ABSTRACT
The boss wants all of your SAS® programs to have a header section of comments. She wants this section to be uniform across all of your programs, she wants it to have lots of stuff in it, and you don’t like to type. How can you automatically insert uniform blocks of text into your program with a minimum of typing and without using the paste buffer? The answer lies in the use of Abbreviations and Keyboard Macros. Abbreviations allow you to associate any amount of text with a designated word or set of keystrokes. Type in the designated word, press the tab key and the desired text is substituted into your program. In the example shown below, you will see how typing the word ‘HEADER’ inserts a series of comment statements that become the standard header block for a program.

KEYWORDS
Keyboard macro, Display Manager, Abbreviations, Enhanced Editor

KEYBOARD MACROS AND ABBREVIATIONS
The Enhanced Editor allows you to save a series of keystrokes as keyboard macros. A special form of these macros are keyboard abbreviations. So far I have not found a lot of practical uses for these keyboard macros, however when stored as an ‘abbreviation’ these keyboard macros can be VERY useful. The abbreviation allows you to recall stored code with a minimum of keystrokes. In the example that follows, these keystrokes form the outline of a header section of comments for a SAS program.

BUILDING AN ABBREVIATION
By using an abbreviation we will only need to type this code once, actually by using Window’s Cut-and-Paste buffer we may not even need to type it once. The first step is to somehow get the text of interest into any editor or wordprocessor. The code is then copied into the paste buffer (ctl-A ctl-C). For the purposes of this paper, the following comment is to be inserted into the top of each SAS program that is to be generated for a given project.

* xxx.sas
* Purpose:
* Written by:
* Art Carpenter
* 06Nov2001
* (760) 945-0613
* Inputs:
* Outputs:
* Notes:
* Modifications:
******************************************;

While running the Display Management System from within SAS, select the pull down menus Tools and Add Abbreviation.

The Add Abbreviation dialog box is then displayed (see below). In the first dialog space enter a name for the new abbreviation. This becomes a keyboard macro, so you must select a name that has not already been used. If the name is not accepted the OK button will remain grayed out. Then type (or more practically paste) the substitution text into the ‘Text to insert for abbreviation’ dialog space. In the following dialog box an abbreviation called ‘header’
containing the comment shown above has been defined.

Once you have pressed the OK button the abbreviation will be created and stored.

**USING THE ABBREVIATION**
Whenever you want to use an abbreviation, simply type in the name of the abbreviation while in the Enhanced Editor. As soon as the last letter of the abbreviation has been entered, a small pop-up ‘tip’ text box containing the first few digits of the abbreviation is displayed. If at that point you press the TAB key the name of the abbreviation will be replaced by the text that you stored.

The following screen shot shows that the name of the HEADER abbreviation has been entered in the Enhanced Editor and the first few characters of the text to be substituted is shown in the pop-up ‘tip’ box.

As soon as you press the TAB key the abbreviation name is replaced by the stored text.

**MODIFYING KEYBOARD MACROS**
Existing keyboard macros (remember an abbreviation is really a keyboard macro) can be modified, removed, renamed, and otherwise cared for through a dialog box designed for that purpose. Use the pull down menus Tools, Keyboard Macros, and then Macros (shown below) to open the dialog box used to work with existing keyboard macros.

This menu sequence brings up the following dialog box which is used to maintain the keyboard macro.

You can also create keyboard macros from this dialog box. Remember that they will NOT, however, be abbreviations.

**SUMMARY**
Building an abbreviation is both quick and simple. Create one for each standard text block that you routinely use. Consider an abbreviation for groups of TITLE statements, SYMBOL statements, or PATTERN statements. Perhaps you utilize a block of generic PROC REPORT statements that you then customize. The choices are endless.

To create a keyboard abbreviation follow these steps:
• In the Enhanced Editor add the text that is to be
substituted for the abbreviation

- Copy all of this text into the paste buffer (ctl-A and ctl-C)
- Select pull down menus Tools and Add Abbreviation
- Name the abbreviation (this becomes a keyboard macro)
- Paste or type in the text
- Press OK. The abbreviation has been created
- To use the abbreviation in the Enhanced Editor simply type in its name then press the tab key when the highlighted ‘tip’ text appears.

ABOUT THE AUTHOR
Art Carpenter’s publications list includes three books, and numerous papers and posters presented at SUGI, VIEWS, PNWSUG, PharmaSUG, NESUG, MWSUG, and WUSS. Art has been using SAS® since 1976 and has served in various leadership positions in local, regional, national, and international user groups. He is a SAS Certified Professional™ and through California Occidental Consultants he teaches SAS courses and provides contract SAS programming support nationwide.

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