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Adding Upper and Lower Limits to an "Eval –e" Procedure Line

Overview:

It is sometimes necessary to use an "EVAL –e" FSC in a procedure to evaluate if a test is within two limits. The following example procedure gives several [JRM3] ways to do this evaluation.

Example Procedure:

```
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INSTRUMENT:              Example of "EVAL" with upper and
                         lower limits
DATE:                    2002-06-03
AUTHOR:                  William J. Spath
REVISION:
ADJUSTMENT THRESHOLD:    70%
NUMBER OF TESTS:         4
NUMBER OF LINES:         47

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```

Technical Bulletin #1003

Applies to:

MET/CAL® Version 6.XX

Level of difficulty:

Moderate

Issue date:

March 2004

Written by:

Bill Spath

STEP	FSC	RANGE	NOMINAL	TOLERANCE	MOD1	MOD2 3 4 CON
1.001	LABEL		Enter_Number			
1.002	MEMI		Enter a number between -100 and +100			
1.003	JMPL		Good_Number	((MEM >= -100) + (MEM <= 100)) > 1		
1.004	DISP		the number you entered ([MEM]) is not between			
1.004	DISP		-100 and +100!! Try again			
1.005	JMPL		Enter_Number			
1.006	LABEL		Good_Number			
1.007	MATH		M[1] = -100 ; M[2] = -50			
1.008	MATH		S[1] = "Is " & MEM & " >= " & M[1] & " and <" & M[2]			
1.009	EVAL	-e	((MEM >= M[1]) + (MEM < M[2])) > 1 : [S1]			
2.001	MATH		M[1] = -50 ; M[2] = 0			
2.002	MATH		S[1] = "Is " & MEM & " >= " & M[1] & " and <" & M[2]			
2.003	EVAL	-e	((MEM >= M[1]) + (MEM < M[2])) > 1: [S1]			
3.001	MATH		M[1] = 0 ; M[2] = 50			
3.002	MATH		S[1] = "Is " & MEM & " >= " & M[1] & " and <" & M[2]			
3.003	EVAL	-e	((MEM >= M[1]) + (MEM < M[2])) > 1: [S1]			
4.001	MATH		M[1] = 50 ; M[2] = 100			
4.002	MATH		S[1] = "Is " & MEM & " >= " & M[1] & " and <" & M[2]			
4.003	EVAL	-e	((MEM >= M[1]) + (MEM < M[2])) > 1: [S1]			

Summary:

Using "EVAL –e" allows multiple ways of evaluating limits of data while still giving full description on the results.

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