
File: "readme611A.txt"
Date: November 27, 2001
Software: MET/CAL V6.11A

Welcome to MET/CAL V6.11A. V6.11A is a minor update of MET/CAL V6.11.

The primary purpose of V6.11A is to correct a potentially serious problem in the Manual Entry application in the V6.11 release. Refer to Report #14611 below for details.

The other changes documented in this file are minor improvements and some less important corrections. Users who are making use of MET/CAL's measurement uncertainty calculation should see Report #14543 below.

Users using the Datron 4808 with the one-year accuracy file should refer to Report #14512.

Users using the Datron 4950 with the 4953 or the 2-wire shunt should refer to Report #14661.

This document is divided into 6 sections:

1. MET/CAL

   Changes which affect one or more of Run Time, Editor, or Test Run are listed here.

2. MET/TRACK

   Changes to the Manual Entry and DB Setup applications.

3. DB Update

   Changes to the DB Update application.

4. Install

   Changes to the Install program.

5. Accuracy Files

   Updates to MET/CAL accuracy files are documented here.

6. Contacting Fluke

   How to contact Fluke with MET/CAL questions, problems, or suggestions.

Section 1 MET/CAL

----> M681 FSC Doesn't Support All PM 6681 Measurement Times

Report #14522

The M681 FSC restricts the measuring time to the following values:

0.8us, 1.6us, 3.2us, 6.4us, 12.8us, and the range 50us to 400s.

These are the correct settings for the PM 6680, PM 6680B, and PM 6685.

The allowed measuring times for the PM 6681 should be:

80ns, 160ns, 320ns, 640ns, 1280ns, and the range 20us to 400s.

V6.11A restricts the PM 6681 to the proper measuring times.

----> Wavetek 395 Driver Doesn't Work in Demo Mode

Report #14529

In V6.11 the 395 FSC cannot be used in demo mode, due to an error in the test function. This does not affect the operation of the 395 driver in real mode.

V6.11A correct this problem.

----> Measurement Uncertainty Disabled with Target -M and Nthrow > 0

Report #14543

In V6.11 closed-loop tests in which a "TARGET -M" statement appears after the instrument setup statement, and where the VSET "NTHROW" parameter is set to a value greater than zero, cause the system accuracy uncertainty component to be set to zero, thus disabling the measurement uncertainty calculation.

For example, measurement uncertainty will not be calculated in a test like the following:

```
VSET NMEAS = 5 NTHROW = 3
4808 10V S
TARGET -M
IEEE ...[I]
MEMCX 10V .01%
```

Two work-arounds are available:

(1) Remove the "TARGET -M" statement. In other words, if the test
is written to allow MET/CAL to re-setup the reference each time through the measurement uncertainty loop, the system accuracy is re-established and the problem is not present.

This work-around is appropriate for calibrators like the 5700A, 5720A, 5500A, and 5520A, where a superfluous setup is ignored by the firmware.

For the 4XXX calibrators, including the 4808 in the example above, this work-around may be used, but it slows down the procedure.

(2) The second work-around is to set NTHROW to zero. This is appropriate where the first reading from the UUT is valid. A variation on this approach is to manually discard a reading before starting the measurement uncertainty loop per se. For example:

```
VSET NMEAS = 5 NTHROW = 0
4808 10V S
IEEE ...[I]
TARGET -M
4808 10V S
IEEE ...[I]
```

MEMCX 10V .01%

V6.11A or later is required to correct this problem.

----> Serial Port not Opened when 525A used as User-Configured Device

Report #14544

A procedure which communicates with the 525A as a user-configured device, using an alias for the serial address, will fail to open the COM port on which the 525A is configured.
In order for this problem to be present the procedure must not communicate with the 525A using the "525" FSC.

Users are unlikely to experience this problem, because there's no reason not to use the MET/CAL "525" FSC to communicate with Fluke 525A.

V6.11A corrects this problem.

----> MATH FSC Functions to Perform Char-to-Int & Int-to-Char Conversions

Report #14562

In V6.11A the MATH FSC supports two new conversion functions:

CTOI - convert an ASCII character to a decimal integer
ITOC - convert a decimal integer to an ASCII character

Refer to the on-line help for the MATH FSC for additional information.

----> Automatic Retry Added to RHT Application

Report #14569

The following enhancement is of concern only to customers who have purchased a Fluke 5000A relative humidity and temperature logger for use with MET/CAL.

V6.11 of the RHT application, "mcrht.exe", does not automatically retry a read operation from the Fluke 5000A when a serial port collision with Veriteq's Spectrum software package occurs. After such a collision, the user must restart data logging by clicking on the "Sampling..." button in the RHT application.

In V6.11A, the RHT application will automatically retry a failed read operation for up to 1 minute before terminating automatic sampling. The application will display an hourglass cursor while retries are underway. This improvement reduces the likelihood that use of Veriteq's Spectrum software will inadvertently disable automatic data sampling by the RHT application.

----> Capability to Turn Off Fluke 5790A Digital Filter

Report #14589

V6.11A allows the digital filter to be turned off when the 5790 FSC is used. Specify "-F" in the MOD3 field of the 5790 statement to turn off the filter. Refer to on-line help for the 5790 FSC for complete information.

----> Correction to HP 33120A Ramp Amplitude Limits with DC Offset

Report #14606

In V6.11 and previous, compile time error checks for the 33120 FSC apply incorrect limits when the positive or negative ramp amplitude is specified in units other than Vp and a non-zero DC offset is specified.

The effect of this error was to allow illegal value to be specified in the procedure statement, rather than to prevent the procedure writer from specifying legal values.

V6.11A corrects this problem.

----> MATH FSC: Assigning Literal Quotes to String with Semicolon May Fail

Report #14620

In V6.11 and previous a MATH FSC string assignment like the following is not allowed:

```
MATH s[27] = "FUNC \"FRES\";:FRES:RANG 100"
```

The following compile time error is generated:

```
E1870: FSC MATH: Unterminated string at -->
                 '"FUNC \"FRES\"'.
```

The problem occurs when a literal string contains an embedded literal double quote immediately followed by a semi-colon.

This problem can be worked around by splitting the assignment into two separate MATH statements. For example, one can write:

```
MATH s[27] = "FUNC \"FRES\""
MATH s[27] = s[27] & ";:FRES:RANG 100"
```

to load the required string into the string register.

V6.11A corrects this parsing problem.

----> Misconfigured 9500B Models not Detected

Report #14632

In V6.11, if a user configures a Fluke 9500B model different from the one actually in use, the initial test of the instrument does not detect the misconfiguration.

If the actual 9500B model is not adequate for a particular test, a run time error will be generated when an attempt is made to perform the test.

For example:

(1) Procedure requires a 9500B/3200.
(2) A 9500B/3200 is configured (using the Config Editor).
(3) A 9500B/600 is present on the IEEE-488 bus.

In this example, no pre-run error will be generated. (This is the bug.) Executing a procedure statement which requires a frequency greater than 600 MHz will cause the 9500B to generate an SRQ, which will be trapped as a run time error condition.

This problem is not present as long as the configured instrument is the same as the real instrument. This problem is also not present when a 9500 model (as opposed to 9500B) is used.

V6.11A corrects this problem by detecting the misconfiguration during the pre-run phase of procedure execution.

----> 4950/M4950 Statements Specifying 10A Range Cause Run Time Error

Report #14661

In V6.11 the 4953 shunt and 2-wire shunt serial number programming are included in the same programming string used to select function and range. A concatenated command like this, for example:

```
SHUNT_NO "012345";DCI 10,PCENT_100,LCL_GUARD
```

is incompatible with 4950 firmware.

In V6.11A this problem has been corrected. Shunt serial numbers are now programmed just before procedure execution begins.

----> 4953 Shunt & 2-Wire Lead Serial Number Checks Improved

Report #14664

When the 4950 test function is called prior to execution of a procedure which uses the Datron 4950 Multifunction Transfer Standard the user is prompted to enter the serial numbers of the 4953 AC/DC 10A Shunt and the 4950 Two-Wire Lead Set, if those auxiliary devices are configured. This is unchanged from V6.10. In V6.11A the message displayed to the user in the event that an incorrect serial number is entered has been improved.

----> Support IEEE-488 to RS232 Converters with 525A

Report #14671

V6.11A includes two enhancements to allow the Fluke 525A to be controlled via the IEEE-488 interface using IEEE-488 to RS232 converters available from National Instruments and IOtech.

In V6.11A the MET/CAL 525A driver, by default, accepts CR (Carriage Return) as a message terminator when the 525A is configured as an IEEE-488 device. Accepting CR as an input message terminator is required when the National Instruments converter is used. It is not required with the IOtech converter.

An optional initialization file parameter has been added to allow the configuration of the IEEE-488 input terminator with the MET/CAL 525 driver. The parameter is "525A 488 iterm". Legal values are "CR", "LF", and "EOI". If specified, "525A 488 iterm" should be placed in the [Startup] section of "metcal.ini". (Please note that there is no reason to specify this initialization file parameter when an IEEE-488 to RS232 converter is used. This parameter is intended for use only when a possible future version of the 525A includes an IEEE-488 interface.)

On output the MET/CAL 525 driver now always appends a CR to the output data message. (This was already the case when the 525A was configured on a serial port. It is now also the case when the 525A is configured as an IEEE-488 device.)

Appending CR to each output message is required for both the IOtech and National Instruments converters. (It probably is required for the BlackBox converter, which appears to be an OEM re-packaging of the IOtech unit.)

Section 2 MET/TRACK

----> Search Fields 2158 and 2159 Cannot be Displayed in Manual Entry

Report #14549

In V6.11 search fields 2158 and 2159 cannot be displayed in the Manual Entry application. V6.11A corrects the problem, allowing fields 2158 and 2159 to be displayed, as long as they are not suppressed.

----> Stored Procedure Functions Differently in V6.10 and V6.11 than in V6.00 and V6.01

Report #14556

Here's the user report which describes the problem in V6.11:

Prior to upgrading to version 6, the Run Time report titled "Calibration Summary" (which uses MCCTAGRESLOC) worked flawlessly. After upgrading to version 6, the report continued to work flawlessly. New database fields were included in version 6, and some of them were required to be included in the "Calibration Summary" report. To incorporate the new fields in the report, a new stored procedure had to be used and the report rewritten. A Fluke-supplied Run Time report (which uses MCCALRESLOC) was modified to duplicate the previous "Calibration Summary" report and incorporate the new database fields.

However, reported results intermittently leave certain fields blank:

I4209
I4218
I4223
I4233
C2311
C2310
C2312
C2313
C2321
C2329
C2330

Also, a blank line is inserted into "Standards Used" in the Details section of the report result.

This problem occurs for some percentage of all assets, while the rest are unaffected, with the report printing normally without any missing data.

If the report is run immediately again without closing the "Print Calibration Reports" selection list, then the reports prints normally without any missing data.

Two problems were identified and corrected in V6.11A:

First, because the user was trying to place summary

data in the footer of the report, the stored procedure cursor was pointing at a record which contained results
data, but not summary data. The store procedure has been changed so that the summary data are contained on all rows of the return.

The second problem is that the report was pointing at "mccalresult" instead of "mccalresloc". This needed to be changed in the Report Designer menu item Database|Set Location, then in the Table: value should be "mt.Proc(mccalresloc)".

----> Manual Entry Application Allows Only 6 Digits to the Left of the Decimal Point for Inventory Field 4219 (Purchase Cost)

Report #14591

In V6.11, Inventory Table field 4219 (purchase cost) has a maximum length of 10 characters. However, if a number with more than 6 digits to the left of the decimal point is entered in the Inventory Form, tabbing out of the field blanks the display of the I4219 edit control, causing the entered number to be discarded.

V6.11A allows up to 7 digits to the left of the decimal point.

----> Manual Entry Application May Corrupt Data when Validated Field Contains Invalid Data

Report #14611

In V6.11, when using the Manual Entry application, if the database contains an invalid value for a validated field, the invalid value will be replaced with either a question mark ("?") or the first value in the validation list, when any change is made to the corresponding form.

This problem occurs only for fields which use simple validation. It does not affect linked validation.

If the user places the cursor in the field containing an invalid value, then saves the data in the form, the value in the database will be changed to the first value from the validation list.

If the user does not place the cursor in the field containing an invalid value, then saves the data in the form, a literal "?" will be written as the field value in the database.

V6.11A corrects this problem.

---> Selecting the "Merge" Tab on a Linked Field Causes a General Protection Fault in DB Setup

Report #14629

In V6.11, in the DB Setup application, selecting the "Merge" tab on a linked field causes a GPF.

If a field, (for example, 2802) is a secondary validation linked from another field (for example, 2801) selecting the "Merge" tab on the "Edit Field Attributes" form causes an error, followed by a jump to a "DR Watson" dialog and the termination of the "DB Setup". The "Merge" tab for the secondary field should be hidden in this context.

In V6.11A the "Merge" tab is no longer displayed when the

validation column in the "customiz" table is marked "linked"

---> Segregate Users Cannot View Users using Manual Entry Application

Report #14654

In V6.11 a user assigned to a segregate other than MT cannot view customers assigned to the assets of that segregate even if
the customer is assigned to the same segregate. This reduces the utility of segregates when the customer table used.

V6.11A corrects this problem.

Section 3 DB Update

----> User Access Incorrectly Removed

Report #14652

In V6.11 "dbupdate" incorrectly removed access from users in the MT segregate due to an algorithm error which gave those users read only authority to inventory and customer records.

V6.11A corrects this problem.

----> Stored Procedures Not Updated for Database Table Changes

Report #14653

In V6.11, database table changes implemented in "patch9.sql" were incomplete. Required updates to stored procedures, as well as required changes to the temporary result table "tblcalresloc" were not made.

The specific problems related primarily to database fields for which the maximum data length was increased between V6.10 and V6.11. Because the stored procedures were unaware of the longer field lengths, reports failed when data values in the database made use of the lengthened fields.

In V6.11A "patch9.sql" has been corrected. The new "patch9.sql" may be used on databases, whether or not the previous release of "patch9.sql" has been applied.

----> Keyboard Entry of Trace Code Doesn't Function Correctly

Report #14668

In V6.11, if the keyboard is used to enter the trace code and "Save" is chosen, an error is generated indicating that the trace code must be specified. If the user tabs out of the trace code field, or uses the listbox (or arrow keys), the "Save" operation will function correctly.

V6.11A corrects this problem.

Section 4 Install

----> Installation Problem Under WinNT with Service Pack 6a

Report #14631

Customers running NT with Sevice Pack 6a are unabled to install
MET/CAL V6.11. The install program reports that Service Pack 4 or greater is required for WinNT installations. We have had conflicting reports as to what the system function which reports the service pack number returns. One customer reported "2". Another customer reports "6.RC1.3".

V6.11A corrects the problem by displaying a user prompt which allows the user to continue with the installation.

----> Sybase 5.5.04 does not Support TCPIP on Win2000

Report #14634

Several V6.11 customers have had problems communicating on networked installations of Met/Base on Win2000 systems. The problem is that Sybase version 5.5.04 does not support TCPIP on Win2000. Sybase has a patch to correct this.

In V6.11A, the Sybase-provided patch is supplied on the MET/CAL
(MET/BASE) CD. The patch is named "sybase win2k patch" and is located in the "sybase" directory on the CD.

Section 5 Accuracy Files

----> Correction to 4808 1-Year Accuracy File

Report #14512

The 1-year accuracy file was originally based on relative specifications, rather than absolute specifications.

Version 1.4 (or later) of the accuracy file corrects the problem.

MET/CAL V6.11A includes the corrected accuracy file.

Section 6 Contacting Fluke

For assistance and questions regarding Fluke Metrology Software please contact MET/SUPPORT at:

phone: 1 (800) 825-7411
email: MetSupport@fluke.com

European customers may contact the MET/SUPPORT group in Europe via email at:

MetSupport@fluke.nl

To directly contact the MET/CAL software development team you may send email to:

Matt.Nicholas@fluke.com
