E1.20 RDM Errata List

ANSI E1.20 – 2006, Entertainment Technology--Remote Device Management over USITT DMX512, was revised to address errors in the published document. This E1.20 RDM Errata List catalogs the errors and describes how the E1.20 document would be modified to correct the errors.

Please note that a new status type, "STATUS_ERROR_CLEARED," has been added in clause 10.3.2.2 and Table A-4, so the revised version, ANSI E1.20 -2010, is not simply a corrected document. It also is reformatted for easier use of the PDF.

The links to the RDM Protocol Forums (http://www.rdmprotocol.org) listed in this errata document are provided for informational purposes only. The forum links provide background information and are not officially part of the public review process. No comments are being solicited for material to be found on the RDM Protocol Forums. If the materials on the RDM Protocol Forums suggest changes that are in conflict with the proposed changes noted below, the changes noted below shall be considered the actual proposals (they are), and any suggested changes at the RDM Protocol Forums shall be ignored.

3.1.2 Table 3-2 Note #3

2.804uS should be 2.804 ms.

3.2.1 Responder Packet Timings

The last paragraph references Table 3-2 Line 3. It should reference Table 3-3 Line 1.

http://www.rdmprotocol.org/forums/showthread.php?t=37

3.2.3 Responder discovery response driver enable time

4uS should be 12 us to provide a more reasonable window for implementation. The text for this section shall be replaced with: "Responders shall not drive the line in a marking state for more than 12 us prior to the beginning of the first start bit."

3.2.5 Discovery Response MARK time

The following new Section should be added:

“Responders may wish to drive a MARK on the line for at least four microseconds prior to the first start bit of the discovery response. This will ensure that all other devices on the line recognize the start bit.”

6.2.3 Table 6-3

In the example:

Slot 16 should be 0x01

6.2.11 Checksum

The following text should be added to this section:

"If the checksum field in the packet does not match the calculated checksum, then the packet shall be discarded and no response sent."

6.2.11 Table 6-6

In the example:

Slot 1 should be 0x01.
Slot 16 should be 0x01 not 0x00
Slot 24 should be 0x04 not 0xFF.
Slot 25 should be 0x06
Slot 26 should be 0x6A

http://www.rdmprotocol.org/forums/showthread.php?t=66

6.3.3 Acknowledge Timer

The example shows an ACK_TIMER response to a GET: LAMP_STRIKES message. The example incorrectly shows a PDL of 0x04. The PDL should be 0x02. The Parameter Data (PD) section of the message should be 0x0258 rather than 0x00000258 as stated.

http://www.rdmprotocol.org/forums/showthread.php?t=65

6.3.3 Acknowledge Timer

The example for the queued message response incorrectly shows the Response Type field as 0x00-0xFF. The Response Type field in this example should show "ACK".

8.3 Proxy Devices: Response Messages

The following text should be added to Section 8.3:
"Proxy Devices that have exhausted their buffer capacity to hold Queued Message responses as a result of previous GET_COMMAND requests that were responded with ACK_TIMER may send a NACK Reason of NR_PROXY_BUFFER_FULL to alert the Controller to handle pending Queued Messages in the Proxy before requesting further information from other devices handled by the Proxy."

9.2.2 Sub-Device All Call

The following text should be added to Section 9.2.2: "Broadcast GET commands sent to the SUB_DEVICE_ALL_CALL Sub-Device ID are not allowed. Any responder receiving a GET command sent to this Sub-Device ID shall respond with a NACK with a NACK Reason Code of NR_SUB_DEVICE_OUT_OF_RANGE."

All GET messages throughout Section 10 should show the show the Sub-Device GET range stopping at 0x0200.

10. (Entire Section) Port ID

Section 6.2.7.1 states that the Port ID shall always be in the range of 1-255 for Controller generated messages.

All Get/Set message tables in Section 10 incorrectly show the Port ID range being from 0x00-0xFF. These messages should all show the allowed values for this field in the range from 0x01-0xFF.

Sections 7.5, 7.6.3, 7.6.4, 8.4.1, 8.4.2 also contained incorrect references to the Port ID range and should be changed.

10.1 Text Field Handling

Add the following statement to this section:
"Responders that have limited capabilities may truncate and store less than 32 characters if necessary."

10.2.1 Get/Set Communications Status

The following sentence should be added to both the Length Mismatch and Checksum Fail paragraphs:

"Messages sent to an applicable Broadcast address shall also increment this counter."

http://www.rdmprotocol.org/forums/showthread.php?t=75

10.2.1 Communications Status

Short Message should be re-defined as the following:

"Short Message – This field shall be incremented any time the message terminates (either due to a BREAK or timeout condition occurring) before a complete Destination UID has been received."

Length Mismatch should be re-defined as the following:

"Length Mismatch - The number of slots received before a BREAK or message timeout condition occurring did not match the Message Length plus the size of the Checksum. This counter shall only be incremented if the Destination UID in the packet matches the Device's UID."

http://www.rdmprotocol.org/forums/showthread.php?t=26

10.2.1 Get/Set Communications Status

The Sub-Device field in the Get/Set examples are listed as 8-bit values when they should be listed as 16-bit values. These fields should show: "0x0000 (Root)"

10.3.1 Get Queued Message

In the transaction examples for Get Queued Message one of the GET_COMMAND messages incorrectly shows the Port ID field with “ACK” rather than “0x01-0xFF” as it should be.

10.3.2.2 Status Type
Table 10-1

The text and table of this section has been changed to the following:

The Status Type is used to identify the severity of the condition. The message shall be reported with a status type of: STATUS_ADVISORY, STATUS_ADVISORY_CLEARED, STATUS_WARNING, STATUS_WARNING_CLEARED, STATUS_ERROR, or STATUS_ERROR_CLEARED.

Status Type _CLEARED responses allow for the clearing or resolution of a status condition to be reported by devices that support this capability.

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Table 10-1: Required Response to Status Requests

	Status Type Messages Returned					
Status Type Requested	**ERROR**	**ERROR_ CLEARED**	**WARNIN G**	**WARNING _ CLEARED**	**ADVISORY**	**ADVISORY_ CLEARED**
ERROR	X	X				
WARNING	X	X	X	X		
ADVISORY	X	X	X	X	X	X
NONE (not allowed for use with QUEUED_MESSAGE)						

All Status Types are enumerated in Error: Reference source not found.

10.3.5 Get/Set Sub-Device Status Reporting Threshold
10.4.1 Get Supported Parameters
10.5.1 Get Device Info
10.7.1 Get Sensor Definition
10.7.2 Get/Set Sensor
10.7.3 Record Sensors

To improve consistency, the responses to these messages should show the Sub-Device field as “Copy of Controller SD” rather than stating the full Sub-Device ranges. This change makes them consistent with other parameter response messages in Section 10.

10.4.2 Get Parameter Description

The TYPE field in the response for this message incorrectly is associated with a Sensors related table (Table A-12). This field has no meaning and should be filled with 0x00 in the response. Controllers should ignore the contents of this field.

http://www.rdmprotocol.org/forums/showthread.php?t=64

10.6.3 Get/Set DMX512 Starting Address

The following text shall be removed:

"A value of zero represents 'Not Set'."
"Values outside this range are beyond the scope of this standard."

The order of the 2 remaining sentences in that paragraph have had their order switched to improve clarity. This paragraph now reads as:

"When this message is directed to a Root Device or Sub-Device that has a DMX512 Footprint of 0 for that Root or Sub-Device, then the response shall be set to 0xFFFF.
Otherwise, the returned data represents the address in the range 1 to 512."

10.7.2 Get/Set Sensor Value

When doing a SET to reset the Sensor values, the response contains the current value for that Sensor. Sending this to Sensor 0xFF is used to reset all Sensors. The response for the Sensor values is currently undefined behavior with Sensor 0xFF.

The following text should be added:

"The Sensor Value fields in the response to a SET Command sent to Sensor 0x0FF shall be ignored by the Controller. There is no requirement on a responder to provide specific values in this response."

http://www.rdmprotocol.org/forums/showthread.php?t=182

10.7.2 Get/Set Sensor Value

Add the following sentence to: Lowest Detected Value, Highest Detected Value, and Recorded Value:

"If this value is not supported, then this field shall be set to 0x0000."

All 16-bit and 32-bit Timers/Counters
10.2.1 Communications Status
10.8.1 Device Hours
10.8.2 Lamp Hours
10.8.3 Lamp Strikes
10.8.6 Device Power Cycles

All 16-bit and 32-bit timers/counters should be referenced to explicitly be unsigned values and to not roll over if their value exceeds the max value.

The following phrase should be added to these messages:
"The value for this field shall be unsigned and not roll over when maximum value is reached."

http://www.rdmprotocol.org/forums/showthread.php?t=67

Table A-4: Status Type Defines

Add the following defines:

STATUS_ADVISORY_CLEARED	0x12
STATUS_WARNING_CLEARED	0x13
STATUS_ERROR_CLEARED	0x14

Table A-17: Response NACK Reason Code Defines

Add NR_PROXY_BUFFER_FULL 0x000A The proxy buffer is full and can not store any more Queued Message or Status Message responses.

Appendix B

Add the following text to Appendix B:
" 'Slot Label Code' refers to the Slot ID in Table C-2."

http://www.rdmprotocol.org/forums/showthread.php?t=39

D.33 Mute

The definition should state that being Muted only stops the device from responding to UNIQ_BRANCH and not any other messages. The following text should be added:

"A device that is "muted" only stops responding to the DISC_UNIQUE_BRANCH message and shall still respond to all other messages"

F.3 Line loading tests for command ports

The following additional text shall be added to Test 2:

"Switch the output of U1 to space. While adjusting the common mode supply between +7VDC and -7VDC continue to measure the voltage between TP1 and TP2. Record the lowest magnitude measured."

The following paragraph in the same section shall have the underlined text added as well:

"The DUT conforms to the requirements of clause F.3 of this standard if the lowest magnitude recorded for the DUT is greater than or equal to the lowest magnitude recorded for the calibration circuit."

/END of ERRATA/