

Changes and Enhancements for The SAS® System Versions 6.11 and 6.12 Under Windows

Christine E. Cox
Carolina Population Center
The University of North Carolina at Chapel Hill

ABSTRACT

This paper describes some of the more significant functional changes and enhancements in versions 6.11/6.12, outlining differences in the ways in which these changes actually work under Windows 3.11 (and 3.1) versus Windows 95. Features discussed include using the on-line help, use of memory, converting format libraries from earlier versions, changing the colors of the window elements, assigning function keys, using "print manager", use of work.datasets, changing the default working directory, and reading and writing files between the PC and a remote host with FTP.

INTRODUCTION

The following table shows the combinations of The SAS versions and Windows versions that are discussed. Windows 3.x is used for both Windows 3.1 and Windows 3.11 when the feature being discussed is the same in both. Likewise, The SAS 6.1x is used to indicate both 6.11 and 6.12.

Windows Version	The SAS SystemVersion	
3.1	6.11	6.12
3.11	6.11	6.12
95	6.11	6.12

Using the Online HELP

The online help in 6.1x is more extensive and useful than in earlier versions, though it takes longer to load. It is accessed by icon and pull-down menu, and the menu selections differ in each, so it's a good idea to explore both. The most straightforward way to get help on a particular topic is to use the "index" under the help icon and type the first few letters of what you're looking for. The "find" function "enables you to search for specific words and phrases in help topics, instead of searching for information by category." When find is accessed for the first time, Windows creates a list (database) containing every word in the help files. Under 3.x, the "find" function is bugged and will cause your machine to freeze up, necessitating rebooting.

According to SI's Tech Support, "this is not a problem with the SAS System but a Windows (Win 32) HELP facility problem, since this is what the SAS System uses for help. The SAS System tries to create the help list on the network where SAS resides first. If it fails, it tries to create help list on the user's local drive. Tech support suspects that it is unable to write to the network for some reason and Windows mishandles the next alternative of writing to user's local drive."

SI tech support suggests copying all the files that exist in the The SAS Windows help subdirectory on the network (probably called network_drive:\the SAS root\core\winhelp) into a subdirectory on user's local drive, then changing the -helploc option in CONFIG.SAS as follows:

```
-helploc
name_of_subdirectory_of_windows_help_files
```

This solution is obviously not practical, however, because of the amount of disk space these files would use on local hard drives. In 6.12 under Windows '95, however, the find function is extremely useful, though time consuming to load.

Another noteworthy feature available through the online help in 6.1x is the sample programs (found under the pull-down menus) which can be run for testing.

Converting Format Libraries from 6.08 to 6.1x

To convert your SAS System catalogs from Release 6.08 under Windows to Release 6.11:

While in your version 6.1x session, use the C16PORT procedure to create a transport file containing the catalog created in version 6.08. (description of this procedure and an example are available in the online help). Then use the CIMPORT procedure from your The SAS 6.1x session to read the transport file and create a converted The SAS catalog.

The syntax and usage of the C16PORT procedure is identical to that of the CPORT procedure, except that C16PORT does not support the DATA, OUTLIB, MT, or INDEX options.

If you have or can still create 6.08 transport files then you need only use CIMPORT to convert the files to 6.1x catalogs. The advantage of the C16PORT procedure is that you can perform the entire conversion from a Release 6.1x The SAS session.

Example:

The following example uses the C16PORT procedure to create a transport file from the INLIB Release 6.08 data library, then creates a Release 6.1x data library (OUTLIB) using the CIMPORT procedure.

```
libname inlib 'c:\lib608';      /* Directory
containing 6.08 catalogs */
libname outlib 'c:\lib61x';    /* Directory
to contain 6.1x catalogs */
```

```
proc c16port file='transprt' l=inlib;
run;
proc cimport infile='transprt' l=outlib;
run;
```

Changing colors in windows

Using the Globals,Options,Color Setup menu selection does not work in 6.11. The workaround is to go to the command bar and execute individual commands to change the colors. The commands apply to the window (program editor, log, output) screen you are currently in. The syntax is as follows:

Color→[window element]→[name of color]

Color options are white, red, green, blue, cyan, magenta, gray, pink, orange, brown, yellow. If you liked the 6.08 default colors and would like to get them back, you can submit the following macro:

```
%dm608clr;
```

To get back 6.1x default colors, submit the following macro:

```
%dmcolors;
```

Setting Keys

Some of the function key settings have been changed in version 6.11. To change these settings you can bring up keys using F9 or typing "keys" in the command box. Edit the text beside the function keys you wish to change (for example, I changed F5 to "rfind" and F6 to "rchange"), and save the window before exiting.

Using Data Manager statements

Data Manager statements are included in The SAS programs to automatically execute commands to clear screens, switch to other windows, save to files, etc. when the program is executed. In the SAS System version 6.08, when a data manager statement saving the program

editor, log, or output file was included in a program, a window would pop up which gave you the option of (1) not saving current changes to the file (2) saving and replacing the file, or (3) appending the current file to the existing file. Once you selected an option, the pop-up window would go away and the program continued running. In 6.11, there is a bug which causes this pop-up window to be unresponsive. This bug has been corrected with version 6.12. The workaround for 6.11 is to decide your option ahead of time and include it in the Data Manager command. E.g.:

```
filename program
"c:\ccox\programs\myprog.sas";
```

```
DM "pgm; recall; file program replace";
```

Automatically saves the current program as myprog.sas in my program directory, replacing the program if it already exists.

Using Print Manager

The facility known as "print manager" in 6.08 is a convenient way to print or save to file the output from selected procedures that have been run within a SAS session. In 6.1x, print manager has been retained, but is now called "output manager" and is accessed either by typing "mgr" in the command box or through the pull-down menus under "globals, present, view output".

Temporary Datasets

One of the nicest enhancements of versions 6.1x is that temporary "work." datasets are created with an SD2 extension. In the event your SAS session is terminated abnormally, these datasets remain, so they can be accessed when the SAS System is restarted. (Although one should verify that the dataset was not damaged when the SAS System terminated. For example, if the SAS System terminated before completion of a PROC SORT, the output dataset should be

scrapped and the sort procedure rerun.) It is also possible to copy these datasets into another directory before closing SAS to retain for use in a later session (when a new session is started, they must be copied back into the current folder under the SASWORK subdirectory if a one-level name is to be used to access them.).

Changing the default working directory

In either version, the working directory can be set during a The SAS session by clicking on the small "disk" icon in the lower right screen. This working directory is only in effect during the session. Normally the default working directory is permanently changed as follows:

Under Windows 3.1:

Select the SAS icon in the Program Manager, go to the File menu, and choose Properties. In the Properties dialog box, enter the new working directory on the Working Directory line.

Under Windows 95:

Hold down the right mouse button on the SAS System icon, and select Properties from the pop-up menu. Click on the Shortcut tab, and then enter the new working directory on the Start In line.

Under one particular setup of 6.11 under 3.11 (i.e., this does not happen generally), I found that new SASUSER and SASWORK folders were created in the same location, which is undesirable, because now the folder which contains your work is cluttered with these folders. Consequently, the SAS System automatically recreates profile.sc2 and profile2.sc2 in the new SASUSER folder, but any settings contained in the old profile files, such as colors, options, preferences, will not be in these new files. One could move the old ones into the new folders, of course, but this can be tedious, especially if you change working directory frequently.

The workaround if you get this problem is as follows:

First: edit the lines in config.SAS specifying the paths for the SASUSER and The SASWORK folders as follows:

```
/* Setup the default SAS System user &
work profile directories */
-SASUSER !SASFOLDER\SASUSER\
-WORK C:\SAS611\SASWORK\
```

Then change the working directory using the normal procedure.

Creating and Accessing ASCII files on a remote host

Version 6.11 can access or create flat files (not datasets) on a remote host via FTP. Before, one had to FTP the file from one machine to another first, then open the SAS System to read the file from the machine to which the file was moved. Here are examples of how this works:

Example 1: Creating a raw file on a remote host:

```
filename raw ftp '/home/ccox/rawfile'
user='ccox' host='gibbs.oit.unc.edu'
recfm=v prompt;
```

```
data _null_;
file raw;
do l=1 to 100;
put l=;
end;
run;
```

Writes the file rawfile on the remote host Gibbs under the /home/ccox/ directory. You will be prompted to type in your password for the remote host as the code is running.

Example 2: Reading a raw file from a remote host:

```
filename raw ftp '/home/ccox/rawfile'
user='ccox' host='gibbs.oit.unc.edu'
recfm=v prompt;
```

```
data mydata;
infile raw;
input l $ ;
run;
```

This reads the raw file "rawfile" from Gibbs, from the directory in which it is stored, which is "/home/ccox".

Memory

6.x uses more memory than version 6.08, making it more imperative to use efficient programming and maintain adequate free space on your disk if working from a local hard drive. You also may have more problems than with 6.08 with running other applications simultaneously. The following note may appear in your log in 6.11:

"Note: Timeout waiting for application--possible infinite loop."

This is apparently just a random windows bug and, though the SAS System may briefly stall while running, does not appear to have any detrimental effect on the data or output.

Modifying the Toolbar:

Changing Default file extensions

Using the "options, edit tools" menu is a handy way to customize your SAS System environment under Windows. The procedure for creating new buttons is demonstrated below using the example of creating a button to save program files with a new default extension.

By default, the SAS System uses the extension .sas to refer to programs and only permits programs to be saved with this extension. Clicking on a file with the extension ".sas" in File Manager, for example, will automatically start a SAS System session. But say you want to save your program with the extension "PGM" to be compatible with the convention you use on some other platform. A method described by Arturo Barrios at UNC is to create a new tool bar button as follows:

from the Menu Bar select Options... Edit Tools

click on ADD and select Tool

A window will appear. On the command line type:

PGM; dlgsave filter='*.pgm'

On the help line type:

Save As

On the Tip line type:

Save As

Now click on Browse to pick-up a picture for your icon. After selecting the picture click on Save.

Now you have a new button in the tool bar. Click on it and see the Save as window appear. Notice that it is now showing the pgm extension, by default. The nice thing about this method is that all the other default names that the SAS System recognizes are kept as well.

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Christine Cox
Carolina Population Center
The University of North Carolina at Chapel Hill
CB# 8120 University Square
Chapel Hill, NC 27516-3997
(919) 966-0938
ccox@unc.edu