

- SureCAL featured in Test and Measurement World
- New SureCAL Procedures and Drivers
- NSCLi 2003

# The SureCAL<sup>®</sup> Circle



## In Defense Of Calibration

*SureCAL Management is Featured in Test and Measurement World*

### In Defense of Calibration

The August issue of Test and Measurement World featured an interview with Gary Jennings, Manager of Northrop Grumman ES Calibration Services and SureCAL Products Program manager. Topics of discussion included benefits of automation of calibration (with SureCAL), uncertainty, and value added vs. cost of calibration. You can register to receive Test and Measurement World at [www.tmworld.com](http://www.tmworld.com)

### New Calibration Label Support

Oh Brother, where art thou? If we're talking support for label printers, it's right here! Many labs have purchased, or plan to purchase, the Brother PT-9200 series label printer. SureCAL has added a new calibration label support routine to support these popular label printers. In fact, this new calibration label routine works with any windows printer. This is a **free** upgrade provided to all customers with a current software maintenance agreement.

### NEW SureCAL PROCEDURES

- Agilent E4402B Spectrum Analyzer
- Agilent E4403B Spectrum Analyzer
- Agilent E4404B Spectrum Analyzer
- Agilent E4405B Spectrum Analyzer
- Agilent E4407B Spectrum Analyzer
- Agilent E4408B Spectrum Analyzer

- Agilent E8257C PSG Synthesizer
- Agilent E4422B ESG Synthesizer
- Agilent 8508A/85081B Vector Voltmeter w/ High Impedance Module
- Agilent 8508A/85082A Vector Voltmeter w/ 50 ohm Impedance Module
- Boonton 92EA RF Voltmeter
- Boonton 9231 RF Voltmeter
- Agilent 84813A RF Peak Power Sensor (Requires Power Sensor Pkg)
- Agilent 8477A Calibrator, Power Meter
- Agilent 11683A Range Calibrator
- Fluke 123 Scopemeter, Handheld
- Agilent 11793A Frequency Converter
- Agilent 54642A Oscilloscope
- Agilent 53147A Power Meter, Counter 20GHz, & DVM
- Agilent 11715A AM/FM Test Source
- Fluke 1520 Megohmmeter

### NEW SureCAL DRIVERS

- Tektronix TDS5000 Oscilloscopes
- Agilent 6032A DC Power Supply
- Agilent 6035A DC Power Supply
- Agilent E4401 Spectrum Analyzer
- Agilent E4402 Spectrum Analyzer
- Agilent E4403 Spectrum Analyzer
- Agilent E4404 Spectrum Analyzer
- Agilent E4405 Spectrum Analyzer
- Agilent E4407 Spectrum Analyzer
- Agilent E4408 Spectrum Analyzer

- Agilent E4411 Spectrum Analyzer
- Agilent E4440 Spectrum Analyzer
- Agilent E4443 Spectrum Analyzer
- Agilent E4446 Spectrum Analyzer
- Agilent E4448 Spectrum Analyzer
- Boonton 4531 RF Voltmeter

### NSCLi 2003:

We would like to thank all that visited with NG Electronic Systems SureCAL Products in Tampa this August. Winners of our Business Card drawings for the World Clock-Calendar-Calculator desk units include:

**Peter DeWitt**, Holt Instrument Laboratories

**Mark Hayes**, Lockheed Martin Stennis Space Center

**Duane Yamashita**, Brother International Corporation

This year we introduced a new booth style and merged our advertising efforts with a sister organization, NG Space Technology. They represent the former TRW Calibration Services out of Redondo Beach, CA.

Introduced at the show this year was the first phase of our SureCAL RF Components Package software that we delivered to the USAF. We have been breaking new ground with our dynamic measurement uncertainty budget scheme, in a race to help the industry comply with the reporting requirements of ISO-17025. Our efforts are continuing, and you will be hearing more about this package and its expanding capabilities.

# How To Use The SureCAL Customer Support Email Feature

Are you having a problem running a SureCAL procedure? Our 1-800-913-3773 technical support line is available 8:00 AM to 4:00 PM EST Monday through Friday. Additionally, if you have email on the station running SureCAL, we have a customer support email feature that will send us critical system information. This includes associated subroutine file dates, listings of graphic files, assigned device drivers, the recorded SureCAL datasheet for the device under test, the SureCAL configuration data, and the data in the SureCAL error log, etc. This feature can greatly increase our ability to solve your support issues in a timely manner. Many customers are already using it. Instructions on how to use the customer support email feature are as follows:

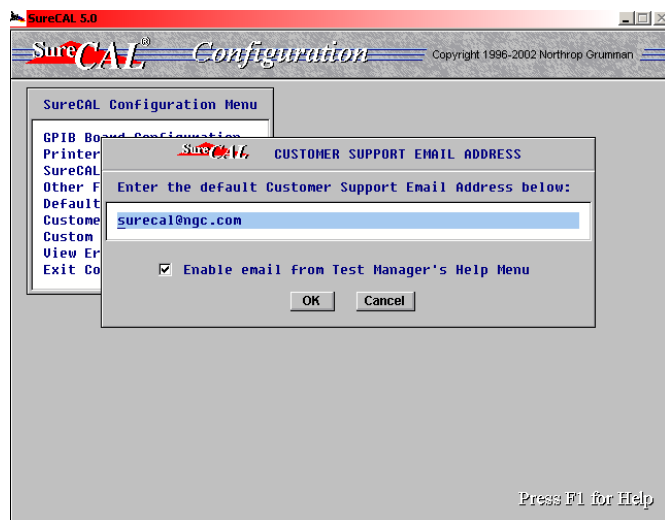


1. The customer support email feature must first be enabled from the Configuration menu. Once enabled, this feature will remain available to the user while running any SureCAL procedure from Test Manager. Start SureCAL. Click on "SureCAL Configuration".

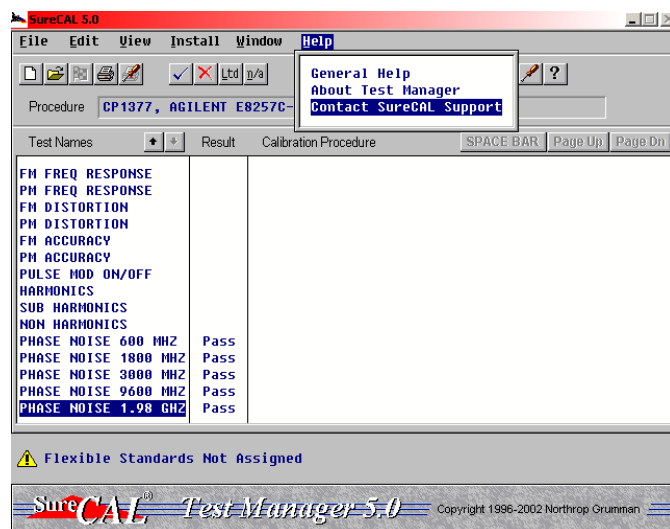


2. From the Configuration opening screen, choose "Customer Support Email".

## The SureCAL Customer Support Email Feature (cont.)

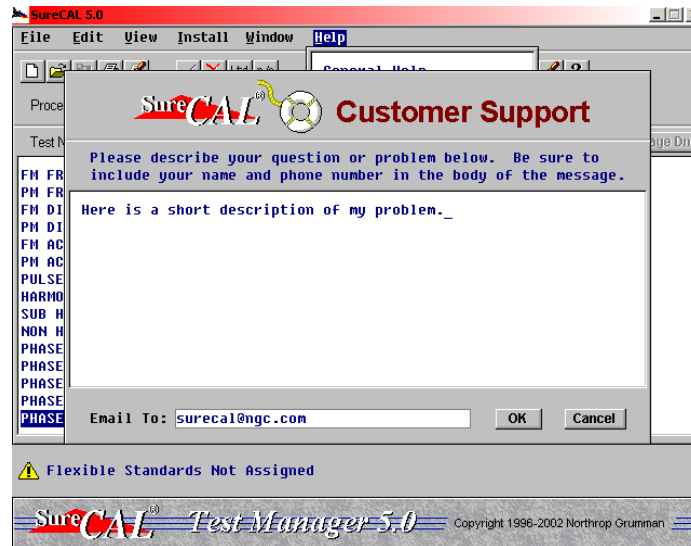


3. Ensure the SureCAL email address is [surecal@ngc.com](mailto:surecal@ngc.com). Or you can change this field to send troubleshooting information to a specific SureCAL engineer by entering the engineer's email address here. Click the box "Enable email from Test Manager's help menu". Click OK. Exit the Configuration screen with "Save changes and exit".

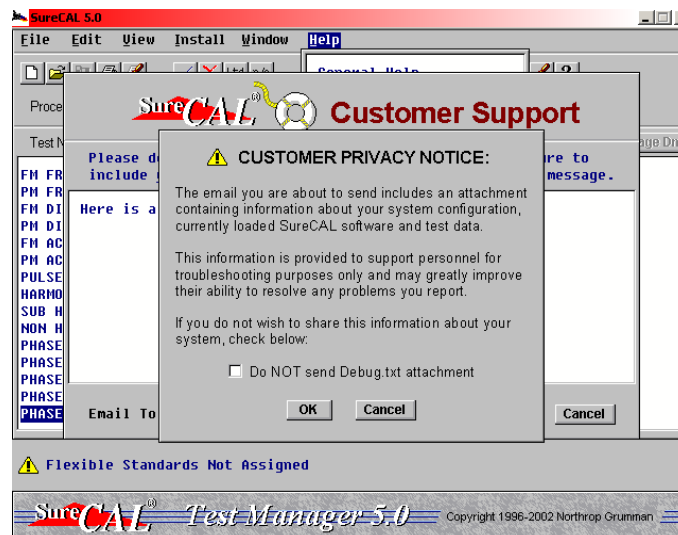


4. Reopen and rerun the procedure that you have a support issue with. Occurring GPIB errors and other anomalies will be recorded to a temporary SureCAL error log. After recreating the problem, click on help. Click on "Contact SureCAL Support"

## The SureCAL Customer Support Email Feature (cont.)



5. The Customer Support screen provides an optional message entry screen for you to add an explanation of the problem. Click OK to begin sending.



6. The final Customer Support screen is a privacy notice explaining what debug data is about to be sent to SureCAL. An example of the debug.txt attachment is as follows:

\*\*\*\* CUSTOMER'S PLATFORM INFO:

Operating System: 5.0 Windows NT  
Processor Type: 586,1,0

TransEra HTBasic: Windows Release 8.3  
Serial Number: 50800nnnnnn

\*\*\*\* CUSTOMER'S COMMAND\$:

"C:\Program Files\HTBwin83\HTBwin.exe" -w 16m -fn Surecal,16 -title "SureCAL 5.0" -alt STARTUP "MENU"

\*\*\*\* CUSTOMER'S SURECAL.REV FILE:

Test Manager Release 5.004  
Copyright 1996-2002 Northrop Grumman Corp.  
All Rights Reserved

\*\*\*\* CUSTOMER'S CURRENTLY LOADED SOFTWARE:

FILE NAME	DATE	TIME	SIZE	START LINE
C:\PROGRAM FILES\HTBWIN83\ACT\SURE_123	07/24/03	11:35 AM	1217569	10
C:\PROGRAM FILES\HTBWIN83\ACT\SURE_5	01/27/03	7:39 AM	171034	309810

\*\*\*\* CUSTOMER'S CURRENTLY LOADED PROCEDURE INFO:

CALIBRATION FOR: || |

PROCEDURE	REV	DATE	TIME	SIZE
CP1377	A	10/23/03	8:57 AM	22386

EXTERNAL PROCEDURE REFERENCES:

|| | Frequency Standard | w/opti

ASSOCIATED GRAPHICS FILES:

GRAPHIC	DATE	TIME	SIZE
E8257_01.ZIP	10/14/03	9:10 AM	4231
E8257_02.ZIP	10/14/03	9:04 AM	6801
E8257_03.ZIP	10/16/03	12:58 PM	10165
E8257_04.ZIP	10/16/03	1:00 PM	7206
E8257_06.ZIP	10/14/03	10:30 AM	5815
E8257_07.ZIP	10/14/03	11:10 AM	11289
E8257_LF.ZIP	10/14/03	9:17 AM	5969
E8257_LP.ZIP	10/14/03	9:24 AM	9399

ASSOCIATED TEST SUBROUTINES:

TEST SUB	DATE	TIME	SIZE	START LINE
E8257C20	10/29/03	7:36 AM	256067	Not Loaded

ASSIGNED DEVICE DRIVERS:

DRIVER	DATE	TIME	SIZE	START LINE
AGLE4407.DVR	08/06/03	12:42 PM	16987	Not Loaded
HP53132A.DVR	10/22/01	7:19 AM	25620	Not Loaded
HPC4419B.DVR	06/26/02	2:04 PM	24984	Not Loaded
HPC8116A.DVR	10/20/99	3:13 PM	11448	Not Loaded
HPC8340A.DVR	10/20/99	3:13 PM	12004	Not Loaded
HPC8902A.DVR	10/02/03	4:26 PM	18499	Not Loaded
HPC8903B.DVR	10/20/99	3:13 PM	12264	Not Loaded
TEK7000.DVR	08/09/01	5:04 PM	27332	Not Loaded

\*\*\*\* CUSTOMER'S CURRENTLY ASSIGNED DATA FILES:

NOT APPLICABLE

\*\*\*\* CURRENT DATA SHEET CONTENT:

PROCEDURE STEP:	RESULT	TEST DATA / USER COMMENTS
MAX LEVELED POWER		
10 MHz TIMEBASE		
HIGH POWER ACCURACY		
LOW POWER ACCURACY 1		
LOW POWER ACCURACY 2		
LOW POWER ACCURACY 3		
LOW POWER ACCURACY 4		
LOW POWER ACCURACY 5		
LOW POWER ACCURACY 6		
LOW POWER ACCURACY 7		
FLATNESS		
SWEPT FREQ ACCURACY		
PULSE MOD RISE/FALL		

PULSE MOD LEVEL  
 DCFM FREQ OFFSET  
 FM FREQ RESPONSE  
 PM FREQ RESPONSE  
 FM DISTORTION  
 PM DISTORTION  
 FM ACCURACY  
 PM ACCURACY  
 PULSE MOD ON/OFF  
 HARMONICS  
 SUB HARMONICS  
 NON HARMONICS  
 PHASE NOISE 600 MHZ Pass  
 PHASE NOISE 1800 MHZ Pass

FREQ(MHz)	OFFSET(Hz)	SPEC(dBc/Hz)	DATA(dBc/Hz)
1800	100	< -88	---
1800	1000	< -115	---
1800	10000	< -123	---
1800	100000	< -124	---

PHASE NOISE 3000 MHZ Pass

FREQ(MHz)	OFFSET(Hz)	SPEC(dBc/Hz)	DATA(dBc/Hz)
3000	100	< -80	---
3000	1000	< -107	---
3000	10000	< -118	---
3000	100000	< -118	---

PHASE NOISE 9600 MHZ Pass  
 PHASE NOISE 1.98 GHZ Pass

FREQ(MHz)	OFFSET(Hz)	SPEC(dBc/Hz)	DATA(dBc/Hz)
19800	100	< -68	---
19800	1000	< -95	---
19800	10000	< -104	---
19800	100000	< -104	---

\*\*\* CUSTOMER'S SURECAL.CFG FILE:

```

!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!                                                                    !!
!! SureCAL Configuration File: SURECAL.CFG                            !!
!! Created by SURECFG program on: 30 Oct 2003 10:37:02              !!
!!                                                                    !!
!! This file defines configuration parameters for                    !!
!! SureCAL Test Manager and related programs.                        !!
!!                                                                    !!
!! A backup copy of previous settings is stored in                  !!
!! SURECFG.BAK.                                                       !!
!!                                                                    !!
!! A log of errors detected in this file is stored in                !!
!! ERRORLOG.TXT.                                                      !!
!!                                                                    !!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!
GPIB BOARD IS NATIONAL INSTRUMENTS PCI-GPIB
!
GPIB DRIVER IS GPIBNI; DEV GPIB0 TIMEOUT 0
!
LABEL PRINTER IS LPT1 (LOCAL)
!
MOUSE IS ENABLED
!
SURECAL ROOT PATH IS C:\PROGRAM FILES\HTBWIN83\
SURECAL EXECUTABLE PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\
SURECAL ARCHIVE PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\ARCHIVE\
SURECAL BACKUP PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\BACKUP\
SURECAL DATA PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\DATA\
SURECAL DATA TEMP1 PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\DATA\TEMP1\
SURECAL DATA TEMP2 PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\DATA\TEMP2\
SURECAL DEVELOP PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\DEVELOP\
SURECAL DRIVERS PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\DRIVERS\
SURECAL FINAM PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\FINAM\
SURECAL GRAPHICS PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\GRAPHICS\
SURECAL GRAPHICS TEMP PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\GRAPHICS\TEMP\
SURECAL SCRATCH PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\SCRATCH\
SURECAL SUBS PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\SUBS\

```

SURECAL TEMPLATE PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\TEMPLATE\  
!  
APPLICATION #1 NAME IS MICROSOFT WORD  
APPLICATION #1 COMMAND LINE IS C:\MSOFFICE\WINWORD\WINWORD.EXE /A  
APPLICATION #1 WORKING DIR IS C:\MYDOCU~1\  
APPLICATION #2 NAME IS  
APPLICATION #2 COMMAND LINE IS  
APPLICATION #2 WORKING DIR IS C:\  
APPLICATION #3 NAME IS  
APPLICATION #3 COMMAND LINE IS  
APPLICATION #3 WORKING DIR IS C:\  
RECALL EXPORT PATH IS C:\PROGRAM FILES\HTBWIN83\ACT\SCRATCH\  
ASCII EXPORT PATH IS C:\  
WEB BROWSER COMMAND LINE IS C:\PROGRA~1\PLUS!\MICROS~1\IEXPLORE.EXE  
CUSTOMER SUPPORT EMAIL ADDRESS IS surecal@ngc.com  
!  
SURECAL WALLPAPER IS C:\WINDOWS\JW036.BMP  
!  
WHEN TAR < 4, ASK  
FULL SCREEN USE IS DISABLED  
REPORT GENERATION IS DISABLED  
CERTIFICATE GENERATION IS DISABLED  
LABEL GENERATION IS ENABLED  
FAILURE REPORTING IS ENABLED  
AUTO-ARCHIVING IS ENABLED  
EXPORT TO ASCII IS DISABLED  
PRINT TO ASCII FILE IS DISABLED  
CHIME IS ENABLED  
TEMP/HUMIDITY MONITORING IS DISABLED  
DUEDATE VALIDATION IS DISABLED  
GRAPHICS ZIP IS ENABLED  
AUTO EXECUTION IS ENABLED  
END-OF-TEST ALARM IS ENABLED  
OPTIONAL PASSWORD IS DISABLED  
DEFAULT RECALL INTERVAL IS 6 MONTHS  
!  
EMAIL FUNCTION IS ENABLED

\*\*\*\* CUSTOMER'S ERRORLOG.TXT FILE:

NO ERRORS LOGGED

\*\*\*\* END OF DEBUG INFO