

Running Parts of a SAS® Program While Preserving the Entire Program

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ABSTRACT

We often have the need to execute only parts of a SAS® program, while at the same time preserving the entire program for documentation or for future use. This occurs when parts of the program have been run, when different circumstances require different parts of a program, or when only subsets of the output are required.

There are different ways in which parts of a program can be run while preserving the entire program:

- %INCLUDE statements to call multiple programs from within a shell SAS program
- Using external shell programs in the operating system (like shell scripts in Unix)
- Using macros to deactivate code
- Using %LET statements to indicate to macros which parts of the program should be run
- Commenting out parts of the program
- Using SAS EG to only submit parts of a program interactively
- A combination of the above techniques

INTRODUCTION

The Challenge: We have long programs that accomplish a number of different objectives. We often only want to run parts of the programs while preserving the entire programs for documentation or future use. Some of the reasons for selectively running parts of a program are:

- Part of it has run already and the program timed out or encountered an unexpected error. It takes a long time to run so we don't want to re-run the parts that ran successfully.
- We only need some of the results from the program currently, but we want to preserve the entire program.
- We want to test new scenarios that only require subsets of the program.

POSSIBLE SOLUTIONS

%INCLUDE statements

- Place each logically distinct module in a separate SAS program.
- Have the main program issue a series of %INCLUDE statements to run the entire program.
- Comment out the parts you don't need.
- Here is an example:

```
%INCLUDE program A;
*%INCLUDE program B;
%INCLUDE program C;
```

Use the operating system to call the different parts of the program

- Place each logically distinct module in a separate SAS program.
- Have the operating system call each program separately.
- Comment out the parts you don't need. This is similar to the above method but it is done in a Unix Script

```
sas pgma.sas
#sas pgmb.sas
sas pgmc.sas
```

Use macros to deactivate code

- Put the code that you don't want run inside a macro
- Don't execute the macro
- This will work even if there are macros inside the macro you create

```
SAS code you want to run
%MACRO SKIP;
SAS code you don't want to run
%MEND SKIP;
SAS code you want to run
```

Use %LET statements to indicate to macros which parts of the program to run
Put the %LET statements at the beginning of the program to make them easier to modify
Set a flag to identify which parts of the program to run

*** The following statements will run the first set of code but not the second ***;

```
%LET FLAGA=Y;
%LET FLAGB=N;

%MACRO RunA(A);
    %IF &A=Y %THEN %DO;
        SAS statements;
    %END;
%MEND RunA;
%RUNA(&FLAGA); *** The value is Y, so the statements will run***;

%MACRO RunB(B);
    %IF &B=Y %THEN %DO;
        SAS statements;
    %END;
%MEND RunB;
%RUNB(&FLAGB); *** The value is N so the statements will not run ***;
```

Comment out parts of the program

Put the code you don't want to run between /* and */

WARNING: If the code already contains */, this will not work because the comment will end too early

```
/****** Don't run the following code
SAS code you don't want to run;
*****/

*Run the following code;;
SAS code you want to run;
```

Using SAS EG interactively to only submit the parts of the program you want to run

```
Open SAS EG
Click on File
Click on Open
Click on Program
Import the program
Highlight the part you want to run
Click on the downward pointing arrow next to Run
Click on Run Selection
```

You can combine the above techniques as required and you will have a workable solution. You will be able to keep entire SAS programs intact and only run the parts that are required at the time.

CONCLUSION

Through the use of different techniques, we can preserve an entire program while running only part of the program. Thus we do not lose the original end-to-end processing even as we only run the parts we need.

CONTACT INFORMATION

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