SANmelody 2.0.1

Installation Guide

Copyright

Copyright © 1998-2005 by DataCore Software Corporation. All rights reserved.

DataCore, the DataCore logo, Powered by DataCore, SANsymphony, SANcentral, SANmelody and SANvantage are trademarks or registered trademarks of DataCore Software Corporation. Other DataCore product or service names or logos referenced herein are trademarks of DataCore Software Corporation. All other products, services and company names mentioned herein may be trademarks of their respective owners.

DataCore Software Corporation.

6300 NW 5th Way. Fort Lauderdale, Florida 33309.

PHONE: 954.377.6000. FAX: 954.938.7953

2.0.1 Rev-10/04/2005
Part#: SMI-EGD-200-E05

Table Of Contents

System Requirements....4
Installing SANmelody....8
Activating a Permanent SANmelody License....22
Adding New Features to SANmelody....28
Upgrading SANmelody....34
SANmelody Disk Server Upgrade....34
Uninstalling SANmelody....40
Using Your Preserved Configuration Files for a Subsequent Installation of SANmelody....42
Technical Support....45
Index....46

System Requirements

The minimum hardware and software requirements for SANmelody™ are defined below. SANmelody options may drive additional requirements Refer to FAQ 690 on DataCore's SANmelody Technical Support site for more information.

Minimum Hardware Requirements

- PC Server with 300 MHz CPU; Intel Pentium/Celeron family, AMD Athlon/Duron family
- Ethernet Port
- 512 MB of memory
- 65 MB available hard disk space
- Display VGA or higher resolution monitor
- Keyboard and Mouse

Supported Operating Systems (English Language)

- Windows 2000 Family with SP3 or greater (except 64-Bit Edition)
- Windows XP Home or Professional Edition with SP1 or greater
- Windows Server 2003 Family (except 64-Bit Edition)

Software Requirements

- Microsoft .NET Framework Version 1.1 Redistributable Package (available from Microsoft download site. Search by using keyword .NET.)
- System cannot have domain controller services installed.
- System must have TCP/IP installed and configured.

To Provide Storage Capacity to Another Application;

- Additional disk drive(s). Refer to FAQ 729 on DataCore's SANmelody Technical Support site for a list of supported disk drives.

Note: Larger configurations are governed by license and support parameters.

To Configure a Very Large Cache

To configure SANmelody to have between 15 and 20 GB of cache, follow this procedure to prepare your system **before installation**:

1. Install more than 16 GB of memory.
2. Edit the boot.ini file and add the /PAE switch on your boot line.

   http://www.microsoft.com/technet/prodtechnol/windowsserver2003/library/ServerHelp/0a8f5c3b-a892-49af-bf94-794283697239.mspx
3. Edit the registry and change

   HKEY_LOCAL_MACHINE**SYSTEM\CurrentControlSet\Control\Session Manager\Memory Management\SystemPages to 0xFFFFFFFF**

   and

   HKEY_LOCAL_MACHINE**SYSTEM\CurrentControlSet\Control\Session Manager\Memory Management\LargeSystemCache to 0**
4. Reboot.
5. Install DataCore software.

   With systems this large, DataCore will attempt to allocate 80% of physical RAM for cache. That would range from about 12.8 GB of cache on a 16GB system up to 20GB of cache on systems greater than 25GB of RAM. DataCore software will not allocate more than 20GB for cache. See FAQ 989.

To Configure a Storage Server with 4GB Cache or greater:

If your storage server has 4GB of RAM or less, nothing special is necessary (i.e., no special switches) are needed in the boot.ini file.

If your storage server has greater than 4GB, then the /PAE switch should be added to the appropriate line in boot.ini. See FAQ 990.

For High Availability:

- Install the latest Microsoft Initiator package for iSCSI initiator from www.Microsoft.com on both storage servers.

Note

If you install the MS Initiator package after installing SANmelody, you must perform the following procedure:

1. Open a command prompt on the storage server.
2. Type **dcsinstalltasks sanmelody base iscsitimeout**
3. Reboot the storage server.

Important Notes:

- **Do not change the computer name of a storage server once SANmelody is installed or SANmelody will not start.**
- When installing SANmelody, log on to Windows as **Administrator** or as a member of the local Administrators group.

Check for updates at SANmelody Technical Support (sanmelody.custhelp.com/).

Installing SANmelody

This section provides instructions for installing and activating SANmelody™ Disk Server Software on a Windows server. You may install the software from a SANmelody CD or by downloading a self-extracting executable package from our website.

Verify that your server meets the system requirements defined in the *System Requirements* section of this guide. Then, follow these procedures to install and activate SANmelody on your server:

Note

To install SANmelody 2.0.1, you must have a SANmelody 2.0.1 license file.

1. Log on to Windows as **Administrator** locally or with the "console" session remotely.
2. Save and close all files and programs.

   At the end of the installation, it will be necessary to restart the system to finalize the installation process.
3. Insert the SANmelody CD into the CD-ROM drive, or double-click on the SANmelody package you downloaded.

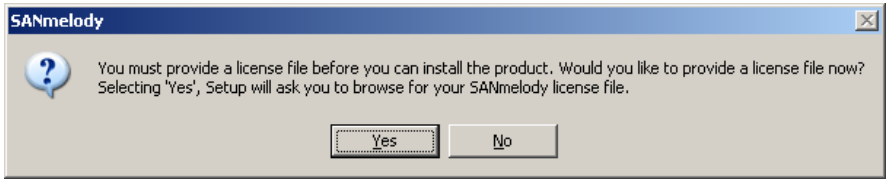
Notes

- If you have inserted the CD, but the installation did not start automatically, open Windows Explorer and double-click on the **setup.exe** file in the CD root directory (or click **Start>Run**, type in **<CD-ROM drive letter>:\setup.exe**, and press **Enter**.)

4. You will see the InstallShield Wizard Welcome screen (shown below).

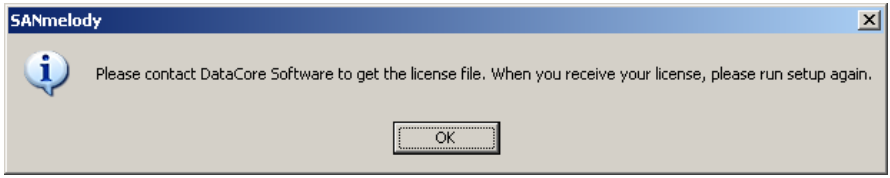
   Follow the instruction on this screen.

You will see a message asking if you would like to provide a license file now (shown below).



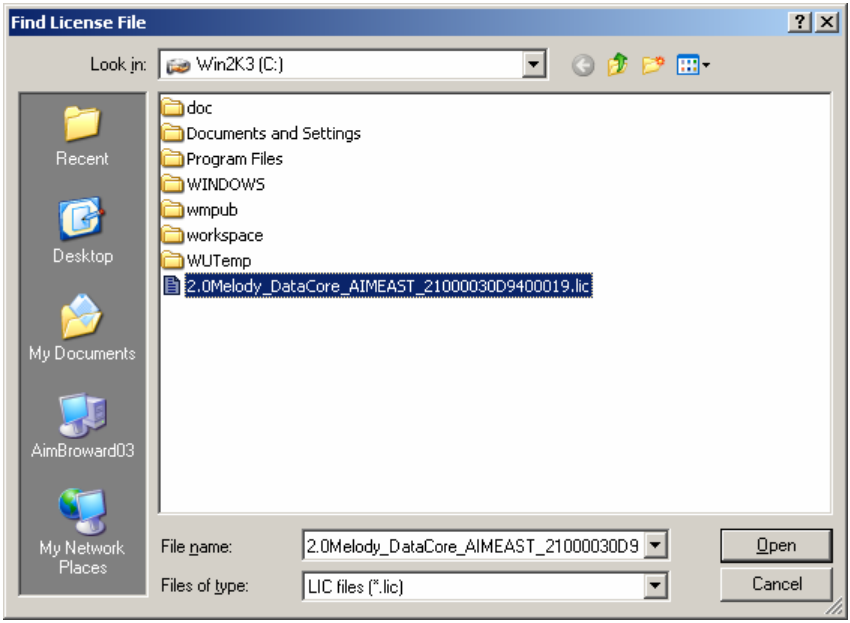
Select **Yes** if you already have a license file. Select **No** if you do not have a license file.

- If you choose **Yes**, go on to step 5 to provide your license file.
- If you choose **No**, you will see the following message and setup will abort:



5. You will see the **Find License File** screen.

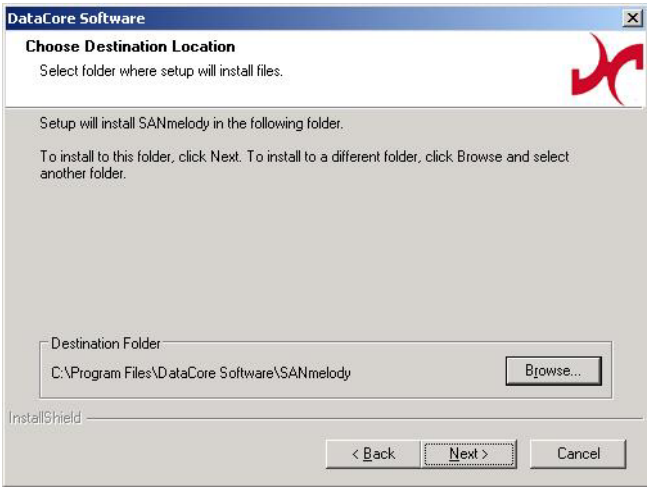
   Navigate this screen to your license file. Select the license file and click **Open**.



6. You will see the **License Agreement** screen (shown below).

   You must review and accept the SANmelody license agreement (click **Yes**) to continue with the installation.

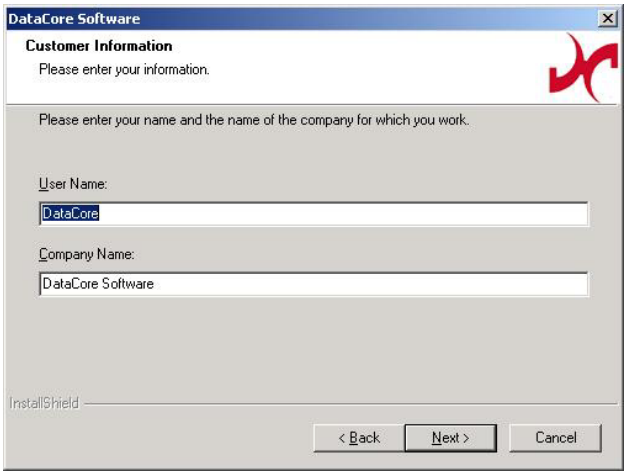
7. You will see the **Choose Destination Location** screen (shown below).



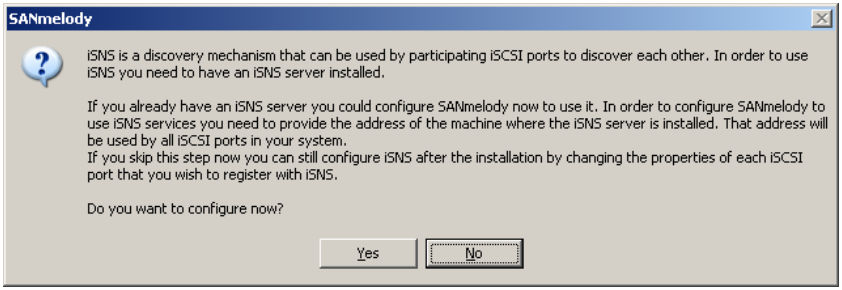
- To accept the default, click **Next**.
- To change the default, click **Browse** and specify an alternate location. Then, click **Next**.

8. You will see the Customer Information screen (shown below).

   Enter your name and company name. Click **Next** to continue.

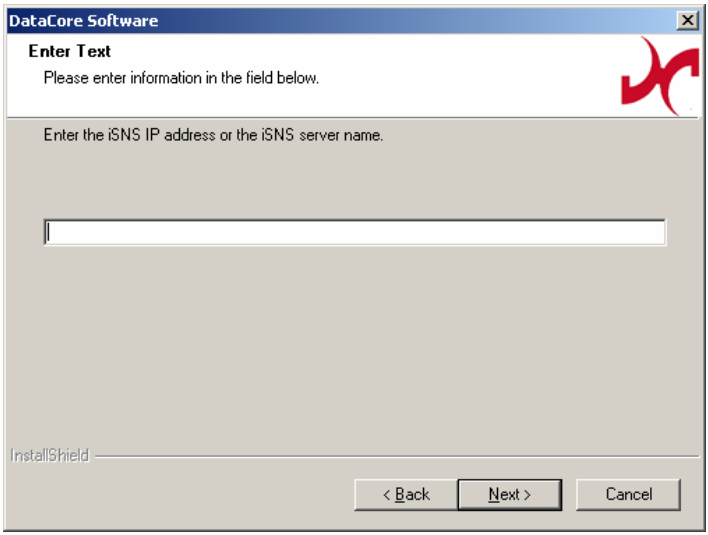


9. You will see a message asking if you would like to configure iSNS Server.



   Select **No** if you don't want to configure the iSNS server. You can still configure it later. Please see *Configuring MS iSNS Server after Installing* SANmelody in the online help system.

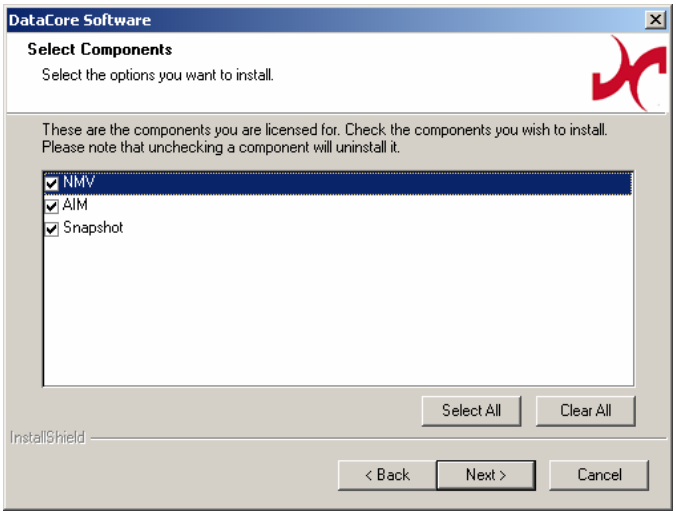
Select **Yes** if you want to configure the iSNS server. Enter the iSNS server name or IP address in the following window and click **Next.**



10. You will see the **Select Components** screen (shown below).

    You will see this screen only if you are licensed for SANmelody options. Only the options you are licensed for will be listed.

Check the options that you want to install and uncheck the options you do not want to install at this time. Then, click **Next**.



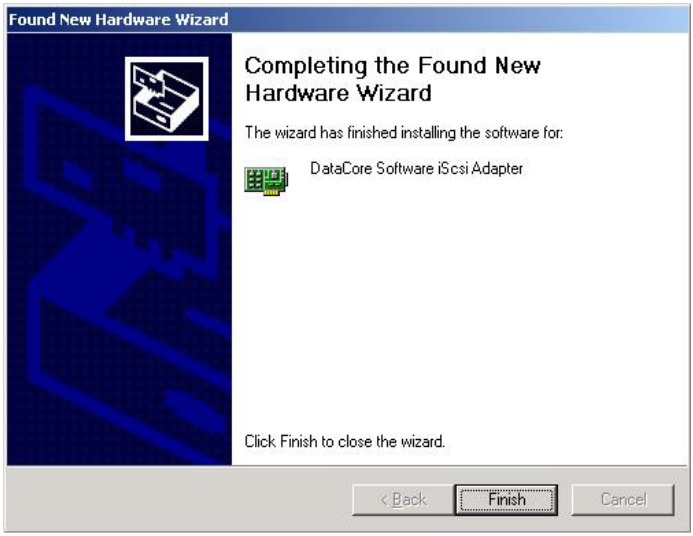
11. The SANmelody install begins. During this time, you may see one or more of the screens shown below.

    Click **Yes** or **Next**, as appropriate, on these screens to successfully complete the installation process.

a. Click **Yes** on the security alert screens (example shown below).

b. Click **Next** on the Found New Hardware Wizard Welcome screen (shown below).

c. Click **Finish** on the Completing the Found New Hardware Wizard screen (shown below).



If a Windows system message appears that gives you the option to restart the system, choose No. You should only restart the system through the InstallShield Wizard Complete screen, shown in step 13.

12. If you have the configuration preserved from a previous uninstall operation, you will see a message letting you know that your preserved configuration will be used.

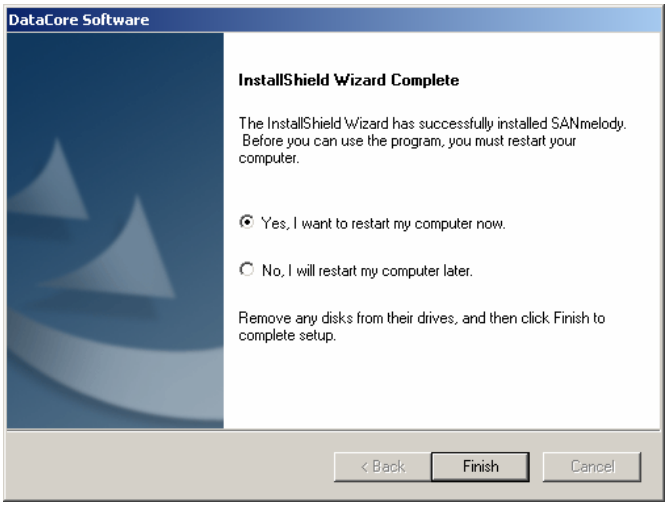
    Note

    Refer to *Using Your Preserved Configuration Files for a Subsequent Installation of SANmelody* in this manual.

13. You will see the **InstallShield Wizard Complete** screen.

    It is necessary to restart the system to complete the SANmelody installation. An attempt to use any of the SANmelody services before restarting the system may result in an unsuccessful SANmelody installation.

> Do not click **Finish** until you have responded to all security alerts and the Found New Hardware wizard has completed.



14. After the system has restarted, log in to the server with the same user name that was used to begin the installation. This is required to finalize settings for the SANmelody components. It may take some time to update your system with the SANmelody settings.

> If you see a Windows message that asks you if you want to restart your system for settings to take effect, choose **No.** Restarting the system at this time will interrupt the SANmelody installation and will result in an incomplete installation.

Activating a Permanent SANmelody License

Your SANmelody software will remain running for a 30-day preactivation grace period. After 30 days of use, it will cease to run. At any time, before or after the 30 day grace period, you may register your copy of SANmelody. Activation will provide you with a permanent license. When you enter a valid activation code properly, it will remove the 30-day grace period timer, allowing your SANmelody software to run indefinitely.

To activate and obtain your permanent SANmelody license, follow the appropriate steps below:

Note

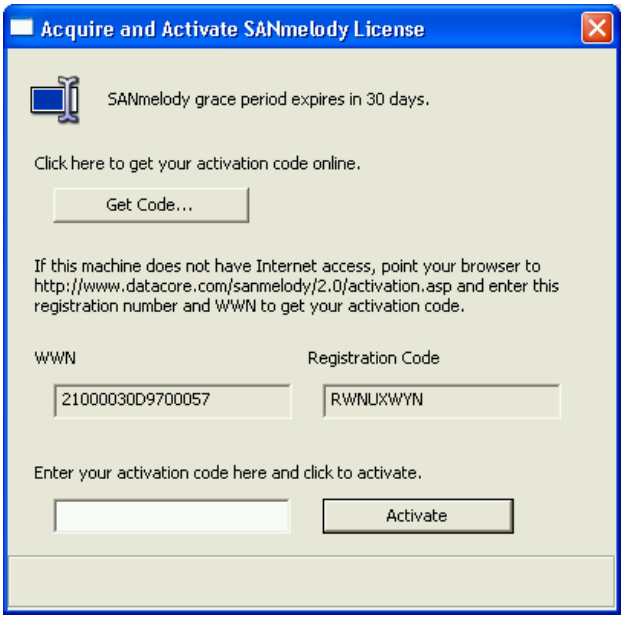
If you reinstall SANmelody, this is the same procedure to follow to reactivate.

Obtain Activation Code

Follow these steps:

1. Right-click the tray icon, and select **Activate.**

SANmelody responds with the Acquire and Activate dialog. The dialog contains a registration number that will be used to obtain a unique activation code.



2. Click **Get Code**. If the machine you are using has an Internet connection, your browser will will open to the online SANmelody Activation site, and you will see the SANmelody Activation Wizard displaying your registration number. Follow the instructions on the Activation Wizard.

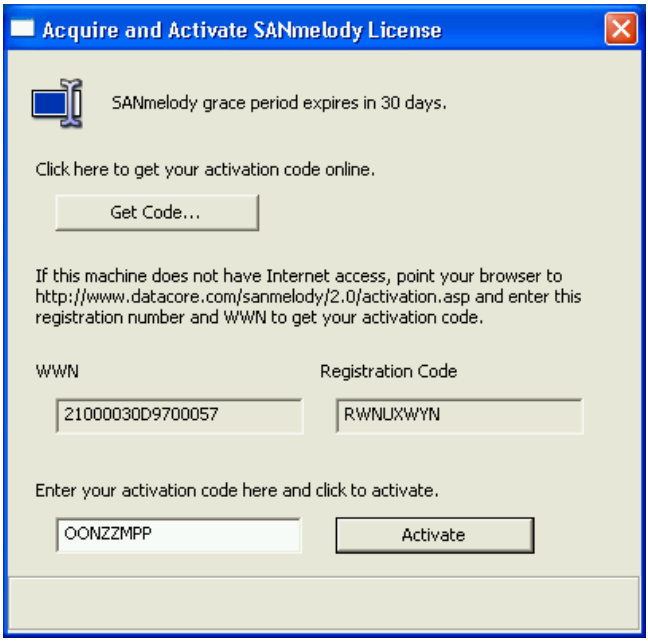
   Notes

   - If your security settings are on high, you may need to add datacore.com as a “trusted site.”
   - If the machine you are using does not have an Internet connection, go to another computer which does and type the URL displayed in this window.

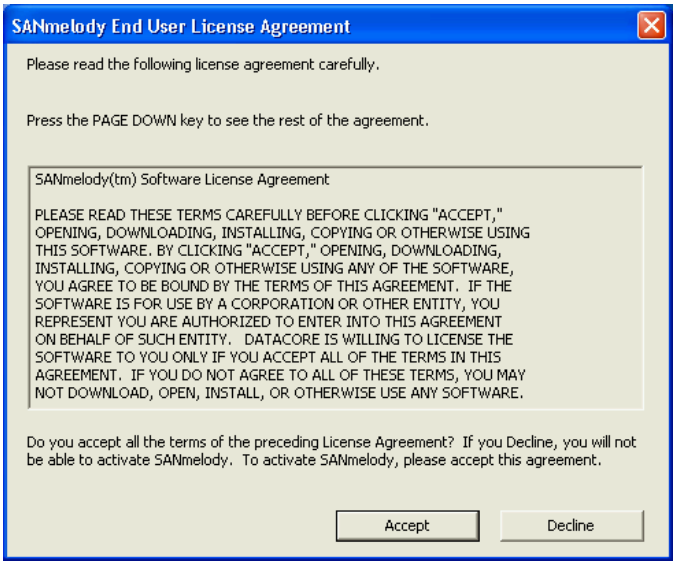
3. Click the **Confirm** button. You will see a response that displays your **activation code**. The activation code will also be sent to the email address you entered.

4. Return to the Activation Dialog. You may have to minimize some windows to reveal the Activation Dialog, if it has been obscured.

5. Enter the **activation code** from step 3, above.



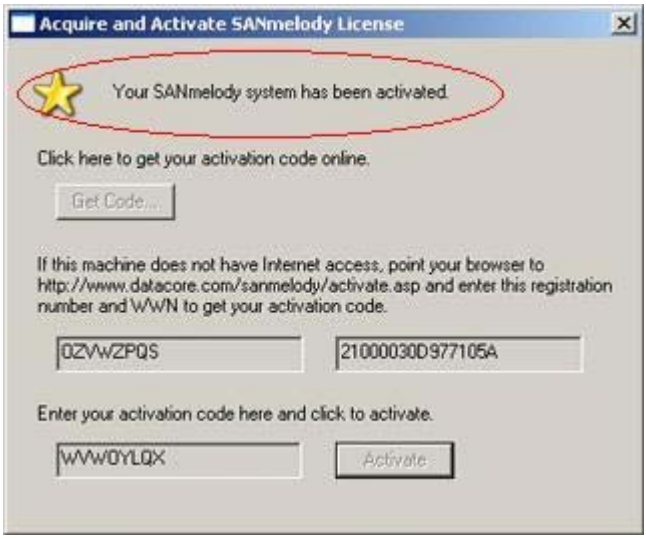
6. Click **Activate**. You will see the End User Agreement:



If you click **Activate,** then click **Accept,** and the activation code doesn't match, you will see a message stating, "That code did not activate the system. Please try again."

If you click **Activate**, then click **Decline**, you will see a message, "Please accept the EULA to Activate SANmelody."

7. If you click **Activate**, then click **Accept,** and the activation code "matches," you will see the following message with a gold star.



Close this window and now you have a permanent license.

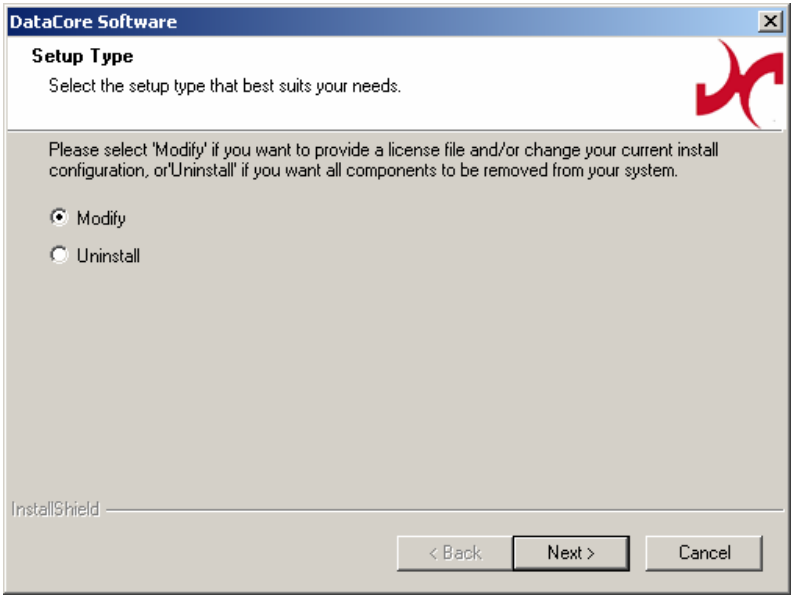
Adding New Features to SANmelody

If you wish to add new features, such as AIM, Snapshot, NMV, or High Availability, you will receive a new license to enable the features.

Follow these steps to use a new SANmelody license on your storage server:

1. Go to **Start>Control Panel>Add/Remove Programs** and choose DataCore SANmelody. You will see the Setup Type screen (shown below).

   Choose **Modify** and click **Next**.



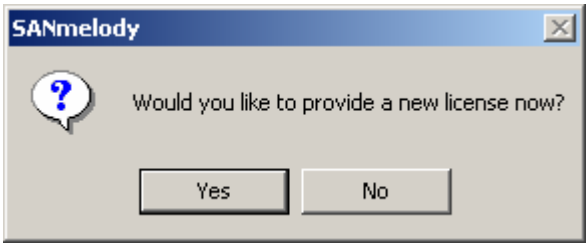
2. You will see a message that recommends closing all DataCore Software windows and that services must be stopped to continue to modify the current installed configuration.

   Select **Yes** if you want to continue.

   Select **No** to abort the modification.

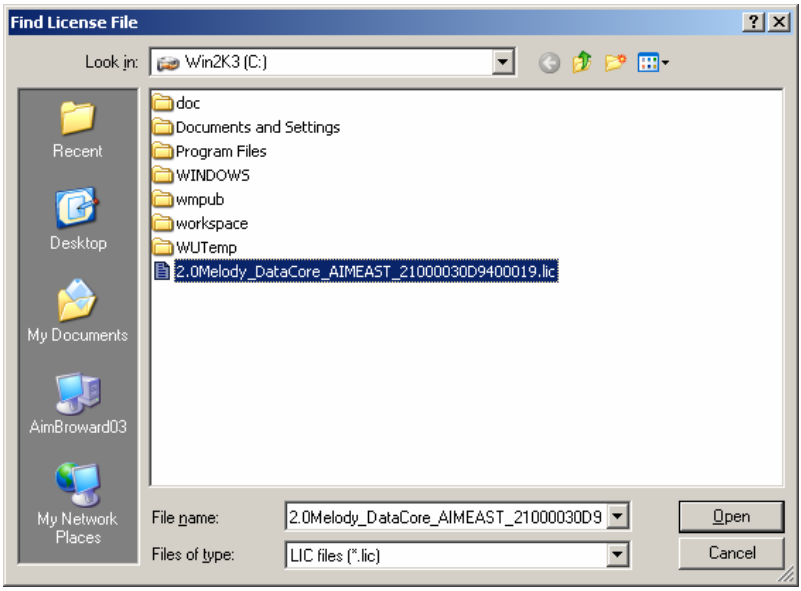
3. You will see a message asking if you would like to provide a license file now (shown below).

   Click **Yes** if you want to obtain a new license file.



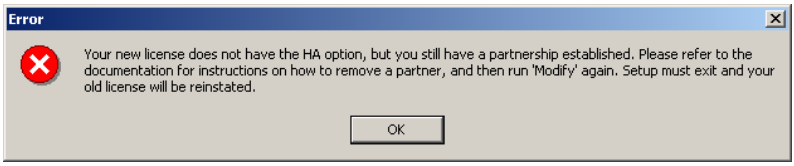
4. You will see the **Find License File** dialog (shown below).

Navigate to your new license file. Select the license file and click **Open**.

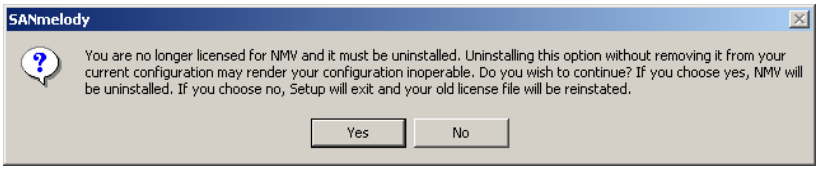


5. If you were previously licensed for High Availability (H/A) and you have partnerships currently established, but H/A is not included in your new license, you will see a message that informs you that setup must now exit and provides you with instructions on what to do once setup exits (shown below).

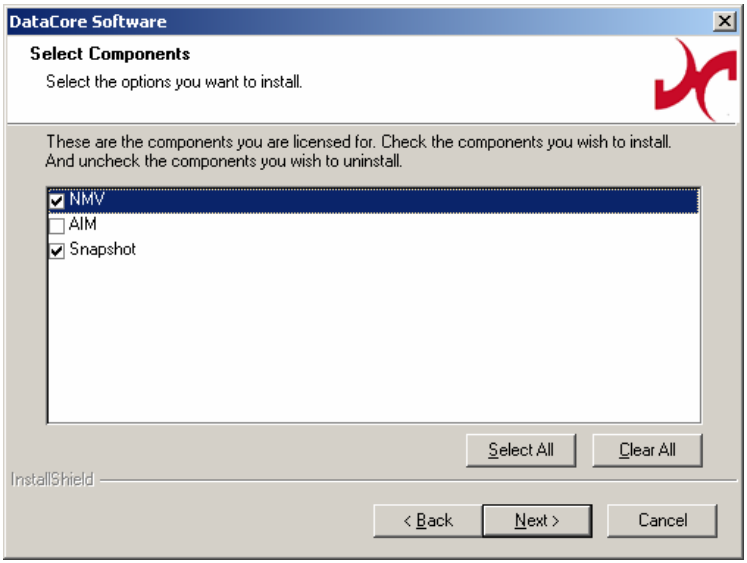
   Click **OK** at the prompt. When setup closes, delete the partnership(s) and re-start the upgrade or repurchase a new license that also has the High Availability option if you intend to continue using auto failover features of SANmelody.



6. If you have an option installed for which you are no longer licensed, you will see a message asking if you want to uninstall the option now (shown below).



7. You will see the **Select Component** dialog (shown below) if you are licensed for SANmelody options. Only the options you are licensed for will be listed. Check the options that you want to keep and uncheck the options you want to remove. The, click **Next.**

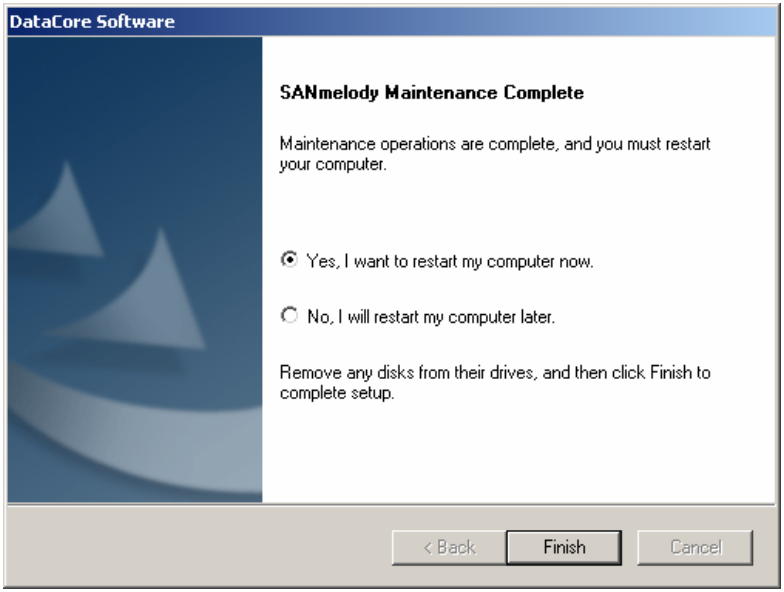


8. After the option(s) are installed, you will see the **InstallShield Wizard Complete** screen that asks you if you want to restart your system.

Note

It is recommended that you restart your system at this time. You must restart your system to finalize the SANmelody upgrade.

Click **Yes** and click **Finish** to restart the system.



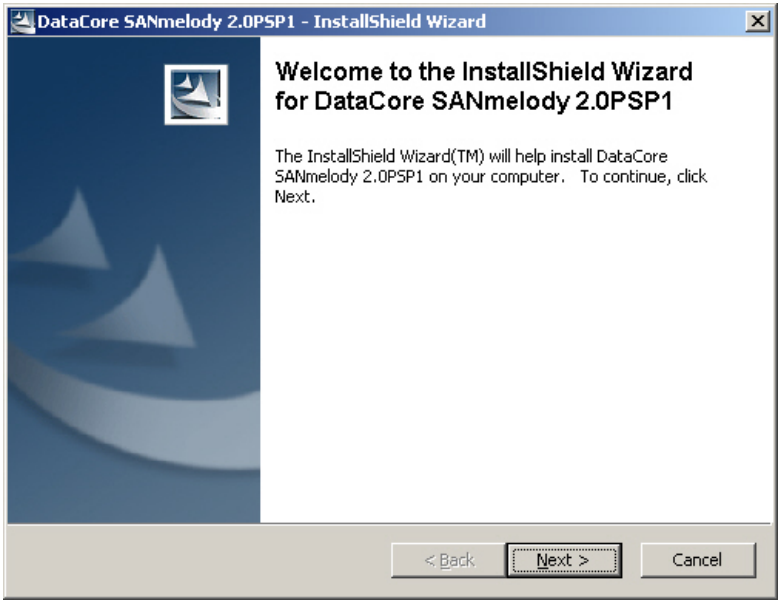
Upgrading SANmelody

The procedures in this section are for upgrading from a SANmelody 2.0 to SANmelody 2.0.1.

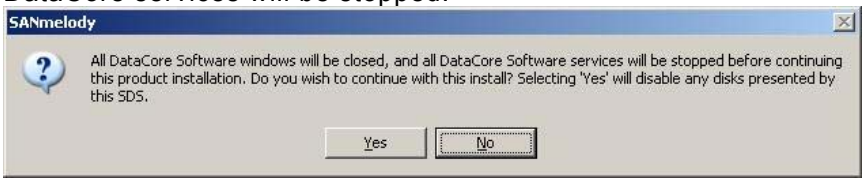
For add-on features on the application server, such as VSS and MPIO, you must uninstall your 1.4.1 software and reinstall 2.0 on your application server. For Alternate Pathing, you may upgrade from 1.4.1 by installing 2.0.

SANmelody Disk Server Upgrade

1. Select **Run** and execute the downloaded executable to begin the upgrade process.
2. Click **Next** on the Welcome screen.



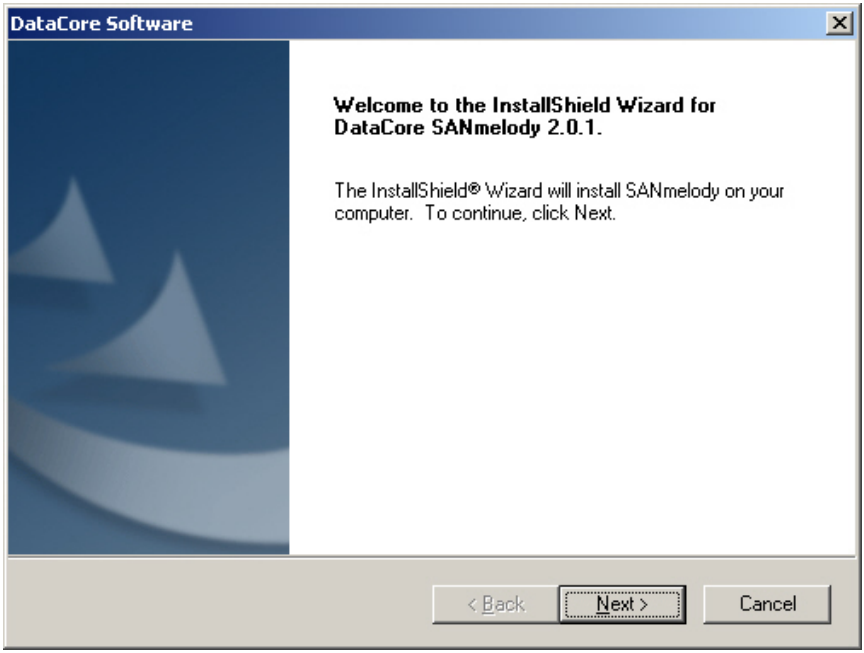
3. Click **Yes** to the message you will see telling you that DataCore services will be stopped.



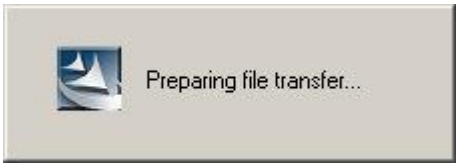
Note

SANmelody will stop serving disks to all application servers that are not using Alternate Pathing Solutions following acknowledgement of the EULA agreement.

4. Click **Next** on the next Welcome screen.

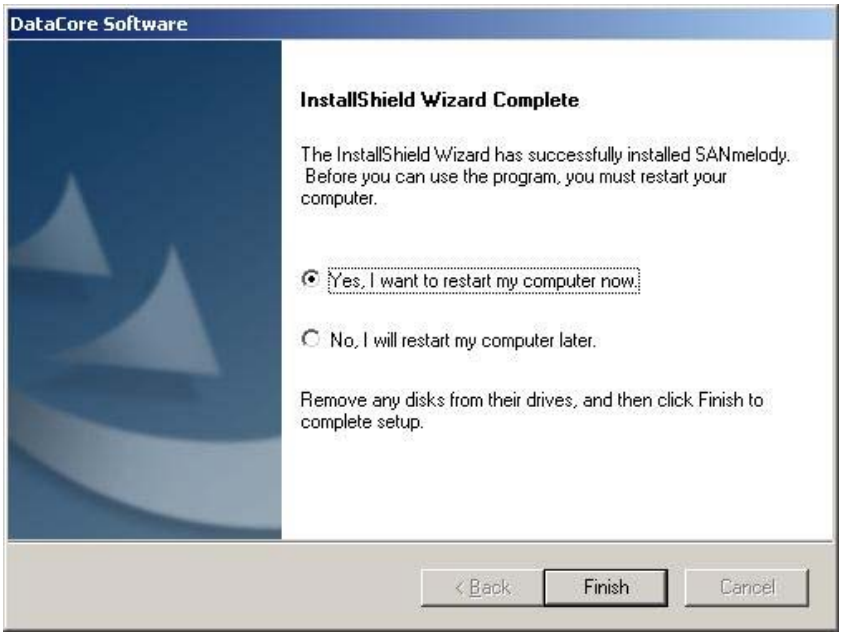


You will see informational windows indicating the preparation of file transfer and that setup is performing the requested operations.



This may take some time.

5. Click **Finish** to reboot the server.



6. When the server reboots, log in with the same user account (local Administrator) used to upgrade the software.

7. Open the SANmelody snapin on the upgraded node. The SANmelody snapin will indicate that it is in **Read Only** mode.

8. You will see a message instructing you to start SANmelody.

Click **OK** to acknowledge the message to click the **Start** button.

9. Click the **Start** button in the toolbar of the SANmelody snapin.

Note

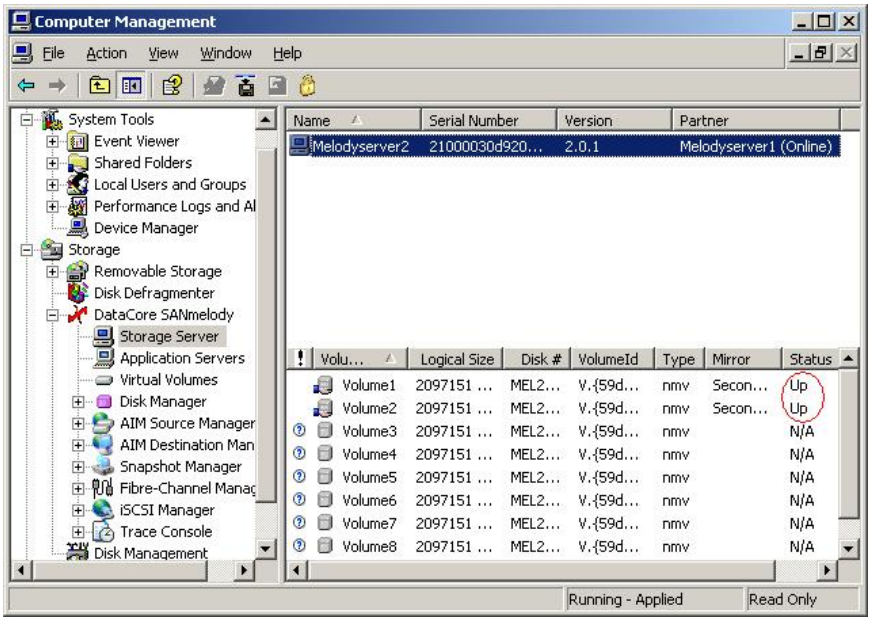
Verify that the status in the bottom right of the display changes from **Running** to **Running-Applied**.

10. Close and re-open the SANmelody snapin, click on storage server, and wait until all volumes are up.

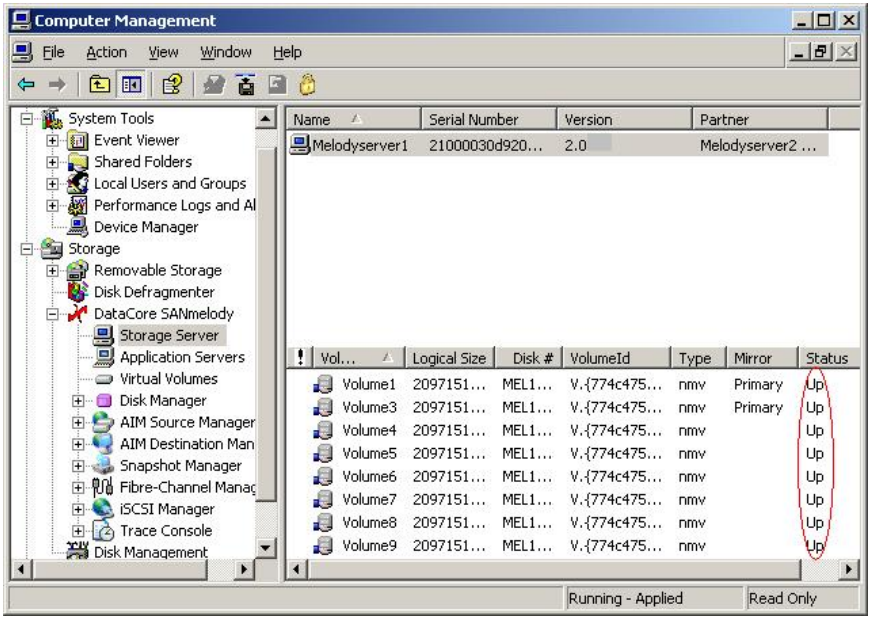
Note

If this is a high availability configuration you must perform this step on both SANmelody nodes. Be aware that both nodes will indicate that their partner system is “unreachable” while the SANmelody nodes are at differing software levels. This is expected.

The following shows all volumes as **Up** on the upgraded node.



The following shows all volumes as **Up** on the node that remains at release 2.0.



Note

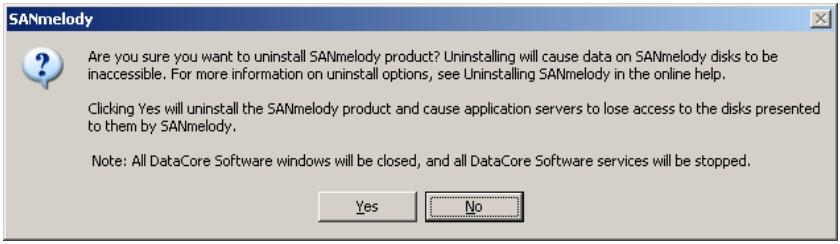
Allow all served volumes to come up.

14. Once all volumes have returned to the up status, you may upgrade the remaining node.
15. Verify that all Alternate Pathing volumes (3rd party and DataCore AP) have returned to an accessible state.

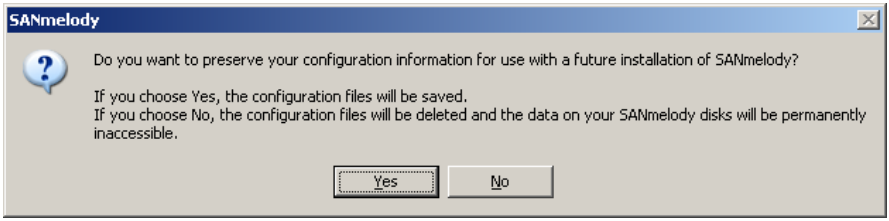
Uninstalling SANmelody

Follow these steps to remove SANmelody from your server:

1. Go to **Start>Control Panel>Add/Remove Programs** and choose to remove DataCore SANmelody 2.0.
2. You will see a message informing you that SANmelody is currently running and asking you if you want to stop the software. Click **Yes** at this prompt.

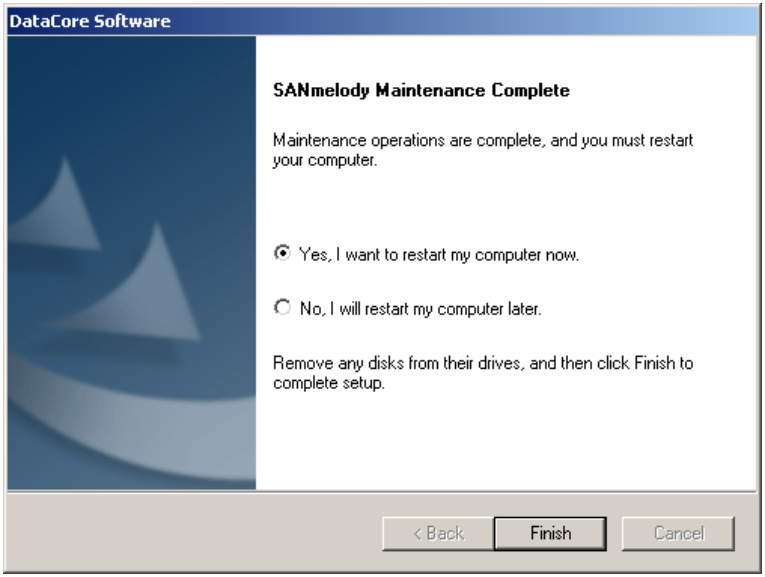


3. You will see a message asking you if you want to preserve your configuration.



- Select **Yes**, and the configuration will be saved and be used at the next SANmelody installation.
- Select **No**, and the configuration will be deleted and the data on your SANmelody disks will be inaccessible.

4. After the files are removed, you will see the **SANmelody Maintenance Complete** screen that asks you if you want to restart your system.



Click **Yes** and click **Finish** to restart the system.

Notes

- We recommend that you restart your system at this time. You must restart your system to finalize the removal of the SANmelody product.
- To preserve your data, do not delete or reformat any partitions used by SANmelody from disk management.

Using Your Preserved Configuration Files for a Subsequent Installation of SANmelody

Notes

- During a reinstall of SANmelody, if a previous configuration is detected, the install script reports that a previously saved configuration exists. The message points you to this section of the documentation for options regarding the saved configuration.
- A saved configuration exists when a previous installation of SANmelody is uninstalled and during the uninstall process, the option to save the configuration is selected.
- The configuration files are located in your installation folder, for example "**C:\Program Files\DataCore Software\SANmelody\SANmanager.**
- The configuration files are: **SANmapperGen.txt.lkg** and **SANmapper.dat.lkg**.

Follow the instructions for the reinstallation which matches your situation.

SANmelody System Not Previously Member of a Partnership

To use your preserved configuration files for a subsequent reinstall of SANmelody, follow these instructions:

1. Install SANmelody 2.0.1 (Refer to procedures earlier in this guide.)
2. **After rebooting and before starting** SANmelody, rename your SANmelody configuration files according to the chart below.

   If you have an AIM configuration, rename those files as well. You must first delete the existing cfg files and then rename the files with lkg extensions.

SANmelody Configuration Files	Rename to:	Location of file
SANmapper.dat.lkg	SANmapper.dat	C:\Program Files\DataCore Software\SANmelody\ SANmanager
SANmapperGen.txt.lkg	SANmapperGen.txt	C:\Program Files\DataCore Software\SANmelody\ SANmanager
AIM Configuration Files	**Rename to:**	**Location of file**
AIMSource.cfg.lkg	AIMSource.cfg	C:\Program Files\DataCore Software\SANmelody\AIM
DCSAim.cfg.lkg	DCSAim.cfg	C:\Program Files\DataCore Software\SANmelody\ SANmanager\AIM
AIMDestination.cfg.lkg	AIMDestination.cfg	C:\Program Files\DataCore Software\SANmelody\\AIM \Destination or wherever you have located your destination buffer.
AIMService.cfg.lkg	AIMService.cfg.lkg	C:\Program Files\DataCore Software\SANmelody\AIM \Destination or wherever you have located your destination buffer.

Note

You can select the file and select **Rename** from the right-click menu. This allows you to edit the file name.

3. Open the SANmelody snapin and click the Start button.
4. If you had NMV volumes in your previous configuration, you need to import the foreign pool.
5. Reactivate SANmelody, using the procedure in *Activating a Permanent License* earlier in this guide.

SANmelody System Previously Member of a Partnership with a Surviving Active SANmelody System

If the reinstalled SANmelody system was previously in a partnership and the surviving partner SANmelody system is active, then the saved configuration can be ignored.

When the reinstalled SANmelody system is added back into the partnership, the most current configuration will automatically be provided to the reinstalled SANmelody system.

SANmelody System Previously Member of a Partnership and Both SANmelody Partner Systems are Reinstalled with SANmelody

The saved configuration cannot be used.

Technical Support

For answers to technical questions regarding SANmelody, visit our knowledgebase at sanmelody.custhelp.com.

If you don't find your answer there, email your specific question to SANmelodysupport@datacore.com and be sure to indicate that you are using SANmelody.

DataCore offers personal assistance for its SANmelody product line for a nominal fee. To purchase support, visit our website to learn more about support options available and our policies or click on SANmelody - Support Plans.

DataCore Technical Support shall be limited to products manufactured by DataCore Software. Technical support of products other than those manufactured by DataCore shall be the sole responsibility of the end-user or installer. Installation of non-qualified software or hardware (please reference our support web site referenced above for the most current list) is at the sole risk of the end-user or installer.

Index

.NET, 4

activating, 8

activation, 22

Add/Remove Programs, 28, 40

Adding New Features, 28

Administrator, 6

Choose Destination Location screen, 13

computer name, 6

Configuration Files, 19, 42

Customer Information screen, 14

Greater than 16 GB cache, 5

High Availability, 6

installing, 8

InstallShield Wizard Complete screen, 19

InstallShield Wizard Welcome screen, 9

iSCSI initiator, 6

iSNS Server, 14

License, 43

License Agreement screen, 12

log in, 20

log on, 6

Partnership, 42

Reactivate, 43

reinstall, 42

SANmapper.dat.lkg, 43

SANmapperGen.txt.lkg, 43

saved configuration, 42

Select Components screen, 15

Select License File, 29

Select License File screen, 11

Setup Type screen, 28

system requirements, 4

TCP/IP, 4

Uninstalling, 40

Upgrading, 34

Windows, 4, 8