

=====
Adaptec RAID Release dated: June 12, 2015
=====

These release notes contain the following:

1. Description of the Release
2. Supported Controllers
3. Enhancements and Bugfixes

1. Description of the Release:
=====

This is the official software release containing the list of software components listed below:

- Firmware Version 7.8.0 Build 32722
- Windows Driver (32-bit and 64-bit) Version 7.5.0.41013
- Linux Driver Version 1.2.1-41018
- VMware Driver Version 1.2.1.-41021
- maxView Storage Manager (MSM) Version 1.08 Build 21375

2. Supported Controllers:
=====

- Adaptec RAID 8405
- Adaptec RAID 8805
- Adaptec RAID 8885
- Adaptec RAID 8885Q
- Adaptec RAID 81605Z
- Adaptec RAID 81605ZQ

3. Enhancements and Bug Fixes:
=====

General:

- Support for Adaptec ASR-81605Z SAS RAID Controller
- Adaptec Series 6, 7, 8 SAS RAID Controllers refresh, including:
 - Support for new operating systems
 - Updated Linux drivers with improved performance and 'linux dd' support for RHEL and CentOS
 - Enhanced flash backup unit error reporting
 - Improved throughput for RAID 1 sequential reads when read cache is disabled and write cache is enabled
 - History buffer enhancements (call stack/SCSI command descriptor block/debug information in log entries)
- Die temperature warning limit raised on Adaptec Series 7 and Series 8 controllers from 95 deg C to 102 deg C; resume limit raised from 90 deg C to 97 deg C (ie, after reaching 97C degrees, the buzzer turns off)

Firmware:

- Resolved an issue that prevented the rebuild of a degraded RAID 6.
- Added support for resetting the AFM module if only the super cap is replaced.
- Resolved an issue where the backplane mode would change after a controller firmware upgrade.
- Resolved an issue where the Super Cap (BLBU) status was incorrectly displaying as Preparing instead of Ready.
- Resolved an issue where the drive Fault LED behavior for a degraded array was incorrect.
- Resolved an issue where a RAID 6 would not begin a rebuild if one or more members were removed and quickly re-inserted.
- Resolved an issue where controller could lock up, in rare cases, after a dirty shutdown during IO processing.
- Resolved an issue that could cause the firmware to lock up during boot in situations with online and offline containers with different stripe sizes.
- Corrected a background task balancing issue when 4k native drives are attached to the controller.
- Rebuilding a RAID 1 consisting of 512k sector size drives with a 4k native sector size drive is no longer possible.
- Resolved an issue where a removed and rapidly re-inserted drive might not get activated properly.
- Resolved an issue that could cause a rebuild to not start properly if a drive failure occurred during a rescan.
- Resolved an issue where an array could not be rebuilt after multiple subsequent drive failures and offline state.
- Resolved an issue where an erroneous super cap health warning error was frequently reported in the controller log.
- Added RAID 1 sequential read performance optimization for low IO depths.
- Resolved an issue where RAID 5 to RAID 6 migration failure would occur in cases where the drive size exceeded 2TB.
- Resolved an issue where the RAID controller can hang when used with multiple cascaded drive enclosures.
- Resolved incorrect drive enclosure LED behavior.
- Resolved a drive detection issue in case of a delayed power on for certain enclosure types.
- The default IO depth for SATA SSDs has been increased from 20 to 32.
- Resolved an issue where preserved cache was not cleared after deleting the logical drive.
- Resolved an issue where the controller could fail during a lengthy sequence of repeated drive failure and hot drive removal/addition.
- Corrected a power off status issue with power management in maxView storage manager utility.
- Corrected an issue affecting the proper behavior of the copyback functionality.
- Resolved an issue where the controller could fail when used with Chenbro enclosures configured for dual path.
- Resolved an issue where drives would drop when powering on Intel JBOD2224S2DP (Dual-Path) and system at the same time.

Driver:

- All Operating Systems:
- Enabled MSI support for Series 6.
- Windows changes:
 - Resolved an issue under Windows SBS where logical drive deletion and creation events were not created in the windows event log. Instead an event indicating the device has old or out-of-date firmware. These incorrect events could lead to potential performance impact.
 - Resolved an issue where a Tape device is not exposed properly to the operating system.
 - Corrected an issue where the controller would not come back after ACPI Standby (S3) mode.
 - Added some performance enhancements
 - Resolved an issue where expander would continue to show up in Windows 2008 after being removed from the controller.
 - Resolved an incorrect event generated when expansion is complete.
- Linux/VMware changes:
 - Added VMware 6.0 support.
 - Added Fedora 21 support.
 - Added RHEL 7 support.
 - Added Citrix XenServer 6.5 support.
 - Added Debian 7.6 support.
 - Added Ubuntu 14.04 and 14.10 support.
 - Added specific performance enhancements for RHEL/CentOS 6.
 - Resolved an issue where SLES 11 SP3 x64 : Error 21 is generated, while installing OS on RAID controller.
 - Resolved issues detected with hibernation mode.
 - Resolved an issue where log was flooded with mode sense commands in VMware.
 - General linux driver performance enhancements.
 - Resolved an issue where the controller could not be seen after resuming from a suspend state in Ubuntu.
- FreeBSD changes:
 - Added FreeBSD 10 support
- maxCache Plus changes:
 - Starting with this release, maxCache Plus is official end of life. There will be no further development or general bug fixes provided.

maxView/ARCCONF:

- Installer enhancement (No command window pop-ups during maxView installation/un-installation).
- Increased SMART support for SAS devices.
- Enhanced maxView SMTP mail client to comply with the high secured SMTP servers (gmail, yahoo, etc...)
- Added support for Ubuntu 14.04
- Added support for RHEL/CentOS 7.1.
- Added Multi-level authentication and access privileges in maxView.
- Added LocalMode (standalone, restricted access from external network) maxView.
- Added Additional detail property in maxView logical property tab explaining the initialization method used to create the logical drive.
- Resolved an issue where arccnf would crash when attempting to savesupportarchive in Citrix Xenserver 6.2.
- Resolved an issue where the physical drive temperature was not displayed properly in arccnf and maxView.
- Resolved an issue where Verify Drives in power management cannot be changed back to Never once another value has been set.
- Resolved an issue where logical device names that contain a dash/hyphen was being truncated under Enterprise View.
- Added support for JBOD to Simple Volume migration in ARCCONF and maxView.
- Added a check condition when ARCCONF PHYERRORLOG command is executed to avoid drives spinning up that are powered down due to power management settings.
- Resolved an incorrect capacity header in the Hot Spare Wizard Summary window.
- Resolved an issue preventing write cache properties to be modified for RAW devices.
- Added ability to change running task priority in maxView for RAID creation.
- Resolved an issue that allowed logical drives undergoing RLM or OCE to be deleted.
- Resolved an issue where tape autoloader wasn't being displayed in maxView at initial log in.
- Resolved an issue where drive firmware upgrade would not complete in maxView GOS.
- Resolved an issue where maxView was displaying an incorrect drive negotiation speed.
- Resolved an issue where the background rebuild task status is empty if a physical drive is shared between overlapping logical drives.
- Resolved an issue where maxView allowed modifications to set properties for failed logical drives.
- Resolved an issue where the size column is empty during a JBOD logical drives creation.
- Resolved an issue where maxView/ARCCONF would fail to properly restore a saved configuration.
- Resolved an issue where the status of a hot removed/plugged physical drive wasn't correctly updating in maxView.
- Added SEEPROM and CPLD version display in ARCCONF getconfig command.
- Resolved an issue that prevented a RAID volume creation from completing when attempting to use two existing configured logical drives as members.
- Resolved an issue where Verify operation was allowed in maxView for logical drives created using Quick Init method.
- Resolved an issue where the incorrect logical device status was being display for multiple drive rebuilding in RAID 6.
- Resolved an issue where no logical drive was displayed in enterprise view when a tape autoloader was attached.
- Resolved an issue where SMART stats were not being displayed for some SAS HDD's.

(c) 2015 PMC-Sierra, Inc. All Rights Reserved.

This software is protected under international copyright laws and treaties. It may only be used in accordance with the terms of its accompanying license agreement.

The information in this document is proprietary and confidential to PMC-Sierra, Inc., and for its customers' internal use. In any event,

no part of this document may be reproduced or redistributed in any form without the express written consent of PMC-Sierra, Inc., 1380 Bordeaux Drive, Sunnyvale, CA 94089.