IS1001-MTS Firmware Update v1.5.2 Release Notes

July 16, 2015

IS1001 Application Firmware v1.5.2 (and v2.5.2):

- o Added detection of Fastag™ FDX-B Half-Telegram PIT tags.

- o Added Secondary Master Synchronization mode for synchronizing antenna exciter oscillators between multiple IS1001s.

- o Added real-time clocks (date/time settings) synchronization capability between multiple IS1001s.

- o Improved FDX-B Signal Level measurement accuracy throughout the operating temperature range.

- o Antenna Current Gain and Antenna Current Offset present values are now not affected by Reset to Factory Default Parameters command and will be preserved.

Updating Firmware Guidelines

The firmware update is done via BioTerm communication program. Please refer to IS1001-MTS User Manual for the procedure.

Firmware of all devices must be updated in order for a system to function properly (IS1001-MC Application, IS1001-MC CBG, IS1001 Application and IS1001 Data Logger Application).

All settings may be reset to manufacturer default values during the update process, so it is recommended to generate a Reader Settings Report (RRS command) for the reference prior to updating the IS1001-MTS system.

For technical assistance please contact the Technical Services Department of Biomark at (208) 275-0011 or email customerservice@biomark.com.

IS1001-MTS Firmware Update v1.5.1 Release Notes

December 4, 2014

IS1001-MC Application Firmware v1.5.1:

o FDX-B Half-Telegram™ Tag detection default value changed to Off.

o Detection efficiency test changed to automatically turn on when VTT is set to On and turn off when VTT is set to Off.

o "HDX Decoding" replaced with "HDX Tag Detection" in Full Status Report.

o "Sync Input Present" parameter moved to "Diagnostics" section in Full Status Report.

o Changed settings order in "Communication" section in Commands List, Full Status Report Reader Settings Report and Keypad Menu Settings: Local Port settings are displayed first, followed by Remote Port settings.

o Added support for "AES-256 Compliant" Lantronix XPort Ethernet module (special order item).

o Fixed issue with "Auto Standby Time" being displayed incorrectly in status report when it was set to 10 hours or more.

IS1001-MC CBG Board Firmware v1.5.1:

o Fixed issue with dated memory download when two months are selected for the download range.

o Fixed issue with tag ID being written to USB drive in decimal format incorrectly.

o Added warning when USB drive cannot be recognized or its format is not supported - "EXT. MEM. READY" LED flashes the error code.

IS1001 Application Firmware v1.4.5 (and v2.4.5):

o Save Tags To Memory, Save Status Reports To Memory and Save VTT To Memory default values changed to On.

o Detection efficiency test changed to automatically turn on when VTT is set to On and turn off when VTT is set to Off.

o Fixed issue with false "VTT Single Shot Aborted Due To System Activity" when FDX-B Half-Telegram™ Tag detection is enabled.

o "Relative Phase" parameter moved to "Sensors" section in Full Status Report.

o "HDX Decoding" replaced with "HDX Tag Detection" in Full Status Report.

o Added support for Dual-Reader real-time clock synchronization feature.

o Changed settings order in "Communication" section in Commands List and Full Status Report: Local Port settings are displayed first, followed by Remote Port settings.

- o Changed Detection Unique Delay setting values to seconds: 1 - 43200 (1 second to 12 hours).
- o Minor issues fixed.

IS1001 Data Logger Board Firmware v1.5.1:

- o Added option for creating a new file on a daily or a monthly basis.
- o Added functionality that enables Dual-Reader Data Collection automatically if the RS-232 port receives a message beginning with "TAG:", "ALM:", "MSG:", "SRP:", "NRP:" or "INF:".
- o Added an off-schedule real-time clock synchronization event in case date or time setting of the IS1001 hosting the Data Logger Board has been changed, when Dual-Reader Data Collection is enabled and Dual-Reader Time Sync Delay is greater than 0.
- o Removed "Data Logger Restart" message during power up when Dual-Reader Data Collection is enabled.

IS1001-MTS Firmware Update v1.5.0 Release Notes

August 6, 2014

IS1001-MC Application Firmware v1.5.0:

- o Added support for detection of Half-Telegram™ FDX-B PIT tags. Half-Telegram™ FDX-B PIT tags were designed by Biomark, Inc. for use at high water velocity applications requiring high detection rates. This tag telegram consists of only 64 bits compared to 128 bits in ISO-standard FDX-B PIT tag. Thus, it takes the tag only 16 milliseconds to transmit its telegram vs. 32 milliseconds that takes ISO-standard FDX-B PIT tag to transmit its telegram.

- o Changed Detection Unique Delay setting to values in seconds: 1 - 43200 (1 second to 12 hours).

- o Minor issues fixed.

IS1001-MC CBG Board Firmware v1.5.0:

- o Added support for detection of Half-Telegram™ FDX-B PIT tags.

IS1001 Data Logger Board Firmware v1.5.0:

- o Added Dual-Reader Data Collection feature. This feature enables collecting data from two IS1001s, from IS1001 hosting the Data Logger board and IS1001 connected to the Data Logger's RS-232 port, and combining it into a single file on external flash drive.

- o Added Dual-Reader real-time clock synchronization. To ensure integrity of the collected data, real-time clocks of both IS1001s need to be synchronized. Rate of synchronization events can be adjusted to achieve required time accuracy.

IS1001-MTS Firmware Update v1.4.3 Release Notes

May 16, 2014

IS1001-MC Application Firmware v1.4.3:

- o Added Backup Tag Memory. Backup Tag Memory is a dedicated tag IDs memory, physically separated from main internal Master Controller memory. Only tag IDs with date and time stamp are written to Backup Tag Memory following the same rules as for main memory (Unique Mode setting dependable). Backup Tag Memory size is 29120 tag IDs. When Backup Tag Memory gets full 3640 oldest tag IDs (oldest 12.5%) are erased. Backup Tag Memory cannot be disabled and has its own download and erase commands.

- o Added Memory Status Report ("RMS" command). Memory Status Report contains main Memory status (usage in percent), Backup Tag Memory status (number of records and usage in percent), Store VTT To Memory setting (On/Off) and External Storage status (connection and buffer status, present file name).

- o Fixed decimal conversion problem when reader is set to display tag IDs in Decimal.

- o "Remore" replaced with "Remote" in status report.

- o "Load Factory Default Parameters" replaced with "Reset To Factory Default Parameters" in commands list.

IS1001-MC CBG Board Firmware v1.4.1:

- o Minor issue fixed.

IS1001 Application Firmware v1.4.3 (and v2.4.3):

- o Fixed decimal conversion problem when reader is set to display tag IDs in Decimal.

- o "Remore" replaced with "Remote" in status report.

- o "Load Factory Default Parameters" replaced with "Reset To Factory Default Parameters" in commands list.

IS1001-MTS Firmware Update v1.4.0 Release Notes

January 21, 2014

IS1001-MC Application Firmware v1.4.0:

o   Added ability to see the progress of Node Antenna Full Tune process through MC's communication ports.

o   Added adjustment for FDXB Detection Scan Time: sets node scan time or FDX cycle time when HDX detection is enabled. Available settings are from 45 to 200 milliseconds (in 5 milliseconds increments).

o   Added start of switching sequence synchronization feature for multiple MCs synchronization.

o   Added "Modem Protocol" to remote communication port and support for Biomark's new Remote Data Collection System (communication via Sierra wireless modems).

o   "Antenna Noise" replaced with "Noise".

IS1001-MC CBG Board Firmware v1.4.0:

o   Added adjustment for FDXB Detection Scan Time: sets node scan time or FDX cycle time when HDX detection is enabled. Available settings are from 45 to 200 milliseconds (in 5 milliseconds increments).

o   Added start of switching sequence synchronization feature for multiple MCs synchronization.

o   Added support for Biomark's new Remote Data Collection System (communication via Sierra wireless modems).

IS1001 Application Firmware v1.4.0 (and v2.4.0):

o   Enhanced Antenna Full Tune algorithm.

o   Added adjustment for FDXB Detection Scan Time: sets node scan time or FDX cycle time when HDX detection is enabled. Available settings are from 45 to 200 milliseconds (in 5 milliseconds increments).

o   Added "Modem Protocol" to remote communication port and support for Biomark's new Remote Data Collection System (communication via Sierra wireless modems).

o   Response to commands: "Print List of Commands", "Download Full Memory", "Report Reader Date and Time", "Report Full Status", "Report Firmware Version" and "Report Noise Status" - changed to be sent only to the port requesting them.

o   "Antenna Noise" replaced with "Noise".