Enterprise Management window task assistant

When you start the Storage Manager client, the Task Assistant window opens, as shown in the Figure 5-26.

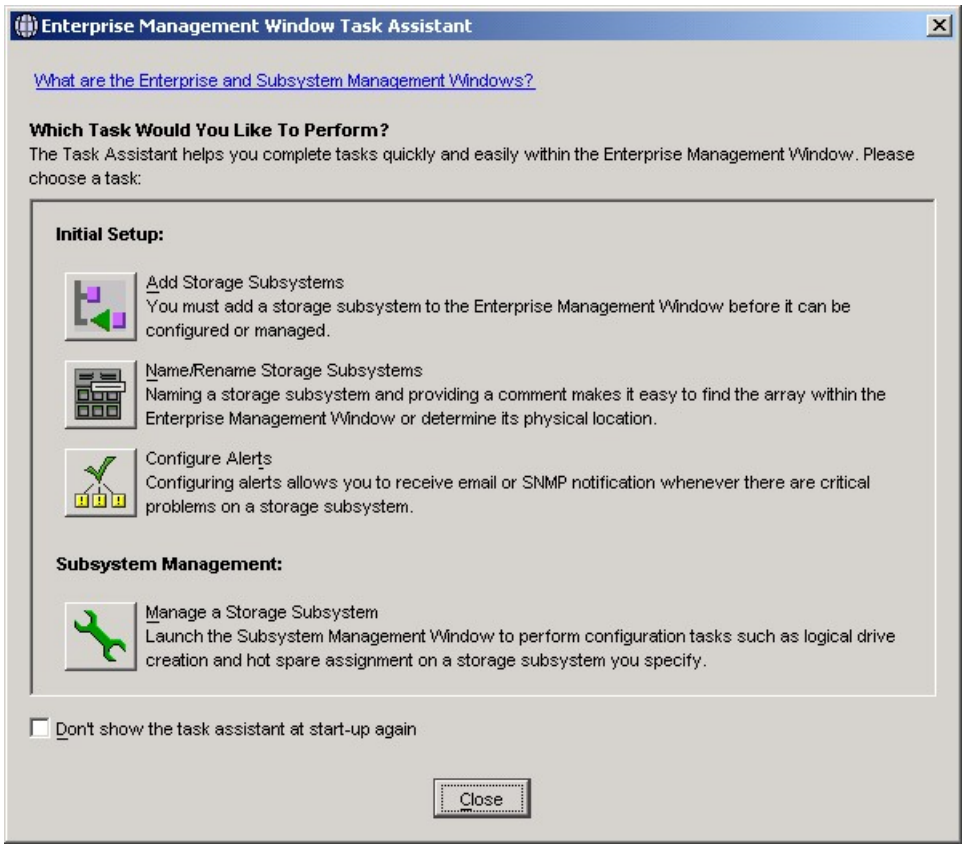

Figure 5-26 Enterprise Management Window Task Assistant

The Enterprise Management window task assistant shown provides easy access to some of the commonly used tasks on the Enterprise Management level. We explain these tasks in the following sections.

If you do not want to use the Task Assistant, you can disable it by marking the appropriate check box. In case you want to use it again, you can invoke it from the Enterprise Management window at any time later.

Adding storage systems

Before you can manage a DS4000 storage server, you must add it to the Enterprise Management window. You can select either the automatic or the manual addition method, as you can see in Figure 5-27.

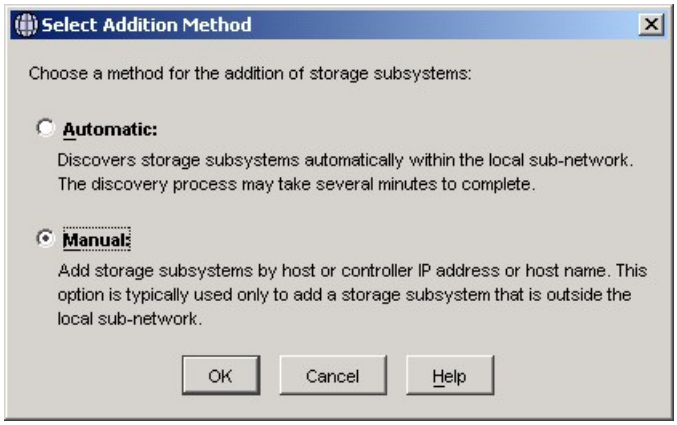

Figure 5-27 Task Assistant: Add storage system

The automatic discovery process sends out broadcasts via Fibre Channel (if SMagent is installed and started) and the IP network. If it finds directly attached storage systems or hosts running the DS4000 Storage Manager agent (with an attached storage system), it adds these storage systems into the Enterprise Management window.

The manual addition method requires that you provide the IP addresses (or host names) of both controllers for out-of-band management. If one of the controllers is not connected or is not reachable, then some of the managment functions could not be performed (except in cases where you manage a single-controller storage server).

If the DS4000 is managed through the FC path (in-band managment) and you want to manage it using a workstation with SMclient installed, instead of the in-band management, specify the IP address of the host that is attached to the storage server. Select the In-band management check box and type the IP address of the server with SMagent running. Figure 5-28 shows an example of the manual addition of a storage system that is managed by the out-of-band method.

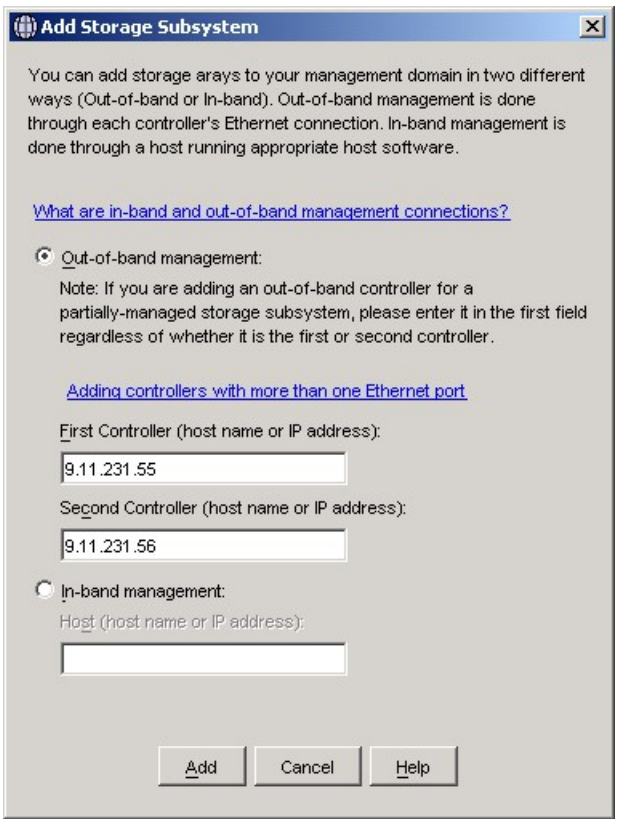

Figure 5-28 Add storage system

After the storage systems are added, either manually or automatically, they show up in the Enterprise Management window, as shown in Figure 5-29.

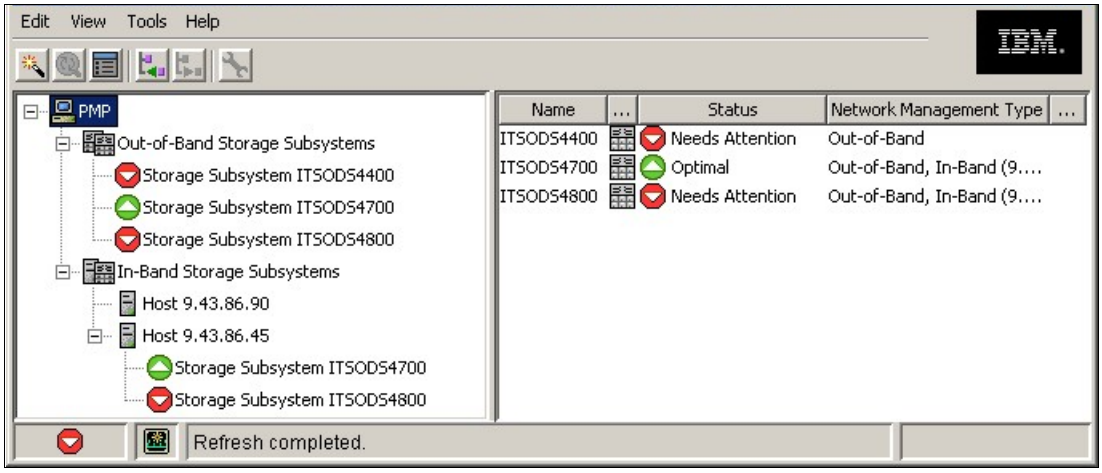

Figure 5-29 Enterprise Managment Window

You can see all DS4000 detected storage servers and how they are managed, either direct (out-of-band) or host-agent attached (in-band), or through both connections. There is also a status column. Usually, the status is optimal with a green icon next to it, but in case of any problem, the status changes to needs attention and a red icon is displayed.

You can also add storage systems without the use of Task Assistant. One possibility is to right-click the management station in the Enterprise Management window and then select either Automatic Discovery or Add Storage Subsystem (for manual addition). We show this in Figure 5-30.

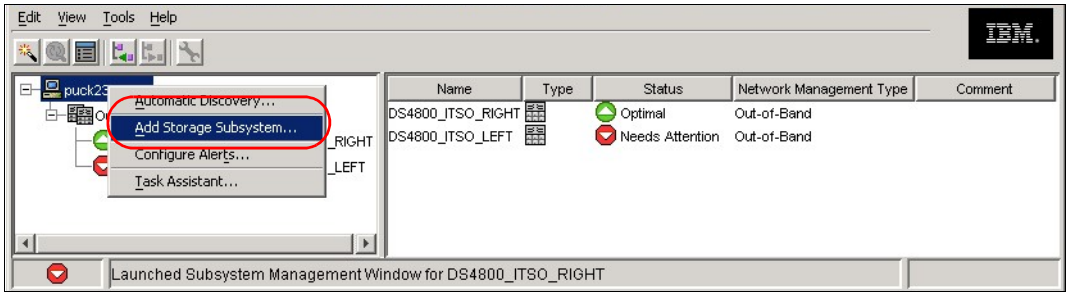

Figure 5-30 Add Storage Subsystem: Without the Task Assistant

Naming or renaming storage systems

You should give each storage server a unique and meaningful name so that you can differentiate it easily from others in the Enterprise Management window. Besides the name, you can also enter a comment, as shown in Figure 5-31.

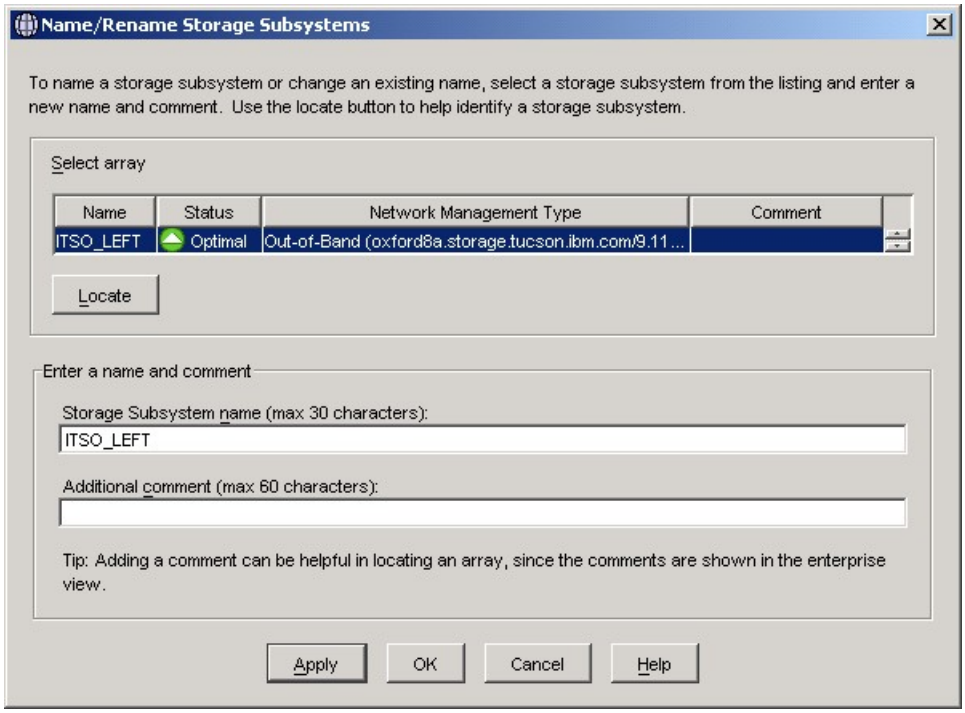

Figure 5-31 Task Assistant: Name or rename a storage system

Configuring alerts

This option allows you to set up the alerting structure. In case of problems with any of the storage servers, an e-mail or an SNMP notification can be sent. The Task Assistant allows you to configure alerts for all storage servers, for a group of them, or for a single one.

We provide a detailed description of the configure alerts option in 5.3.6, “Monitoring and alerting” on page 271.

Managing a storage system

If you select this option, the Task Assistant asks you to select a storage system that you want to manage. It then launches the Subsystem Management window for that particular storage server. Within this window, you are able to create arrays and logical drives, create hot spares, assign the logical drives and host servers to storage partitions, set or change the operational parameters of the storage server, and so on.

Task Assistant: Subsystem Managment Window

The Subsystem Management window is where you do all the management tasks on a particular DS4000 storage server. In order to simplify access to the most commonly used tasks, we now have the Task Assistant. Figure 5-32 shows an example of the Subsystem Management window task assistant.

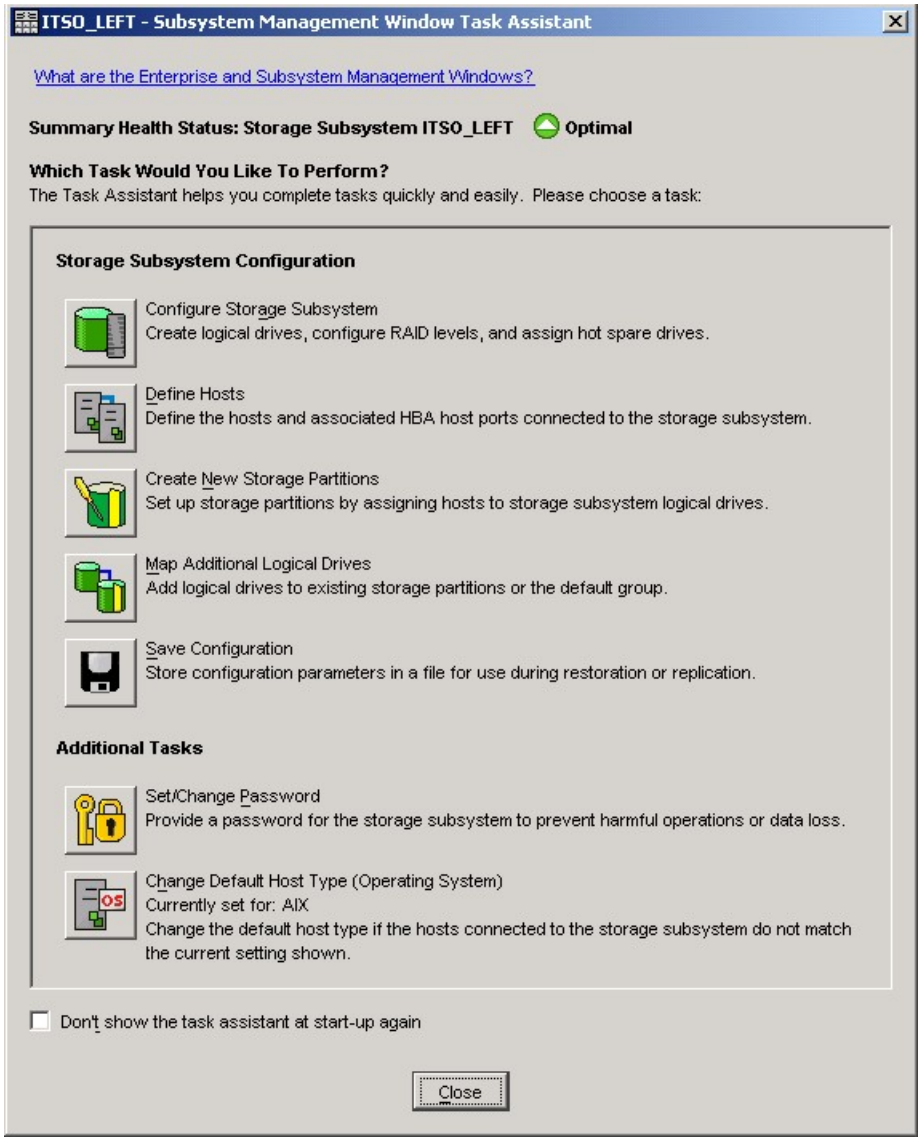

Figure 5-32 Subsystem Management Window Task Assistant

These tasks allow you to:

- Configure (create arrays, logical drives, and hot spares).
- Create storage partitions and assign logical drives and host servers to them.
- Set or change the passwords for the storage server.
- Change the default host type.

We discuss all these operations in detail in the following sections.

Working in the Subsystem Management window

After you launch the Subsystem Management window (either manually or with Task Assistant), you will have access to all the management functions for the particular storage server. We show an example of the Subsystem Management window in Figure 5-33.

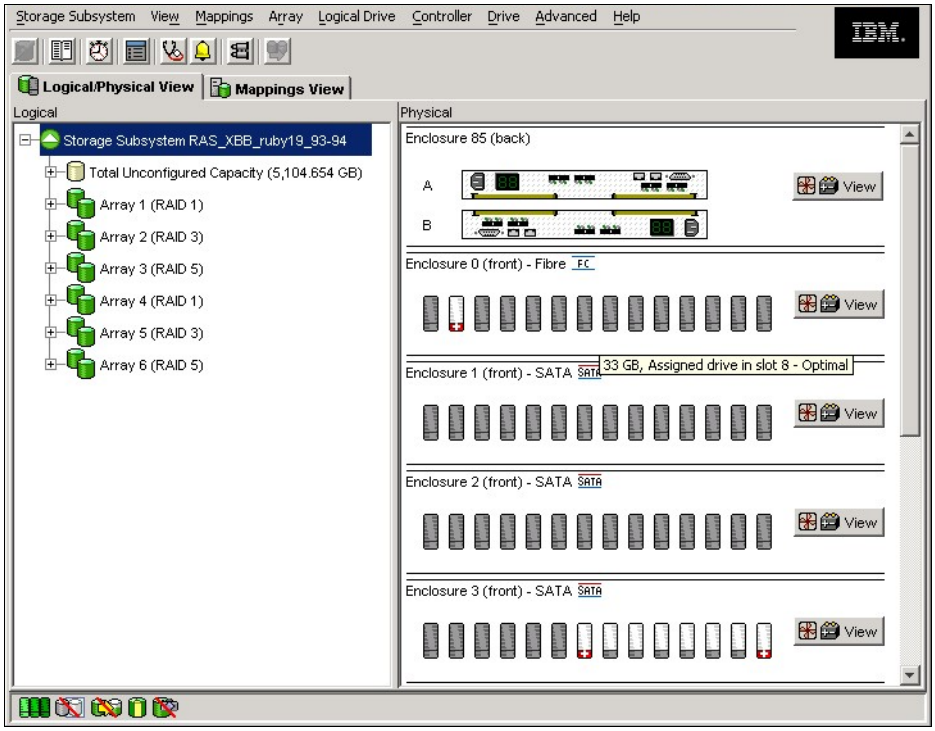

Figure 5-33 Subsystem Management window

Verify that the enclosures in the right half of the window reflect your actual physical layout. This is very useful to not perform maintenance activities in the wrong enclosure. If the enclosures are listed in an incorrect order, select Storage Subsystem → Change → Enclosure Order.

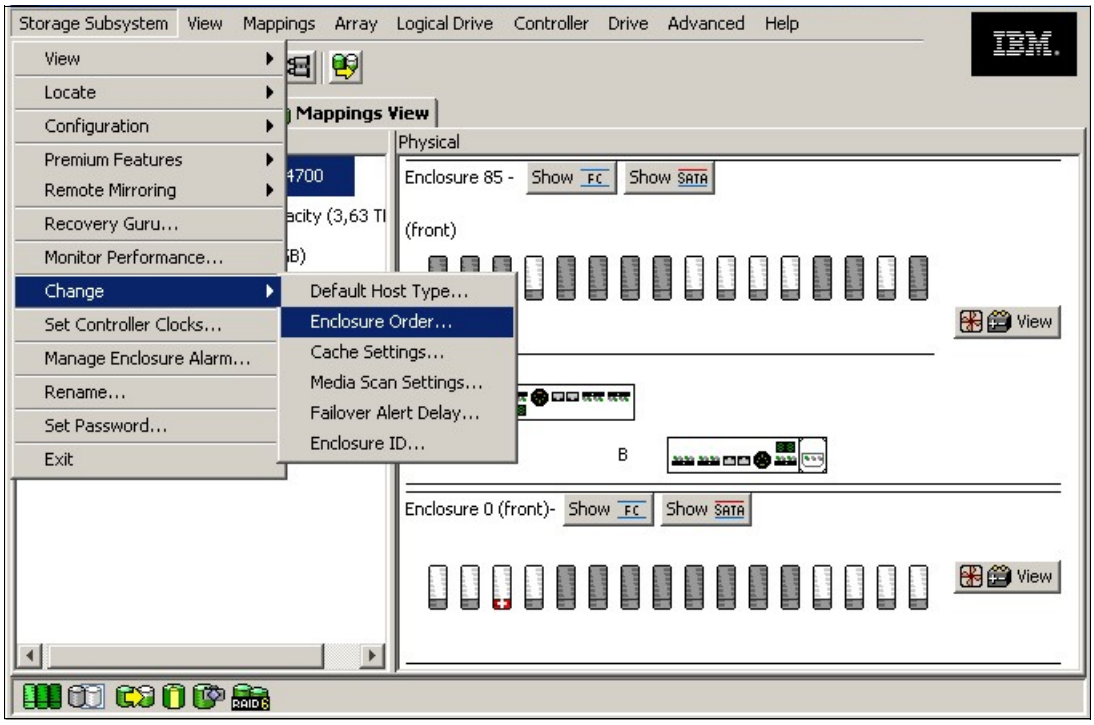

Figure 5-34 Change the enclosure order

Now you can sort the enclosures according to your site setup, as shown in Figure 5-35.

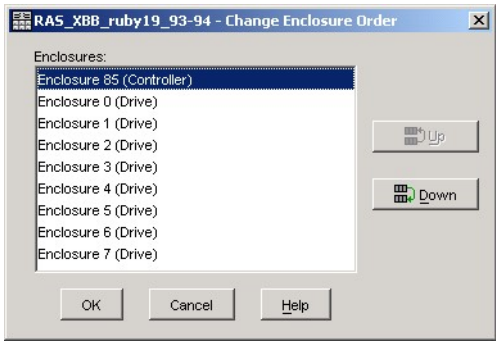

Figure 5-35 Changing the enclosure order

Manage enclosure alarm

Enclosure alarms can be managed from the Storage Manager subsystem window. This is done by selecting Storage Subsystem → Manage Enclosure Alarms. Note that this option is not available with all storage server models.

ManaginG Enclosure Alarms Is used to respond to an alarm on the storage server. If a critical failure of the storage server or the enclosures occurs, then an audible alarm will sound if enabled.

The audible alarm is just one of three ways in which Storage Manager will inform you of a fault. The other two are that the Alarm button becomes animated and the Recovery Guru button in the toolbar links.

By default, the alarm is enabled, but this can be changed by the Storage Manager client. This can be done on all enclosures or individual enclosures and controllers (Figure 5-36). The options are to sound an alarm always or to sound an alarm never.

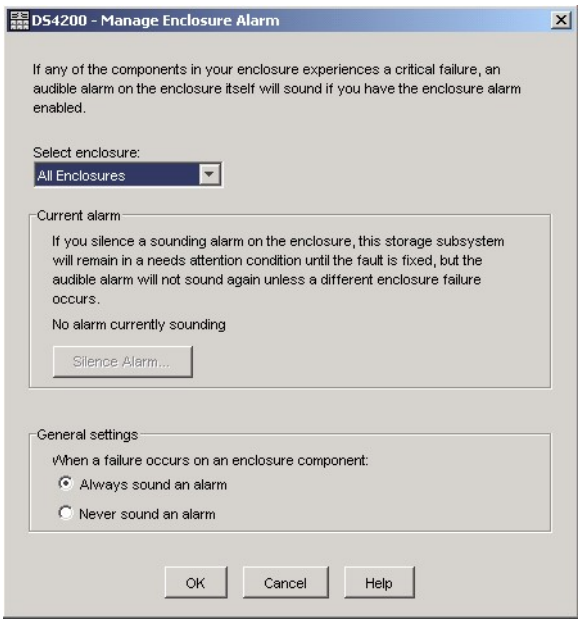

Figure 5-36 Manage Enclosure Alarm

The managing enclosure alarms is also used to silence current alarms that are sounding.

5.2.4 Updating the controller microcode

Updating the firmware (controller microcode) of your DS4000 Storage server may be required when installing a new version of the DS4000 Storage Manager software and to use all the latest DS4000 features. Check the IBM support Web site for newer versions to keep your DS4000 updated with the latest fixes and enhancements.

As described in Chapter 2, “What is new” on page 9, several enhancements are initially implemented in firmware 7.10. To accommodate those enhancements, the DACstore configuration region on the disk drives must be overwritten. Consequently, upgrading to firmware Version 7.10 or later changes the DACstore layout. To ensure an error-free upgrade process, there is a new firmware upgrade utility designed specifically to manage upgrades from Version 6.14 or later to firmware Version 7.xx. If your DS4000 uses an older version than 6.14, you must upgrade to 6.14 or later first. For more details see 12.1.5, “Updating controller firmware” on page 666.

The DS4000 components that can be updated are:

- Controller firmware
- Non Volatile Static Random Access Memory (NVSRAM) in controller
- Environmental Services Monitor (ESM) canister in expansion modules
- Disk drives