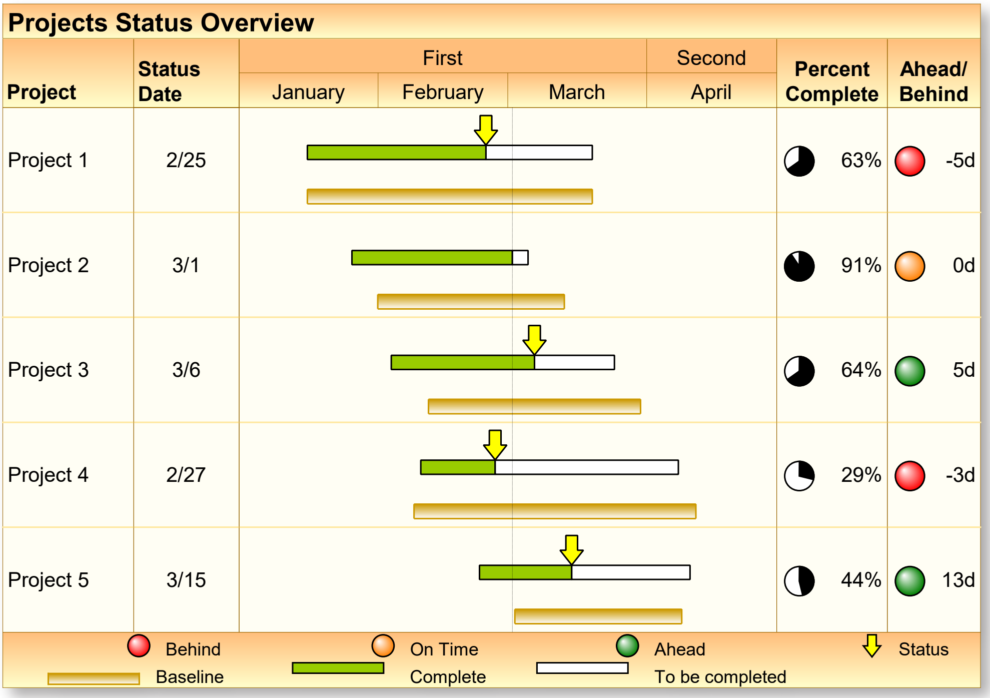
To completely fill summary bars, choose **Layout | Other | *Summary Bar Settings*** and check on ***Summary Bars Ignore Fill to Status Setting***.

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 individual tasks. Individual tasks can be adjusted to reflect whether they are on schedule, behind schedule, or ahead of schedule.



Current Date, Current Date Line, and Status Line

Display the Current Date and Current Date Line

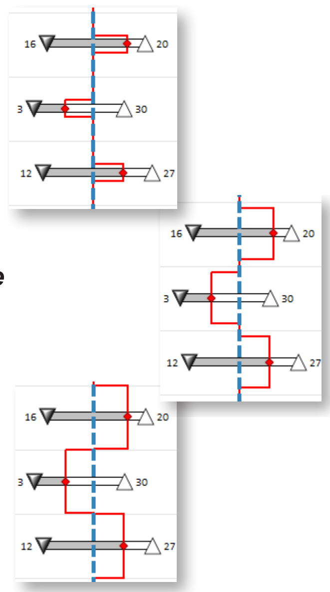
By default, the status date of a schedule is the same as the current date. The current date, as set by the computer's clock or an override date, can be displayed above the upper right corner of the schedule. The current date line is drawn vertically at the appropriate date heading location.

✍Current date can be placed anywhere on the schedule as Freeform text. Select the (T) **Text** Tool in the toolbox. Then type the substitutable text string "**&date**" to display the schedule's date.

1. Choose **Dates | Current Date** from the toolbar.
2. Check on ***Display Date*** to show the current date, uncheck to hide.
3. Check on ***Display Date Line*** to show the date line, uncheck to hide.
4. To override the current date, and thus the status of the schedule, click on the Calendar icon under ***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***. If you choose ***Extend into the DataGraph***, the date line will go through the DataGraph. Choose to have the date line behind the horizontal bars in the schedule by selecting ***Line is under bars***.

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. Check on **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. By default the status line displays the width of the symbol. Choose to have the status line display ***Three Times Symbol Height*** or ***Row Height***.

   ✍For correct display of the status line ***Symbols: Fill to Status Date*** or ***Bars: Fill to Status Date*** need to be turned on under **Dates | Dates Related Settings**.

Fill to Status Date

With the Fill Symbol/Bar to Status Date features, 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. After status characteristics are set in the toolbox. To turn on the fill to status choose **Dates | Date Related Settings |** Check on ***Symbols: Fill to Status Date*** and/or check on ***Bars Fill to Status Date***.

✍An after status symbol can be a different shape.

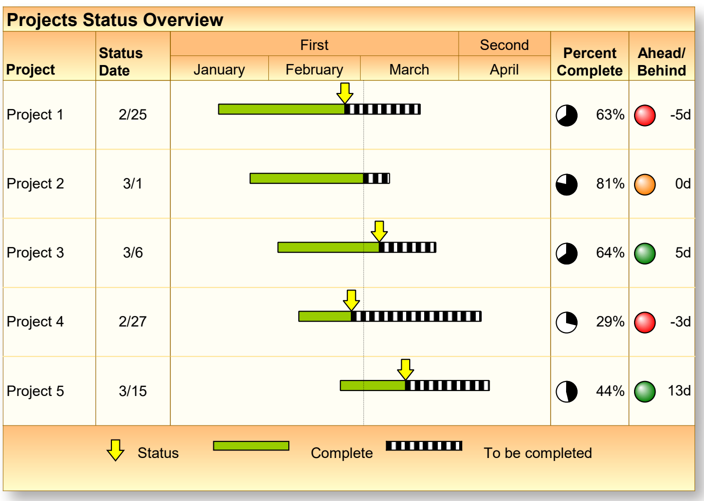
Status Symbol

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 arrow symbols in the example below are status symbols.

To create a status symbol *(see Chapter 2 pg. 2-21)*, double-click on a symbol within the toolbox. In the **Symbol Options** dialog box select the **Symbol Shape** tab. Select ***Status Symbol***. Status symbols can be added to any task.

✍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). To work with date offset right click a task row. In the menu that displays choose ***Date Offset/Status Date/%Complete***.



✍All status symbols can be a deleted from a schedule by choosing **Edit | Delete |*All Status Symbols***.

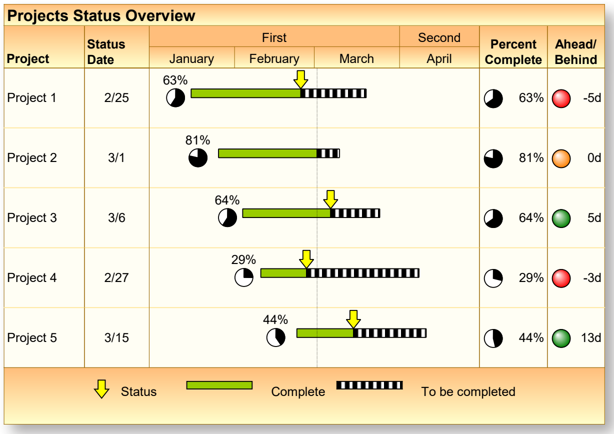
Status Date SmartColumn

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

1. Choose **Insert | Rows, Columns | New Column | *Dates***.
2. Next, check on ***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. By default the status date is the schedule's current date.

Add a Percent Complete Symbol to a Task Row

The Percent Complete symbol can be used to illustrate 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 change the color or the percent symbol (#97) choose the ***Color/Pattern Size/Shadow*** tab.

   ✍The ***After Status Color*** should also have a color.

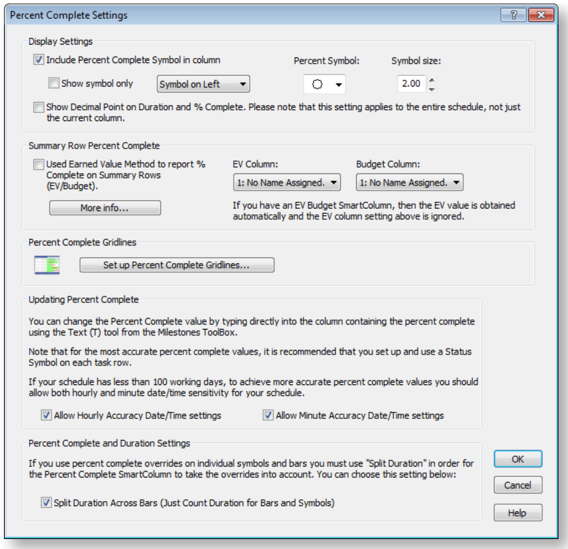
4. To have the numerical percent show as symbol text, select the ***Default Text*** tab and type in ***&percentcomplete*** in **Line 1:**.
5. To add a symbol which does not affect the computed duration for the task row, change the symbol to a ***Comment Symbol*** on the ***Symbol Shape*** tab.
6. Add the symbol to a task row *(see Chapter 3 pg. 3-2)*.

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.

Create a Percent Complete SmartColumn

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



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

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

4. Value and pie formatting options:

   - For the **Percent Symbol,** select a symbol not currently being used on the schedule. Milestones will automatically convert that symbol in the toolbox to the percent symbol, shape # 97.
   - Choose a ***Symbol Size*** for the percent pie.
   - Choose left, right or center alignment for the pie symbol. Percent value alignment is based on the column alignment choice.
   - Check on ***Show Decimal Point on Duration and % Complete*** for detailed percent complete values.

5. **Summary Row Percent Complete** options:

   - ***Use Earned Value method***. 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 (*see pg. 5-6).*

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

8. Check on **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.

Percent 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.

1. Choose **Format | Gridlines | *Percent Gridlines***.

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

3. Under **Colors and effects**, choose a ***Shade Color***

3. Under **Colors and effects**,choose an ***Effects Target Color*** that blends with the Shade Color when a Special Effects is chosen.

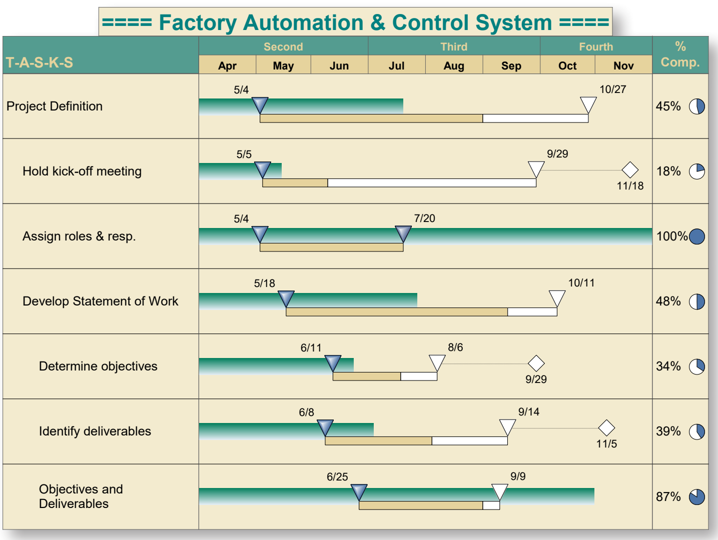
4. Under ***Special Effects***, choose a fade setting for the two colors.

5. Under **Select where to obtain percent**, choose:

   - Check on ***Use computed percent complete for each task*** to fill in the schedule area of the task row according to its percent complete status.

   - Check on ***Use value from column below*** then 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, symbol size, multiples of the symbol size, fill the upper half of the task row or lower half of the task row.



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:
   - ***Duration***: The working time between the first and the last symbol on a task row.
   - ***Used Duration***: The amount of working time elapsed up to the status date.
   - ***Remaining Duration***: The amount of working time left from the current status date to the scheduled end date of the task.
   - ***Time Ahead/Behind***: The difference between the current status date of the task, and the current date of the schedule.
   - ***Baseline Duration***: Working time between the first and the last baseline symbol on a task row.

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

Set-Up Duration Settings

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

- ***Show Duration in***: Choose days, hours, minutes or weeks.
- ***Customize Notation***: Change the letter notation next to the duration values.
- Check on ***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.
- Check on ***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.
- Check on ***Split Duration Across Bars*** to count only the symbol-horizontal bar-symbol combinations' and milestone 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.

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** tab for the column heading. On the left of the tab, choose **Switch to Column**.
2. In the **Column Type and Format** section, click the ***Properties*** button.
3. Select the **Graphical Indicators** tab.
4. Select ***Pick indicator symbology based upon the following conditions***.
5. Either choose ***Pre Selects*** for already defined indicators or select the 1 indicator to have the entire list of 20 possible indictors display. Then select any one of the 20 to display the **Indicator Conditions Settings** dialog and set the conditions (*see Chapter 6 pg. 6-7*).

Factors which Impact Duration Computation

- The workday start and end times affect hourly duration values. To change: **Dates | More Date Settings | *Hourly Minute and Shift Settings***.
- Whether or not Saturdays and Sundays are set as working days. Change this setting in **Dates | More Date Settings | *Weekly, Daily, and 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 Percent SmartColumn. The resource allocation values can be entered 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 Apply Text Changes button.

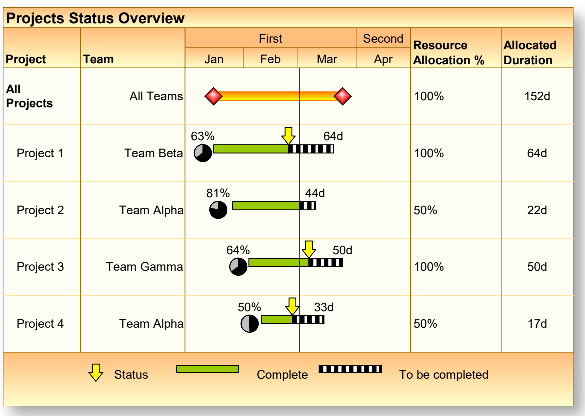
Enter a Resource Allocation Percent

Click the (T) **Text** tool in the toolbox, and enter values into the column cells.

- or -

1. Click the (↖) **Arrow** tool in the toolbox.
2. Click a column cell, the task row highlights and the toolbar changes to **Selection** for that task row.
3. In **Task Row Settings** section 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 **Layout | Other | Duration Settings |** ***Apply Resource Allocation Percent for each task row to resultant Duration Display***.

Baseline a Schedule

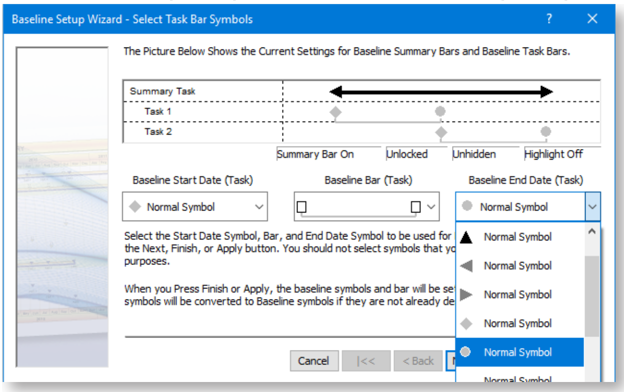
Baseline scheduling is another way to display progress on the schedule. Directly comparing the original schedule to the actual schedule.

Baseline can be added manually or inserted. Baseline symbols should be established before adding them to the schedule. Baselines symbols have their own set of options. Baseline symbols can be set up manually in the toolbox (*see Chapter 2 pg. 2-21*). Or, the best practice is to use the Baseline Setup Wizard. The Baseline Setup Wizard allows selection of the symbols and horizontal bars used for baseline automated features, like Insert Baseline and Baseline SmartColumns.

Baseline Wizard

To access the **Baseline Setup Wizard**, choose **Layout | Other | *Baseline Settings***.

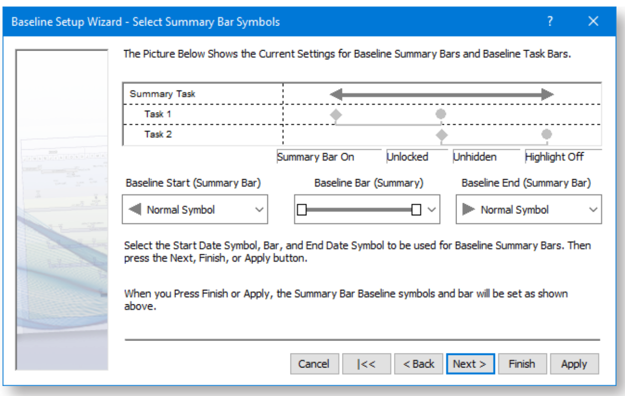
1. In the Baseline Setup Wizard's first screen, select the down arrows, to choose the symbol-horizontal bar-symbol combination to be used **Baseline Start Date (Task)**, **Baseline End Date (Task)** and **Baseline Bar (Task)**.



✍Symbols available in the drop downs, reflect the symbols and horizontal bars in the toolbox.

✍Selected symbols may show as being normal, status or comment symbols. Once ***Apply*** or ***Finish*** is selected the symbols become baseline symbols.

2. In the Baseline Setup Wizard's second screen, select the down arrows, to choose the symbol-horizontal bar-symbol combination to be used for Baseline summary: **Baseline Start Date (Summary Bar)**, **Baseline End Date (Summary Bar)** and **Baseline Bar (Summary)**.



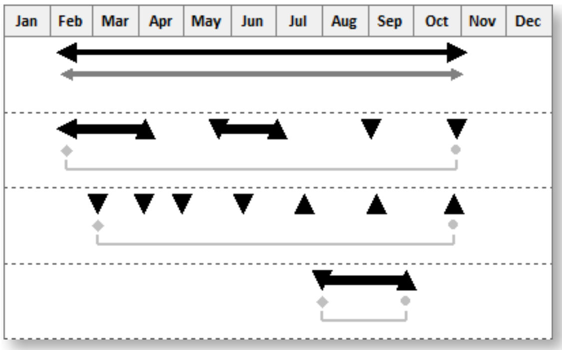
3. In the Baseline Setup Wizard's third screen, select from the following baseline format options.
    - **Show Baseline:** When not selected baseline will be hidden but still exist on the schedule.
    - **Lock Baseline:** Symbols cannot be selected or moved. Baseline symbol option in the toolbox will also be greyed out.
    - **Highlight Baseline:** Baseline symbols and symbol-horizontal bar-symbol combinations highlight with yellow.
    - **Hide Baseline Summary Bars** (Lower level baseline will not be affected.)

✍These options can also be checked on or off by choosing, **View | Baseline**.

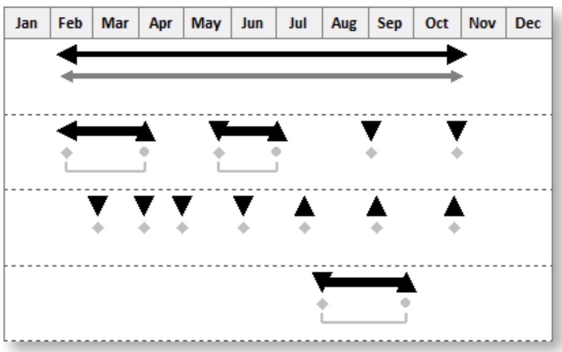
Insert and Remove Baseline

Once baseline symbols are set-up and the schedule tasks have start and/or end date information, insert the baseline.

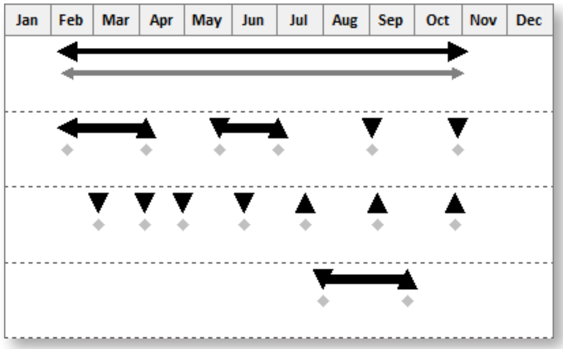
1. Choose **Insert | Baseline, DataGraph, ValueSet | Insert or Remove a Baseline|*Insert Baseline***.
2. The **Insert Baseline** dialog displays, choose one of the following options.
    - ***Insert baseline symbols and bar at the same dates as the existing start and end dates on each row. That is, a single bar on each row between the first and last normal symbol***.



    - ***Insert baseline symbols and bars to match each normal symbol and bar on each row. Thus, multiple baseline symbols or bars may be inserted on each row***.



- ***Insert baseline symbols to match each normal symbol on each row. Thus, multiple baseline symbols may be inserted on each row***.



3. Symbols can be placed at 11 different vertical levels within a task row. Choose the down arrow, for the option **Select the vertical alignment within the task row of the added baseline symbols and bars**, to select the vertical position at which the baseline symbols should be placed.

To remove baseline choose **Edit | Delete | *All Baseline***.

Baseline SmartColumns

There are three SmartColumn options designed to display baseline data.

The **Baseline Start Date** SmartColumn and the **Baseline End Date** SmartColumn 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***.

Baseline Start Date and **Baseline End Date** SmartColumns can be used to insert baseline symbols onto the schedule. The symbols used will be those setup in the Baseline Setup Wizard.

The **Baseline Duration** SmartColumn will show the duration represented by the baseline symbols on a task row. Go to **Insert | Rows, Columns | New Column | Duration | *Baseline Dates***. Duration settings have multiple options. To view and select theses options choose **Layout | Other | *Duration Settings***.

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.

% Comp.	PROJECT ITEM	First (10 11 12)	Second (1 2 3)	Third (4 5 6)	Fourth (7 8 9)	First (10 11 12)	Duration	Budget	Actual Cost	Cost Variance
45%	Proposal Team						539d	$29,000	$27,000	$2,000
100%	Initialized						1d	$5,000	$4,000	$1,000
56%	Engineering						280d	$10,000	$10,000	$0
28%	Materials						214d	$3,000	$3,500	($500)
63%	Finance						43d	$6,000	$5,500	$500
0%	Finalized						1d	$5,000	$4,000	$1,000
0%	Proposal Signed						1d	$5,000	$6,000	($1,000)

SmartColumns:

- In *Chapter 3:*
  - Dates
  - Symbol Count
  - Symbol Text
  - Task Number
- In *Chapter 4:*
  - Outline Level
  - WBS Number
- In *Chapter 5:*
  - Resource Allocation Percent
  - Baseline Dates
- In *Chapter 10:*
  - Microsoft Project Column

SmartColumns with optional Indicators:

- In *Chapter 5:*
  - Percent Complete
  - Duration
  - Baseline Duration
- In *Chapter 7:*
  - ValueSet
- In *this chapter:*
  - Stoplight
  - Values
  - Calculation/Indicator
  - Date From Symbol Automation Tag
  - Earned Value

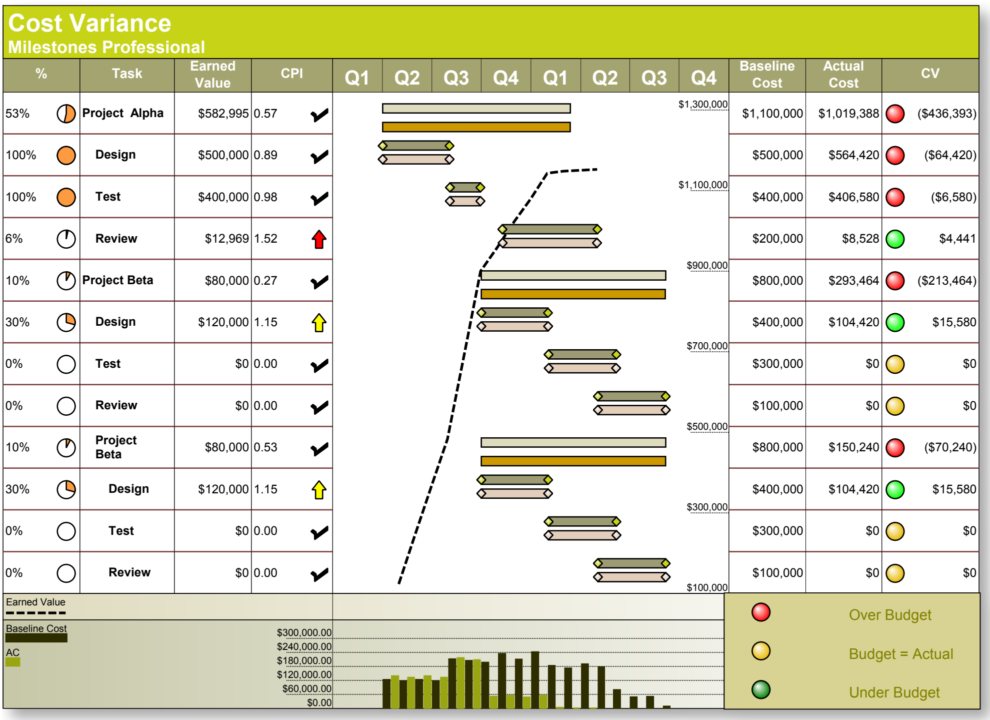
SmartColumns with Optional Indicators

Milestones Professional SmartColumn indicators can show at-a-glance the status of a task. In a 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 SmartColumns. Any toolbox symbol can be displayed in these SmartColumns. The "indicator" displayed can also be text, a number, color, percent pie or combinations of these items.

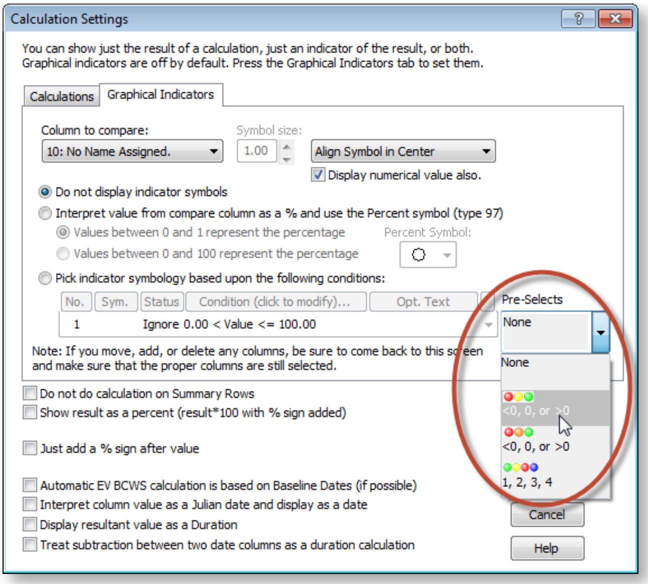
Indicators can be based upon conditions inherent to the column. This is true of two columns: the Percent Complete SmartColumn and the Stoplight Smartcolumn. In the Percent Complete SmartColumn, the percent complete pie is an indicator based upon the percent complete calculation. In the Stoplight SmartColumn, 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-defined conditions. The user can choose from a list of three pre-defined indicator conditions or set up each condition individually. Indicators based upon user-defined 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 of one, the Yellow indicator with a value of two, the Red indicator with a value of three, the Blue indicator with a value of four.

Stoplight SmartColumn

The Stoplight SmartColumn displays stoplight symbols, text and colors based on user-entered numbers 1 to 4, (Standard Stoplights) or 1 to 10 (Custom Stoplights.)

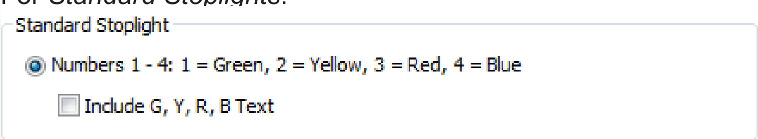
Standard Stoplights: Built-in stoplights appear based on user-entered numbers 1-4 or alternately fill the cell with the designated color instead of the stoplights. G, Y, R, and B can appear with the stoplights or in the color filled cell.

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

Create a Stoplight SmartColumn

1. Choose **Insert | Rows, Columns | New Column | *Stoplight***.
2. Choose Standard Stoplight or Custom Stoplight.

   For *Standard Stoplights*:

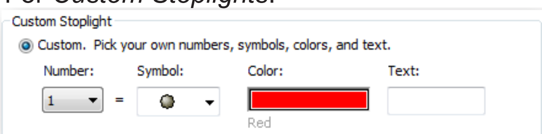


- Under ***Standard Stoplight***, choose ***Numbers 1-4***.

  ✍If a circle symbol is not found in the toolbox Milestones will add a circle symbol in the toolbox at symbol position 30.

- When 1 is entered in a column cell, a green stoplight displays. 2 displays a yellow stoplight: 3 displays a red stoplight: 4 displays a blue stoplight
- Check on ***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. Set ***Stoplight Symbol Alignment***:.

  ✍The list of available symbols for stoplights is generated from the symbols in the toolbox. Therefore,if a symbol is not available in the stoplight list add the needed symbol to the toolbox.

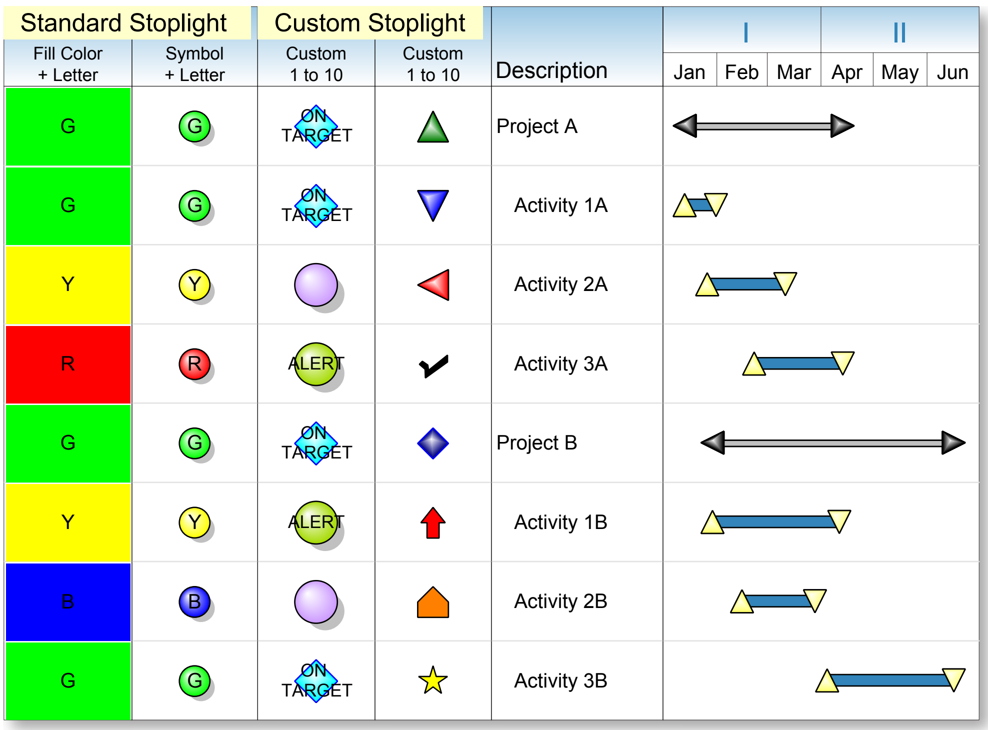
- Select a **Color** for the symbol or column cell fill-color.
- Optionally, enter **Text** (up to 29 characters) to appear with the symbol or cell fill-color. Set ***Cell Text Alignment:***.

3. Optionally, check on ***Fill the cell with color instead of displaying a symbol***. The selected color, instead of the symbol, fills the column cell.
4. Select the **Stoplight symbol size** from .10 to 5.0.

   ✍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.



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; symbols, text or colors based on those values; symbols, text, or colors based on another column's values; or a combination of these options.

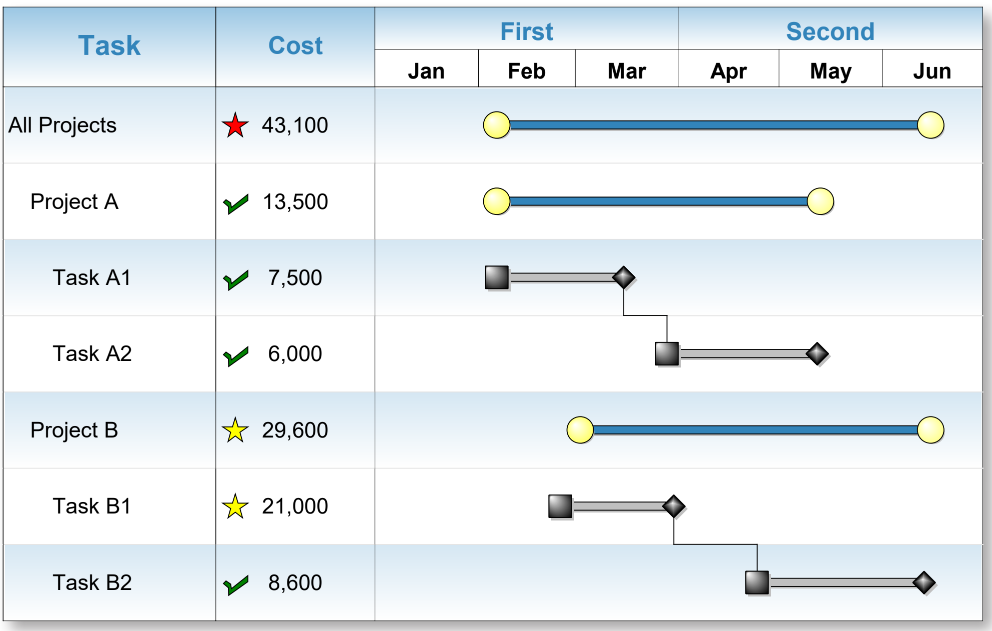
Additional options include showing an average of lower level values instead of a total on summary rows, converting the entered value to a percentage, adding a % sign to the entered value, and overriding the summary row values.

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, the same for Project B. 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.

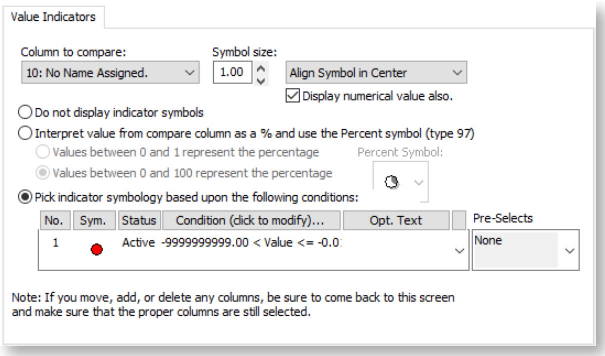
Here are the user-defined value ranges that cause the symbols to display in the "Cost" Values SmartColumn.

1	★ (red)	Active	30000.00 < Value <= 200000.00
2	✔	Active	0.00 < Value <= 14999.00
3	☆ (yellow)	Active	15000.00 < Value <= 29999.00



Create a Values SmartColumn with Optional Indicators

1. Choose **Insert | Rows, Columns | New Column |** ***Values***. The **Indicators for Values Column** dialog box displays.



2. Select ***Do not display indicator symbols*** to create a Values SmartColumn with values and no indicators.

   -or-

2. Select ***Interpret value from compare column as a % and use the percent symbol (type 97)***.

   a. Select if the column to compare has ***Values between 0 and 1 represent the percentage***.

   b. Select if the column to compare has ***Values between 0 and 100 represent the percentage***.

      ✍If this option is selected Milestones automatically sets up a percent symbol at symbol position 31. If the symbol in position 31 is being used on the schedule, set up a symbol shape 97 (percent symbol) in another position in the toolbox. Then Milestones will use that symbol.

   -or-

2. ***Pick indicator symbology based upon the following conditions*** to display symbols, text, and/or color based on the column values. How to set up indicators will be in steps 8- on the following pages.

3. **Column to compare**: Select the column its self or another column with information on which the indicators will be based.

   ✍The newly inserted column *No Name Assigned* is initially selected.

   ✍Indicators can be displayed based on information from a column with text or numbers. The numbers column must be a Values SmartColumn.

4. Select a ***Symbol size*** for the indicators that will display in the column.

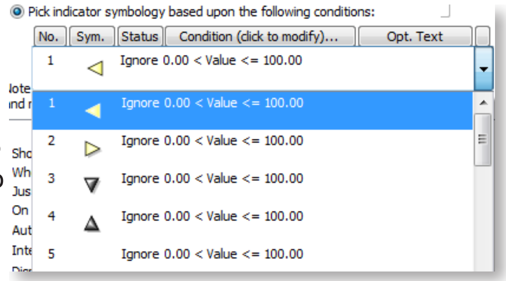
5. If a values column is looking at its values and indicators are being used, check on ***Display numerical value also*** to show the entered values along with the indicator. If only the indicator is to be shown uncheck ***Display numerical value also***.

6. Align the indicator symbols left, center, or right in the column cell.

   ✍If values are being shown, the alignment of the values is based on the column alignment.

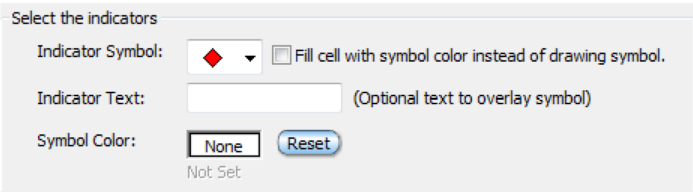
Pick indicator symbology based upon the following conditions

7. Click the drop-down arrow to view 20 active/ignored indicators and their conditions.



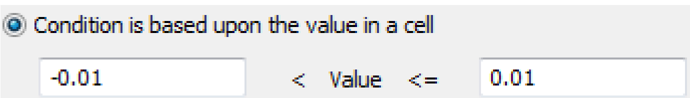
- Any of these symbols can be changed to another symbol from the toolbox. Optionally, choose from the **Pre-Selects** *(see pg. 6-3)* drop-down menu to automatically assign indicators to the listed conditions.
- All symbols are set to **Ignore** until the user creates a condition for them to appear, becoming **Active**.

8. Choose one of the twenty symbols. The Indicator **Condition Settings** dialog box opens:



- 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.

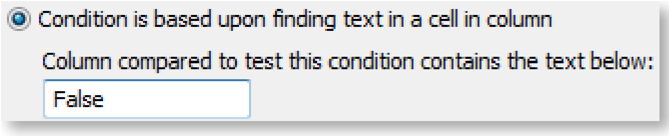
9. The indicator can appear based on a value in the column cell.



- Choose ***Condition is based upon the value in a cell***.
- Enter the values so 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.

10. The indicator can appear based on text in another column's cells. This would require a **Column to compare** reference which contains text.



- Choose ***Condition is based upon finding text in a cell in column***.
- Enter the text to have the indicator appear when a cell contains that text.

11. Choose ***OK*** to return to the ***Pick indicator symbology based upon the following conditions*** list.
12. Repeat Steps 7 - 11 to display other indicators.
13. More options:

- ***Show result as a percent***: The values will be multiplied by 100, with a % sign added (.35 becomes .35 x 100 = 35%).
- ***When shown on Summary Bar, show average***: The summary row values will be an average of lower-level values instead of a sum.
- ***Just add a % sign after value***: The % sign will be added to the value (35 becomes 35%).
- ***On Summary Rows show value in cell***: This will 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):*** Assigns an earned value calculation to baseline symbols.
- ***Interpret column value as a Julian date and display as a date***: When date SmartColumns are used in calculations, they are converted to a number. However, the result of the calculation will be displayed as a date.
- ***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..
  - » ***Off set calculations by 1***: Select to subtract dates and not consider each day as a full day 1/2/2020 - 1/1/2020 = 1. If not selected then 2 is calculated answer.

14. Choose ***OK*** to return to the **Column Properties** dialog box to add a column heading title and format the column data.
15. Finally, exit all dialog boxes. Enter values into the column cells and see the indicators display accordingly.

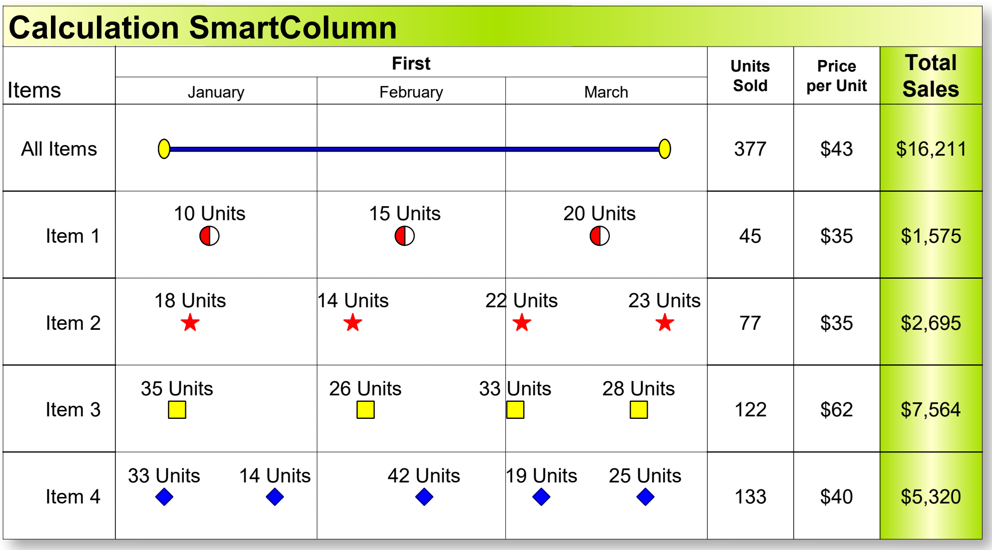
Calculation/Indicator SmartColumn

Calculation/Indicator SmartColumns display values and/or value-driven indicators through these methods:

- Multiply, divide, add, or subtract any two columns with values.
- Multiply, divide, add or subtract a column by a constant value.
- Multiply a column by percent complete or percent not complete.
- Multiply a column by percent duration to current date.
- Display indicator only. Symbols, colors, or text based on calculated values, user-entered values from another column, or text from another column.

The results of one calculation column can be used in another calculation, or shown as a percent.

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:

Budget	Cost to Date	Budget minus Cost
$1,250	$800	$450
$1,000	$1,000	$0

2. Make a calculation between two columns and show the resulting values with symbols, text or colors:

Budget	Cost to Date	Budget minus Cost
$1,250	$800	$450
$1,000	$1,000	$0

Budget	Cost to Date	Budget minus Cost
$1,250	$800	
$1,000	$1,000	

Budget	Cost to Date	Budget minus Cost
$1,250	$800	UNDER
$1,000	$1,000	ON

3. Make a calculation between a column and a constant value (10 in the example below) and show the resulting values and/or symbols:

Units	Total Cost
625	$6,250
425	$4,250

4. Make a calculation between a date column and the current date and show the resulting values and/or symbols:

Start Date	Current Date	Start Date minus Current Date
6/2/2016	8/15/2016	74
7/25/2016	8/15/2016	21

5. Make a division calculation and convert the results to percent values and pies:

Units	Units Sold	Percent Sold
625	355	57%
425	400	94%

6. Show various symbols, text or colors based on the values in another column:

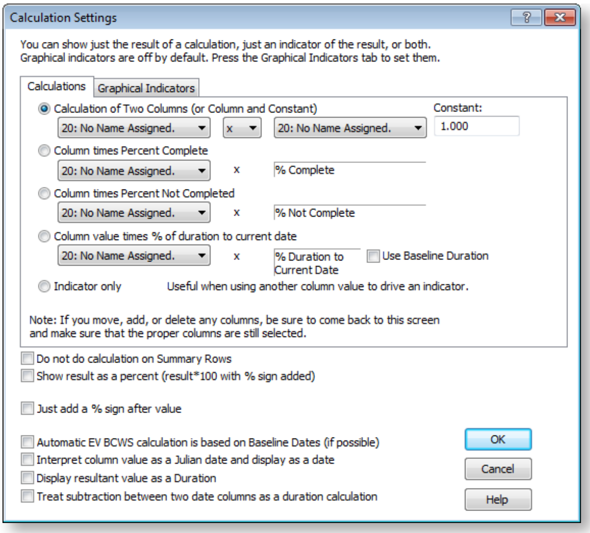
Sales	Indicator Target $4500
$5,000	Over
$4,000	Under
$4,900	Over

7. Use a calculation result in another calculation.
"Target vs. Actual Sales" uses the "Units (x) $ per Unit" results in its calculation:

Units Sold	$ per Unit	Units(x) $ per Unit	Target Sales	Sales Variance
45	100	$4,500	$5,000	($500)
50	100	$5,000	$4,000	$1,000

Create a Calculation/Indictor 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***: Lower level values will (add up) and populate the summary row.
   - ***Show result as a percent***: The values will be multiplied by 100, with a % sign added (.35 becomes .35 x 100 = 35%).
   - ***Just add a % sign after value:*** The % sign will be added to the value (35 becomes 35%).
   - ***Automatic EV BCWS calculation is based on Baseline Dates (if possible)***: Assigns an earned value calculation to baseline symbols.
   - ***Interpret column value as a Julian date and display as a date***: When date SmartColumns are used in calculations, they are converted to a number. However, the result of the calculation will be displayed as a date.
   - ***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..
     - » ***Off set calculations by 1***: Select to subtract dates and not consider each day as a full day 1/2/2020 - 1/1/2020 = 1. If not selected then 2 is calculated answer.

To just create a calculation column, stop here by clicking ***OK***.

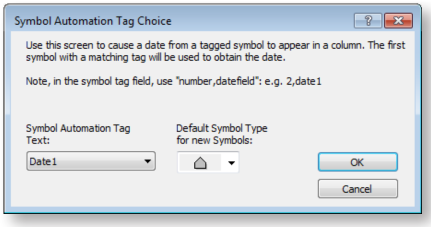
If indicators are to be added to the column *(see pg. 6-7 through pg. 6-9)* for instructions.

Date From Symbol Automation Tag SmartColumn

Calculate the difference between two milestone dates on a row with multiple milestones using the **Date From Symbol Automation Tag** SmartColumn.

Date From Symbol Automation Tag SmartColumn How To Example

1. Insert a ***Date From Symbol Automation Tag*** SmartColumn. **Insert | Rows and Columns | New Column**.



2. In the **Symbol Automation Tag Choice** dialog box which displays, under **Symbol Automation Tag Text** choose ***Date1*** field.

   ✍If symbols are already tagged from importing, choose their tagged field *(see Chapter 10, 11 and/or 12*).

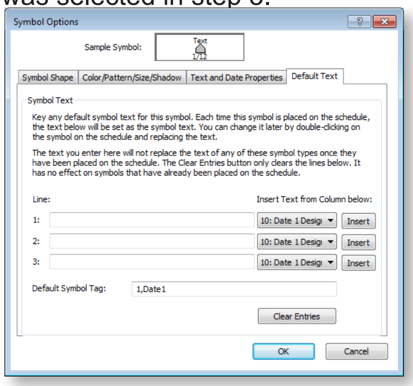
3. Select a symbol.

   ✍The list of available symbols is generated from the symbols in the toolbox.

4. Select ***OK*** then ***OK*** again. Now the column will be added and the Column Heading will be added as ***Date1***. Which can be modified, e.g. add ***Design***.

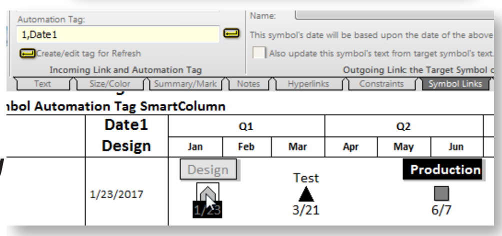
   ✍If the symbols are already tagged the column will also populate with the dates of the tagged symbols *(see Chapter 10, 11 and/or 12*).

5. In the toolbox double click the symbol that was selected in step 3.

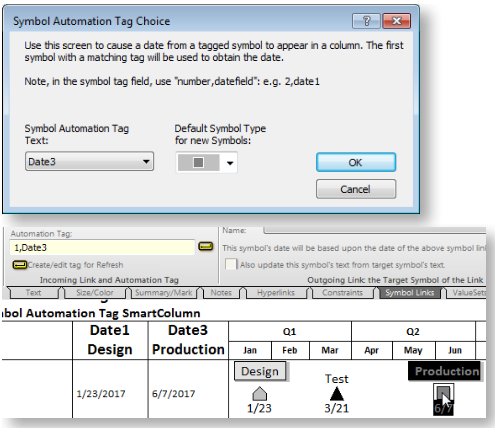


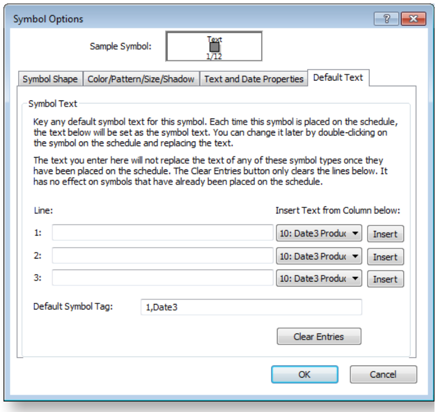
   - The **Symbol Options** dialog box displays. Choose the ***Default Text*** tab.
   - In the **Default Symbol Tag** field enter a Unique ID, either text or number (same unique id can be used with each symbol tagged) then a comma then the tag field selected in step 2, e.g. ***1,Date1***.

     ✍For symbols already on the schedule, use the **(↖)** Arrow tool to select one. The toolbar changes to that symbols selection options. Choose the ***Symbol Links*** tab. In the ***Automation Tag*** box type in the tag (Unique ID Comma Field) e.g. ***1,Date1***. Press the Apply changes button.



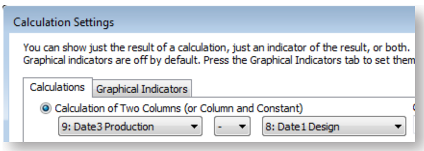
6. Insert a second Date From Symbol Automation Tag SmartColumn. Follow steps 2-5 picking a different field like ***Date 3*** and a different symbol.

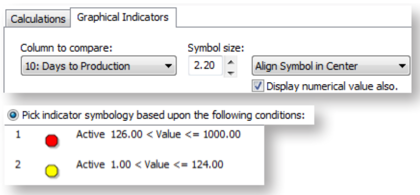




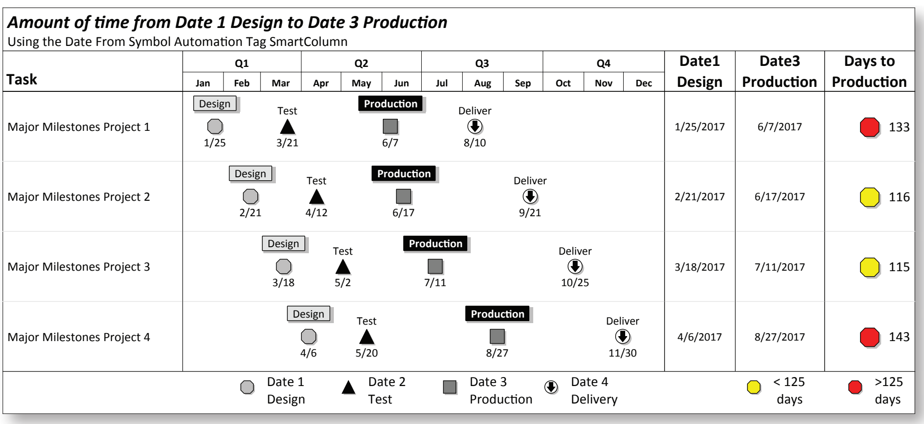
7. Insert a ***Calculation/Indicator*** column *(see pg. 6-12)* **Insert | Rows and Columns | New Column**.

8. In the **Calculations Settings** dialog box which displays, set the **Calculation** and optionally the **Graphical Indicators**, e.g. as shown.





9. Now add symbols to the schedule. As tagged symbols are added their dates will fill the appropriate Date From Symbol Automation Tag SmartColumn. Also the Calculation/Indicator SmartColumn will populate with the calculated function value between the two Date From Symbol Automation Tag SmartColumns.



Earned Value SmartColumns and Reports

Earned Value Management

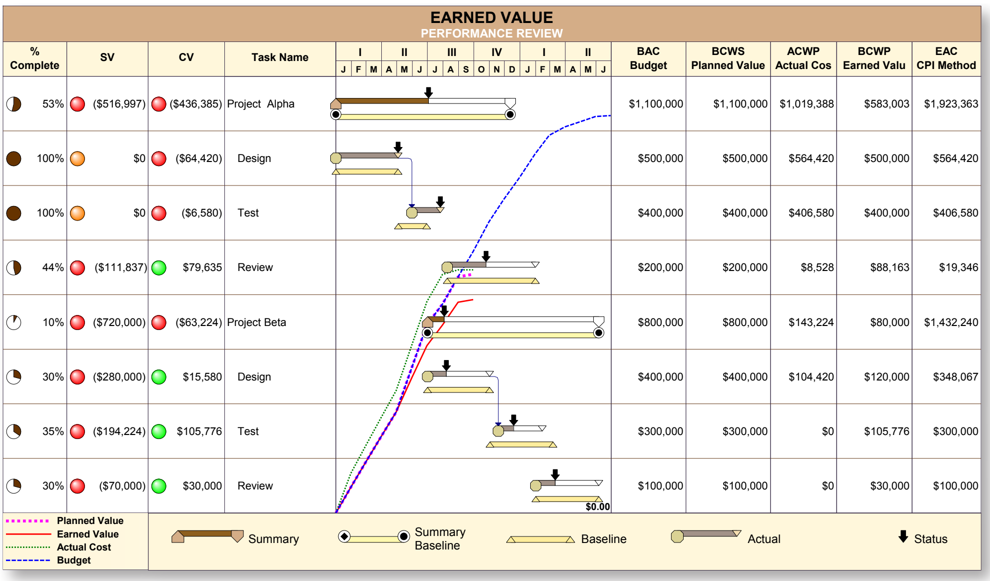
Earned Value Management (EVM) is a project management system that combines schedule performance and cost performance to answer the question, “What did we get for the money we spent?”

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).

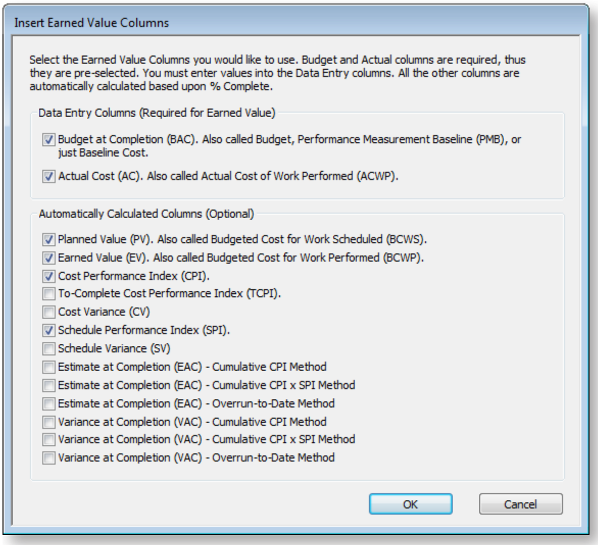
These criteria have since been accepted by the American National Standards Institute/Electronic Industry Association as a new standard, called ANSI/EIA 748. Now, EVM is being used in a wider variety of government contracts, and is spreading through the private sector as a valuable tool for project managers.



% Complete	SV	CV	Task Name	BAC Budget	BCWS Planned Value	ACWP Actual Cos	BCWP Earned Valu	EAC CPI Method
53%	($516,997)	($436,385)	Project Alpha	$1,100,000	$1,100,000	$1,019,388	$583,003	$1,923,363
100%	$0	($64,420)	Design	$500,000	$500,000	$564,420	$500,000	$564,420
100%	$0	($6,580)	Test	$400,000	$400,000	$406,580	$400,000	$406,580
44%	($111,837)	$79,635	Review	$200,000	$200,000	$8,528	$88,163	$19,346
10%	($720,000)	($63,224)	Project Beta	$800,000	$800,000	$143,224	$80,000	$1,432,240
30%	($280,000)	$15,580	Design	$400,000	$400,000	$104,420	$120,000	$348,067
35%	($194,224)	$105,776	Test	$300,000	$300,000	$0	$105,776	$300,000
30%	($70,000)	$30,000	Review	$100,000	$100,000	$0	$30,000	$100,000

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 unchecked 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 **Help | Help Topics | *Earned Value***.

- ***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 CPI Method: VAC = EAC: Cumulative-CPI-Method 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 overlaid 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*** **|** ***Estimate at Completion***, ***CPI Report***, ***CPI with TCPI Report***, ***SPI Report***, ***Actual Cost/Planned Value/Earned Value Report***, ***Earned Value Schedule Status Report***, ***Earned Value Dashboard Report***.

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 activates the toolbars **Selection** menu for the column heading selected.
2. In the **Selection** menu for the column heading choose ***Switch to Column***.


3. In **Column Type and Format** section find ***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 activates the **Selection** menu for the column selected.
2. In the **Selection** menu for the column heading choose ***Switch to Column***.


3. In **Column Type and Format** section check on ***Currency***.

Change the Currency Symbol and Other Currency Formats

1. Choose **Format | International | International, Number, and Currency Settings |** ***Currency Format***.
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***

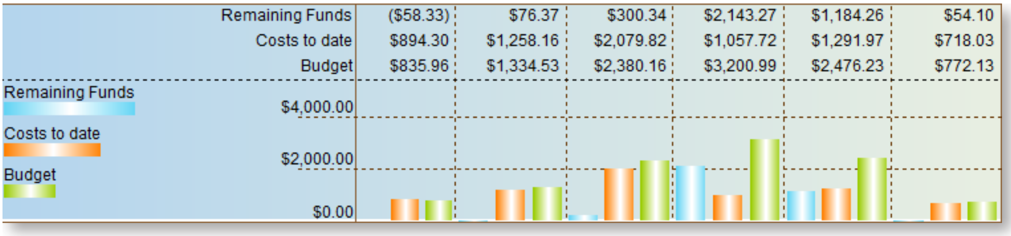
Chapter 7: Track and Graph Values

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.

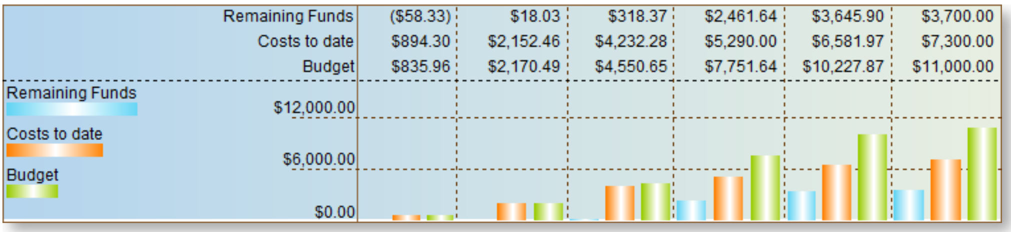
Milestones offers specialized columns for entering and calculating values; ValueSets for entering values in groups, and three graph areas (DataGraphs) for displaying line and bar graphs of ValueSets.

Each of the three available DataGraphs can contain up to 8 ValueSets.

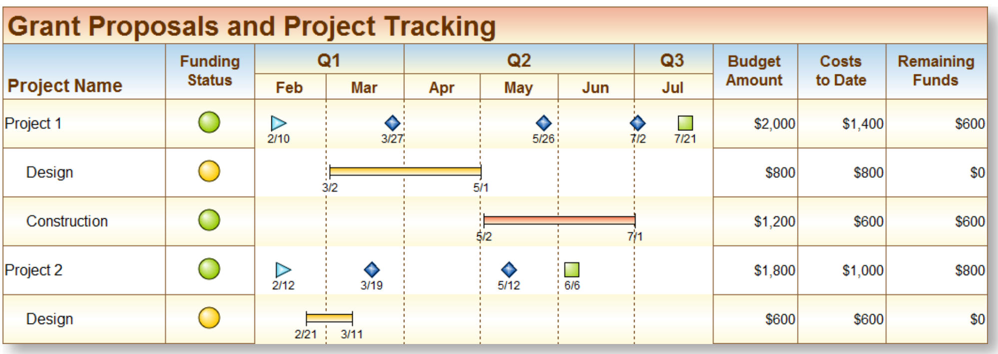
A sample of a DataGraph with three ValueSets (“Budget,” “Costs to date” and “Remaining Funds”) is shown below:



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 is shown below:

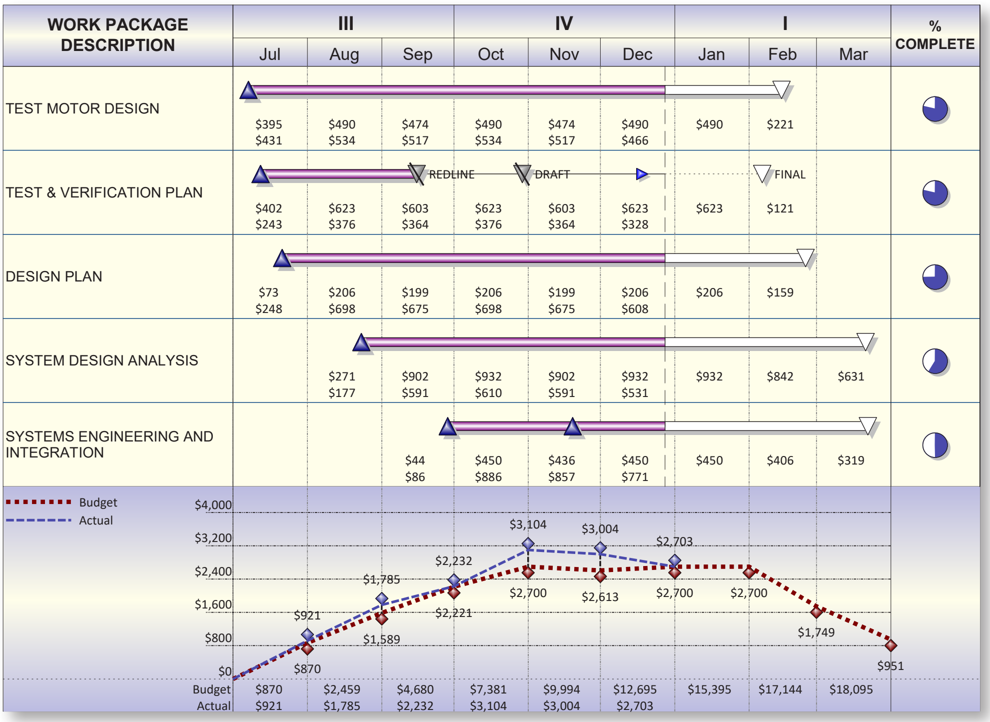


Generally, the overall process of entering and displaying values in a DataGraph is as follows:

1. Create ValueSets that will contain values. 5 types of ValueSets are avialable *(see pg. 7-3)*.
2. Enter values into those ValueSets.
3. Create a DataGraph that displays those values as a line, bar and/or point.

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 pages.



ValueSets

ValueSets are user-defined sets of 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:

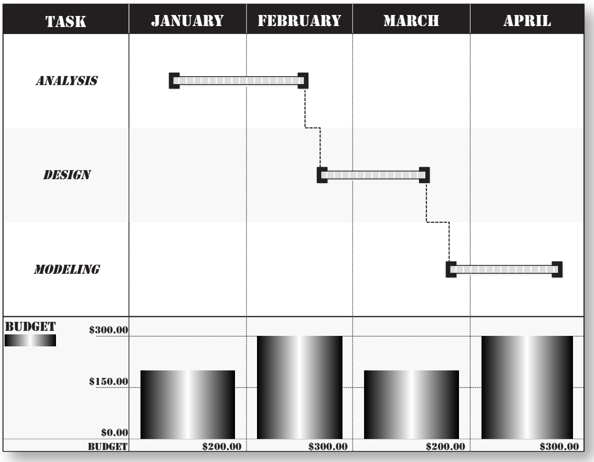
- ***Type 1: Keyed-in Global Values***: Enter values by time period for the whole schedule - such as monthly budget values.
- ***Type 2: Sum of Values Keyed into Task Rows***: Numbers are entered by time period for each task - such as separate monthly budget values for Task 1, Task 2, etc. When the schedule 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 pages that follow describe each type of ValueSet in more detail.

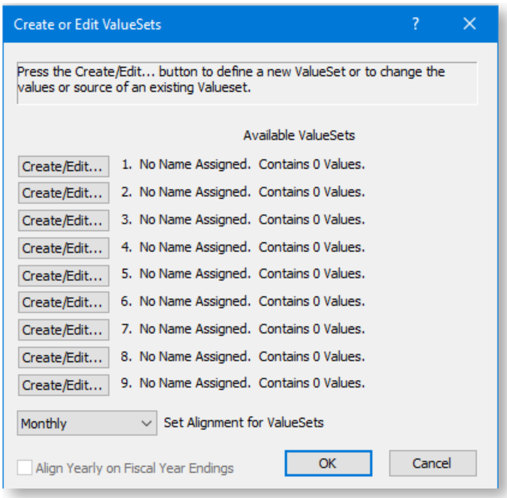
Type 1 ValueSet: Keyed-in Global Values

In this type of ValueSet, values are applied to the date range of the schedule which are entered by the time period selected.

Values are displayed in the DataGraph as bars,lines or points. Also, numeric values can be displayed above, below and/or near the DataGraph points.



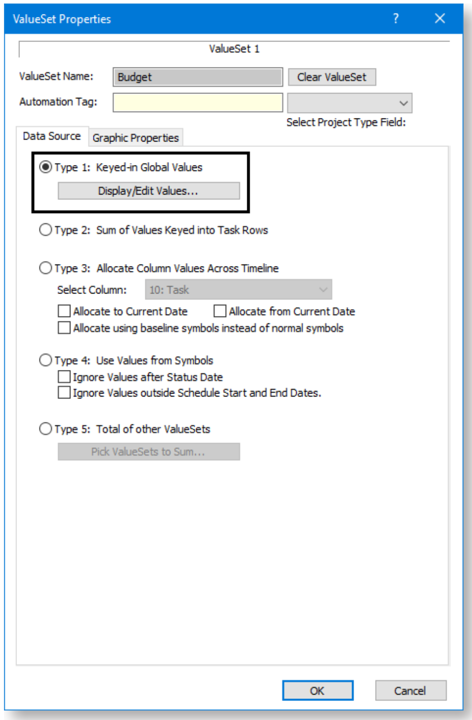
1. Choose **Tools | Graph Options |** ***Setup ValueSets***. The **Create or Edit ValueSets** dialog box displays, revealing 9 **Available ValueSets**, as shown below.



2. In the dialog box, next to **Set Alignment for ValueSets** option choose a time period (***Daily***, ***Weekly, Monthly, Quarterly,*** or ***Yearly***) by which the values will be entered, totaled and graphed.

   ✍The schedule above, **Alignment** is ***Monthly***.

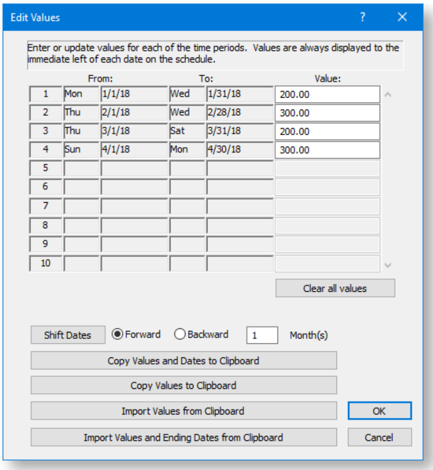
3. Click any ***Create/Edit*** button with **No Named Assigned**. The **ValueSet Properties** dialog box displays.



4. Type in a name for the **ValueSet Name** i.e.“***Budget***”.

5. Click ***Type 1: Keyed-in Global Values***.

6. Click the ***Display/Edit Values*** button to enter the values. The **Edit Values** dialog box displays, as shown:



✍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, **From** 1/1/18 in this example, is the schedule’s displayed start date. This date is paired with **To** 1/31/2018, the last date in the selected time increment (Month in this example) for which the value will be entered. The **From** date of line 1 is the start date of the time period (monthly) selected, based on the displayed start date, 1/1/2018, of the schedule. If the displayed start date for the schedule was 1/15/2018, the line 1 **From** date would still be 1/1/2018 as this is the beginning date for monthly, the time increment selected.

✍In this example the last paired dates are **From** 4/1/2018 and **To** 4/30/18. This is the last time increment for a value to be added. This is based on the schedule’s end date. Even if the schedule’s displayed end date is 4/15/2018 the Edit Values dialog box will display the end date for the entire time period, (in this example Month, which is 4/30/2018.) If the last time period has a value it is important to set the displayed end date for the schedule to the last day of the time period to have Milestones graph the value in the last time period.

7. Under ***Value***, enter numbers for each time period.

   ✍ Do not include any commas or symbols such as $.

8. Choose ***OK***.

   - Select one of the ***Copy Values*** button to have the dates and values or just the values copy from the **Edit Values** dialog box copy to the clipboard.
   - Select the ***Import Values*** button to have values copied to the clipboard from another ValueSet or a table. Paste into the **Edit Values** dialog box.
   - Set shift dates options: forward, backwards, number of (Time period changes based on DataGraph alignment set in step 2). Then press ***Shift Dates*** button. The dates will shift as the values stay static.

9. Choose the **Graphic Properties** tab and make selections *(see pg. 7-15)*.

10. Choose ***OK*** to return to the **Create or Edit ValueSets** dialog box.

11. Repeat Steps 3 - 10 to create or edit additional ValueSets.

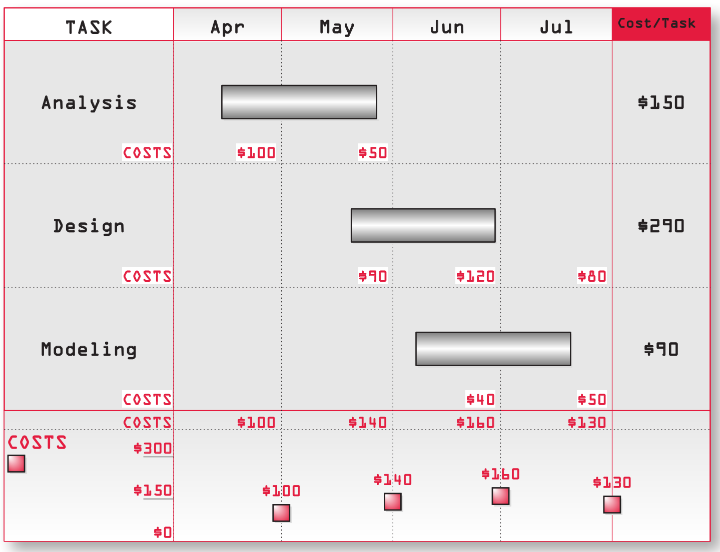
12. When finished, click ***OK*** to return to the schedule.

Learn how to assign established ValueSets to a DataGraph for graphing, *see pg. 7-18*.

Type 2 ValueSet: Sum of Values Keyed Into Task Tows

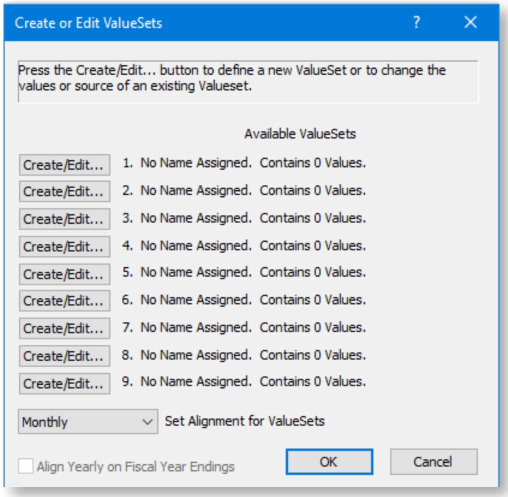
In this type of ValueSet, values are entered by time period for each task row. First the ValueSets are established, then the values are entered task row by task row.

Values are displayed in the DataGraph as bars lines or points. Also, numeric values can be displayed above, below, near the DataGraph points and/or on the task row.



Establish Type 2 Valuesets

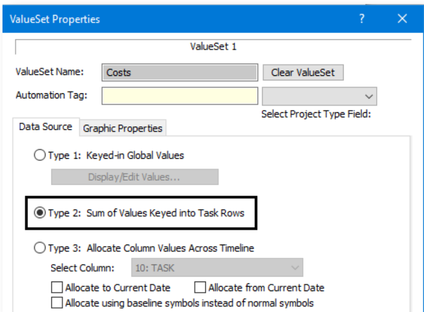
1. Choose **Tools | Graph Options | *Setup ValueSets***. The **Create or Edit ValueSets** dialog box displays, revealing 9 **Available ValueSets**.



2. In the dialog box, next to **Set Alignment for ValueSets** option choose a time period (***Daily***, ***Weekly, Monthly, Quarterly,*** or ***Yearly***) by which the values will be entered, totaled and graphed.

   ✍The schedule on the previous page **Alignment** is ***Monthly***.

3. Click any ***Create/Edit*** button with **No Named Assigned**. The **ValueSet Properties** dialog box displays.

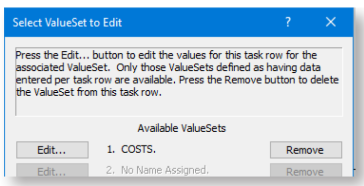


4. Type in a name for the ***ValueSet Name*** - i.e. “Costs”.
5. Click ***Type 2: Sum of Values Keyed into Task Rows***.
6. Choose the **Graphic Properties** tab and make selections *(see pg. 7-15)*.
7. Click ***OK*** to return to the **Create or Edit ValueSets** dialog box.
8. Repeat Steps 3 - 7 to create or edit additional Type 2 ValueSets.
9. Click ***OK*** to return to the schedule. To add values to the Type 2 ValueSets just setup.

Enter Values for Type 2 ValueSets

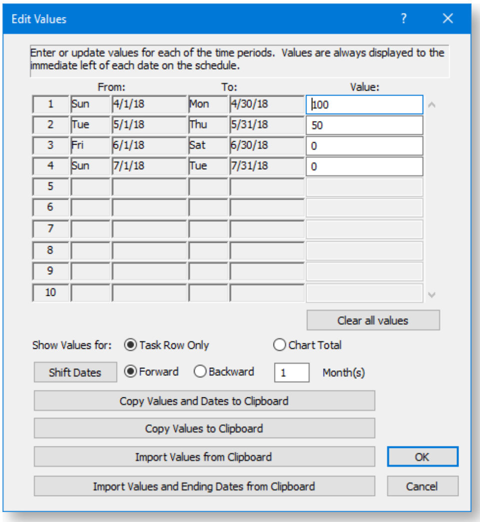
When the schedule is outlined, only the lowest outline level tasks should have values.

1. Right-click the task row in the column area and choose ***Edit ValueSet***. 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.

3. The **Edit Values** dialog box displays.



✍The dates in the **From** and **To** columns follow the time period Alignment chosen in Step 2 of Establish ValueSet - monthly increments, in this example.

✍The first date, **From** 4/1/18 in this example, is the schedule's displayed start date. This date is paired with **To** 4/31/2018, the last date in the selected time increment (Month in this example) for which the value will be entered. The **From** date of line 1 is the start date of the time period (monthly) selected, based on the displayed start date, 4/1/2018, of the schedule. If the displayed start date for the schedule was 4/15/2018 the line 1 **From** date would still be 4/1/2018 as this is the beginning date for monthly, the time increment selected.

✍In this example the last paired dates are **From** 7/1/2018 and **To** 7/30/18. This is the last time increment for a value to be added. This is based on the schedules end date. Even if the schedule's displayed end date is 7/15/2018 the Edit Values dialog box will display the end date for the entire time period, in this example Month, which is 7/30/2018. If the last time period has a value it is important to set the displayed end date for the schedule to the last day of the time period to have Milestones graph the value in the last time period.

4. Under **Value**, enter numbers for each time period. Usually, values are only entered for time periods that the symbols and horizontal bars cover.

   ✍Do not include any commas or symbols such as $.

5. Click ***OK*** and ***OK*** to return to the schedule.

6. Repeat for other task rows.

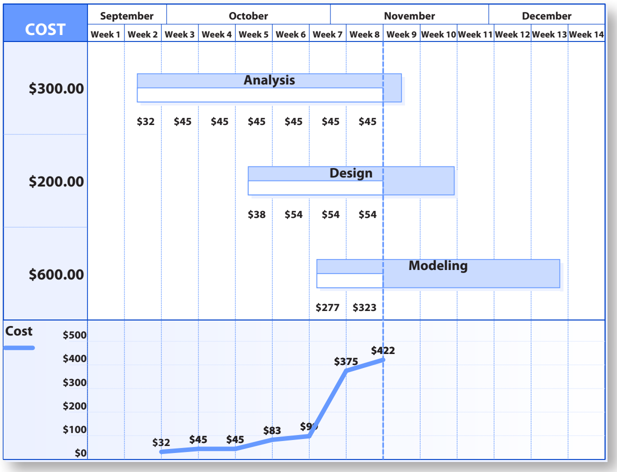
   - To see total values entered so far for each month, choose ***Chart Total***.
   - Select one of the ***Copy Values*** button to have the dates and values or just the values copy from the **Edit Values** dialog box copy to the clipboard.
   - Select the ***Import Values*** button to have values copied to the clipboard from another ValueSet or a table paste into the **Edit Values** dialog box.
   - Set shift dates options: ***Forward***, ***Backwards***, enter a value for movement (Time period changes based on DataGraph alignment set in step 2). Then press ***Shift Dates*** button. The dates will shift as the values stay static.

Learn how to assign established ValueSets to a DataGraph for graphing, *see pg. 7-18*.

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 and graphed based on the Alignment set. The schedule below **Alignment** is set for ***Weekly***. For the "Analysis" task, the $300 is distributed evenly between the days in September, October and November , then graphed weekly.

Values are displayed in the DataGraph as bars lines or points. Also, numeric values can be displayed above, below, near the DataGraph points and/or on the task row.



Create a Values SmartColumn and Enter Values

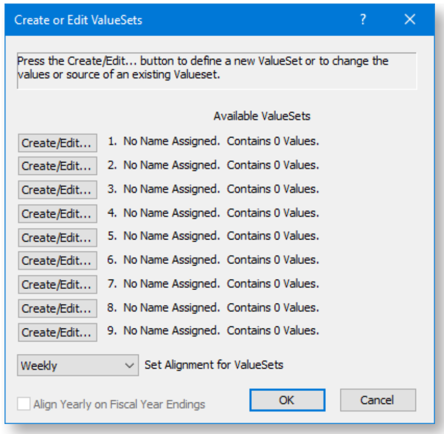
First, create a Values SmartColumn which will contain these values, such as the "Cost" column in the example above. Then, create the Type 3 ValueSet which references this column and graphs this column's values.

1. Choose **Insert | Rows, Columns | New Column | ... (**A Type 3 ValueSet can reference any column containing values, such as a ***Values***, a ***Calculation/ Indicator***, a ***Duration***,or any ***Earned Value*** SmartColumn.)
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 **(T) 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***.

Create a Type 3 ValueSet That References a Column with Values

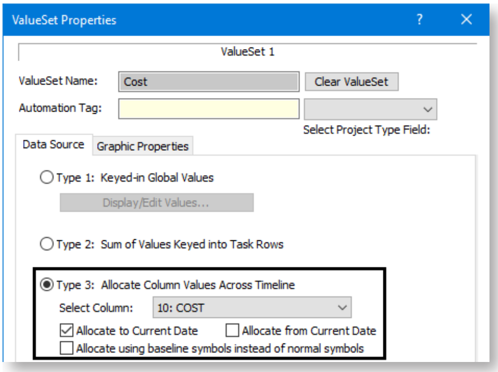
1. Choose **Tools | Graph Options |** ***Setup ValueSets***. The **Create or Edit ValueSets** dialog box displays, revealing 9 **Available ValueSets**.



2. In the dialog box, next to **Set Alignment for ValueSets** option choose a time period (***Daily***, ***Weekly, Monthly, Quarterly,*** or ***Yearly***) by which the values will be entered, totaled and graphed.

   ✍The schedule on the previous page **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, "Cost" is entered.

5. Click ***Type 3: Allocate Column Values Across Timeline***.

6. From the **Select Column** list, choose the appropriate column, "Cost" in the example chart on the previous page. Select one of the following options. If one is not selected values will be spread evenly from the task's start date to the task's end date.

   - ***Allocate to Current Date***: Values will be spread evenly from the task's start date to the current date, as shown in the example on the previous page.
   - ***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. 7-15*).
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.

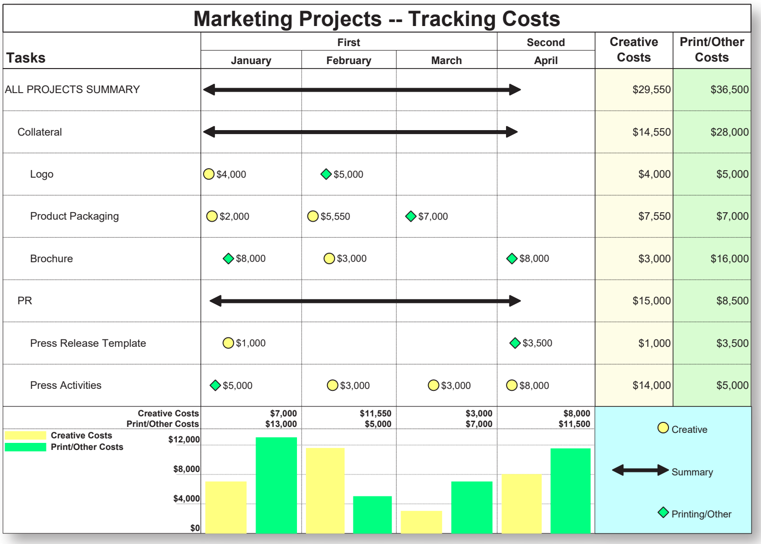
Learn how to assign established ValueSets to a DataGraph for graphing, *see pg. 7-18*.

Type 4 ValueSet: Use Values from Symbols

In this type of ValueSet, values are entered for each symbol and remain attached to the symbol even when moved. The Marketing Projects example below has two Type 4 ValueSets; Creative Costs represented by yellow circle symbol and Print/Other Costs represented by green diamond symbol. Each symbol has been given a value. The values are graphed and totaled within the time alignment selected, Monthly in this example.

Values are displayed in the DataGraph as bars lines or points. Also, numeric values can be displayed above, below, near the DataGraph points and/or on the task row.

✍Symbol values can only be entered after a ValueSet has been created.

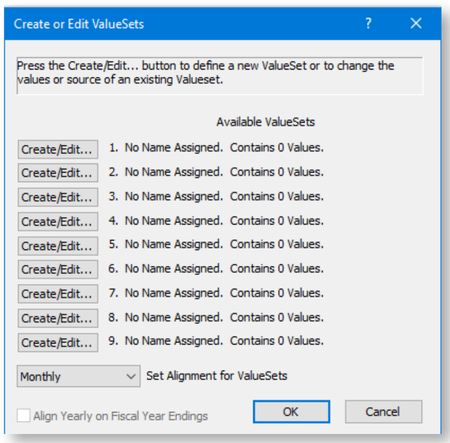


Establish a Type 4 ValueSet

1. Choose **Tools | Graph Options |** ***Setup ValueSets***. The **Create or Edit ValueSets** dialog box displays, revealing 9 **Available ValueSets**.

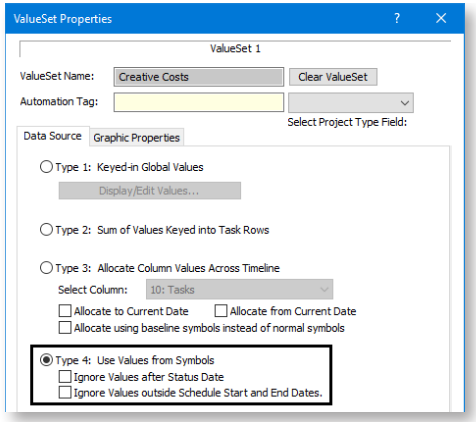
2. In the dialog box, next to **Set Alignment for ValueSets** option choose a time period (***Daily***, ***Weekly, Monthly, Quarterly,*** or ***Yearly***) by which the values will be entered, totaled and graphed.

   ✍In the example above, the Alignment is Monthly.



3. Click any ***Create/Edit*** button with **No Named Assigned**. The **ValueSet Properties** dialog box displays.

4. Type in a name for the ***ValueSet Name*** - here, “Creative Costs” 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.

6. Choose the **Graphic Properties** tab and make selections *(see pg. 7-15)*.

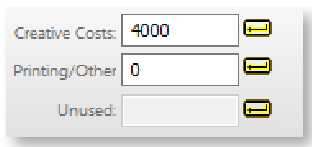
7. Click ***OK*** to return to the **Create or Edit ValueSets** dialog box.

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. The toolbar will change and display the **Selection** menu.
3. At the bottom of the **Selection** menu, select the **ValueSets** tab.
4. Enter a value for any or all of the **ValueSets**, as shown to the right.



5. Click the apply button.
6. Repeat for other symbols.

Learn how to assign established ValueSets to a DataGraph for graphing, *see pg. 7-18*.

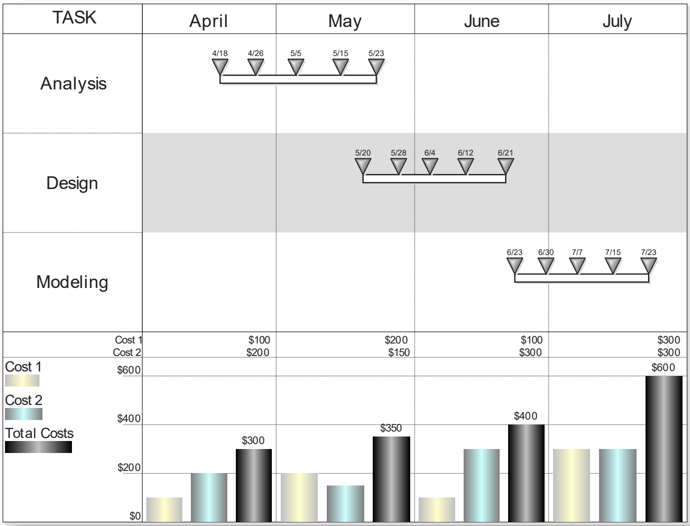
Clear Values from Symbols

To remove ValueSet values from all symbols **Tools | Other Tools | Manage: Symbols, Pictures, Free Form Text, Lines, Boxes, Circles |** ***Remove ValueSet values from every symbol***.

Type 5 ValueSet: Total of Other ValueSets

In this type of ValueSet, other ValueSets are totaled. 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."

The values are displayed in the DataGraph as bars or lines, and the numeric values can be displayed above, below and/or near the DataGraph points.

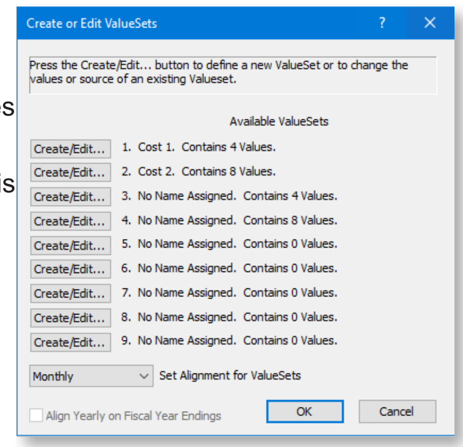


Establish a Type 4 ValueSet

1. Choose **Tools | Graph Options | *Setup ValueSets***. The **Create or Edit ValueSets** dialog box displays, revealing 9 **Available ValueSets**,

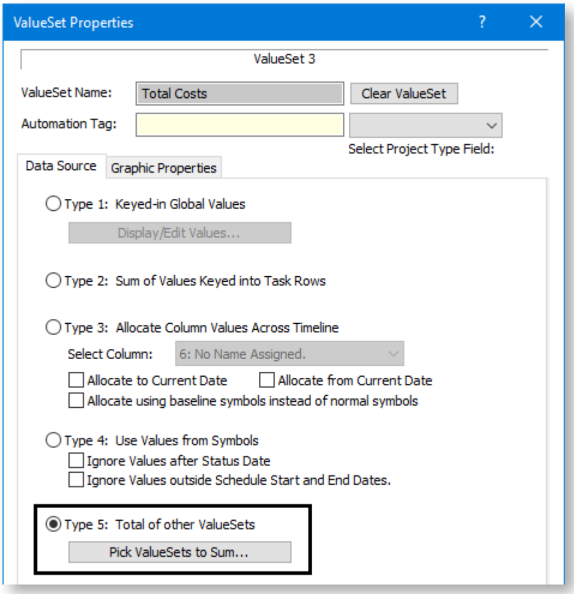
2. In the dialog box, next to **Set Alignment for ValueSets** option choose a time period (***Daily***, ***Weekly, Monthly, Quarterly,*** or ***Yearly***) by which the values will be entered, totaled and graphed.

   ✍In the example above, the Alignment is Monthly.

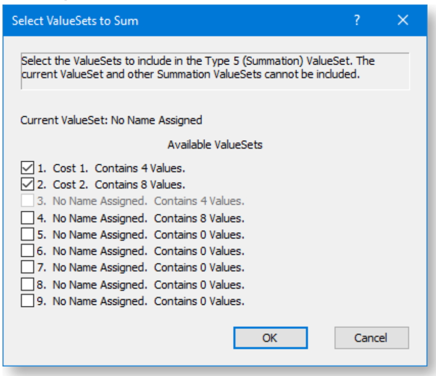


3. Click any ***Create/Edit*** button with **No Named Assigned**. The **ValueSet Properties** dialog box displays, as shown. Two ValueSets must already exist so that they can be totaled. In the example ValueSets Cost 1 and Cost 2 already exist.

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. The **Select ValueSets to Sum** dialog box displays box, check on the ValueSets to total. In the example Cost 1 and Cost 2 ValueSets are selected.



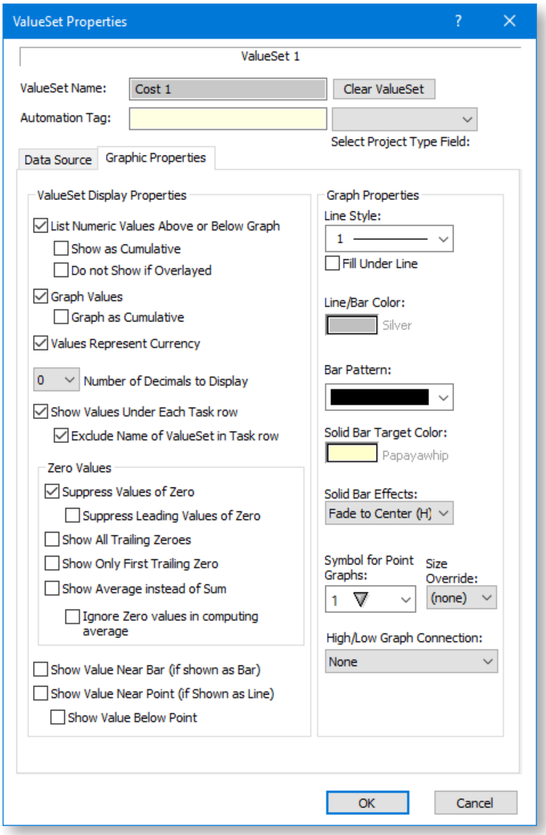
9. Choose the **Graphic Properties** tab and make selections (*see pg 7-15*).
10. Click ***OK*** to return to the **Create or Edit ValueSets** dialog box.
11. Repeat Steps 3 - 10 to create or edit additional Type 5 ValueSets.
12. Click ***OK*** to return to the schedule.

Learn how to assign established ValueSets to a DataGraph for graphing, *see pg. 7-18.*

ValueSet Graphic Properties

ValueSet graphic display options allow the user to independently format how each ValueSet is displayed as numbers and graphs of numbers.

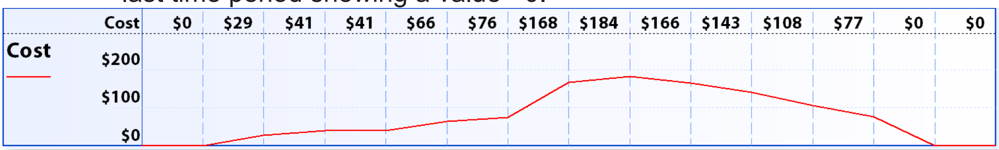
Each ValueSet can have different settings for line/bar/point graph colors and patterns; cumulative and non-cumulative display of values and graphing of values; adding currency symbols; decimal place control; summing and averaging of values.



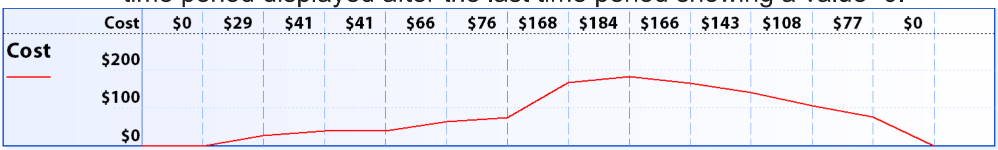
1. Choose **Tools | Graph Options |** ***Setup ValueSets***.
2. Click ***Create/Edit*** for the appropriate ValueSet. The **ValueSet Properties** dialog box displays.
3. Click the **Graphic Properties** tab, as shown:

   This tab has two sections: the **ValueSet Display Properties** and the **Graph Properties**.
4. Under **ValueSet Display Properties**:
   - ***List Numeric Values Above Graph***: Values display above DataGraph.
   - ***Show as Cumulative***: Numeric values display above DataGraph as cumulative values.
   - ***Do not Show if Overlayed:*** Using the overlay option a ValueSet can be displayed more than once in a DataGraph, for example as a bar and line. With this option selected the values for the ValueSet being used more than once, will only display once.
   - ***Graph Values***: Values are converted to line, bar or point graph.
   - ***Graph as Cumulative***: Cumulative values are converted to line, bar or point graph.

- ***Values Represent Currency***: Add currency symbol to numeric values. Affects ValueSet values displayed above/below or near bar, line or point; DataGraph, Y-axis values; and ValueSet values under each task row. Y-axis display is controlled by the first ValueSet's setting for that DataGraph.
- ***Number of Decimals to Display***: Choose 0-6 decimal places for displayed values. Affects ValueSet values displayed above/below or near bar, line or point; 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.
- ***Suppress Values of Zero***: ValueSet values of 0 are not displayed in the DataGraph and task row. The DataGraph will not graph values of 0.
  - » ***Suppress Leading Values of Zero***: The DataGraph will start the graph at the first value > then 0.
- ***Show All Trailing Zeros:*** ValueSet values of 0 will display in the DataGraph in all time periods displayed after the last time period showing a value > 0. The DataGraph will graph values of 0 in all time periods displayed after the last time period showing a value >0.

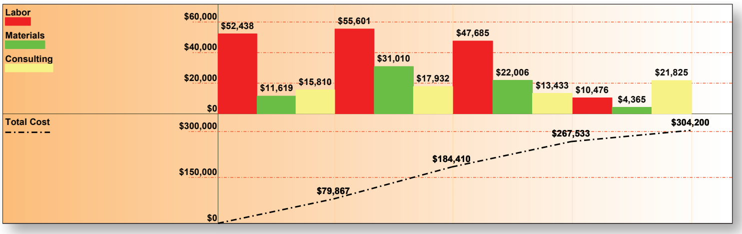


- ***Show Only First Trailing Zero*** ValueSet values of 0 will display in the DataGraph in only the first time period displayed after the last time period showing a value>0. The DataGraph will graph values of 0 in only the first time period displayed after the last time period showing a value>0.



- ***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.

- ***Show Value Near Bar (if shown as Bar)*** as shown below:
- ***Show Value Near Point (if shown as Line)*** as shown below:
  - » ***Show Value Below Point***. Value will show below line instead of on top of the line or point graph.



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. However the choice of the look of the line, bar, wide bar or point for each ValueSet is sent under Graphic Properties.

   - ***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 the 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***: Places a line between a symbol point from the current ValueSet to the selected ValueSet symbol point. The ***Line Style*** and ***Line/Bar Color*** selected will be used for the connection.

6. Choose ***OK*** and ***OK*** to return to the schedule.

DataGraph

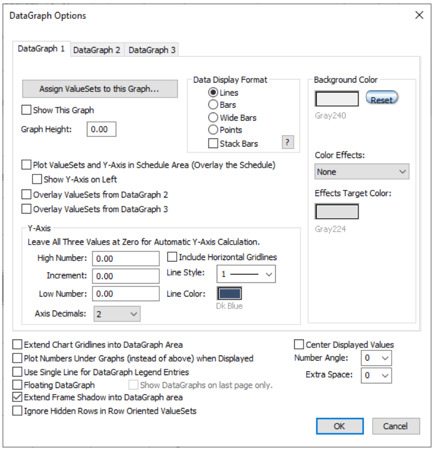
DataGraphs display values from ValueSets as bar or line graphs. One DataGraph can display up to 8 ValueSets. Normally, ValueSets are created first. Choosing which ValueSets to display is the main component of formatting the DataGraph.

A schedule can have up to 3 DataGraphs, none of which is allowed to take up more than ½ of the available space.

Set DataGraph default text by choosing **Format | Default Text |** ***DataGraph Text***. DataGraph graph and legend area text can each have their own font size.

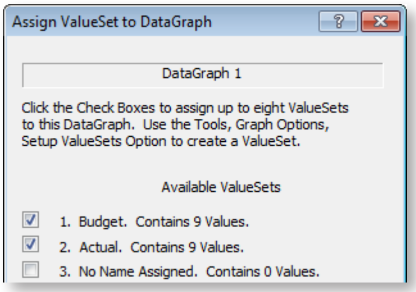
Data graphs can have curtains. Curtains shade specific date ranges (*see Chapter 2 pg. 33-36*).

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 to check on ***Show This Graph*** is selected.
4. Select ***Plot ValueSets and Y-Axis in Schedule Area*** to display the graph overlaying the schedule area.
5. Select ***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, bar or point graphs.
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 button to color the Datagraph.
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. Select ***Include Horizontal Gridlines*** to have lines extend from the Y-Axis values, across the DataGraph area.
11. Click the ***Assign ValueSets to this Graph*** button. The ***Assign ValueSet to DataGraph*** dialog box displays.



12. Under **Available ValueSets** check on the Valusets to display 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:
   - Select ***Extend Chart Gridlines into DataGraph area*** to display vertical gridlines in the DataGraph as well as the schedule area.
   - Select ***Plot Numbers under Graphs*** to display numbers from ValueSets under the DataGraph, instead of above the DataGraph.
   - Select ***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.

- Select ***Float DataGraph*** to undock the DataGraph from the bottom of the schedule.
    - » Select ***Show DataGraphs on last page only*** to display floating DataGraphs only on the last page of the schedule.
- Select ***Extend Frame Shadow into DataGraph area*** to display the schedule's shadow along the edge of the DataGraphs as well.
- Option for hidden task rows to be ignored in a DataGraph by selecting ***Ignore Hidden Rows in Row Oriented ValuesSets***.
- Select ***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:*** Select to place ValueSet values at an angle within the DataGraph. Choose this angle from the drop down menu.
- ***Extra Space:*** Select a number 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 DataGraph.

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.

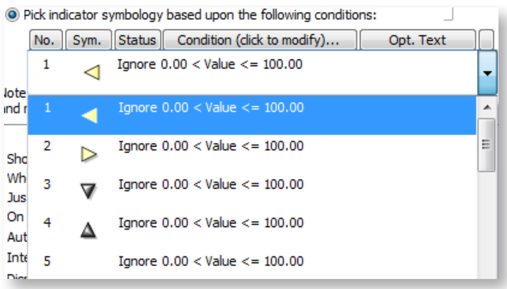
1. Choose **Insert | Rows, Columns | New Column |** ***ValueSet***.
2. Under **ValueSet to Use**, choose the ValueSet whose values will be totaled in this column.

Optional Indicators:

3. Select ***Do not display indicator symbols*** to just have values display in the column.

-or-

3. Select ***Pick indicator symbology based upon the following conditions*** to display symbols, text, and/or color based on the column values.

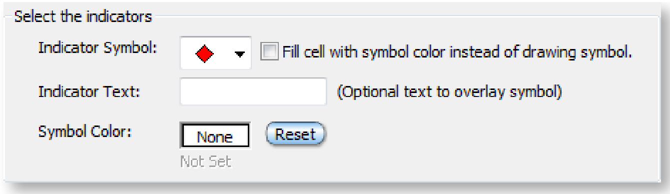


4. Click the drop-down arrow to view 20 active/ignored indicators and their conditions.

   ✍Any of these symbols can be changed to another symbol from the toolbox.

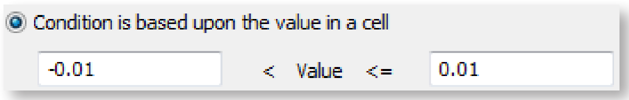
   ✍All symbols are **Ignored** until a condition is created for them to appear, becoming **Active**.

5. Click on one of the ten symbols. The **Indicator Condition Settings** dialog box opens:



   - Choose an **Indicator Symbol**. The symbol choices are from the toolbox.
   - OR, select ***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.
   - Select ***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.
9. Choose **Symbol size** and **Symbol Alignment**. The column's alignment sets the values alignment.
10. Select ***Display numerical value also*** to show the values with an indicator.
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.

DataGraph Example

The example below has five Type 2 ValueSets. Two are “Budget” and three are “Costs.” Monthly budget and cost values are entered for each task for all 5 ValueSets.

The values for the first “Budget” and “Cost” ValueSets are each totaled cumulatively by month, then graphed as a line, with fill. The numeric values are displayed above the graph in DataGraph 1.

The values for the second “Budget” and “Cost” ValueSets are each totaled for each month, then each is graphed as a bar and the numeric values are displayed above the bars in DataGraph 2.

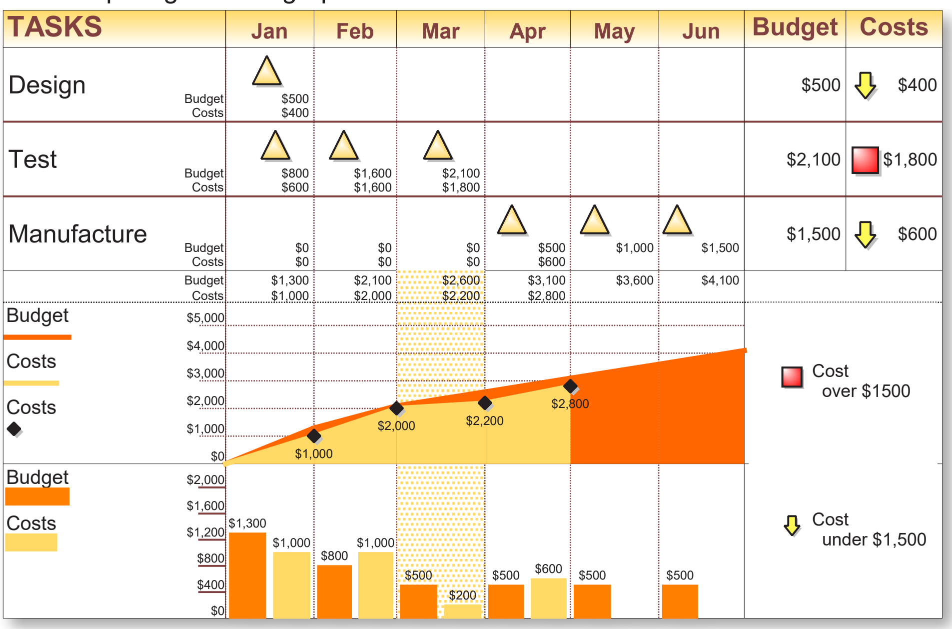
The values for the third “Cost” ValueSet are totaled cumulatively by month, Then they are graphed as points. The numeric values are displayed below the point in DataGraph 3 which is overlaid onto DataGraph 1.

The “Budget” and “Costs” columns are ValueSet SmartColumns. The “Budget” ValueSet SmartColumn totals the first “Budget” Type 2 ValueSet values for each task row. The “Costs” ValueSet SmartColumn totals the first “Costs” Type 2 ValueSet values for each task row. ValueSet SmartColumns can total values from selected Type 2 or Type 4 ValueSets.

The “Cost” column also displays indicator symbols based on the column cell values.

There is a curtain in the month of March to highlight this portion of the DataGraphs (*see Chapter 2 pg. 33-36*).

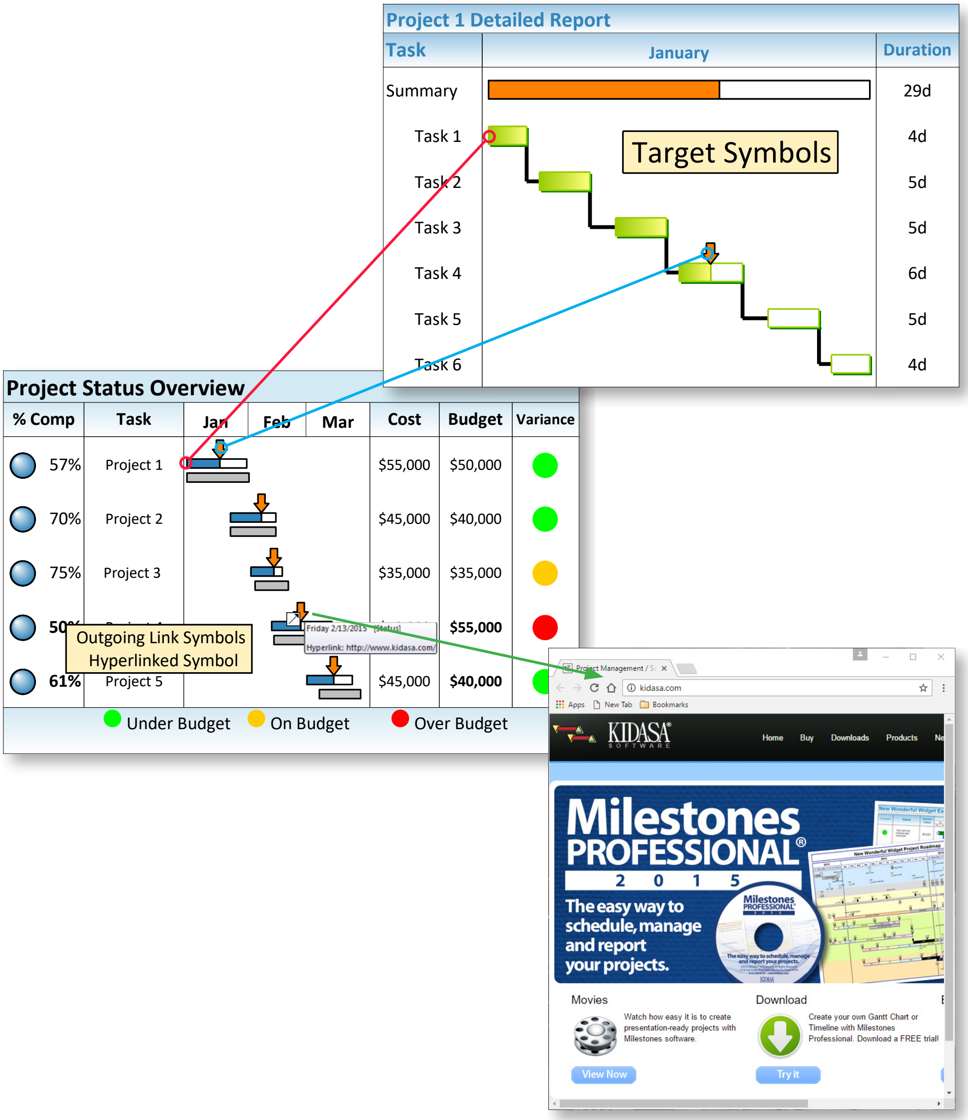
The DataGraph legend and graph area text have different font sizes.



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, task rows, pictures and Freeform text. 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.



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.

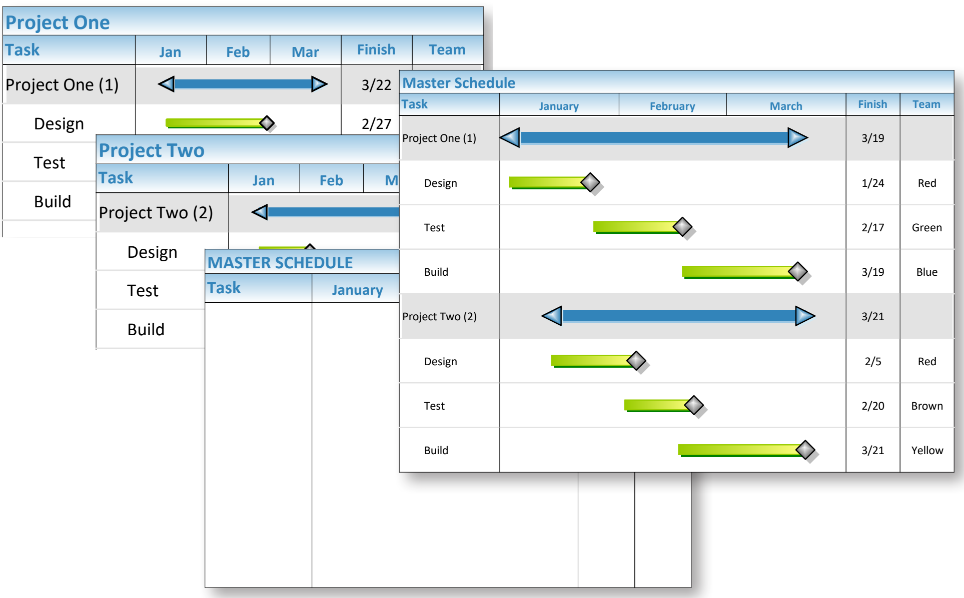
Master Schedule Example

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.

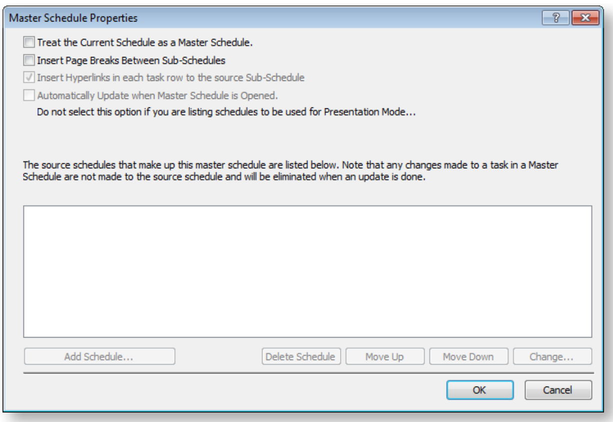
- **All columns should be the same type and in the same location**. That is, if the master schedule has one column with text on the left side of the schedule, then all sub-schedules should also have such a column in the same position.
- **The symbols and horizontal bars should be the same or similar, 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**. If the date range *(see Chapter 2 pg. 2-10)* in the master schedule is different than the sub-schedule's the information will still be merged into the master schedule; yet the master schedule's date range may need to be reset to see all 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. 2-39)*. 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. Select ***Treat the Current Schedule as the Master Schedule*** to assign the schedule in the Milestones window as the master schedule.
    - Select ***Insert Page Breaks Between Sub-Schedules*** to have sub-schedules separated by page breaks in the master schedule.

- Select ***Insert Hyperlinks in each task row to the source Sub-Schedule***: to have a task row hyperlink *(see pg. 8-16)* on each task row to the source sub-schedule from which that task originated.

  ✍A hyperlink icon will be added to each task row. It can be clicked on to open the lower level schedule. Hide the hyperlink icon by using the toolbox arrow tool to select the task row. The toolbar will activate for that task row. In the **Hyperlinks Settings** section uncheck ***Show Hyperlinks Icon***. This is a global setting, therefore all task rows will be affected.

- Select ***Automatically Update when Master Schedule is Opened*** so when 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 | Update Master Schedule, Linked Symbols | *Mater Schedule***.

  ✍It's important that all of the sub-schedules be available when an update is done or they will be left out of the update.

4. Click the ***Add Schedule*** button to launch the *Windows* browser. Locate and select sub-schedules to be added to the master schedule.

   ✍Sub-schedules will fill the master schedule in the order shown.

   - Use the ***Move Up*** and ***Move Down*** buttons to change the order of the schedules.
   - Use the ***Change*** button to replace a selected file from the sub-schedule list with another Milestones schedule.
   - 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.

5. 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 | Update Master Schedule, Linked Symbols | *Mater 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, specifically column types and locations. Create a template or blank chart to meet this need.
- If lower level schedules when brought into the master schedule need to retain a different format aspect from the master schedule, such as a task row height, set an individual override. Thus the formatting from the master schedule will be superseded.
- 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.

Symbol Links

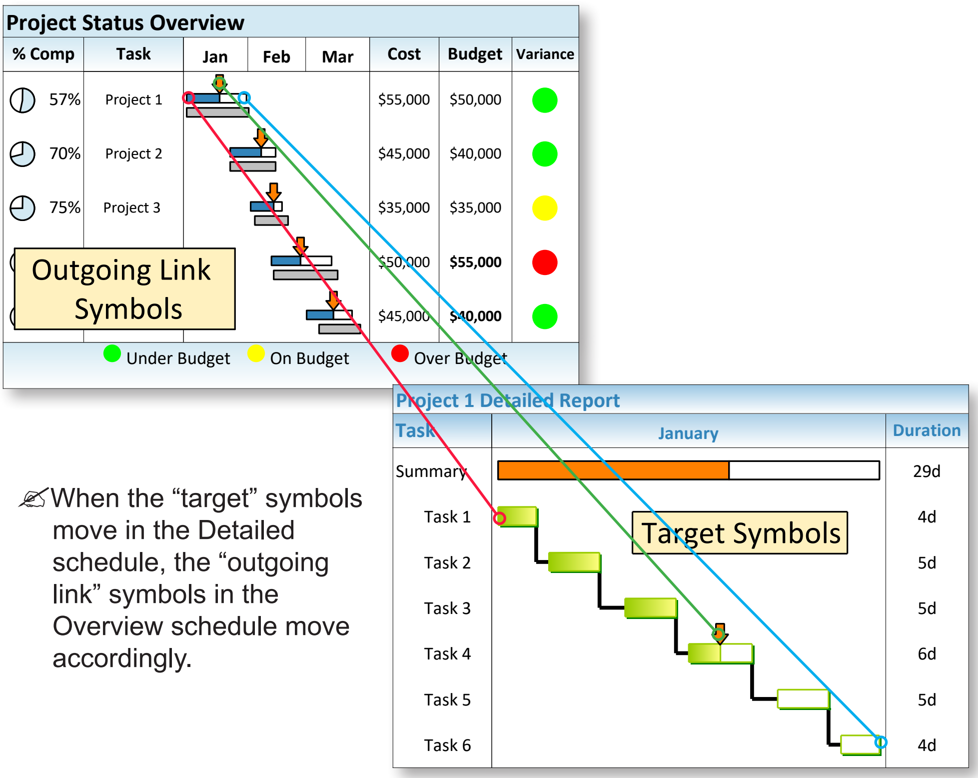
With symbol linking, a symbol's date in one schedule can be based on a symbol's date in another schedule or the same schedule.

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

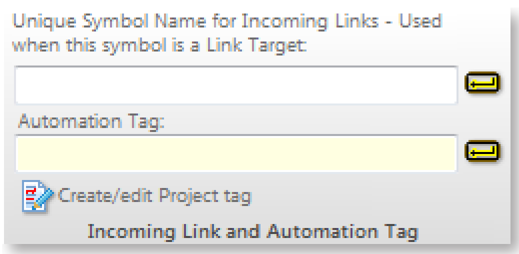
Linking symbols located on two separate schedules involves setting up two things:

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:

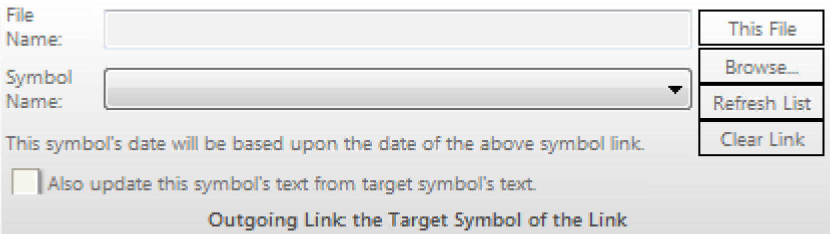


4. Under ***Unique Symbol Name for Incoming Links - Used when this symbol is a Link Target***, enter a symbol name.
5. Click the apply button.
6. Repeat this process to name other target symbols, and then ***Save*** the schedule.

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.



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.

   ✍To remove all outgoing links from all symbols **Tools | Other Tools | Manage: Symbols, Pictures, Free Form Text, Lines, Boxes, Circles | Remove outgoing links from every symbol**.

   ✍To remove all symbol names from all symbols **Tools | Other Tools | Manage: Symbols, Pictures, Free Form Text, Lines, Boxes, Circles | Remove symbol names from every symbol**.

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

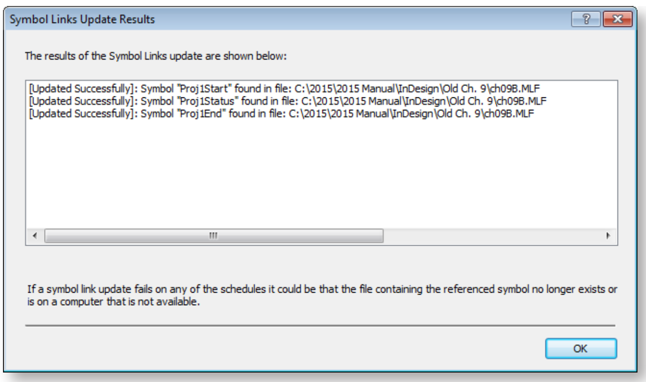
- ☑ ***Do Not Update Dependent Symbols***: If a symbol with an outgoing link has dependent tasks, normally those tasks will move when their parent symbol is updated with the target symbol's date. Check this option to prevent any dependent symbols from moving to new dates.

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]*.



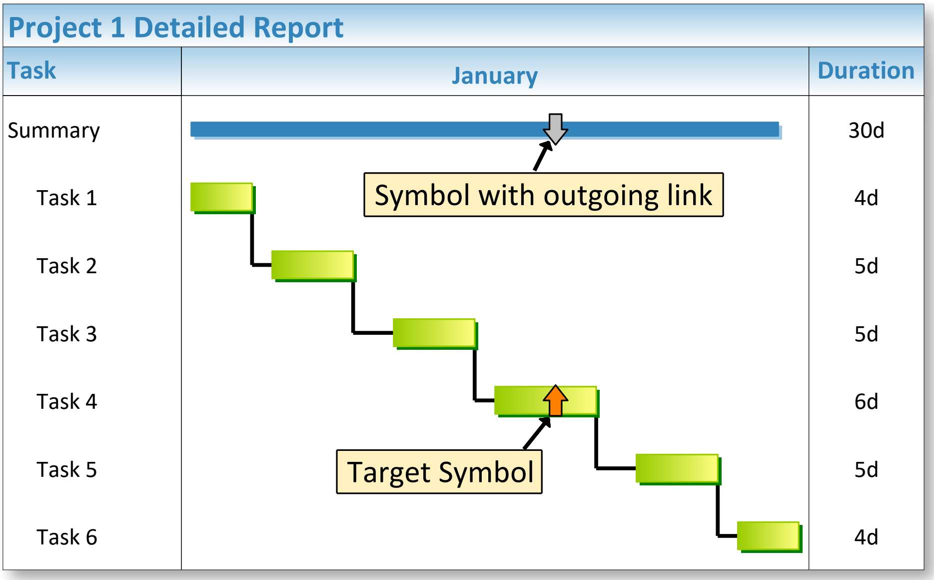
If any of the updates failed, the schedule containing the target symbols or the computer containing the schedule may not be available or the target symbol's name may have changed or may have been deleted.

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.



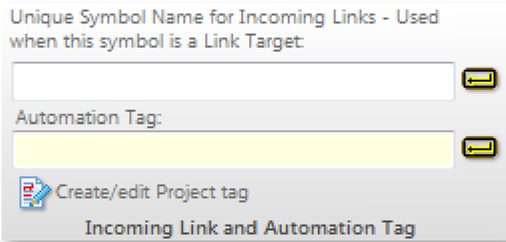
In this example, the arrow symbol pointing upwards in "Task 4" (Target Symbol) controls the date of the arrow symbol pointing downwards on the "Summary" row (Symbol with outgoing link). Thus, when the arrow pointing up (target) moves, the arrow pointing down (outgoing link) will move accordingly.

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.

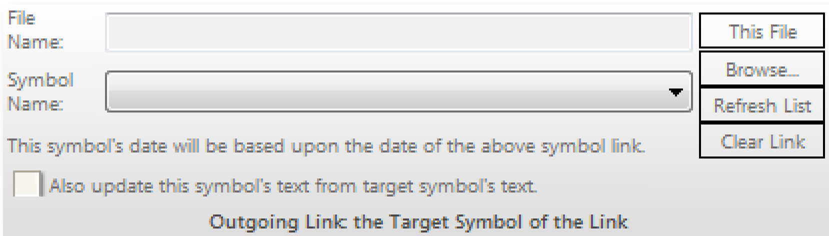


3. In the **Selection** menu, click the **Symbol Links** tab and go to the **Incoming Link and Automation Tag**.
4. Under ***Unique Symbol Name for Incoming Links - Used when this symbol is a Link Target***, enter a symbol name.
5. Click the apply button.
6. Repeat this process to name other target symbols 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.

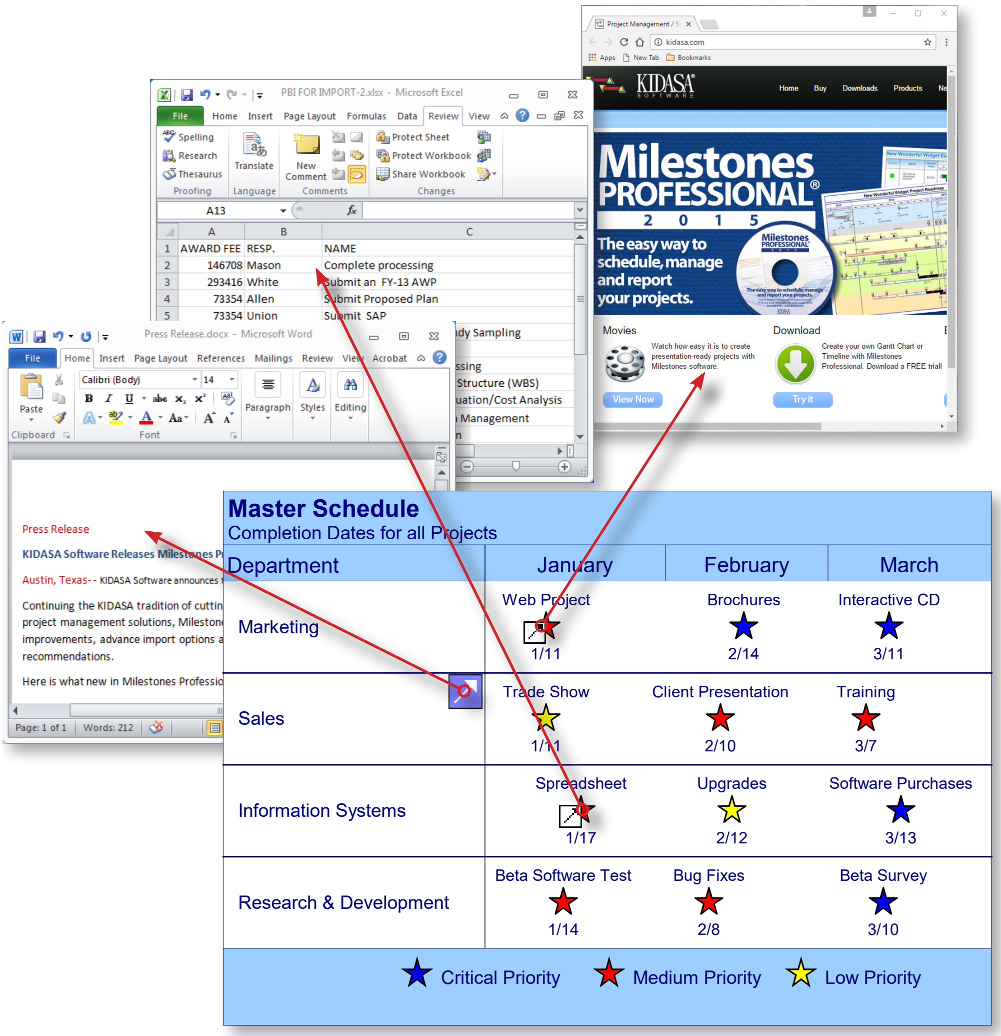
Symbol Links Versus Master Schedule

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, task row, freeform text or picture 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 hyperlinks is automatically transformed into a graphic with hotspot links to the schedules, documents, and web pages that are hyperlinked to the symbol, task row, freeform text or picture. 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.

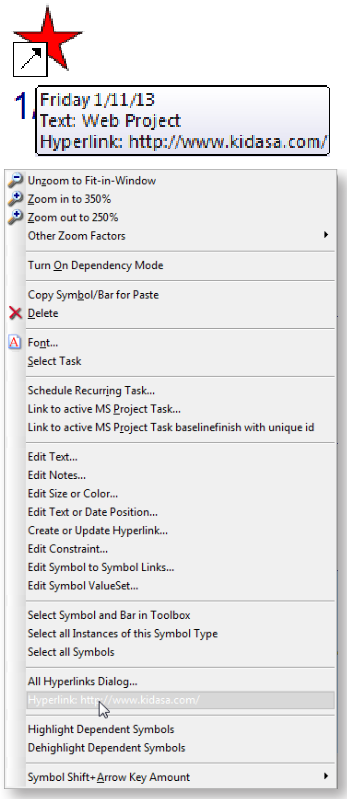
2. Hover over the symbol to see the available hyperlinks. For this feature, tooltips must be turned on for the schedule area in **Tools | Program Options |** ***Help***.

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.

   ✍To remove all hyperlinks from all symbols: **Tools | Other Tools | Manage: Symbols, Pictures, Free Form Text, Lines, Boxes, Circles | Remove all hyperlinks from every symbol**.

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. 12-11*) 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.

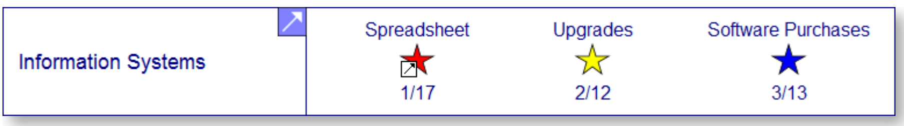
Hyperlink a Task Row to a URL

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.



- 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 -

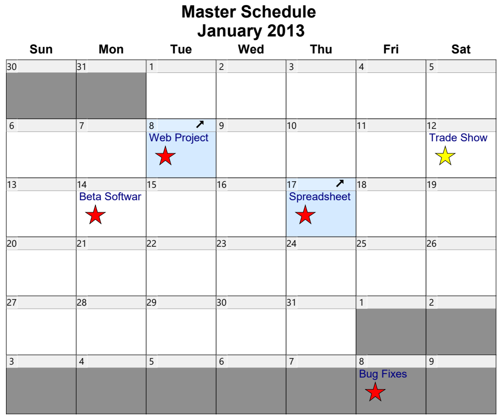
1. Right-click a task row that has a hyperlink.
2. Choose **Hyperlink** and select from the list of hyperlinked files and URLs.

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.

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***.

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 **(T) 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 Picture

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 picture. 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 picture and selecting the hyperlink.

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.

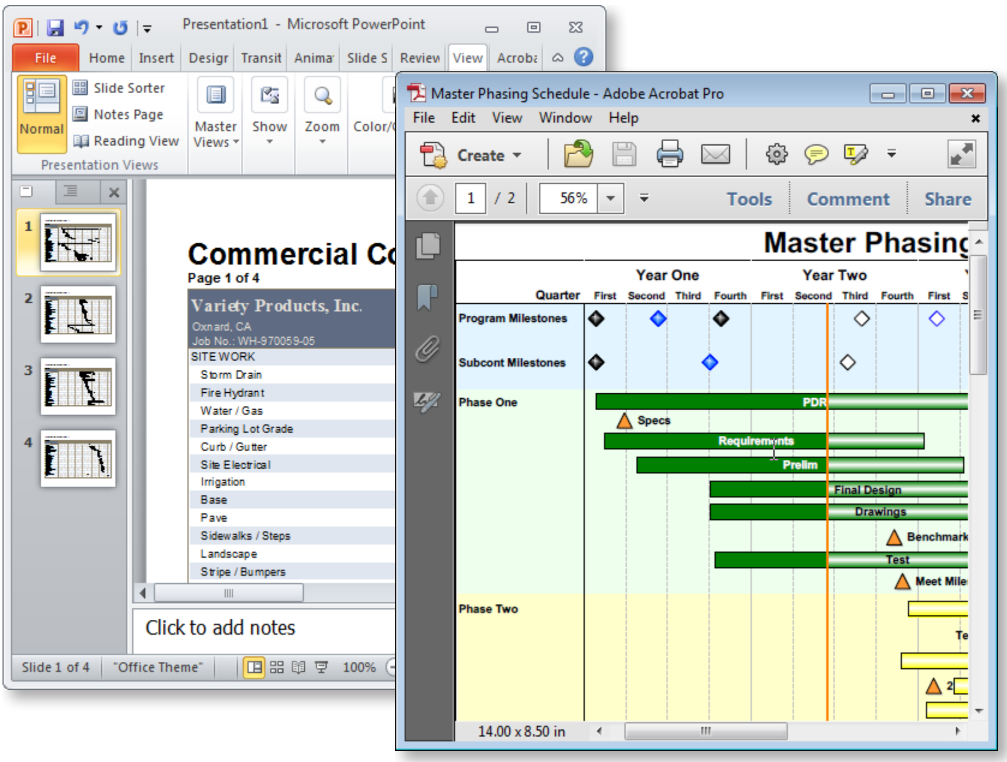
Hyperlinks Report

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

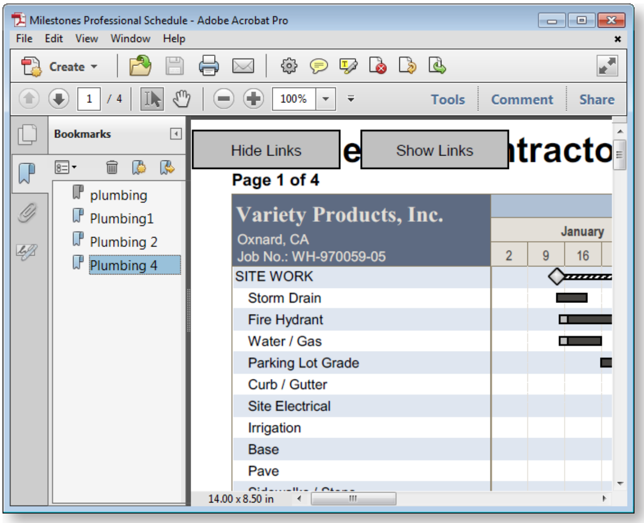
Milestones Professional offers many ways to share schedules with others:

- 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 PDF”option saves a Milestones Professional schedule in the PDF format.

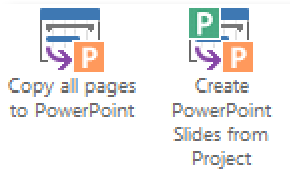


Select **File | Files and Templates: Open and Save Options |** ***PDF*** and enter a filename. Then, when the file has been created, click ***OK*** to view the new PDF. Milestones will attempt to launch the file using the default PDF viewer.

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

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**.

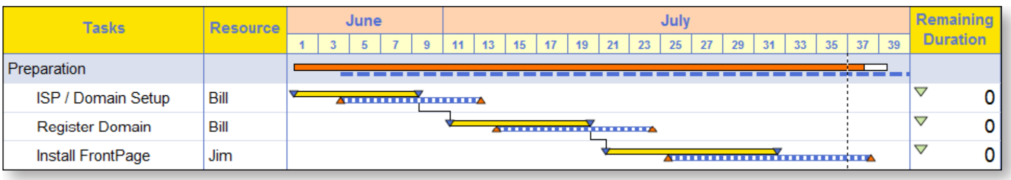
4. In the **Paste Special** dialog choose ***Picture (Enhanced Metafile)*** for a metafile copy or ***Bitmap***, for a bitmap copy and then ***OK***.

Copy to Clipboard Bitmap (Selected Rows)

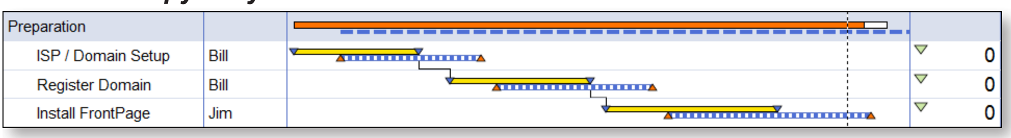
1. In Milestones, choose the **(↖) Arrow** tool to select the lines to be pasted. Hold the **Shift** key to select contiguous task rows. Hold the **Ctrl** key to select specific task rows.

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.

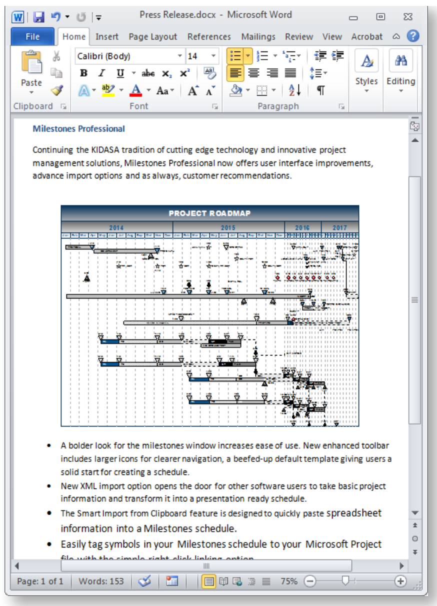
Once embedded or linked, it's possible to launch the schedule in Milestones from that application, by double-clicking the schedule.

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.
5. Make changes in the Milestones schedule.
6. Close the Milestones schedule using the X. No need to save the schedule in Milestones, the file will be saved in the document.

✍OLE only works with single page schedules.

Link a Schedule in Another Document

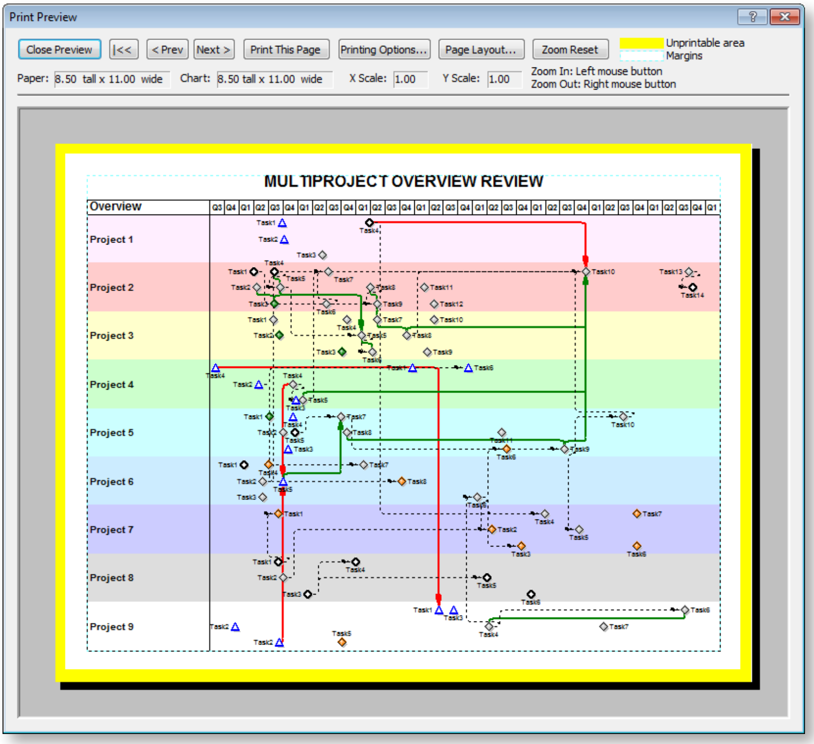
When a Milestones schedule is inserted into a document as a "linked object," a connection is maintained between the source schedule and the inserted schedule—meaning a change in the source schedule equates to a change in the schedule that was inserted in the document.

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.

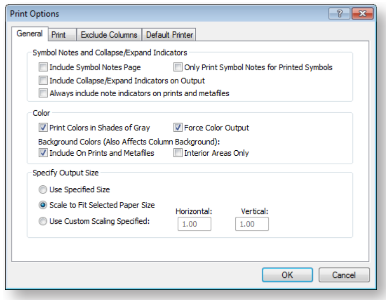
Print Setup

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.
- ***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

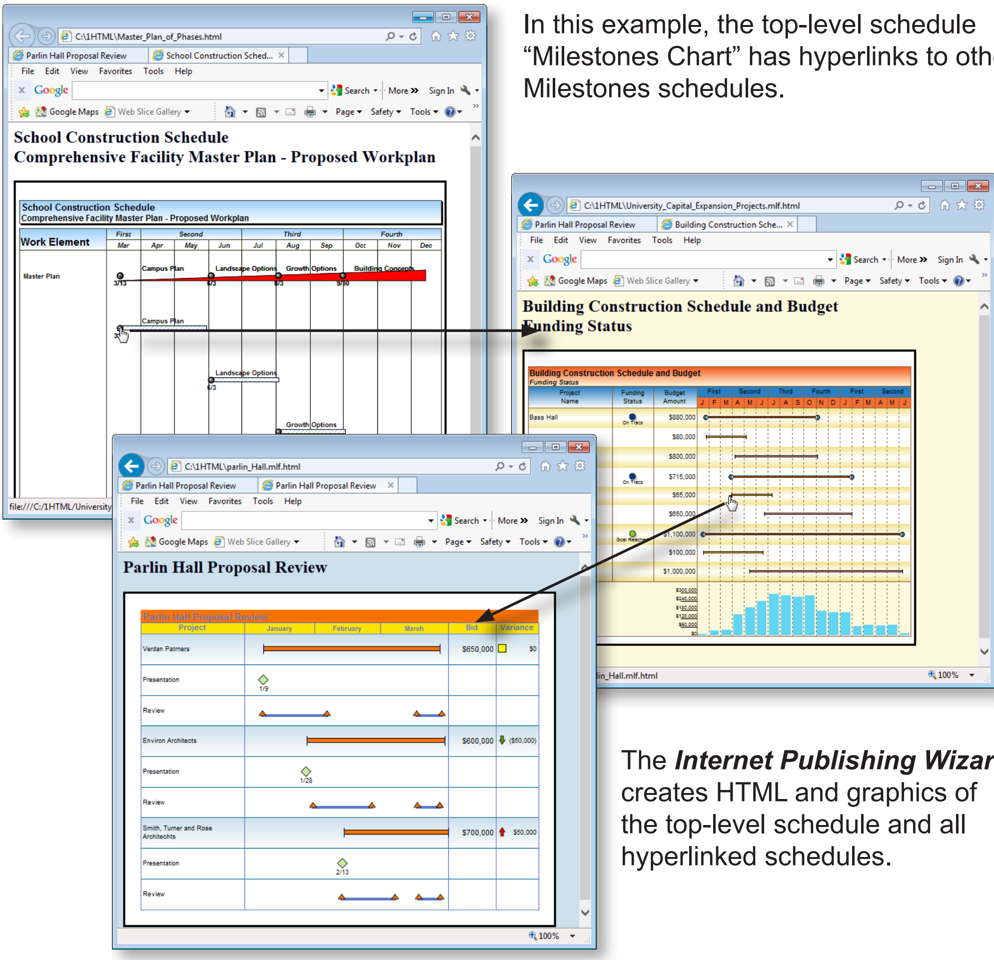
The **Default Printer** tab is useful if using a different printer for Milestones than the printer set as the default on the computer. Check ***Use this printer as the default***, then each time Milestones starts, it pre-selects this printer as the current Milestones printer.

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.

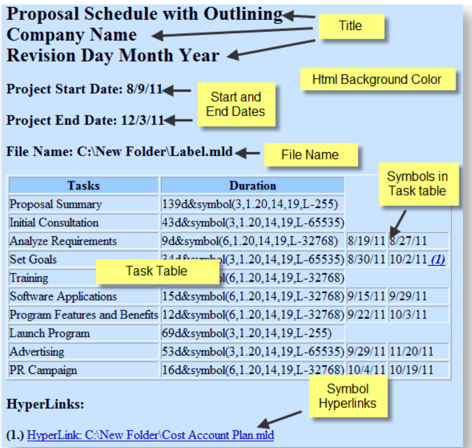
1. Choose **Connections | Other | *Internet Publishing Wizard***.
2. Choose ***Graphic File Only***, then ***Next***.
3. ☑ ***Create a bitmap for each page of the schedule*** to create a graphic file for all schedule pages. ☐ To create a graphic file of the first page only.
4. Select the **Graphic Output Options**, then ***Next***.
5. Choose ***Browse*** to find a folder for the output files, then ***Next***.
6. Review selections and press ***Finish***.

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. ◉ ***HTML file with optional graphics***.
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 HMTL 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
.
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 HTM***L 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 set of graphics of an outlined schedule. Milestones generates the top level schedule as well as schedules for all lower levels. When the top level schedule displays in the browser, click an upper level task to display a separate lower-level schedule. Schedules can also include 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 HMTL 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
.
6. See *Graphics Output/Bitmap Options* on page 9-11 for choosing **Bitmap Options**.
   - ***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***.
10. Review selections and press ***Finish***.

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.

To download the free Milestones viewer go to www.kidasa.com/downloads.

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.

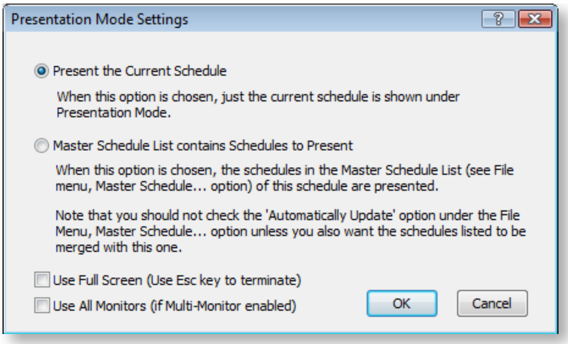
1. Choose **View | Viewing Options | Page View | *Full Screen***, or press **Ctrl+F**.
2. Use the **Esc** key or **Ctrl+F** to exit full screen mode.

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***.

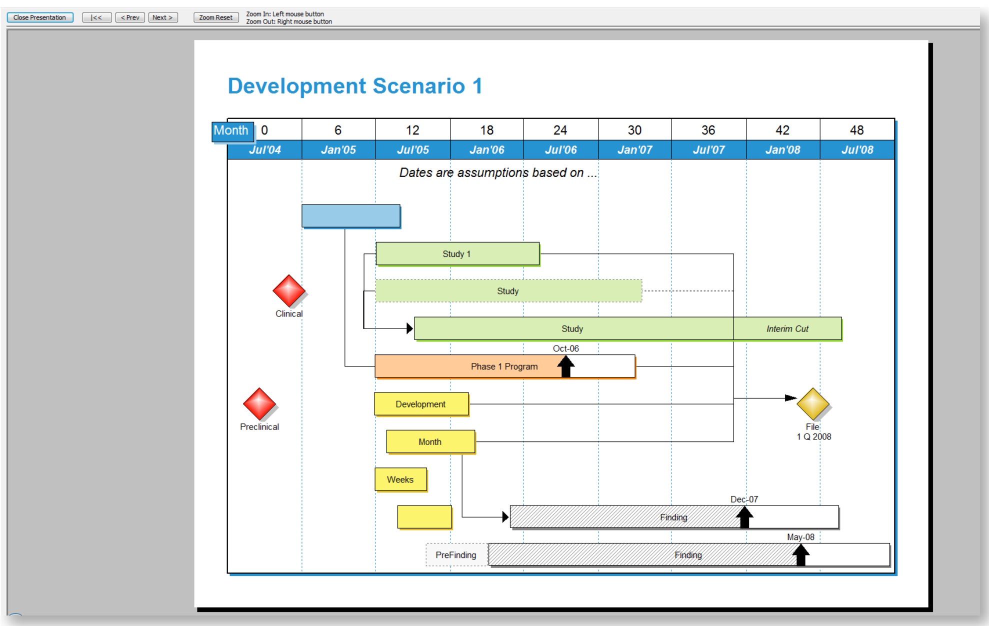
9. Choose **View | Viewing Options | Page View |** ***Presentation Mode***.
10. Choose ◉ ***Master Schedule List contains Schedules to Present***, then ***OK***.

✍Note that the **Automatically Update** option should not be checked as in this case the schedules will not be merged.

Presentation Mode Controls

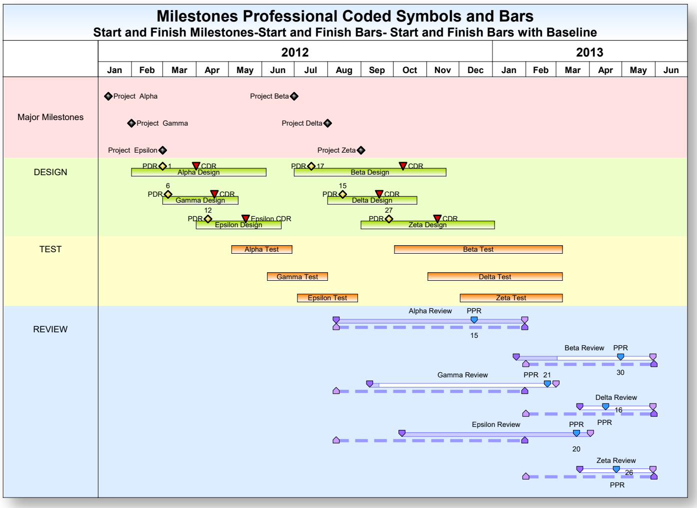
Manipulate the schedules while in Presentation Mode with these controls. On-screen buttons are not available with the Full Screen option.

- **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

The Milestones Professional Project to Milestones Wizard makes it easy to import information from Microsoft Project 2010 or later into presentation-ready Milestones schedules. These Milestones schedules can later be refreshed to stay up to date with changes made in the original Microsoft Project files. *For a lesson on this topic see* ***Help | Help Files |Tutorials | Lesson 16***.



The Connections Tab

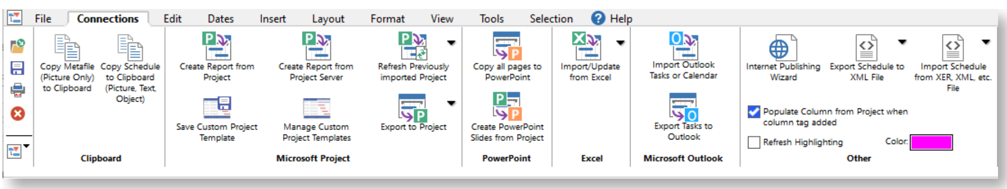
The Connections tab is used for working with other applications. ***Choose Create Report from Project*** or ***Create Report from Project Server*** to create a presentation schedule from Microsoft Project, Project Server or Project Online information.

To go straight from Microsoft Project to PowerPoint choose ***Create PowerPoint Slides from Project***.

Choose ***Refresh Previously Imported Project*** to update a Milestones schedule with the latest dates from Microsoft Project.

Choose ***Export to Project*** to create a Microsoft Project schedule from a Milestones schedule.

***Project Server and Project Online use the same options.**



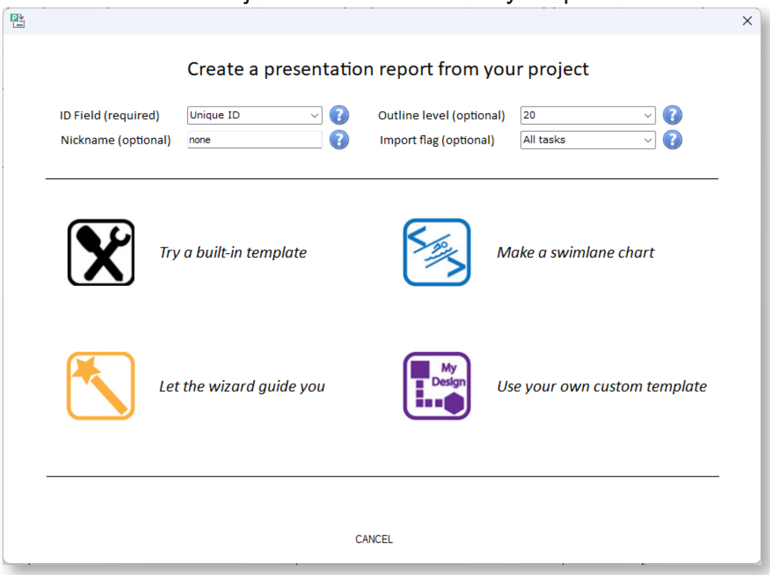
Create Presentation Reports from Microsoft Project

Milestones Professional offers a direct interface to Microsoft Project 2010 or higher. The wizard makes it easy to generate chart formats beyond the standard formats offered by Microsoft Project.

Project to Milestones Wizard

Select the wizard to import Project information into Milestones schedules.

1. Choose **Connections | Microsoft Project | *Create Report from Project***.
   - If importing from Project Server or Project Online first log onto Project Server or Project Online. Next choose ***Create Report from Project Server***.
2. Select the Microsoft Project schedule and click ***Open***.
3. The Project to Milestones Wizard will start.
4. On the initial screen of the Project to Milestones Wizard at the top there are four import feature some are optional. At the bottom are the four possible import options: If Microsoft Project is not installed only 3 options are available to use.



   - ***ID Field (required)***: Choose a unique identifier to link the Milestones schedule to the Project schedule.

     ✍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 schedule Refresh later. The Project UniqueID is the default for unique identifier. Other fields can be used.

- ***Nickname (optional)***: The Microsoft Project file can be assigned a nickname of up to 8 characters. This nickname uniquely identifies 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. (If Microsoft Project is not installed, this option is not available to use.)
- ***Outline level (optional)***: Choose the maximum outline level of tasks from Microsoft Project to be imported into Milestones.
- ***Import flag (optional)***: Set a flag field in Microsoft Project, applying “yes” to all tasks to be imported. Select that flag field. Only those task with yes in the flag field will be imported.

  ✍A Project file can also be filtered prior to import to limit the amount of information imported into the Milestones schedule.
- ***Try a built in template***: Select from one of the 10 categories. Once a category is picked, several formats will be presented.
- ***Let the wizard guide you***: Step through the wizard selecting import options such as symbology, columns, datagraphs, stoplight, text and more.
- ***Make a swim lane chart***: Coded schedules offer a convenient way to “shrink” a Microsoft Project schedule onto a presentation Milestones schedule. “Code” just the tasks to be imported. (If Microsoft Project is not installed this option is not available to use.)
- ***Use your own custom template***: Once Microsoft Project information has been imported in to a Milestones schedule using one of the built in templates, the generated Milestones schedule can be modified and then saved as a Custom Project Template. Schedules saved as Custom Project Template will be listed in the wizard as an import option under this choice.

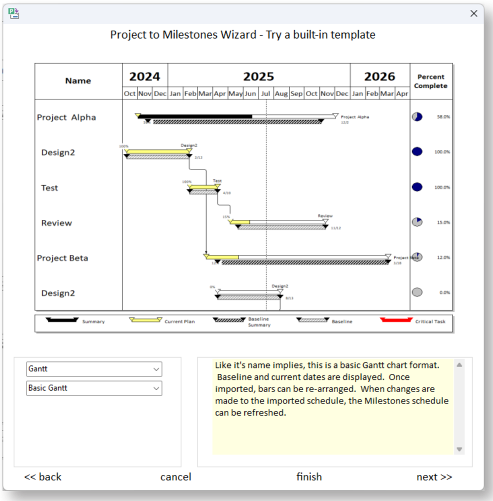
5. If importing using Project Server, the ***Reload Enterprise Fields*** button is present. In order to have enterprise fields available to choose throughout the wizard, select this button to load the fields into the wizard. Whenever new fields are added to Project Server ***Reload Enterprise Fields*** must be selected.
6. Choose one of the four import options (***Try a built in template, Let the wizard guide you***, ***Make a swim lane chart or Use your own custom template*** the **Project to Milestones Wizard**). If Microsoft Project is not installed you can only choose from three options, (***Try a built in template, Let the wizard guide you***, ***or Use your own custom template***.

The next pages of this chapter explain the options for the four import choices.

For more on importing from Microsoft Project, see **Help | Help Topics**.

Try a Built-In Template

The Project to Milestones Wizard offers 10 built-in template categories. Each category has a variety of formats. If Microsoft Project is not installed 8 of the 10 categories are available. Some categories will also have fewer options.



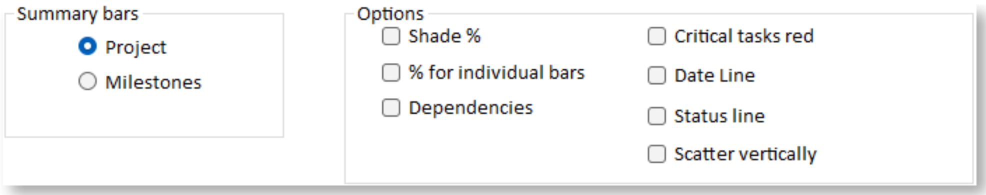
Categories for Built-In Formats:

- **Top Templates** contains the templates most often used for importing.
- **Gantt** contains layouts for a basic Gantt charts.
- **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 a schedule. Most use Microsoft Project's timescaled values.
- **Resource** charts show work variance, resources and other data by task, often with a graph below the schedule. If Microsoft Project is not installed this option is not available.
- **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. If Microsoft Project is not installed this option is not available.

Built-In Templates Options

Each Built-In Template import style has optional features. Here are the options available when a built-in template is picked. (The options available are based on the template chosen.)

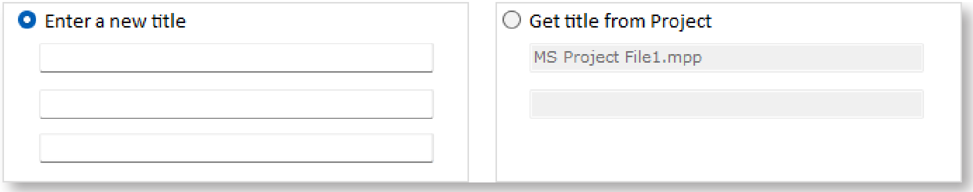
Symbology Options



- **Summary Bars**:
  - » ***Project***: Summary bars will be drawn from Microsoft Project information.
  - » ***Milestones***: The summary bars are determined by Milestones, using the lower level task dates. These are usually the same as the Project summary bars.
- **Status**:
  - » ***Shade % complete*****:** If checked, symbols and bars will be shaded based on the % complete of the Project task.
  - » ***Set % for individual bars*****:** Choose this to set the % complete for individual bars and symbols.
  - » ***Show Dependencies***: Vertical links will be drawn between tasks based on Microsoft Project successor information.
  - » ***Color Tasks Red***: If a task is marked Critical in Project, red symbols and bars are drawn.
  - » ***Show Current Date Line***: Choose to draw a line that extends vertically at the status date of the Microsoft Project file.
  - » ***Show Status Line***: Choose to draw a line that extends vertically along the current date line and bulges to the left or right according to each Microsoft Project task row's status date.
  - » ***Scatter symbols vertically***: If milestone symbols are imported by the selected import option into a single task row, the symbols will be placed at different vertical levels on the task row.

Add a Title

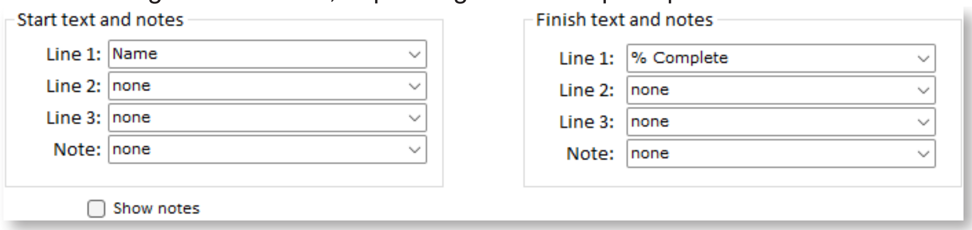
Title options are available in all of the Built in Templates.



- ***Get title from Project***: Milestones imports the title from Microsoft Project (found under Project Information | Advance Properties | Summary.) (If Microsoft Project is not installed, this option is not available.)
- ***Enter a new title***: Type in a title for the imported schedule.

Add Symbol Text and Notes

Symbol text and notes options are available in all of the Built in Templates. Some of the choices might be disabled, depending on the template picked.



Text or notes can be added to a start date or finish date symbol. The text and notes added can be chosen from the Microsoft Project fields available in the drop down menu.

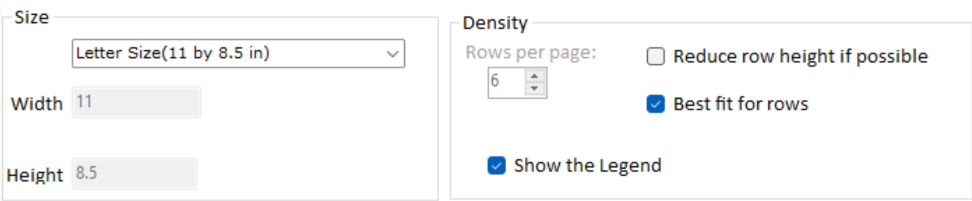
> ✍If using Project Server and enterprise fields are not available in the drop down menu you may have to reload the enterprise fields. This option is found on the bottom left of the first screen of the wizard.

Each Symbol can have up to 3 lines of symbol text. Each line can populate with a different Microsoft Project field.

Notes in Milestones can be displayed or hidden. Check on ***Show notes on schedule*** to have notes display. Notes will still import if this option is not checked (*see Chapter 3 pg. 3-18 for more information about symbol notes.*)

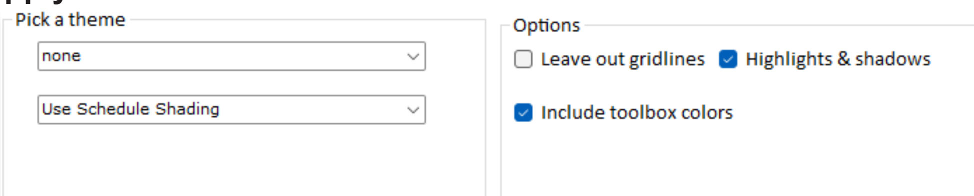
> ✍Symbol text and notes can be reformatted on the imported schedule (*see Chapter 3).*

Set Schedules Size and Rows



- ***Schedule Dimensions***: Select your schedule size from the list of paper sizes available. The width and height of the paper size selected will display.
- **Schedule Density**
  - » ***Rows per page***: Choose from 6 to 300 rows per page.
  - » ***Best fit for rows*** Pick this along with ***Reduce row height*** if possible to have Milestones figure out how many rows will fit without overlap.
- **Show the legend**: A rectangle will display at the bottom of the schedule for inserting of legend entries. Some schedule may already have legend information. (*see Chapters 2 and 3)*.

Apply a Color Theme

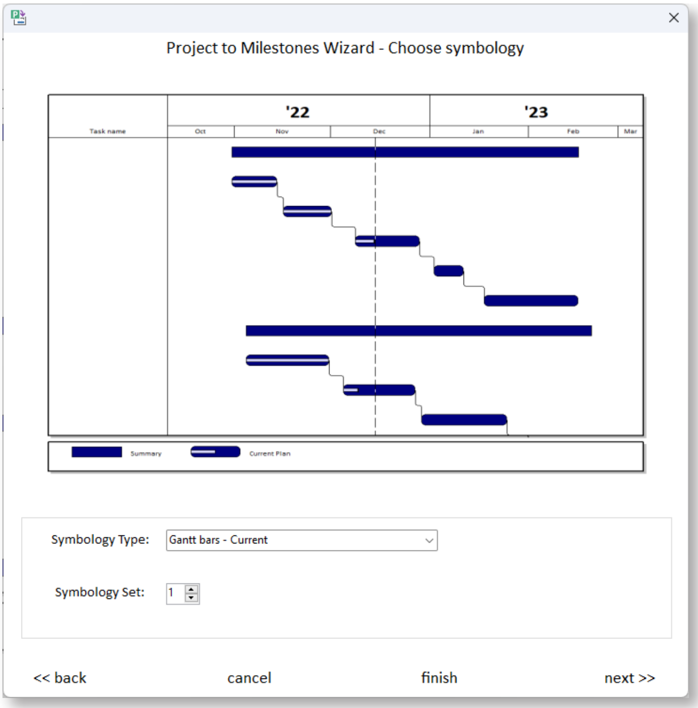


- Pick from the list of color themes (*see Chapter 2 pg. 2-29*).
- Pick from a list of shading options (*see Chapter 2 pg. 2-29*).
  - » ***Highlights & Shadows***: Gives a 3-D look to some imported symbols and adds shadows to all symbols and bars imported.
  - » ***Include toolbox colors***: The color theme's toolbox colors will be applied.
  - » ***Leave out grid lines***: Gridlines will be removed from imported schedule. (*see Chapter 2 pg. 2-29*).

✍Any Milestones schedule generated from ***Try a Built-In Template*** can be saved as a custom project template. Once it is saved it can be recalled in the wizard under the ***Use your own custom template*** option *(see pg. 10-24)* thus eliminating the need to step through the many wizard option again when generating a new schedule from another Microsoft Project file.

Let the Wizard Guide You

The ***Let the Wizard guide you*** option offers more flexibility as to what information is imported into the resulting Milestones Professional schedule. The wizard will step you through setting up columns, choosing symbology, and more. As selections are made, the wizard displays the image of the schedule that will result from the import.



Choose Symbology

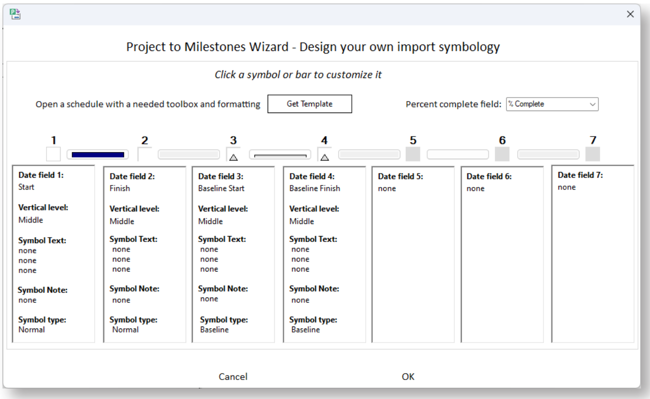
Choose from predesigned symbology options which include: ***Gantt bars - current and baseline***, ***Gantt bars - compact sequential***, ***Gantt bars - spacesaver***, ***Milestones - condensed finish dates***, ***Milestones - finish dates***, ***Milestones - finish and baseline***, or ***Milestones - finish dates rolled up to summary level***. Or, choose your own custom symbology. Two options are available: ***Gantt bars - custom symbology*** or ***Gantt bars - custom symbology 2*** . The Wizard displays a picture of the symbology choices as they are made. If Microsoft Project is not installed, some symbology options are not available.

Once you have made your symbology choice, some options offer the ***Symbology Set*** option. Click through to select a symbol, horizontal bar, symbol combination to represent the Microsoft Project date fields in the imported schedule. The Wizard displays a picture of the Symbology Sets as they are clicked through.

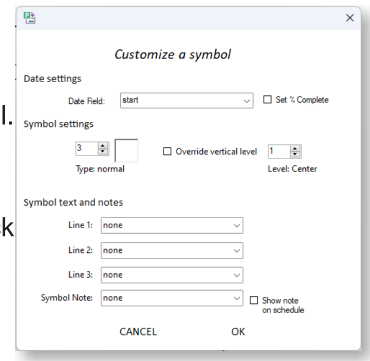
Customize Symbology

For greater customization choose ***Gantt bars - custom symbology*** or ***Gantt bars - custom symbology 2***.

- ***Gantt bars - Custom Symbology***:
  Have up to 7 Microsoft Project date fields from a single task import as symbols into a task row of the Milestone schedule. Select symbols to set their properties. Bars can be added between symbols. Optionally, choose ***Get Template*** to bring in a template you previously formatted.



» Click a numbered square. The **Customize a symbol** dialog box displays. Add a symbol and set its properties.

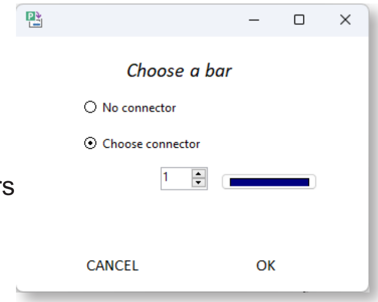


1. Select a Date Field for the symbol.
2. Check on ***Set % Complete*** to set the individual percent complete for this symbol.
3. Pick one of the toolbox symbols. If importing a baseline date, pick a symbol which indicates “baseline”. Otherwise, pick a “normal” symbol.
4. There are 11 vertical positions on a task row. To reposition a symbol check on ***Override vertical level***, and select a new level.
5. Each symbol can have three lines of ***Symbol Text***. Each line can be information from a different Microsoft Project field.
6. Add one of the Project fields to the symbol note. Check on **Show on schedule** to have the note visible on the schedule.

Once selections are complete select ***OK***. The **Custom symbology** dialog box now displays the choices just made.

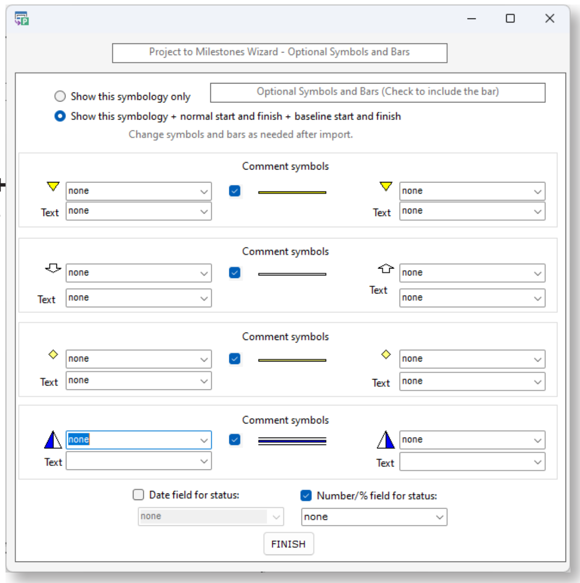
» If the symbols need to be connected with a horizontal bar, select the rectangle between the symbols to have the **Customize bar** dialog box display.

1. Select ***No connector*** to hide the bar.
2. Select **Choose Connector** to connect two symbols with a bar.
3. Choose from the list of horizontal bars, which are reflective of the horizontal bars in the toolbox of the template selected.



- ***Gantt bars - Custom Symbology 2***:

  With this symbology choice, a total of four bars (or 8 dates) are possible. Pick date fields for each row. For each set of dates, if a bar is needed click on the check box next to the bar.



» ***Show this symbology only*** to have just the selected date field symbology import.

» ***Show this symbology + normal start and finish + baseline start and finish*** to have selected date field symbology import in addition to normal start and finish and baseline start and finish.

» Optionally select the text from a Project field to import with selected symbols.

» ***Date field for status*** check on so symbols and bars in the imported schedule fill to status based on the Project date field selected from the drop down.

» ***Number% field for status*** check on so symbols and bars in the imported schedule fill to status based on the Project % or number field selected.

Pick Symbology Option

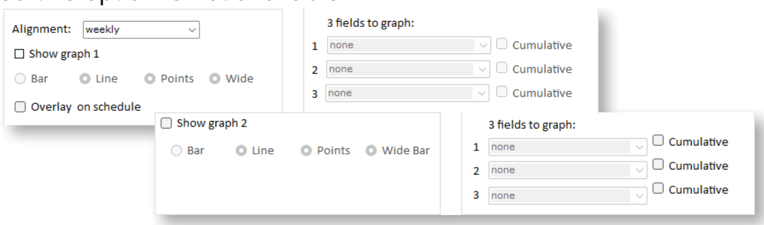
See page 10-5.

Set Up Columns

Choose to have information from a Microsoft Project field enter into a column . Have up to 5 columns on the left side and right side of the schedule.

Add a Graph and Add a Second Graph

Choose up to two datagraphs *(see Chapter 7)* to display on the schedule based on cost or budget information from a Microsoft Project field. If Microsoft Project is not installed this option is not available.



- Select daily weekly monthly or quarterly ***Alignment*** for the information to graph.

  ✍Alignment is global therefore Graph 2 will adhere to the alignment selection.
- Check on ***Show Graph 1*** to have the datagraph display.
- Choose to have the information graph as a ***Bar***, ***Line***, ***Points*** or ***Wide Bar***.
- ***Overlay on schedule*** will have the datagraph display under the symbols and bars in the schedule area.

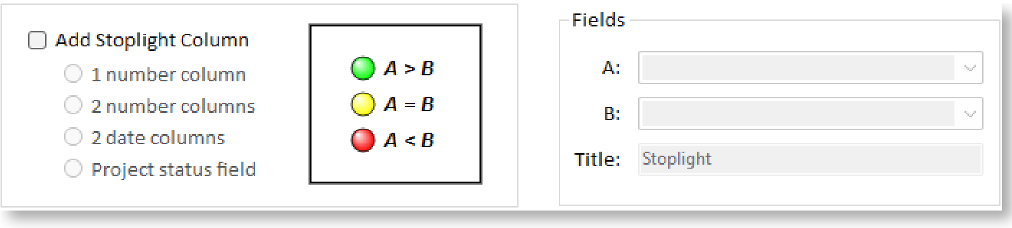
  ✍Only graph 1 has this option.
- Select up to three Microsoft Project cost or budget fields to graph.
- Check on ***Cumulative*** to have the datagraph add the value for each alignment period to the previous total.

The **Add a second graph** dialog box will only display if **Graph 1** is chosen.

- Check on ***Show Graph 2***.
- Choose to have the information graph as a ***Bar***, ***Line***, ***Points*** or ***Wide Bar***.
- Graph 2 can have up three Microsoft Project cost or budget fields in its graph.
- Check on ***Cumulative*** to have the datagraph add the value for each alignment period to the previous total.

Stoplight Column

Choose to add a stoplight column(*see Chapter 6 pg. 6-4*) that contains a red, yellow or green indicator for each task. Indicator color is based on the selected Microsoft Project field's value or a comparison of values from two Microsoft Project fields. (If Microsoft Project is not installed, this option is not available.)



- Select ***One number column*** to use the value in a selected Microsoft Project field. (Only certain fields, like cost or number, can be selected). Select the drop down arrow to view available fields. Show a green stoplight for values greater than 0, a yellow stoplight for values equal to 0, or a red stoplight for values less than zero.
- Select ***Two number columns*** to compare values in two selected Microsoft Project fields. Showing a green stoplight if Field A is greater than Field B, a yellow stoplight if the fields are equal, or a red stoplight if Field A is less than Field B. (Only certain fields, like cost or number, can be selected. Select the drop down arrow to view available fields.)
- Select ***Two date columns*** to compare values in two selected Microsoft Project fields. Showing a green stoplight if selected Field A is after selected Field B, a yellow stoplight if the fields are on the same day, or a red stoplight if Field A is before Field B. (Only date fields can be selected. Select the drop down arrow to view available fields.)
- Select ***Project status field*** to have a stoplight column display indicators based on the task's status (Uses the Microsoft Project status field). A check mark will display for Complete tasks, a green diamond for task that are On Schedule, blue triangle for Future tasks or a red triangle for Late tasks.
- Under ***Column Title*** type in the name for the stoplight column.

Add a Title

See page 10-6.

Add Symbol Text and Notes

See page 10-6.

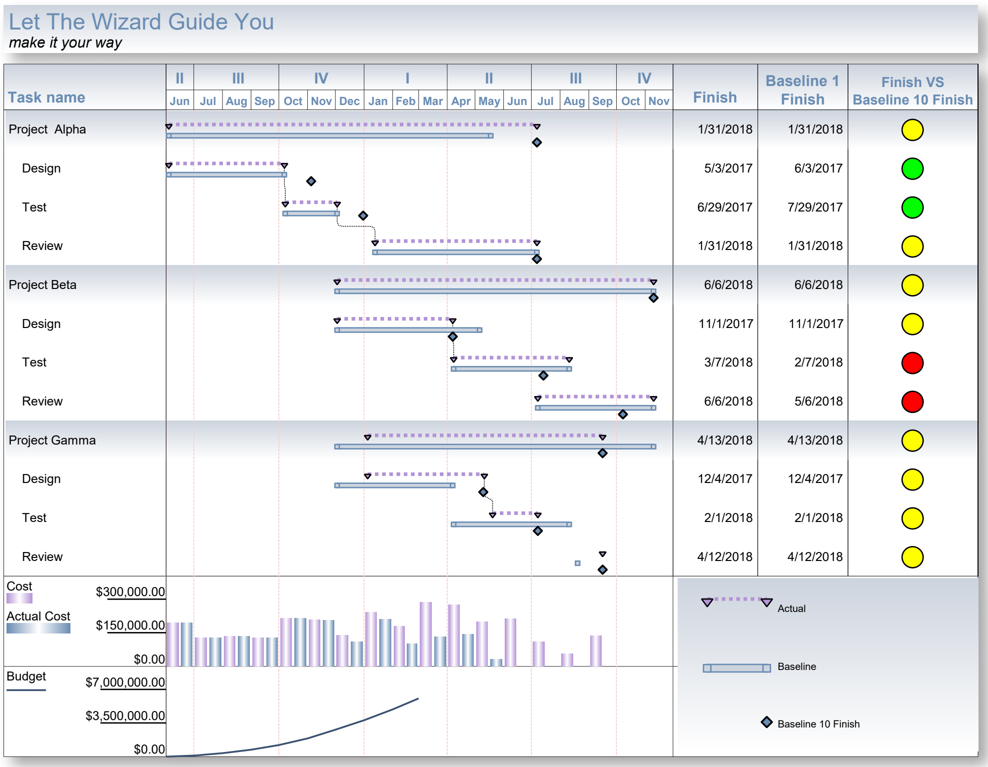
Set Schedule Size and Rows

See page 10-7.

Apply a Color Theme

See page 10-7.

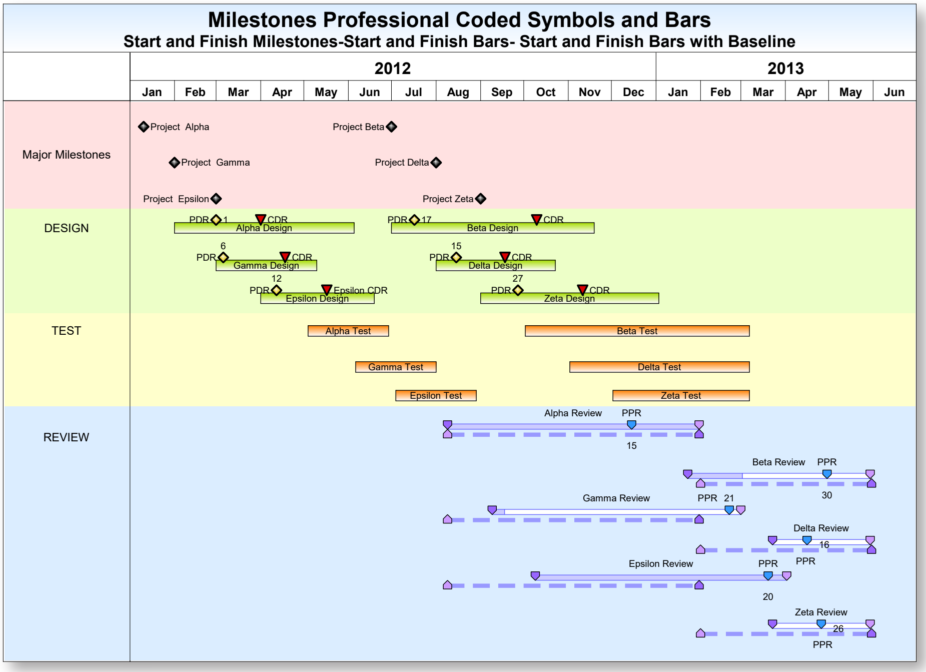
✍Any Milestones schedule generated from the ***Let the wizard guide you*** option can be saved as a custom project template. Once it is saved it can be recalled in the wizard under the ***Use your own custom template*** option *(see pg. 10-24)* thus eliminating the need to step through the many wizard option again when generating a new schedule from another Microsoft Project file.



Make a Swimlane Chart

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***, ***Coded Outlined***. (If Microsoft Project is not installed, this option is not available to use.)

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 Wizard. Some coded formats require the use of a user defined code to bring information onto specific rows or swim lanes. Others allow you to select the Milestones row number into which information is imported. For more control, some of the coded formats allow a code for specification of symbology *(see pg. 10-22).* Other formats use the row number of the Milestones toolbox as a code to specify the symbol(s) or symbol, horizontal bar, symbol combinations to display.

Each coding option requires text, number and/or outline fields to be set up in the Microsoft Project file to enter the codes.

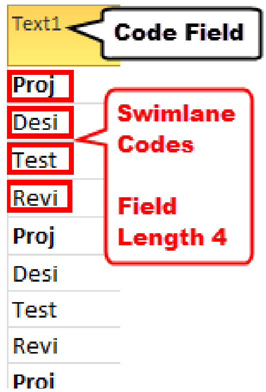
Instructional videos are available for many coded formats at www.kidasa.com.

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 in the same swimlane.

The "Birds on the Wire" format, imports Microsoft Project task finish dates to display as triangles above a bar. Coding set-up in the Microsoft Project file determines on which swimlane the tasks are displayed.

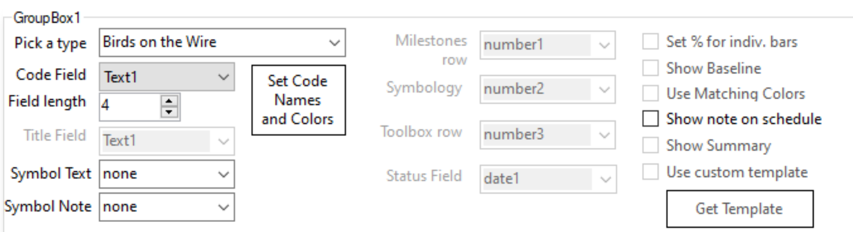
In Microsoft Project:



1. Open a Microsoft Project .mpp file.
2. Insert a Text or Number field to code.
3. Code the Microsoft Project field. Milestones will look for a 3 to 20 digit code entered for each Microsoft Project task to be imported. Each unique code will determine into which swimlane the Microsoft Project task is to be displayed. *See illustration of coding to the righ*t.

In Milestones Project to Milestones Wizard:

4. In the Wizard's initial dialog box choose ***Make a Swimlane Chart.*** Choose ***Next***. Select the options for the second screen *(see pg. 10-3)*. Choose ***Next***.
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 digits used in the code.



8. Also in this dialog there are other options to select based on the schedule type chosen. Thus some or all the options below may display.

   - ***Symbol Text***: Pick a Microsoft Project field from the drop down. The task information from that field will be added 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.

9. Select ***Set Code Names and Colors***:

   a. Under **For this code:** enter the unique codes from the Microsoft Project file. *See illustration of coding tbelow and compare with illustration of coding on pg. 10-15*. Tasks with the same code will be imported into the same titled

   and colored swimlane.

   b. Under **Use this title:** enter text to label the swimlane.

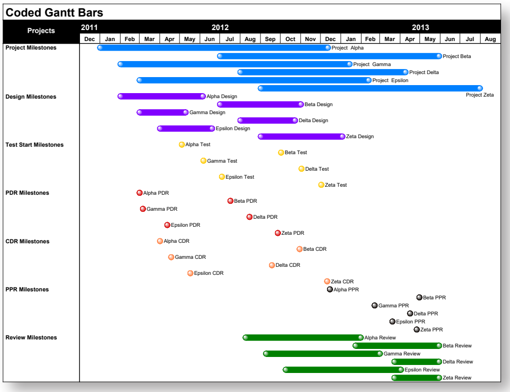
   c. Under **Use this color:** select the color for the swimlane.

   By choosing a **Set (1-10)** and then **Save**, codes with their title 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. Click ***Next*** to go to the Layout options dialog *(see pg. 10-7)*.

Code to Import Specific Symbology into Swimlanes

Coded options **Coded Gantt Bars** and **Coded Symbols and Bars 2** use one coded Microsoft Project text or number field to import Microsoft Project tasks into swimlanes of a Milestones schedule.



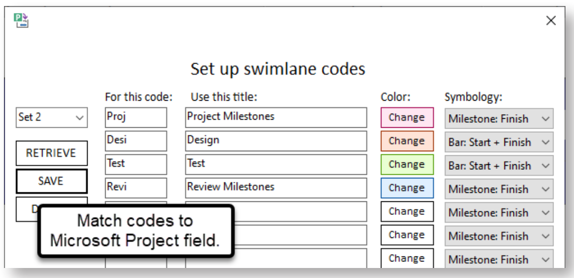
Coded Gantt Bars uses a predesigned Milestones template with symbols,and symbol, horizontal bar, symbol combinations all being the same style in the toolbox. During import this option uses the code to order the tasks into swimlanes. Symbology and the symbology color can be set for each code.

In Microsoft Project,code as described in **Code to have Information Import into a Swimlane**. Follow steps 1-3 *(see pg. 10-15).*

In the Milestones Project to Milestones Wizard follow step 4 for **Code to have Information Import into a Swimlane** *(see pg. 10-15)*. For step 5 pick ***Coded Gantt Bars*** and, follow steps 6,7,8, and 10.

Note that Step 9, **Set Code Names and Colors** dialog box is different . Use the following directions for Step 9.

9. Select ***Set Code Names and Colors***:



   a. Under **For this code** enter the unique codes set up in the Microsoft Project field.

   b. Under **Use this title** enter text to label the swimlane.

   c. Under **Use this color** select the color for the symbology.

   d. Under **Symbology** choose to have the coded Microsoft Project tasks import into the Milestones schedule as single milestones on the finish (Milestone:Finish) or start date (Milestone:Start) or as a symbol, bar, symbol combination connecting the start and finish date (Bar: Start +Finish).

By choosing a **Set (1-10)** and then **Save**, codes with their title, color and symbology settings will be available for future imports.

Coded Symbols and Bars 2 lets the user import into a custom Milestones Professional (***Get Template***) file (.ml*). 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 symbol(s) and symbol, horizontal bar, symbol combinations from the toolbox row selected.

In Microsoft Project code as describe in **Code to have Information Import into a Swimlane**, follow steps 1-3 *(see pg. 10-15).*

In the Milestones Project to Milestones Wizard follow step 4 for **Code to have Information Import into a Swimlane** *(see pg. 10-15)*, step 5 pick ***Coded Symbols and Bars 2***, follow steps 6,7,8, and 10.

Note that Step 9, **Set Code Names and Colors** dialog box is different . Use the following directions for Step 9.

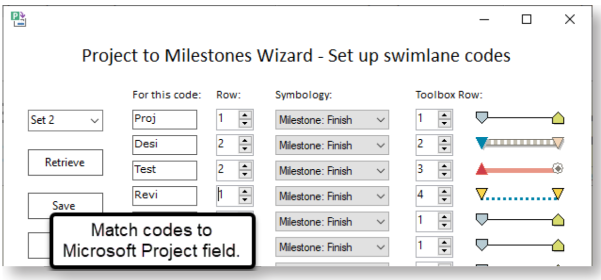
9. Select ***Set Code Names and Colors***:

   a. Under ***For this code***, enter the unique codes set up in the Microsoft Project field.

   b. Under ***Row***, select the Milestones row to import the Microsoft Project task information.

   c. Under ***Symbology***, (*see pg. 10-22)* choose how to display the Microsoft Project task date information when it is imported into Milestones.

   d. Under ***Toolbox Rows***, click through the available symbol and horizontal bars. These choices reflect the symbols and horizontal bars in the toolbox of the Milestones file (.mlg) chosen under the option ***Get Template***.



By choosing a **Set (1-10)** and then ***Save***, codes with Milestones' row, symbology and toolbox row settings will be available for future imports.

Code to Import into Swimlanes with Specific Symbology as User Defined Symbols and/or Bars

Coded option **Coded Symbols and Bars** uses three fields in Microsoft Project for coding the task placement in a row, the type of symbology (*see pg. 10-22)* and the toolbox row containing the symbol and bar style to import into a selected Milestones Professional file.

In Microsoft Project

1. Code three number, outline,or text fields.

MS Project File.mpp

	Number 1 Milestones Row	Number 2 Symbology	Number 3 Toolbox Row	Task Name
1	**1**	**9**	**1**	**Project Alpha**
2	4	1	2	Design
3	5	1	3	Test
4	6	1	4	Review
5	**2**	**9**	**1**	**Project Beta**
6	4	1	2	Design
7	5	1	3	Test

   a. Code with a number for the Milestones schedule's row.

   b. Code with a number between 1-12 for Symbology (*see pg. 10-22)*.

   c. Code with a number between 1-32 for the Milestones Toolbox row *(see Chapter 2 pg. 2-14*).

   If using text fields you can code multiple import parameters for a single task. Import a task into multiple swimlanes (Milestones schedule's rows) as well as import using different symbology (*see pg. 10-22)* and symbol and bar styles from the toolbox. Commas are used to delineate each selection.

	Text10 Milestones Row	Text11 Symbology	Text12 Toolbox Row	Task Name
1	**1**	**5**	**5**	**ALL TASKS**
2	**2,1**	**5,1**	**5,13**	**Project Alpha**
3	3,2	5,1	6,10	Alpha Design
4	4,2	5,1	7,11	Alpha Engineering
5	5,2	5,1	**8,12**	Alpha Test

CODE EXAMPLE

	Text10 Milestones Row	Text11 Symbology	Text12 Toolbox Row	Task Name
1	**1**	**5**	**5**	**ALL TASKS**
2	**2,1**	**5,1**	**5,13**	**Project Alpha**
3	3,2	5,1	6,10	Alpha Design
4	4,2	5,1	7,11	Alpha Engineering

Milestones Row

In the above example **Task 3 Alpha Design** will import into row ***3*** and ***2*** of the Milestones schedule.

Symbology *(see pg. 10-22)*

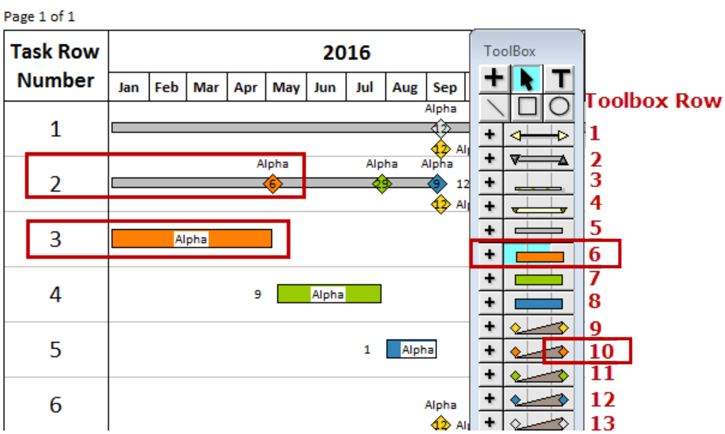
In row **3** the **Task 3 Alpha Design** symbology will be a start date symbol with a bar attached to the finish date symbol, characterized by coding a ***5***.

In row **2** the **Task 3 Alpha Design** symbology will be a finish date milestone characterized by coding a ***1***.

Toolbox Row

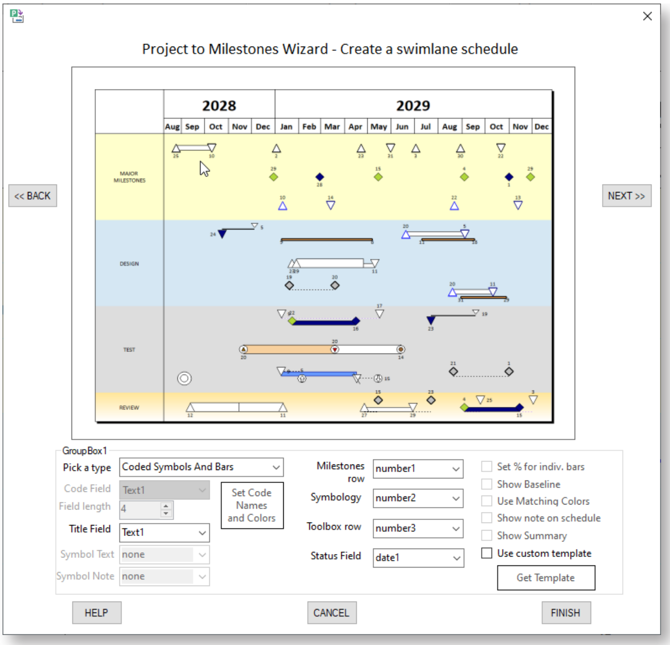
In row **3** the **Task 3 Alpha Design** toolbox row selection is row ***6***, which is a null symbol, orange horizontal bar, null symbol in the template being used.

In row **2** the **Task 3 Alpha Design** toolbox row selection is row ***10***. The symbol on right will be used for a finish date which is an orange diamond in the template being used.

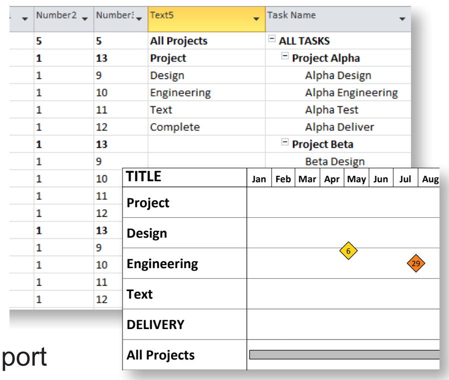


In Milestones Project to Milestones Wizard *(see pg. 10-2)*:

2. **Pick a type**: ***Coded Symbols and Bars***.



3. Select ***Get Template*** to be able to choose the Milestones file to be used for importing.



4. **Title Field (Optional)**: Set up a text field in Microsoft Project assigning a Title to at least one of the tasks that is being imported into a specific row. Note that if multiple titles are assigned to tasks that are being imported into the same row Milestones will assign the last found text for that specific row as the row's Title.

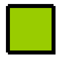
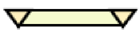
   ✍This option can not be used if text fields are used to code multiple import parameters for a single task.

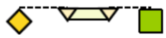
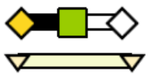
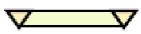
5. Select the Microsoft Project coded fields used for ***Milestones row***, ***Symbology*** and ***Toolbox row***.

6. ***Status Field*** choose a Microsoft Project percent or a numeric field to have the symbols and bars fill to status based on that field. When symbology (*see pg. 10-22)* option 9 or 12 is coded, select a date field to populate a symbol between the start and end date with connecting bars.

Symbology

Numbers defined to use as a code to import specific Microsoft Project date fields as a symbol, symbols or symbol, bar, symbol combination into a Milestones schedule.

Code	Description & Display	Example	Status	
1	Milestone: Finish - Displays Finish date as a single milestone.		Uses numeric % complete field specified or % complete. If <100%, will use after status shape and color.	Finish text and note are added to Finish date
2	Milestone: Start - Displays Start date as a single milestone.		Uses numeric % complete field specified or % complete If % complete=0, will use after status shape and color. Otherwise will use shape and color shown in toolbox..	Start text and note are added to Start date
3	Milestones: Start and Finish - Start and Finish dates are displayed as individual milestones		Same behavior as described above for Start and Finish.	Start text and note are added to Start date. Finish text and note are added to Finish date.
4	Milestones: Start and Finish and Baseline Start and Finish - Displays Start, Finish, Baseline Start and Finish as individual milestones. Baseline symbols will use the toolbox row immediately following the toolbox row specified for Start and Finish		Uses numeric % complete field specified or % complete to set progress for the bar.	Start text and note are added to Start date. Finish text and note are added to Finish date.
5	Bar: Start and Finish - Displays the Start and Finish dates connected using the bar in the toolbox row specified		Uses numeric % complete field specified or % complete to set progress for the bar.	Start text and note are added to Start date. Finish text and note are added to Finish date.
6	Bar: Baseline Start and Baseline Finish - Displays the Baseline Start and Finish dates connected by a bar		N/A	Start text and note are added to Baseline Start date. Finish text and note are added to Baseline Finish date.
7	Bar: Finish with slip - Displays the Finish date, connected to the Baseline Finish date		Uses numeric % complete field specified or % complete. If <100, Finish milestone will use after status shape and color.	Finish text and note are added to Finish date.
8	Bars: Start-Finish and Baseline Start-Baseline Finish - Two bars are added. The first bar is the Start date connected to the Finish date using the symbols and bar in the row specified. The second bar is the Baseline Start connected to the Baseline Finish, using the symbols and bar in the row immediately below the row specified		Uses numeric % complete field specified or % complete to set progress for the bar.	Start text and note are added to Start and Base-line start dates. Finish text and note are added to Finish and Baseline Finish dates.
9	Bar: Start and Finish with Status. The Start date is connected to the Status Date field specified in the wizard. Then, the second bar is drawn from Status Date to Finish date. The left-most symbol of the toolbox row specified is used for both the start and end dates. The right-most symbol is used for the status date (if a date field is used for status.)		If a numeric status field is specified (like % complete), draws the bar from start to finish using the % complete field specified. Otherwise draws two bars using status date field.	Start text and note are added to Start and Base-line start dates. Finish text and note are added to Finish and Baseline Finish dates.

Code	Description & Display	Example	Status	
10	Bar: Start and Finish with slips. The Start date is connected to the Finish date using symbology on the toolbox row specified. The Start date is then connected to the Baseline Start using the left-most symbol of the toolbox row immediately below the toolbox row specified. Last, the Finish date is connected to the Baseline Finish using the right-most symbol of the toolbox row immediately below the toolbox row specified.		Uses numeric % complete field specified or % complete. **Start date:** If % complete=0, will use after status shape and color. **Finish date:** If <100, will use after status shape and color	Start text and note are added to Start and Baseline start dates. Finish text and note are added to Finish and Baseline Fin-ish dates.
11	Bar: Baseline Start and Baseline Finish with slips. The Baseline Start date is connected to Baseline Finish date using symbology on the toolbox row specified. The Start date is connected to the Baseline Start date using the left-most symbol of the toolbox row immediately below the toolbox row specified. The Finish date is connected to the Baseline Finish date using the right-most symbol of the toolbox row immediately below the toolbox row specified.		Uses numeric % complete field specified or % complete **Start date:** If % complete=0, will use after status shape and color. Otherwise will use shape and color shown in toolbox. **Finish date:** If <100, will use after status shape and color.	Start text and note are added to Start and Baseline start dates. Finish text and note are added to Finish and Baseline Fin-ish dates.
12	Bar: Start and Finish with Status and Baseline. This is the same as #9 but will also show baseline. The Start date is connected to Status Date field specified in the wizard. Then, the second bar is drawn from Status Date to Finish date. The left-most symbol of the toolbox row specified is used for both the start and end dates. The right-most symbol is used for the status date if a date field is used for status		Uses numeric % complete field specified or % complete **Start date:** If % complete=0, will use after status shape and color. Otherwise will use shape and color shown in toolbox. **Finish date:** If <100, will use after status shape and color.	Start text and note are added to Start and Baseline start dates. Finish text and note are added to Finish and Baseline Fin-ish dates.
13-22	Bar: Baseline(1-10) Start and Base-line(1-10) Finish Displays the Baseline Start and Finish dates connected by a bar 13-Baseline1 14-Baseline2 15-Baseline3 16-Baseline4 17-Baseline5 18-Baseline6 19-Baseline7 20-Baseline8 21-Baseline9 22-Baseline10		N/A	Start text and note are added to Baseline start dates. Finish text and note are added to Baseline Finish dates. (Baseline 1-10)

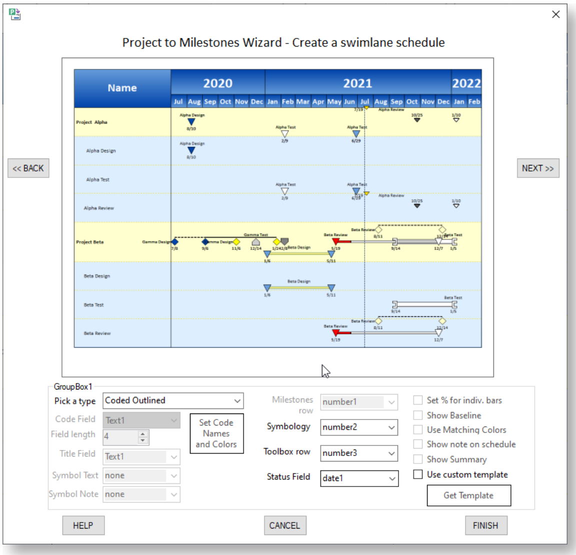
Coded Outlined - Select Tasks and Symbology While Maintaining the Outline Structure

Coded option **Coded Outlined** imports lower level task into the schedule, as coded. Summary bars are based on the lower level tasks. Coded Outlined uses two code fields: the Symbology type and the Toolbox Row.

In Microsoft Project

1. Code two number or outline code fields.
    a. Code with a number between 1-12 for Symbology *(see pg. 10-22)*.
    b. Code with a number between 1-32 for the Milestones Toolbox row. *(see picture on next page,10-20)*

    ✍Don't code the top level summary task. Only code the lower level tasks and any lower level summary tasks which need to roll up.



In Milestones

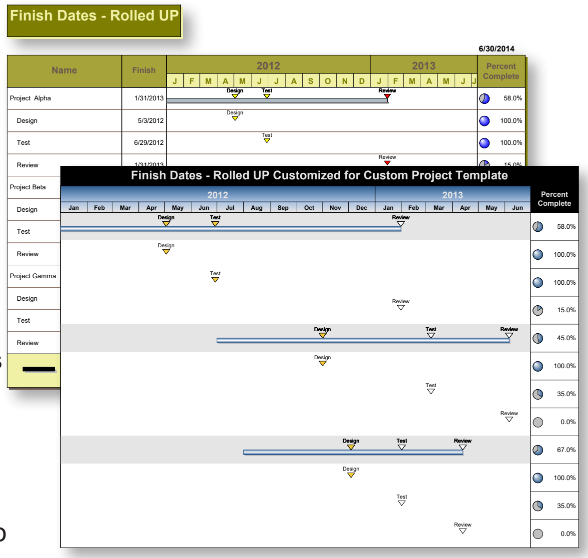
2. **Pick a type**: **Coded Outlined**.
3. Select ***Symbol Text*** to be added to the start symbols of each task imported.
4. Select ***Get Template*** to choose the Milestones file to be used as a template.
5. Select the Microsoft Project coded fields used for ***Symbology*** and ***Toolbox row***.
6. When symbology option 9 or 12 is coded, select the ***Status Field*** to have the symbols and bars fill to status based on the selected field.

✍Any Milestones schedule generated from ***Create a swimlane schedule*** option can be saved as a custom project template. Once it is saved it can be recalled in the wizard under the ***Start with a custom template*** option *(see pg. 10-25)* thus eliminating the need to step through the many wizard option again when generating a new schedule from another Microsoft Project file.

Use Your Own Custom Template

1. Custom templates are a great time saver and are easy to create. Build a custom template by first running an import using ***Let the Wizard Guide You***, ***Try a built in template*** or ***Create, or a swimlane schedule***. Then, customize the resulting schedule by adding columns, changing colors and more.

   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 prompts 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 Project to Milestones Wizard.

   ✍Once the template is saved do not move it or it will no longer be available in the wizard.

3. The Custom Project Template created is then available by selecting the option ***Use your own custom template*** in the initial screen of the Project to Milestones Wizard. Templates created from the various import styles put up a different set of options to select from before importing.

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***.

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 easiest is to use Link to Active MS Project task. With this option it's possible to bring in a single task or a group of tasks. The second option is to add symbols, then "manually tag" them to Project. (If Microsoft Project is not installed, this option is not available to use.)

Build a Schedule using Link to Active MS Project task

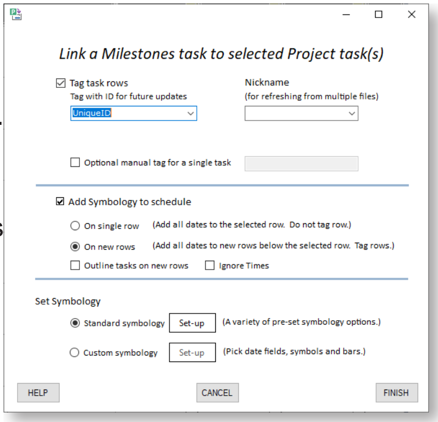
In Microsoft Project:

1. Open a Microsoft Project .mpp file.
2. Select the row or rows within the Microsoft Project file that contains the information for the corresponding Milestones task row or rows.

   ✍If multiple tasks in the Microsoft Project file need the same date field and symbology added to the Milestones file those task can all be selected.

In Milestones:

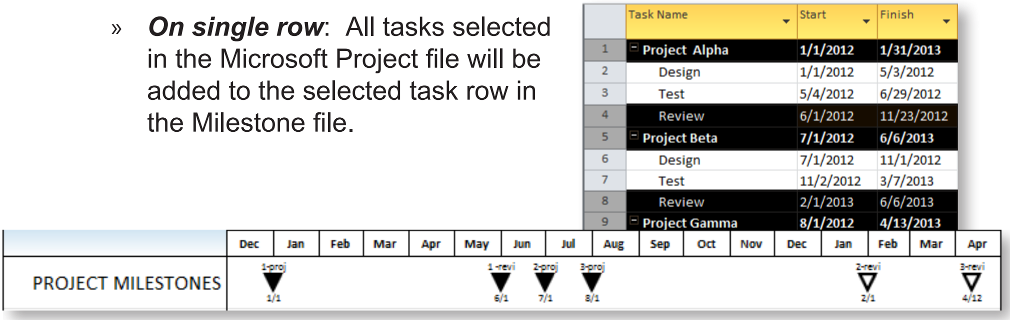
3. In the column area right-click a Milestones task row to which the Project task(s) will be added to or below Select ***Link to Active MS Project Task***.
4. The **Link a Milestones task to selected Project Task(s)** dialog will display. Make selections.



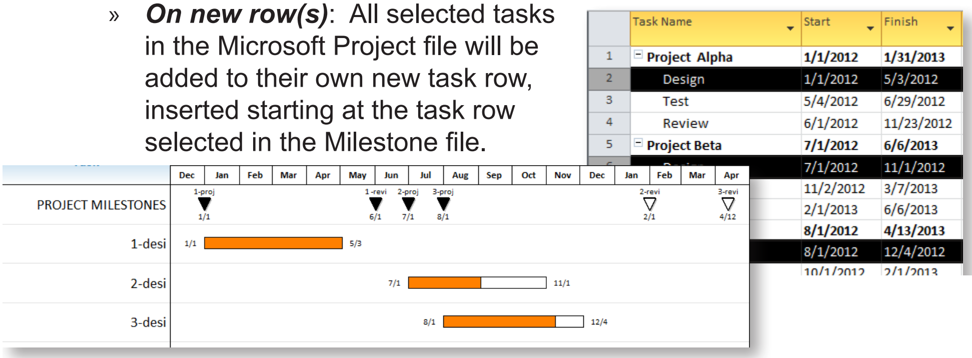
- ***Tag Task Rows:*** Check on to have all column cells in the task row tagged with the unique identifier from the Microsoft Project task(s) selected.
- ***Tag with this ID field for future updates***: Choose an unique identifier for refreshing the Milestones schedule from an updated Microsoft Project file. For the unique id field, use the MS Project Unique Id, GUID or WBS field or create a unique id for each task in a MS Project text field. All symbols and column cells on the task row will be tagged with the unique identifier.
- ***Optional manual tag for a single task:*** Type in the unique identifier.
- ***Nickname***: Give the Microsoft Project file a nickname *(see pg. 10-40)* of 1 to 8 characters unless a Refresh File List *(see pg. 10-40)* is already set up, then the nicknames will be available to select. This is a step to uniquely identify the task with its Microsoft Project file. All symbols and column cells on the task row will be tagged with the nickname.

- ***Add Symbology***: Check to add the Microsoft Project dates as symbols to the schedule.

  » ***On single row***: All tasks selected in the Microsoft Project file will be added to the selected task row in the Milestone file.



  » ***On new row(s)***: All selected tasks in the Microsoft Project file will be added to their own new task row, inserted starting at the task row selected in the Milestone file.

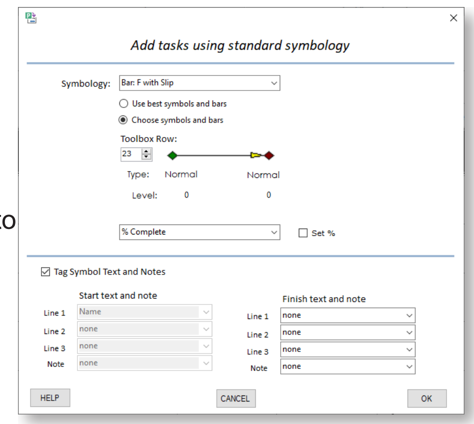


  » **Outline task on new row**: Check on to have the Microsoft Project outline level assigned to the imported task

  » ***Ignore time***: Uses the Milestones schedule's time option when adding symbol to a date rather than Microsoft Project time for the task.

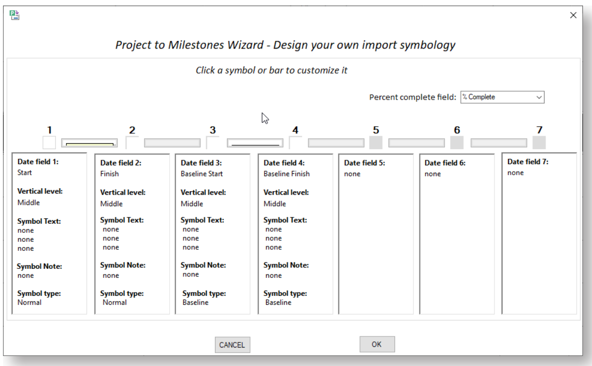
- ***Set Symbology***: Choose either ***Standard symbology*** or ***Custom symbology*** then choose Set-Up.

  » ***Standard symbology***: ***Add tasks using standard symbology*** dialog displays. Choose from set combinations of date fields (symbology), symbol(s), horizontal bars as well as optional text and notes to be imported.



- **Symbology**: Pick from the list of symbology options *(see pg. 10-22)*.
  - ***Use best symbols and bars:*** Select to have Milestones choose the symbols and horizontal bars to be used to represent the chosen symbology.
  - ***Choose Symbols and bars:*** To make your own selections from the schedule's toolbox of the symbol(s) and/or horizontal bar to represent the chosen symbology.
    - ***Toolbox Row***: Scroll through and select from the available sets of symbol-horizontal bar symbol-combinations. The symbol type and vertical symbol level will display based on the selection.
  - ***Set %***: Check on to have symbol and bar fill to status based on a Project's % or number field. For the two symbology status options 9 and 12 choose a date field so symbols and bars will fill to that date.
- ***Tag Symbol Text and Notes:*** Check on to have selected Microsoft Project field information import as text and/or notes associated with the start or finish date symbol
- **Start Text and Note**: ***Line 1***, ***Line 2***, and/or ***Line 3*** select a Microsoft Project field for start symbol text. ***Note*** select a Microsoft Project field to add the information as a note attached to the start symbol
- **Finish Text and Note**: ***Line 1***, ***Line 2***, and/or ***Line 3*** select a Microsoft Project field for finish symbol text. ***Note*** select a Microsoft Project field to add the information as a note attached to the finish symbol.

» ***Custom symbology***: ***Design your own import* symbology** dialog box displays (*see pg. 10-8*). Select custom combinations of date fields, symbol and horizontal bars as well as symbol vertical position. Also pick text and notes to be imported.



5. Once the ***Link to active MS Project Task*** feature has been used, Milestones will retain the selections. Tag other task rows with the same selections by right clicking the task row and choose the option directly above ***Link to active MS Project Task*** which will be ***Link to active MS Project with uniqueid*** (unique identifier chosen will display after ***with***).

Build a Schedule then Manually Tag to Project

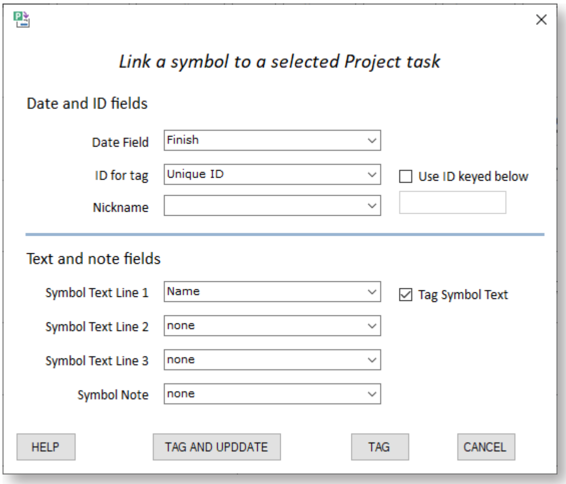
Link symbols on a schedule to tasks in Microsoft Project. (If Microsoft Project is not installed, this option is not available to use.)

In Microsoft Project:

1. Open the Microsoft Project .mpp file.
2. Select the row within the Microsoft Project file that contains the information for the corresponding Milestones symbol.

In Milestones:

3. Right-click the symbol to link to the Microsoft Project file.
4. Choose ***Link to Active MS Project Task***. **Tag Symbol** dialog box displays.



   - ***Date Field***: Choose the MS Project date field for the tag from the drop-down menu.
   - ***ID for tag***: Choose the MS Project unique identifier for the tag from the drop-down menu.

     ✍Use the MS Project Unique ID, GUID or WBS field or create a unique id for each task in a MS Project text field.

     - ***Use ID keyed below:*** Instead of selecting the unique id field type in the unique id for the symbol.
   - ***File nickname***: Give the Microsoft Project file a File Nickname *(see pg. 10-40)* of up to 8 characters unless a Refresh File List *(see pg. 10-40)* is already set up, then the nicknames will be available to select. 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.

     ✍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 containing Microsoft Project fields.

- ***Symbol Note***: Choose the note to be associated with the symbol from the drop-down menu containing Microsoft Project fields.

  ✍**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 when ***Tag*** or ***Tag and Update*** is selected.

- Choose ***Tag*** to have the symbol tag with the selected choices. The symbol will not update with the selections until it is refreshed *(see pg. 10-33).*

- Choose ***Tag and Update***: To tag the symbol and have it immediately update based on the selections made.

5. Once the ***Link to active MS Project Task*** feature has been used, Milestones will retain the selections. Tag other symbols with the same selections by right clicking the symbol to be tagged and choosing the option directly below ***Link to active MS Project Task*** which will be ***Link to active MS Project Task Finish*** (date field chosen) ***with uniqueid*** (unique identifier chosen).

Symbol Tag

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 in the Automation tag box. Alternatively, **Create Edit tag for Refresh** option, found under the Automation tag box can be used to build the tag.

The tag format is:

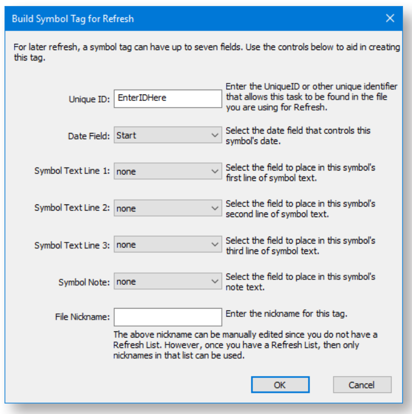
Unique Identifier,Date Field,Symbol Text Line 1,Symbol Text Line 2,Symbol Text Line 3,Symbol Note,Nickname

An actual tag with all fields selected will look like the following example. There are no spaces and commas separate the fields to be populated.

3,finish,name,%complete,actualcost,resource,File1

The unique identifier and the date field are required. Other fields are optional.

6,start



✍Refresh *(see pg. 10-33)* makes it possible to add symbol text and notes fields, so tagging those fields manually is not necessary.

Clear Symbol Tags

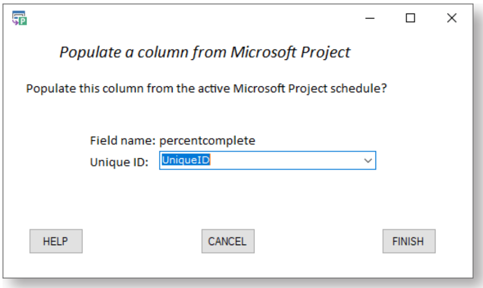
To remove symbol tags from all symbols **Tools | Other Tools | Manage: Symbols, Pictures, Free Form Text, Lines, Boxes, Circles |** ***Remove symbol tags from every symbol***.

Add a Microsoft Project Column to a Schedule

To import Project information into a column, first the column must be tagged with the name of the Project field. Next, each cell to be populated must be tagged with the Project task's unique identifier. (If Microsoft Project is not installed, this option is not available to use.)

Add a Microsoft Project column to an imported or previously tagged schedule:

1. Open the Microsoft Project .mpp file that the schedule is tagged to.
2. In Milestones choose **Insert | Rows, Columns | New Column | *Microsoft Project Column...***.
3. From the drop down menu that displays select the ***Microsoft Project field*** to be used to populate the column.
4. The **Populate this column** dialog box displays. It shows the Microsoft Project field being added as a column. Choose the Unique ID field you are using for this schedule.



5. Press ***OK***. Press OK. Milestones will then bring the field in for each row which was previously tagged with a unique ID..

If building a schedule from scratch and using the **Link to active MS Project** option add the columns before you open the Microsoft Project file.

1. In Milestones choose **Insert | Rows, Columns | New Column | *Microsoft Project Column...***.
2 Choose which ***Microsoft Project field*** to use to populate the column.
3. Tag each column cell in a task row.
   a. Open a Microsoft Project .mpp file.
   b. Select the row(s) within the Project file that contain the information for the Milestones task row.
   c. In Milestones, right-click any column cell in the task row to be populated with corresponding information from the selected Microsoft Project task(s).
   d. Choose ***Link to Active MS Project Tasks.*** The **Link to selected MS Project task(s)** dialog box displays.
   e. Check on ***Tag task rows***.

f. ***Tag with this ID field for future updates***: Choose a unique identifier for refreshing the Milestones schedule from an updated Microsoft Project file. The unique id field, text field or the WBS field can be selected as the identifier. All symbols and column cells on the task row will be tagged with the unique identifier.

g. ***ID keyed below:*** Manually type in a unique identifier.

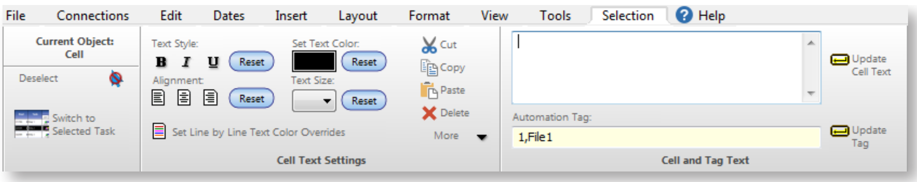
h. Optionally under ***File nickname for multi-project refresh*** enter the file nickname *(see pg. 10-40)* or choose from the drop down menu if a Refresh File List *(see pg. 10-40)* has been set up.

i. If only tagging the column cells uncheck ***Add Symbology***. If adding symbology (*see pg. 10-27*) check on ***Add Symbology***.

j. Click the ***OK*** button. Milestones will then populate each task cell in all the columns with the unique ID. To have the columns populate with the Microsoft Project information run Refresh *(see pg. 10-33)*.

Manually Tag a Column's Cell

1. Click once on the cell to tag. This will highlight the task row. Click again on the cell and the cell will highlight. The toolbar Selection menu for that cell is now active.



2. In **Selection | Cell and Tag Text |** ***Automation Tag*** enter the unique identifier and optionally the file nickname *(see pg. 10-40)*, Example: ***8,File1***.

3. Press **Update Tag**. No change will take place in the Milestones schedule until the Refresh *(see pg. 10-33)* option is run.

Refresh a Schedule (MS Project Installed)

When the Project to Milestones Wizard creates a schedule from a Microsoft Project file, symbols, columns, task rows, and cells are tagged with a unique identifier. 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.

Refresh to Update a Milestones Schedule

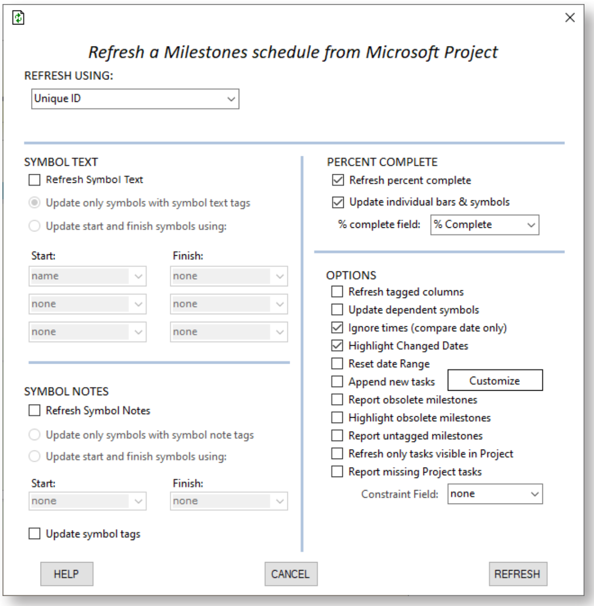
1. Go to **Connections | Microsoft Project**. Click on the drop down arrow next to ***Refresh Previously Imported Project***.

2. Choose the ***Refresh from*** option that correlates to the type of file imported.

3. The ***Select the Schedule to Open*** dialog displays, select the file to use for refresh.

4. The **Milestones Refresh Options - Refresh from Microsoft Project** dialog box displays.

Refresh Options



- ***Refresh Using***: Select the identifier used when the schedule was imported or tagged.

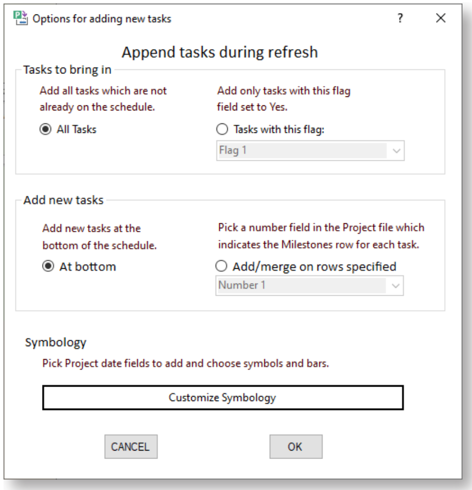
- ***Symbol Text***: Updates text/values attached to symbols with the source field's text/values. Check on to access the following sub options.

  » ***Update only symbols with symbol text tags***: Tagged symbols will update with new selected source field. Symbol text on symbols without a tag will not be affected.

  » ***Update start and finish symbols***: Symbol text on all start and finish symbols will be updated with the source field selected under ***Start:*** and ***Finish:***. More about symbol text (*see Chapter 3 pg. 3-18).*

- ***Symbol Note***: Updates text/values attached to symbols with the source field's text/values. Check on to access the following sub options.
  - » ***Update only symbols with symbol note tags***: Tagged symbols will update with new selected source field. Symbol notes on symbols without a tag will not be affected.
  - » ***Update start and finish symbols***: Symbol notes on all start and finish symbols will be updated with the source field selected under **Start:** and **Finish:**. More about symbol notes (*see Chapter 3 pg. 3-18).*
  - » ***Update symbol tags***: Check on to have the symbol tags refresh based on the new note and text selections. Check this if a filled field is changing to none. More about symbol tags (see *pg. 10-30).*
- ***Percent Complete***: Select these options to update the fill to status of the symbols and bars.
  - » ***Refresh percent complete***: Choose this option to have Milestones' symbols and/or horizontal bars fill to status. Then select the percent field that will drive the fill to status (percent complete, percent work complete, physical percent complete or a number field).
  - » ***Update individual bars & symbols***: This option must also be selected when multiple task are on a single task row in the Milestones schedule.
- ***Options***
  - » ***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 the date is used to update. The hour and minute are ignored.
  - » ***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**.
  - » ***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***: Check to add all new or flagged Microsoft Project task(s) with specific symbology, symbol and bar style, and text to the end of the Milestones schedule or on and below a specific Milestones task row. Choose ***Customize*** button to make selections.



  - **Tasks to bring in**: Select which new tasks added to Microsoft Project file will be added to the Milestones schedule.
    - ***All Tasks***: Check on to have all new tasks added to the Microsoft Project file.
    - ***Task with this flag***: Check on and pick the flag field from the drop down menu to limit the new tasks imported. First set up a flag field in the Microsoft Project file, then mark all new tasks to be imported into the Milestones schedule with yes.
    - **Add new tasks**: Select where the tasks should import.
    - ***At bottom of schedule***: Check on to have all new Microsoft Project task(s) import at the bottom of the Milestones schedule.
    - ***Add/merge on rows specified***: Set up a number column in Microsoft Project and enter the Milestones task row number the Microsoft Project information is to be imported into. Then check on this option and select the number field from the drop down menu.
  - **Symbology**: Select the ***Customize Symbology*** button to have the Custom Symbology *(see pg. 10-8)* dialog display. Pick the symbology, symbol and horizontal bar style and position as well as text to be imported for the new Microsoft Project task(s).
- » ***Report obsolete milestones***: Tagged symbols in the Milestones schedule that are no longer in the Microsoft Project file will be reported in the **Refresh Results** report.
- » ***Highlight obsolete milestones***: Tagged symbols in the Milestones schedule that are no longer in the Microsoft Project file will be changed to a question mark symbol.
- » ***Report untagged milestones***: Untagged symbols in the Milestones schedule will be reported in the **Refresh Results** report.

» ***Refresh only tasks visible in Project***: When selected, only visible task in Microsoft Project will refresh. For instance, if a Microsoft Project file is filtered and a task on your Milestones schedule is not in the Microsoft Project file's filter the task in the Milestones schedule will not update.

» ***Report missing Project tasks***: When selected, all tasks in your Microsoft Project file that were not selected for importing will be reported in the **Refresh Results** report.

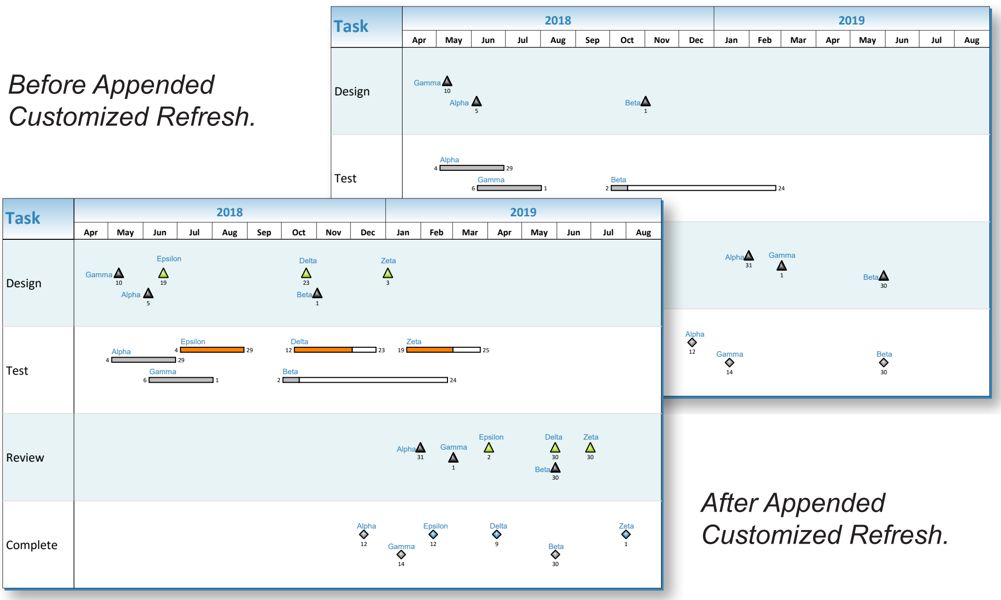
» ***Constraint Field***: Milestones Professional has symbol constraints that can be applied to imported symbols during the Refresh process.

- Set up a date field in Microsoft Project file containing the constraint date. In the ***Constraint Field*** select the date field that was set up. Two new fields display.
- In ***Type*** select one of the constraint options ***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***.
- In ***Add to*** select the date field in Microsoft Project to have the constraint applied.

4. ***Refresh***: Once selected, Milestones will update all tagged symbols to their new dates and any Refresh options selected will also be applied to the schedule. A **Refresh Results** report will be generated containing changes made to the schedule. The report can be printed.

Once a schedule has been refreshed you can compare the updated schedule with the original schedule *(see pg. 10-43)*.

Before Appended Customized Refresh.



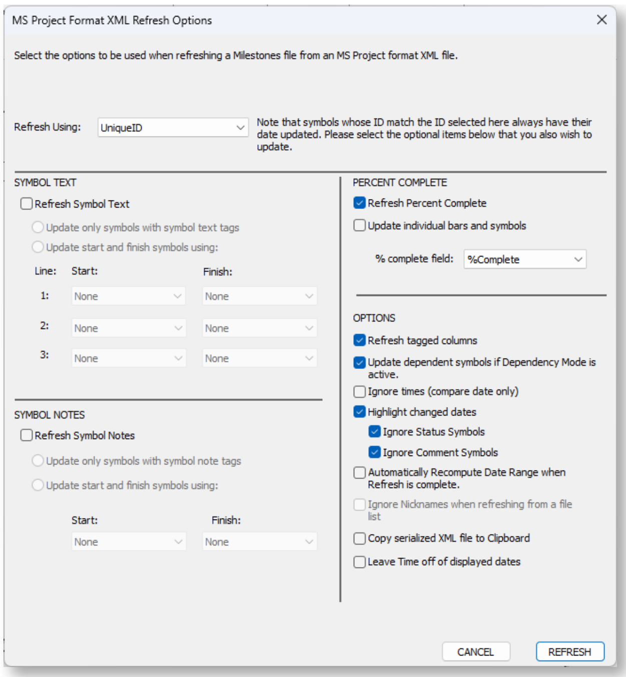
After Appended Customized Refresh.

Refresh a Schedule (MS Project Not Installed)

When the Project to Milestones Wizard creates a schedule from a Microsoft Project file, symbols, columns, task rows, and cells are tagged with a unique identifier. 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.

1. Go to **Connections | Microsoft Project**. Click on the drop down arrow next to ***Refresh Previously Imported Project***.
2. Choose the ***Refresh from MPP/MPD File***.
3. The ***Select File to Refresh*** dialog displays, select the file to use for refresh.
4. The **MS Project Format XML Refresh Options** dialog box displays. Make selections from the following options.



Refresh Using: Select the identifier used when the schedule was imported or tagged.

SYMBOL TEXT

- ***Refresh Symbol Text***: Update text/values attached to symbols with the source field's text/values.
  - ***Update only symbols with symbol text tag*s**: Symbol text on symbols with tags will be updated.
  - ***Update start and finish symbols***: Symbol text on all start and finish symbols will be updated with the field(s) selected under **Start:** and **Finish:**.

SYMBOL NOTES

- **Refresh Symbol Note**: Update text/values attached to symbols with the source field's text/values.
  - ***Update only symbols with symbol note tag*s**: Symbol notes on symbols with a symbol note tag will 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:**

PERCENT COMPLETE

- ***Percent Complet*e**: Updates the fill to status of the symbols and bars.
  - ***Refresh percent complet*e**: Choose this option to have Milestones' symbols and/or horizontal bars fill to status. Then select the percent field that will drive the fill to status (percent complete, percent work complete, physical percent complete or a number field).
  - ***Update individual bars & symbols***: This option must also be selected when multiple task are on a single task row in the Milestones schedule.

OPTIONS

- ***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.
- ***Ignore Times***: When checked, only the date is used to update. The hour and minute are ignored.

- ***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**.
  - ***Ignore Status Symbols***: Status symbols will not highlight if selected.
  - ***Ignore Comment Symbols:*** Comment symbols will not highlight if selected.
- ***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
- ***Ignore Nicknames when refreshing from a file list***: (If Microsoft Project is not installed, this option is not available.)
- ***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.
- ***Leave time off of displayed dates:*** When selected imported dates will not show time.

Once a schedule has been refreshed you can compare the updated schedule with the original schedule *(see pg. 10-43)*.

Update a Milestones Schedule from Multiple Project files

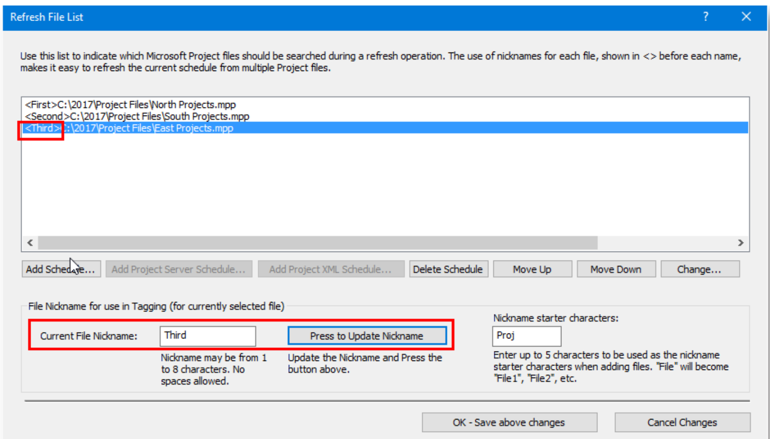
It is possible to update a single Milestones presentation schedule from multiple Microsoft Project files. If Microsoft Project is not installed this option is not available.

Create a Refresh List

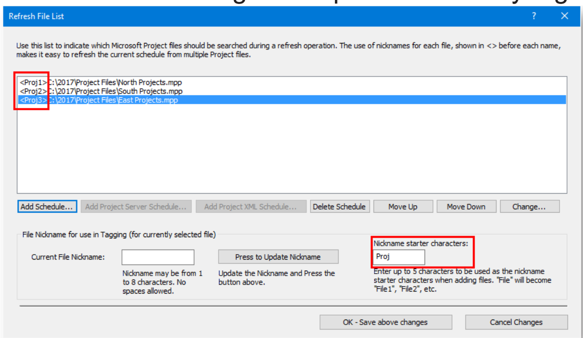
During import using the Project to Milestones Wizard or when manually tagging, Milestones offers the option to nickname a Microsoft Project file which in turn tags all symbols, task rows and cells from that file with its nickname.

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. Open the Milestones file that was tagged with Nicknames or the Milestones file that will be used to import or tagged to multiple Microsoft Project files.
2. Choose **Connections | Microsoft Project | Refresh Previously Imported Project | *Create/Edit Refresh File List*.**
3. **Nickname for use in Tagging**
   - ***Current File Nickname:*** Select the **Add** button for the appropriate file type. Browse to the Microsoft Project file used or to be used for importing. Select the file, its path will display. Next, type in the 1 to 8 character nickname (no spaces) given at the time of import or that will be given when imported or manually tagged. Select ***Press to Update Nickname***. The Nickname will now be include at the beginning of the files path**.**



- ***Nickname Starter Characters***. Type in up to 5 characters to be used as the generic nickname, then Milestones will add a number to the generic name as each Microsoft file is added to the dialog box. This makes each file's nickname unique. Assign the generic name plus the number of the so nicknamed file when using it to import or manually tag.



- ***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).

  ✍File's nickname can be changed. Select that file, type the new nickname into the **Current File Nickname** box. Select **Press to Update Nickname**.

4. Once all the Microsoft Project files are named and 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 future refreshes.

Refresh a Nicknamed Schedule

1. **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 display.
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. 10-33).*

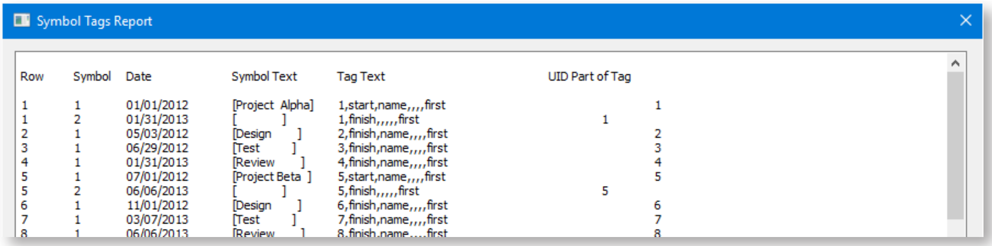
   ✍***Append New Tasks from Project*** and ***Constraint Field*** options are not available in multiple Microsoft Project file Refresh.

7. ***Refresh***: Once selected, 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.

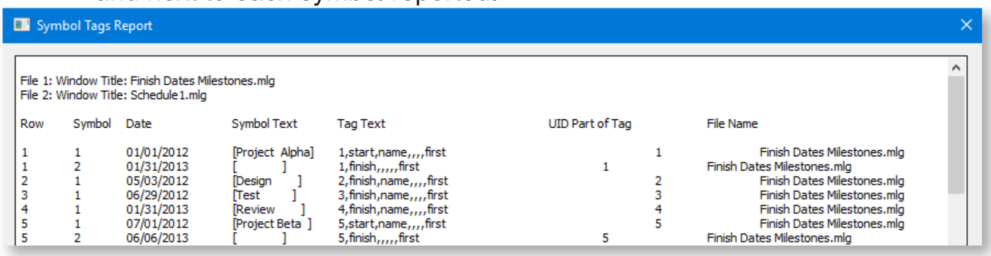
Symbol Tags Report

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. This 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, the symbol's text, the full tag text, and the Unique ID.

1. Select **Tools | Reports | Symbol** ▼ **|** ***Symbol Tags....***



- If multiple tagged schedules are open in the same instance of Milestones they also can be included in the report by selecting ***Include all Open files in report***. Now the report will contain the file names at the top of the report and next to each symbol reported.

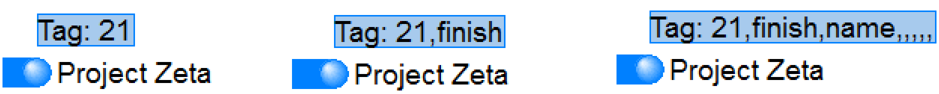


- ***Leave Out Symbol Text:*** Check on to remove symbol text from the report.

2. Press ***Copy Report To Clipboard*** to place the entire text of the report on the clipboard for pasting into a document.

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***.



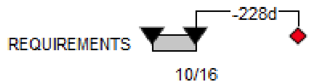
Compare Files

Often, it is useful to generate a report of differences between a Milestones file which was imported from Microsoft Project or Primavera XML (the “original” file) and your most recently refreshed version of the file (the “updated” file). With Milestones Professional’s File Compare feature, it’s possible to view a Milestones Professional schedule which graphically presents the changes.

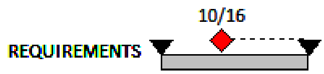
> ✍Important if you save the updated file before using the Compare File feature be sure to save your updated file under a different name than the original file.

File Compare first makes a copy of either the original file or the updated file, then allows the selection of the following options to show the changes made:

Copy of the original file is made with added selected symbolgy (i.e. Start Date) represented by selected symbol(s) and horizontal bar(s) to show the changes.



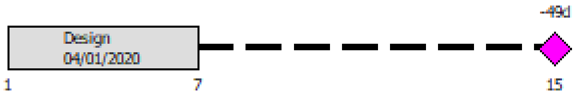
Copy of the updated file is made with added selected symbolgy (i.e. Start Date) represented by selected symbol(s) and horizontal bar(s) to show the changes.



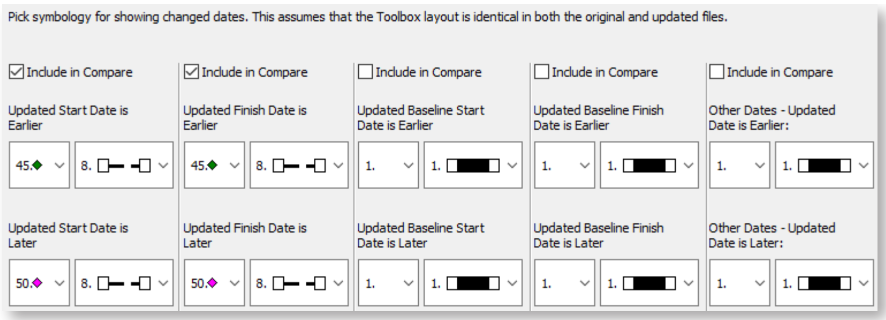
A copy of the updated schedule is made with add shadows of the original symbol(s), horizontal bar(s).

1. Go to **Connections | Microsoft Project | Refresh Previously Imported Project |** ***Compare Tagged Files*** the **Compare Two Milestones Files** dialog displays.
2. Choose ***Browse*** to select the ***Original File***.
3. Choose ***Browse*** to select the ***Updated File***.
4. Optional, select ***Ignore Changes in time (compare dates only)***.
5. Optional, select ***1-300*** days for the comparison to ***Ignore unless date changes by at least this many days***.

6a. Choose Show ***Changes in Copy of Original File*** to select specific symbology and symbol(s) and bar(s) to show the changes on the original file as a new compare file.



1. Look to the right and check on ***Include in Compare*** for the symbology, **Start Date**, **Finish**, **Baseline Start**, **Baseline Finish** and/or **Other Dates**, to show on the compare schedule.



2. Select the symbol(s) and horizontal bar(s) to use to represent the symbology selected in step 1. The selected horizontal bar will originate from the original symbol and connect to the selected updated symbol.

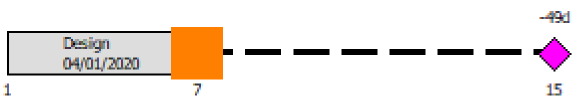
   ✍For a specific symbology (i.e. Start Date) a different symbol and horizontal bar can be used to distinguish dates that are earlier or later than the original dates.

   ✍The symbols available are from the toolbox of the selected file.

3. Optional, Check on ***Show duration between original and updated symbols*** to have the duration value added as symbol text to the changed symbol selected in step d below.

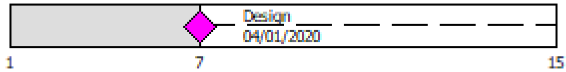
   ✍If this option is selected and the duration does not show, hide is the selected text placement for that symbol. Change the text placement for that symbol in the toolbox *(see Chapter 2 pg. 2-23)*.

4. Optional, check on ***Highlight changed symbols***, to have changed symbols highlight in orange. Once in the schedule this feature can be turned off by selecting **Connections | Other | *Refresh Highlighting***.



-or-

6b. Choose ***Show Changes in Copy of Updated file*** to have the selected specific symbology and symbol(s) and bar(s) to show the changes on the updated file as a new compare file.



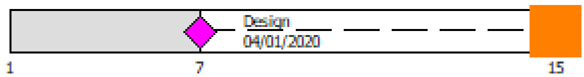
1. Look to the right and check on ***Include in Compare*** for the symbology, **Start Date**, **Finish**, **Baseline Start**, **Baseline Finish** and/or **Other Dates**, to show on the compare schedule (see picture on previous page).

2. Select the symbol(s) and horizontal bar(s) to use to represent the symbology selected in step c. The selected horizontal bar will originate from the original symbol and connect to the selected updated symbol.

   ✍For a specific symbology (i.e. Start Date) a different symbol and horizontal bar can be used to distinguish dates that are earlier or later than the original dates.

   ✍The symbols available are from the toolbox of the selected file.

3. Optional, check on ***Highlight changed symbols***, to have changed symbols highlight in orange. Once in the schedule this feature can be turned off by selecting **Connections | Other | *Refresh Highlighting***.



-or-

6c. Choose ***Show Changes in Copy of Updated File by showing original dates in light gray***.

1. Optional, by default Milestones will place the original shadow symbols 1 level above the updated symbols. You can choose between 1-4 levels to raise the original shadow symbols above the updated symbols.

   ✍If updated symbols position are at levels; 3 levels, 4 levels and 5 levels up from middle best practice would be to choose 1 for this selection.

7. Choose ***Compare Now***. A schedule will be generated showing the comparison featuring the selected compare options.

   ✍The **Compare Two Milestones Files** dialog box will not close This allows selection of a different comparison feature generating a completely new file.

8. Choose the ***Done*** button to close the dialog.

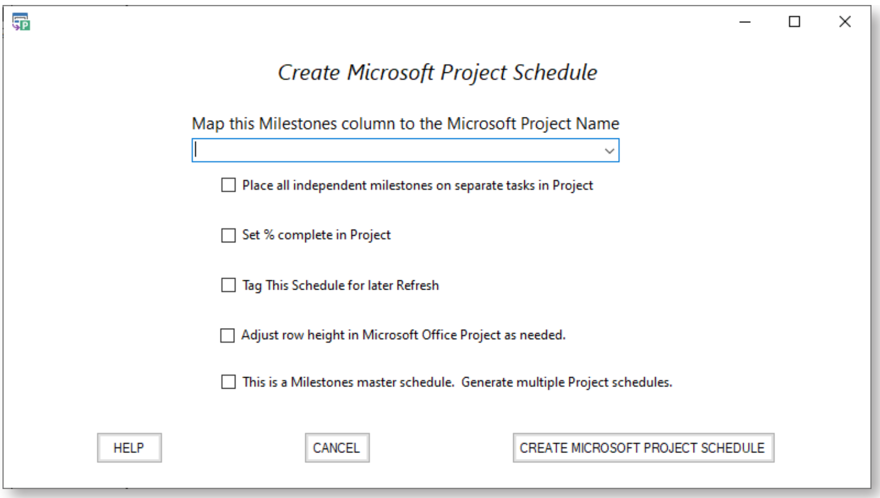
Direct to Microsoft Project Export

It's possible to export a Milestones schedule to project and then update the Project file when the Milestones schedule changes. If Microsoft Project is not installed this option is not available.

Choose **Connections | Microsoft Project | *Export to Project***.

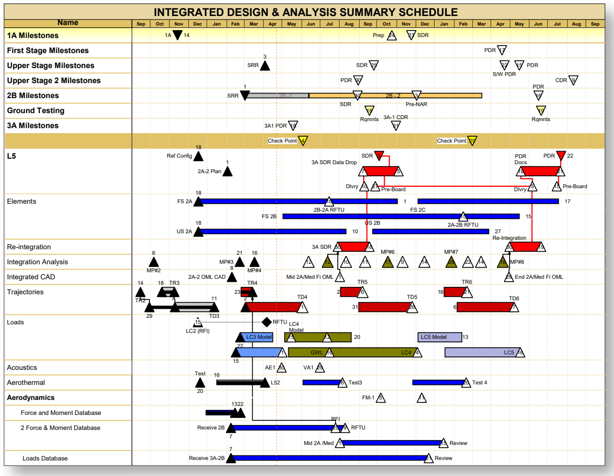
The **Milestones to Project Export Options** dialog box displays.

- ***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 when multiple symbols and bars are on a single task row in the Milestones Professional file. Every symbol or symbol bar symbol combination will import into a task row. If there is text on a the start symbol of the symbol, bar, symbol combination or a single symbol it will be imported into the name column. Each set of symbols and symbol, bar, symbol combination from a single Milestones task row will also have a summary bar populated in the Microsoft Project file based on the very first symbol and the last symbol in the Milestones 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

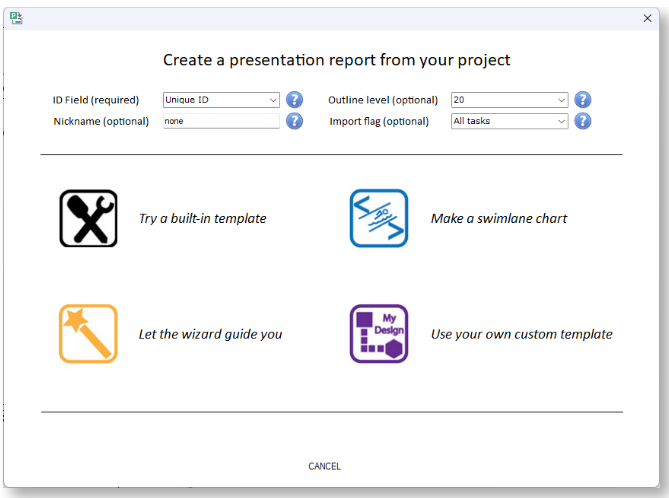
Transform Primavera schedules into executive level presentation reports with Milestones Professional. Create a wide variety of schedules using Milestones Professional's Project to Milestones Wizard.
(*For a lesson on this topic see* ***Help | Help Files |Tutorials | Lesson 18***)



Import from Primavera using the Wizard

1. Export a Primavera file to the XER format.

2. In Milestones Professional, choose **Connections | Other | Import Schedule from XER, XML etc. File |** ***XER: Primavera XER etc. via Project Import Wizard***. Next pick, the XER file to be imported. The **Project to Milestones Wizard** opens.



3. On the initial screen of the Project to Milestones Wizard at the top there are four import features. Some are not available with XER import. At the bottom are four possible import options. XER import can use 3 of the options.

   FEATURES

   - ***ID Field (required)***: Choose ***Text 1***. (When a Primavera file is exported to an XER file the Activity ID exports into the Text 1 field.)

     ✍When information is imported from a Primavera XER file to Milestones Professional, all task rows, columns, and symbols are "tagged" with an identifier. This is important for schedule Refresh later. By picking Text 1, the Primavera Activity ID is used as the unique identifier.

   - ***Nickname (optional)***: This feature is not used for XER files.
   - ***Outline level (optional)***: Choose the maximum outline level of tasks from Primavera to be imported into Milestones.
   - ***Import flag (optional)***: This feature is not available for XER files.

   IMPORT OPTIONS

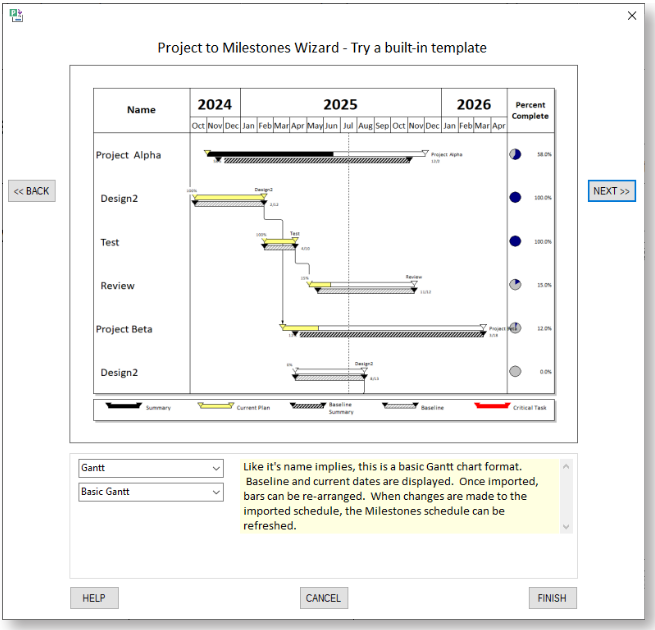
   - ***Try a built in template***: Select from one of the 8 categories. Once a category is picked, several formats will be available to select.
   - ***Let the wizard guide you***: Step through the wizard selecting import options such as symbology, columns, text and more.
   - ***Make a swim lane chart***: This option is not available for XER files.
   - ***Use your own custom template***: Once Primavera information has been imported in to a Milestones schedule using one of the built in templates, the generated Milestones schedule can be modified and then saved as a Custom Project Template. Schedules saved as Custom Project Template will be listed in the wizard as an import option under this choice.

4. Choose one of the three import options. **(*Try a built in template, Let the wizard guide you or Use your own custom template)*** The **Project to Milestones Wizard** opens the start dialog box for the import option selected.

Try a Built-In Template

When Try a Built-in Template is selected, the **Pick a built-in template** dialog displays. In this dialog choose from 8 built-in template categories. Each category has a variety of schedule types. As the category and type are selected, the wizard displays a picture of the selection. Each format may have the following import options: **Pick symbology, Enter a new title**, **Add symbol text and notes**, **Set schedule size and rows** and/or **Apply a color theme**.

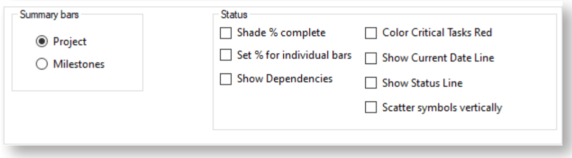
Categories for Built-In Formats:



- **Top Templates** contains the templates most often used for importing.
- **Gantt** contains layouts for a basic Gantt charts.
- **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 a schedule.
- **Status** charts display current, remaining, or slipping tasks.
- **Dashboard** charts offer several unique formats with the popular “dashboard” appearance and content.

Pick Symbology Options

- **Summary Bars:**



  » ***Project***: Summary bars will be drawn from Primavera information.

  » ***Milestones***: The summary bars are determined by Milestones, using the lower level task dates. These are usually the same as the Project summary bars.

- **Status Options**:

  » **Shade % complete:** If checked, symbols and bars will be shaded based on the % complete of the Project task.

  » **Set % for individual bars:** Choose this to set the % complete for individual bars and symbols.

  » ***Show Dependencies***: Vertical links will be drawn between tasks based on Primavera successor information.

  » ***Color Critical Tasks Red***: If a task is marked Critical in Primavera, red symbols and bars are drawn.

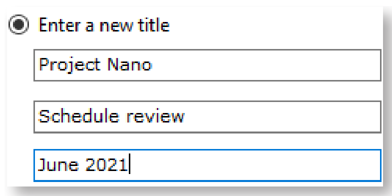
  » ***Show Current Date Line***: Choose to draw a line that extends vertically at the status date of the Primavera file.

  » ***Show Status Line***: Choose to draw a line that extends vertically along the current date line and bulges to the left or right according to each Primavera task row's status date.

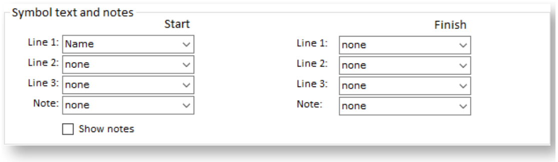
  » ***Scatter symbols vertically***: If milestone symbols are imported by the selected import option into a single task row, the symbols will be placed at different vertical levels on the task row.

Add a New Title

- ***Enter a new title***: Enter up to three separate lines as a title for the imported schedule.



Add Symbol Text and Notes



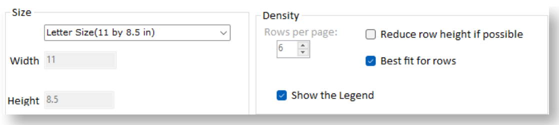
Symbol text or notes can be added to a start date or finish date symbol. The text and notes added can be chosen from the available fields available in the drop down menu.

Each Symbol can have up to 3 lines of symbol text. Each line can populate with a different field.

Notes in Milestones can be displayed or hidden. Check on ***Show notes on schedule*** to have notes display. Notes will still import if this option is not checked.

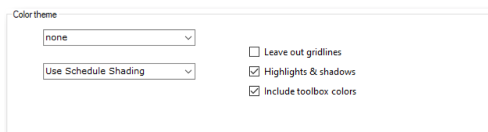
✍Symbol text and notes can be reformatted on the imported schedule (*see Chapter 3).*

Set schedule size and rows



- ***Schedule Dimensions***: Select your schedule size from the list of paper sizes available. The width and height of the paper size selected will display.
- **Schedule Density**
    - » ***Rows per page***: Choose from 6 to 300 rows per page.
    - » ***Best fit for rows*** Pick this along with ***Reduce row height*** to have Milestones figure out how many rows will fit without overlap.
    - » ***Show the Legend***: A box will display at the bottom of the schedule for inserting of legend entries. Some schedules may already have legend information. (*See Chapters 2 and 3 for more information)*.

Apply a color theme



- Pick from the list of color themes (*see Chapter 2 pg. 2-29*).
- Pick from a list of shading options (*see Chapter 2 pg. 2-29*).
    - » ***Include toolbox colors***: The color theme's toolbox colors will be applied.
    - » ***Leave out grid lines***: Gridlines will be removed from imported schedule. (*see Chapter 2 pg. 2-29*).
    - » ***Highlights & Shadows***: Gives a 3-D look to some imported symbols and adds shadows to all symbols and bars imported.

Let the Wizard Guide You

The ***Let the Wizard guide you*** option offers more flexibility as to what information is imported into the resulting Milestones Professional schedule. The wizard will step you through setting up columns, choosing symbology, and more. As selections are made the wizard displays the image of the schedule that will result from the import.

Symbology

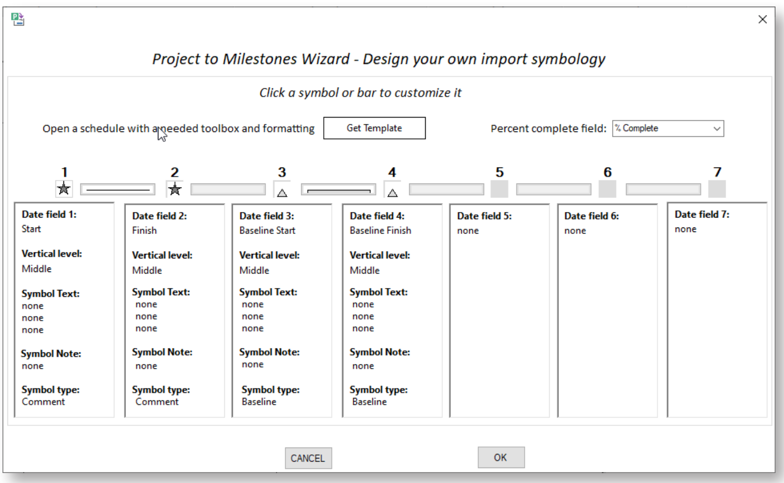
Choose from predesigned symbology options which include: ***Gantt bars - current Gantt bars - current and baseline***, ***Gantt bars - custom symbology*** or ***Gantt bars - custom symbology 2***, ***Milestones - finish dates***, ***Milestones - finish and baseline***, or ***Milestones - finish dates rolled up to summary level***. The Wizard displays a picture of the symbology choices as they are made.

Once you have made your symbology choice, some options offer the ***Symbology Set*** option. Click through to select a symbol, horizontal bar, symbol combination to represent the Primavera date fields in the imported schedule. The Wizard displays a picture of the Symbology Sets as they are clicked through.

Customize Symbology

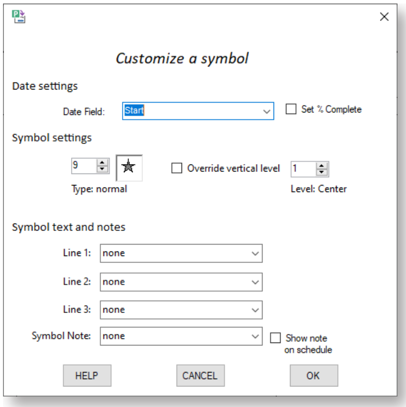
For greater customization choose ***Gantt bars - custom symbology*** or ***Gantt bars - custom symbology 2***. Then choose the ***Customize*** button.

- ***Gantt bars - Custom Symbology***:
  Has up to 7 date fields from a single task import as symbols into a task row of the Milestone schedule. Select symbols to set their properties. Bars can be added between symbols. Optionally, bring in a template you previously formatted.



» Click a numbered square, the **Customize a symbol** dialog box displays. Add a symbol and set its properties.

1. Select the Date Field for the symbol.
2. Check on ***Set % Complete*** to set the individual percent complete for this symbol.
3. Pick one of the toolbox symbols. If importing a baseline date, pick a symbol which indicates “baseline”. Otherwise, pick a “normal” symbol.
4. There are 11 vertical positions on a task row. To reposition a symbol, check on ***Override vertical level***, and select a new level.

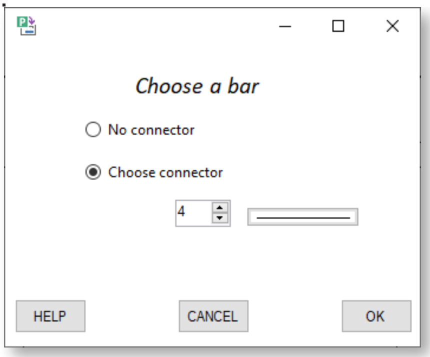


5. Each symbol can have three lines of ***Symbol Text***. Each line can be information from a different Primavera field.
6. Add one of the Primavera fields to the symbol note. Check on **Show on schedule** to have the note visible on the schedule.

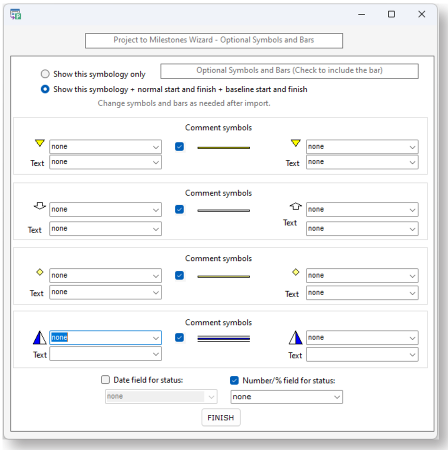
Once selections are complete select ***OK***. The **Custom symbology** dialog box now displays the choices just made.

» If the symbols need to be connected with a horizontal bar, select the rectangle between the symbols to have the **Customize bar** dialog box display.

1. Select ***No connector*** to hide the bar.
2. Select **Choose Connector** to connect two symbols with a bar.
3. Choose from the list of horizontal bars, which are reflective of the horizontal bars in the toolbox of the template selected.



- ***Gantt bars - Custom Symbology 2***:
  With this symbology choice, a total of four bars (or 8 dates) are possible. Pick date fields for each row. For each set of dates, if a bar is needed click on the check box next to the bar.



  » ***Show this symbology only*** to have just the selected date field symbology import.

  » ***Show this symbology + normal start and finish + baseline start and finish*** to have selected date field symbology import in addition to normal start and finish and baseline start and finish.

  » Optionally select the text from a Primavera field to import with selected symbols.

  » ***Date field for status*** check on so symbols and bars in the imported schedule fill to status based on the Primavera date field selected from the drop down.

  » ***Number% field for status*** check on so symbols and bars in the imported schedule fill to status based on the Primavera % or number field selected.

Pick Symbology Options

See page 11-4.

Columns

Choose to have information from Primavera fields enter into a column. Have up to 5 columns on the left side and/or right side of the schedule.

Add a New Title

See page 11-4.

Add Symbol Text and Notes

See page 11-5.

Set Schedule Size and Rows

See page 11-5.

Apply a Color Theme

See page 11-5.

✍Any Milestones schedule generated from the ***Let the wizard guide you*** option can be saved as a custom project template. Once it is saved it can be recalled in the wizard under the ***Use your own custom template*** option *(see next section)* thus eliminating the need to step through the many wizard option again when generating a new schedule from another XER file.

Use Your Own Custom Template

1. Custom templates are a great time saver and are easy to create. Build a custom template by first running an import using Let the wizard guide you or Try a built in template. Then, customize the resulting schedule by adding columns, changing colors and more.

   Things to avoid changing:

   - The symbol type (from normal, baseline, comment or status)
   - The "automation tag" for a column

2. Save the customized chart as a Custom Project Template. Choose **Connections | Microsoft Project | *Save Custom Project Template***.

   ✍There will be a prompts to enter a description of the template and save the file. The description of the template appears in the **Manage Custom Project Templates** dialog box. The saved name appears in the **Start with a custom template** option in the Project to Milestones Wizard.

   ✍Once the template is saved do not move it or it will no longer be available in the wizard.

3. The Custom Project Template created is then available by selecting the option ***Use your own custom template*** in the initial screen of the Project to Milestones Wizard. Templates created from the various import styles put up a different set of options to select from before importing.

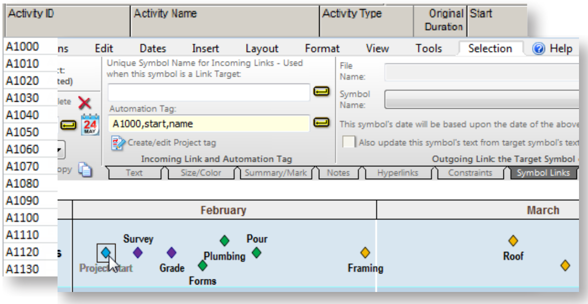
4. To delete or change templates previously saved, go to **Connections | Microsoft Project | *Manage Custom Project Templates***.

   - 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***.

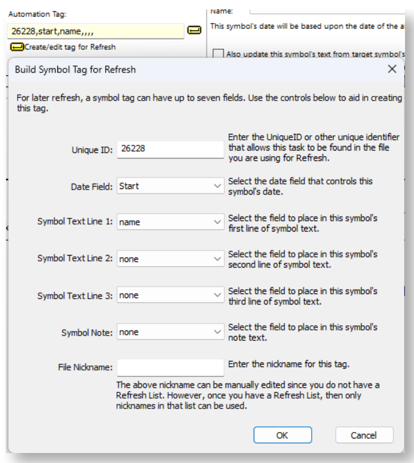
Manually Tag a Schedule to Primavera for Refresh

It's possible to design a Milestones presentation chart "free-form" and link it to a Primavera file for future updates. Tag the symbols, columns and cells then **Refresh** the schedule with an XER file to sync with the Primavera information.

Tag a symbol to link with a Primavera task:



1. Build a schedule in Milestones.
2. In Milestones select a symbol to be tagged. The toolbar changes to **Selection** for the symbol.
3. At the bottom of the toolbar select the ***Symbol Links*** tab.
4. Select the **Create/edit tag for Refresh** button.



- ***Unique ID***: Enter the Activity ID of the Primavera task.
- ***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 to place in this symbol's note.
- ***File Nickname***: This feature is not available for XER files.

Tag a column to link it with a Primavera field.

1. In Milestones double-click the column heading, the **Column Properties** dialog box display. Choose the ***Column Formatting*** tab.
2. Under **Automation Tag** select the down arrow under **Microsoft Project field** and select the Primavera field to populate the column.

Tag a cell to link it with a Primavera task. All cells in a row need to be tagged with the unique identifier.

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 Activity ID of the Primavera task information to populate the cells in the task row.

Once the schedule is tagged, view the **Refresh** directions below to synchronize the schedule and keep it updated with the latest Primavera information.

✍To remove all symbol tags *(see Chapter 10 pg. 10-30)*.

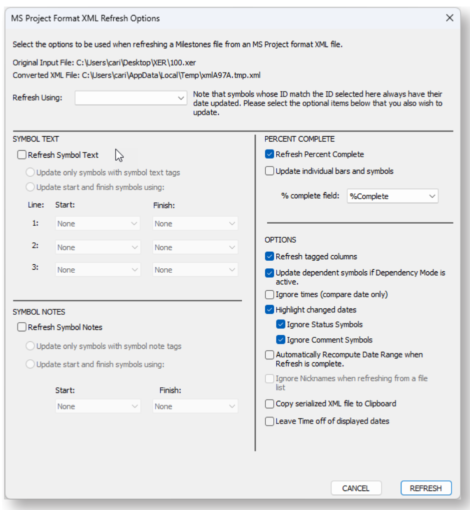
✍To see and print a symbol tags report *(see Chapter 10 pg. 10-42)*.

✍To display symbol tags on symbols *(see Chapter 10 pg. 10-42)*.

Refresh a Presentation Schedule

Use the refresh option to update a tagged Milestones Professional schedule when the dates from Primavera change. During the refresh process, tagged items in Milestones are matched to their counterparts in the selected Primavera file. All tagged items are updated with the latest data from the Primavera file.

1. Save the changed Primavera schedule as an XER file.
2. In Milestones Professional, on the **Connections** tab, choose the arrow next to **Refresh Previously Imported Project**.
3. Choose ***Refresh from Primavera XER File***.
4. The **Select the File to Refresh** dialog displays, select the saved changed Primavera XER file.
5. The **MS Project Format XML Refresh Options** dialog box displays. Make selections from the following options.
   - ***Refresh Using***: Select Text 1 (when an XER file is generated the Activity ID is imported into the Text 1 field).



SYMBOL TEXT

- ***Refresh Symbol Text***: Update text/values attached to symbols with the source field's text/values.
    - » ***Update only symbols with symbol text tag*s**: Symbol text on symbols with tags will be updated.
    - » ***Update start and finish symbols***: Symbol text on all start and finish symbols will be updated with the field(s) selected under **Start:** and **Finish:**.

SYMBOL NOTES

- **Refresh Symbol Note**: Update text/values attached to symbols with the source field's text/values.
    - » ***Update only symbols with symbol note tag*s**: Symbol notes on symbols with a symbol note tag will 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:**.

PERCENT COMPLETE

- ***Percent Complet*e**: Updates the fill to status of the symbols and bars.
    - » ***Refresh percent complet*e**: Choose this option to have Milestones' symbols and/or horizontal bars fill to status. Then select the percent field that will drive the fill to status (percent complete, percent work complete, physical percent complete or a number field).
    - » ***Update individual bars & symbols***: This option must also be selected when multiple task are on a single task row in the Milestones schedule.

OPTIONS

- ***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.
- ***Ignore Times***: When checked, only the date is used to update. The hour and minute are ignored.
- ***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**.
    - » ***Ignore Status Symbols***: Status symbols will not highlight if selected.
    - » ***Ignore Comment Symbols:*** Comment symbols will not highlight if selected.

- ***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
- ***Ignore Nicknames when refreshing from a file list***: This feature is not available for XER files.
- ***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.
- ***Leave time off of displayed dates:*** When selected imported dates will not show time.

Once a schedule has been refreshed it can be compared the with the original schedule *(see Chapter 10 pg. 10-43)*.

Chapter 12: Work with other Applications

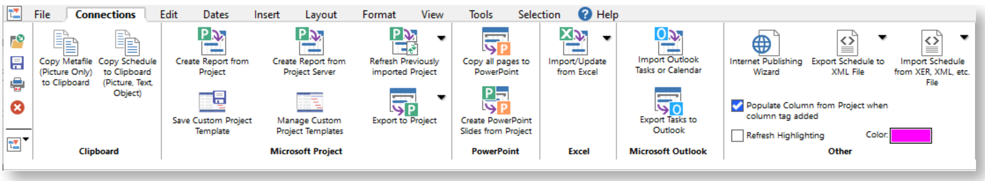
Milestones Professional can read information from other sources including Microsoft Outlook tasks or calendar items, comma delimited files, Excel and other spreadsheet data copied to the clipboard (*For a lesson on this topic see* **Help | Help Files | Tutorials |** ***Lesson 9***), and more.

For moving data from Milestones to other applications, Milestones schedules can be exported to MPX, CSV, and XML formats.

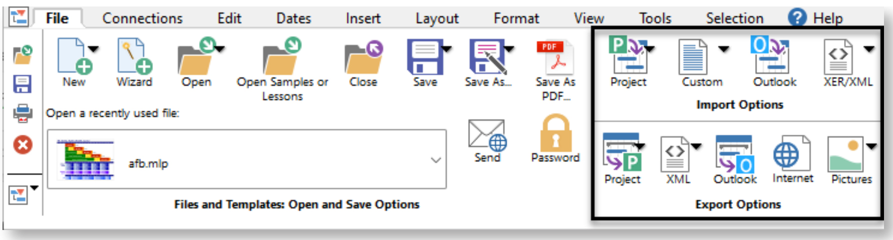
For programmers, Milestones Professional also supports a custom interface between Milestones and any OLE compliant application. Using Visual Basic, C++ or other programming languages, it's easy to interchange data programmatically with other applications and databases. The programming that makes use of this automation feature is created by the user.

The Connections and File Tabs

The Connections tab 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 Export Microsoft Outlook

Outlook to Milestones Import Wizard

Milestones can import both Tasks and Calendar Appointments from Microsoft Outlook (version 2010 or later). Choose **Connections | Microsoft Outlook | Import Outlook Tasks or Calendar** to start the wizard.

1. Under **Pick a folder**, choose from the calendar or task folder options available in the drop down.
2. Choose the ***Start*** and ***End*** dates of the tasks or calendar events to be imported into the Milestones Professional schedule.
3. Under **Pick a chart type** note that the chart formats available depend on whether a task folder or a calendar folder was chosen (#1.).

   ✍For easy selection of the format to use, the wizard displays each format as it is chosen.

   - **Calendar** option ***Milestones Chart***: Imports all events from the selected calendar folder within the date range specified. Tasks import as a symbol unless a task spans multiple days. A symbol, bar, symbol combination will be added in this case. Symbols and bars fill to status based on % complete.
     - After the first screen of the wizard when Milestones is chosen, the next wizard screen offers selection of up to 9 columns to be imported, 5 on the right side and 4 on the left side of the schedule. Pick the Outlook fields to be shown in the columns. The column closest to the schedule is a set column which will always import the Outlook Subject information.
     - The third screen of the wizard when Milestones Chart is chosen allows import of three lines of symbol text and a symbol note. Choose the drop down arrows to select the Outlook information to be imported as symbol text and/or a symbol note. The symbol text and note are assigned to the start symbol.
   - **Calendar** option ***Presentation Timeline***: In Outlook, assign categories to calendar events. Presentation Timeline will import all the same category events from the selected folder within the date range specified into a single task row.
     - After the first screen of the wizard when Presentation Timeline is chosen the second screen of the wizard allows import of a single line of symbol text and a symbol note. Choose the drop down arrows to select the Outlook information to be imported as symbol text and/or a symbol note.

- **Task** option ***Basic Gantt***: Imports all tasks from the selected task folder within the date range specified. Tasks import as a symbol, bar, symbol combination Symbols and bars fill to status based on % complete.
  - ➤ After the first screen of the wizard when Basic Gantt is chosen, the second screen of the wizard allows selection of up to 9 columns to be imported, 5 on the right side and 4 on the left side of the schedule. Choose the drop down arrows to select the task information from Outlook that can be imported into columns. On the left side of the schedule there are a total of 5 columns. The column closest to the schedule is a fixed column that will always import the Outlook Subject information.
  - ➤ The third screen of the wizard when Basic Gantt is chosen allows import of three lines of symbol text and a symbol note. Choose the drop down arrows to select the task information from Outlook to be imported as symbol text and/or a symbol note. The symbol text and note are assigned to the start symbol.
- **Task** option ***Completed Tasks***: Imports all completed task from the selected task folder within the date range specified. Tasks import as a symbol, bar, symbol, combination. Four columns on the left side of the schedule populate with the following Outlook information: Subject, Owner, Category, Start Date and Due Date.
  - ➤ After the first screen of the wizard when Completed Tasks is chosen the second screen of the wizard allows import of a single line of symbol text and a symbol note. Choose the drop down arrows to select the task information from Outlook to be imported as symbol text and/or a symbol note. The symbol text and note are assigned to the start symbol.
- **Task** option ***Stoplight Chart***: Imports all task from the selected task folder within the date range specified. Tasks import showing the start date and due date as a symbol, bar, symbol combination. Symbols and bars fill to status based on % complete. Two columns on the left side of the schedule populate with the following Outlook information Percent Complete and Subject. Two columns on the right side of the schedule populate with indicators based on the following Outlook information: Status and Priority.

  ✍The percent complete column shows the percent as a pie symbol.

  ✍The legend of the schedule defines the indicators in the Status column.

  - ➤ After the first screen of the wizard when Stoplight Chart is chosen, the second screen of the wizard allows import of a single line of symbol text and a symbol note. Choose the drop down arrows to select the task information from Outlook to be imported as symbol text and/or a symbol note. The symbol text and note are assigned to the start symbol.

- **Task** option ***Finish Dates***: Imports all tasks from the selected task folder within the date range specified. Tasks import as symbols on the due date.
  - ➤ After the first screen of the wizard when Finish Dates is chosen the second screen of the wizard allows selection of up to 9 columns to be imported, 5 on the right side and 4 on the left side of the schedule. Choose the drop down arrows to select the task information from Outlook that can be imported into columns. On the left side of the schedule there are a total of 5 columns. The column closest to the schedule is a fixed column that will always import the Outlook Subject information.
  - ➤ The third screen of the Outlook to Milestones Wizard when Basic Gantt is chosen allows import of three lines of symbol text and a symbol note. Choose the drop down arrows to select the task information from Outlook to be imported as symbol text and/or a symbol note. The symbol text and note are assigned to the start symbol.
- **Task** option ***To Do List***: Imports all tasks from the selected task folder within the date range specified. Tasks import as a symbol, bar, symbol combination Symbols and bars fill to status based on % complete. One column on the left side populates with Outlook information Subject. Three columns on the right side of the schedule populate with the following Outlook information: Due Date, Status, Percent Complete.

✍The percent complete column shows the percent as a pie symbol.

✍The legend of the schedule defines the indicators in the Status column.

  - ➤ After the first screen of the wizard when To Do List is chosen, the second screen of the wizard allows import of a single line of symbol text and a symbol note. Choose the drop down arrows to select the task information from Outlook to be imported as symbol text and/or a symbol note. The symbol text and note are assigned to the start symbol.

Export to Microsoft Outlook

Tasks can also be exported from Milestones to Outlook by choosing **Connections | Microsoft Outlook | *Export Tasks to Outlook*.**

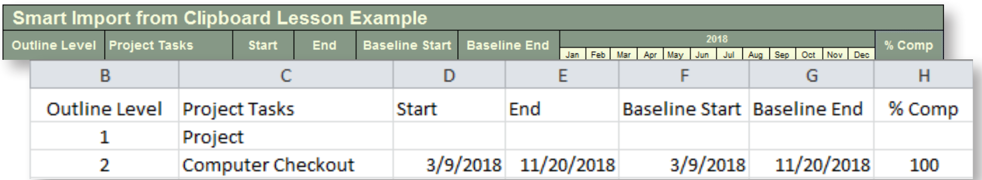
1. Select the Outlook task folder that will contain the imported Milestones tasks.
2. Select the column in Milestones that will import into the Subject field in Outlook.
3. Select how the task are to be exported to Outlook.
   - One task per Milestones row: The first and last symbol of each Milestones task row will be exported to Outlook as a task.
   - One task per Milestones symbol: Each symbol on a Milestones task row will be be exported to Outlook as a task.
   - One task per Milestones bar: Each symbol bar symbol combination and individual symbol in a Milestones schedule will be be exported as a task.

Smart Import from Clipboard

Importing into Milestones from a spreadsheet is easier with the Smart Import From Clipboard feature. This feature allows importing of 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 with the necessary SmartColumns (*see pg. 12-6)* to accept the data from the spreadsheet to generate a schedule.
   - For the Smart Import From Clipboard to import information into the correct SmartColumn, column headings in the spreadsheet and in the Milestones schedule must match and be single line headings. Or go to **Connections | Excel | Import/Update from Excel | Smart Import options** to assign existing spreadsheet column names to the SmartColumn that should receive the imported information.



B	C	D	E	F	G	H
Outline Level	Project Tasks	Start	End	Baseline Start	Baseline End	% Comp
1	Project					
2	Computer Checkout	3/9/2018	11/20/2018	3/9/2018	11/20/2018	100

   - Set the Milestones date range to accommodate the dates in the spreadsheet (**Dates | Start and End Dates | *Displayed Start Date, Displayed End Date***).
   - 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* | *More Date Settings* | *Hourly, Minute and Shift Settings* | *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 **Connections | Excel | Import/Update from Excel | *Smart Import from Clipboard***.

Accepted SmartColumns for Smart Import From Clipboard

The following accepted Milestones SmartColumns should be present in the Milestones schedule before selecting ***Smart Import from Clipboard***.

Insert the following SmartColumns into the Milestones schedule to have the ***Smart Import from Clipboard*** populate them and generate the schedule information like symbols, bars, outline features, and percent features:

- **Start Date SmartColumn** - brings a milestone into the schedule area.* If this column is not setup no information will appear in the schedule area.
- **Baseline Start Date SmartColumn** - brings a milestone into the schedule area.* If this column is not setup no information will appear in the schedule area.
- **End Date SmartColumn**- brings a milestone into the schedule area.* If this column is not setup no information will appear in the schedule area.
- **Baseline End Date SmartColumn** - brings a milestone into the schedule area.* If this column is not setup no information will appear in the schedule area.
- **Outline SmartColumn** - defines an outline structure.
- **WBS SmartColumn** - defines an outline structure.
- **Percent Complete SmartColumn** - a status symbol is added defining percent complete.
- **EV: Budget at completion (BAC or Budget)** - brings information in as an Earned Value budget value.
- **EV: Actual Cost (AC or ACWP)** - brings information in as an Earned Value actual value.

✍Choose **Insert | Rows, Columns | New Column** to add the SmartColumns.

✍All other columns from the spreadsheet 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.

Refresh a Schedule Generated from Smart Import From Clipboard

When creating a spreadsheet for import include an Unique ID column with the heading Unique ID in the spreadsheet. In the column give each task a unique alpha and/or numeric string. Milestones will tag all symbols with the Unique ID for later refresh when the spreadsheet information changes (*see pg. 12-12*).

Create a Milestones Schedule From a Spreadsheet

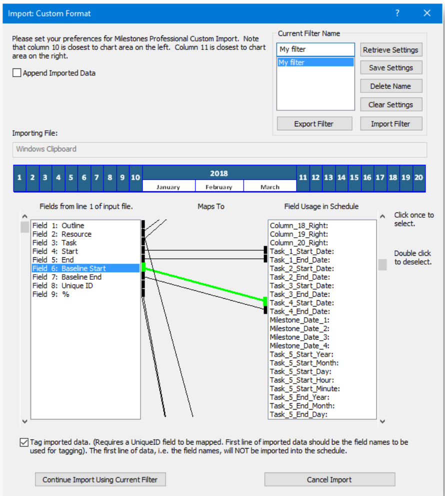
Milestones' Custom Import from Clipboard feature is designed to generate a Milestones schedule from data of any application, like Excel, that can copy data to the Windows Clipboard. If the data in the application changes the generated Milestones file can then be refreshed with the new data.

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, not columns (*see pg. 12-8*). However 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 | More Date Settings | Hourly, Minute and Shift Settings | Allow Hourly/Minute Detail***.
3. Set the Milestones date range to accommodate the dates in the spreadsheet. **Dates | Start and End Dates *Displayed Start Date*, *Displayed End Date***.
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 **Connections | Excel | Import/Update from Excel | *Custom Import from Clipboard***.
6. In 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** *(see pg. 12-8).*
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

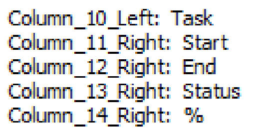
Designate where data should be placed in Milestones by mapping spreadsheet fields to Milestones fields. Then the mapping should be named and saved as a “filter”.



1. Click ***Clear Settings*** to clear any mapping lines.
2. Under **Fields from line 1 of input file** (these are populated from the spreadsheet, ***Field 1*** is the left-most column in the spreadsheet. ***Field 2*** is the second column, and so on), click once on a spreadsheet field; under **Field Usage in Schedule** (these standard Milestones fields when selected import the spreadsheet data into a specific area of the schedule), click on a Milestones field where that data should import.

✍A connecting line displays to show the mapping. Double-click a field on the right to remove the mapping line.

- Milestones columns are numbered 1 to 10 on the left side of the schedule, with column 10 being closest to the schedule area. Milestones columns are numbered 11 to 20 on the right side of the schedule, with column 11 being closest to the schedule area.



✍For accurate import of the fields from the spreadsheet into the columns in the Milestones’ schedule, the import dialog box displays the column name from the schedule next to the column field.

- To have symbol, bar, symbol combinations import into the schedule area, map start dates to ***Task_(1-4 or 9-20)_Start_Date*** and their finish dates to the same numerical task ***Task_ (1-4 or 9-20) _End_Date***.
- Map milestone dates (zero duration tasks) to ***Milestone_Date_(1-4)***. Also use either ***Task_(1-4 or 9-20)_Start_Date*** only or ***Task_ (1-4 or 9-20) _End_Date*** only. Do not use Task _Start_Date and Task_End_Date fields together as a bar will be drawn between symbols.

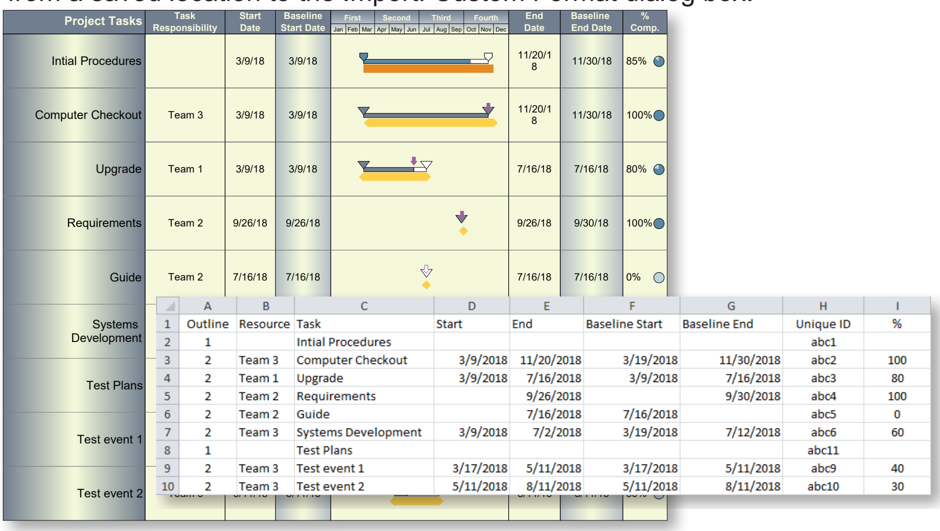
  ✍Each date field brings in a symbol from a specific position in the toolbox. The order is ***Task_1_Start_Date*** brings in the left symbol of row one in the toolbox, ***Task_1_End_Date*** brings in the right symbol of row one, ***Task_2_Start_Date*** brings in the left symbol of row two ***Task_2_ Start_Date*** brings in the right symbol of row two etc (note the multiple fields numbered 5,6,7 and 8 will bring in only a single symbol for each number).

✍Bars import between the same numeric date fields . The bar in the toolbox that is imported between ***Task_1_Start_Date*** and ***Task_1_End _Date*** is the bar in the first row of the toolbox. Note that Milestones do not use bars so the bars that are between the symbols in the toolbox used for Milestones will be used for the next same numeric date fields. See **Help |Help Files | Tutorials | *Lesson 9*** for the toolbox map.

- To Map multiple milestones or symbols, bar, symbol combinations into a single task row, separate date fields (columns) need to be set-up in the spreadsheet. Then each spreadsheet date field (column) should be mapped to a different Milestones Field Usage date field, like Task_1_Start_ Date.

3. Map spreadsheet fields to acceptable Milestones fields *(see pg. 12-10)*.
4. Under **Current Filter Name**, enter a name for the current mapped fields.
5. Click ***Save Settings***. These settings can now be retrieved during subsequent uses of Custom Import.
6. Check on ***Tag imported data*** for later refresh of the Milestones schedule when the spreadsheet information changes.

   ✍An Unique Id field must be in the spreadsheet to use this option *(see pg. 2-11)*.
7. Click ***Continue Import Using Current Filter*** to populate the Milestones schedule with the spreadsheet information.
8. 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.



Custom Import: Accepted Milestones Fields and SmartColumns

Column Custom Fields

When mapped into the Milestones fields, seen to the right, information from a spreadsheet will display in a Milestones text column. Milestones text columns display text and do not populate the schedule or calculate values. Milestones SmartColumns can set up to receive imported data.

Column_1_Left	Column_11_Right
Column_2_Left	Column_12_Right
Column_3_Left	Column_13_Right
Column_4_Left	Column_14_Right
Column_5_Left	Column_15_Right
Column_6_Left	Column_16_Right
Column_7_Left	Column_17_Right
Column_8_Left	Column_18_Right
Column_9_Left	Column_19_Right
Column_10_Left	Column_20_Right

Task Start and End Date Custom Fields

When date columns from the spread sheet are mapped to both the same numeric Task_#_Start Date and Task_#_End Date Milestones fields, seen to the right, date information from a spreadsheet will import as a start symbol connected with a horizontal bar to an end symbol in the Milestones schedule area. To import a single Milestone into the schedule area map a date column from a spreadsheet into either the Task_#_Start Date or the Task_#_End field.

Task_1_Start_Date	Task_9_Start_Date	Task_15_Start_Date
Task_1_End_Date	Task_9_End_Date	Task_15_End_Date
Task_2_Start_Date	Task_10_Start_Date	Task_16_Start_Date
Task_2_End_Date	Task_10_End_Date	Task_16_End_Date
Task_3_Start_Date	Task_11_Start_Date	Task_17_Start_Date
Task_3_End_Date	Task_11_End_Date	Task_17_End_Date
Task_4_Start_Date	Task_12_Start_Date	Task_18_Start_Date
Task_4_End_Date	Task_12_End_Date	Task_18_End_Date
	Task_13_Start_Date	Task_19_Start_Date
	Task_13_End_Date	Task_19_End_Date
	Task_14_Start_Date	Task_20_Start_Date
	Task_14_End_Date	Task_20_End_Date

✍Milestones' Custom Import uses the symbols from the toolbox in a specific order. For more information see **Help | Help Topics | Custom Import from Clipboard**

Task Milestone Date Custom Fields

When mapped to the Milestones fields,seen to the right, date information from a spreadsheet will display individual symbols in the Milestones schedule area.

Milestone_Date_1
Milestone_Date_2
Milestone_Date_3
Milestone_Date_4

Task Date and Time Custom Fields

When separate date and time columns in the spreadsheet are mapped to the same numeric array Start and End Milestones fields, seen to the right, a start symbol connected with a horizontal bar to an end symbol will import into the Milestones schedule area. To import a single milestone into the Milestones schedule area map a date column from a spreadsheet into either the numeric array of a Start or End field.

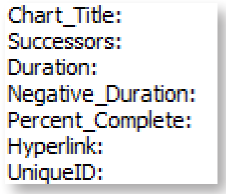
Task_5_Start_Year	Task_6_Start_Year	Task_7_Start_Year	Task_8_Start_Year
Task_5_Start_Month	Task_6_Start_Month	Task_7_Start_Month	Task_8_Start_Month
Task_5_Start_Day	Task_6_Start_Day	Task_7_Start_Day	Task_8_Start_Day
Task_5_Start_Hour	Task_6_Start_Hour	Task_7_Start_Hour	Task_8_Start_Hour
Task_5_Start_Minute	Task_6_Start_Minute	Task_7_Start_Minute	Task_8_Start_Minute
Task_5_End_Year	Task_6_End_Year	Task_7_End_Year	Task_8_End_Year
Task_5_End_Month	Task_6_End_Month	Task_7_End_Month	Task_8_End_Month
Task_5_End_Day	Task_6_End_Day	Task_7_End_Day	Task_8_End_Day
Task_5_End_Hour	Task_6_End_Hour	Task_7_End_Hour	Task_8_End_Hour
Task_5_End_Minute	Task_6_End_Minute	Task_7_End_Minute	Task_8_End_Minute

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.

Outline_Level
WBS_Number

Chart Title



When mapped to the Chart Title field Milestones uses the text in the spreadsheet's last cell of the column as the charts 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 and an end symbol when the task's start date is imported from the spreadsheet.
- A negative duration value in the spreadsheet is used to generate a task bar and start symbol when the task's end date is imported from the spreadsheet.
- 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.

Unique Id

Column set up in the spreadsheet with each task having a unique alpha and/or numeric string. Used to tag imported symbols for Refresh *(see pg 12-12)*.

✍To insure proper Refresh never change the Unique ID of a task in the spreadsheet once the information is imported into the Milestones schedule.

Refresh a Schedule when the Spreadsheet Changes.

A Milestones schedule generated from a spreadsheet can be updated when the spreadsheet changes. The following steps are necessary to have the Milestones schedule tagged so that it then can be refreshed, when the spreadsheet changes.

Spreadsheet and Import Steps Necessary for Refresh

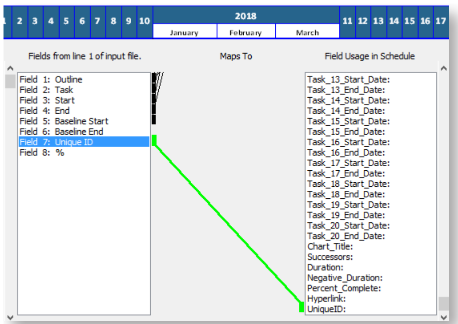
1. The first row of data placed on the Clipboard must be a row of column headings which will be used as the tag names for symbols, columns, and cells.
2. To refresh a spreadsheet a Unique ID field *(see pg 12-11)* must be in the spreadsheet.

	A	B	C	D	E	F	G	H	I
1	Outline	Task	Start	End	Baseline Start	Baseline End	Unique ID	%	Resource
2	1	Intial Procedures					abc1		
3	2	Computer Checkout	3/9/2018	11/20/2018	3/19/2018	11/30/2018	abc2	100	Team 3
4	2	Upgrade	3/9/2018	7/16/2018	3/9/2018	7/16/2018	abc3	80	Team 1
5	2	Requirements		9/26/2018		9/30/2018	abc4	100	Team 2
6	2	Guide	7/16/2018		7/16/2018		abc5	0	Team 2
7	2	Systems Development	3/9/2018	7/2/2018	3/19/2018	7/12/2018	abc6	60	Team 3
8	1	Test Plans					abc11		
9	2	Test event 1	3/17/2018	5/11/2018	3/17/2018	5/11/2018	abc9	40	Team 3
10	2	Test event 2	5/11/2018	8/11/2018	5/11/2018	8/11/2018	abc10	30	Team 3

3. During the initial import of the spreadsheet, in the **Import Custom Format** dialog, check on ***Tag Imported data***.

☑ Tag imported data. (Requires a UniqueID field to be mapped. First line of imported data should be the field names to be used for tagging). The first line of data, i.e. the field names, will NOT be imported into the schedule.

4. The UniqueID field from the spreadsheet must be mapped to the Milestones ***UniqueID*** field.



Once the spreadsheet is imported *(see pg. 12-7)* the symbols, columns and cells will be tagged.

Automation Tag:
abc2,Start

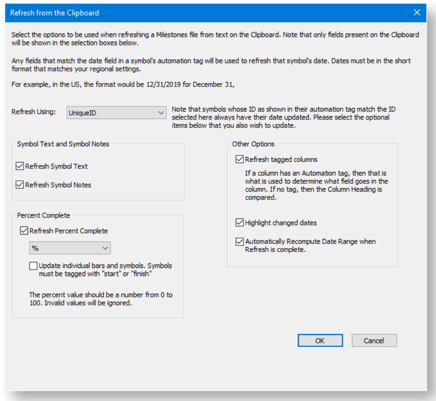
Milestones Refresh from Spreadsheet Steps

The tagged imported Milestones schedule can now be Refreshed when the spreadsheet changes.

1. Open the changed spreadsheet, highlight and copy the spreadsheet cells.

   ✍When changing your spreadsheet never alter the column headings or the Unique Id of a task that has already been imported. The copied spreadsheet data must include the Unique ID column and all original columns with their original headings for successful refresh of the Milestones schedule.

2. Choose **Connections | Excel | Import/ Update from Excel |** ***Refresh from Clipboard***. The Refresh from Clipboard dialog displays.



3. ***Refresh Using***: Select the drop down arrow, all column headings from the spreadsheet copy will display in the menu. The column containing the Unique ID's must be chosen to have the refresh work.

   - **Symbol Text and Symbol Notes**: Symbol text and notes can be added to the schedule from column information in the spreadsheet upon Refresh. First the symbols on the imported Milestones schedule need to be manually tagged with the spreadsheet column headings. Then by checking on the option ***Refresh Symbol Text*** and/or ***Refresh Symbol Notes*** the symbols that were manually tagged will display the text upon Refresh. Here is the tag format to manually tag the symbols. Substitute different column headings for any or all bold fields (no spaces and all commas are necessary to delineate fields).

Unique Identifier,Date Field,**Symbol Text Line 1,Symbol Text Line 2,Symbol Text Line 3,Symbol Note**

ACTUAL TAG EXAMPLE: abc3,start,Task,,,Resource
Unique Identifier task numbered **abc3,** the **Date field** is for the **Start** symbol, **Symbol Text Line 1** is information from the spreadsheet **Task** column, nothing is imported into **Symbol Text Line 2 and 3**, **Symbol Note** is information from the Spreadsheet **Resource** column.

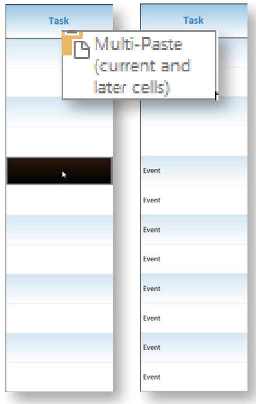
   - **Percent Complete**
     - » ***Refresh Percent Complete*** check on and select the column from the spreadsheet that contains the percent complete value. Milestones' symbols and/or horizontal bars will fill to status based on the value.
     - » ***Update individual bars & symbols***: Check on this option if multiple task are on a single task row in the Milestones schedule.
   - ***Refresh tagged columns*** check on to have changed spreadsheet column information update the column information in the Milestones schedule.
   - ***Highlight changed dates*** Check on to have dates which are changed during the Refresh process highlight. Once highlighted, it's possible to toggle the display on and off **Connections | Other |** ***Refresh Highlighting***.
   - ***Automatically recompute Date Range when refresh is complete.*** Check on if the date range 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 change and new dates might not be visible.

4. Once all refresh options are selected choose ***OK***. The Milestones schedule will update and a dialog box displays showing update information.

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.

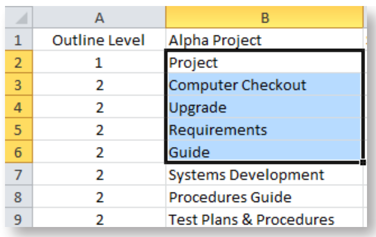
Copy and Paste the Same Text into a Cell and Subsequent Cells



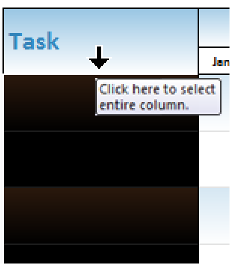
1. Highlight and copy the text to be pasted into the Milestones column’s cells.
2. In the Milestones column, use the toolbox **(↖) Arrow** tool to click once in the top cell to receive the copied text, the task row will highlight. Click the cell again, the cell will highlight. Now the toolbar at the top of the Milestones window **Selection** tab will be active for that cell.
3. In the **Cell Text Setting** section select ***Multiple Paste (current and later cells***). Now the selected cell and all subsequent cells contain the copied text.

Copy and Paste Text into Column Cells

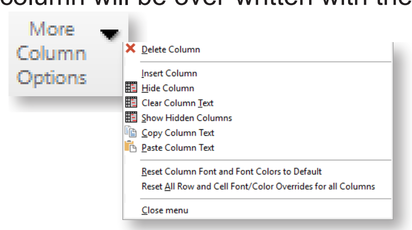
A column of cells or a single cell in another application can be copied and pasted into any Milestones Column.

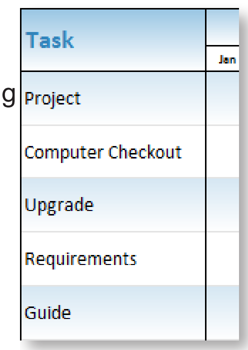


	A	B
1	Outline Level	Alpha Project
2	1	Project
3	2	Computer Checkout
4	2	Upgrade
5	2	Requirements
6	2	Guide
7	2	Systems Development
8	2	Procedures Guide
9	2	Test Plans & Procedures



1. In the other application, highlight and copy the column of text, as shown to the right.
2. In Milestones, use the toolbox **(↖) Arrow** tool to select the column that will receive the text, as shown to the left. Now the toolbar at the top of the Milestones window **Selection** tab will be active for that column.
3. In the toolbar’s **Selection** tab go to **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 over-written with the pasted text.

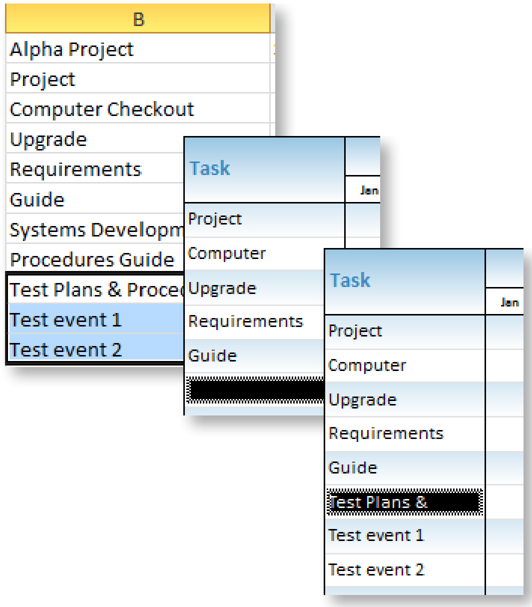




Copy and Paste Text into Column Cells Below Existing Text

It's possible to paste information below existing text.

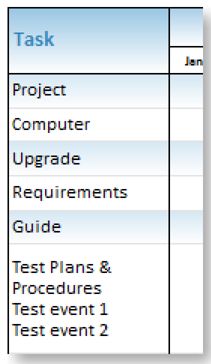
1. In the other application, highlight and copy the column of text.
2. In Milestones, click the **(↖) Arrow** tool in the toolbox.
3. Click once in the cell below the existing text - pause - then click again to highlight just that cell. Now the toolbar at the top of the Milestones window **Selection** tab will be active for that cell.
4. In the toolbar's **Selection** tab go to **| Cell Text Settings |** ***Paste***.



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 **(T) Text** tool in the toolbox.
3. Click once in the cell in which the text should appear. Now the toolbar at the top of the Milestones window **Selection** tab will be active for that cell.
4. In the toolbar's **Selection** tab go to **| Cell Text Settings |** ***Paste***.



Copy and Paste Column Text and Numbers into Other Applications

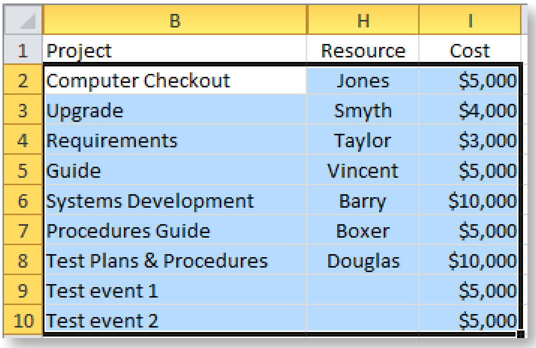
It is possible to copy an entire Milestones column to the clipboard. First select the entire column. In the toolbar the **Selection** menu will be come active for that column. In the toolbar's **Selection** tab go to **| Column Type and Format | More Column Options |** ***Copy Column Text***.

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

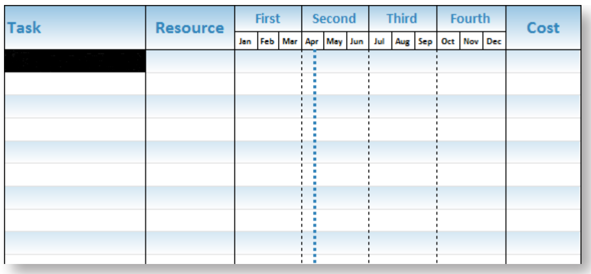
As described earlier in this chapter, the *Custom Import* feature uses "column mapping" to populate the Milestones schedule. Here, it is possible to paste cells from a spreadsheet directly into the Milestones column cells, across many rows.

1. In the other application, highlight and copy the cells, as shown.

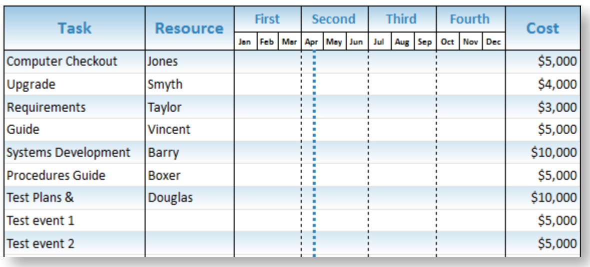


	B	H	I
1	Project	Resource	Cost
2	Computer Checkout	Jones	$5,000
3	Upgrade	Smyth	$4,000
4	Requirements	Taylor	$3,000
5	Guide	Vincent	$5,000
6	Systems Development	Barry	$10,000
7	Procedures Guide	Boxer	$5,000
8	Test Plans & Procedures	Douglas	$10,000
9	Test event 1		$5,000
10	Test event 2		$5,000

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. In the toolbar the **Selection** menu will be come active for that cell. This cell is where the pasting of information will begin.



Task	Resource	First (Jan Feb Mar)	Second (Apr May Jun)	Third (Jul Aug Sep)	Fourth (Oct Nov Dec)	Cost
Computer Checkout	Jones					$5,000
Upgrade	Smyth					$4,000
Requirements	Taylor					$3,000
Guide	Vincent					$5,000
Systems Development	Barry					$10,000
Procedures Guide	Boxer					$5,000
Test Plans &	Douglas					$10,000
Test event 1						$5,000
Test event 2						$5,000

4. In the toolbar's **Selection** tab go to **| Cell Text Settings |** ***Paste Cell Text***.

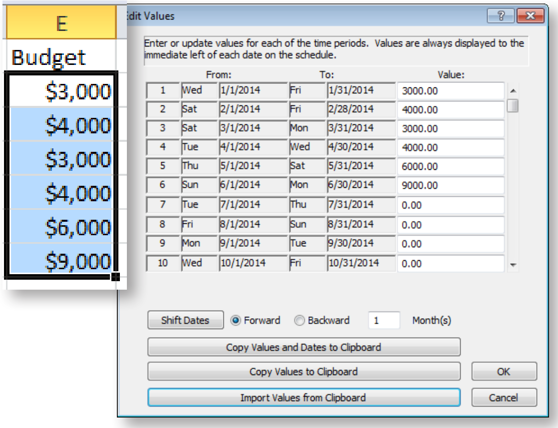
✍You can also paste text into multiple columns below existing text.

✍Date SmartColumn cells will not accept information when pasting multiple column text.

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.

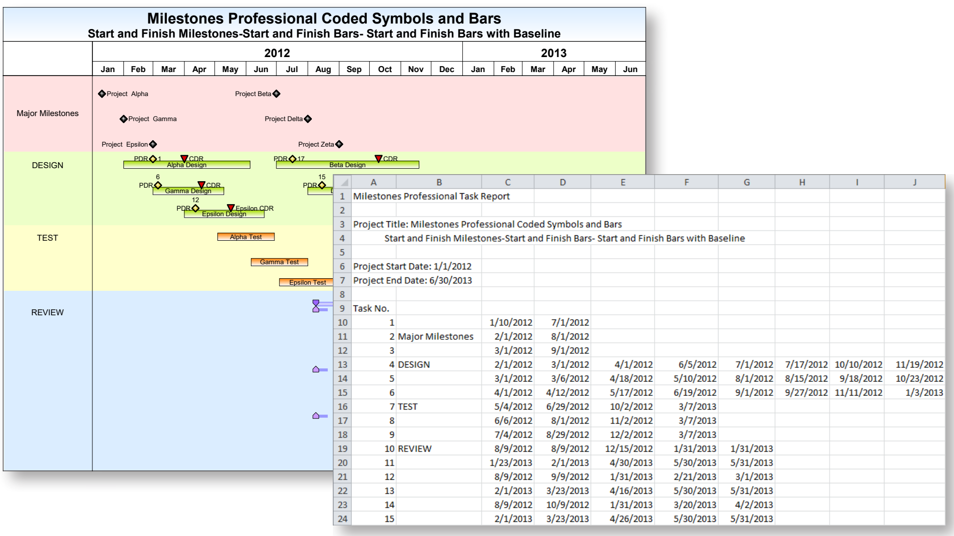


✍Values and dates from Type 1 or Type 2 ValueSets can be copied to the clipboard.

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 (Picture, Text,Object)***.
2. In the other application select **Paste Special**, and select the **Text** option.



Quick View

No need to have Microsoft Project of Primavera installed to view the information in an MPP, XER or XML file with Milestones Professional Quick View. Quick View interprets MPP, XER and XML file information displaying it in the Milestones Professional's format.

1. On the **File tab**, click the drop-down for **Import Options |** ***XER/XML:***
2. Choose ***Quick View: XER, XML, or MPP...***.

   ✍To use your own template, click the **Quick View Setup...**, select ***Personal Template Folder***.

3. Locate MPP, XER or XML file. Choose ***Open***.

Create Quick View personal template

Quick View Setup lets you determine whether you want to use the default (provided) template or use a template you have saved.

1. Bring a schedule into Milestones using the Quick View option.
2. Modify the schedule. (Do not delete the date columns.)

   ✍Columns can be added that do not exist in the current template, however the column tagging must match exactly the column heading in the file being imported. Using the XER, XML or MPP Save Flat File for Excel option the headings can be viewed for tagging.

3. Save the schedule in your **Personal Templates** folder using the name ***QuickView.MLP*** (must be this name).Choose **File** tab, choose **Save As**, choose **Charts**, choose ***Personal Templates***.

XML XER, or MPP Save Flat File for Excel

No need to have Microsoft Project of Primavera installed to view the information in an MPP, XER or XML file with Milestones Professional Save Flat File for Excel option.

1. On the ***File*** tab, in the ***Import Options*** section choose ***XER/XML:***
2. Choose ***Save Flat File for Excel: from ...***.
3. Locate MPP, XER, or XML file, choose ***Open***. A .txt file will be generated that can be opened in excel.

Export as XML

A Milestones Professional schedule can be exported in an XML format. Map the columns in Milestones to selected fields,then save as an XML file. Open that file in an 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 be to exported.

Export the selected data to an XML file:

1. Choose **Connections | Other | Export Schedule to XML |** ***Export Schedule to XML File (Microsoft Project Schema)*** to then open the XML file in another application which reads MPX files.
2. Choose **Connections | Other | Export Schedule to XML |** ***Export Schedule to XML File (Microsoft Project Schema)*** to then open the XML file in another application which reads MPX files.
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: https://kidasa.com/support-for-automation-interface/.

Appendix A: Quick Reference Tables

Scheduling Basics

TO ADD OR SET:	DO THIS:
Project tasks or other column text	Click the (T) **Text** tool. Click in a column cell and begin typing.
Symbol	Click the **(+) Large Plus** tool. Click once on the symbol to add, click with the mouse in the schedule area, and drag.
Horizontal bar between two symbols	Click the **(+) Large Plus** 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.
Vertical link	Click the **(+) Large Plus** 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.
Many vertical links at once	Click the **(↖) Arrow** tool. Hold the Ctrl key and click once on each task row whose symbols will be connected vertically. Choose **Insert | Vertical Links | *Vertical Links between selected task rows***.
Task row, in-between two existing task rows	Click the **(↖) Arrow** tool. Select the task row above which you want to insert the new row. Choose **Insert | Rows, Columns | *New Task Row***.
Current date line	Choose **Dates | Current Date** to format.
Date headings	Click once on the date headings within the schedule with the **(↖) Arrow** tool. This will activate the Selection menu. Or choose **Dates | Date Headings**.
Start and/or end date for the schedule	Choose **Dates | Start and End Dates** to change the displayed date range of the schedule.

Scheduling Basics

TO ADD OR SET:	DO THIS:
To turn on date sensitivity	Choose **Dates** in the **Date Related Settings** section check on ***Symbols: Fill to Status Date***. Repeat for ***Bars: Fill to Status Date***. This causes bars and/or symbols to display an “after-status” fill color after the current date.
Progress of a task row using a status symbol	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.
Constraint date for a symbol	Click the **(↖) Arrow** tool. Click once on the symbol, then choose **Selection | Constraints**.
Set up a column for indenting	Click once on the column heading. Choose ***Switch to Column***, then in the **Column Type and Format** section, enter a value for ***Indent per outline level***.
Change the outline level of task row(s)	Click the **(↖) Arrow** tool. Select the task row you want to indent or outdent. The outline level settings are located in the **Task Row Settings** section. To indent: click the **Indent** icon. To outdent: click the Outdent icon.
Roll up all tasks to a certain level	Right-click a task that is at the level you want to roll all tasks to. Then click ***Collapse All Tasks to Selected Level***.
Work and display weekends	Choose **Dates | More Date Settings |** ***Weekly, Daily and Holiday Shading***.
Work-week starting day	Choose **Dates | More Date Settings |** ***Weekly, Daily and Holiday Shading***.

Scheduling Basics

TO ADD OR SET:	DO THIS:
Color themes	Choose **Format | Color Themes** to apply pre-formatted background coloring to the schedule. Choose **Format | Color Themes | *Manage Color Themes*** to save a user-created color theme.
Date range override for single page	Choose **Dates | More Date Settings | *Page by Page Date Range Overrides*** Enter dates for ***Current Page Override***.
Shading, gridlines, text and summary bars by outline level	Choose **Format | Gridlines | *Gridlines, Shading, Font Sizes by Outline Level***.
Custom coloring for “after-status” fill-colors for symbols and bars	In the toolbox, double-click the symbol or bar. For symbols, click the **Color/Pattern/Size/ Shadow** tab and then choose an ***After Status Color***. For bars, change the ***After Status Fill Color***.
Page number format	Click the **(↖) Arrow** tool. Click once on the page number at the top left part of the schedule. If the page numbers are not displayed, choose **View | Optional Items | *Page Number*** then repeat the above steps.
Workday hours	Choose **Dates | More Date Settings | *Hourly, Minute and Shift Settings***. Check on ***Allow Hourly Detail***, and then enter the ***Displayed Time*** and/or ***Work Day Time***(s).
Fiscal year starting month	Choose **Dates | More Date Settings | *Yearly, Monthly and Fiscal Year Settings***.

Add Graphics, Text and Legend

TO ADD:	DO THIS:
Title	Select **Insert | Title |** ***Insert/Edit Chart Title***.
Freeform text	Click the (**T**) **Text** tool. Click in the area you want to place the text, and begin typing.
Text to a symbol	Click the **(↖) Arrow** tool. Click once on the symbol on the schedule. Click the **Text** tab in the toolbar.
Symbol notes	Click the **(↖) Arrow** tool. Click once on the symbol on the schedule. Click the **Notes** tab in the toolbar. Symbol notes can be viewed by hovering over the symbol, or choose **Tools | Reports | Symbol |** ***Symbol Notes***.
Current date, system date, page number, max page number, or filename as free-form text	Click the (**T**) **Text** tool. Click on the schedule and type: ***&date*** for the current chart date ***&sysdate*** for the computer date ***&curpage*** for the current page number ***&maxpage*** for the maximum page # ***&systime*** for the computer time ***&filename*** for the name of the chart
Line, box or circle	Click the **(\ ) Line** tool, the **(□) Box** tool or the **(O) Circle** tool, and then click-and-drag on the schedule to add a line, a box or a circle.
Legend	**Layout | Legend Size** and enter a value for ***Enter Legend Height***. No value deletes legend.
Legend entry	Choose **Insert | Picture, Legend |** ***New Legend Entry***.
Graphic	Choose **Insert | Picture, Legend |** ***Picture from File***. Or, copy the graphic to the clipboard from another application. Choose **Edit | Paste |** ***Picture***. To embedded graphic in the schedule select the graphic, then choose **Selection | Properties |** ***Convert to Embedded Graphic***.
Column heading text	Click in column heading, in the toolbar enter the heading text. Press **Apply Text Changes** button.

Format the Schedule

TO ADD OR CHANGE:	DO THIS:
Chart size	Choose **Layout | Page Size | *Chart Size***.
Number of task rows per page	Choose **Layout | Page Size | *Rows per Page***.
Add a page to a schedule	Choose **Insert | Page | *Insert a New Page before Current Page*** or ***Insert a New Page After the Last Page***.
Insert a Column	Choose **Insert | Rows, Columns | *New Column***.
Background color or frame options	Choose **Format | Frame, Highlights | *Background color, border, frame corners***.
Margins	Choose **Layout | Page Size | *Page Margins***.
Column width	Click the **(↖) Arrow** tool. Click-and-drag on the column edge with your mouse. The cursor will change to ✥ at the column edge.
Date format for symbol dates	Choose **Dates | Date Related Settings | *Set Symbol Date Format***.
Gridlines between task rows	Choose **Format | Gridlines | *Horizontal Gridlines for entire schedule***. Then choose the **Gridlines** tab.
Task row shading entire schedule	Choose **Format | Gridlines | *Horizontal Gridlines for entire schedule***. Then choose the **Shading** tab.
Individual task row gridlines or shading	Right click the task row choose ***Gridline/Shade*. Choose either/or Gridlines** or **Shading** tab.
Curtains	Choose **Format | Vertical Shading | *Curtains (Shade by Date Range)***.
Holiday and weekend shading	Choose **Format | Vertical Shading | *Weekend and Holiday Shading...***.

Format the Schedule

TO ADD OR CHANGE:	DO THIS:
Default symbol date and text location for a symbol in your toolbox	Double-click the symbol in the toolbox. Click the **Text and Date Properties** tab.
Default symbol size	Choose **Format | Frame, Highlights | *Symbol Size***.
SmartColumns	Choose **Insert | Rows, Columns | *New Column***, or click once on an existing column heading, choose ***Switch to Column Heading***, then use the drop down menu under **Column Type and Format** to choose one of the *SmartColumn Definitions*.
Default text styles	Choose **Format | Default Text**.
A page break	Click the **(↖) Arrow** tool. Right-click the task row you want at the top of the next page, and then click ***Insert Page Break***.
Default symbol text	Double-click the symbol in the toolbox. Click the **Default Text** tab. Enter text or choose a column and press ***Insert***.

Make Changes

TO CHANGE:	DO THIS:
A legend entry	Click once on the legend entry you want to change. To move a legend entry, first click the **(↖) Arrow** tool. Click the legend entry, drag to the new location and drop.
A single link on your schedule from one type to another type that is in your toolbox	Click the **(↖) Arrow** 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.
Selected symbol(s) on your schedule from one type to another type that is in your toolbox	Click the **(↖) Arrow** 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.
All symbols or bars of one type, on your schedule, to another type	Double-click the symbol or bar in your toolbox. Choose a new symbol type (shape).
The dates of a group of tasks linked with vertical links	Choose **Dates | Date Related Settings | *Dependency Mode***. A check by Dependency Mode indicates that it is turned on. Then, use the **(↖) Arrow** tool. to click-and-drag a symbol. All dependent symbols will move by the same amount.
The dates of all the tasks on your schedule	Choose **Dates | Date Range Tools | *Shift all task dates*** to shift all symbol dates forward or backward by a specified number of days.
Select all of one type of symbol on the schedule	Right click any instance of that symbol on the schedule. Choose ***Select all Instances of this Symbol Type***. The toolbar is now active for all selected symbols, make changes in the toolbar.

Make Changes

TO CHANGE:	DO THIS:
Text size of an individual symbol or an individual task row’s column text	Click the **(↖) Arrow** tool. Select the item to be changed. Next, choose the **Text** tab and change the **Font** ***Size*** or ***Color***.
Individual symbol color	Click the **(↖) Arrow** tool. Select the symbol on the chart. Next, choose the **Size/Color** tab and change the ***Symbol Fill Color***.
Height of individual task rows	Choose **Tools | Program Options |** ***Edit***. Make sure there is a check next to ***Allow Task Row Height Adjustments***. Click the **(↖) Arrow** tool. Click-and-drag the light blue row guide (or gridline if you are using gridlines) at the bottom of your task row and within the column area. The cursor will change to . Release to resize.
Summary bar preferences	Choose **Layout | Other |** ***Summary Bar Settings***. Choose how and when you want the Summary Bars to appear. Also, choose the symbols and bar to use for summary bars.
The date of a symbol	Click the **(↖) Arrow** 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 | Current Object: Symbol (1 Selected)**. Or, click the **(↖) Arrow** tool. Click once on the symbol on the schedule and release the mouse button. Hold down the *Shift* key and press the left or right arrow keys.

Delete Items

TO DELETE:	DO THIS:
Symbol(s)	Click the **(↖) Arrow** tool. Select the symbol to be deleted. Press the *Delete* key on your keyboard. To delete several symbols at once, hold down the *Shift* key while selecting the symbols. Then press the *Delete* key.
Horizontal bar(s)	Click the **(↖) Arrow** tool. Right-click the start symbol of the symbol + bar + symbol combination. Click ***Clear Horizontal Bars (Bars)***.
Vertical link(s)	Click the **(↖) Arrow** tool. Right-click the starting symbol for the vertical link. Click ***Clear Vertical Links***.
Task row(s)	Click the **(↖) Arrow** tool. Right-click a task row. Then click ***Delete Task***. To delete several task rows, hold down the *Shift* key while selecting the task rows and then press the *Delete* key. To delete several non-contiguous task rows, hold down the *Ctrl* key while selecting the task rows and then press the *Delete* key.
Legend entry	Click the **(↖) Arrow** tool. Click once on the legend entry you want to delete. Press the *Delete* key.
Legend	Choose **Layout | Legend Size |** ***Enter Legend Height,*** enter 0.
Column	Click the **(↖) Arrow** tool. Right click in the column heading choose ***Delete Column***.
Page on your schedule	go to the page to be deleted. Choose **Edit | Delete |** ***Current Page***.

Customizing Milestones Professional

TO CUSTOMIZE:	DO THIS:
The starting template	Create the format you need, including customization of your toolbox and page layout. Click **File | Files and Templates: Open and Save Options |** ***Save As...***. Next, click ***Personal Template****.* Save the schedule with the name *default.mtp*. From now on every time you click **New |** ***New Empty Schedule***, a blank schedule template using your format and toolbox settings will be displayed.
The default file locations	Choose **Tools | Program Options |** ***Folders.*** Click the ***Browse*** button to set the default locations.
A bar or link in your toolbox	Double-click on a horizontal bar or vertical link in the toolbox.
A symbol in your toolbox	Double-click on a symbol in the toolbox.
The toolbox size, other options	Right-click the toolbox and choose ***Toolbox Properties***. Select the number of symbol/bar/symbol combinations, and other options.
The sidebar	Choose **Tools | Customize |** ***Sidebar Options***. Changes to the "Show" and "Do not show" options require you to close and restart Milestones.
Month and week day names	Choose **Format | International |** ***International, Number, and Currency Settings***. Pick from *Month Names*, *Weekday Names*, and *Page n of n*.

Work with Other Applications

TO DO THIS:	DO THIS:
Copy all pages to PowerPoint	Choose **Connections| PowerPoint | *Copy all pages to PowerPoint***
Copy a picture of the schedule to a document	Choose **Edit | Copy Schedule | *Copy Metafile to Clipboard***. In your other application, click *Paste Special*. Choose *Enhanced Metafile*.
Embed a schedule into another document	Choose **Edit | Copy Schedule | *Copy Schedule to Clipboard (OLE)***. In your other Windows application, click *Paste Special*.
Export schedule pages as graphics (JPG, PNG, BMP, GIF)	Choose **File | Export Options | *Graphics***. Click ***Export Bitmap File***.
Import information from a table or spreadsheet	Copy data from a spreadsheet, In Milestones Professional choose **File | Import Options | Custom | *Custom Import From Clipboard***.
Refresh information from a table or spreadsheet	Choose **Connections| Microsoft Project | Refresh Previously Imported Project | *Refresh from Clipboard***.
Import information from Microsoft Project ***Project Server and Project Online use the same options.**	Choose **Connections| Microsoft Project | *Create Report from Project***. If using Project Server: open up Project Server the choose **Connections| Microsoft Project | *Create Report from Project Server***.
Create PowerPoint slides from Microsoft Project	Choose **Connections | PowerPoint | *Create PowerPoint slides from Project***.
Refresh imported information from Microsoft Project	Choose **Connections| Microsoft Project | Refresh Previously Imported Project | *Refresh from MPP/MPD File*** or ***Project Server***.
Export to Microsoft Project	Choose **Connections| Microsoft Project | *Export to Project***.
Import information from Primavera file exported as a XML:MS Project file	Choose **Connections| Other | Import Schedule from XML file | *XML: MS Project Schema via MS Project Wizard***.
Import tasks and calendar from Outlook	Choose **Connections| Microsoft Outlook | *Import Outlook Tasks or Calendar***.
Export tasks to Outlook	Choose **Connections| Microsoft Outlook | *Export Tasks to Outlook***.

Print Your Schedules

TO DO THIS:	DO THIS:
Print to PDF	Choose **File | Files and Templates: Open and Save Options |** ***Save as PDF***.
Print schedule - default settings	Choose **File | Printing |** ***Print***.
Print schedule -choose options	Choose **File | Printing |** ***Printing Options***.
Print a large chart on one sheet	**Printing Options**, choose ***Scale to Fit Selected Paper Size***.
Print a large chart in “pieces”	**Print Options**, choose ***Use Specified Size***.
Enlarge a small schedule to fit on a larger paper size	**Print Options**, choose ***Scale to Fit Selected Paper Size***.
Scale a schedule, set horizontal and vertical scaling factors	**Print Options**, choose ***Use Custom Scaling Specified***, enter scale factors for **Horizontal** and **Vertical**.
Print color schedules on a black and white printer	**Print Options**, check on ***Print Colors in Shades of Gray***.
Print all open schedules	Choose **File | Printing |** ***Print All Pages***.
Set up printer	Choose **File | Printing |** ***Printer Setup***.
Exclude columns when printing	**Print Options** choose **Exclude Columns** tab, check on the columns to exclude from printing.
Print symbol notes separately Limit symbol notes to symbols printed on schedule, Include symbol note indicators on printed schedule.	**Print Options,** check on ***Include Symbol Notes Page***. Optionally, check on ***Only Print Symbol Notes of Printed Symbols***. Optionally, check on ***Always include note indicators on prints and metfiles.*** Or, choose **Tools | Reports | Symbol |** ***Symbol Notes***.
Print Collapse/Expand indicators on the printed schedule.	**Print Options,** check on ***Include Collapse/ Expand Indicators on Output***.
Print schedule by time period	**Print Options**, choose **Print** tab, check on ***Print Using the Time Periods Below***. Choose a frequency then time period, years months, weeks, days.
Print a certain date range	**Print Options**, choose **Print** tab, check on ***Print Date Range Below Only*** . Specify start and end date of range to print.

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 1-512-368-2326 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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