

# Backup Assistant

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## User Guide

**NEC** NEC Unified Solutions, Inc.

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# 1

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## Introduction

Backup Assistant is an application used to manage database backups. It provides a graphical user interface that can view database information, manage database collections, and manage database servers.

The following topics are discussed in this chapter.

- Chapter Topics*
- [How This Guide is Organized](#)
  - [Backup Assistant User Interface](#)

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### How This Guide is Organized

- [Chapter 1  
Introduction](#) This chapter describes the Backup Assistant application and the chapter layout.
- [Chapter 2  
Using the Backup Assistant](#) This chapter describes the procedures for using the Backup Assistant.

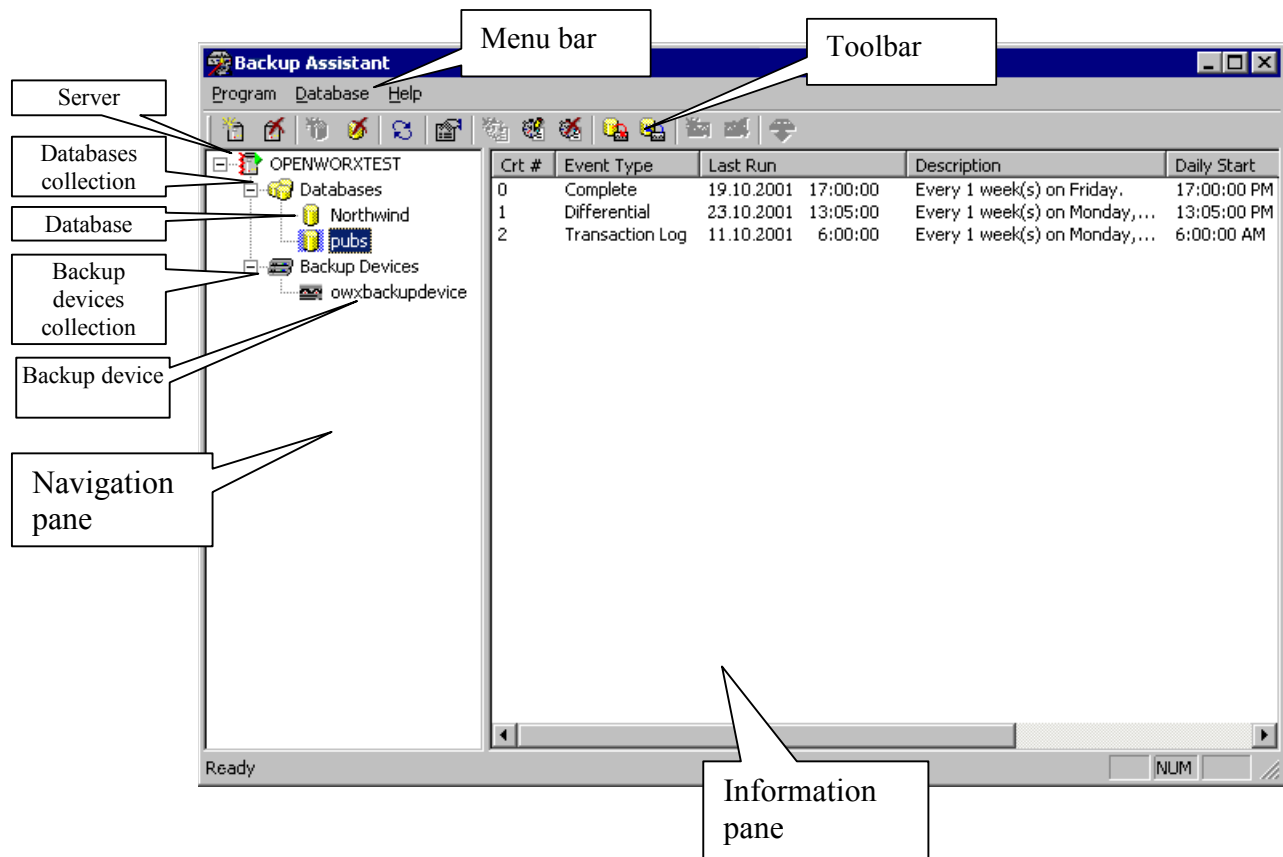
## Backup Assistant User Interface

The application's interface is organized in a hierarchical structure, as described below:

- A navigation pane on the left side.
- An information pane on the right side.
- A menu bar and a toolbar for easy access to frequently used commands.

**Step 1** To start Backup Assistant, click **Start** on the Windows desktop and then select **Programs > NEC Backup Assistant**. A Backup Assistant Main Menu dialog box displays (Figure 1-1).

**Figure 1-1** Backup Assistant Main Menu dialog box



## The Navigation Pane

The pane on the left side in the Backup Assistant Main Menu dialog box (Figure 1-1) is referred to as the navigation pane. This pane displays the registered servers and their associated objects in a hierarchical fashion.

### Server






A database server must be registered to be managed by the Backup Assistant. Servers can be selected from the existing servers in the network.

Every server is identified by the name of the computer on which it resides. For example, the database server on the MYMACHINE computer will be known as "MYMACHINE".

### Determining the Server's Status

The server's status can be determined by observing the light displayed in the Server icon on the Server's left side in the navigation pane. The following lights and designs on the icon indicate the server's status.

**Table 1-1** Server Status Icons

Icon	Status	Description
	Stopped	A small, red square displays in the top-right corner of the icon. The server is inactive on that machine and therefore unable to do anything.
	Running	A small, green triangle displays in the top-right corner of the icon. This is the normal state for a database server when it can process the user's commands.
	Paused	A small, blue pause sign displays in the top-right corner of the icon. The server cannot perform a database operation in this state, but it is active and ready to resume its activity.
	Connected	A red wire displays on the left side of the icon. You can browse the registered databases and the server's backup devices now and view related information about them.
	Unknown	A small question mark displays in the top-right corner of the icon. The Backup Assistant may have problems connecting to that server or the server's host computer may be shut down at that time.

### Databases

The database collection contains the server's databases that are managed by the Backup Assistant. A registered database must be present on the server.

Single or multiple existing server databases can be registered or unregistered at one time. You can associate a backup plan to a server database, modify or remove that backup plan, back up or restore it from an existing backup device, or unregister it.

## Backup Devices

A server can have associated databases and backup devices. Prior to making a backup, the database must be registered and a device must be created before they will be displayed in Backup Assistant. (Refer to ["Registering a Database" on page 2-10](#) for more information.)

All of the server's backup devices are listed under the Backup Devices collection after they are created. (Refer to ["Creating a Backup Device" on page 2-27](#) for more information.)

## Backup Device Collections

The backup device collection contains the server's backup devices. You can create a backup device or delete single or multiple devices at one time.

## Backup Devices

A backup device stores the backup sets that were created during a database backup. You can back up a database on a device, restore a database from that device, or delete that device from the Backup Devices collection.

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## The Information Pane

The pane on the right side in the main window ([Figure 1-1 on page 1-2](#)) is referred to as the information pane. This pane displays information about the selected item in the navigation window. Its contents depend on the kind of item selected.

### Server Information

When a server is selected in the navigation pane, the information pane displays one of the following:

- The Database and Backup device icons display if you are connected to a server.
- Nothing displays if you are not yet connected to a server.

### Registered Databases

When a server's Database collection is selected in the navigation pane, the information pane displays the list of names of the registered databases from that server.

### Database Information - Backup Plan

When a database is selected in the navigation pane, the information pane displays the backup plan for that database under Event Type. The database backup plan defines the backup schedule for the selected database.

A successful backup plan should ensure that minimal data is lost in the event of a system failure. In most cases, the plan consists of one to three of the following events:

## Complete Backup

A Complete backup is a full backup of the database exactly as it appears at the moment it is made. This Event Type is always present in a backup plan and is most useful for disaster recovery.

## Differential Backup

A Differential backup is a snapshot of only a portion of the database. This Event Type may be present in a backup plan. It is useful to retain copies of older data that may be purged from the database to make room for current data and to store historical data.

## Transaction Log Backup

A Transaction log backup is a backup of the database's transaction log. This Event Type may be present in a backup plan if the differential backup event is also present.

This backup type is supported on the server, starting with SQL Server 2000, so you won't be able to set it up on earlier versions of SQL Server.

## Server's Backup Devices

When a server's Backup Devices collection is selected in the navigation pane, the information pane displays the list of all backup devices from that server. For each device, the list displays its name (as it is known by the server and as it will be referred to throughout the application) and its physical location.

## Backup Device Information

When a backup device is selected in the navigation pane, the information pane displays the list of backup sets present on that device. For each backup set, the list displays the following items:

- The ordinal number of that backup set on the device.
- The name of the database backed up.
- The backup type (complete, differential or transaction log).
- The date and time the operation started.
- The date and time the operation ended.
- The backup set name.
- The backup set description.
- The backup set size.
- The expiration date and time.
- The name of the user under whose account the server made the backup.
- The name of the server that made the backup.
- The name of the machine on which the backup was made.

---

## **Menus, Toolbar, and Keyboard Shortcuts**

The menu bar is context-sensitive. As you move through the servers, databases and backup devices, the menu bar's contents change depending on the item that is selected in the navigation pane. Most of the menu commands have keyboard shortcuts which are also context-sensitive.

Shortcut menus display when you right-click items. Only commands pertaining to the current selection display on the shortcut menu.

The menus and toolbar buttons change their states upon navigation and when an item's status changes. For example: when starting a server, the server's icon changes, the Start menu is disabled, and the Pause and Stop menus are enabled).

# 2

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## Using the Backup Assistant

The many tasks that can be completed from the Backup Assistant Main Menu dialog box are listed below:

- Chapter Topics*
- [Setting Program Options](#)
  - [Working with Servers](#)
  - [Working with Databases](#)
  - [Working with Backup Plans](#)
  - [Working with Backup Devices](#)
  - [Troubleshooting](#)

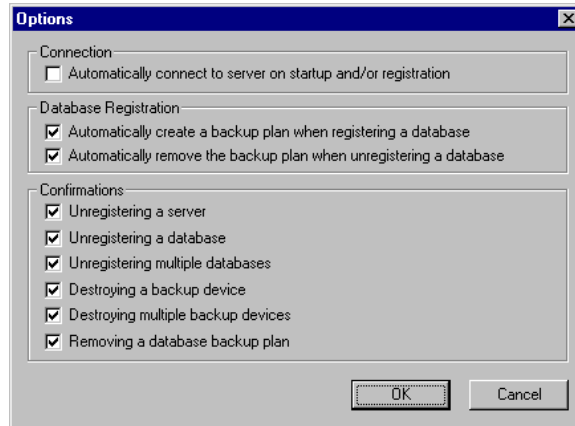
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### Setting Program Options

Several options for Backup Assistant are set through the Options dialog box. To configure the Options dialog box, follow the steps below.

- Step 1** From the desktop, click **Start > Programs > NEC Backup Assistant**. A Backup Assistant Main Menu dialog box displays ([Figure 1-1](#)).
- Step 2** Select **Program > Options**. An Options dialog box displays ([Figure 2-1](#)).

**Figure 2-1** Options dialog box



**Step 3** Select the appropriate check boxes for **Connection**, **Database Registration**, and **Confirmations** in the Options dialog box (Figure 2-1). Table 2-1 describes the available options.

**Table 2-1** Backup Assistant Options dialog box—Field Descriptions

Options	Actions
Automatically connect to the server on startup and/or registration.	Select this option to configure Backup Assistant to automatically connect to the registered servers when starting or when registering a server.
Automatically create a backup plan when registering a database.	Select this option to configure Backup Assistant to immediately start creating a backup plan after registering a database by displaying the backup plan wizard.
Automatically remove the backup plan when unregistering a database.	Select this option to configure Backup Assistant to automatically remove the associated backup plan, if found, when unregistering a database. <b>Note:</b> This option only works when unregistering a single database, not multiple databases.
Unregistering a server.	Select this option to display a message dialog box when attempting to unregister a server.
Unregistering a database.	Select this option to display a message dialog box when attempting to unregister a database.
Unregistering multiple databases.	Select this option to display a message dialog box when attempting to unregister more than one database at one time.
Destroying a backup device	Select this option to display a message dialog box when attempting to destroy a backup device.
Destroying multiple backup devices	Select this option to display a message dialog box when attempting to destroy more than one backup device from one shot.
Removing a database backup plan	Select this option to display a message dialog box when attempting to remove a database backup plan.

**Step 4** Click **OK** to save the options.



## Working with Servers

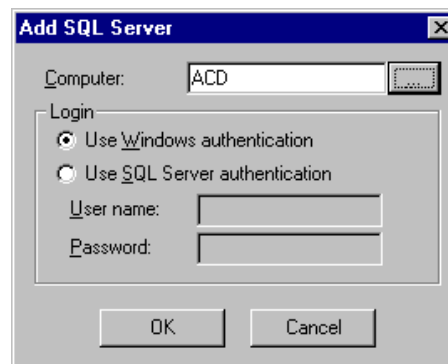
The following sections describe procedures for working with servers in Backup Assistant.


### Registering a Server

A server must be registered before it will be displayed in the navigation pane of the main menu of Backup Assistant. Use the following steps to register a server.

- Step 1** From the desktop, click **Start > Programs > NEC Backup Assistant**. A Backup Assistant Main Menu dialog box displays (Figure 1-1).
- Step 2** Do one of the following to register a server:
- Click **Server > Register**.
  - Right-click on any server name in the navigation pane and select **Register**.
  - Click the **Register Server** button .
  - Press **Ctrl + N**. An Add SQL Server dialog box displays (Figure 2-2).

Figure 2-2 Add SQL Server dialog box



- Step 3** Do one of the following to complete the **Computer** field:
- Enter the server's name in the **Computer** field.
  - Click the **Browse**  button. The Available Servers in the Network dialog box displays.
  - Select the server's name and click **OK**. The Add SQL Server dialog box displays (Figure 2-2) with the selected server in the **Computer** field.

**Step 4** Select the type of **Login** for the server. Two authentication modes are supported by SQL Server:

- Windows authentication** — Backup Assistant tries to connect to that server using the currently logged on user's name and password.
- SQL server authentication** — A specific user name and password can be entered and Backup Assistant will use them to connect to the server.



NOTE

The user entered for the SQL Server authentication should have System Administration privileges enabled for Server Role.



NOTE

If **Automatic connection upon startup and/or registration** is enabled (Figure 2-1), the Backup Assistant will try to connect to that server using the connection mode defined.

**Step 5** Click **OK**. The Backup Assistant inserts the server in the managed servers list and displays it in the navigation pane.

---

## Unregistering a Server

Backup Assistant removes the server name from the navigation pane when a server is unregistered. The existing backup plans are not destroyed when the server is unregistered. If the server is still running, the server will continue making backups on the predefined schedule.


In the Backup Assistant application's navigation pane, if a SQL Node is expanded, you can:

- Unregister desired databases by right-clicking **Databases** and selecting the **Unregister** option.
- Destroy desired backup devices by right-clicking **Backup Devices** and selecting the **Destroy** option.

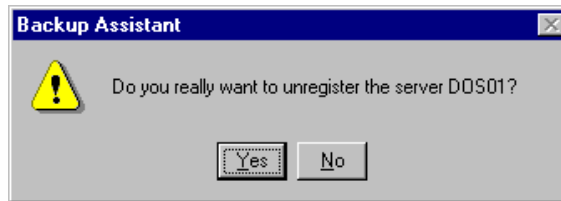
Use the following steps to unregister a server.

**Step 1** From the desktop, click **Start > Programs > NEC Backup Assistant**. The Backup Assistant Main Menu dialog box displays (Figure 1-1).

**Step 2** Do one of the following to remove the server from the Backup Assistant's managed servers list:

- Click **Server > Unregister**.
- Right-click on the server name in the navigation pane and select **Unregister**.
- Select the server's name and click the **Unregister server** button .
- Select the server's name and press the **Delete** key.


A Backup Assistant confirmation dialog box (Figure 2-3) displays.

**Figure 2-3** Backup Assistant dialog box—Unregister Server Confirmation

- Step 3** Click **Yes**. The server is removed from the Backup Assistant's managed servers list and from the information pane.


### Refreshing a Server's Information

Do the following to update the server and agent's running states in the Backup Assistant's Main Menu dialog box (Figure 1-1).

- Step 1** From the desktop, click **Start > Programs > NEC Backup Assistant**. The Backup Assistant Main Menu dialog box displays (Figure 1-1)
- Step 2** Do one of the following:
- Click **Server > Refresh**.
  - Click the **Refresh**  button.
  - Press the **F5** key.

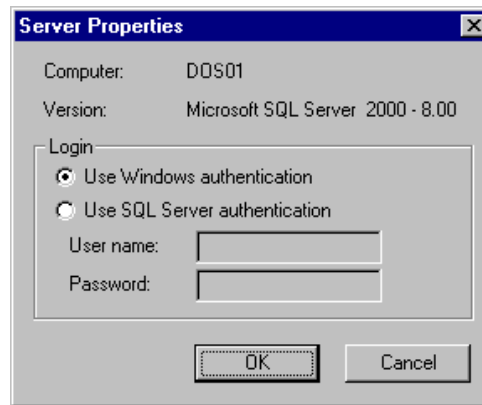
### Viewing a Server's Properties

The Server Properties dialog box (Figure 2-4) displays the server's location and, if the Backup Assistant is connected, the server's software version. The login authentication mode can also be configured in the Server Properties dialog box.

- Step 1** From the desktop, click **Start > Programs > NEC Backup Assistant**. The Backup Assistant Main Menu dialog box displays (Figure 1-1)
- Step 2** Do one of the following:
- Click **Server > Properties**.
  - Right-click the server name in the navigation pane and select **Properties**.
  - Click the **Properties** button .
  - Press **Alt + Enter**.

The Server Properties dialog box (Figure 2-4) displays.

---

**Figure 2-4** Server Properties dialog box


- Step 3** To reconfigure the authentication mode, select a new type of **Login** for the server. Two authentication modes are supported by SQL Server:
- **Windows Authentication** - Backup Assistant tries to connect to that server using the currently logged on user's name and password.
  - **SQL Server Authentication** - A specific user name and password can be entered and Backup Assistant will use them to connect to that server.

**NOTE**

*If automatic connection upon startup and/or registration is enabled, the Backup Assistant will try to connect to that server using the connection mode defined in this dialog box.*

- Step 4** Click **OK**. Any changes made will take effect the next time you connect to that server.

---

## Starting a Server

**NOTE**

*You cannot Start a server on a remote computer.*

To start a server, you must have administrator rights on that machine. Use the following steps to start a server.

- Step 1** Select the server to be started in the information pane in the Backup Assistant Main Menu dialog box.
- Step 2** Do one of the following to start the SQL Server service:
- Click **Server > SQLServer > Start**.
  - Right-click the server name in the navigation pane and select **SQL Server > Start**.

The item's state updates  upon success.

---

## Pausing a Server




NOTE

*You cannot Pause a server on a remote computer.*

To pause a server, you must have administrator rights on that machine. Use the following steps to pause a server.

- Step 1** Select the server to be paused in the information pane in the Backup Assistant Main Menu dialog box.
- Step 2** Do one of the following to suspend the SQL Server, but not shut it down:
- Click **Server > SQL Server > Pause**.
  - Right-click the server name in the navigation pane and select **SQL Server > Pause**.

The item's state updates  upon success and displays the new status on the icon and menus.

---

## Resuming a Server




NOTE

*You cannot Resume a server on a remote computer.*

To resume a server, you must have administrator rights on that machine. Use the following steps to resume a server's run.

- Step 1** Select the server in the information pane in the Backup Assistant Main Menu dialog box.
- Step 2** Do one of the following to Resume a paused SQL Server:
- Click **Server > SQL Server > Resume**.
  - Right-click the server name in the navigation pane and select **SQL Server > Resume**.

The item's state updates  upon success.

---

## Stopping a Server




NOTE

*You cannot Stop a server on a remote computer.*

To stop a server, you must have administrator rights on that machine.

**Step** Do one of the following to stop the SQL Server service:

- Click **Server > SQL Server > Stop**.
- Right-click the server name in the navigation pane in the Backup Assistant Main Menu dialog box and select **SQL Server > Stop**.

The item's state updates  upon success. If the Backup Assistant was connected to that server, the connection is reset and the server's subtree is collapsed. The information pane shows nothing.



NOTE

*A server cannot be stopped if its associated Agent is running. To stop the server in this situation, you must first stop the Agent. Refer to [“Stopping a Server's Agent”](#) on page 2-9 for more information.*

---

## Starting a Server's Agent

To start a server's Agent, you must have administrator rights on that machine.

**Step** Do one of the following to start the SQL Server Agent service:


- Click **Server > SQL Server Agent > Start**.
- Right-click the server name in the navigation pane in the Backup Assistant Main Menu dialog box and select **SQL Server Agent > Start**.

The item's state updates  upon success.

## Stopping a Server's Agent

To stop a server's Agent, you must have administrator rights on that machine.

- Step** Do one of the following to stop the SQL Server Agent service:
- Click **Server > SQL Server Agent > Stop**.
  - Right-click the server name in the navigation pane in the Backup Assistant Main Menu dialog box and select **SQL Server Agent > Stop**.

The item's state updates  upon success.



NOTE

*If the Agent is running, the SQL Server owner of the Agent cannot be stopped. To stop the server, you must first stop the Agent. Refer to [“Stopping a Server”](#) on page 2-8 for more information.*

## Connecting to a Server

- Step** Do one of the following in the Backup Assistant Main Menu dialog box to establish a connection to the selected server based on the login mode specified for that server:
- Click **Server > Connect**.
  - Right-click the server name in the navigation pane in the Backup Assistant Main Menu dialog box and select **Connect**.
  - Expand a server's child nodes for the first time by double-clicking the server's name in the navigation pane in the Backup Assistant Main Menu dialog box.



NOTE

*If the Backup Assistant is already connected to a server and the user collapses the server's subtree, the Backup Assistant will not disconnect from that server. If the Backup Assistant is already connected to a server when the user expands the server's subtree, the connection is not attempted again.*

After the operation completes, the server's icon signals if the Backup Assistant was successfully connected.

## Working with Databases

The following sections describe procedures for registering, unregistering, refreshing, viewing, backing up, and restoring databases.

### Registering a Database

A database must be registered before you can back it up, restore it or manage its backup plan. Use the following steps to register a database.

**Step 1** Select **Databases** in the navigation pane of Backup Assistant's Main Menu dialog box.

**Step 2** Do one of the following:

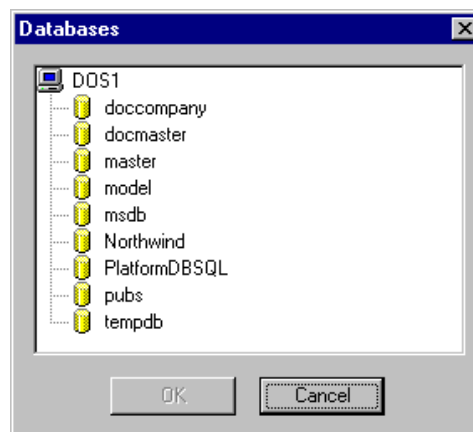
—Click **Databases > Register**.

—Click the **Register Database** button  to register the database.

—Press **Ctrl + N**.

The Databases dialog box (Figure 2-5) displays.

Figure 2-5 Databases dialog box



The Databases dialog box (Figure 2-5) contains a selection of existing, unregistered databases. Once the database is registered, it no longer displays in the Databases dialog box.

**Step 3** Select the database to register and click **OK**.

If the database already had a backup plan, that plan displays automatically when the database is selected in the navigation pane.

If the database does not already have a backup plan, the wizard for creating a backup plan for the selected database displays. Refer to ["Creating a Backup Plan" on page 2-19](#) for step-by-step instructions for creating a backup plan.



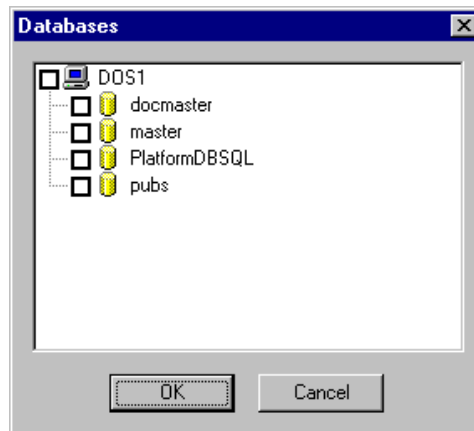
## Unregistering Databases

Use the following steps to unregister one or multiple databases at one time from the Backup Assistant's registered databases' list (without removing them completely from the server).

### Unregistering Multiple Databases


- Step 1** To unregister multiple databases at one time, click **Databases > Unregister** in the navigation pane in the Backup Assistant Main Menu dialog box. A Databases dialog box (Figure 2-6) displays allowing you to select the database to be unregistered.

Figure 2-6 Unregister Database dialog box



- Step 2** Select the **check box** by one or more of the databases to be unregistered.
- Step 3** Click **OK**. One of the following events will happen:
- If the confirmation is enabled, a message box displays prompting the user to confirm the action. Click **Yes**. The Backup Assistant removes the databases from the managed databases list and from the navigation pane.
  - If the confirmation is not enabled, the Backup Assistant automatically removes the databases from the managed databases list and from the navigation pane.

## Unregistering a Single Database

- Step** To unregister a single database, do one of the following:
- Right-click the database name in the navigation pane and select **Unregister**.
  - Click the **Unregister database** button  to unregister the databases.
  - Press the **Delete** key.

One of the following events will happen:


- If the confirmation is enabled, a message box displays prompting the user to confirm the action. Click **Yes**. The Backup Assistant removes the databases from the managed databases list and from the navigation pane.
- If the confirmation is not enabled, the Backup Assistant automatically removes the databases from the managed databases list and from the navigation pane.

---

## Refreshing Information for Databases

Refreshing the information for individual or for all of the databases on a server updates the backup plan information for each selected, registered database on that server.

Use the following steps to refresh one or multiple server's database information.

- Step 1** Select **Databases** in the navigation pane in the Backup Assistant Main Menu dialog box.
- Step 2** Do one of the following:
- Click **Databases > Refresh**.
  - Click the **Refresh** button .
  - Press the **F5** key.

## Viewing a Database's Properties

You can view the database's name, location, creation date, size, owner, and space available in the Properties dialog box (Figure 2-7). The space available is the space left for the server in the database file before it needs to expand the file.

**Step 1** Select the database to be viewed in the navigation pane in the Backup Assistant's Main Menu dialog box.

**Step 2** Do one of the following to display the database properties dialog box.

—Click **Database > Properties**.

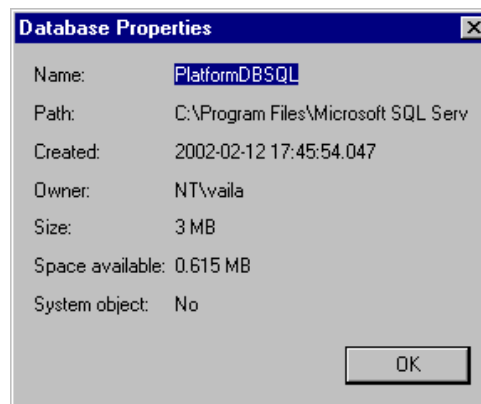
—Right-click the database name in the navigation pane and select **Properties**.

—Click the **Properties** button  to view a database's properties.

—Press the **Alt + Enter** keys.

The Properties dialog box (Figure 2-7) displays.

Figure 2-7 Database Properties dialog box



**Step 3** Click **OK** to close the dialog box.



*The system databases should be managed with care since they impose limitations. For example, you are not allowed to make transaction log backups of the master database.*

## Backing Up a Database Using the Database Command

When completing a backup of the database, you can specify the backup set name, description, kind of backup to make, the backup devices to use, and the advanced options for the backup set and the backup devices.

When you attempt to schedule or backup a database from Computer A using Backup Assistant:

**Step 1** Ensure the SQLAgent is started on Computer A.

**Step 2** The time on Computer A is less than or equal to the time on Computer B.



NOTE


*In order to facilitate Step 2, a SQL/MSDE **Server Time** button was added in the schedule plan dialog to inform the user about the real time (SQL server time) that will be used by the backup plan.*

**Step 3** Select the database to be backed up in the navigation pane in the Backup Assistant's Main Menu dialog box.

**Step 4** Do one of the following:

—Click **Database > Backup**.

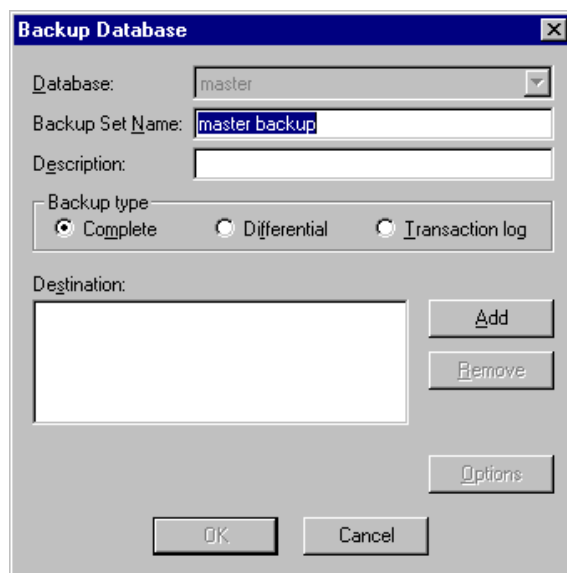
—Right-click the database name in the navigation pane and select **Backup**.

—Click the **Backup database** button  to view a database's properties.

—Press the **F10** key.

The Backup Database dialog box ([Figure 2-8](#)) displays with the Backup Set Name already entered.

**Figure 2-8** Backup Database dialog box



**Step 5** Enter a description in the **Description** field.

**Step 6** Select Complete, Differential, or Transaction log under **Backup type**.

- A complete or differential backup can be made for any database.
- A differential backup is recommended only when a complete backup of that database has already been made.
- Transaction log backups can be made only if the database supports them - the logging for bulk operations is turned on partially or totally. (Refer to “[Creating a Backup Plan](#)” on page 2-19 for more information about configuring backup plan options.)



*A Complete backup of any database must be made first. If a user tries to perform a Differential or Transaction log backup prior to completing a full backup, a prompt displays and then the Backup Database dialog box ([Figure 2-8](#)) displays.*

**Step 7** Click **Add** to add a new backup device. The Backup Devices dialog box ([Figure 2-9](#)) displays.

**Figure 2-9** Backup Devices dialog box



**Step 8** Do one of the following:

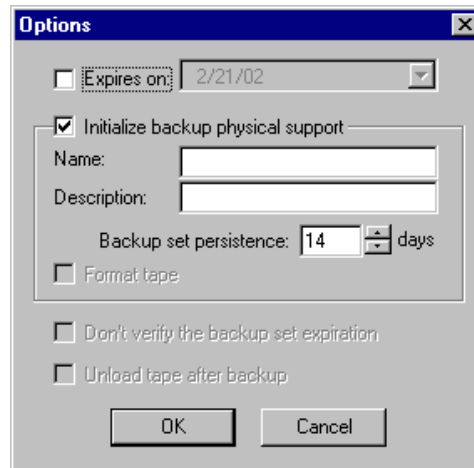
- Select one or multiple backup device check boxes and click **OK**. The Backup Database dialog box ([Figure 2-8](#)) displays.
- If you have not yet created a backup device, click **Create**. The Add Backup Device dialog box ([Figure 2-17](#)) displays.

Refer to “[Creating a Backup Device](#)” on page 2-27 for instructions on creating backup devices. After completing the Add Backup Device dialog box, click **OK**. The Backup Devices dialog box ([Figure 2-9](#)) displays.

Select one or multiple backup device check boxes and click **OK**. The Backup Database dialog box ([Figure 2-8](#)) displays.

**Step 9** Click **Options**. The Backup Database dialog box—Options ([Figure 2-10](#)) displays.

**Figure 2-10** Backup Database dialog box—Options



- Step 10** Select the **Expires on** check box to enter a date that the backup will be deleted.
- Step 11** Select the **Initialize backup physical support** check box to destroy all existing backup sets on the selected devices and add a name and description to the device's media.
- Step 12** Enter or select the number of days to save a default backup set in the **Backup set persistence** box.
- Step 13** Select the **Format tape** check box if the device is a tape.
- Step 14** Select the **Don't verify the backup set expiration** check box to skip verifying the backup set expiration. If this option is selected, the server won't attempt to check the existing backup sets to see if it can overwrite the expired ones.
- Step 15** Select the **Unload tape after backup** check box to unload the tape after backup automatically if the device is a tape drive.
- Step 16** Click **OK**. The backup starts and a progress dialog box displays. When the backup finishes, the progress dialog box closes. The new backup set can be viewed by refreshing the selected devices' information.



NOTE

If you did not perform a Complete backup prior to attempting a Differential or Transaction log backup, a prompt displays after you click **OK**. Read the on-screen prompt and click **OK**. The Backup Database dialog box (Figure 2-8) displays. Repeat Steps 6 through 16, beginning on Page 2-15. A Complete backup must be done first.

## Restoring a Database Using the Database Command

Using the Restore Database dialog box, you can specify the backup set name and description, the kind of backup to make, the backup devices to use, and the advanced options for the backup set and backup devices.

The database is automatically set according to the selected item in the navigation pane.

**Step 1** Select any database in the navigation pane in the Backup Assistant's Main Menu dialog box.

**Step 2** Do one of the following to display the Restore database dialog box.

—Click **Database > Restore**.

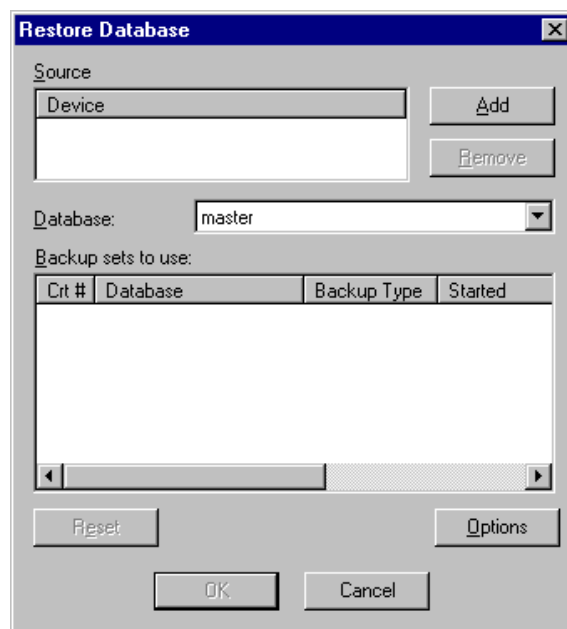
—Right-click any database name in the navigation pane and select **Restore**.

—Click the **Restore Database** button .

—Press **Shift + F10**.

A Restore Database dialog box displays [Figure 2-11](#).

**Figure 2-11** Restore Database dialog box



**Step 3** Click **Add** to specify the backup device for the restore operation. The Backup Devices dialog box ([Figure 2-9](#)) displays where restoration devices are selected.

**Step 4** Do the following to complete the Backup Devices dialog box:

- Select the check boxes next to single or multiple backup device names to restore or check the server's check box.



NOTE

Selecting the **Server's** check box will automatically select all of the devices' check boxes that are on that server, regardless of their previous state.

- Click **OK** to validate your choice and have the devices listed in the Source list in the Restore Database dialog box (Figure 2-11). The backup sets found on the newly listed devices are automatically added at the end of the backup sets' list.

**Step 5** Select one or more unwanted devices under Source Devices and click **Remove**. The backup sets on these devices will be automatically removed from the backup sets' list.

**Step 6** Select another database from the drop-down list in the **Database** field if the one displayed is not the database that you want to restore.

**Step 7** Select or clear check boxes under **Backup sets to use**. Available selections are updated when backup devices are added under Source, when an additional database is selected in the **Database** field, or when you click the **Reset** button. Default backup sets available to restore are:

- The latest complete database backup.
- The latest differential database backup.
- Transaction log backups made after the latest complete or differential database backup.



NOTE

It is recommended that a transaction log backup be made after a failure and before restoring a database. If a transaction log backup is not made of the damaged database before restoring it, the latest transactions may not be recovered.

**Step 8** Click **Options**. The Restore Database Options dialog box displays. The following options may be selected in this dialog box:

- Recreate the existing database** - recreates the existing database from scratch regardless of the previous contents. New files are created on disk for that database.
- Restore up to this point in time** - allows you to restore the database up to a precise moment if you are restoring a transaction log. The time range spans from the latest complete or differential backup to the latest transaction log backup.
- Unload tape after restore** - available only if the device is a tape drive.

**Step 9** Ensure that there are no users logged in to any database that will be restored. In order to restore a database, all users must log off or switch to another database during a restore operation.

**Step 10** Click **OK**. The restore operations are executed in chronological order (the older backup sets are restored first and then the newer ones). A progress dialog box displays to indicate each restore operation's status. After the last restore operation finishes, the restore dialog box closes.




## Working with Backup Plans

The following sections discuss creating, modifying and removing database backup plans.

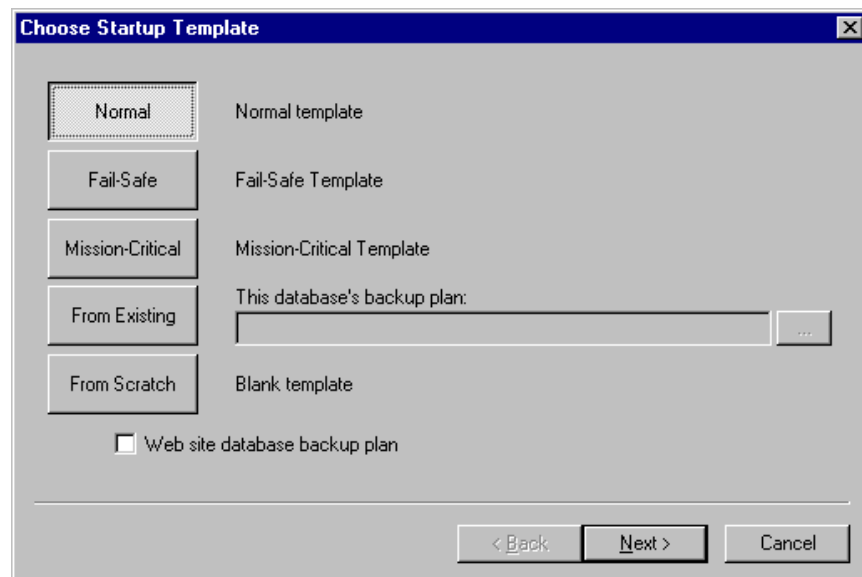
### Creating a Backup Plan

If there is no backup plan when a database is registered, the backup plan wizard displays to help define a backup strategy and create a backup plan. Use the following steps to create a backup plan.

- Step 1** Select a database name in the navigation pane in the Backup Assistant Main Menu dialog box.
- Step 2** Do one of the following to open the wizard for creating a backup plan.
  - Click **Database > Create backup plan**.
  - Right-click the database name in the navigation pane and select **Create Backup Plan**.
  - Click the **Create backup plan** button .
  - Press **F7**.

The Choose Startup Template dialog box ([Figure 2-12](#)) displays.

**Figure 2-12** Choose Startup Template dialog box



- Step 3** Select one of the available backup plan templates described in [Table 2-2](#) for your backup plan.

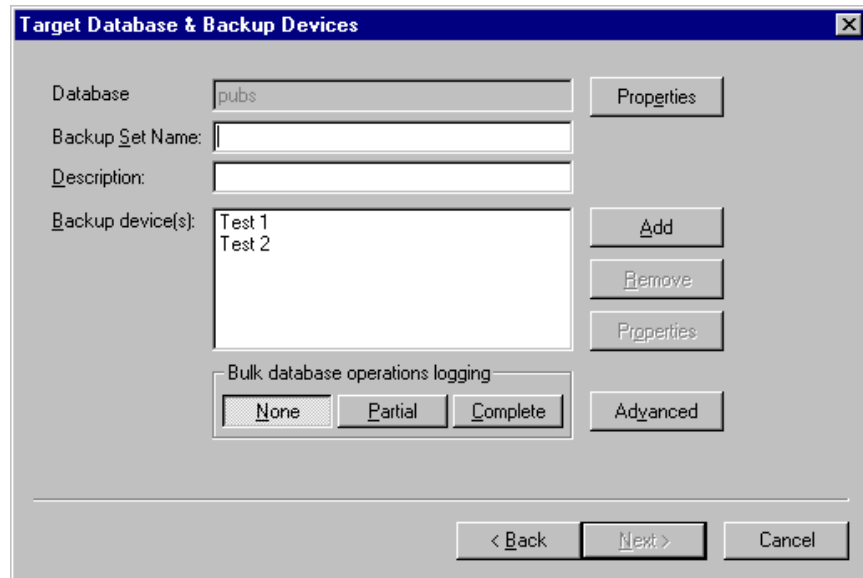
**Table 2-2** Choose Startup Template dialog box—Options

Template Name	Description
Normal	The Normal template consists of three basic schedules: <ul style="list-style-type: none"> <li>• Complete database backup (once per week).</li> <li>• Differential database backup (once per working day).</li> <li>• Transaction log backup (every two hours between 6:00 a.m. and 8:00 p.m. every working day).</li> </ul>
Fail-Safe	The Fail-Safe template consists of three basic schedules: <ul style="list-style-type: none"> <li>• Complete database backup (twice per week).</li> <li>• Differential database backup (twice per working day).</li> <li>• Transaction log backup (every 30 minutes between 6:15 a.m. and 8:30 p.m. every working day).</li> </ul>
Mission-Critical	The Mission-Critical template consists of three basic schedules: <ul style="list-style-type: none"> <li>• Complete database backup (once per day).</li> <li>• Differential database backup (every 1 hour daily).</li> <li>• Transaction log backup (every 10 minutes between 6:05 a.m. and 9:57 p.m. daily).</li> </ul>
From Existing	The From Existing template allows you to take another database's backup plan as a model and use it for the current database.
From Scratch	The From Scratch template is a minimal template you can further customize by adding supplementary schedules.

**Step 4** Select the **Web site database backup plan** check box if you want to modify the schedules by making them more appropriate for a web site database. This option configures the complete and differential database backups late at night and in the early morning hours. This affects only the standard templates, and has no effect when starting from scratch or from an existing database's template.

**Step 5** Click **Next**. The Target Database & Backup Devices dialog box (Figure 2-13) displays where you can choose the target database, backup devices and customize the backup plan.

**Figure 2-13** Target Database & Backup Devices dialog box



- Step 6** Click **Properties** to review the properties of the database that was selected for this backup plan. The database name appears grayed-out in the **Database** field.
- Step 7** Enter a name for your backup set in the **Backup Set Name** field.
- Step 8** Enter a description in the **Description** field. The description can help differentiate the backup sets created during regular, scheduled backup plan operations.
- Step 9** Click **Add** to assign a backup device for this backup plan. The Backup Devices dialog box displays.
- Step 10** Click the check box by the backup devices to be used and click **OK**.

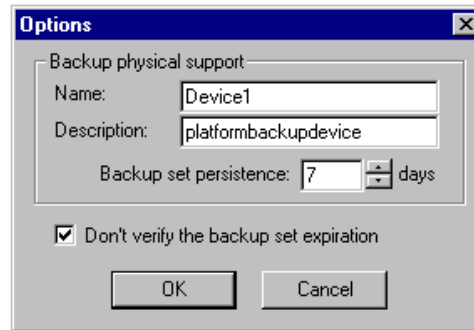


**NOTE**

One or more backup devices must be selected for the backup plan. The wizard will stop you if you try to go to the next step without filling in at least one backup device. Refer to “[Creating a Backup Device](#)” on page 2-27 for more information about creating backup devices.

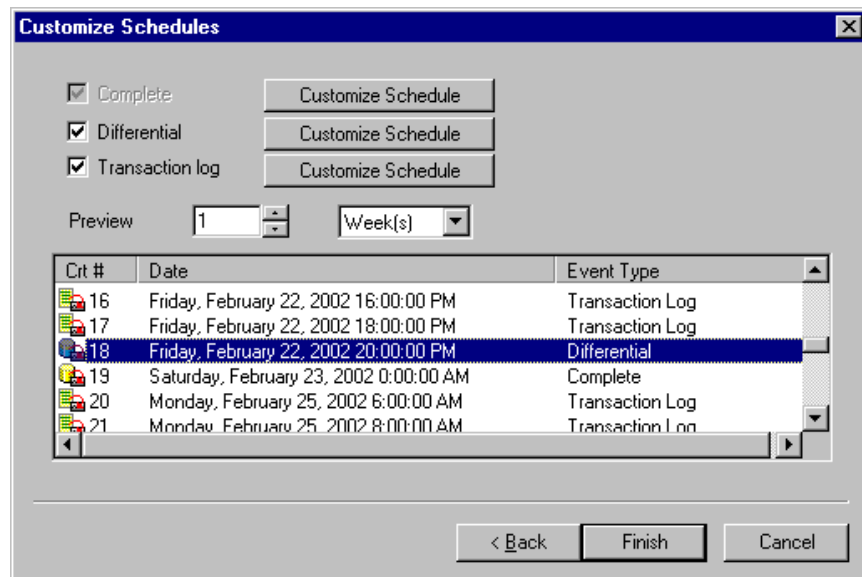
- Step 11** Select one of the three available levels of logging for bulk operations.
- The None level allows you to make complete and differential backups of the database.
  - The Complete level allows you to make transaction log backups which allow database recovery up to the latest possible moment.
  - The Partial level allows you to make transaction log backups, but doesn't allow logging for bulk operations in the transaction log.
- Step 12** Click **Advanced**. The Options dialog box ([Figure 2-14](#)) displays. The advanced options give the user strict control over the backup media.

---

**Figure 2-14** Backup Plan Wizard—Options dialog box


- Step 13** Enter a name and description for the device in the **Name** and **Description** fields.
- Step 14** Select the backup set expiration (by default this is set to 7 days) in the **Backup set persistence** field.
- Step 15** Select the **Don't verify the backup set expiration** check box if you want to disable the backup set expiration verification when making backups by this plan.
- Step 16** Click **OK** to return to the Target Database & Backup Devices dialog box (Figure 2-13).
- Step 17** Click **Next**. The Customize Schedules dialog box (Figure 2-15) displays which presents the proposed scheduled events and allows the backup plan schedules to be customized.

---

**Figure 2-15** Customize Schedules dialog box


**Step 18** Select the **Differential** and **Transaction Log** check boxes to view the Differential and Transaction log event schedules.



The **Complete** check box is grayed-out because the complete backup plan will always be visible.

**Step 19** Select the number of days or weeks to show backup events in the preview pane. Backup events can be previewed for up to 31 days or four weeks. The events list updates every time you change one of the schedules.

**Step 20** Select one of the events in the list box and click **Customize Schedule**. The Schedule dialog box (Figure 2-16) displays where you can customize the schedule for the backup plan.

—You can enable or disable some of the available schedules, but complete database backups can never be disabled.

—You can disable differential and transaction log backups, but transaction log backups cannot be made unless you make differential backups.

**Figure 2-16** Backup Plan Wizard—Schedule dialog box

**Step 21** Select how often you want the backup to run in the **Occurs** section of the dialog box. Table 2-3 explains the different time interval options.

**Table 2-3** Schedule dialog box—Time Intervals

Template Name	Description
Daily	Set the number of days between each backup. <ul style="list-style-type: none"> <li>• Enter the time for the backup to run in the <b>Daily Schedule</b> section of the dialog box.</li> <li>• Select the date to start running the backup in the <b>Start date</b> field.</li> <li>• Select the <b>End Date</b> check box to specify the last time that this backup will occur, then select the date that this backup will end.</li> </ul>
Weekly	Set the number of weeks between each backup. <ul style="list-style-type: none"> <li>• Select the check box next to each day that the backup will run and enter the time for it to run in the <b>Daily schedule</b> section of the dialog box.</li> <li>• Select the date to start running the backup in the <b>Start date</b> field.</li> <li>• Select the <b>End Date</b> check box to specify the last time that this backup will occur, then select the date that this backup will end.</li> </ul>
Monthly	Specify the day of each month when the backup will run. <ul style="list-style-type: none"> <li>• Set the Daily Schedule for the backup by selecting either to run the backup once at a specific time or to run the backup several times at a specified Begin and End time.</li> <li>• Select the date to start running the backup in the <b>Start date</b> field.</li> <li>• Select the <b>End Date</b> check box to specify the last time that this backup will occur, then select the date that this backup will end.</li> </ul>

**Step 22** Click **Finish** and your settings will be recorded on the server. The main Backup Assistant window's information pane will be updated to reflect the changes.

## Modifying a Backup Plan


The wizard used to modify a backup plan is similar to the one displayed when a backup plan is created. The primary difference is that the Choose Startup Template dialog box (Figure 2-12) does not display because the schedules are already set from the existing backup plan information.



REFERENCE

Refer to [“Creating a Backup Plan” on page 2-19](#) for more information about creating a backup plan.

Use the following steps to modify a backup plan.

- Step 1** Select the database whose backup plan will be modified in the navigation pane in the Backup Assistant Main Menu dialog box.
- Step 2** Do one of the following to open the wizard for modifying a backup plan.
  - Click **Database > Modify backup plan**.
  - Right-click the database name in the navigation pane and select **Modify backup plan**.
  - Click the **Modify backup plan** button .

The Target Database & Backup Devices dialog box (Figure 2-13) displays where you can choose the target database, backup devices, and customize the backup plan.

- Step 3** Modify the fields to be altered in the Target Database & Backup Devices dialog box.



NOTE

The Target Database & Backup Devices dialog box is identical to the one displayed in [Figure 2-13 on page 2-21](#), except the options are already filled in. The backup set description is already set, the backup devices list is already filled, and the advanced options are already set from the existing backup plan information.

Refer to [“Creating a Backup Plan” on page 2-19](#) for more information.

- Step 4** Click **Next**. The Customize Schedules dialog box (Figure 2-15) displays which presents the proposed scheduled events and allows the backup plan schedules to be customized.
- Step 5** Modify the fields to be altered in the Customize Schedules dialog box. Refer to [Step 20 on page 2-23](#) for more information.
- Step 6** Click **Finish** and your settings will be recorded on the server. The main Backup Assistant window’s information pane will be updated to reflect the modifications.

---

## Removing a Backup Plan

The **Remove Backup Plan** command removes the backup plan for the selected database, but does not remove the backup sets previously created. Use the following steps to remove a backup plan.

**Step 1** Select the database whose backup plan you want to remove in the navigation pane in the Backup Assistant Main Menu dialog box, and then do one of the following.

—Click **Database > Remove backup plan**.

—Right-click the selected database in the navigation pane and select **Remove backup plan**.

—Click the **Remove Backup Plan** button .

—Press **Shift + F7**.



*If the selected database does not have a backup plan, the **Remove Backup Plan** button will be disabled on the Backup Assistant toolbar.*

**Step 2** Click **OK** if a message box displays prompting the user. If the confirmation feature is not enabled, or if the user confirms the action, the Backup Assistant removes the backup plan from the server and updates the database information pane.

Backup sets of scheduled events of the removed backup plan are not affected. They can be viewed in the backup device's information pane.




## Working with Backup Devices

The following sections contain procedures for several tasks using backup devices.

### Creating a Backup Device

The backup device parameters are set in the Add Backup Device dialog box. Use the following steps to create a backup device.

- Step 1** Select **Backup Devices** in the navigation pane in the Backup Assistant Main Menu dialog box.
- Step 2** Do one of the following.
- Click **Devices > Create**.
  - Right-click Backup Devices in the navigation pane and select **Create**.
  - Click the **Create backup device** button .
  - Press **Ctrl + N**.

The Add Backup Device dialog box ([Figure 2-17](#)) displays.

**Figure 2-17** Add Backup Device dialog box



- Step 3** Enter the name for the backup device in the **Name** field.
- Step 4** Do one of the following:
- If the device is a disk file, select **Disk file** under **Type** and enter the full name and path of the file as the server will see it in the Disk file text box.



When you create a backup device (disk to file), you must use the fully qualified path (for example, C:\DestinationPath\Filename).

—If the device is a tape drive, select **Tape drive** under **Type** and select the tape drive from the available tape drives in the **Tape Drive** drop-down list.



NOTE

*If no tape drives are present, the Tape drive text box remains empty and the user will be unable to set up such a device. The **OK** button will not become activated if there are no tape drives present.*

—It is not necessary to do anything if the file specified as backup device already exists. The file's contents will not be destroyed.

**Step 5** Select the **Don't check for media validity** check box to disable verification that the correct media is loaded.



NOTE

*If this check box is not selected this feature will remain enabled.*

**Step 6** Click **OK**.

---

## Destroying Backup Devices

The **Destroy** command destroys one or more backup devices from the server's configuration, but it does not destroy their contents. An example would be when a disk file backup device is destroyed. The file backup device is destroyed, but it is not physically deleted from the disk.

Use the following steps to destroy one or more backup devices at one time.

**Step 1** Select **Backup Devices** in the navigation pane in the Backup Assistant Main Menu dialog box and do one of the following.

—Click **Devices > Destroy**.

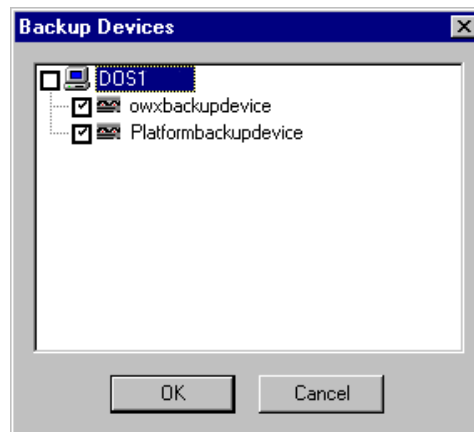
—Right-click Backup Devices or the specific backup device in the navigation pane and select **Destroy**.

—Click the **Destroy device(s)** button .

—Press **Delete**.

The Backup Devices dialog box ([Figure 2-18](#)) displays.


Figure 2-18 Backup Devices dialog box



- Step 2** Select the check boxes next to single or multiple backup device names to be destroyed and click **OK**.
- Step 3** Click **OK** if a message box displays prompting the user. If the confirmation feature is not enabled, or if the user confirms the action, the Backup Assistant removes the backup devices from the backup devices list and from the navigation pane.

### Refreshing the Server's Backup Devices Information


The **Device Refresh** command updates the server's backup devices list and the backup set list for each device. Use the following steps to refresh a server's backup devices data.

- Step 1** Select **Backup Devices** in the navigation pane of the Main Menu dialog box of Backup Assistant.
- Step 2** Do one of the following.
- Click **Devices > Refresh**.
  - Right-click **Backup Devices** in the navigation pane and select **Refresh**.
  - Click the **Refresh** button .
  - Press **F5**.

---

## Refreshing a Backup Device's Information


When a backup device is selected in the navigation pane of Backup Assistant, the **Refresh** command updates the backup set list for each device. Use the following steps to refresh a backup devices' information.

- Step 1** Select a backup device in the navigation pane of the Backup Assistant Main Menu dialog box.
- Step 2** Do one of the following.
- Click **Device > Refresh**.
  - Click the **Refresh** button .
  - Press **F5**.

---

## Viewing a Backup Device's Properties

This command displays the backup device properties dialog box. You can view the backup device's location, type and media consistence checking state (effective for tape devices). Use the following steps to view a backup devices' properties.

- Step 1** Select a backup device in the navigation pane of the main window of Backup Assistant.
- Step 2** Do one of the following.
- Click **Device > Properties**.
  - Click the **Properties** button .
  - Press **Alt + Enter**.

---

## Backing Up a Database Using the Device Command

There are two separate commands that can be used to backup databases using Backup Assistant. Using either command displays the Backup Database dialog box (Figure 2-10).

Backing up a database using the **Database>Backup** command allows the user to select the *device* used for the database backup. The database that will be backed up is already selected.



Refer to "[Backing Up a Database Using the Database Command](#)" on page 2-14 for more information.

Backing up a database using the **Device>Backup database** command allows the user to select the *database* to back up. The device used for the backup is already selected.



When using the **Device>Backup database** command, the database to be backed up must be selected in the **Database** field. You must select a database to restore in order to continue.

Use the following steps to backup a database using the **Device>Backup database** command.

**Step 1** Select a backup device in the navigation pane of the main window of Backup Assistant.

**Step 2** Do one of the following.

—Click **Device > Backup database**.

—Right-click a backup device in the navigation pane and select **Backup database**.

—Click the **Backup database** button .

—Press **F10**.

The Backup Database dialog box ([Figure 2-8](#)) displays.

**Step 3** Select the database to back up from the drop-down list in the **Database** field.

**Step 4** Enter a description in the **Description** field.

**Step 5** Select **Complete**, **Differential**, or **Transaction Log** under **Backup type**.

—A complete or differential backup can be made for any database.

—A differential backup is recommended only when a complete backup of that database has already been made.

—You can do transaction log backups only if the database supports them - the logging for bulk operations is turned on partially or totally.

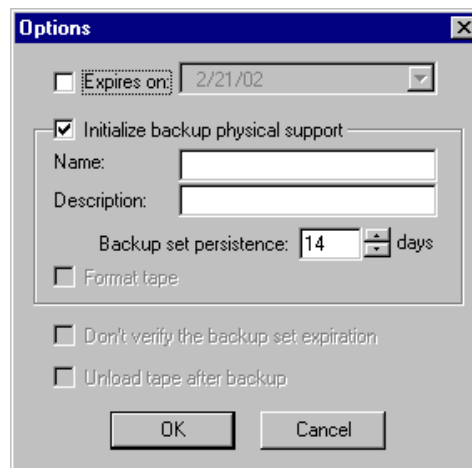


REFERENCE

Refer to [“Creating a Backup Plan” on page 2-19](#) for more information about configuring backup plan options.

**Step 6** Click **Options**. The Backup Database dialog box—Options ([Figure 2-19](#)) displays.

**Figure 2-19** Backup Database dialog box—Options



- Step 7** Select the **Expires on** check box to set an expiration date. In the **Expires on** box, enter or select the date when other backup sets can overwrite the backup.
- Step 8** Select the **Initialize backup physical support** check box to destroy all existing backup sets on the selected devices and add a name and description to the device's media.
- Step 9** Enter or select the number of days to save a default backup set in the **Backup set persistence** box.
- Step 10** Select the **Format tape** check box if the device is a tape.
- Step 11** Select the **Don't verify the backup set expiration** check box to skip verifying the backup set expiration. If this option is selected the server won't attempt to check the existing backup sets to see if it can overwrite the expired ones.
- Step 12** Select the **Unload tape after backup** check box to unload the tape after backup automatically if the device is a tape drive.
- Step 13** Click **OK**. The backup starts and a progress dialog box displays. When the backup finishes, the progress dialog box closes. The new backup set can be viewed by refreshing the selected devices' information.

---

## Restoring a Database Using the Device Command

There are two separate commands that can be used to restore databases using Backup Assistant. Using either command displays the Restore Database dialog box (Figure 2-11).


Restoring a database using the **Device>Restore** command allows the user to select the *database* to restore. The device used for the backup is already selected. When using the **Database>Restore database** command, the user must select the *device* used to back up the database. The database to be backed up is already selected.



NOTE

When using the **Device>Restore** command, the database to be restored must be selected in the **Database** field. You must select a database to restore in order to continue.

The database is automatically set according to the selected item in the navigation pane. Use the following steps to restore a database.

- Step 1** Select any database that has a backup plan in the navigation pane in the Backup Assistant's main window.
- Step 2** Do one of the following to display the Restore database dialog box.
- Click **Device > Restore**.
  - Right-click any device name in the navigation pane and select **Restore**.
  - Click the **Restore Database** button .
  - Press **Shift + F10**.

The Restore Database dialog box (Figure 2-11) displays with the selected device displayed under Source.

- Step 3** Select a database to restore from the drop-down list in the **Database** field.
- Step 4** Select or clear check boxes under **Backup sets to use**. Available selections are updated when backup devices are added under Source, when an additional database is selected in the **Database** field, or when you click the **Reset** button. Default backup sets available to restore are:
- The latest complete database backup.
  - The latest differential database backup.
  - Transaction log backups made after the latest complete or differential database backup.



NOTE

*It is recommended that a transaction log backup be made after a failure and before restoring a database. If a transaction log backup is not made of the damaged database before restoring it, the latest transactions may not be recovered.*

- Step 5** Click **Options**. The Restore Database Options dialog box displays. The following options may be selected in this dialog box:
- To recreate the existing database from scratch regardless of the previous contents. This creates new files on disk for that database.
  - Restore up to a specified point in time - allows you to restore the database up to a precise moment. This is possible if you are restoring a transaction log. The time range spans from the latest complete or differential backup to the latest transaction log backup.
  - Unload the tape after restore if the devices are tape drives.
- Step 6** Click **OK** to start the restore operations. The operations are executed in chronological order (the older backup sets are restored first and then the newer ones). A progress dialog box displays to indicate each restore operation's status. After the last restore operation finishes, the restore dialog box closes.

---

## Ejecting a Backup Device's Tape

The **Eject tape** command unloads and ejects the tape, if the backup device is a tape drive. The disk file backup devices do not support this feature.

- Step 1** Select a backup device in the navigation pane in Backup Assistant's main window.
- Step 2** Do one of the following.
- Click **Device > Eject**.
  - Right-click a tape device name in the navigation pane and select **Eject tape**.
  - Click the **Eject Tape** button.

This feature works under Windows NT or Windows 2000. The menus and the toolbar button are activated when the currently selected device is a tape drive and the device is idle (no backup or restore operation is pending at that particular moment).

---

## Troubleshooting

This section addresses issues that may cause the application not to start or other usage problems.

---

### Problem Description

If Backup Assistant stops due to power failure or another reason other than a normal shutdown, the registry key is permanently set to **ON** and Backup Assistant will not start. An error message will display, **Another instance of application is running**. This is because the application believes it is still running.

Backup Assistant has a safeguard to prevent two copies of the application from running on the same computer simultaneously. When Backup Assistant starts up, the application sets a value in the Windows registry to **On**. When the application stops, the value is set back to **Off**.

To restart the application after an abnormal shutdown, changes must be made using Windows Registry Editor.



## Using Windows Registry Editor

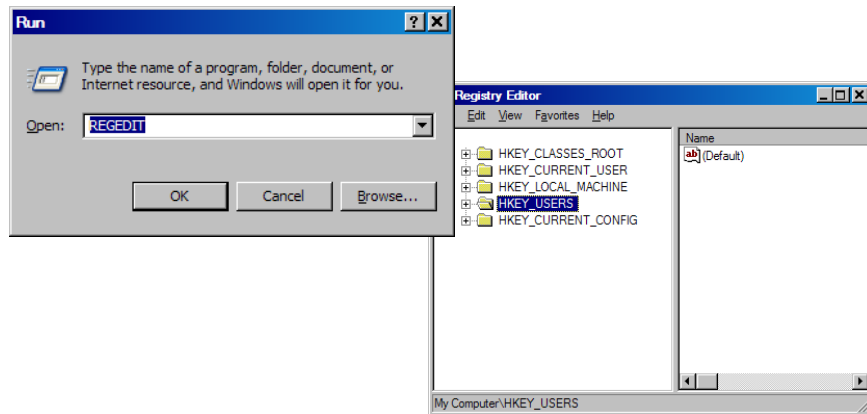
Registry Editor is an advanced tool for changing settings in your system registry, which contains information about how your computer runs.



*Using Registry Editor incorrectly can cause serious problems. You should make a backup copy of the registry files (System.dat and User.dat) before you edit the registry. For more information on backing-up registry files, refer to Microsoft.com.*

- Step 1** Ensure no copies of Backup Assistant is running.
- Step 2** From your Desktop, click **Start > Run**.
- Step 3** Type **REGEDIT** and then click **OK** (Figure 2-20).

**Figure 2-20** Registry Editor dialog box



- Step 4** In the Registry Editor, select **HKEY\_USER/S-1-5-21-2086347178-152299848-1771216264-500\Software\NEC-RDC\Backup Assistant\Settings**.
- Step 5** Locate the value **IsRunning**. If the value is **1**, change it to **0**.
  - 1 indicates the application is running
  - 0 indicates the application is not running
- Step 6** Exit the Registry Editor.
- Step 7** Restart Backup Assistant.



***For additional information or support on this NEC Unified Solutions product, contact your NEC Unified Solutions representative.***

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**Backup Assistant User Guide**

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