Part Number 313457204

Shared Virtual Array
Administrator

Version 3.1.0

for Windows

Quick Start Guide

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System Requirements

Before beginning the installation, please contact StorageTek Software Support to verify that your site meets the minimum hardware and software requirements supported by StorageTek. You will need to provide details about your site configuration, including:

- Host system processor and memory
- Host disk space
- Host operating system level
- SVA subsystem microcode
- Host bus attachments (HBAs)
- Switches
- High-availability software
- Third-party disk management software

Installation

Note: SnapShot is automatically installed with SVAA for Windows V3.1.0.

Verify Free Space

In order to complete the installation, on the Windows computer you must have at least 10MB of free space in the file system where you plan to install the SVAA server software (`C:\Program Files\StorageTek\Shared Virtual Array Administrator 3.1.0\` is the default directory).

Install SVAA Software

1 Log in as a user with administrative privileges (such as userid `Administrator`).

2 Insert the Installation CD in your CD-ROM drive. The Shared Virtual Array Administrator installation program will run automatically (Autorun), taking you through the installation process step-by-step.

   Or press the Shift key while you insert the CD. In this case, the installation program will not run automatically. To start the installation, open Windows Explorer, go to D:\ (where D: is your CD-ROM drive identifier), and double-click `Setup.exe`.

3 A dialog box is displayed warning you that the installation may reboot your computer. Click **Yes** to continue with the installation (you should choose this only if you currently have no open applications on your computer). Click **No** to exit the installation.

4 On the **Welcome** screen, review the information displayed and click **Next>** to continue.

5 On the **Launch ReadMe** screen, select the Launch ReadMe file check box to view the SVAA V3.1.0 `ReadMe.txt` file now. De-select the box to view the file at a later time. Click **Next>** to continue.

Note: It is strongly recommended that you view the `ReadMe.txt` file before continuing with the installation. While viewing the file, select **File>Print** to print it. Select **File>Exit** to exit the file and continue with the installation.

6 On the **Customer Information** screen:

- Enter your User Name and Organization.
- You can use the radio buttons to designate who will be able to run the SVAA server from your computer. Select “Anyone who uses this computer” to allow any login ID on this computer to run SVAA. Select “Only for me” to allow only your current login ID to be able to run SVAA.

Click **Next>** to continue.

7 On the **Setup Type** screen you can designate the type of installation.

- Select “Complete” to install SVAA in the default installation directory (C:*programs_folder*\StorageTek\Shared Virtual Array Administrator 3.1.0\, where *programs_folder* is your computer’s default program installation directory—usually `Program Files`).
- Select “Custom” to designate a different installation directory.

  Caution: Because SVAA runs as a service under the System Account, SVAA does not have access to network resources. Therefore, SVAA must be installed on a local disk.

In either case, the entire SVAA product will be installed; there are no options for a partial installation. Click **Next>** to continue.

8 If you chose Custom on the previous screen, the **Custom Setup** screen appears.

- Click “**Change...**” to specify a different installation directory. This opens a **Change Current Destination Folder** dialog box. You can

type in a folder name, or you can select a folder from the drop-down menu. Click **OK** to continue.

Caution: Because SVAA runs as a service under the System Account, SVAA does not have access to network resources. Therefore, SVAA must be installed on a local disk.

- Click “Space” to view the disk space requirements and availability on your computer. Click **OK** to continue.

9 On the **Install Desktop Icon** screen, select the check box to add the SVAA Manager shortcut icon to your Desktop. Leave the box unchecked to not add the icon.

Note: SVAA Manager is used to configure, start, and stop the SVAA server.

Click **Next>** to continue.

10 On the **Ready to Install the Program** screen, click **Install** to begin the installation.

11 When the installation is complete, the **InstallShield Wizard Completed** dialog box appears. Click **Finish** to exit InstallShield.

12 In some cases, after you click **Finish** you will see a dialog box prompting you to restart your computer. Click **Yes** to restart now. Click **No** to not restart; you will need to restart at a later time in order for SVAA to run correctly.

Install Necessary Patch(es)

Before continuing to the next procedure, you should install the latest SVAA for Windows patch level. To do so, access the StorageTek Customer Resource Center (CRC) website at `www.support.storagetek.com` and download any necessary patches, then install them according to the given instructions.

CONFIGURE THE SVAA SERVER

Use the following steps to configure the SVAA server for your installation.

1 Log in as a user with administrative privileges, if you haven't already.

2 Start the SVAA Manager program from the Windows **Start** menu: Click **Start**, and then click **Programs>StorageTek>Shared Virtual Array Administrator 3.1.0>SVAA Manager**.

3 Click the **Server** tab.

4 Click **New**.

5 Define the new configuration by filling in all the fields on the dialog box. See "Server Tab" for instructions on how to fill in the fields.

6 Click the **Service** tab.

7 Enter a value in the Description field. See "Service Tab" on page 8 for details.

8 Click **Save**.

The SVAA server configuration will appear in the SVAA server list box, on the right-hand side of the dialog box.

Server Tab

Following are descriptions of the fields on the **Server** tab dialog box.

Name:

Each SVAA server must have a unique name. This name is displayed during server execution.

Enter any string up to 256 characters in length. The following characters are accepted, even as the first one: a to z, A to Z, 0 to 9, $, @, #, -, _, +, &, ., and /.

Caution: You must not have two SVAA servers with the same name, even if they are running on different hardware platforms, as this can have unpredictable results.

Port:

The TCP/IP port number for this SVAA server configuration. The default is 41248.

Enter any integer between 1024 and 64567.

Note: This value should be unique for each SVAA server configuration.

Install Path:

The folder where the SVAA server software is installed. Typically, this would be `C:\Program Files\StorageTek\Shared Virtual Array Administrator 3.1.0\`.

Enter the full pathname of the folder, such as `C:\Program Files\StorageTek\Shared Virtual Array Administrator 3.1.0\`. The folder must already exist. The path must be on a local drive, as the SVAA server cannot access any network resources.

Config Path:

The folder where the `config.dat` file is located. This file contains the values you define for this SVAA server configuration, and it serves as a backup to the Windows Registry.

Enter a full pathname of the folder, such as `C:\Program Files\StorageTek\Shared Virtual Array Administrator`

3.1.0\Server31\. The folder must already exist. The path must be on a local drive, as the SVAA server cannot access any network resources.

Note: This value should be unique for each SVAA server configuration.

Log File:

The name of the file where the SVAA server will write error messages.

Enter the full pathname, including the file name, such as C:\Program Files\StorageTek\Shared Virtual Array Administrator 3.1.0\Server31\Server31log. The folder where the file will be located must already exist. The path must be on a local drive, as the SVAA server cannot access any network resources.

Note: This value should be unique for each SVAA server configuration.

Enable Web Interface

Indicates whether you want to enable the SVAA server Web-based interface. The Web-based interface is used to produce point-in-time reports for one or more SVA subsystems.

A check mark enables the Web-based interface; a blank check box disables it.

Web Interface Port:

The TCP/IP port number to be used for communication between the Web-based interface and the SVAA server.

Enter any integer between 1024 and 57602.

Note: This value must be unique for all SVAA server configurations on the host system. It also must be different from the **Port** value.

All Devices:

Lists all fixed disks on the host. This includes local hard drives as well as SVA subsystem devices. Network drives and other devices (such as floppy drives and CD-ROM drives) are not included in the list.

ECAM Devices:

Lists devices that have been designated as ECAM devices for the server. ECAM devices are used by the SVAA server to communicate with the SVA subsystem.

Note: To move a drive between the All Devices and ECAM Devices scroll lists, select the drive letter and double-click it or click an arrow (<< or >>). To move all drive letters from one scroll list to the other, Shift-click an arrow.

Note: See “Installing SVA Path with SVA Administrator” in the *SVA Path for Windows User’s Guide* for instructions on updating the ECAM device configuration in SVA Path.

Service Tab

Following are descriptions of the fields on the **Service** tab dialog box.

Name:

Displays the name of the selected SVAA server configuration Registry key. This value is generated automatically. It has the form `SVAA_StorageTek_`*nn*, where *nn* is a two-digit number.

This field is display only.

Description:

A description of the SVAA server configuration. This name will be displayed in the Services dialog. It is also displayed in the SVAA server list box.

Enter any string up to 256 characters in length. The following characters are accepted, even as the first one: a to z, A to Z, 0 to 9, $, @, #, -, _, +, &, ., and /.

Startup Type:

Specifies whether this SVAA server service will be started manually or automatically.

Click **Manual** to allow the service to be started manually on demand. Click **Automatic** to have the service started automatically during the Windows startup process.

Status:

Displays the current status of the SVAA service. Normal values are `Stopped` or `Running`. For short periods of time the service can be in an intermediate state, such as `Starting` or `Stopping`. Abnormal states include `Pausing`, `Paused`, `Continuing`, or `Unknown`. Also, an abnormal condition exists if the service is in an intermediate state for more than a minute or so.

This field is display only.

Parameters:

Provides a place to enter optional parameters to be passed to the SVAA server as it starts up. The parameters are described below.

Note: Parameter values containing spaces must be enclosed in quotes.

`-config` *pathname*

Optional parameter. Specifies the location of the `config.dat` file to be used by the SVAA server. When the server starts up, it will use the values specified in this file instead of those in the Windows Registry which were defined during SVAA configuration.

Enter the full pathname where the `config.dat` file is located.

`-debug` *format*

Optional parameter. Activates trace logging on the server side for diagnostic purposes.

format (an integer from 1 to 7) specifies the format for the trace entries. You can enter only one value at a time. Ranges, lists, and wildcards are not supported.

Note: Normally, you would use this parameter only under the direction of StorageTek Software Support. Your support representative will give you the appropriate *format* value to use.

`-ecamdev` *device_path*

Optional parameter. Specifies the ECAM device to be used by the SVAA server to access the SVA subsystem. This entry overrides the default ECAM device specified in the Windows Registry.

Entry must be a valid ECAM device previously defined with the `addsubsystempath` command. Enter the full pathname of the device.

`-file`

Optional parameter. Used for Windows-based SVAA servers only. Specifies to repopulate the Windows Registry with values from the SVAA configuration file (`config.dat`). This is useful for restoring the SVAA configuration information in the Windows Registry in the event that the Registry data has been corrupted in some way.

The file to use is determined as follows:

- If you are using the `-config` parameter on this command to explicitly specify a `config.dat` file, the values will be taken from there.
- If you are not using the `-config` parameter, the values will be taken from the default `config.dat` file for this server configuration, as specified in the **Config Path** field on the **Server** tab dialog box.

`-log` *file_name*

Optional parameter. Specifies the log file to be used by the SVAA server (where SVAA error messages are sent). This entry overrides the log file specified in the Windows Registry.

Enter the full pathname, including the file name.

`-nowebport`

Optional parameter. Disables the Web-based interface for this SVAA server. This entry overwrites the Web-based interface status in the Windows Registry, disabling the Web-based interface for this SVAA server.

Once this parameter is used, the Web-based interface remains disabled for this SVAA server until the interface is explicitly re-enabled.

`-port` *port_number*

Optional parameter. Specifies the port number to be used by the SVAA server's TCP/IP connections. This entry overrides the port number in the Windows Registry.

Enter any integer between 1024 and 64567.

Note: If you have multiple SVAA servers running on a single host machine, each server must have a unique port number.

`-serveridletime` *minutes*

Optional parameter. Specifies that the SVAA cache refresh cycle is to be suspended if there is no cache activity for the specified number of minutes. The cache refresh cycle will be restarted as soon as cache activity is resumed. "Cache activity" is defined as any request that queries or modifies data in the SVAA cache, such as `displaydevice`, `startdrain`, or `refreshcache`; commands such as `queryversion` and `setadministratorgroup` do not affect SVAA cache and therefore do not affect this option.

Enter the number of minutes; entry can be any integer between 1 and 10080 (seven days). You must specify a value; there is no default.

If you do not specify this parameter, SVAA server cache refreshes will never be suspended for this instance of the server.

`-webport` *port_number*

Optional parameter. Specifies the TCP/IP port number to be used for communications between the SVAA server and the Web-based interface. This entry overrides the port number in the Windows

Registry, making it the new default Web-based interface port number for this SVAA server..

Note: This entry must not be the same as the port number of any active SVAA servers (SVAA server port numbers are defined in the Windows Registry and can be overridden by the `-port` parameter).

Enter any integer between 1024 and 64567.

Note: If the Web-based interface was previously disabled for this SVAA server, specifying this parameter re-enables it. The Web-based interface will remain enabled until explicitly disabled.

Validate the SVAA Server and CLI

Use the following steps to start the SVAA server and the CLI (command line interface) and verify that they are running correctly.

1 Log in as a user with administrative privileges, if you haven't already.

2 Start the SVAA Manager: Click **Start**, and then click **Programs>StorageTek>Shared Virtual Array Administrator 3.1.0>SVAA Manager**.

3 Click the **Service** tab.

4 In the SVAA server list box, select the SVAA server configuration you created in "Configure the SVAA Server" on page 5.

5 Click **Start**.

As soon as you see the message `Running SVAA Server`, proceed to the next step.

6 Start the `sibadmin` program which runs the SVAA CLI (command line interface): Click **Start**, and then click **Programs>StorageTek>Shared Virtual Array Administrator 3.1.0>sibadmin**.

Note: Refer to the *SVAA for Windows User's Guide* for a complete explanation of `sibadmin` and its options.

7 To verify that the SVAA server is communicating with the SVA subsystem, type the following at the CLI prompt:

```
SIB> querysubsystem
```

The display should appear similar to the following example:

```
SVAA Server: Server1      Date/Time: 11-24-2000 22:20:07 MDT
SubsysDev
SubsysProd
SubsysTest
```

8 To verify that the CLI is communicating with the SVAA server, type the following at the CLI prompt:

```
SIB> queryversion
```

The display should appear similar to the following example:

SVAA Server: Server1 Date/Time: 11-24-2000 22:25:07 MDT

Shared Virtual Array Administrator 3.1.0 Windows 2000

9 Exit from the CLI:

```
SIB> exit
```

10 Use the following steps to stop the SVAA server:

a. Return to the SVAA Manager **Service** dialog.

b. In the SVAA server list box, select the SVAA server configuration that you started earlier.

c. Click **Stop**.

Validation is now complete.

SVAA Server Security Considerations

SVAA server administration functions are limited to the user "`Administrator`" and to users in the SVAA server administrator group. When the SVAA server is first installed, the default SVAA administrator group is `Administrators` or `Domain Admins`". If you want to assign SVAA administrator privileges to a different group, you can perform the following steps after the SVAA server installation and configuration are finished:

1 Login as `Administrator`.
2 Use the SVAA Manager program to start the SVAA server.
3 Use the `sibadmin` program to start the CLI.
4 Use the `dropadministratorgroup` command to remove SVAA administrator privileges from the `Administrators` or `Domain Admins` group.
5 Use the `setadministratorgroup` command to assign administrator privileges to the desired group. The group must be an existing Windows group. It can be a global group. The new group takes effect immediately.

Note: SVAA administrator privileges apply only to SVAA server administration functions. In order for any user (including members of the SVAA administrator group and `Administrator`) to be able to perform functions that modify the SVA subsystem (such as defining devices or

forming arrays), the user must have write-access to a privileged ECAM device. Other restrictions apply for specific functions, such as snapping a partition. For complete details, see the following sections in the *SVAA User's Guide*:

- “Chapter 2, Security”—Describes the SVAA server security system.
- “Chapter 5, SVAA CLI Commands”—Describes how to use the CLI and provides detailed reference on all commands.

DE-INSTALLATION

The SVAA software can be de-installed using the standard Windows de-installation tools.