Enhancing the SAS® Enhanced Editor with Toolbar Customizations

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ABSTRACT

One of the most important tools for SAS® programmers is the Display Manager window environment in which programs are developed. Most programmers like to use shortcuts when developing programs to save time; the less typing we have to do; the more satisfied we are, especially with repetitive tasks. The default Enhanced Editor window can help you edit SAS® files and code using built-in tools, one of which is the toolbar. This paper will describe how to customize the toolbar to perform tasks by just one click of an icon.

INTRODUCTION

The Enhanced Editor is enabled by default when you start an interactive SAS® System session. While retaining some familiar Program Editor features, the Enhanced Editor enables you to:

- Use color-coding to identify SAS and SCL program elements as well as HTML and XML document elements. Color-coding settings can be saved in a color scheme.
- Create and format your own keywords.
- Automatically indent the next line when you press ENTER.
- View the high-level flow of your SAS program or see each detailed statement by expanding or contracting sections of SAS procedures, DATA steps, and macros.
- Create macros that record and play back program editing commands by using the keyboard macro recorder.
- Create shortcuts for typing in text using abbreviations.
- Bookmark lines of code for easy access to different sections of your program or document.
- Customize keyboard shortcuts for most Enhanced Editor commands.
- Open multiple views of files.
- Access Help for the SAS language by placing the insertion point within the language element name and pressing F1.
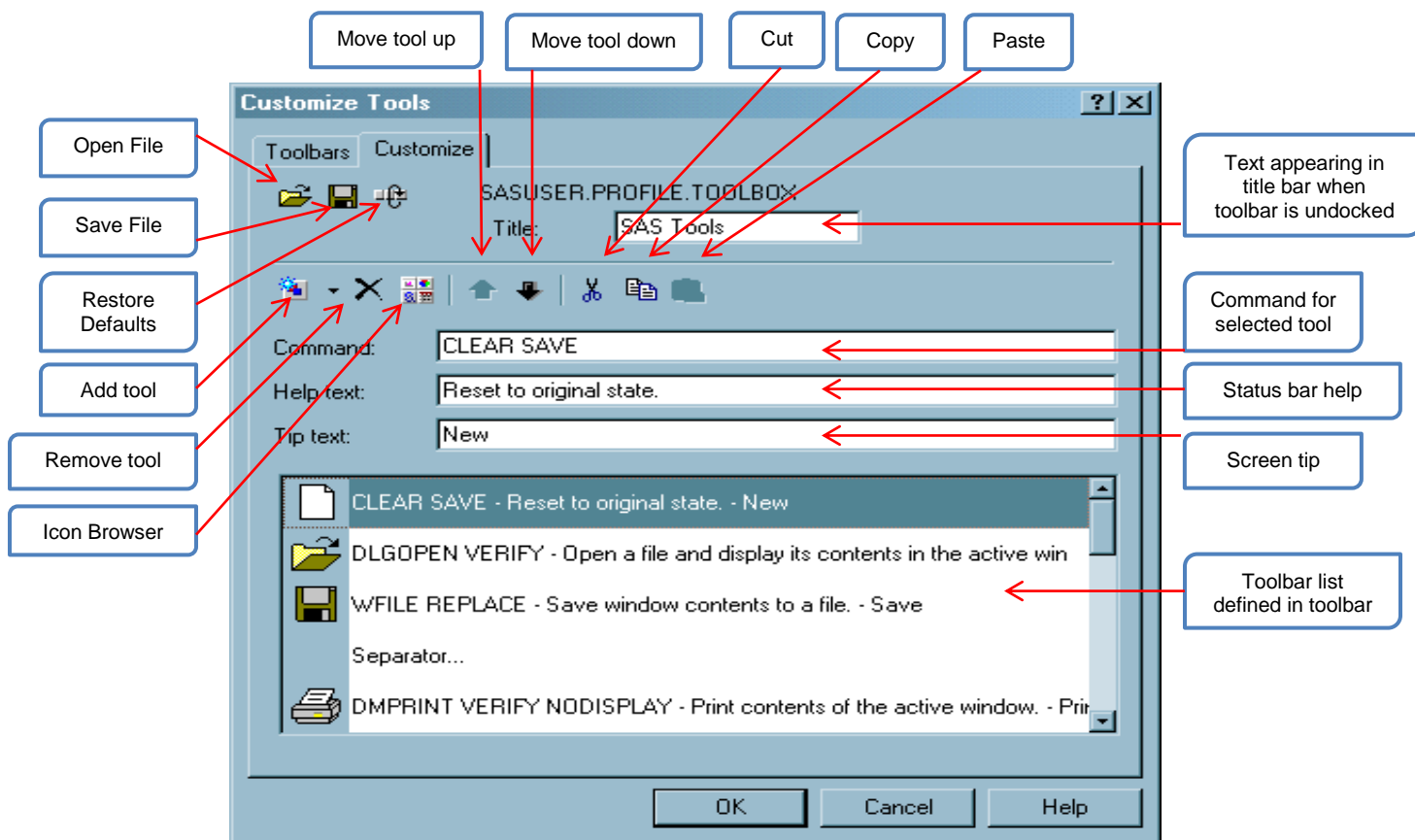- **Customize the toolbar**

This paper focuses on customizing the toolbar in the Enhanced Editor window but the same techniques can be used in all windows. The toolbar on all of the SAS® windows can be customized - the enhanced editor, log, output, explorer, and results windows, but each toolbar must be customized separately. The toolbar contains several tool icons. When you select a tool icon, the SAS® System immediately executes the command that is associated with that icon. Customizing the toolbar can be a powerful way to enhance your program development environment. Once customized and saved to the SASUSER.PROFILE.TOOLBOX, the updated toolbar will be available for the current AND future interactive SAS® sessions.

USING THE CUSTOMIZE TOOLS DIALOG BOX

You customize all toolbar settings using the Customize tools dialog box. To open the Customize Tools dialog box, do one of the following:

- Enter TOOLEDIT in the command bar.
- Select Tools➡Customize

The customize tools pop-up box will be displayed where you will now be able to add, delete, and modify commands on the toolbar.
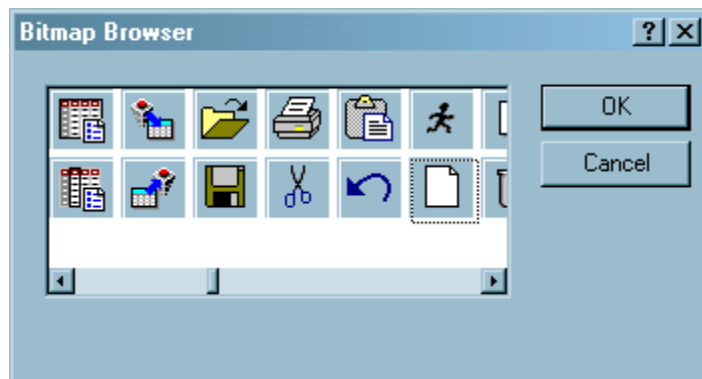
Display 1. Customize Tools Dialog Box

ADDING A TOOL TO THE TOOLBAR

To add a tool to the toolbar:

1. Click the Add tool button to add a blank tool to the toolbar list. A template for a new tool in the list box.is created.
2. Enter a SAS command in the Command box.
3. Click the Bitmap Browser button to select an icon for the tool. When you have selected an icon, click OK.

Display 2. Bitmap Browser Dialog Box

4. Type Help text in the Help Text box.
5. Type ScreenTip text in the Tip Text box.
6. Position the tool in the toolbar list by clicking the Move tool up and Move tool down buttons.
7. When you are finished, click Save. In the Save Tools dialog box, type the library, catalog, and toolbox name. Then click OK.
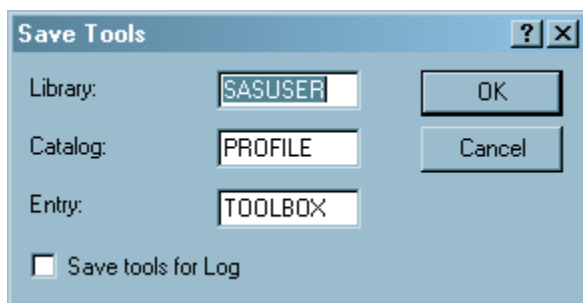
REMOVING A TOOL FROM THE TOOLBAR

To remove a tool from the toolbar:

1. Select the tool in the toolbar list that you want to remove.
2. Click Remove tool.
3. When you are finished, click Save.

SAVING THE TOOLBAR

To save the toolbar when you are finished with the customization:

1. Click Save. The Save Tools dialog box appears.

Display 3. Save Tools Dialog Box

2. SAS completes the libref, catalog, and entry fields. Select the Save tools for window check box, where window is the active window, and then click OK.

RESETTING THE TOOLS TO THE DEFAULT SETTINGS

To restore a toolbar to its default settings:

1. Click Restore Defaults. SAS asks you to confirm that you want to restore to the default tool settings.
2. When you click 'Yes', the tools are reset to their original settings (the settings that were in place when SAS was installed).
3. If a SAS application defines a default toolbar for its application window, clicking the Restore Defaults button restores the settings for that toolbar.

CUSTOMIZING THE TOOLBAR IN THE ENHANCED EDITOR WINDOW

Each window within the Display Manager has specific commands associated with it and the enhanced editor window is no exception. You must ensure that the command you are about to add is available from the menu with the exception of the Print and Copy commands, which are always enabled. Almost all SAS commands are valid in the Enhanced Editor window. Some of the most useful command line commands are in the table below.
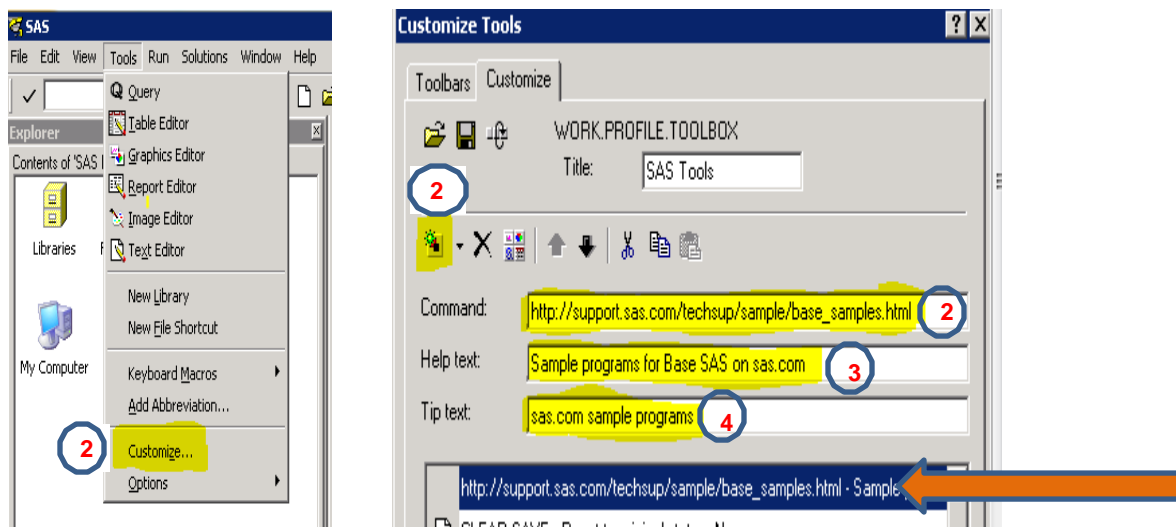
COMMAND	DESCRIPTION
Top	Scrolls to the beginning of the Editor
Bottom	Scrolls to the last line of text

Backward	Scrolls back toward the beginning of the text
Forward	Scrolls forward toward the end of the text
Left	Scrolls to the left of the window
Right	Scrolls to the right of the window
Zoom	Increases the size of the window. You can issue this command again to return the window to its previous size
Undo	Cancels the effect of the most recently submitted text editing command. Continuing to execute the UNDO command undoes previous commands, starting with the most recent and moving backward
Recall	Returns to the Editor window to the most recently submitted block of statements in your current SAS windowing environment session. Continuing to execute the RECALL command recalls previous statements, starting with the most recent and moving backward
Clear	Clears a window as specified. You can clear the Editor, Log, or Output windows from another window by executing the CLEAR command with the appropriate option as shown in the following examples **clear pgm; clear log; clear output**
Find	Searches for a specified string of characters. Enclose the string in quotation marks if it contains embedded blanks or special characters
Change	Changes a specified string of characters to another. Follow the command keyword with the first string, a space, and then the second string. The rules for embedded blanks and special characters apply. For example, you might specify: **change 'operating system' platform** This CHANGE command replaces the first occurrence of operating system with the word platform. Note that the first string must be enclosed in quotation marks because it contains an embedded blank
Submit	Submits the block of statements in your current SAS windowing environment session
Bye	Ends a SAS session
End	Closes a window. Acts like the SUBMIT command in the Enhanced Editor window

Table 1. Enhanced Editor Window commands

Any of the commands in the table above can be added to a tool in the toolbar. An example of a useful tool that can be created in the Enhanced Editor Window is to open the SAS support web page to the sample programs for Base SAS. To accomplish this:

1. Make the Enhanced Editor the active window.
2. In the Customize tab of the Customize Tools dialog box, click the Add tool toolbar button. In the Command field, type http://support.sas.com/techsup/sample/base_samples.html.
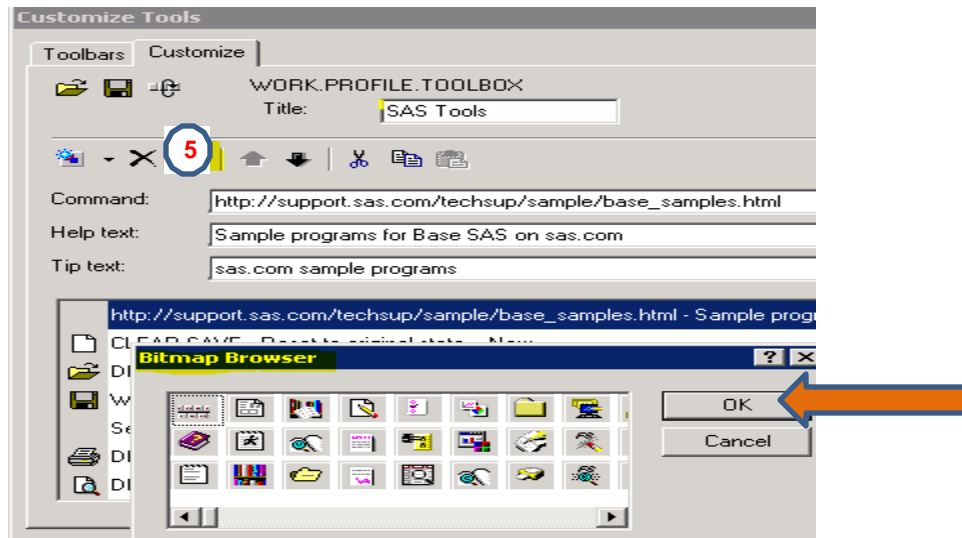

Display 4. Customize Tools Dialog Box

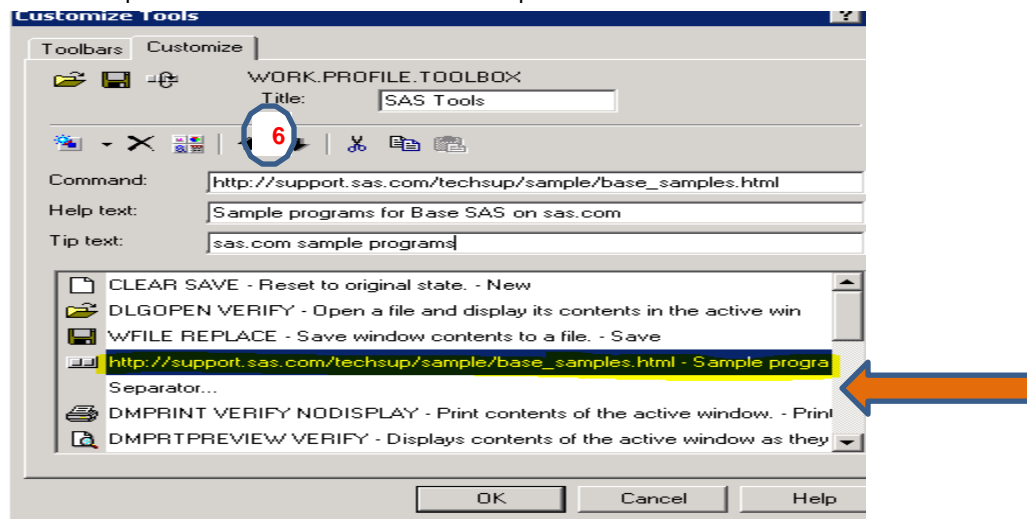The text entered on the command line appears here as a new tool.

3. In the Help Text field, type Sample programs for Base SAS on sas.com.
4. In the Tip Text field, type sas.com sample programs.

4

5. Click the Change icon button. From the Bitmap Browser dialog box, select a bitmap that is appropriate for the sample programs on the SAS Web site and click OK.
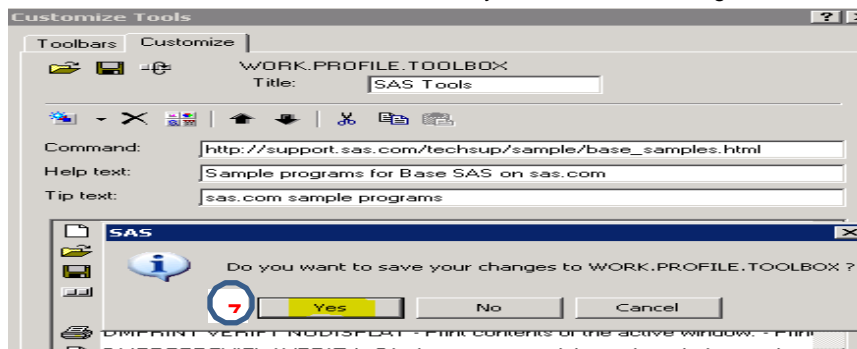
Display 5. Bitmap Browser Dialog Box

6. Use the Move tool up and the Move tool down buttons to position the tool in the toolbar.

Display 6. Customize Tools Dialog Box

7. Click the Save the toolbar button to save the tool with your default tool configuration.

Display 7. Customize Tools Save Dialog Box

CONCLUSION

This paper has described how to customize the toolbar in the Enhanced Editor window of the Display Manager interactive SAS® environment. Tools can be added to perform tasks that are used often, they can be added anywhere on the toolbar, and a number of icons are available to choose from to use as a picture display representing the command.

Many commands require the user to use both hands to perform a task, such as, CTRL + HOME to go to the beginning of a program or CTRL + END to go to the end of a program. Customizing the toolbar can greatly improve efficiencies while working on programs and after that, one click of an icon is all that is needed!

REFERENCES

SAS Institute, Customizing Your SAS Session, http://support.sas.com/documentation/cdl/en/hostwin/63047/HTML/default/viewer.htm#n0ygxckxoqkz7vn115sybx7ihf 48.htm

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