

About the presenter

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MACRO VARIABLES IN SAS ENTERPRISE GUIDE

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#SASGF 

Issue:

- How to bring macro variables and their values from the server to the local workspace and vice versa?

Manually retyping the macro variables and their values in the local workspace after they have been created in the server workspace would be time-consuming and error-prone, especially when we have quite a number of macro variables and values to bring over.

Example: Macro variables in server to be brought to local

Macro variable	Value	Macro variable	Value
COLL_1	AH	COLL_5	DN
COLL_10	IN	COLL_6	ED
COLL_11	LF	COLL_7	EG
COLL_12	MD	COLL_8	GR
COLL_13	NR	COLL_9	HS
COLL_14	PH	DEPTS	ANAT BIOC BUSS CHSC EDUC GVPA MASC MUSC NURS SLWK WRLD
COLL_15	SW	FIRST_FALL	200910
COLL_16	VR	FIRST_SUMMER	200830
COLL_17	WS	LAST_FALL	201510
COLL_2	AR	LAST_SUMMER	201430
COLL_3	BE	MAJORS	BIO,MATH,PHYS,COMM,CHEM,HIST,G EO,ENG,FIN,INS
COLL_4	BU		

How to: Use macro dictionary table and call symput routine

- First, have a look at a SAS macro dictionary table where all macro variables and their values are stored (server domain).

```
proc sql;
create table macro_list_all as select distinct *
from dictionary.macros
; quit;
```

Original "dictionary.macros" table from SAS (server)

scope	name	value
AUTOMATIC	SYSDATE	15JUN15
AUTOMATIC	SYSSCP	LIN X64
AUTOMATIC	SYSSITE	0070001453
AUTOMATIC	SYSVLONG	9.02.02M3P041310
GLOBAL	COLL_1	AH
GLOBAL	COLL_2	AR
GLOBAL	COLL_3	BE
GLOBAL	COLL_4	BU
GLOBAL	COLL_5	DN
GLOBAL	COLL_6	ED
GLOBAL	FIRST_FALL	200910
GLOBAL	LAST_FALL	201510
GLOBAL	MAJORS	BIO,MATH,PHYS,COMM,CHEM,HIST,GEO,ENG,FIN,INS
GLOBAL	_CLIENTAPP	'SAS Enterprise Guide'
GLOBAL	_CLIENTUSERID	'kdto'
GLOBAL	EG_WORKSPACEINIT	1
GLOBAL	SASSERVERNAME	'SASApp'

We trim the macro dictionary table (dictionary.macros) and just keep macro variables and values that we have created and would like to bring to the local workspace. These user-defined macro variables have global scope and their names do not start with 'SYS', 'SQL', 'SAS', or '_'.

```
data macro_list; set dictionary.macros;
where scope = 'GLOBAL'
and (substr(name,1,3) not in ('SYS','SQL','SAS')
and substr(name,1,1) not in ('_'));
run;
```

Now, bring this “macro_list” data set to the local workspace and run the following data step to recreate the macro variables and their values:

```
data _null_; set macro_list;
call symput(name, value);
run;
```

As a check, the following command will show what we have in the macro dictionary table (local domain):

```
proc sql;
create table macro_list_all as select distinct *
from dictionary.macros
; quit;
```

"dictionary.macros" table (local domain)

scope	name	value
AUTOMATIC	SYSDATE	15JUN15
AUTOMATIC	SYSSCP	LIN X64
AUTOMATIC	SYSSITE	0070001453
AUTOMATIC	SYSVLONG	9.02.02M3P041310
GLOBAL	COLL_1	AH
GLOBAL	COLL_2	AR
GLOBAL	COLL_3	BE
GLOBAL	COLL_4	BU
GLOBAL	COLL_5	DN
GLOBAL	COLL_6	ED
GLOBAL	FIRST_FALL	200910
GLOBAL	LAST_FALL	201510
GLOBAL	MAJORS	BIO,MATH,PHYS,COMM,CHEM,HIST,GEO,ENG,FIN,INS
GLOBAL	_CLIENTAPP	'SAS Enterprise Guide'
GLOBAL	_CLIENTUSERID	'kdto'
GLOBAL	EG_WORKSPACEINIT	1
GLOBAL	_SASSERVERNAME	'Local'

Last but not least:

- When create a user-defined macro variable, it is advisable that the name of the macro variable does not start with 'SYS', 'SQL', 'SAS', or '_' as these characters are used by SAS to create systematic macro variables.

