Addendum: GoVault Data Protection 2.0 Software

This document includes new features and changes that are in Version 2.0 of the GoVault data protection software for Windows. It supplements the material in the Version 1.0 User Guide and Quick Start Guide. Please refer to those documents before reading this supplement.

Overview

GoVault data protection 2.0 software for Windows enhances the features of Version 1.x as follows:

- Support is added for Windows 2008 Server

- Native 64-bit support is added

- The software will now protect Microsoft Exchange data on the server to which the GoVault is attached. This is in addition to the previous ability to back up and restore local Outlook (.PST) files

- The software will now protect Microsoft SQL Server data on the server to which the GoVault is attached. This is in addition to the previous ability to back up and restore open files in general, such as databases.

Changes to System Requirements

In addition to the operating systems listed in the Version 1.0 documentation, Version 2.0 also supports Windows 2008 Server. The Windows Desktop Experience component must be installed in order to explore protection plan recovery points (that is, browse for individual files and directories that you wish to restore).

If you intend to use the Microsoft Exchange data protection feature, the following versions of Microsoft Exchange are supported on Windows Server 2003 SP2/R2 or Windows 2008 Server:

- Microsoft Exchange 2003 SP2 (32-bit versions of Windows only)

- Microsoft Exchange 2007 SP1 (64-bit versions of Windows only)

If you intend to use the Microsoft SQL Server data protection feature, the following versions of Microsoft SQL Server are supported on Windows Server 2003 SP2/R2 or Windows 2008 Server:

- Microsoft SQL Server 2005 SP2

- Microsoft SQL Server 2008

Changes to Software Installation

The software installation dialog boxes have changed slightly from those shown in the Version 1.0 documentation, but the flow and functionality are the same. On the final installation dialog box, a checkbox will automatically launch the GoVault data protection software, rather than requiring you to do this manually as described in the original documentation.

Microsoft Exchange Data Protection

Overview

Microsoft Exchange Server has units of storage created by administrators called **Storage Groups**, within which are **stores** or databases. Quite often, there will only be a single Storage Group, containing both a public and a private database.

GoVault data protection 2.0 software allows an administrator to create a Protection Plan specific to backing up one or more Storage Groups on the server to which the GoVault is attached. When an Exchange Protection Plan is run, the GoVault software takes a VSS (Volume Shadow Copy Services) snapshot of the physical Exchange database files. With each run of a Protection Plan, the software will deduplicate data against previous plan runs and store what is needed to recover the Storage Group.

When a store database (.edb) is processed, a consistency check is performed. This is a first line of validation that the 'snapshot' of the .edb is valid. Those .edb files that are not valid are skipped and logged as warnings during the backup. The administrator should take action on store databases that are failing the consistency check. All storage groups that are successfully backed will have the transaction logs truncated by the Exchange VSS writer.

More information on Exchange operations can be found on the Microsoft website, including this document on recovery modes:

http://technet.microsoft.com/en-us/library/bb123479(EXCHG.80).aspx

IMPORTANT NOTE: Microsoft Exchange 2007 requires a secure port (socket) for communication with the Windows Internet Information Service (IIS). If there is a port conflict between GoVault data protection software and other software using the same port, you may receive a message such as **Access Denied** when attempting to Explore (browse) saved files on the GoVault cartridge. If this occurs, you can change the port assignment used by GoVault data protection software to another available port. Otherwise, you will not be able to Explore (browse) the files that have been saved by your Data Protection plans, although you can search by filename. See **Changing Windows Port Configuration for Explore** below for details.

Protecting Microsoft Exchange Server Data

If Microsoft Exchange Server software is installed on the machine to which your GoVault is attached, an additional option will be available when you click **Add a Protection Plan** on the **Home** screen of the GoVault data protection software. This is titled **Exchange Storage Groups**. (It will be grayed out if no Exchange Server is present.) Select this option on the **Start** tab screen and then click **Next** to reach the **Selections** tab screen (see figure 1).

Figure 1 Selections Tab
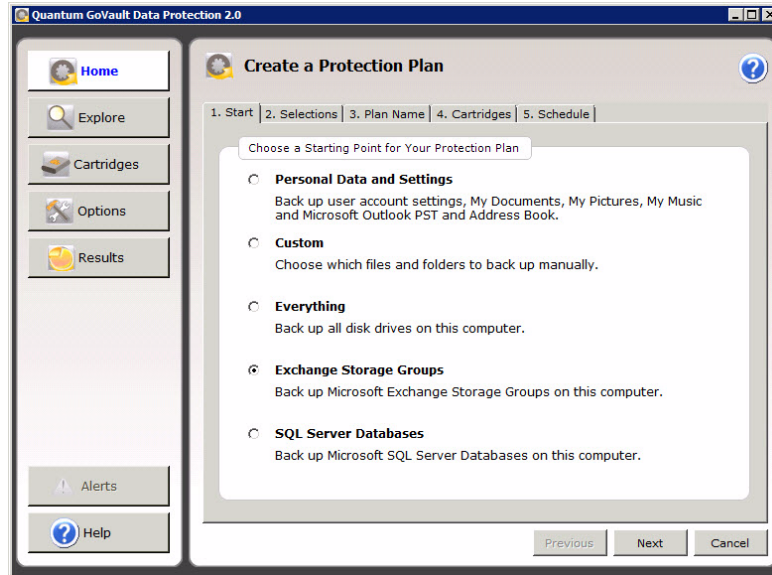
On the **Selections** tab screen, a list of all the **Exchange Storage Groups** found on the local machine will be shown, along with their associated databases and a checkmark next to each one. If you do not want particular databases to be protected, uncheck them with a left click of the mouse button. The software will calculate the amount of data you have selected and estimate if the current GoVault cartridge has enough capacity to back it up (see figure 2).

Figure 2 Exchange
Servers
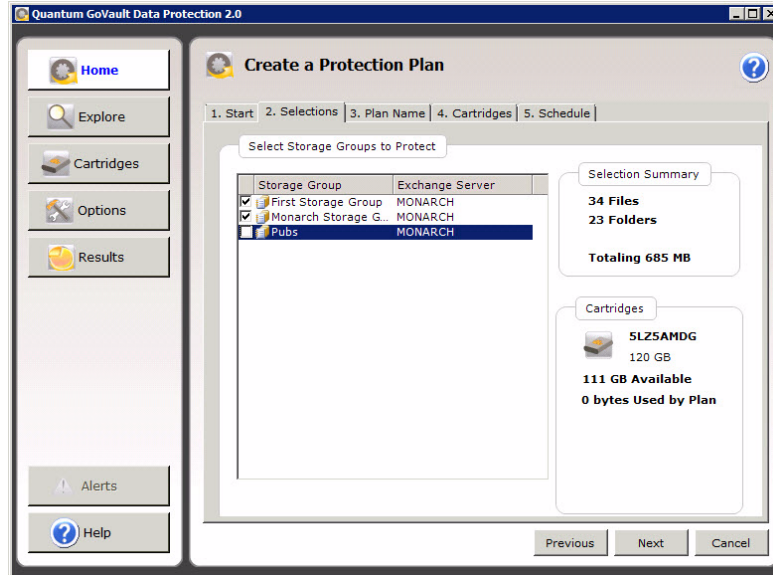
Click **Next** when you have finished selecting Exchange databases to protect.

The remaining tabs (**Plan Name**, **Cartridges** and **Schedule**) work in the same way as when setting up any other type of Protection Plan, and the Plan can be run or edited as usual. See the Version 1.0 User Guide for more details.

Restoring Microsoft Exchange server data

If you need to restore a Microsoft Exchange Storage Group, first click the **Explore** command button on the GoVault data protection software **Home** page and then select the appropriate date and Protection Plan name as with any other type of Protection Plan. When you click the **Restore** button (the Explore button is grayed out with this type of Protection Plan), the **Restore** dialog is displayed.

On the **Restore** dialog, the backed up databases associated with each Exchange Storage Group are displayed, with a checkmark next to them. If you do not want particular databases to be restored, uncheck them with a left click of the mouse button. Then click on **Click here to select a restore folder** and browse to find or create the path where you wish the data to be restored. Click **OK** and the dialog box will display the path you have designated, along with a unique folder name created by the GoVault data protection software, which includes the date and time when the Storage Groups were backed up (see figure 3).

Figure 3 Storage Group
Restore
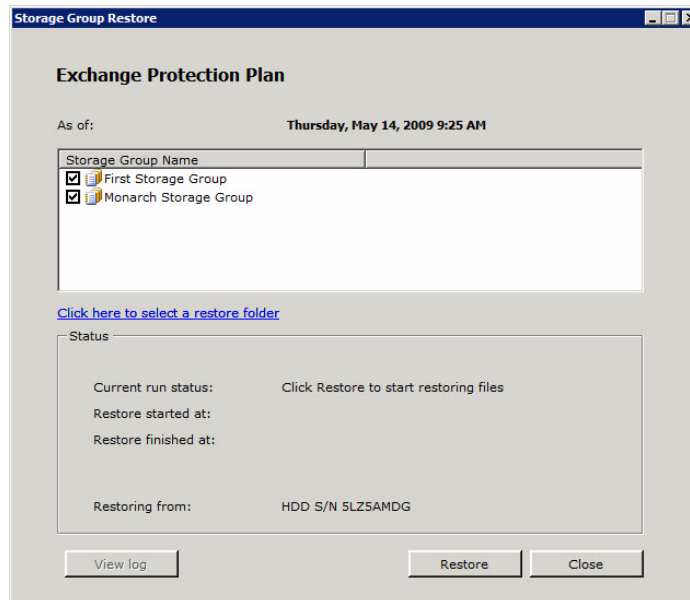
When you have finished with your selections, click the **Restore** button. The restored data will be placed into the new folder. When the restore operation is complete, you may click the **View Log** button in order to see details about the restoration process.

You now have a set of database files and associated log files that make up the Exchange Storage Group as it appeared on the date you selected. Use the appropriate tools from Microsoft Exchange, such as *eseutil.exe*, to process these files into a functioning Storage Group, and then mount it to become the active Storage Group or a Recovery Storage Group. Instructions on how to accomplish this can be found in your Microsoft Exchange documentation.

Microsoft SQL Server Data Protection

Overview

Microsoft SQL Server includes one or more instances of the database engine running on the physical server, each of which contains databases to store the information. GoVault data protection 2.0 software allows an administrator to create a Protection Plan specific to backing up one or more SQL instances on the machine to which the GoVault is attached. When a SQL Protection Plan is run, the GoVault software takes a VSS (Volume Shadow Copy Services) snapshot of the selected database files (.MDF and .NDF). With each run of a Protection Plan, the software will deduplicate data against previous plan runs and store what is needed to recover the database.

**Protecting Microsoft
SQL Server data**

If one or more Microsoft SQL Server instances are installed on the machine to which your GoVault is attached, an additional option will be available when you click **Add a Protection Plan** on the **Home** screen of the GoVault data protection software. This is titled SQL Server Databases. (It will be grayed out if no SQL Server is present.) Select this option on the **Start** tab screen and then click **Next** to reach the **Selections** tab screen (see figure 4).

Figure 4 Create a
Protection Plan
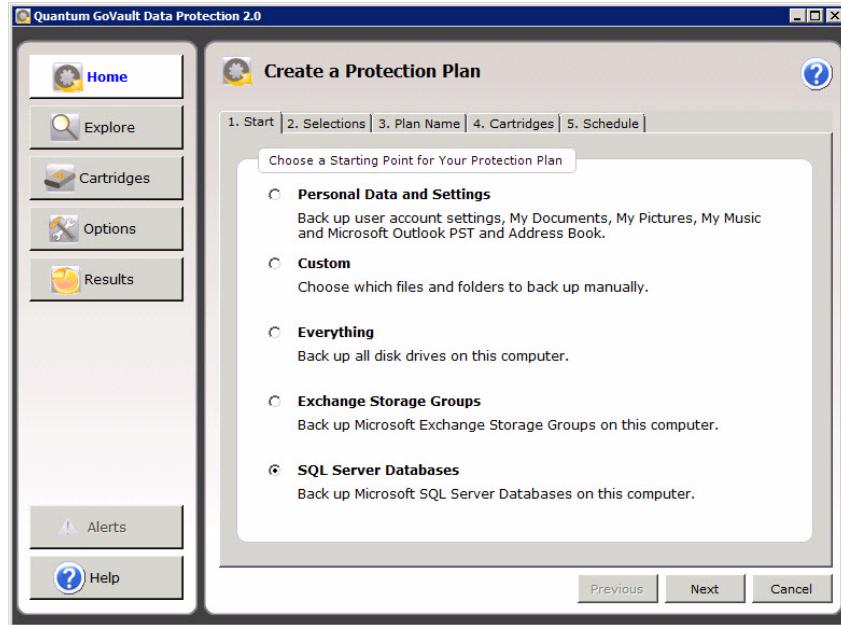
On the **Selections** tab screen, a list of all the SQL Server instances found on the local machine will be shown, along with their associated databases and a checkmark next to each one. If you do not want particular databases to be protected, uncheck them with a left click of the mouse button. The software will calculate the amount of data you have selected and estimate if the current GoVault cartridge has enough capacity to back it up.

Each SQL database displayed shows a Database State. This will need to indicate **Normal** in order for a backup to take place during a Protection Plan run. If a database is offline, inaccessible, detached or missing, the GoVault data protection software will skip it when a Protection Plan runs.

In addition, transaction log files can be truncated with each backup if you wish. Click the **Truncate logs** with full backups checkbox at the bottom of the dialog box to activate this feature. Note that log files are only truncated on databases set to Full Recovery Model (see figure 5).

Figure 5 Selections Tab
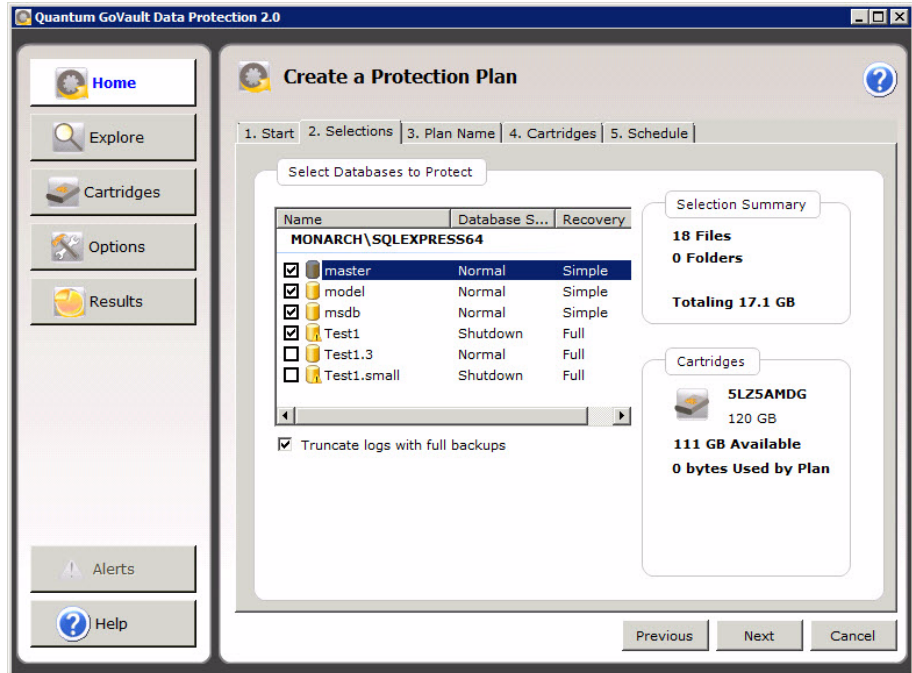
Click **Next** when you have finished selecting SQL Server databases to protect.

The remaining tabs (**Plan Name**, **Cartridges** and **Schedule**) work in the same way as when setting up any other type of Protection Plan, and the Plan can be run or edited as usual. See the Version 1.0 User Guide for more details.

Restoring SQL Server data

If you need to restore one or more SQL Server databases, first click the **Explore** command button on the GoVault data protection software Home page and then select the appropriate date and Protection Plan name as with any other type of Protection Plan. When you click the **Restore** button (the Explore button is grayed out with this type of **Protection Plan**), the **Restore** dialog is displayed.

On the **Restore** dialog, the backed up databases associated with each SQL Server instance are displayed, with a checkmark next to them. If you do not want particular databases to be restored, uncheck them with a left click of the mouse button. Then click on **Click here to select a restore folder** and browse to find or create the path where you wish the data to be restored. Click **OK** and the dialog box will display the path you have designated, along with a unique folder name created by the GoVault data protection software, which includes the date and time when the databases were backed up (see figure 6).

Figure 6 Database
Restore
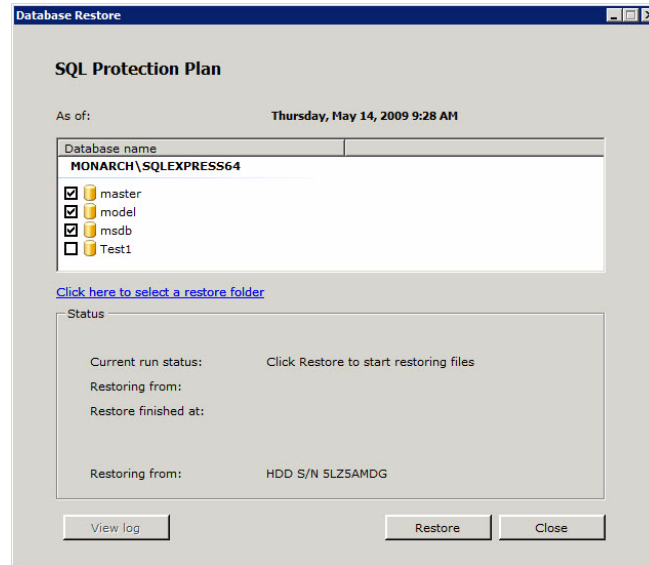
When you have finished with your selections, click the **Restore** button. The restored data will be placed into the new folder. When the restore operation is complete, you may click the View Log button in order to see details about the restoration process. Instructions on how to integrate the database files back into SQL Server can be found in your Microsoft SQL Server documentation.

Changing Windows Port Configuration for Explore

The **Options** dialog, selected by clicking the Options command button on the GoVault data protection software **Home** screen, now has an additional tab titled **Explore Settings**. The GoVault data protection software uses a standard Windows communication port (socket) for its internal operation, specifically for enabling the Explore interface that allows you to browse deduplicated files stored on the GoVault cartridge. Under Windows XP and Windows Server 2003, the default is Port 80; on Vista and Windows 2008 Server, it is Port 8500. Occasionally, this can cause a conflict with installed software, such as Windows services and other 3rd party applications that also use port 80 for communication. Examples are Apache and Skype.

If you encounter a port conflict, which is indicated by messages such as **Access Denied** or **An error occurred while attempting to explore…** when you are trying to view saved files, select the Explore Settings tab from the **Options** dialog and type in the number of an available Windows port to override the default port. Click **OK** to accept the change. The ArchiveIQ/ViewStor service used by the GoVault data protection software will be restarted and the change will take effect (see figure 7).

Figure 7 Options
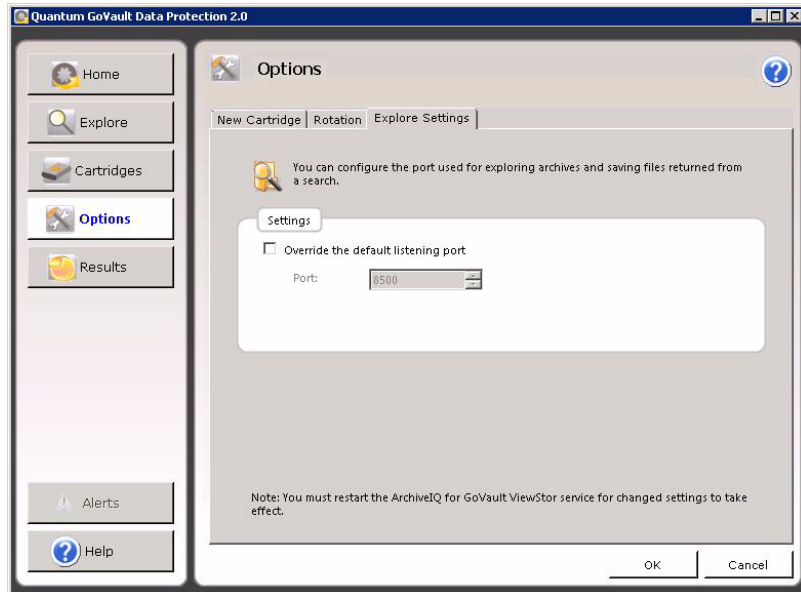
Note: On Windows XP and 2003, changing the port from 80 to another number will allow you to use the search function to find and restore particular files, but you will not be able to browse for files using the Explorer interface. It is recommended that you instead change the listening port on the conflicting application or temporarily disable it rather than changing the GoVault data protection software port number.