



ATTO Technology, Inc.

# Product Release Notes

## ATTO Configuration Tool v4.28 - Linux®

### 1. General Release Information

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The ATTO Configuration Tool helps you customize the settings of your ATTO storage controller to maximize the performance of your storage connection. While the factory settings on your host adapter should provide excellent performance for a wide range of applications, some specialized applications may benefit from modification of the adapter settings to tune the adapter for a specific performance range.

These product release notes define the new features, changes, known issues and release details that apply to the ATTO Configuration Tool v4.28 that was released on April 16<sup>th</sup> 2018. This information pertains to Linux

### 2. Changes

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- **Version 4.28 (Released 04/16/2018)**
- The following apply to changes made from v4.27 to v4.28. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
  - **New Features, Enhancements and Changes**
    - Added support for FastFrame N351, N352, N311 and N312 (25/50/100GbE)
    - Added support for ThunderLink SH 3128
  
- **Version 4.27 (Released 08/3/2017)**
- The following apply to changes made from v4.26 to v4.27. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
  - **New Features, Enhancements and Changes**
    - Support added for ATTO FC-324E
  
- **Version 4.26 (Released 03/24/2017)**
- The following apply to changes made from v4.25 to v4.26. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
  - **New Features, Enhancements and Changes**
    - Suppress the “uninitialized disk” popup boxes for the standin multipath disks created by the driver
    - Update the driver info fields when a NIC driver loads or unloads
    - Fixed a cosmetic repainting bug when the MP driver doesn't report all LUNs
  
- **Version 4.25 (Released 02/20/2017)**
- The following apply to changes made from v4.24 to v4.25. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
  - **New Features, Enhancements and Changes**
    - Removal of expansion and migration features
    - Updated the driver information fields when a NIC driver loads or unloads

- **Version 4.24 (Released 09/27/16)**
- The following apply to changes made from v4.23 to v4.24. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
  - **New Features, Enhancements and Changes**
    - Added support for ThunderLink 3101/3102 devices
    - Added support for ThunderLink 3162/3322 devices
    - Fixed an error that occurred when saving the MP LUN configuration for LU enabled devices
  
- **Version 4.23 (Released 06/30/16)**
- The following apply to changes made from v4.22 to v4.23. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
  - **New Features, Enhancements and Changes**
    - Added support for FastFrame 10Gb and 40Gb NICs
    - Added support for Celerity Gen 6 16Gb/32Gb FC HBAs
    - Added support for LUN-based multipathing
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- **Version 4.22 (Released 10/16/15)**
- The following apply to changes made from v4.21 to v4.22. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
  - **New Features, Enhancements and Changes**
    - The event log is now cleared before running “dumpconfiguration” in the diagnostics for VDA based adapters.
  
- **Version 4.21 (Released 09/10/15)**
- The following apply to changes made from v4.20 to v4.21. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
  - **New Features, Enhancements and Changes**
    - SSD and HBA passthrough mode has been enabled for RAID devices.
  
- **Version 4.20 (Released 08/06/15)**
- The following apply to changes made from v4.19 to v4.20. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website
  - **New Features, Enhancements and Changes**
    - Added T10-DIF support for 8Gb and 16Gb FibreChannel NVRAM
    - Support for Windows 10
    - Integrated an NVRAM toggle to 12Gb HBA to disable Power Center Pro
    - Added single member JBOD support to 6Gb RAID
    - Added functionality to collect the Windows system log in text format with the diagnostics
    - Run atnetstat with the OS X diagnostics
    - Increased support by logging a message that RAID can be disabled if an I/O error blocks a device on the 12Gb HBA
  
- **Version 4.19 (Released 03/25/15)**
  - The following apply to changes made from v4.18 to v4.19. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - Integrate technical support’s FastFrame script into the OS X diagnostic scripts
    - Added functionality of atdevinfo to the diagnostic scripts
    - Support to hide the multiplexing NVRAM option for all SAS adapters

- Fixed a timing hole where the RAID menu state may have gotten out of sync with the firmware with respect to the RAID operation
  - Improved enclosure handling on the 4808
  - Improved clarity of desktop icons
  - Enhanced the member table with filtering hyperlinks and animated warning icons
- **Version 4.18 (Released 02/05/15)**
  - The following apply to changes made from v4.17 to v4.18. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - Added functionality to display the PCI slot on Linux (where supported)
    - Added HBA Combo Mode support to ATTO 6Gb RAID products
    - Added support for the NS11, Thunderbolt SH 2068 and SC 4808D
    - Added functionality to collect driver and firmware traces (where supported)
    - Non-ATTO drivers are now displayed in the GUI (for NIC adapters)
    - Temperature readings are now only attempted for ATTO devices
    - The 'sender address' field is now required when configuring email notifications
    - The AutoRebuild function has been disabled for firmware supporting Combo Mode
    - Added support for TLSv1
- **Version 4.17 (Released 10/8/14)**
  - The following apply to changes made from v4.16 to v4.17. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - Modified the "Find Host" dialog to automatically remember entered hosts and offer an auto-completion mechanism. Also, a new "Delete Hosts" dialog is available from the "Network" menu, and saved hosts are automatically discovered upon launch.
    - Added the 'MaxXferSize' control to the "Advanced" tab panel.
    - An error message is now displayed if the email configuration settings are invalid.
    - A caret is now displayed in the RAID CLI tab.
    - Support for the ESAS H1244/1248/1288 HBAs has been added
    - The temperature is now logged for all RAID and 12Gb HBAs on driver load and firmware restart
    - Old drivers are now supported when using RAID 50/60 enabled firmware
    - The LLI Moderation NVRAM setting is now properly interpreted
    - The Linux installer log is now placed in /var/attotech/log
    - Support for SuSE 10 SP4 has been added
    - The 'atmpinfo' CLI tool in the diagnostics package has been updated
- **Version 4.16 (Released 8/5/14)**
  - The following apply to changes made from v4.15 to v4.16. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - Added support for RAID 50 and RAID 60
    - Added support for the ThunderLink FC 2082
    - Split the RAID MIB into 4 separate MIBs, with updated RAID 50/60 support
    - GUI will now scroll the RAID tab's Drive Table to the selected drives when groups or members are selected
    - Now append the hostname to the notification email's subject line
    - Collect *atsastop* and *atsasphy* diagnostics for the RAID adapters
    - Log adapter name and PCI info when an adapter driver is loaded
    - Preserve the existing options when changing the multipathing load balancing policy
    - Overwrite all email recipient fields when restoring the notification configuration
    - Improved messaging when an error occurs updating the flash
    - Make the multipath target name in the tree consistent with *atmpinfo*
    - Start a group rebuild prior to prompting to replace members

- Add a drive counter to the drive drop table in the various RAID wizards
  - A bad hostname to service principal name conversion no longer blocks access to the host via username/password login
- **Version 4.15 (Released 5/22/14)**
  - The following apply to changes made from v4.14 to v4.15. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - Added support for logging VSA events.
    - We now explicitly check for the 'attobus' service to ensure that multipathing and diagnostic information are collected with MPDirector v1.40, and later.
- **Version 4.14 (Released 5/2/14)**
  - The following apply to changes made from v4.13 to v4.14. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - Added support for new ATTO products: NT2012, NS2162 and Thunderlink FC 2162.
    - Modified application behavior so that the Multipath Director node is created when a multipathing driver is discovered.
    - CLI tools are now packaged in the diagnostics package.
    - An error message when saving a (multipath) path is no longer clobbered by successfully saving the next path.
    - Corrected an issue where the diagnostic scripts would hang in Fedora 20 by not collecting /proc/net.
    - Service now displays "replaced" and "failed" device status for firmware that reports it.
    - Added a warning for users to backup RAID groups before converting.
    - Added a notification for scheduled or canceled shutdowns is given on platforms that do not do this natively.
    - Added menu items to rescan multipathing targets and controllers.
    - Added the ability to remember login passwords.
- **Version 4.13 (Released 1/16/14)**
  - The following apply to changes made from v4.12 to v4.13. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - Support for PowerCenter Pro has been added
    - Support for GT and 12Gb HBAs has been added to the diagnostic scripts
    - The packaged CLI tools have been updated to the latest available version
    - RAID group names are handled in a case sensitive manner
    - Resolved an issue where the ATTO ConfigTool Daemon crashes unexpectedly.
    - Resolved an issue where ConfigTool Drive Metrics keep going even if an enclosure is unplugged.
    - Fixed a problem where SNMP MIB information is incorrect for "raidMemberTable"
- **Version 4.12 (Released 10/28/13)**
  - The following apply to changes made from v4.11 to v4.12. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - Added a checkbox on the RAID group Properties panel that indicates the RAID group is bootable.
    - The diagnostics package has been updated to collect system-wide information
    - Resolved an installer issue in Ubuntu 12.x
    - Resolved an issue with link speed and topology are being marked "unknown" when connected to a 16Gb FibreConnect switch
    - Fixed issue where help text hyperlinks were not working

- Fixed issue where help text does not open browser when clicking on website link
- **Version 4.11 (Released 06/27/13)**
  - The following apply to changes made from v4.10 to v4.11. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - Added a checkbox on the RAID group Properties panel that indicates the RAID group is bootable.
    - User session changes are now properly detected.
    - Right-click support on the system tray icon is enabled for Gnome 3 desktops.
    - Resolved a hardware buzzer issue.
    - Resolved an OS name display issue.
    - The system log opens properly so that messages appear in the system log.
- **Version 4.10 (Released 03/12/13)**
  - The following apply to changes made from v4.09 to v4.10. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - Added support for dual domain devices.
    - Added support for SSD RAID groups.
    - Added support for maintaining health profile data for drive that use special characters in their serial number or other vital information.
    - Added support to collect RAID firmware crash data.
    - The SES slot number on the adapter drive table is displayed instead of SAS address.
    - The name and type of device are properly indicated in the tree with multipathing.
    - Devices are properly removed from the tree upon a cable pull.
    - The S.M.A.R.T. data dialog no longer refuses to open with a message about the file being missing if the drive uses all 16 bytes of PRODUCT or all bytes of VENDOR area.
    - The drive properties page has been rearranged so that all port addresses can be displayed.
    - SAS or SATA is now indicated on the RAID drive properties page.
    - An additional SNMP table is now provided to relay dual domain information.
    - S.M.A.R.T. attributes are no longer validated, since some drives report values that are out of range which may cause the S.M.A.R.T. data dialog box from being displayed.
    - The installer log is now located in “/var/attotech/log” instead of the installation directory. Additionally, the installer now installs a system menu item for the application.
    - Resolved an issue where the ConfigTool daemon hangs on shutdown.
    - Debugging messages from the auto discovery responder service are no longer submitted to the system log.
    - Resolved an issue where the notification applet blinks when muted if the hardware buzzer is disabled.
    - Resolved an issue where RAID firmware sends an un-terminated log message, causing a system crash.
    - Any number of hotspares can now be created using the hotspare wizard. Also, the block size of the disks are now validated during member replacement and local hotspare creation.
- **Version 4.09 (Released 11/29/12)**
  - The following apply to changes made from v4.08 to v4.09. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - Celerity 16Gb support to the Windows and Linux diagnostic scripts.
    - Devices can be added/removed in a rapid fashion without consequence.

- The adapter buzzer now sounds for non-Thunderbolt adapters when clicking the notification test button.
- **Version 4.08 (Released 11/08/12)**
  - The following apply to changes made from v4.07 to v4.08. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - Added process power management events from the ESASRAID driver.
    - Activated the on-board buzzer on the adapter that triggered a buzzer event only.
    - Added detect mute button events from ThunderStream products.
    - Resolved a timing related crash on shutdown if SNMP is enabled.
    - Resolved a crash when committing the Notifications Plane contents with an email password.
    - Resolved conflict with StorNext.
- **Version 4.07 (Released 09/28/12)**
  - The following apply to changes made from v4.05 to v4.07. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - Removed the discovery mode option in the NVRAM panel for a 16Gb Celerity FC adapter.
- **Version 4.05 (Released 08/13/12)**
  - The following apply to changes made from v4.03 to v4.05. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - Added support for OEM branding.
    - Added support for time-stamped log messages from a RAID device.
- **Version 4.03 (Released 04/23/12)**
  - The following apply to changes made from v4.02 to v4.03. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - The name service switch component of the auto discovery mechanism will not break StorNext installations on the Linux platform.
    - The installer will now install the correct system service architecture on Mandriva Linux platforms.
    - The installer now makes the application available to all users.
    - Several freezes in the system service have been resolved.
    - On the Linux platform, resolved device events that seemed to “stop” after a period of time.
    - Several crashes related to the auto discovery system were resolved.
- **Version 4.02 (Released 02/14/12)**
  - The following apply to changes made from v4.01 to v4.02. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
  - **New Features, Enhancements and Changes**
    - SNMP support has been added.
    - Help menu now features a ‘Run Diagnostics’ option for troubleshooting purposes, which displaces the former option to save logs under the Notifications panel. RAID logging has also been improved.
    - Support for FastFrame CT and NT adapter series has been added.
    - Gen 3 PCIe transfer rate support has been added.

- Hot spares can now be assignable to RAID groups via CLI.
  - Support for sounding the buzzer on buzzer-equipped hardware, controllable by the Notification Application.
  - Performance, stability and logging improvements.
- **Version 4.01 (Released 09/06/11)**
    - The following apply to changes made from v4.0 to v4.01. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
    - **New Features, Enhancements and Changes**
      - The integrated help text features new icons for the buttons the user can click as well as manipulate in the table of contents.
      - This release offers improved support and functionality with 3Gb RAID adapters.
      - Rare instances of system hangs have been resolved.
- **Version 4.0 (Released 08/17/11)**
    - The following apply to changes made from v3.38 to v4.0. You must use the latest product drivers for your specific adapter whenever updating the ATTO Configuration Tool version. The latest driver sets can be accessed via the ATTO website.
    - **New Features, Enhancements and Changes**
      - Support for ExpressSAS H6F0GT.
      - This release represents a major update to the GUI interface and capabilities. Whereas previous versions contained a single application, this release provides a GUI application and system service. Refer to the product manual for more information on the setup and operation of these components.
      - This release offers the ability to set-up, manage and optimize storage connected locally and remotely to ATTO storage controllers. This includes the ability to remotely access and update NVRAM settings, updating system firmware and drivers, as well as retrieving system event logs.
      - Only one instance of the ConfigTool can be installed on a host at any one time (i.e. either v3.38 **or** v4.0, but not both).
      - This version does not have SNMP enabled. Use an earlier version of the ATTO ConfigTool if you require SNMP.

### 3. Known Issues/Advisements

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1. The ConfigTool client doesn't detect when it has been disconnected from a daemon
2. The Notifications tab can be viewed and changed without logging into a host.
3. There is no way to disconnect from a remotely connected host unless the user terminates the ConfigTool
4. Cannot right-click on the system tray icon on OS X
5. The ConfigTool may hang when running the diagnostics package when an R680 is in a bad state
6. Volumes are not displayed when using Multipathing and Windows Server 2012
7. ConfigTool accepts invalid or missing credentials during a 5-minute window after installation on OS X 10.9.2
8. An invalid MaxXferSize may be set on CelerityFC adapters
9. The audible and visual notifications only work with the system service on the local machine (not remotely).

### 4. Affected Products

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ATTO ConfigTool for the following ATTO products:

Celerity FCxx  
 ExpressSAS H6xx  
 ExpressSAS R6xx  
 ExpressSAS H12xx  
 FastFrame NTxx  
 FastFrame NSxx  
 FastFrame NQxx  
 ThunderLink FC xxxx

ThunderLink NS xxxx  
ThunderLink NT xxxx  
ThunderLink SH xxxx  
ThunderStream SC xxxx

## 5. Contacting ATTO Support

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ATTO Technology, Inc. is renowned for its technical support services. ATTO's goal is to provide you the quickest response possible for your technical support needs, and is available Monday – Friday, 8:00 AM to 8:00 PM EST (except holidays and plant closings).

ATTO Technical Support can be contacted via phone or email:

- Phone: 716.691.1999 ext. 242
- E-Mail: [techsupport@attotech.com](mailto:techsupport@attotech.com)