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if x then do y... else do z ≤ solved

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ursamajor New Contributor

6 Posts: 2 ☑ if x then do y... else do z

05-07-2018 10:11 AM

Hello

I'm trying to solve a bug in my code where I have some if...then...do...else...do logic. The bug is that the code 'does' both tasks regardless of passing/failing condition. Specifically, the code is supposed to do nothing in a 'Success' (mkt_count > 350). In a failure, (mkt count < 350), it should spit out an email. However, an email is being generated in both cases (even though no warnings or errors are thrown). Any idea what I'm doing wrong? I'm using SAS Enterprise Guide 7 if that matters.

```
data _null_;
%let src tbl='table a';
%let trg_tbl='table b';
if &mkt count.>350 then
put 'SUCCESS';
call symput('src tbl','table a');
call symput('trg tbl','table b');
else
do;
put 'FAILURE';
call symput('src tbl','table a');
call symput('trg tbl','table b');
filename getdone email
from='admin@xyz.com'
to=(
'analyst@xyz.com'
subject="(Teradata &code_env) Subject line"
content_type="text/html";
ods listing close;
ods html style=styles.test body=getdone;
TITLE1 'This email is still under testing as it is throwing false alarm.';
ODS HTML CLOSE;
ODS LISTING;
end;
run;
```

Message 1 of 5 (13,296 Views)

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▼ This topic is solved.

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if then else do synta:

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05-07-2018 10:11 AM

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Accepted Solutions



12-20-2019 11:11 AM

Re: if x then do y... else do z [Edited]

ChrisHemedinger Community Manager

Posted in reply to ursamajor 12-20-2019 11:08 AM - edited 12-20-2019 11:22 AM



Posts: 3,991

@Rick_SAS provided a great explanation about global statements versus those that are scoped to your DATA step. Here's an example that shows how to conditionally send an e-mail based on the values that you find in your data. This approach uses the %IF-%THEN-%ELSE statements in open code, which has been possible since SAS 9.4 Maint 5 (released in 2017).

```
/\ast Pretend we are counting records where RESULT=1 \ast/
proc sql noprint;
  select count(result) into: mkt_count
    from source dataset
      where result=1;
quit;
/* If beyond a certain threshold, send e-mail */
options nocenter emailhost='yourmailhost.company.com' emailsys=smtp;
%if &mkt_count. > 350 %then
 %do;
    filename msg email to=(
      'analyst@xyz.com'
      FROM = "admin@xyz.com"
      subject="Alert: Count = &mkt_count., exceeds target"
      type='text/html'
   ods msoffice2k (id=email)
      file=msg (title="Alert")
      style=dove;
    ods noproctitle;
  /* SAS proc to generate the body of the e-mail */
    title "Results distribution";
    proc freq data=source.dataset;
      table result;
   ods msoffice2k (id=email) close;
 /st under threshold, no alert needed st/
%else %do;
 %PUT NOTE: Count is &mkt_count. -- under threshold;
 %end;
```

View solution in original post

Message 5 of 5 (4,523 Views)

> 0 Likes Reply

All Replies





Posts: 5,301

Re: if x then do y... else do z Posted in reply to ursamajor

05-07-2018 10:56 AM

SAS has two kinds of statements. GLOBAL statement such as %LET, FILENAME, TITLE, and ODS statements are always executes. Think $SAS_n P$ is a linear properties by the second kind of statements are program control statements (IF-TheN/ELSE, DO, function calls) that are executed within a DATA step.

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In your example, the global statements are executed regardless of the logic of the IF/THEN/ELSE conditions. Run $\,$ this little example to see that the LIBNAME statement executes even though it is in an ELSE block that never

```
data _NULL_;
if 1 then do;
   x=1:
end;
else do;
   x=2;
   libname foo "C:/test/";
end:
run;
/* display value of libname */
data _null_;
  length Lname $ 100;
   Lname=pathname('foo','L');
  put Lname=;
run;
```

Message 2 of 5 (13,279 Views)

> 0 Likes Reply

New Contributor

Re: if x then do y... else do z

Posted in reply to Rick_SAS

05-07-2018 01:53 PM

Posts: 2

Thank you @Rick_SAS for that explanation. It certainly makes sense now. But what do you suggest would be a workaround? Is there any way to make sure that ELSE only executes when the IF condition is not met?

Message 3 of 5 (13,256 Views)

0 Likes

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SAS Super FREQ



Posts: 5,301

Re: if x then do y... else do z [Edited]

Posted in reply to ursamajor

05-07-2018 02:12 PM - edited 05-07-2018 02:22 PM

I've never done this, so someone will have to help you with the details. What I would suggest, however, is to wrap the relevant "send email" statements into a macro, and then call the macro conditionally. For example, if the code to send the email is in the macro

```
%macro SendEmail();
%mend;
then you can process some data and execute the macro only when some condition is true, as follows:
data null;
if &mkt_count > 350 then do; /* ??? how does &mkt_count get defined??? */
 put 'SUCCESS';
end;
else do;
 put 'FAILURE';
 call execute("%SendEmail()");
end;
```

run;

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0 Likes

12-20-2019 11:11 AM

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ChrisHemedinger

Re: if x then do y... else do z [Edited]

Posted in reply to ursamajor

12-20-2019 11:08 AM - edited 12-20-2019 11:22 AM



Posts: 3,991

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```
/* Pretend we are counting records where RESULT=1 */
proc sql noprint;
 select count(result) into: mkt count
    from source.dataset
      where result=1;
quit;
/* If beyond a certain threshold, send e-mail */
options nocenter emailhost='yourmailhost.company.com' emailsys=smtp;
%if &mkt_count. > 350 %then
 %do;
    filename msg email to=(
       'analyst@xyz.com'
      FROM = "admin@xyz.com"
      subject="Alert: Count = &mkt_count., exceeds target"
      type='text/html'
    \begin{array}{ll} \textbf{ods} \  \, \textbf{msoffice2k} \  \, (\textbf{id} \texttt{=} \textbf{email}) \end{array}
      file=msg (title="Alert")
      style=dove;
    ods noproctitle;
  /\ast SAS proc to generate the body of the e-mail \ast/
    title "Results distribution";
    proc freq data=source.dataset;
      table result;
   ods msoffice2k (id=email) close;
 %end;
 /* under threshold, no alert needed */
 %PUT NOTE: Count is &mkt_count. -- under threshold;
 %end;
```

Message 5 of 5 (4,524 Views)

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