A CONCEPT OF A MACRO TO SUMMARIZE THE PROC COMPARE

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- The proposed macro has NOT been validated and NOT been implemented at Gilead Sciences.

- The proposed macro is intended to supplement the validation process but not replace it.

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Why ..?

- Typical Phase II or III study contains ~350 items (sdtm, adam and tlf).

- They all are expected to be programmatically validated. And also tracked.

- Majority of the programming teams in industry use PROC COMPARE to validate the Datasets and TLF's.

- The only way to know if an item has been validated is to look at the corresponding ".lst" file.

- After a full re-run the team has to go through the said ~350 .lst files.

- This becomes tedious when meeting a tight deadline.

What ..?

☐ Summarizes the validation status of all the proc compare outputs in a folder.

PROGRAM	PROD	QCER	STATUS	QCCOMM	RUNDTM	RETCOM	CODE
test1	John Doe	Jane Doe	FAIL		05OCT18:13:33:37	A value comparison was unequal#Co	4224
test2	Jane Doe	John Doe	FAIL		05OCT18:13:34:16	A value comparison was unequal#Co	6272
test3	John Doe	Jane Doe	FAIL		05OCT18:13:34:37	Variable has different label	32
test4	Jane Doe	John Doe	PASS		05OCT18:13:34:52		0

☐ Due to which

>Hassle-free check of proc compare.

>Build a tracker automatically.

How ..?

- Proposed macro replaces the traditional proc compare.

- Proc Compare:

Proc compare base = prod compare = qcer listall <criterion = xxx.xxx>;
    id <xxxxxx>;
    run;

- Proposed:

%compit(comments = ,criterion = ,compid = ,pprog = ,qprog =);

Comments = User defined comments like *'Differences are due to data issues. Validated'*.
Criterion = Option to add a criterion statement. *'Criterion = 0.00001'.*
Compid = The variables to be added in ID statement.
Pprog = Production programmer name.
qprog = Validation programmer name.

Huh ..?

- A macro variable called **SYSINFO** is automatically generated when proc compare is executed.

- **SYSINFO** will have a unique code depending on the result of proc compare. We just harvest it and decode it.

	Table 1: The Meaning of SYSINFO Codes		
Bit	**Condition**	**Code**	**Description**
1	DSLABEL	1	Data set labels differ
2	DSTYPE	2	Data set types differ
3	INFORMAT	4	Variable has different informat
4	FORMAT	8	Variable has different format
5	LENGTH	16	Variable has different length
6	LABEL	32	Variable has different label
7	BASEOBS	64	Base data set has observation not in comparison
8	COMPOBS	128	Comparison data set has observation not in base
9	BASEBY	256	Base data set has BY group not in comparison
10	COMPBY	512	Comparison data set has BY group not in base
11	BASEVAR	1024	Base data set has variable not in comparison
12	COMPVAR	2048	Comparison data set has variable not in base
13	VALUE	4096	A value comparison was unequal
14	TYPE	8192	Conflicting variable types
15	BYVAR	16384	BY variables do not match
16	ERROR	32768	Fatal error: comparison not done

Additional Functionality

☐ The macro outputs a sas dataset currently. Which can be converted to an Excel file to be used as a tracker.

☐ Using some VB programming skills, we can add some metrics like Total, Completed and Outstanding in the tracker.

☐ An automatic email notification can be sent to the team once the rerun is completed.

Reference:

- **Deciphering PROC COMPARE Codes: The Use of the bAND Function – SAS Global Forum 2012.**

- **Sending E-mail from the DATA step - SAS Global Forum 2008.**

- **http://support.sas.com/documentation/cdl/en/proc/65145/HTML/default/viewer.htm#n0c1y14wyd3u7yn1dmfcpaejllsn.htm**