

ArcSAP Quick Manager

ArcSAP Quick Manager for HBA

USER's Guide

Version: 1.0

Issue Date: July, 2015

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ArcSAP Quick Manager for HBA

1. ArcSAP Quick Manager for HBA

1.1 Overview

The Areca Single Admin Portal (ArcSAP) quick manager is a graphical-based device management program specifically designed for use in managing and configuring Areca SAS HBA. The ArcSAP quick manager can scan for multiple HBA in the local systems and provide an effective mechanism to configure your HBA units. It also provides real-time reporting on the status of the complete disk array, thus making the task of monitoring disk arrays virtually effortless. For power users, the ArcSAP Command Line Interface (CLI) function also provides the scripting capability for automated tasks and customization.

1.2 Installing the ArcSAP Utility

You must have administrator permissions for the computer on which you are installing ArcSAP quick manager. Before this procedure began, we assume that the HBA unit and OS are installed and operational in your system.

1.2.1 Mac Users

This section describes detailed instructions for installing the Mac ArcSAP Quick Manager for the Areca HBA unit on your system. This can be done in just a few steps!

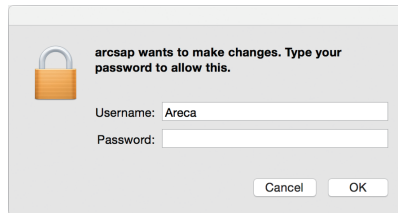
1. Download the ArcSAP installer from the website at "http://www.areca.com.tw/support/s_thunderbolt/4320T2_mac.htm", the file name begins with "arcsap_hba" followed by the version control or insert the HBA unit software CD in the CD-ROM drive.
2. Double-click on the zipped file that comes from the website or resides at <CDROM>\packages\MacOS to add the installer on the Finder.

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3. Double click the `arcsap_hba.dmg` to make its content available (name will be shown up in the Finder sidebar), usually a window opens showing the content as well.
4. Drag the application from the `arcsap_hba.dmg` window into Applications folder to install.
5. Wait for the copy process to finish.

Double click on the “**arcsap_hba**” link from the Applications folder to start your ArcSAP quick manager. By default, the ArcSAP is locked to prevent unauthorized accesses to your HBA units. The ArcSAP password dialog box appears.

Type your Mac computer password into the Password field and click the “**OK**” Button to open it.



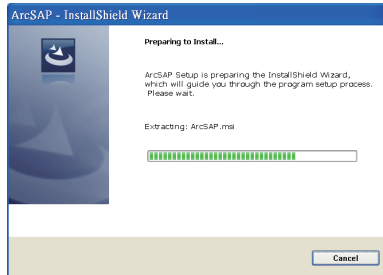
1.2.2 Windows Users

This section describes how to install the ArcSAP quick manager to your operating system. Follow the steps below to install the utility for Windows.

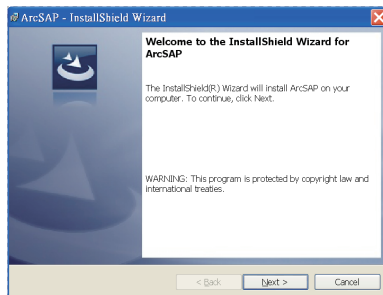
1. Download the ArcSAP installer from the website at “http://www.areca.com.tw/support/s_thunderbolt/4320T2_win.htm”, the file name begins with “`arcsap_hba`” followed by the version control or insert the HBA unit software CD in the CD-ROM drive.
2. Double-click on the zipped file that comes from the website or resides at `<CDROM>\PACKAGES\Windows` to unzip it. Double click on the “`setup.exe`” file for installing ArcSAP quick manager.

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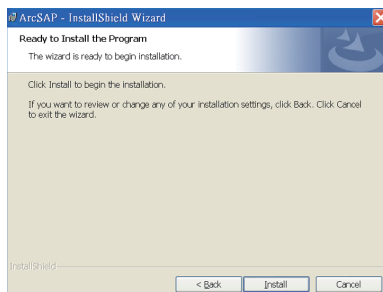
3. The screen shows Preparing to Install.



4. The InstallShield Wizard opens, preparing to install and click on the **"Next"** button to continue.

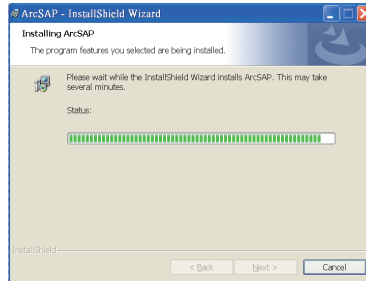


5. When you reach the installation page, click on the **"Install"** button to continue.

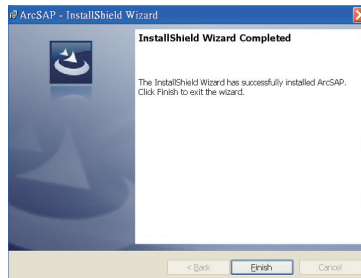


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6. A Progress bar appears that measures the progress of the ArcSAP quick manager setup. When this screen completes, you have completed the ArcSAP quick manager setup.



7. After a successful installation, the "Setup Complete" dialog box of the installation program is displayed. Click on the "**Finish**" button to complete the installation.



There is one "**ArcSAS**" icon showing on your "**Programs**" folder for you to locate ArcSAP quick manager program file folder. The "**ArcSAP**" icon is for you to start up the ArcSAP quick manager. Click on the "**ArcSAP**" program icon to start the ArcSAP quick manager.

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1.3 ArcSAP Main Menu

After starting the ArcSAP quick manager, the main window appears on the screen. The ArcSAP quick manager window contains a Controller List and a Configuration Options. The Controller List tree lists all hosts. When you click on an item in the Controller List tree, the Configuration Options shows additional information about the selection. All management operations pertaining to the HBA units will be performed within the main window. The figure 1-1 shows the elements contained on the main window.

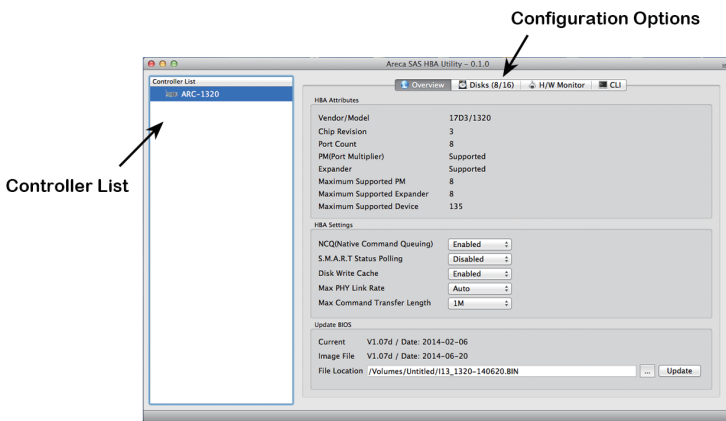


Figure 1-1, ArcSAP Quick Manager Main Window

- The **“Controller List”** window at the left of the display page lists localhost found on the system.
- The **“Configuration Options”** window in the right window pane provides information and options for a device highlighted in the controller list.

1.4 Controller List

Let’s assume you’ve put all Areca HBA units into a system. The ArcSAP automatically scans the localhost HBA units on the system and creates an individual HBA icon located on left column of the “Controllers List” screen. When you double click on a selected element in the Controller List tree, Configuration Options appears. The

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Controller List tree contains icons and text as visual indicators for the Localhost.



Figure 1-2, Controller List Window

1.5 Configuration Options

The ArcSAP quick manager gives you full control over the HBA; specifying otherwise, only allows you to view the current configuration of the HBA. If you highlight an element in the “Controller List”, tabs and panel display for that element shown on the Configuration Options.

The following tabs display in the “Configuration Options” window when you select a specific HBA in the “Controller List” window:

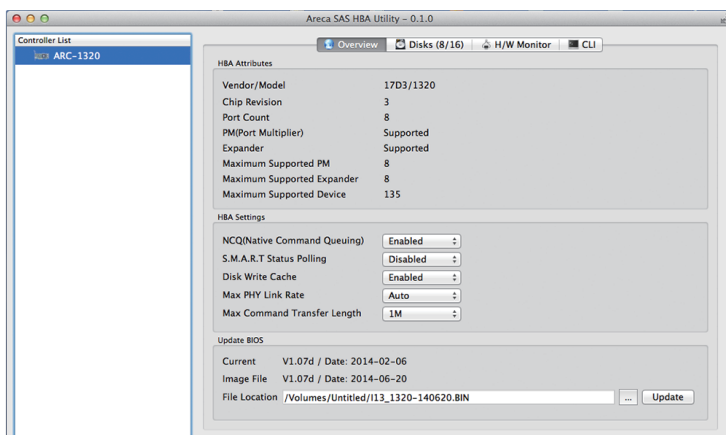


Figure 1-3, Configuration Options Window

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1.5.1 Overview

The '**Overview**' tab provides general information about the HBA currently highlighted in the controller list. It shows the HBA operations options to configure the HBA (Host Bus Adapter).

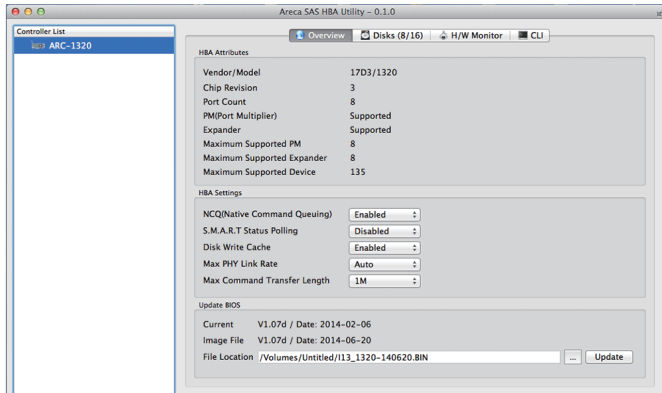


Figure 1-4, Overview Information in the Configuration Options Window

1. **HBA Attributes:** displays the selected SAS host adapter properties .
2. **HBA setting:** is used to configure the SAS host adapter parameters. The HBA Setting enables you to inquiry and modify the HBA characteristics.
 - (1). **NCQ(Native Command Queuing):** The controller supports both SAS and SATA disk drives. The NCQ allows SATA multiple commands to be outstanding within a drive at the same time. Drives that support NCQ have an internal queue where outstanding commands can be dynamically rescheduled or re-ordered, along with the necessary tracking mechanisms for outstanding and completed portions of the workload. The SAS host adapter allows the user to select the SATA NCQ support: "Enabled" or "Disabled".

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- (2). **S.M.A.R.T Status Polling:** A SATA HDD “SMART Status Polling” function was added to enable scanning of all SATA HDDs SMART information function on the device driver. It is necessary to enable “SMART Status Polling” function before the selected SATA drive SMART information is accessible. This function is used to control the ability of the device driver function. It is disabled by default.
- (3). **Disk Write Cache:** User can set the disk “Write Cache Mode” to Enabled, or Disabled. “Enabled” increases speed, “Disabled” increases reliability.
- (4). **Max PHY Link Rate:** A SAS device is required to support all link rate between and including the specified Max. and Min. hardware link rate. The initiator determines the negotiated physical PHY link rate along all pathways by querring all of the relevant PHYs during discovery. If there is problem on the SAS speed negotiation sequence, you can use this function to adjust the PHY link rate. When you choose this option, the max PHY link rate on the same expander or a different expander within the topology will set this value.

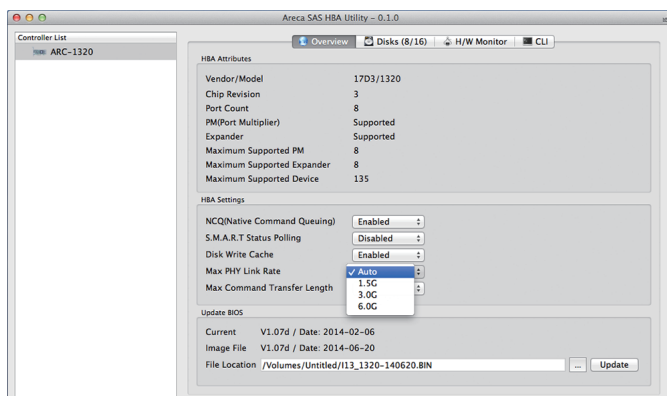


Figure 1-5, Max PHY Link Rate

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- (5). **Max Command Transfer Length:** The largest amount of data that can be transferred by a single SAS command is often a concern. The SAS host adapter could have transfer size limits as could the transport and finally the SAS/SATA device itself. When you choose this option, the max setting in the device driver is the maximum number of IO size allowed in a single SAS command's scatter gather lists (for data transfers).

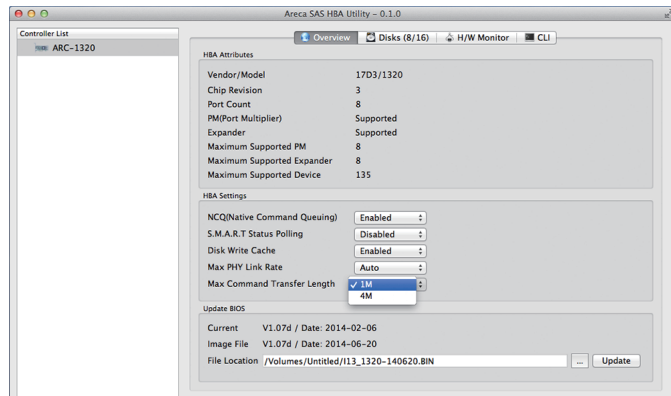


Figure 1-6, Max Command Transfer Length

3. **Update BIOS:** re-programs the old BIOS through this update process. This update process uses to write a flash image data into SAS host adapter's flash ROM from the file location. You must restart the computer for new BIOS to take effect after you complete this BIOS update.

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1.5.2 Disk

The '**Disk**' tab provides information about the disk attributes and settings connected on the highlighted HBA (Host Bus Adapter).

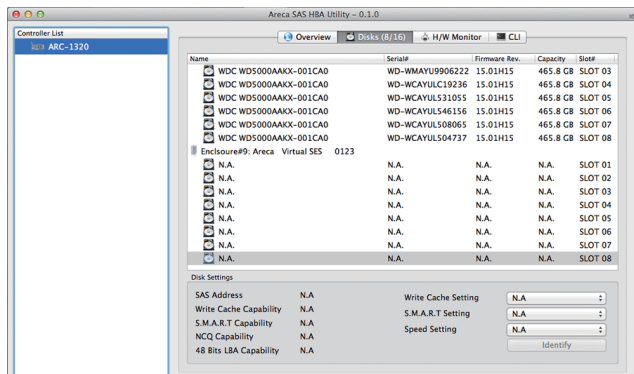


Figure 1-7, Disk Information in the Configuration Options Window

1.5.3 H/W Monitor

The '**H/W Monitor**' tab provides information about the Hardware monitor information on the highlighted HBA (Host Bus Adapter). The hardware monitor information of the enclosure attached in this controller is shown on this screen.

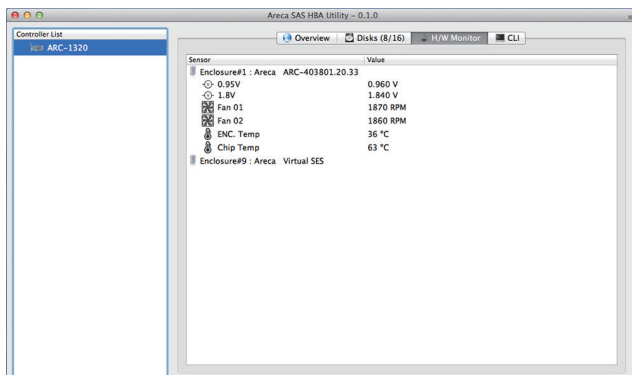


Figure 1-8, Hardware Monitor Information in the Configuration Options Window

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1.5.4 CLI

The '**CLI**' tab allows experienced users to manage the HBA (Host Bus Adapter) using a Command Line Interface.

CLI (Command Line Interface) lets you set up and manage HBA through a command line interface. CLI performs many tasks at the command line. You can download the HBA CLI manual (SAS-Host_CLI.ZIP) from Areca website or software CD <CDROM>\DOCS directory.

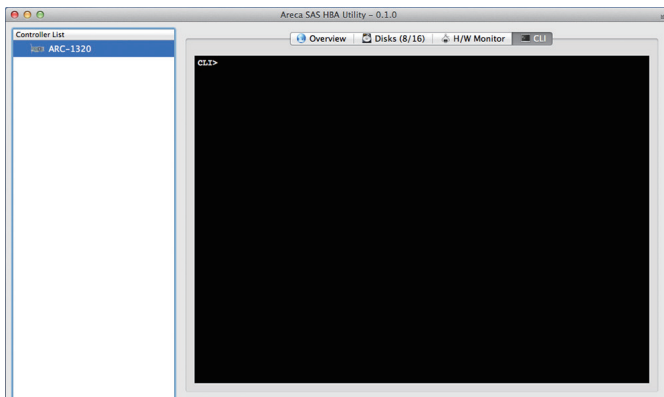


Figure 1-9, Command Line Interface in the Configuration Options Window