

**Library Application
Firmware Release 2.01**

For The

P1000™ Tape Library System

Release: EO 15069

Quantum. | **ATL**

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Approved:

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RELEASE 2.01 OF THE P1000™ FIRMWARE INCLUDES THE FOLLOWING CHANGES:

System:

- Adds new Model Numbers 6220090 and 6220091 for MTI (Model 1630).
- Adds new Network errors, to support Prism Router configuration:
 - 9 90 00 "NETWORK: Host unreachable"
 - 9 90 01 "NETWORK: Network unreachable"
 - 9 90 02 "NETWORK: Invalid address"
 - 9 90 03 "NETWORK: Host unknown"
 - 9 90 04 "NETWORK: Host already exists"
 - 9 90 05 "NETWORK: Interface not found"
- Adds new Backplane Communication errors, supporting Prism Router configuration:
 - 0 8E 40 Backplane Communication - Command Received
 - 0 8E 41 Backplane Communication - Receive Port Empty
 - 0 8E 42 Backplane Communication - Command Complete
 - 0 8E 43 Backplane Communication - Transmit Complete
 - 9 8E 44 Backplane Communication - Invalid Checksum
 - 9 8E 45 Backplane Communication - Copy To Failure
 - 9 8E 46 Backplane Communication - Communication - PCI Read Failure
 - 9 8E 47 Backplane Communication - Command Failure
 - 9 8E 48 Backplane Communication - Invalid Command
 - 9 8E 49 Backplane Communication - Transmit Port Not Empty
 - 9 8E 4A Backplane Communication - PCI Write Failure
 - 9 8E 4B Backplane Communication - Copy From Failure
 - 9 8E 4C Backplane Communication - Receive Port Not Initialized
 - 9 8E 4D Backplane Communication - Transmit Port Not Initialized
 - 9 8E 4E Backplane Communication - Command Semaphore Failure
 - 9 8E 4F Backplane Communication - Bad Parameter
- Resolves problem in loading the library from the loadport when the library was full.
- Now checks for full gripper prior to moving any axis during an inventory, previously, the gripper would move to the scanning position with a tape in the gripper and this could cause an extension failure.
- Correctly reports the library's Serial Number and IEEE ID.
Corresponds to issue ATLca01584:
- Library Serial Interface may change Default Gateway, when operating with FC210 firmware v1.01p1 and later.
Corresponds to issue ATLca01734 and CSB0182.

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- Modified the library cleaning tape timeout from five minutes to four minutes and twenty seconds. The library uses this timeout to detect if a cleaning tape is used up: if a cleaning tape does not eject itself within the timeout, the library will mark it as used up and export it from the library. Used up cleaning tapes in a 7000 or 8000 drive would complete operation in less than the five minute timeout, so the library assumed they were still good and would continue using them until they had cycled in the drive twenty times.

Control Panel:

- Control Panel redraw speed improved in many areas.
- Prism Router Tab now unselectable when SCSI card is in PCI slot 3.
- Resolves problem where Control Panel 'Operator:Configure Library' screen shows one less drive than is present, or omits library SCSI ID if no drives present. Corresponds to issue ATLca01554 and CSB0183.

SCSI Interface:

- Resolves problem in Initialize Element Status With Range, when NumElements field is greater than 0x7FFF; which caused library to repeatedly inventory the library. Corresponds to issues ATLca02024 and ATLca01539.
- Resolves Init Element Status with Range not operating when Range Bit is zero and StartElem and/or NumElem are not zero.
- Resolves issue where Prevent/ Allow Medium Removal commands fail. Corresponds to issue ATLca01586.
- Resolves issue where Reserve/Release commands fail. Corresponds to issue ATLca01587.
- Resolves issue where Send Volume Tag command causes unexpected disconnect. Corresponds to issue ATLca01588.

Serial Diagnostic Interface:

- Resolves issue in SYSTEST command that caused command parameters to be ignored. Corresponds to issue ATLca02008.
- Resolves parameter handling problem in 'CONFIG ELEMENTS' command. This shares a common root cause with the ATLca02008 issue.
- Now only operates most serial diagnostic commands when in Off-Line mode.
- Improves handling of whitespace in the serial diagnostic interface.
- Resolves issue where REPORT STATISTICS command via the Serial Port responds with erroneous data or causes the library to fault. Corresponds to issue ATLca01680 and CSB0179.

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Important Notes:

- This firmware will only operate with boot block version 1.11(6221251-04) or higher.
- Do not use 'Auto Unload Loadport' when all bins within the library are full.

This Release does not support the following:

- Control Panel "Operate Axes" Screens

Note on Previously Reported bugs:

- Previously reported error 'Move Medium move to the Load Port generates a sense code 2 5A 01 "Operator Medium Removal Request"' was due to problems in a specific test-stand and is not an issue in P1000 firmware.
Corresponds to issue ATLca01585.
- Previously reported error 'Read Element Status command does not fail if start address is incorrect' was due to an erroneous test and is not an issue in P1000 firmware.
Corresponds to issue ATLca01636.

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Firmware Configuration Guide: Release 2.01

P1000™ Firmware Configuration Guide

Filename	Part Number
Using "cleartool setview rel_6221250-01": /vobs/ELP1_Complete/RELEASE/e_1_00r.hex	6221250-01
Using "cleartool setview rel_6221250-02": /vobs/ELP1_Complete/RELEASE/e_1_01r.hex	6221250-02
Using "cleartool setview rel_6221250-03": /vobs/ELP1_Complete/RELEASE/e_1_02r.hex	6221250-03
Using "cleartool setview rel_6221250-04": /vobs/ELP1_Complete/RELEASE/e_1_03r.hex	6221250-04
Using "cleartool setview rel_6221250-05": /vobs/ELP1_Complete/RELEASE/e_1_10r.hex	6221250-05
Using "cleartool setview rel_6221250-06": /vobs/ELP1_Complete/RELEASE/e_1_11r.hex	6221250-06
Using "cleartool setview rel_6221250-07": /vobs/ELP1_Complete/RELEASE/e_1_12r.hex	6221250-07
Using "cleartool setview rel_6221250-08": /vobs/ELP1_Complete/RELEASE/e_1_20r.hex	6221250-08
Using "cleartool setview rel_6221250-09": /vobs/ELP1_Complete/RELEASE/e_1_21r.hex	6221250-09
Using "cleartool setview rel_6221250-10": /vobs/ELP1_Complete/RELEASE/e_2_00r.hex	6221250-10
Using "cleartool setview rel_6221250-11": /vobs/ELP1_Complete/RELEASE/e_2_01r.hex	6221250-11

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P1000™ Firmware Release History

Release Number	Release Document	Description
1.00	EO8829	Initial Release of P1000 Library Application.
1.01	EO8936	Resolves inventoried cleaning tape problem.
1.02	EO8937	Resolves inventoried cleaning tape problem. Supports large model memory map. Requires Boot Block 1.10 or later.
1.03	EO8966	Improves Control Panel Lamp setting.
1.10	EO9473	Supports load port. Improves pick/place. Improves barcode successful read rate.
1.11	EO9927	Improves load port handling. Resolves stack overflow lock up. Modifies load pack door message reporting.
1.12	EO10165	Resolves Load Port Service Calibration NVRAM problem. Resolves Temperature Detection reporting over Control Panel.
1.20	EO11157	Improves pick/place/inventory recovery. Adds robustness to rotary moves. Improves responsiveness and miscellaneous issues in the control panel. Improves SCSI interface. Improves drive replacement and power on. Supports Drive Auto Clean.
1.21	EO11884	Fixes Import/Export bit implementation.
2.00	EO13410	Support for Prism FC210 Router. Initial support of the DLT8000 Tape Drive.
2.01	EO15069	Fast Control Panel. Adds MTI models.