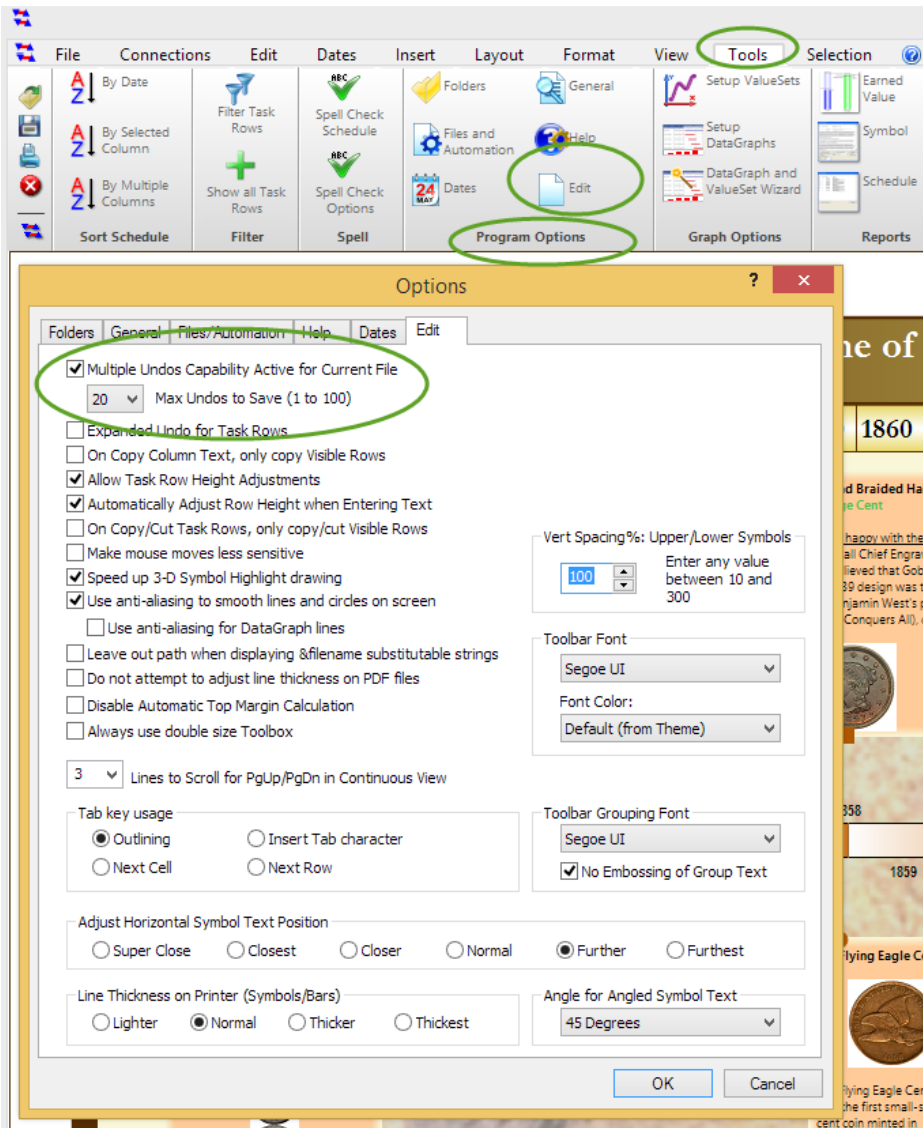


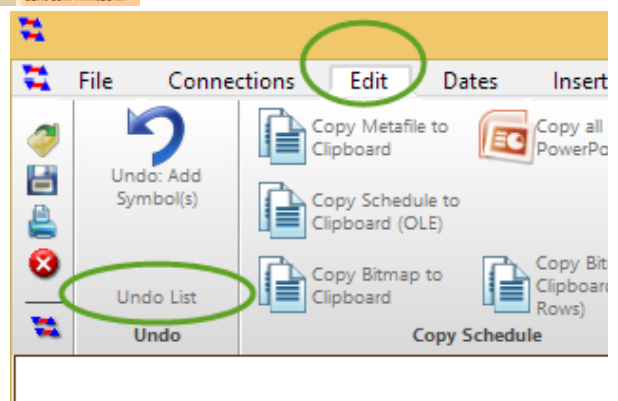
Milestones Professional 2017 New/Improved Features

Improved Undo

A new Multiple Undo feature has been added to Milestones. Now all actions can be undone. You can set the number of actions that can be undone from 1 to 100 (the default is 20). This is done using the Tools | Program Options | Edit screen:



Each time anything changes in the schedule, a complete copy of the schedule is saved to memory before the action is applied. To see all the pending Undos you can press the Edit | Undo List button:



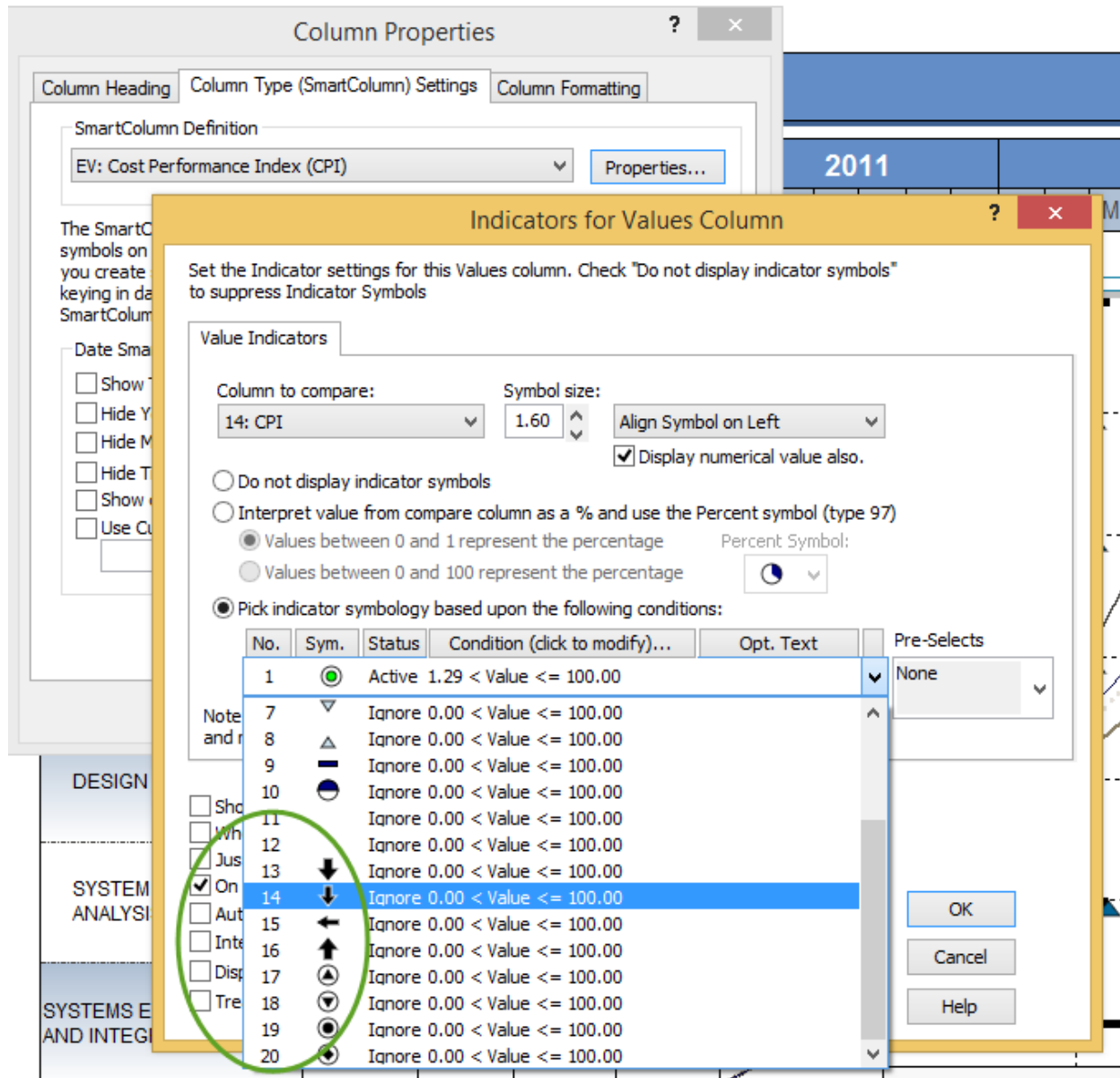
Improved Toolbar Icons and High Resolution Support

Milestones now automatically adjusts to operating on a high resolution monitor, sometimes referred to as a “4K” monitor. In the Apple world, these are referred to as “Retina” displays.

These high resolution monitors come in such resolutions as 3200x1600, 3840x2160 etc.

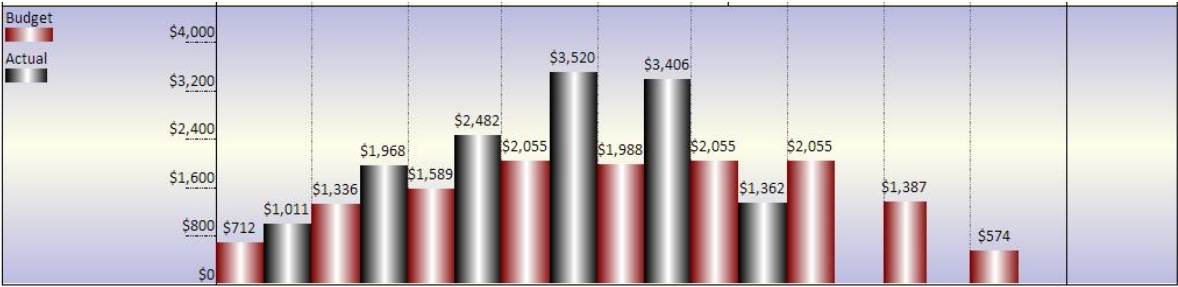
More Column Indicator Conditions

The number of indicator conditions has been doubled, from 10 to 20:



Show ValueSet Values inside DataGraphs

For line and normal bar (non-stacked) graphs you can show the value of the bar near the top of the bar:

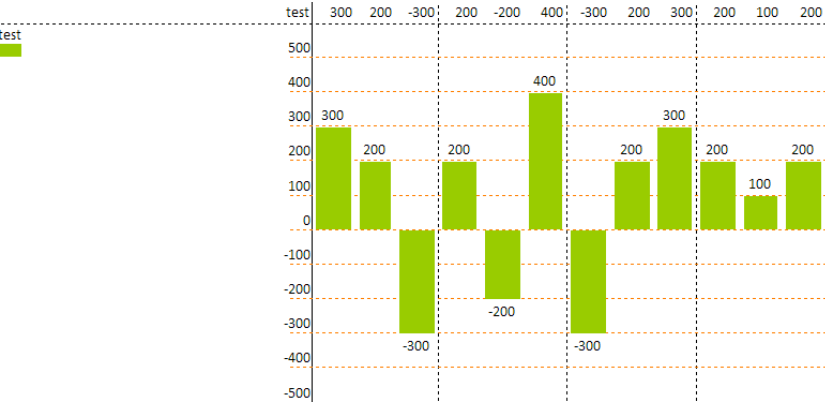


This is done using new check boxes in the ValueSet Properties dialog: There are separate settings for both bar and line graphs in case you are overlaying a line graph on top of a bar graph and do not want numbers for both.

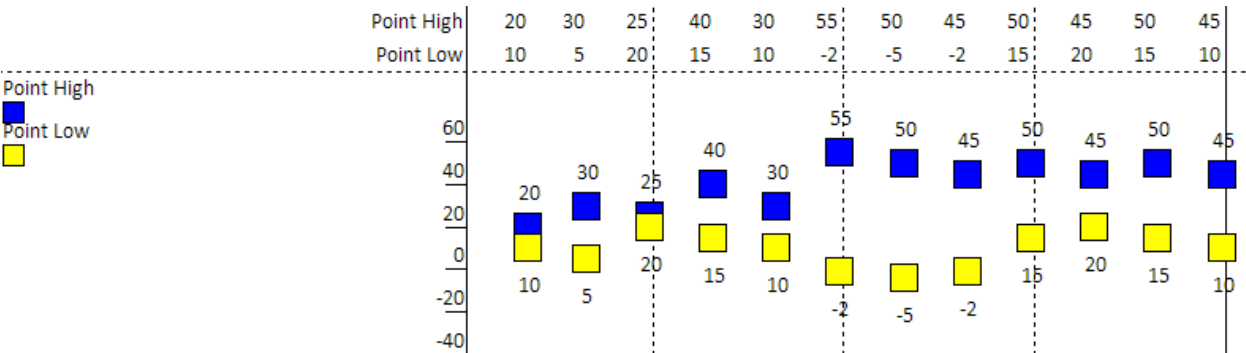
The number for a bar is centered over the bar. The number for a line graph is centered over the end date of the value period.

The software cannot make room for numbers that do not fit, so if the bars are not wide enough then it may be that the values will overlay each other.

If you have negative values, the value will be shown below the bar or line:



Or, if you have a line or point graph, you can force all the values to be below the line. This is useful if you have multiple ValueSets on the same DataGraph.



New Symbol Date Format

The Time of a symbol may now be appended to the displayed symbol date. Before, it was not possible to display both date and time in the symbol date display area:

Set Symbol Date Display ? x

Text
1/2 13:45

Select the way that you wish your symbol dates to be displayed. The date January 2, 2018 at 1:45pm is used as an example date in the example symbol above and in the list of choices below.

Predefined Symbol Date Display Options

1/2 Month and Day

☐ Append AM and PM to Symbol Time

☐ Show Leading Zeros in Months and Days

0 Starting Value (Useful for Countdown Schedules)

☒ Append Symbol Time to Date

☒ Use 24 hour format (13:45)

☐ Use 12 hour format (1:45)

☐ Append AM/PM (1:45 PM)

Custom Symbol Date Display Options

☐ Use Custom Date Format:


Note: This selection affects the date display seen on symbols. To change date order, (ex: YY/MM/DD), use the Windows Control Panel Short Date Format in the Date tab of Regional Settings.

OK Cancel

Global Symbol Values

A new tab was added to the Toolbox Symbol Options dialog that lets you specify default values for any of the nine possible ValueSets. Any new symbols created will have their attached ValueSet values set to these defaults:

Symbol Options

Sample Symbol:  Text 1/12

Symbol Shape | Color/Pattern/Size/Shadow | Text/Date Properties | Default Text | **Default Values**

Symbol ValueSets

Key any default symbol values for this symbol type. Each time this symbol is placed on the schedule, the values below will be set as the symbol value. You can change it later by double-clicking on the symbol on the schedule and replacing the value.

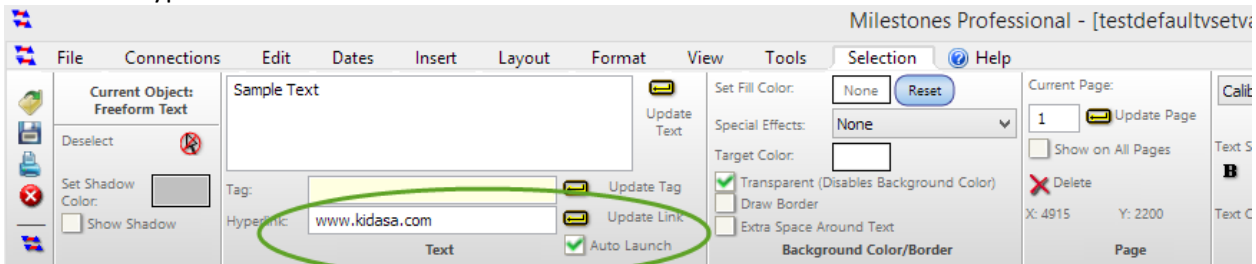
The values you enter here will not replace the values of any of these symbol types once they have been placed on the schedule. The Clear Entries button only clears the entries below. It has no effect on symbols that are already on the schedule.

Default ValueSet values. Enter the default values below:

vset 1	vset 4	vset 7
1: <input type="text" value="1.100"/>	4: <input type="text" value="4.400"/>	7: <input type="text" value="7.700"/>
vset 2	vset 5	vset 8
2: <input type="text" value="2.200"/>	5: <input type="text" value="5.500"/>	8: <input type="text" value="8.800"/>
vset 3	vset 6	vset 9
3: <input type="text" value="3.300"/>	6: <input type="text" value="6.600"/>	9: <input type="text" value="9.900"/>

Free Form Text Hyperlinks

Free Form Text may now have a hyperlink attached. There is also a checkbox that enables you to specify that any time the text is clicked upon, the hyperlink is launched. Without this checkbox active, you must right-click on the text to launch the hyperlink.



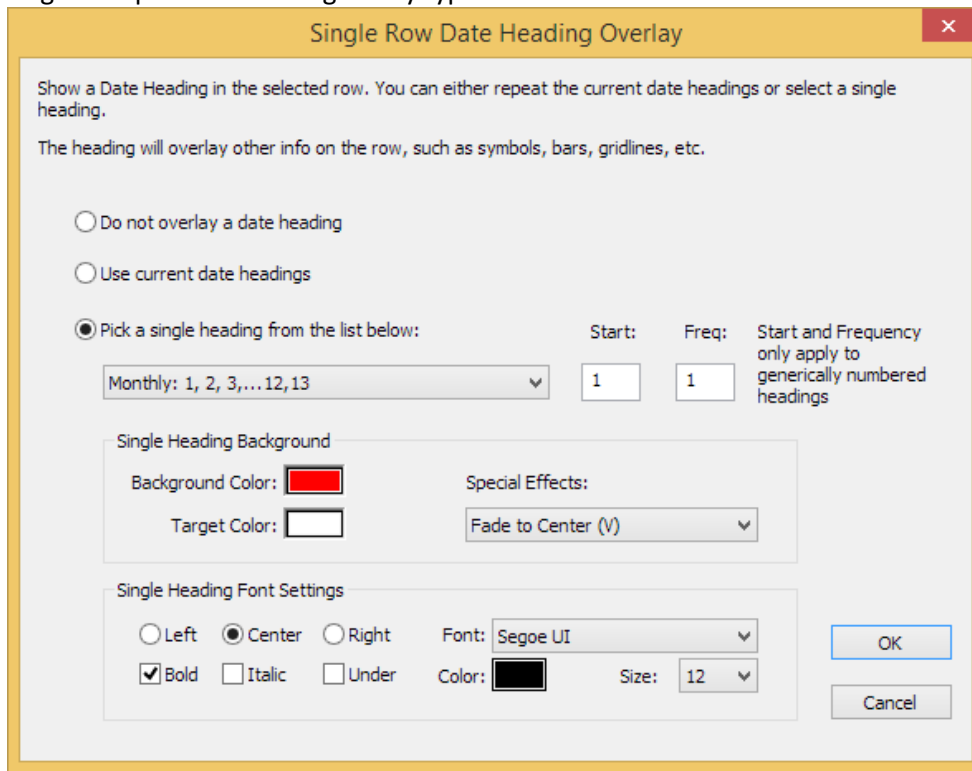
Page 1 of 1

Task	Stoplights	2015												Sta
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	1G													2/21/2
	2Y													

When a PDF is created with such a block, the entire text block becomes a hot spot, but there is no button drawn as there is with other hyperlinks, since the button would obscure the text.

Date Headings Attached to Rows independent of Schedule Date Headings

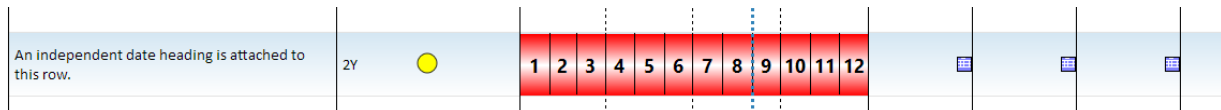
It is now possible to attach any single type of date heading to a row. Now, when you right-click on the menu to attach a date heading to a row, a dialog appears that lets you remove the heading, attach a copy of the schedule headings, or a single independent heading of any type:



The dialog box, titled "Single Row Date Heading Overlay", contains the following elements:

- Instructions:** "Show a Date Heading in the selected row. You can either repeat the current date headings or select a single heading. The heading will overlay other info on the row, such as symbols, bars, gridlines, etc."
- Options:** Three radio buttons: "Do not overlay a date heading", "Use current date headings", and "Pick a single heading from the list below:" (which is selected).
- Heading Selection:** A dropdown menu showing "Monthly: 1, 2, 3,... 12, 13".
- Frequency:** Two input fields for "Start:" (value 1) and "Freq:" (value 1). A note states: "Start and Frequency only apply to generically numbered headings".
- Single Heading Background:** A section with "Background Color:" (a red color swatch), "Target Color:" (a white color swatch), and "Special Effects:" (a dropdown menu showing "Fade to Center (V)").
- Single Heading Font Settings:** A section with alignment options (Left, Center, Right), font style options (Bold, Italic, Under), font family ("Segoe UI"), font color (a black color swatch), and font size (12).
- Buttons:** "OK" and "Cancel" buttons at the bottom right.

Independent headings are always the height of the row. It is up to you to ensure the font size is appropriate. If you want headings and sub headings, then you would attach different headings to subsequent rows.

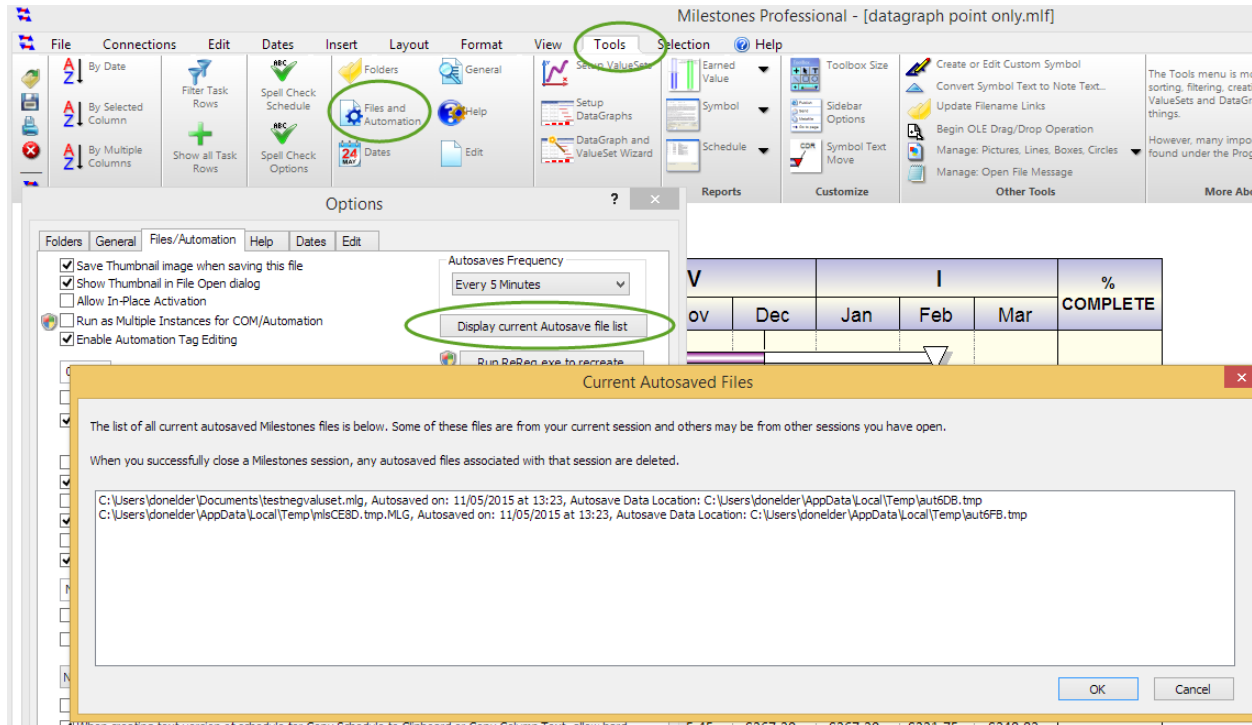


Autosave Improvements

When a Milestones session exits it now only clear autosaves done by its own Process ID (PID), not any others whether they are running or not. This should prevent an autosave entry from disappearing without the user being able to restore it. This fixes the problem of multiple Milestones sessions running and deleting autosaved files from a crashed session before the user gets a chance at a restore.

The autosave Restore dialog now prompts the user to select an entry before OK is accepted. Before, if the user forgot to select an entry the autosave files were deleted.

Also added, was a new button in the Tools | Program Options | Files and Automation screen which lets you display the current list of Autosaved files:

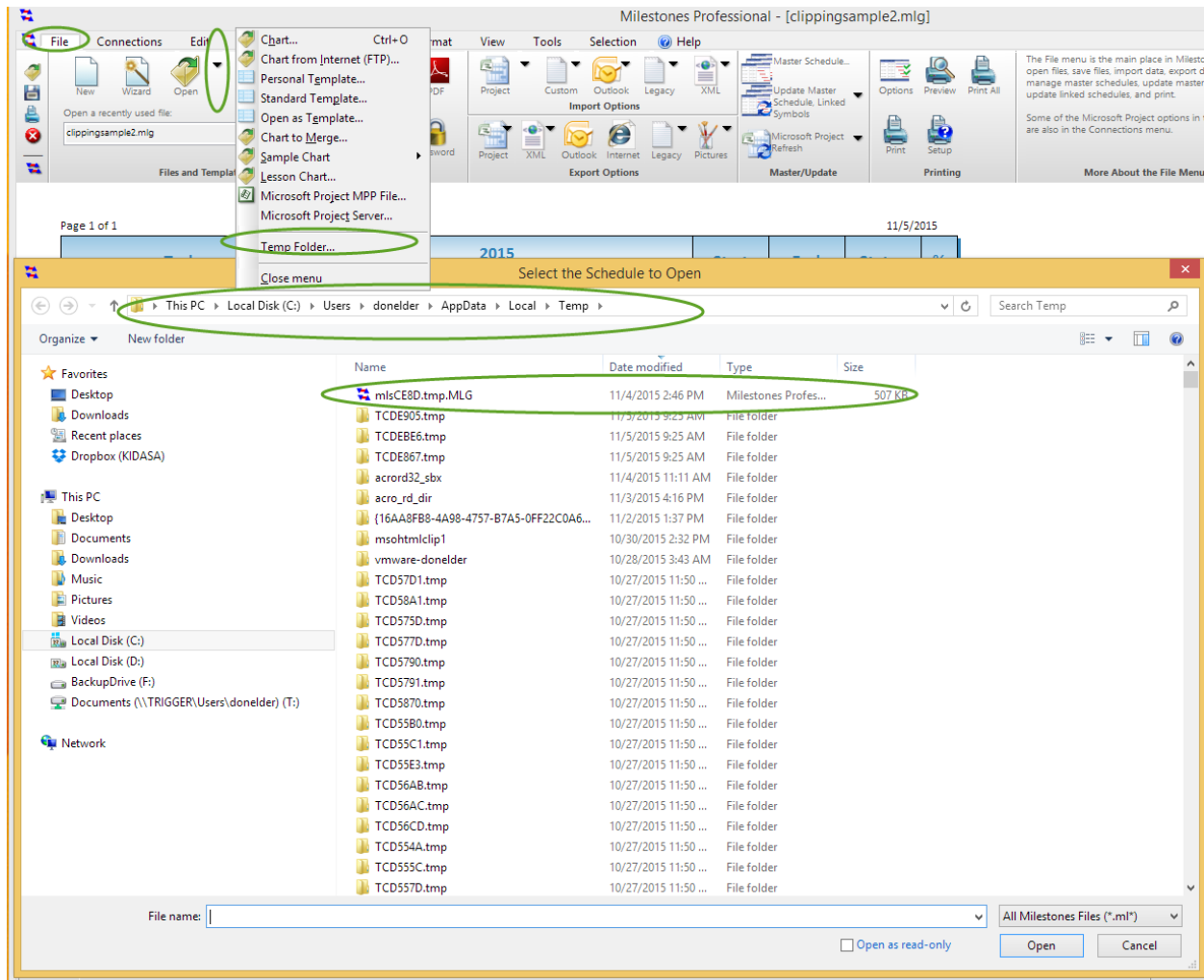


Two Stage File Save Improvements

Before, when saving a Milestones file using the two stage save option, the original file was zeroed out before the local temp file was successfully saved, so if there was a Milestones crash or system crash creating the local temp file, the original file remained truncated at 0 length.

Now, the original file is not zeroed out until the temporary local copy is successfully created. So, if there is a Milestones or computer crash during a file save, either the original will be left intact, or the temporary copy.

The temporary copy is saved in the user's temp folder and has a .MLG file extent. A menu option was added to the File Open menu which lets you open any Milestones files which may be in the temp folder. The option is useful since the temp folder is under the hidden AppData folder under the user's account folder and is difficult to navigate to:



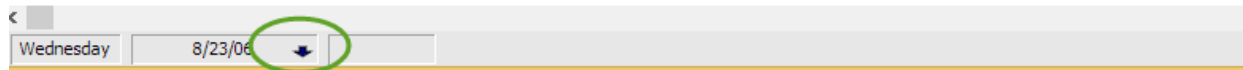
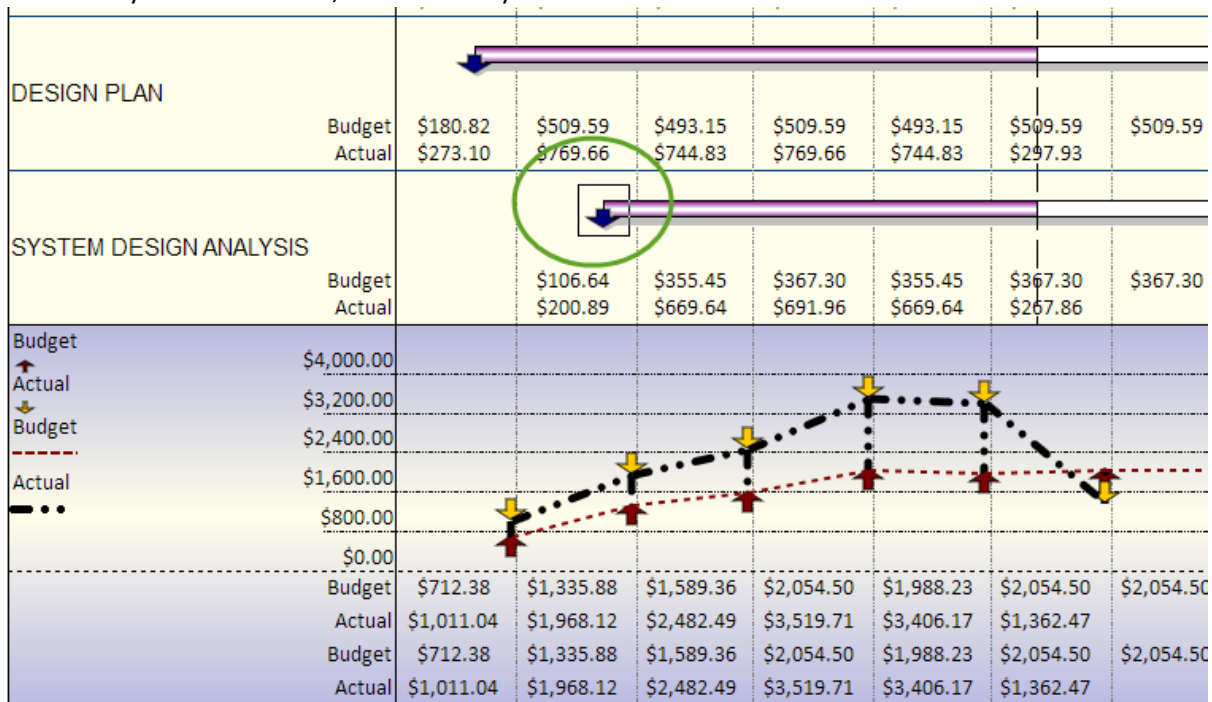
Although the temporary Milestones file has a system generated name, it be a life saver in the case where there was a crash during a file save and this is the only good copy of a file.

It is also possible that a .MLG file in this folder will be an incomplete copy if there was a crash while the temp file was being written. In this case though, the original file should still be intact in the user's normal Documents folder.

Normally, where there have been no Milestones or system crashes during a file save, there will be no Milestones files in the user's temp folder.

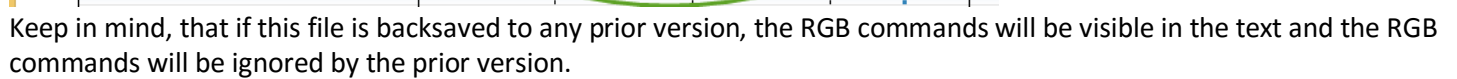
Show Symbol Type in Status Bar when Symbol is Selected

Now when a symbol is selected, then actual symbol will be shown in the Status Bar:



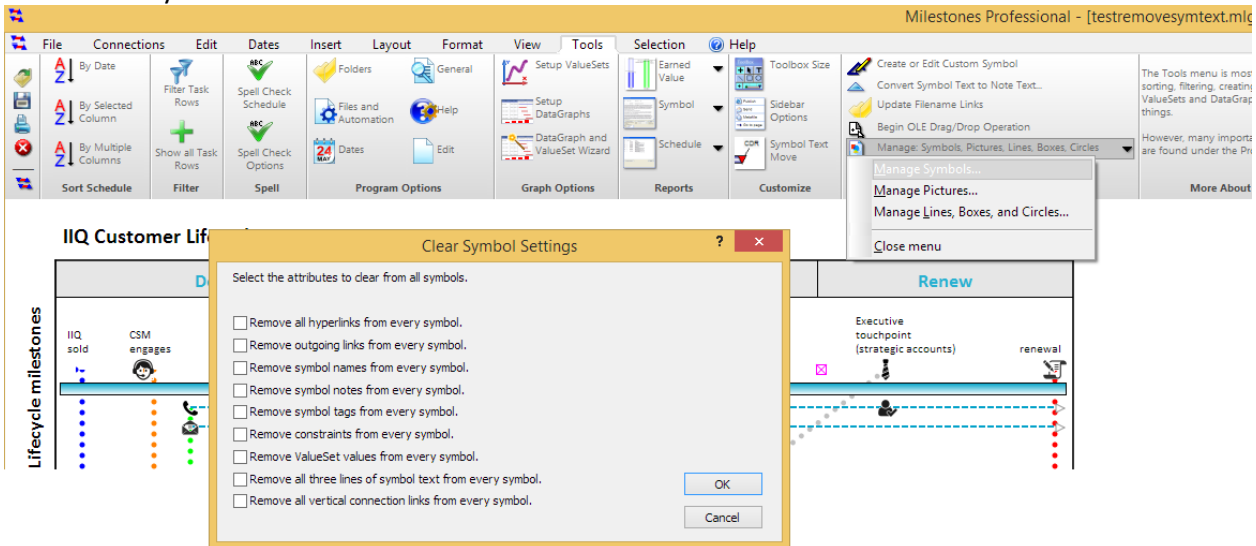
Before, just the fill color was shown. Note that the color shown and the actual symbol type is always the “before status date color” and “before status date symbol type”. The status bar does not know if the symbol is before or after the status date. Invisible symbols are shown as a single vertical line.

Using the same <RGB: nR, nG, nB> command you can causes an entire line in a Free Form Text block to be a different color:



Clear Symbols Settings Dialog Improved

The Manage Symbols option in the Tools menu has had a couple of options added: the ability to remove all symbol text and the ability to remove all vertical connections:

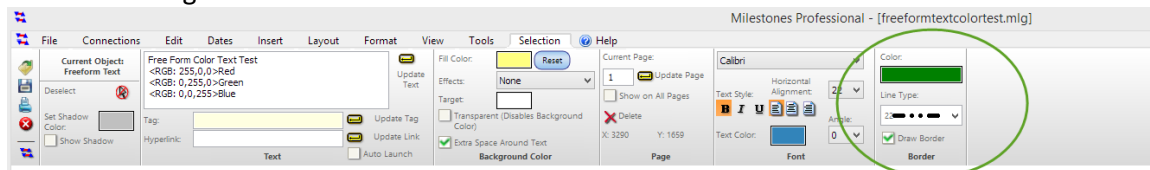


In the past, this dialog was only displayed if you pressed Alt+Shift+F7.

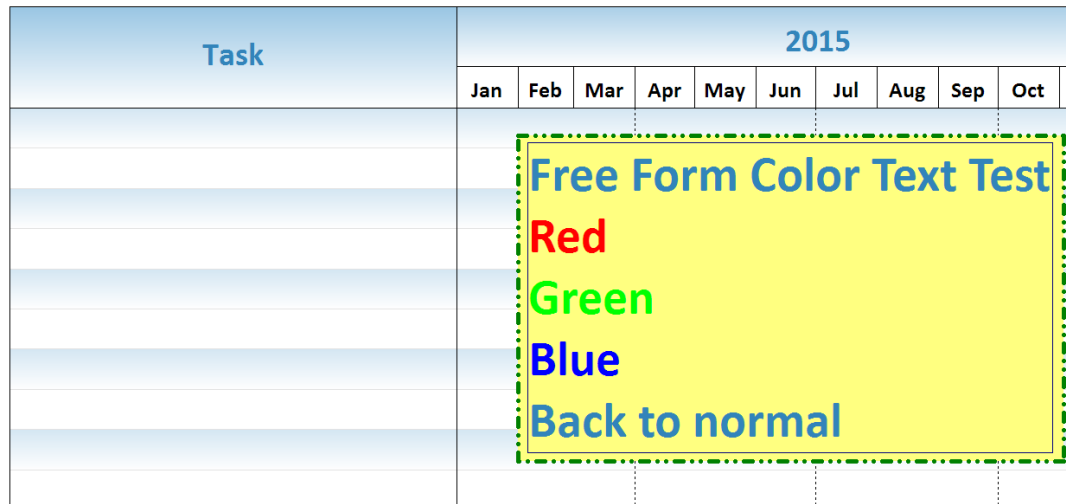
Border Choices Added To Freeform Text

It is now possible to control the border around Freeform text. Before, the border was only a single width solid black line. That remains the default.

The new settings are in the Freeform Text Selection Toolbar:

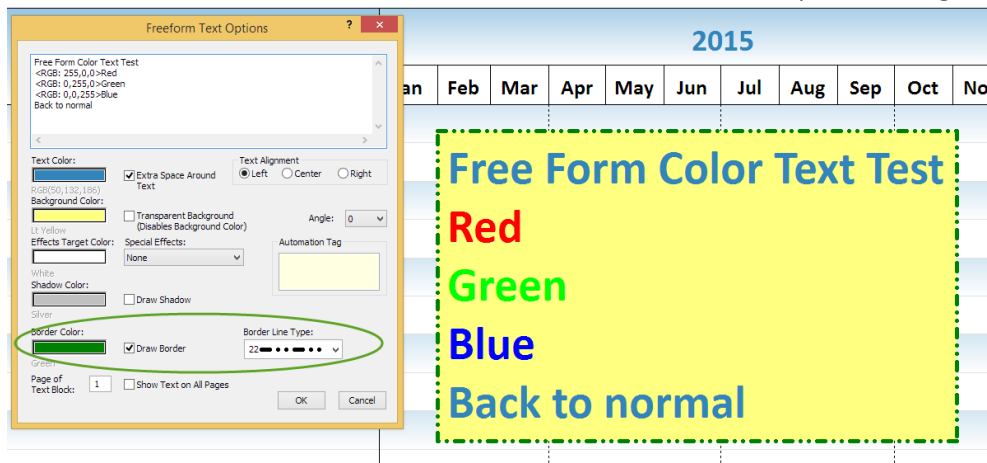


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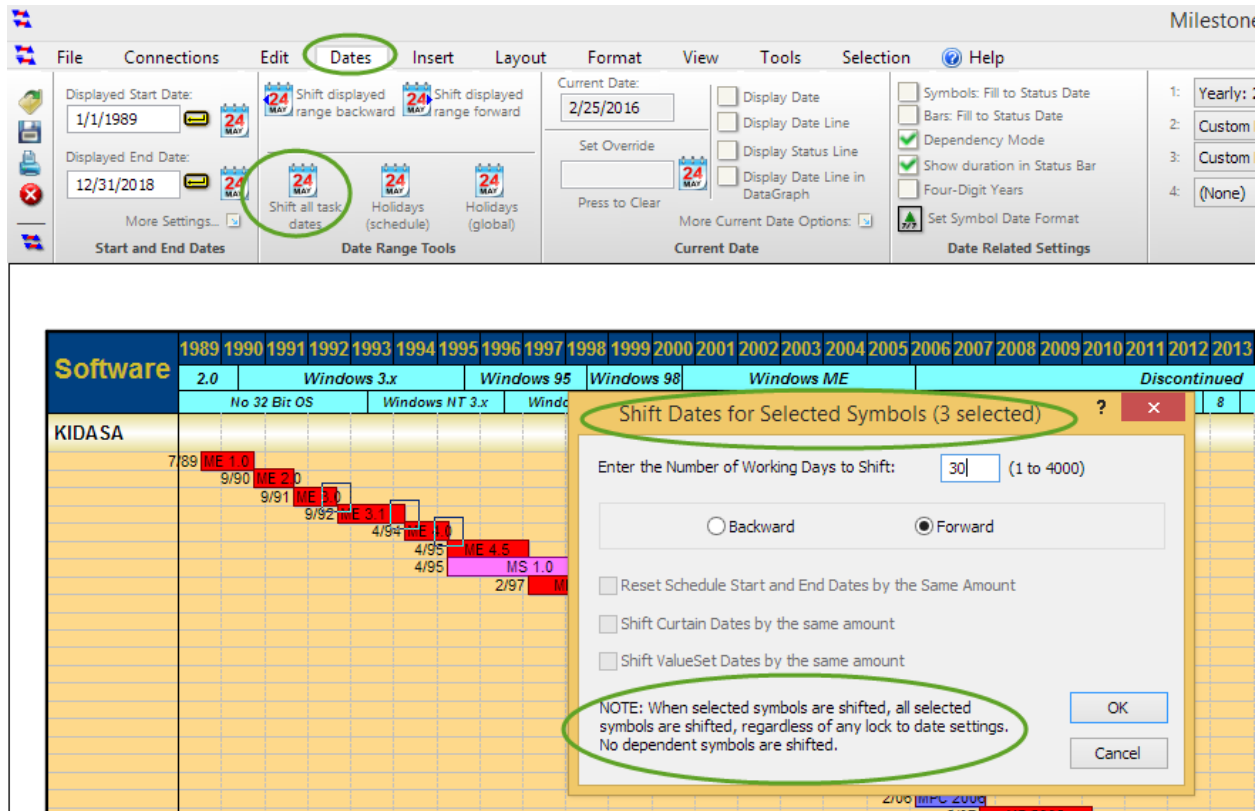
The Draw Border checkbox has been moved from the Background group to the new Border group. The border color and border line type settings are new with version 2017.

These same controls have also been added to the Freeform Text Options dialog box:



Ability to Shift Selected Symbols Added

It is now possible to shift selected symbols back or forth using the Dates | Shift All Task Dates option:



If any symbols are selected when you press the button, the Shift All Dates dialog is customized for shifting selected symbols. The options not appropriate for this type of shift are grayed out. The symbols remain selected after the shift is done and the screen is refreshed.

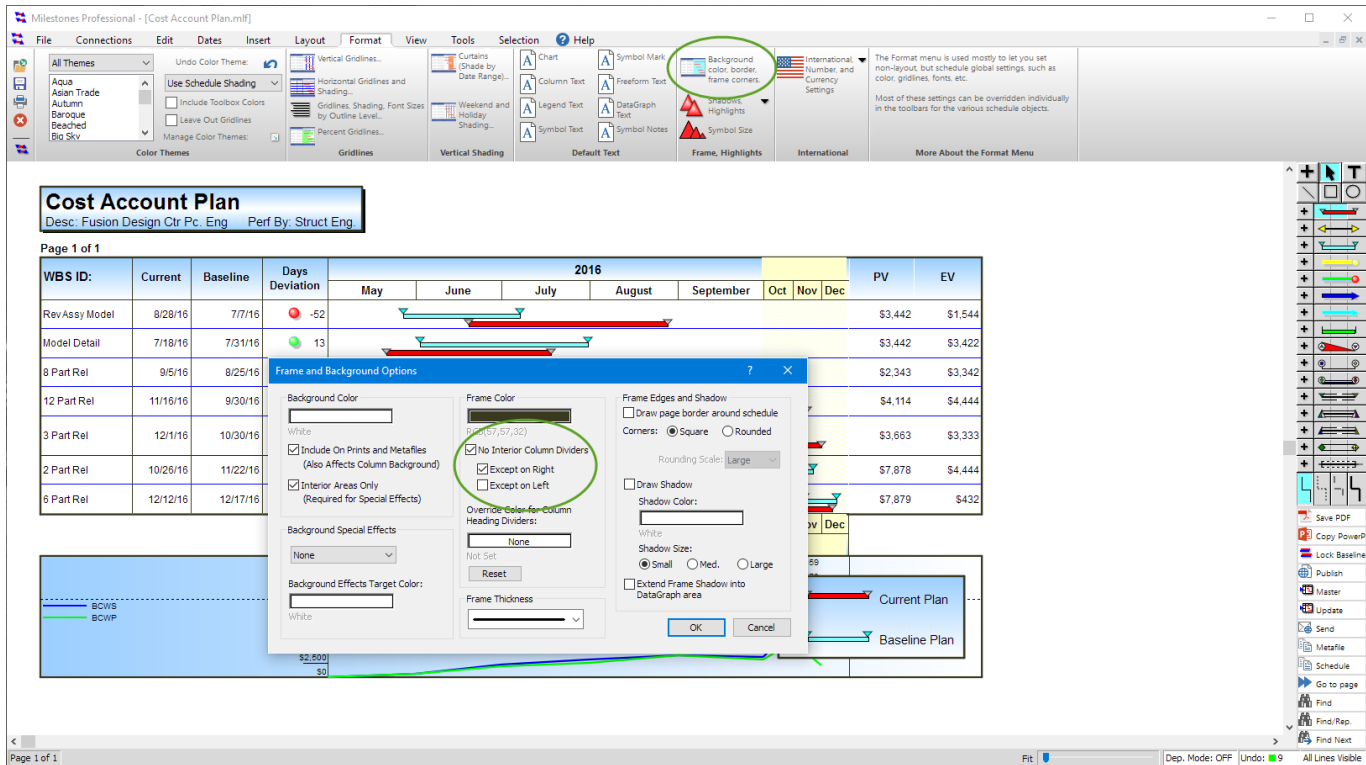
Every selected symbol is shifted. No dependent symbols are shifted. Lock to date constraints or locked baselines are ignored.

If you check the “Show After Status Settings” in the Legend Entry Edit screen, the legend will show the after status (incomplete) version of the symbols/bar. This makes it easier for people who wish to show legend entries for both complete and incomplete tasks. They no longer need to manually create an incomplete version of their symbols/bar:



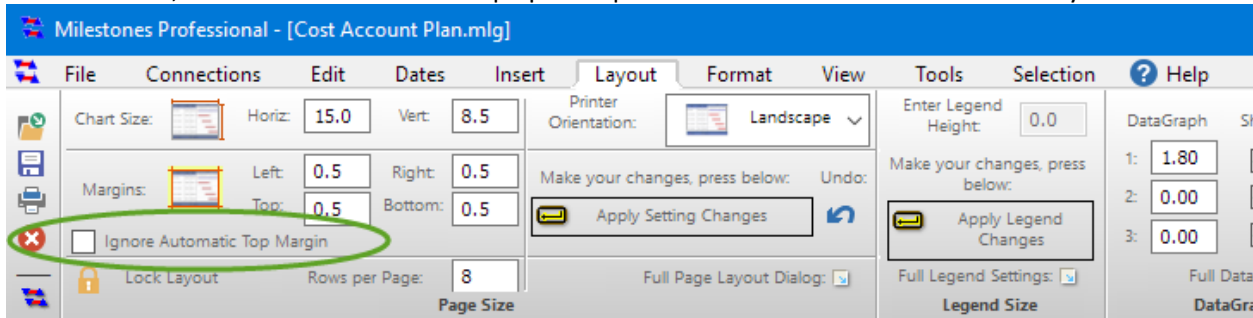
Selectively suppress interior column dividers

The Frame dialog now lets you selectively suppress interior column dividers on the left or right side of the schedule:



Ignore Automatic Top Margin Calculation Checkbox Added to Layout Menu

This checkbox, which is also in the Tools | Options | Edit screen has been added to the Layout menu:



A dialog box was added which lets you see all the Free Form Text blocks in the schedule. You can delete them, change the page, hyperlink or tag using this dialog:

The screenshot shows the Microsoft Access ribbon with the 'Tools' tab selected. The 'Customize' group is highlighted, and the 'Manage Symbols, Pictures, Free Form Text, Lines, Boxes, Circles' option is circled in green. Other options in the 'Customize' group include 'Toolbox Size', 'Sidebar Options', 'Symbol Text Move', and 'Manage: Open File Message'. The 'Other Tools' group contains options like 'Create or Edit Custom Symbol', 'Convert Symbol Text to Note...', 'Update Filename Links', and 'Manage: Open File Message'.



17

Automation Changes

SetFreeTextProperty TextAngle Property Added

SetFreeTextProperty(nText, "TextAngle", nAngle)

nAngle can be 0 (0 degrees), 1 (90 degrees), or 2 (-90 degrees) .

New Methods for Capturing Toolbox Items

GetConnectorBitmapEx is used to get a bitmap of a connector.

For example, on a 100% scale DPI system (96 DPI) GetConnectorBitmapEx(8,0,0) returns this bitmap:



GetVerticalConnectorBitmapEx is used to get a bitmap of a vertical connector

For example, on a 100% scale DPI system (96 DPI) GetVerticalConnectorBitmapEx(6,0,0) returns this bitmap:



GetSymbolBitmapEx is used to get a bitmap of a symbol.

For example, on a 100% scale DPI system (96 DPI) GetSymbolBitmapEx(8,0,0) returns this bitmap:



GetComboBitmapEx is used to get a bitmap of a symbol/connector/symbol from a row in the combo toolbox.

For example, on a 100% scale DPI system (96 DPI) GetComboBitmapEx(8,0,0) returns this bitmap:



Each of these new methods share a common set of arguments:

Argument 1: the 1-based number of the toolbox symbol, row, connector or vertical connector

Argument 2 (optional): the height in pixels of the resultant bitmap. If not present or zero, then the following bitmap sizes are used:

Symbol: 32x32 pixels

Vertical Connector: 48x48 pixels

Toolbox row (symbol/connector/symbol): 129x32 pixels

Connector: 97x32 pixels

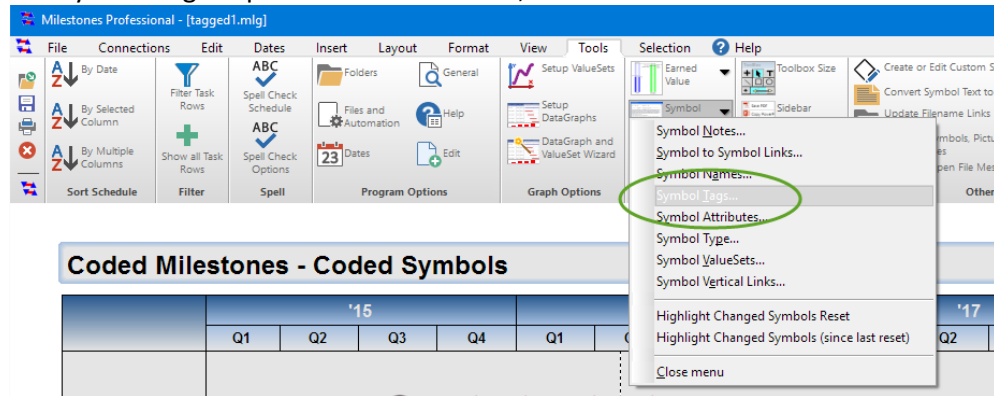
When argument 2 is present, then the height and width is based on the argument. The width is based on a multiple of the height for the bitmaps that include a horizontal connector.

Argument 3 (optional): Respect current DPI setting. If this argument is 1, then the current DPI setting is used to enlarge the resultant bitmap. For example, if the computer is running at a 200% font scale (192 DPI), then the resultant bitmap will be doubled in size. So, if your computer is set to 200% DPI and if this argument is 1 and argument 2 is 0, then the resultant bitmap size of a symbol bitmap will be 64x64 pixels. If argument 2 is present and not zero, then if argument 3 is 1, then the bitmap size specified in argument 2 gets multiplied by the current font scale factor.

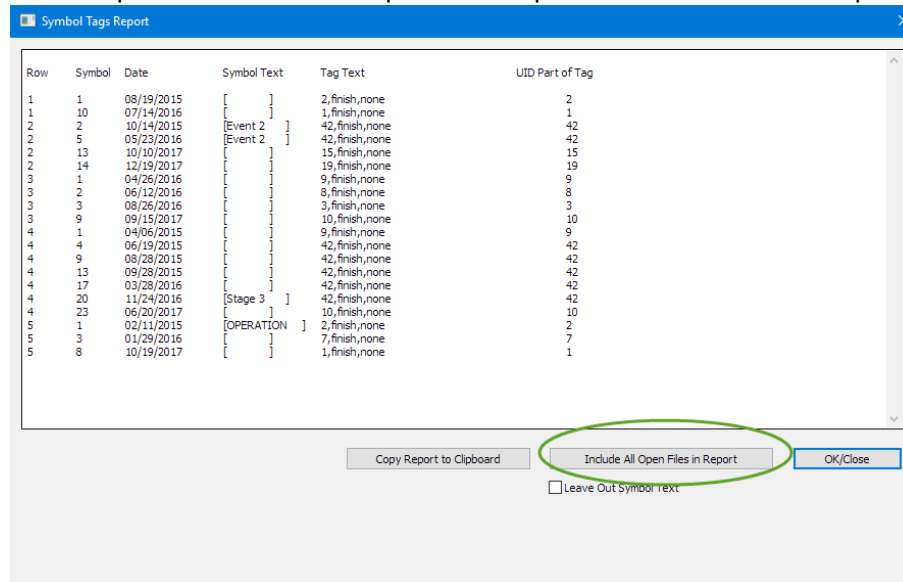
Argument 3 is important because it lets the caller decide if DPI awareness is important. For example, if the caller is not DPI aware then the caller would most likely not use argument 3, since he would be running in a non-DPI aware sandbox where Windows is automatically enlarging his bitmaps.

Symbol Tags Report Improved

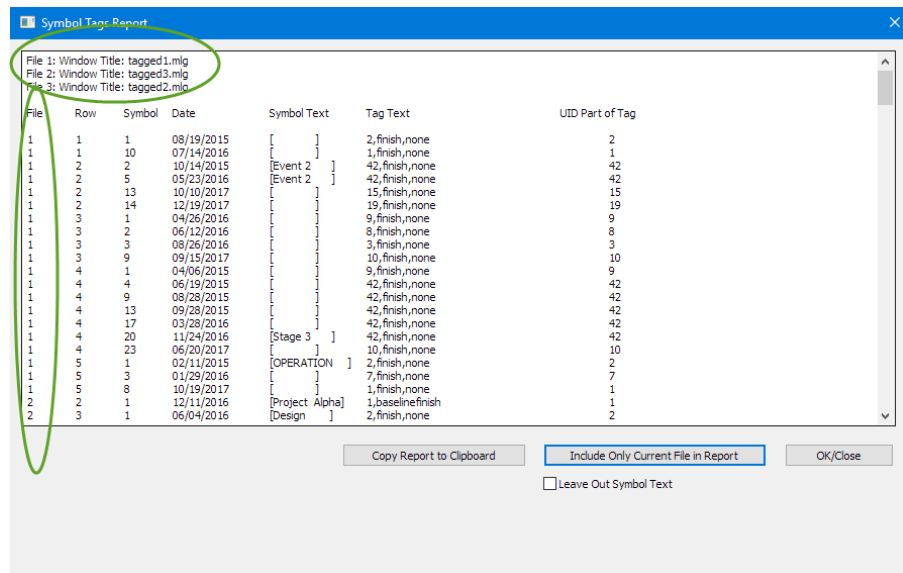
The Symbol Tags Report in the Tools Menu,



can now provide a combined report for all open schedule. When the report is run, the report is for the current file:



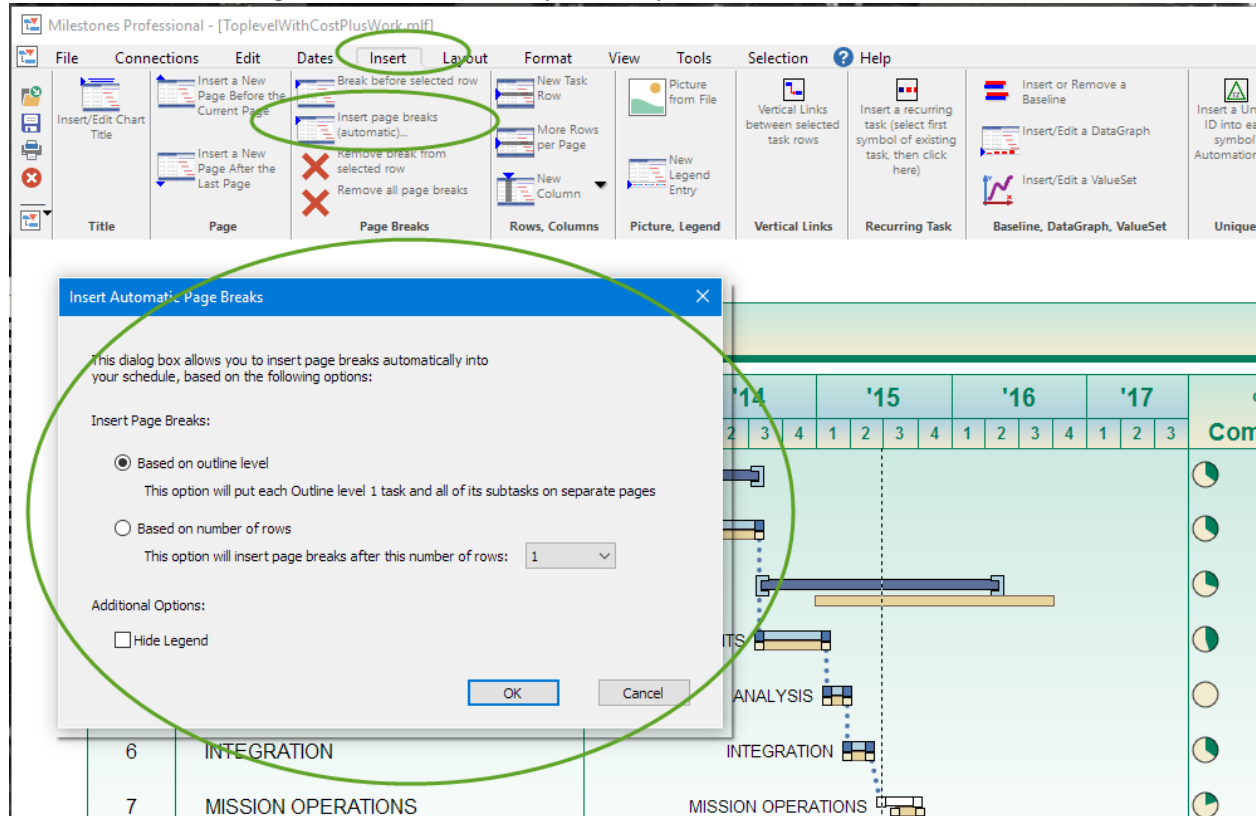
If the “Include All Open Files in Report” button is pressed, then the report is rerun using all the currently open files in the Milestones session:




The list of files appears at the top of the report. A new column is added showing the file number used for each line of the report.

Automatic Page Breaks

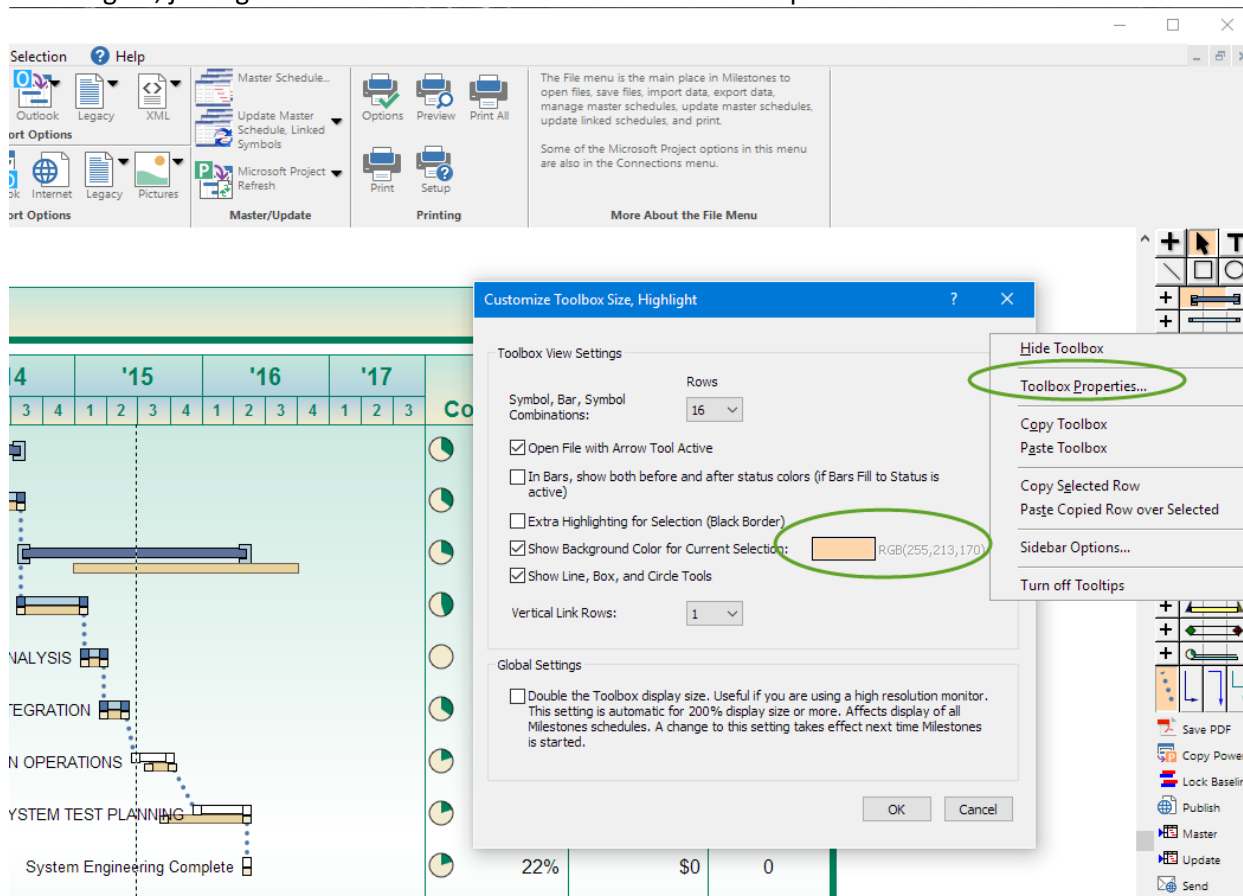
You can now insert Page Breaks automatically based upon outline level or number of rows:



Can Now Customize Toolbox Background Color

You can now customize the Toolbox current selection background color. The default color remains:  Lt Blue

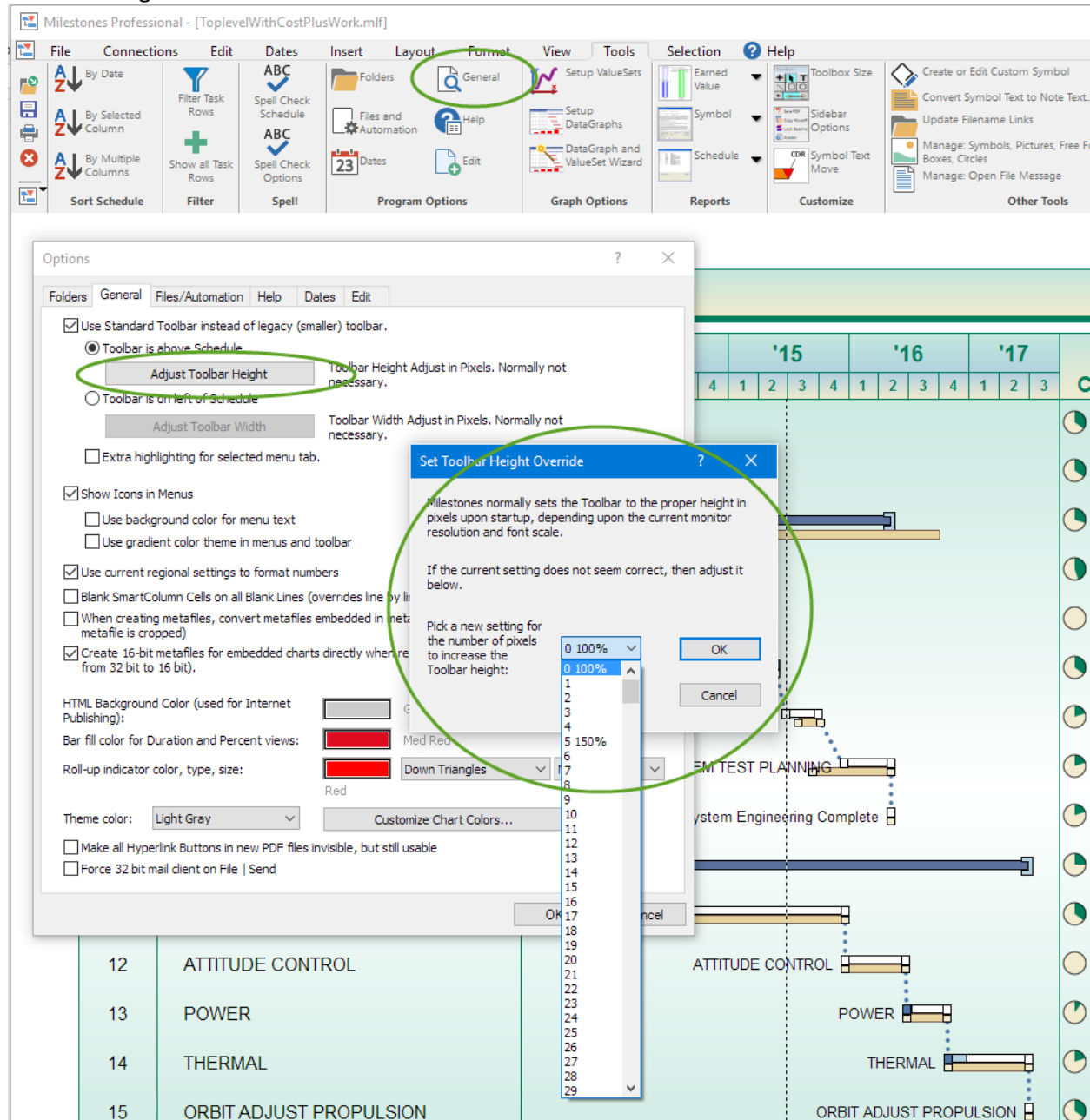
To change it, just right-click in the Toolbox and select Toolbox Properties:



Note that this is a machine setting. The color is not saved with the file.

Toolbar Height Override moved to Separate Dialog

Now that the defaults for the toolbar height (and width when on left) are getting set correctly it should not be necessary to ever override the height or width. However just in case there are still some as yet undiscovered issues I don't want to remove the control entirely. Instead, I have allowed different values to be set for height and width override, but they get set in a dialog:



Note that 100%, 150%, etc. are displayed next to the default value for that scale factor. That makes it easy to reset to the default for whatever scale Windows DPI factor you are running at.

Column Headings now displayed in Custom Import Screen

Now, when you do a custom import from any column headings are displayed next to the column numbers in the right side list box:

Milestones Professional - [Schedule1]

File Connections Edit Dates Insert Layout Format View Tools Selection Help

Open a recently used file:
deathstar-example-oct2015.mpp

Files and Templates: Open and Save Options

Import Options: Project, Custom, Outlook, Legacy, XML

Export Options: Project, XML, Outlook, Internet, Legacy, Pictures

Master/Update: Master Schedule..., Update Master Schedule, Linked Symbols, Microsoft Project Refresh

Printing: Print Current Schedule, Print All, Options, Setup

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Task

2016

Start End Status %

8/28/2016

Import: Custom Format

Please set your preferences for Milestones Professional Custom Import. Note that column 10 is closest to chart area on the left. Column 11 is closest to chart area on the right.

☐ Append Imported Data

Importing File:
Windows Clipboard

Current Filter Name
test1

test1
testdefaulttext
testimporhyperl
wdc-base
XMLBaseline
xmittest

Retrieve Settings
Save Settings
Delete Name
Clear Settings
Export Filter
Import Filter

2018

January February March

Fields from line 1 of input file.

Field 1: task1
Field 2: 2/3/2016

Map To

Field Usage in Schedule

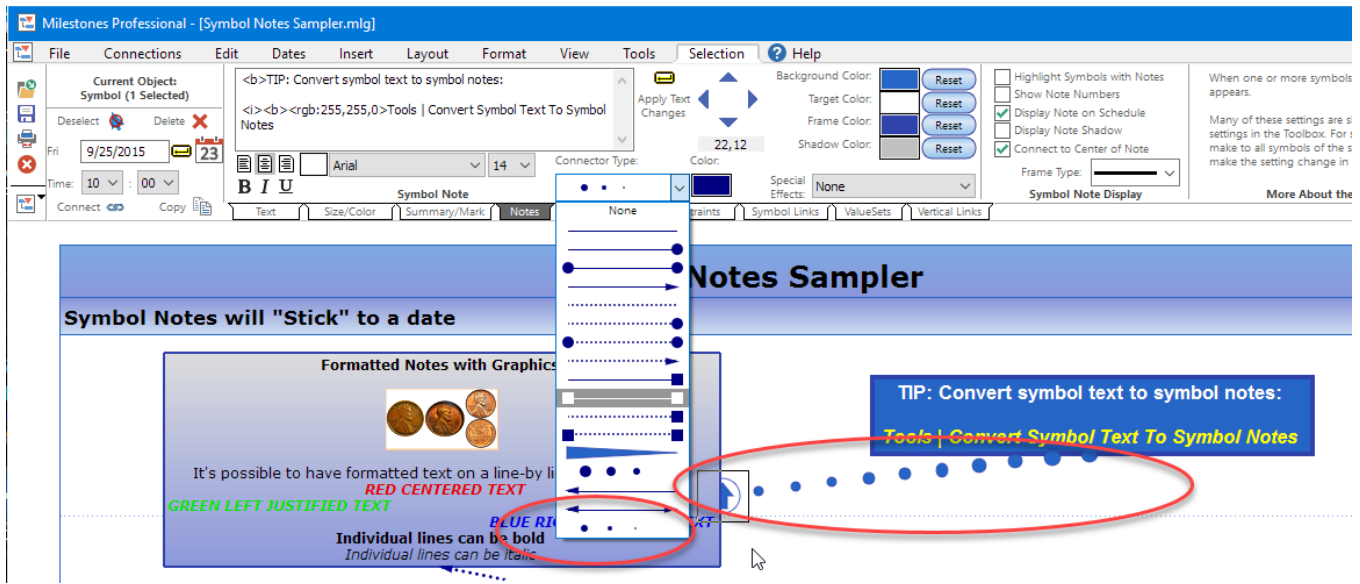
Column_8 Left:
Column_9 Left:
Column_10 Left: Task
Column_11 Right: Start
Column_12 Right: End
Column_13 Right: Status
Column_14 Right: %
Column_15 Right:

Click once to select.
Double click to deselect.

This should help people make the right column selection in the import mapping.

New Note Connector Type

There is now half-size bubble note connectors:



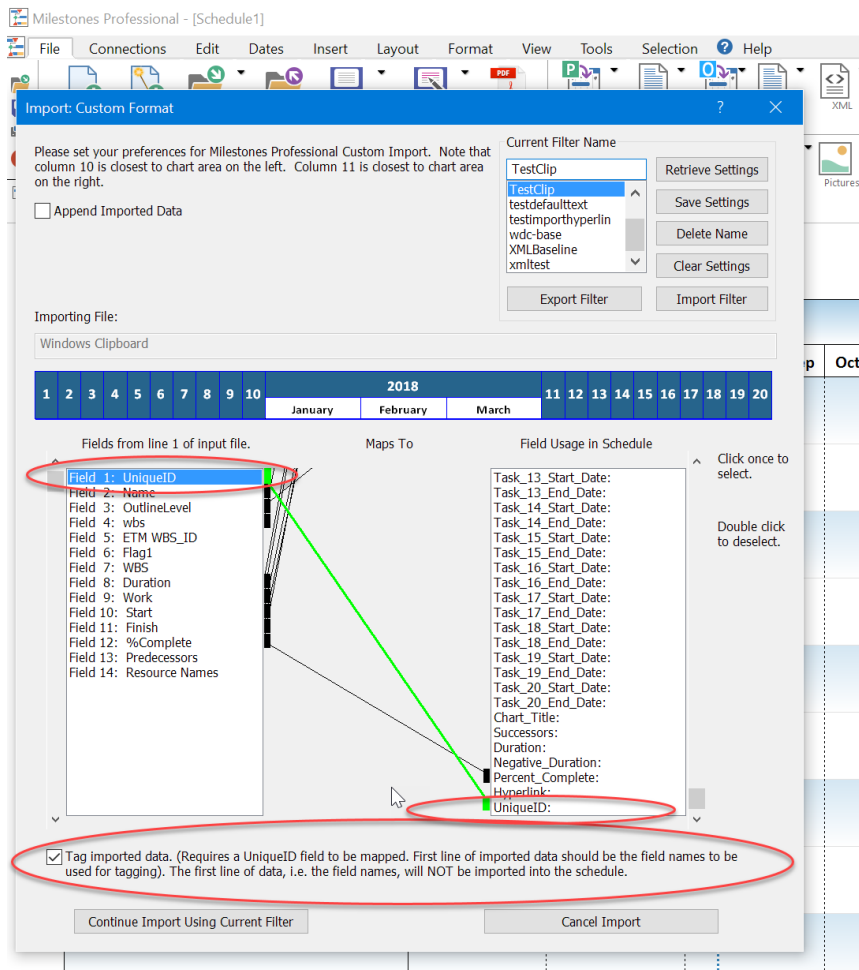
Note that if the file is back-saved to version 2015 or 2012, the connector is switched to the full size version of the bubble connector.

Refresh from Clipboard

In version 2017, two Clipboard Import features have been added.

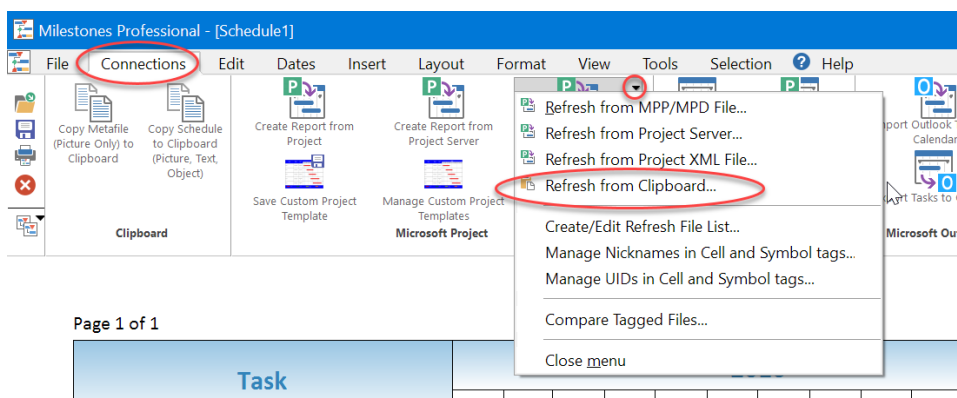
First, in the File | Import from Clipboard, a checkbox has been added that enables you to specify a UniqueID field that is used to tag all the imported symbols, cells, and columns.

The picture below has the checkbox, import field and mapped UniqueID setting circled:



For this option to work, the first row of data placed on the Clipboard must be a row of column headings which are then used as the tag names placed in the symbol, columns, and cells.

Second, once a schedule has been imported and tagged, you can then use the new Connections | Refresh from Clipboard option:



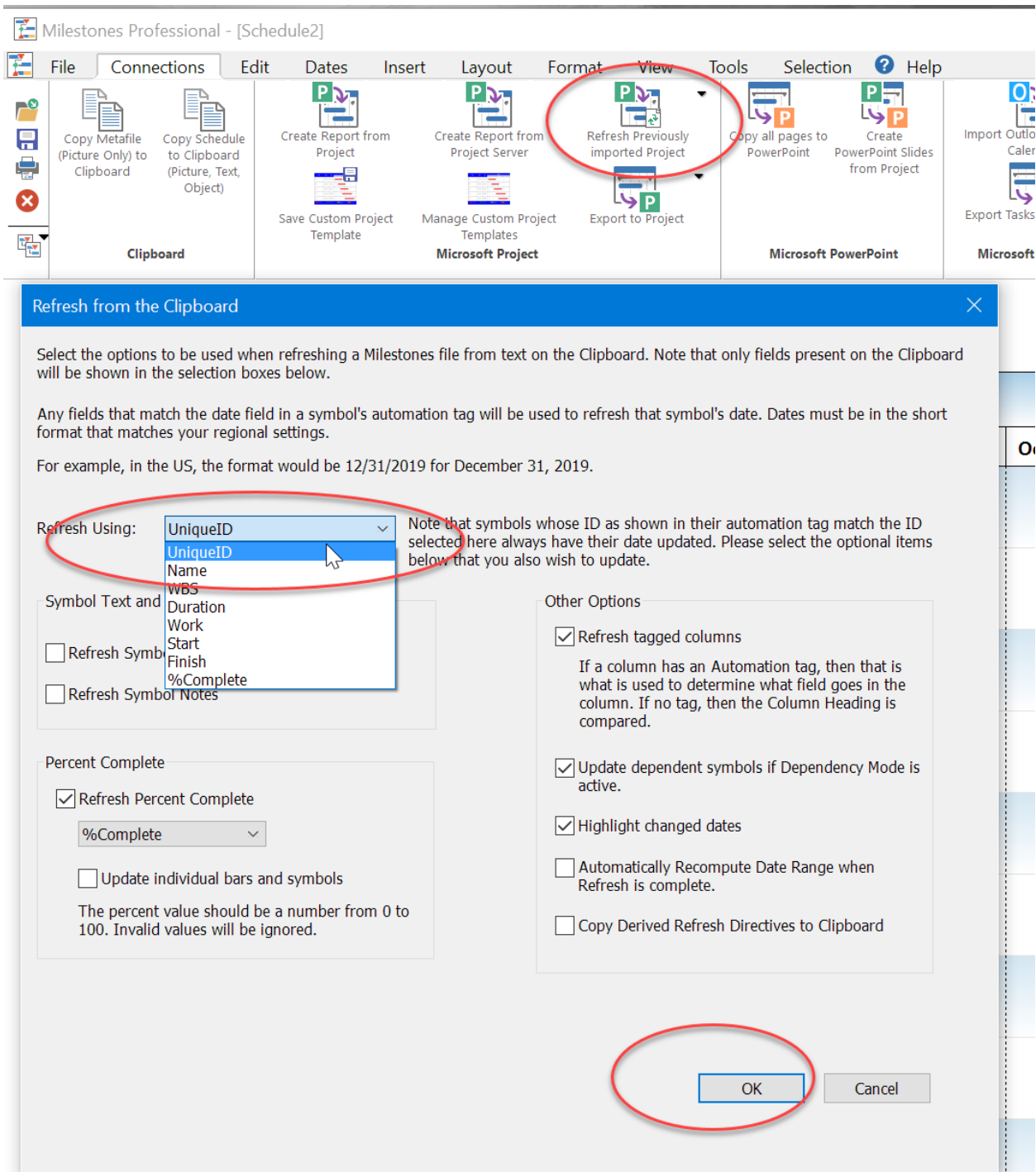
Before selecting the above menu item, you need to have copied the refresh data to the Clipboard:

doubletestrefreshfromclipboard.xlsx - Excel

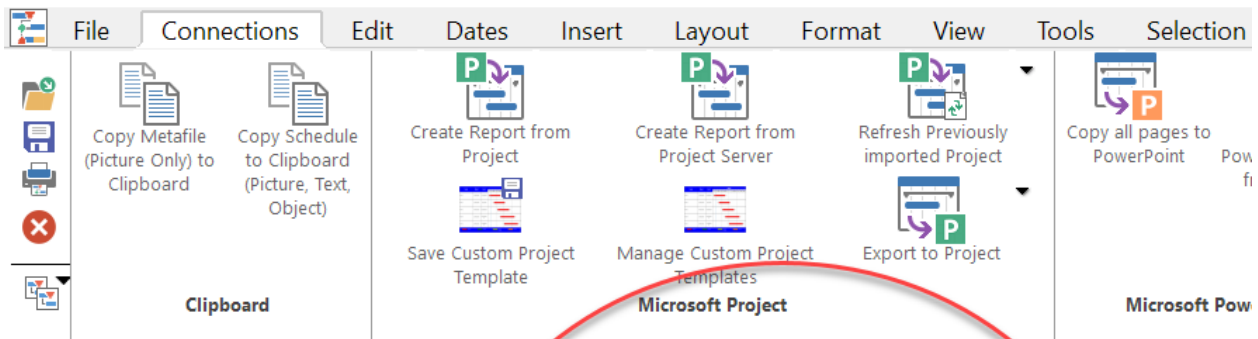
UniqueID	Name	OutlineLevel	wbs	ETM WBS ID	Flag1	WBS	Duration	Work	Start	Finish	%Complete	Predecessors	Resource Names
41	A320 HoV Master Schedule		1	1	Yes		420.5 d	3,085.15 d	6/4/2015	12/2/2016	54%		
125	VOLARIS		2	1.1	Yes				5/2016		100%		
126	MAJOR MILESTONES		3	1.1.1	Yes		130 d	0 d	9/15/2015	3/4/2016	100%		
3404	KoM Document		4	1.1.1.1	Yes					10/7/2015	100%		
127	Receive CTS/ICS		4	1.1.1.2	Yes					9/15/2015	100%	26	
3272	CTS Signature		4	1.1.1.3	Yes					12/21/2015	100%	27	
128	3D Model Completion (Mechanical & Electrical)		4	1.1.1.4	Yes					12/15/2015	100%	32.33	

Note that the data to be refreshed that you copy to the clipboard must include a column that is used as a UniqueID and each column heading needs to match the tags in the schedule that you are refreshing.

When you click the Refresh from Clipboard button, and the data on Clipboard seems valid, then the following screen is displayed:

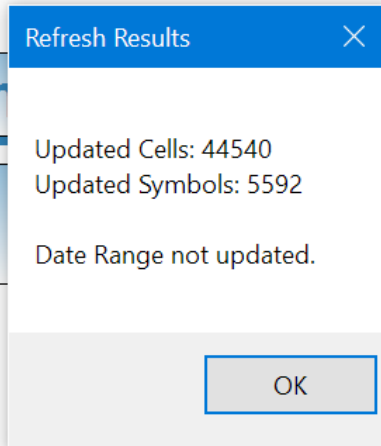


You select the UniquedID field, any other options, then Press OK.
When the Refresh is complete a message box is displayed with the results:



Presentation Timeline

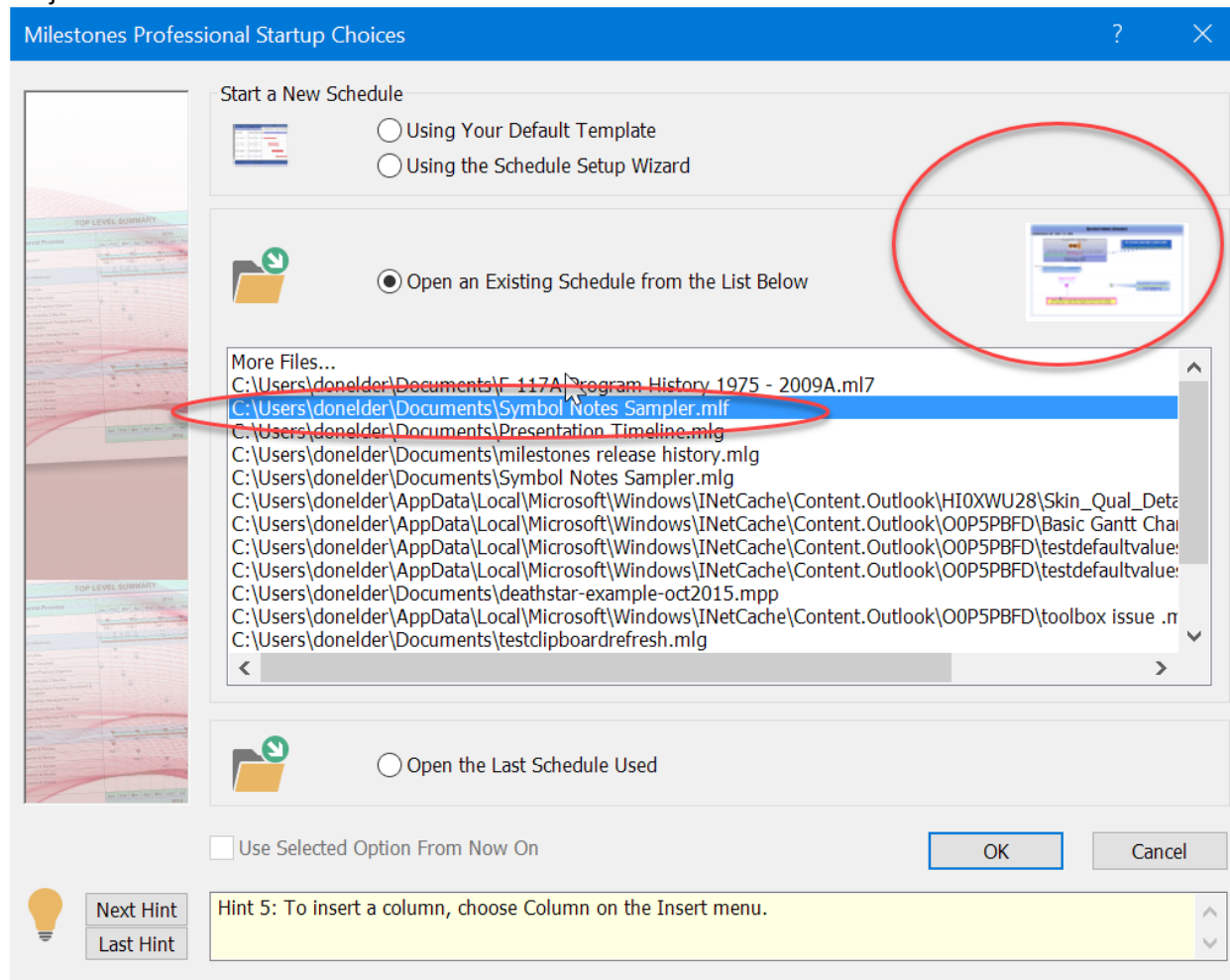
Task Name	Tasks	Work
A320 HoV Master Schedule	1	3,085.1!



Thumbnail Image Now Shown in Startup Choices Dialog

In version 2017, the startup choices dialog now shows a thumbnail of the currently selected file.

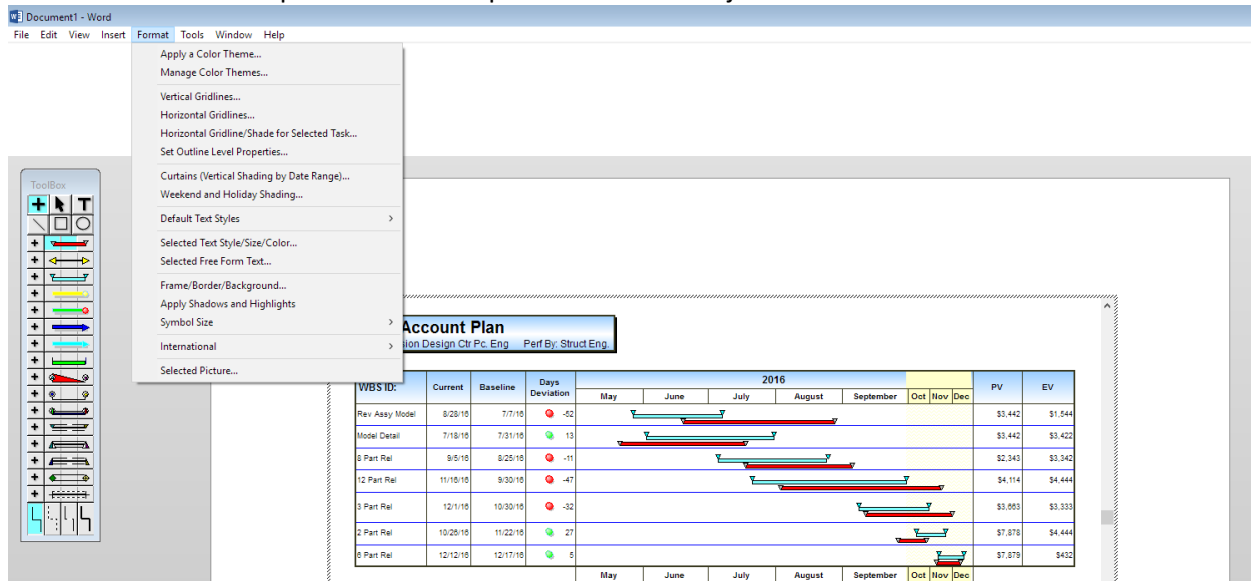
Note that only thumbnails of existing Milestones files are shown. Temp files such as those opened from an email or MS Project files have no thumbnail to show:



Features Removed

It is rare to have a feature removed, but with version 2017 it was time to remove some.

1. **OLE Drag and Drop.** This feature has had issues for quite some time. It was intended to be a shortcut for doing an OLE Copy Schedule operation. Since it is difficult to make it work properly I decided to remove it. The Toolbar icon used to initiate this operation has been removed. I doubt many people were using this since it was so difficult to make work correctly. The Edit | Copy Schedule (OLE) remains the preferred way for copying a Milestones OLE object to another application.
2. **OLE In-place activation support.** This feature, which has always been off by default, allows a Milestones schedule to be operated upon while in-place inside an Office document. Since Office started using a ribbon, this feature has been strange to use, since Office reverts to a menu, instead of a ribbon, in order to support the shared menu and Toolbox required by in-place activation when it is used, I decided to cease supporting it. See below for an example of what an in-place Milestones object looked like inside Word 2013:



The Tools | Options | Files and Automation checkbox used to turn this option on has been removed. Now, when you double-click on a Milestones object it will continue to launch Milestones in a separate window for editing the embedded object. I doubt many people, if any, were using this option since to use it you also had to turn off the sidebar option.

3. **File Open and Save from/to Internet**

This feature used the FTP Internet Protocol for opening and saving files. Since this implementation does not allow encryption and transmits the password in plain text it is not safe to use from a data security standpoint. Many FTP servers now require an SSL encrypted connection to even connect, something we do not support. FTP has dropped out of favor over the years. At one time it was the preferred way to transmit files over the Internet, but cloud based services such as DropBox, OneDrive, etc. have mostly replaced it