



# Where did those formats go?

BASUG Coders' Corner

December 3, 2015

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# Overview

- Rationale
- Overview of SAS Format Catalogs
- %LocFMT
- %MissFMT
- %MultiChkFMT

# Rationale

- Complex hierarchy of format catalogs
  - Core → Study → Report (s)→ Tables/Figures
  - Format definitions being updated
  - Location of format catalogs being moved
- Validation of format definitions, dataset creation, and analysis programs
  - Person validating the program cannot edit or re-run the program

# Overview of SAS Format Catalogs

```
libname perm "C:\Users\Public\Documents\StudyXXX";
options fmtsearch=(perm work);

proc format lib=WORK;
  value yesno
    1="Yes"
    2="No"
  ;
run;
```

Explorer (2)

SAS Environment

Contents of 'Work.Formats'

Name	Size	Type	Description	Modified
Yesno	0.3KB	Format		01Oct15:14:42:59

SAS Environment

- Libraries
  - Maps
  - Perm
  - Sashelp
  - Sasuser
  - Work
    - Formats
    - Sasmacr
- File Shortcuts
- Favorite Folders
  - My Documents
  - My Desktop
- Computer

# %LocFMT

- Provide the format name and the macro will find where the format is defined
- SAS will print out the library and the path to the specific format catalog
  - If needed, the fmtsearch option can be updated and the %LocFMT can be run again
- %LocFMT (<format name>);

# %LocFMT (<Format Name>);

- %LocFMT (yesno.);

Output from LocFMT macro		
Format Name	Library Name	Path Name
YESNO	WORK	D:\Users\jlavenbe\AppData\Local\Temp\SAS Temporary Files\_TD17424

- %LocFMT (\$TestCode.);

Output from LocFMT macro		
Format Name	Library Name	Path Name
\$TESTCODE	PERM	C:\Users\SASUser\Documents\StudyXXX

# %MissFMT

- Provide a library reference and the macro will search through every dataset in that library for missing formats
- SAS will print out the dataset(s), variable(s), and missing format(s), as well as a summary of the missing format(s)
  - If needed, the fmtsearch option can be updated and the %MissFMT can be run again
- %MissFMT (<library reference>);

# %MissFMT (<Library Reference>);

- %MissFMT (work);

Output from MissFMT macro - WORK Library

Dataset Name	Variable Name	Format Name
DRGADM	STATUSID	DESPGST.
DS	DSDISC STATUSID	DISREAST. DESPGST.
EG	EGNORCS EGOVRES STATUSID	\$EMPTYSTATE. NRMABNRM. DESPGST.

- %MissFMT (perm);

Output from MissFMT macro - PERM Library

Dataset Name	Variable Name	Format Name
VISITS	vitlstat	VITLSTAT.
VSIGNS	heightms instn tempmeth tempunit weightms	HMSUNIT. INSTFMT. TEMPMETH. TEMPUNIT. WMSUNIT.



# %MultiChkFMT

- The %MultiChkFMT macro scans through the defined format catalog(s) for overlapping format definitions and highlights which one will be used
  - The fmtsearch option, overrides the default value (WORK) and defines the specific libraries and the hierarchy SAS should follow
- Depending on the level of detail (submitted as a parameter) SAS will print out different information
  - 1 – Overlapping format names and order of definitions SAS will use
  - 2 – Format definitions SAS is using for overlapping formats names
  - 3 – Output from 1 and 2
- %MultiChkFMT (<level of detail>);

# %MultiChkFMT (<Level of Detail>);

- %MultiChkFMT (1);

Output from MultiChkFMT macro  
Overview of overlapping format definitions

Format Name	Library Name
DIAGTYPF	Table2
	Dec2015
	DSMB
	StudyXXX
	CBAR

# %MultiChkFMT (<Level of Detail>);

- %MultiChkFMT (2);

Output from MultiChkFMT macro		
Details of overlapping format definitions being applied to datasets		
FORMAT NAME: DIAGTYPF LENGTH: 40 NUMBER OF VALUES: 15		
MIN LENGTH: 1 MAX LENGTH: 40 DEFAULT LENGTH 40 FUZZ: STD		
START	END	LABEL (VER. V7 V8 13NOV2015:22:34:28)
1	1	Cardiovascular Diseases
2	2	Infectious Diseases (Non-Mycobacterial)
3	3	Metabolic/Endocrine Disorders
4	4	Hepatobiliary Disorders
5	5	Immune Reconstitution Inflammatory Syndr
6	6	Genitourinary/STDs
7	7	Hematologic Disorders
8	8	Mycobacterial Infection(s)
9	9	Neoplastic Disease
10	10	Neurological Disorders
11	11	Renal Disorder(s)
12	12	Bone Fractures
13	13	Other Disorders
99	99	Death
999	999	All targeted events

# %MultiChkFMT (<Level of Detail>);

- %MultiChkFMT (3);

Output from MultiChkFMT macro  
Overview of overlapping format definitions

Format Name	Library Name
DIAGTYPEF	Table2
	Dec2015
	DSMB
	StudyXXX
	CBAR

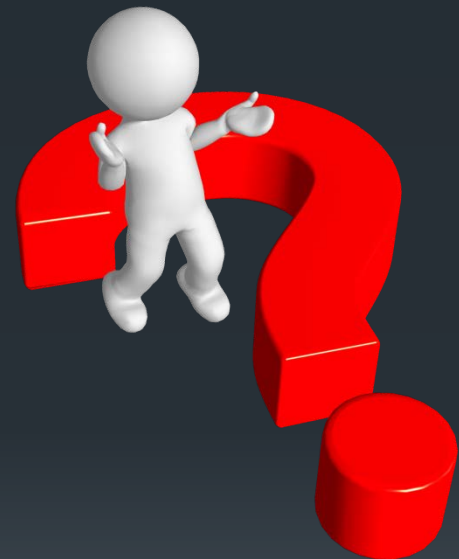
Output from MultiChkFMT macro  
Details of overlapping format definitions being applied to datasets

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11	11	Renal Disorder(s)
12	12	Bone Fractures
13	13	Other Disorders
99	99	Death
999	999	All targeted events

# Contact Information

Questions, comments, or concerns are welcomed.

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# Code for macros

- Code with internal document will be available on the BASUG website, [www.basug.org](http://www.basug.org).