

What Not to Do in a Program Used with %INCLUDE

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ABSTRACT

This Rapid Fire session will provide a fast look at what can make a program you list on a %INCLUDE statement not work. Based on a frustrating real-world scenario.

INTRODUCTION

The ability to run a SAS® program from another program is a great feature. It can save you time and make your programs more efficient and modular. However, there are a few things to keep in mind for the programs you run from within another program.

FIRST THE SYNTAX

The %INCLUDE statement is very simple and consists of the following:

```
%INCLUDE source(s)
</<SOURCE2> <S2=length> <operating-environment-options> >;
```

The SAS documentation provides details on all of the options and the link to the relevant online page is included in the references. This paper focuses on a specific piece of advice for using the %INCLUDE statement.

PARTICULAR SYNTAX

The use case of the %INCLUDE statement for this paper is for running a program from within another program. This is easily done by incorporating a statement like the one below in your program:

```
%include "I:\$TAFF\Stephanie\_DW Connect.sas";
```

This statement is calling for the SAS session to run the program “_DW Connect.sas.” The path syntax is operating system dependent. You can reference multiple programs on one %INCLUDE statement or have several of them throughout your program.

Most important to remember is that the referenced program is read in as is and executed. It is just like it has been cut and pasted right there in your current program.

SO, WHAT CAN GO WRONG?

The main program that used the %INCLUDE statement was referencing two programs that established connections to different Oracle databases. Knowing that %INLCUDE ran each program sequentially, it seemed strange that only the first connection was established but not the second when the main program was run. Each program ran individually without any issue. I tried it several times and had the same result. I separately went and ran each program and they worked. What was wrong?

Remember that the %INCLUDE statement is like cutting and pasting the referenced program into your editor. Well, that was my problem. If I am running a program as a stand-alone program, I sometimes leave an unclosed comment block at the bottom out of convenience. Maybe it is for code I only run occasionally or as in this case, to de-assign libnames. The end of the included program was as shown below:

```
/* libname dwods;
   libname dwinfo;
```

Now, when the “_DW Connect.sas” program was executed from the %INCLUDE statement, the un-closed comment block remained unclosed. The second program called from the second %INCLUDE statement did not execute properly as it was partially commented out by the unclosed comment block from the previous program. Once the comment block was closed, the subsequent statements executed.

An unclosed comment block isn't the only problem you could face using a %INCLUDE statement. Procedures using run group processing where the RUN statement is not in the program would not execute until a RUN statement is encountered. Also, procedures requiring a QUIT statement to terminate would not do so unless another step boundary or QUIT statement was encountered. Other possibilities may exist as well.

CONCLUSION

%INCLUDE can be a very useful tool in your programming toolbox. It is important to make sure that not only does the program run on its own, but that all comment blocks are closed and all needed statements are present. What may run alone, may wreak havoc when used with a %INCLUDE statement.

REFERENCES

SAS Support Website. “%INCLUDE Statement.” Accessed August 17, 2019.
https://documentation.sas.com/?cdcid=pgmsascdc&cdcVersion=9.4_3.4&docsetId=lestmtsglobal&docsetTarget=p1s3uhhqtszc2sn1otiatbovfn1t.htm&locale=en#n00bihrpksgveyn1i4sccqyilq74.

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