Release Notes

Tektronix

MTM400
MPEG Transport Stream Monitor

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Release Notes

This document describes enhancements and known issues of the MTM400 MPEG Transport Stream Monitor (Version 2.3.4).

Enhancements

- DSMCC Tests and Single Segment support added for ISDB-T.
- SNMP traps now populated with PID and Service ID where applicable.
- SNMP traps now contain a sequence number, which allows third party applications to detect whether any traps have been lost or throttled.
- SNMP traps now send a trap with status Not Applicable when a failing test goes into the not applicable state.
- An SNMP table has been added, which allows third party applications to detect the list of trap sinks that have been configured.
- TR101 290 tests have been refined.
- Addtion of a CAT Timer test in DVB, which checks whether a CAT is being transmitted. This is disabled by default.
- Addition of Continuity Count error counter. The overall number of Continuity Count errors is displayed on the Summary screen, and the number of Countinuity Count errors per PID is shown on the Detail and PID screens.
- DCII Improvements:
  - Service Names can be displayed in systems using DCII equipment from Motorola.
  - DCII messages can be decoded and viewed in the SI Tables screen.

COFDM Interface

- Carrier selection for graphs.
- Impulse Response Graphs.
- Ability to remove one of the two selectivity (filter) stages.
- Rationalized ordering of RF measurements indicators.
- Added Hierarchical Modulation support.

QAM (Annex B, Option QB2) Interface

- Added Eb/No measurement.
- Equalizer graph format enhancements.

8VSB Interface

- Equalizer graph format enhancements.

Bug Fixes

- Resolved issue with table updates taking a long time in ATSC.
- Resolved problem of one hour being added to STT.
- Continuity Count Error now sends correct trap event id 0x3132.
- PAT/PMT scrambled test fixed so that it detects all scrambled PAT and PMTs.
- Bit rate testing for user PIDs is now operational.
- Resolved issue of using the “Incremental” field in the PIDList in a template and overwriting the full list of PIDs.
- Resolved issue of not all tests getting reset to their original enabled/disabled state after a hold off period.
- Previously the 1.6 PID Missing test was difficult to configure because it relied on several parameters. It now only requires a single missing interval parameter.

COFDM Interface

- Carrier offset measurement fixed; it now references user-requested frequency.
- Fixed instability in some metrics when certain graphs were displayed.
- Fixed carrier offset figure; figures under 1000 Hz were stuck.
- Fixed MER/SNR accuracy in the high band.

QAM (Annex B, Option QB2) Interface

- Fixed MER calculation in 256 QAM mode.
- QAMB dBuV changed to dBmV.
- Fixed intermittent startup issue on QAMB card.

8VSB Interface

- Changed power measurement dBuV -> dBmV.
- Fixed intermittent startup issue on 8VSB card.

8PSK Interface

- Fixed 8PSK interface card lock-up between 16 Msym/s and 18 Msym/s.

Known Issues

New Interface Cards

The parameters on the user interface may not update to reflect changes performed by external SNMP control.

In some instances, loading a v2.0.7 configuration file will prevent a user from changing parameters on the new cards. Selecting factory default will clear this condition.

If an interface card is removed, at the next boot the unit will erroneously report that it is using the ASI input, even though it is not. The user must select another interface and then switch back to ASI.

ASI Input

If an ASI input is removed for several hours, the stream may not be detected when it is reconnected. The workaround is to reboot the instrument.

BIOS

This software requires that the MTM400 have BIOS version 2.07; the upgrade hex file is on the firmware CD and instructions about how to perform the upgrade are on the customer documentation CD.

MLM1000 Integration

Users requiring an upgrade should contact Tektronix Support.

Java Virtual Machine

The downloaded RUI application uses the Microsoft Java Virtual Machine. The file to install MS Java is available from the Tektronix Web site by searching for MTM400 drivers (http://www.tek.com/site/sw/detail/1,1059,1475,00.html). You can verify if this is installed by typing "jview" at the command prompt; the version should be at least 5.00.3809.

The Sun virtual machine disables the MS virtual machine by default; you should undo this by unchecking the Internet Explorer checkbox in the browser tab (or advanced tab, applet item depending on version) of the Sun Java control panel.

Applying Defaults

The units ship from the factory in DVB mode and will apply DVB default limits for tests. When commissioning to other regions, the factory default button should be selected to apply the correct default for the region in use.

Template Testing does not Handle Quotes

If the SI includes quotes, the service name match will fail.

Templates Status

Services and PIDs can have the constraint "MustBePresent" applied to them. If an element was previously present, but is no longer present, the appropriate state is set correctly. However, the other states associated with the service or PID are remembered from their last recorded values. (The correct behavior is for these other states to be specified as Unknown.)

Chinese Template Matching

The template service name matching function will not work when the unit is used in implied GB2312 encoding mode.

Template Resets

After a "reset all," only the root and leaf nodes return to a green state.

MIBs

The current MIB files are now encoded into the build; they are accessed via http://<unit address>/mib/adsys.mib and http://<unit address>/mib/admpeg.mib.

Service Log

On some units, the service log may display the wrong time and date.

Service Log Timing

The Service log runs as a low priority background test, the accuracy of the sample periods is ±1 second. No data is lost because the next sample point contains the data from the missing sample. The output file contains the actual length of the sample period so that accurate measurements are still possible.

WebMSM

This version of the firmware should be used with version 2.3.4 of the WebMSM Web Monitoring System Manager.

Firmware Upload

Very infrequently the MTM400 may lock up after downloading the new firmware. The lockup can be remedied by cycling power on the instrument. However, to prevent instrument damage, you must be absolutely sure to allow 15 minutes from the start of the firmware download before removing power from the instrument (as stated in the firmware upgrade instructions).

QAM (Annex B, Option QB2) BER

In some circumstances, the indicated QAM (Annex B, Option QB2) BER is pessimistic.

The RF and FEC LEDs in the Input Card dialog box are swapped; that is, the FEC LED shows the RF state and vice versa.

L-Band Interface (QPSK, Option QP)

If new firmware is uploaded, the L-Band interface may not be selected on startup. The workaround is to select another interface, and then reselect the L-Band interface.

Configuration File Validation

When validating a configuration file using the “config.xsd”, Disabled PID Events may be rejected.

QAM (Annex B, Option QB2) BER

The interleave modes 8,16 and 16,8 are available, but they do not offer error-free performance.

Specific Test Issues

- ISDB-T LDT Tables are not tested.
- Continuity count errors may sometimes be reported incorrectly in tables that have been involved in previous sync loss events.
- VCT maximum section repetition interval: there is no parameter to alter the behavior of this test.

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