EPDM: Backup/Restore

TITLE:	Backing up and Restoring File Vaults
DATE:	December 26, 2013
SUBJECT:	Enterprise Backup and Restore Procedures
ABSTRACT:	Guide on how to backup and restore a file vault in EPDM

File vault backups should be part of the daily management of SolidWorks Enterprise PDM. They are highly recommended before you upgrade your Enterprise PDM components.

You can use the SQL Maintenance Wizard to schedule a planned backup.

When backing up the vault, the latest updates in files that are still checked out and modified on client workstations are not included since they are stored in the local file vault view (cache) of the client. To ensure that the latest information of all files is always included in a backup, the files should be checked in.

Contents

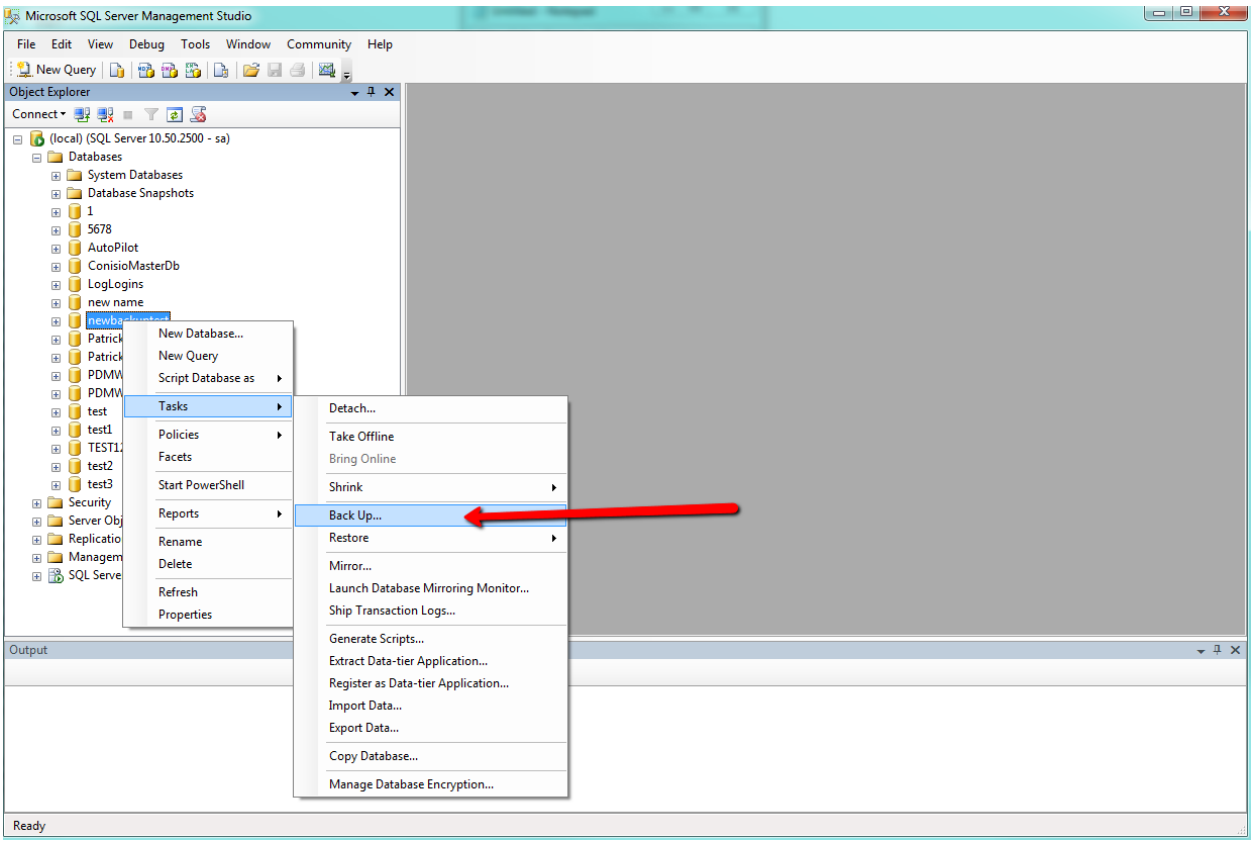
Backing Up the File Vault Database

Back up the file vault database hosted on the SQL Server using professional backup software such as Veritas Backup Exec with SQL agent. You can also perform the backup using the SQL Management tools that are included with the SQL Server.

1. Open SQL Server Management Studio.

2. Expand the **Databases** folder.

3. Right-click the database to be backed up, and select **Tasks** > **Back Up**.



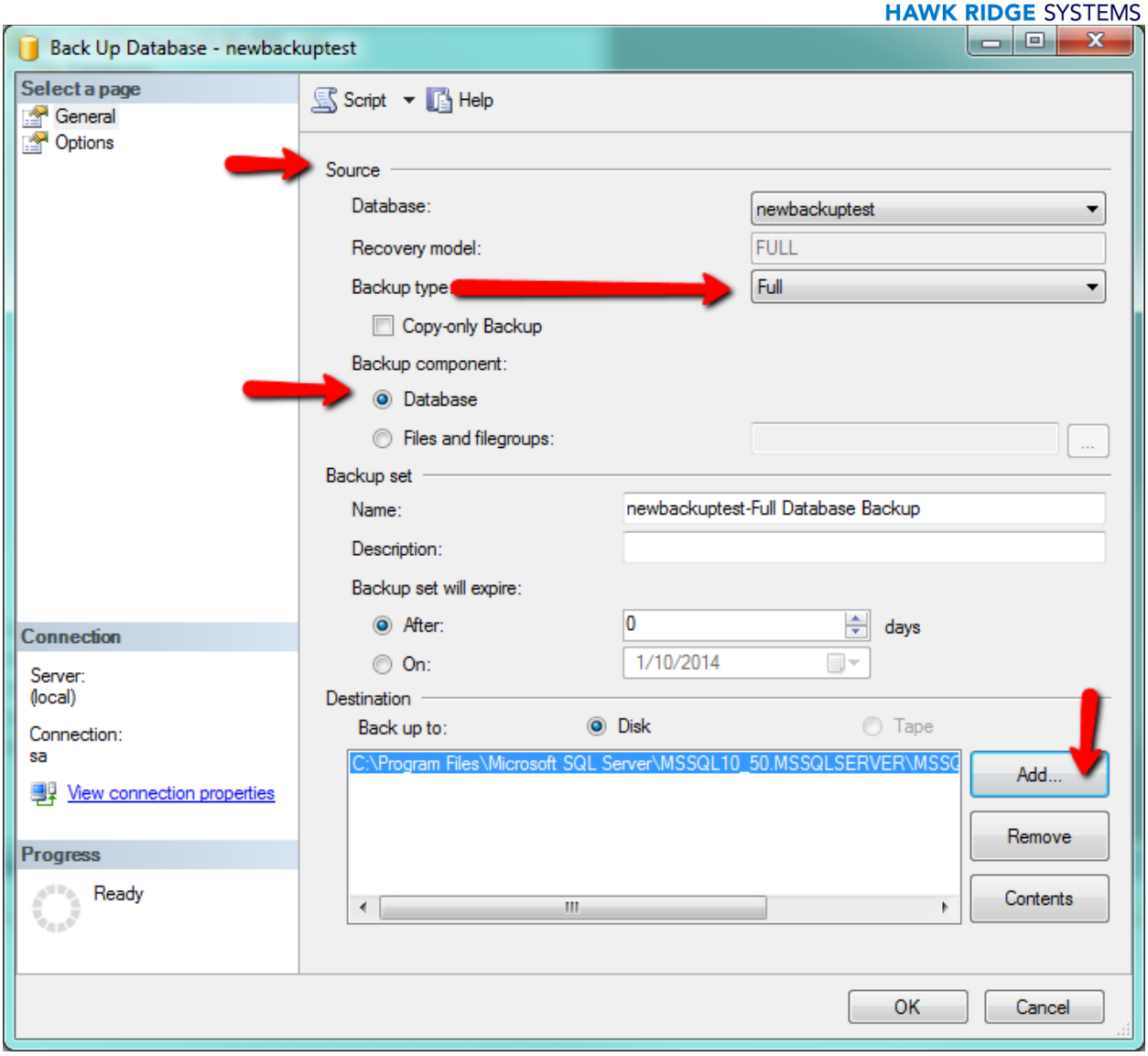
4. In the Back Up Databases dialog box, under **Source**:

    a) For **Backup type**, select **Full**.

    b) For **Backup component**, select **Database**.

5. Under **Destination**, click **Add**.

6. In the Select Backup Destination dialog box, enter a destination path and filename for the backed up database and click **OK**.



7. Click **OK** to start the backup.

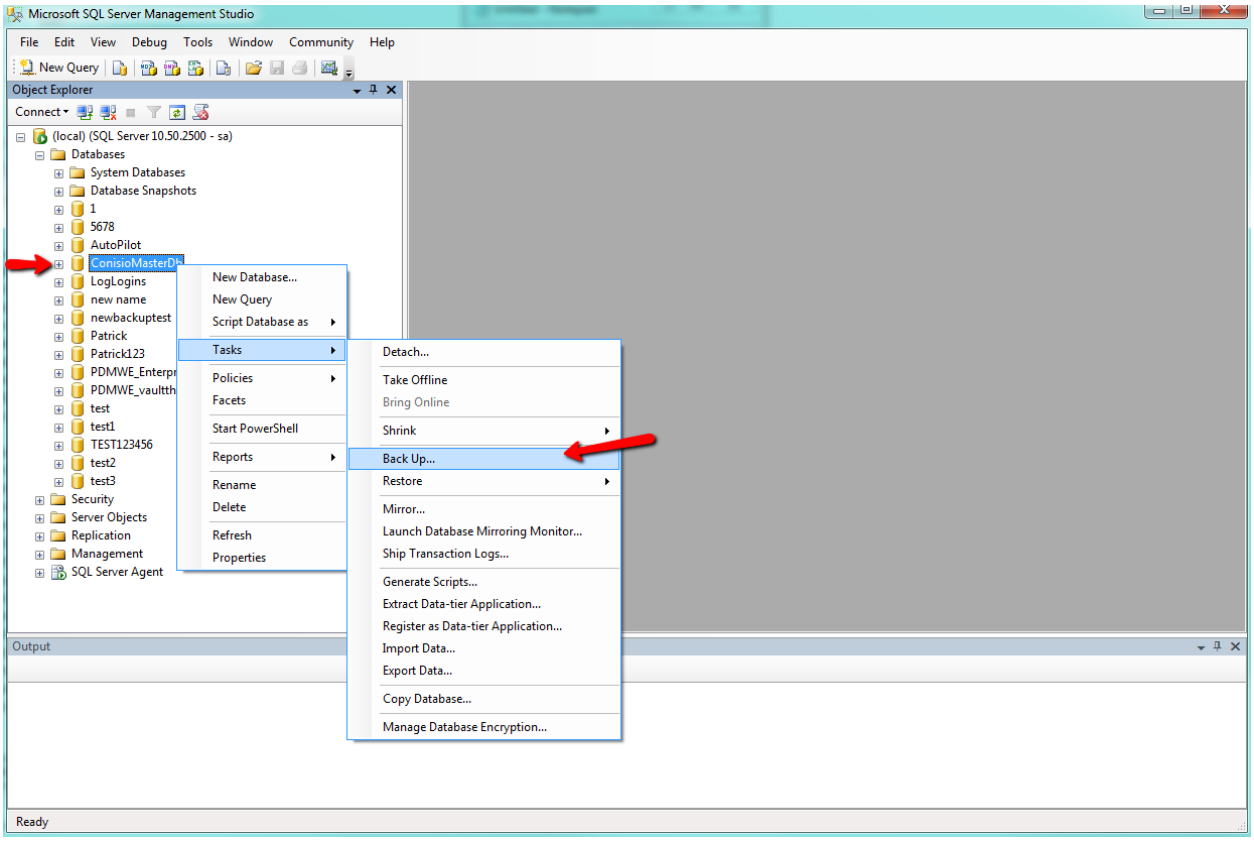
8. When the backup completes, click **OK**.

9. Repeat the backup procedure for any additional file vault databases.

10. Exit SQL Server Management Studio.

Backing Up the Enterprise PDM Master Database

In addition to the file vault database(s), the Enterprise PDM master database called **ConisioMasterDb** must be backed up.



To back up this database, follow the same instructions used for backing up the file vault database.

Backing Up the Archive Server Settings

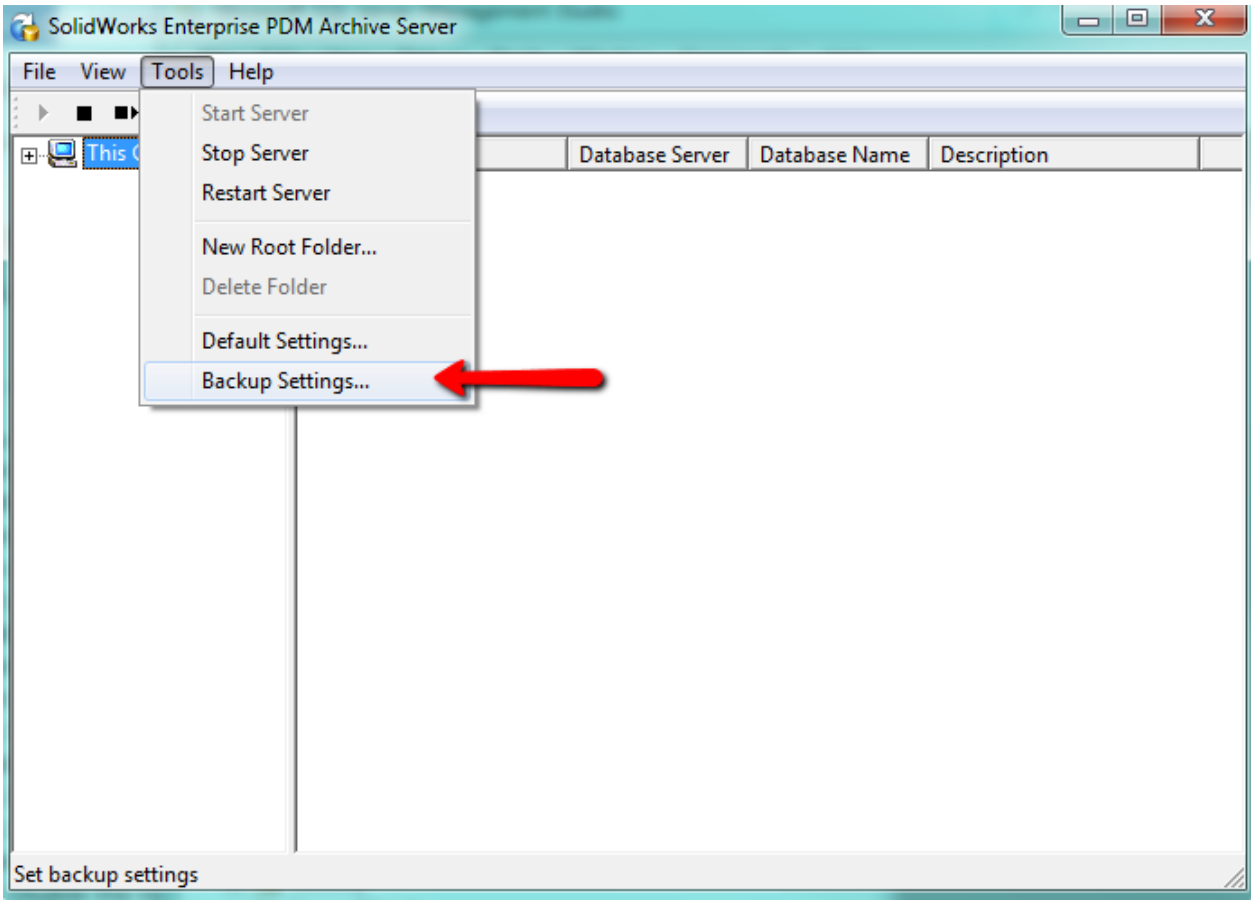
The archive server contains file vault settings such as passwords and defined login types. It is also the physical location of the Enterprise PDM vault archive files. Backing up the archive server settings does not back up the archive files.

After backing up the archive server settings, include the backup file in your normal file backup.

To backup the archive server settings:

1. On the archive server, open the SolidWorks Enterprise PDM Archive Server dialog box by doing one of the following:

    • On Windows 7 and Windows Server systems prior to Windows Server 2012, from the Windows **Start** menu, select **All Programs** > **SolidWorks Enterprise PDM** > **Archive Server Configuration**.



    • On Windows 8 and Windows Server 2012 or later, on the **Apps** screen, under **SolidWorks Enterprise PDM**, click **Archive Server Configuration**.

2. Select **Tools** > **Backup settings**.

3. In the Backup Settings dialog box:

a) Select **Include all vaults**. (preferred setting)

Alternatively, you can select **Include selected vaults** and specify the file vaults for which settings will be backed up.

b) Specify or select the **Backup location**.

The default location is the archive root folder.

c) To schedule an automatic backup, click **Schedule** and specify the schedule.

d) Type and confirm a password for the backup file.

This password is required to restore settings.

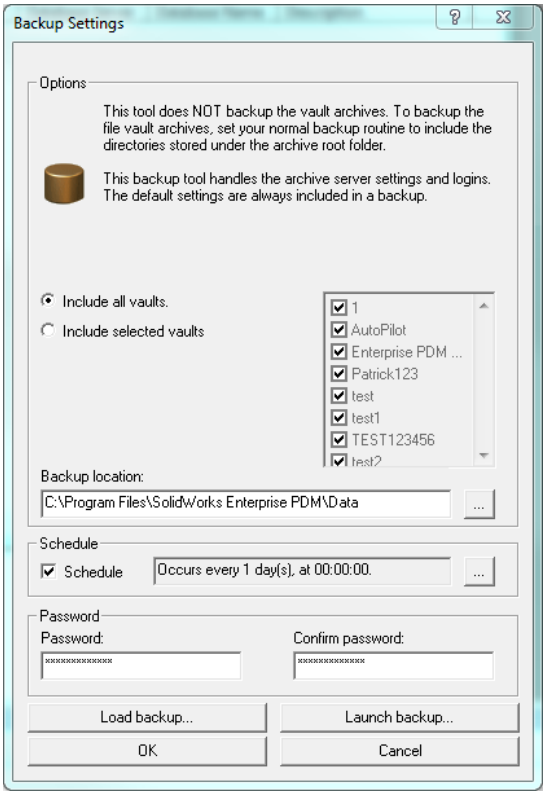
e) Do one of the following:

• To perform the backup immediately, click **Launch backup**. When a message confirms the backup, click **OK**.

• To perform the backup at the scheduled time, click **OK**.

4. Close the SolidWorks Enterprise PDM Archive Server dialog box.

The backup file is saved in the specified location and called Backup.dat.



Backing Up the Archive Files

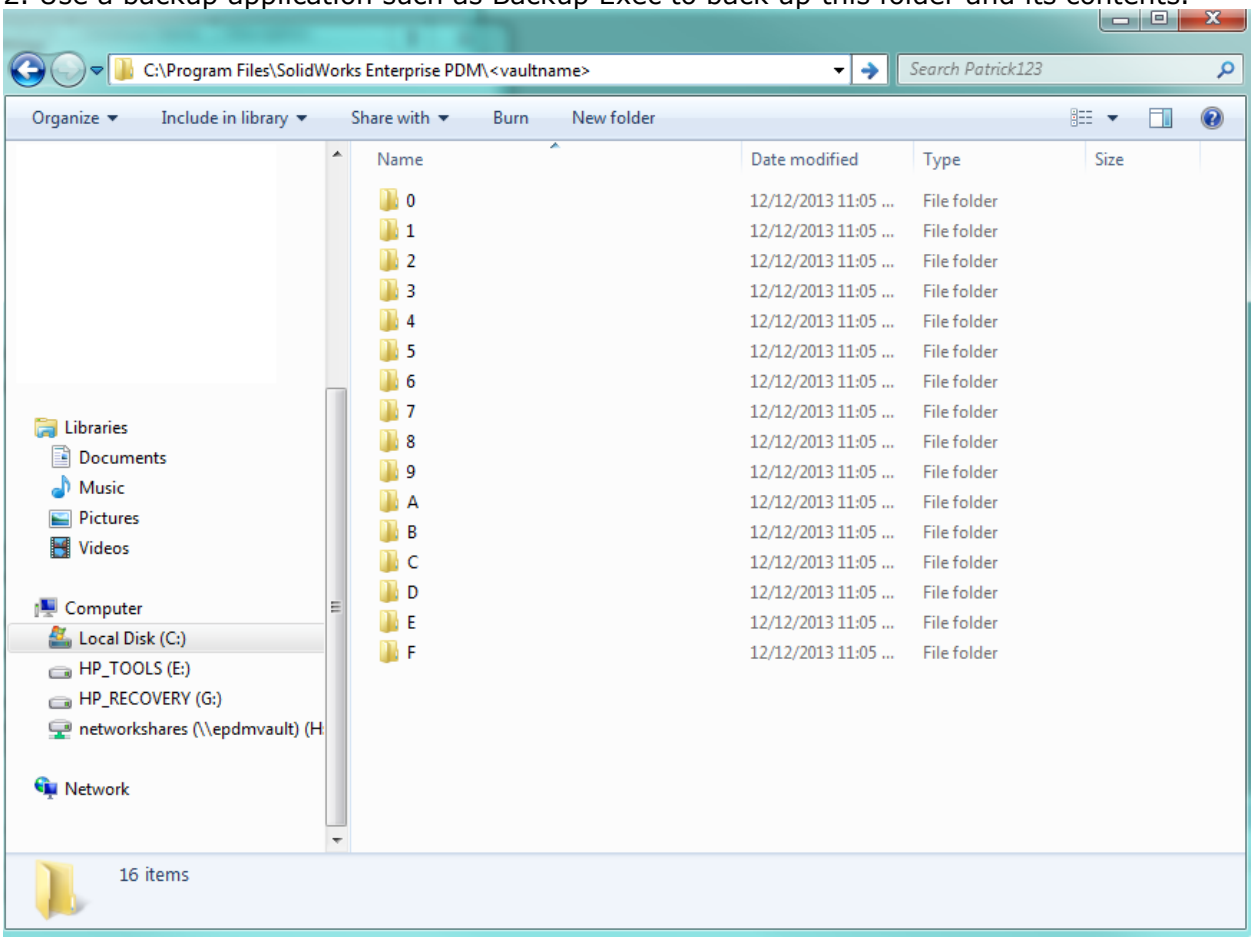
The file vault archives contain the physical files that are stored in a file vault. A file added to the vault is stored in the archive folder specified by the archive server.

1. Locate the archive folder with the same name as the file vault.

This folder is stored under the defined root folder path on the archive server. If you are uncertain where the file vault archives are stored, view the registry key

HKEY_LOCAL_MACHINE\SOFTWARE\SolidWorks\Applications\PDMWorks Enterprise\ArchiveServer\Vaults*vaultname*\ArchiveTable.

2. Use a backup application such as Backup Exec to back up this folder and its contents.



Scheduling Database Backups Using a Maintenance Plan

To set up a recurring automatic backup of the file vault SQL databases, you can use the SQL Server Management Studio maintenance plans.

A maintenance plan lets you create complete backups of the databases, which you can include in your normal file backup routine.

Before scheduling database backups:

- The SSIS (Integration Services) must be installed on the SQL Server. The Integration

  Services are normally included as part of the Workstation Components step in the SQL Server install wizard.

  For more information, see: **http://support.microsoft.com/kb/913967**

- The SQL Server Agent must be running.

  Install SQL Server 2005 SP2 or higher if you have trouble setting up or using the maintenance plans.

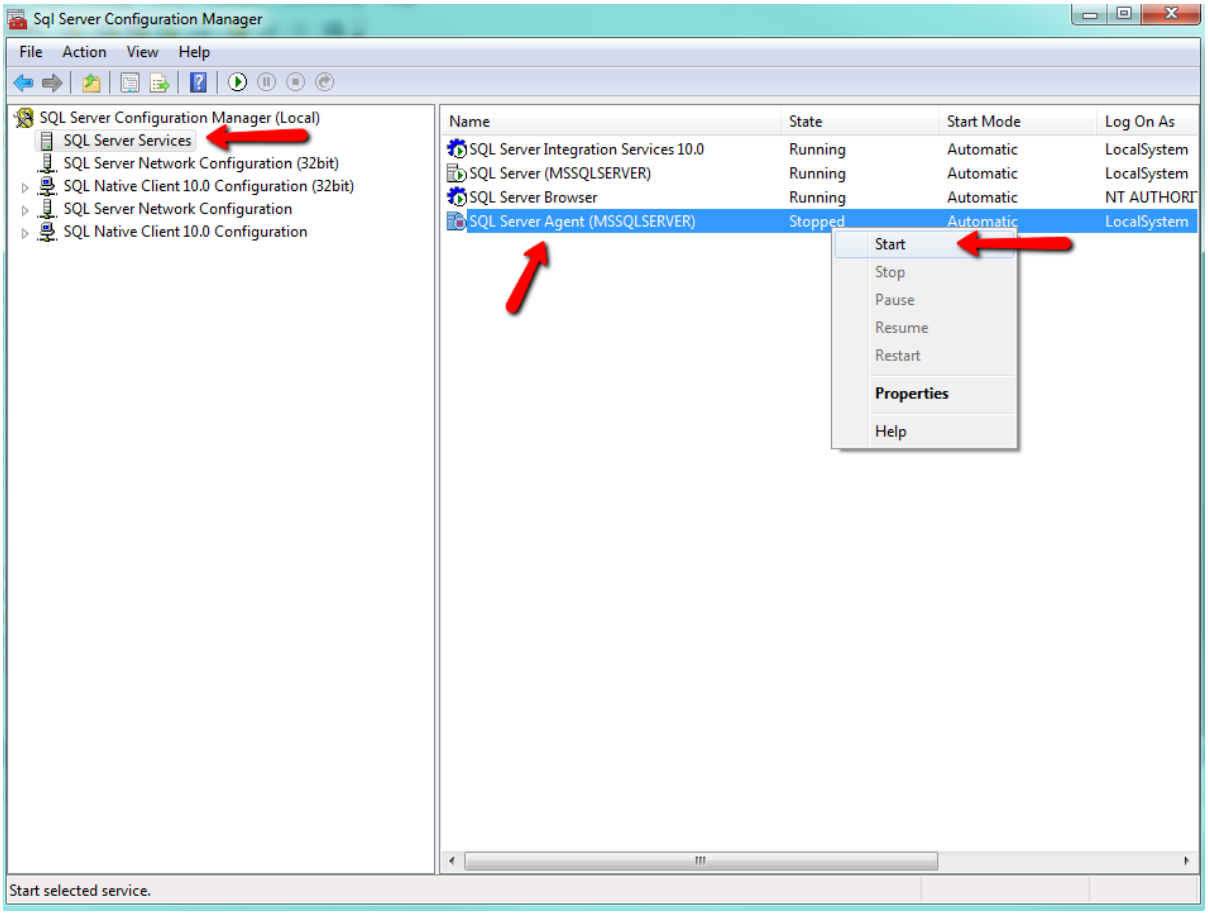
Starting the SQL Server Agent

If the SQL Server Agent is not running, you could see a message that the 'Agent XPs' component is turned off as part of the security configuration of your computer.

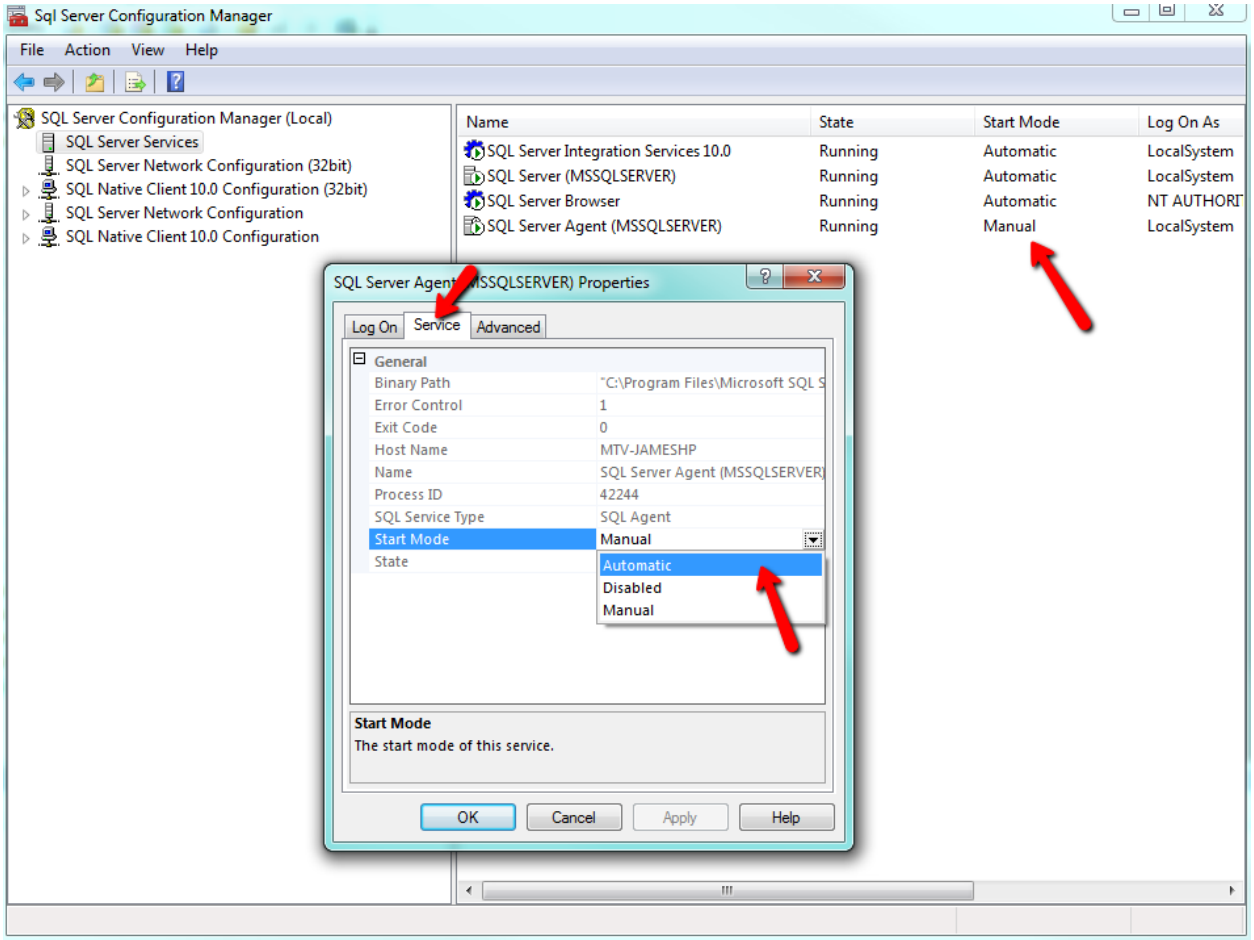
1. Open the SQL Server Configuration Manager.

2. In the left pane, select **SQL Server Services**.

3. If the state of SQL Server Agent is **Stopped**, right-click it and select **Start**.



Ensure that the **Start Mode** of the agent is set to **Automatic**. If it is not, right-click the agent and select **Properties**, then configure the **Start Mode** on the Services tab.



4. Exit the SQL Server Configuration Manager.

Setting Up a Maintenance Plan for Database Backup

The easiest way to set up a backup maintenance plan is using the SQL Maintenance wizard.

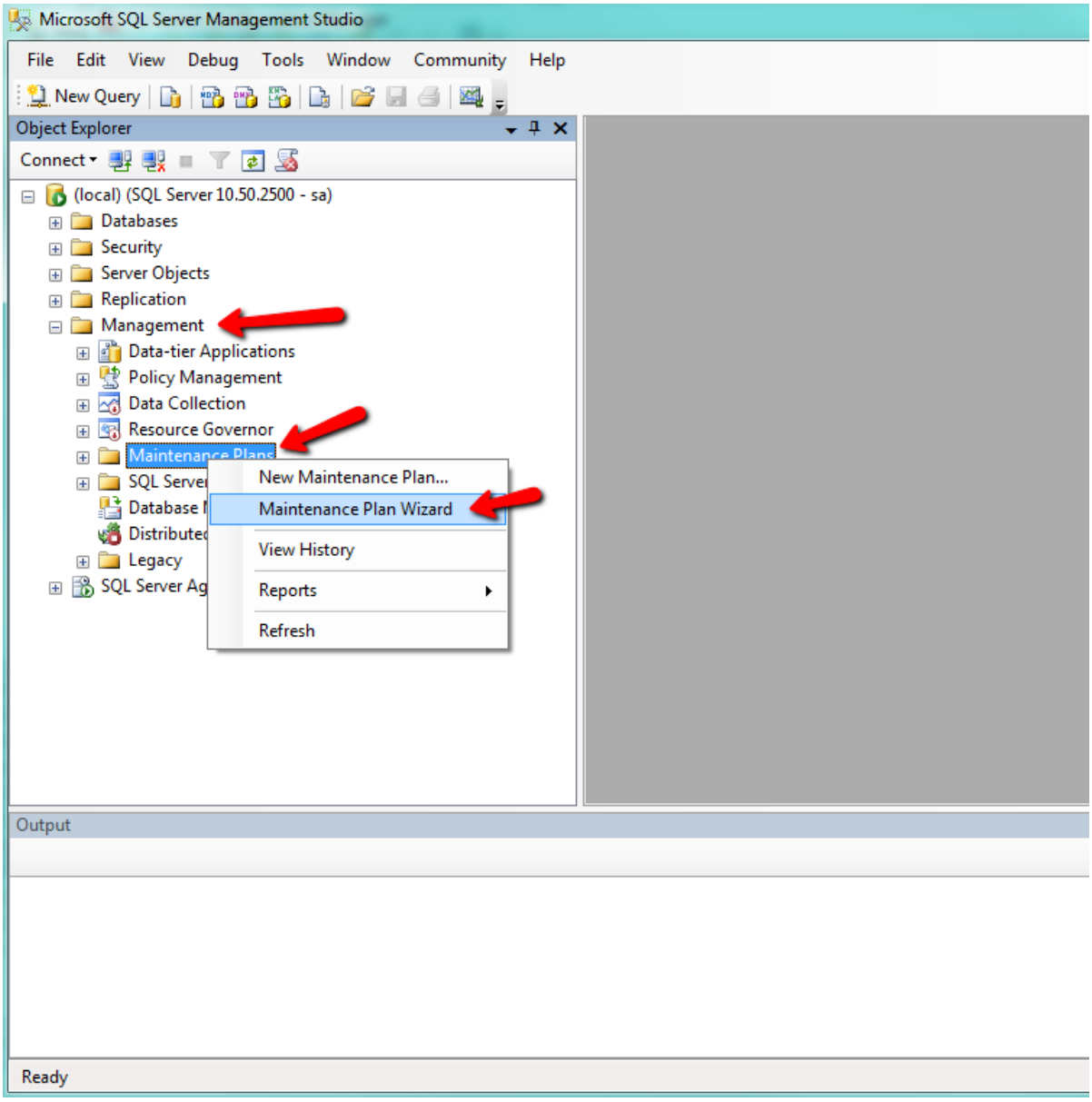
When the backup maintenance plan is run, the file vault databases are backed up and placed in a folder you specify. Include the backup folder in your normal daily backup procedure.

To set up a backup maintenance plan:

1. Open Microsoft SQL Server Management Studio and click **Connect**.

2. In the left pane, under the SQL Server, expand **Management**.

3. Right-click **Maintenance Plans** and select **Maintenance Plan Wizard**.

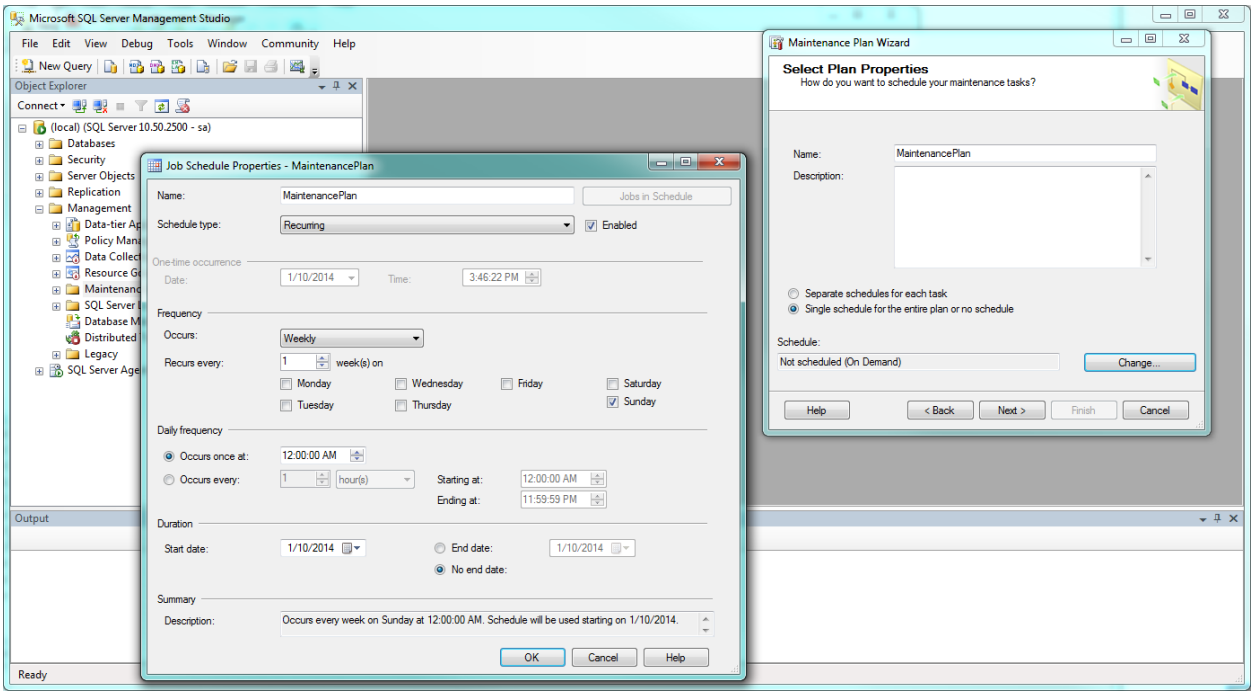


Select Plan Properties

1. Enter a name and description for the maintenance plan.

2. Click **Change** to set up a schedule.

In the Job Schedule Properties dialog box, specify a name for the schedule and choose the recurring times to run the database backups. Set the times close to the start time of the normal daily file backups. The backup of a database to a hard drive usually completes within minutes.

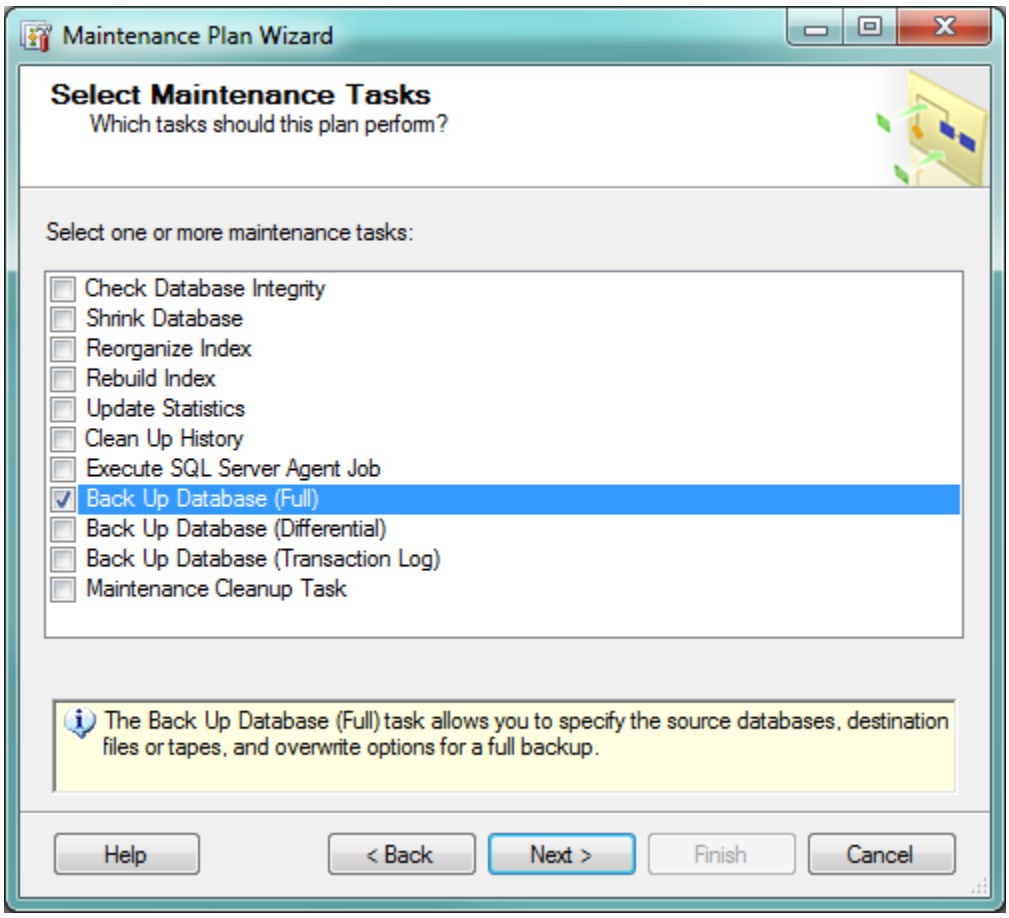


3. Click **OK**.

4. Click **Next**.

Select Maintenance Tasks

1. Select **Back Up Database (Full)**.



If you rely on daily backups, you can select **Back Up Database (Differential)** as well. You should create at least one full backup set each week.

2. Click **Next**.

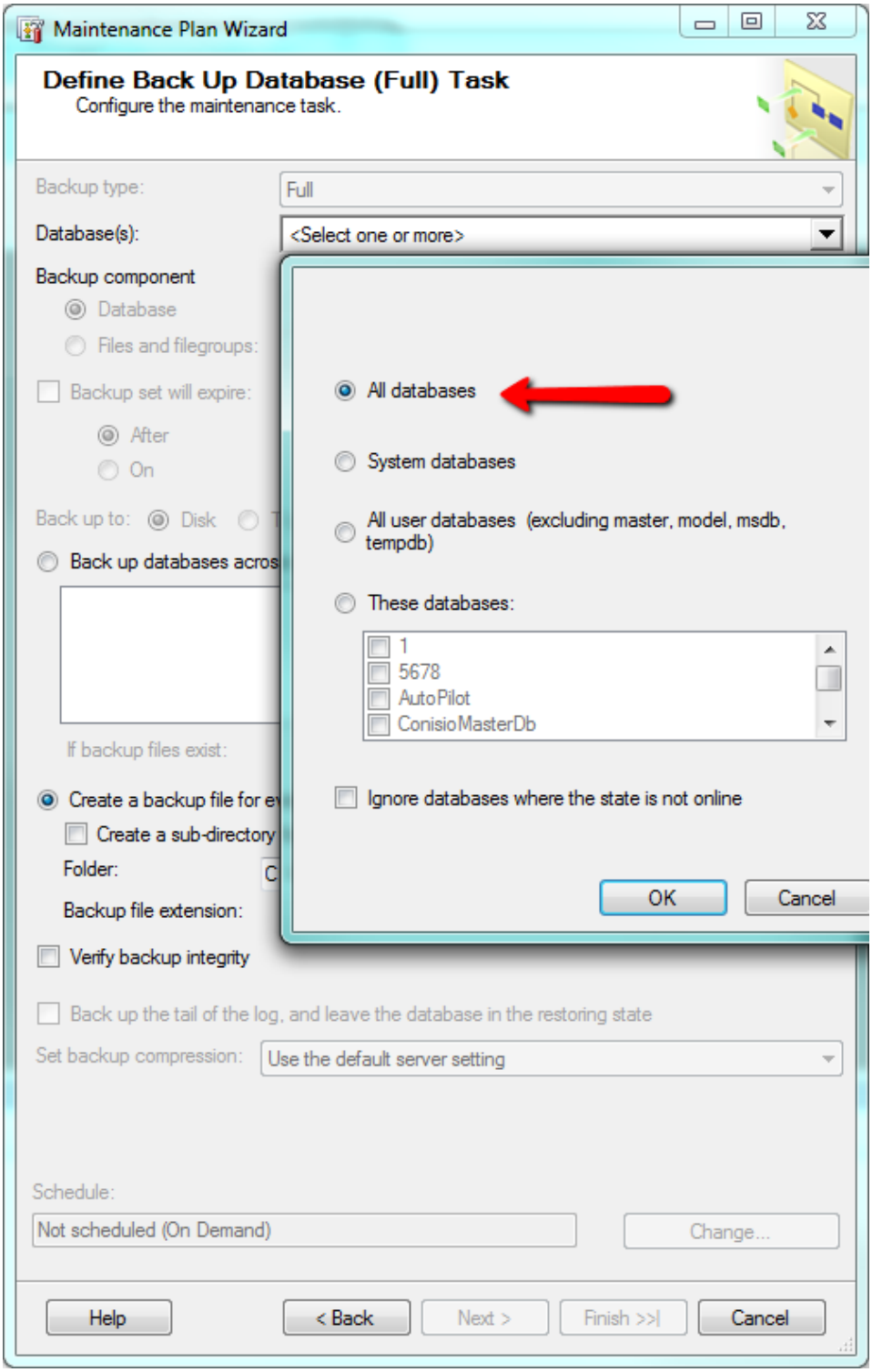
Select Maintenance Task Order

1. Ensure that the backup task is listed.

2. Click **Next**.

Define Back Up Database (Full) Task

1. Expand the **Databases** list.
2. Select **All user databases**.



This selects all Enterprise PDM databases and excludes the SQL system databases, which are not required by Enterprise PDM. To select databases individually, select **These databases** and make your selections. Be sure to select the file vault database(s) and the **ConisioMasterDb** database.

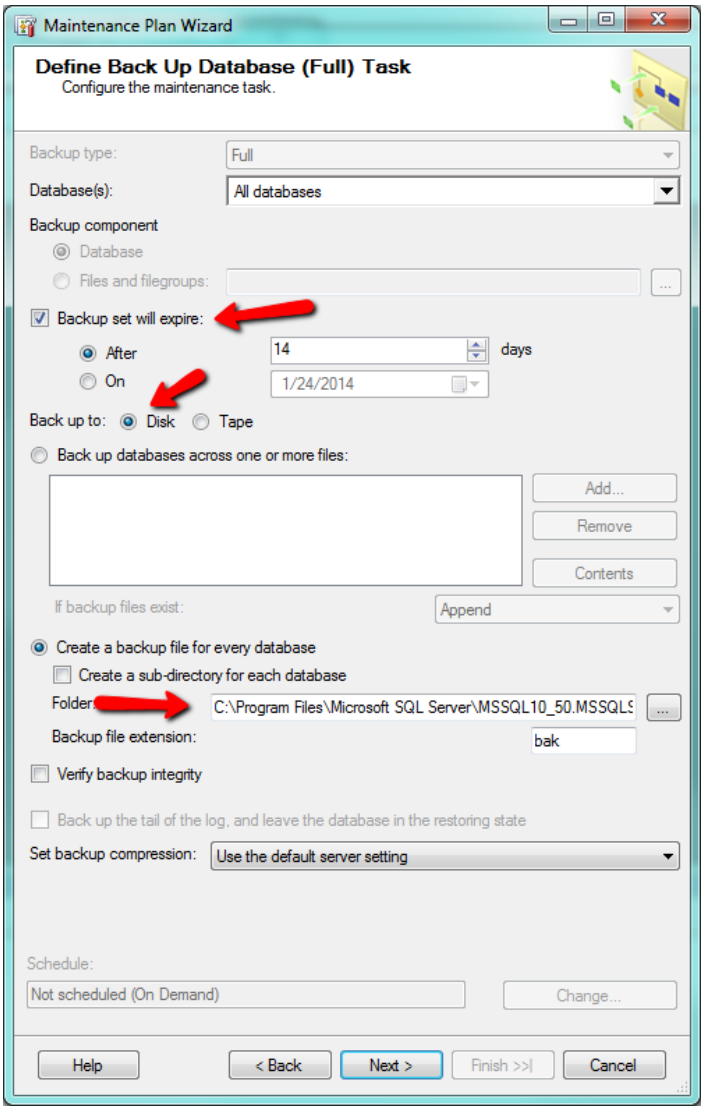
3. Click **OK**.

4. Select **Backup set will expire** and define how many days the existing backup set files should be kept.

5. Select **Back up to Disk**.

6. Select **Create a backup file for every database**.

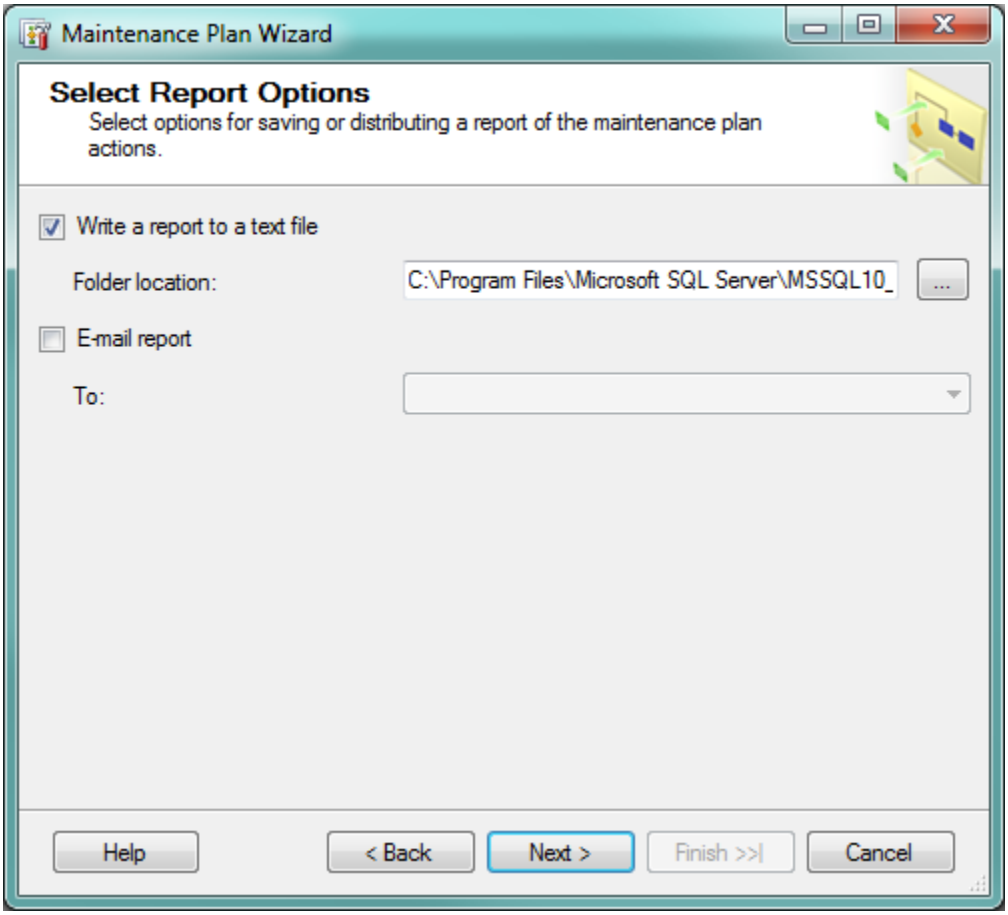
7. For **Folder**, enter a local path on the SQL Server to an existing folder where the backup files should be created.



8. Click **Next**.

Select Report Options

1. For backup task report, select **Write a report to a text file** or **E-mail report**, and specify where it should be saved or sent.



2. Click **Next**.

Complete the Wizard

Click **Finish**.

Maintenance Plan Wizard Progress

When all tasks have been completed, click **Close**.

4. Exit Microsoft SQL Server Management Studio.

Restoring a File Vault

Restoring a file vault requires recent backups of the file vault databases, ConisioMasterDb database, archive server configuration settings, and file vault archive files.

Restoring the SQL Server File Vault Databases

1. Install the SQL Server:

    a) Configure the SQL login type to mixed mode.

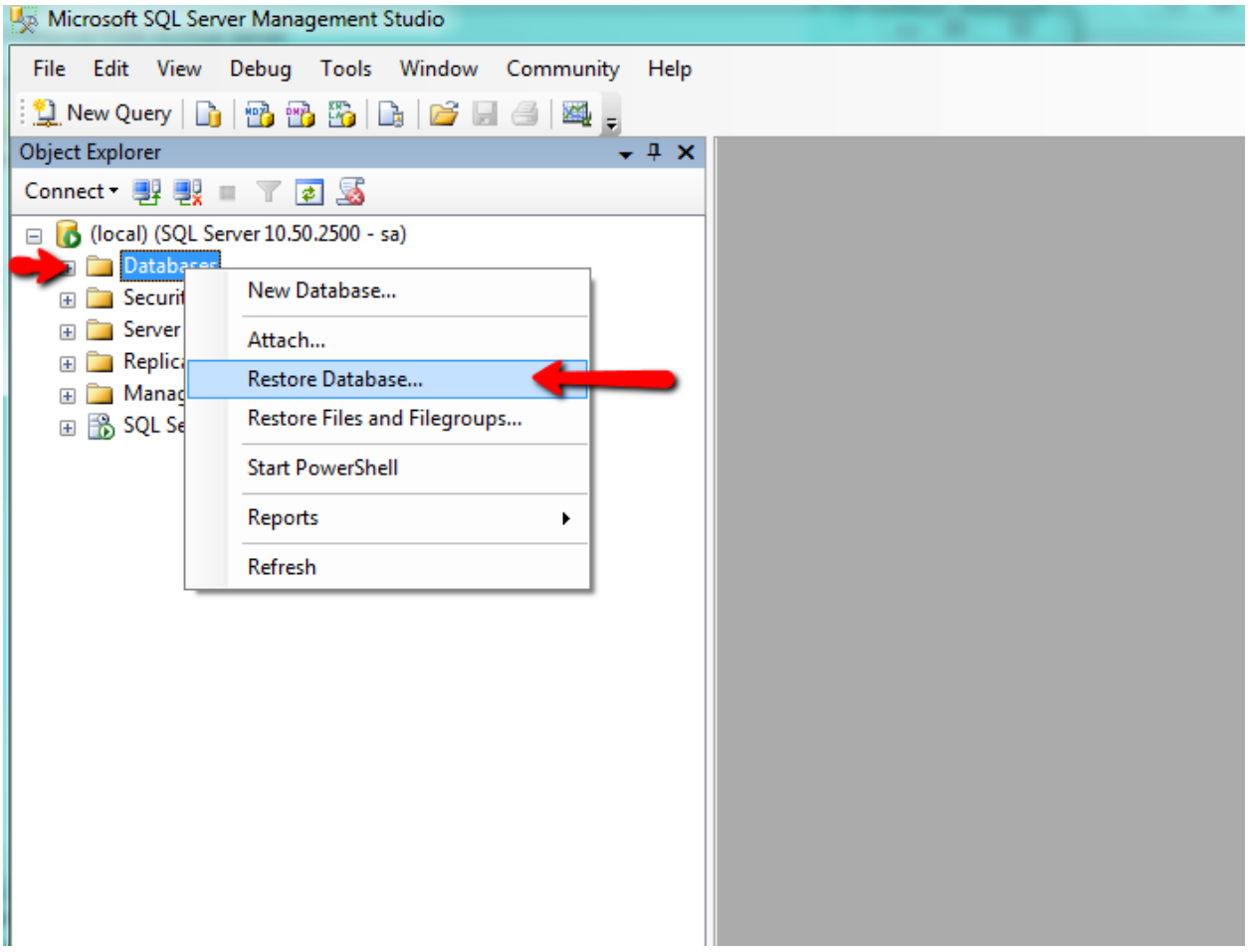
    b) Select to install the management tools.

2. Apply the latest SQL service pack.

3. Restore the SQL database backup files to a temporary folder on the SQL Server.

4. Open Microsoft SQL Server Management Studio and click **Connect**.

5. In the left pane, right-click **Databases** and select **Restore Database**.

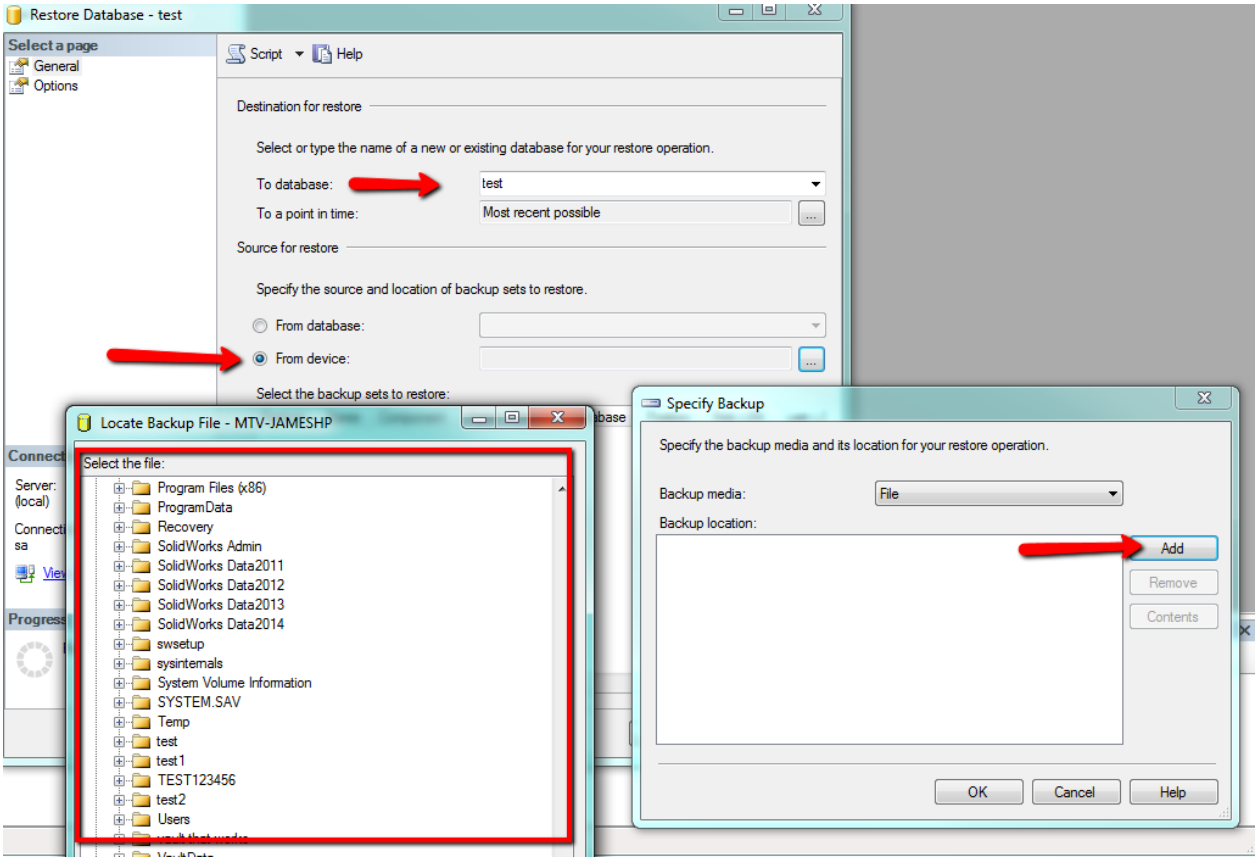


6. In the Restore Database dialog box, in the **To database** field, enter the name of the file vault database exactly as it was named when backed up.

7. Under **Source for restore**, select **From device** and click the **Browse** button.

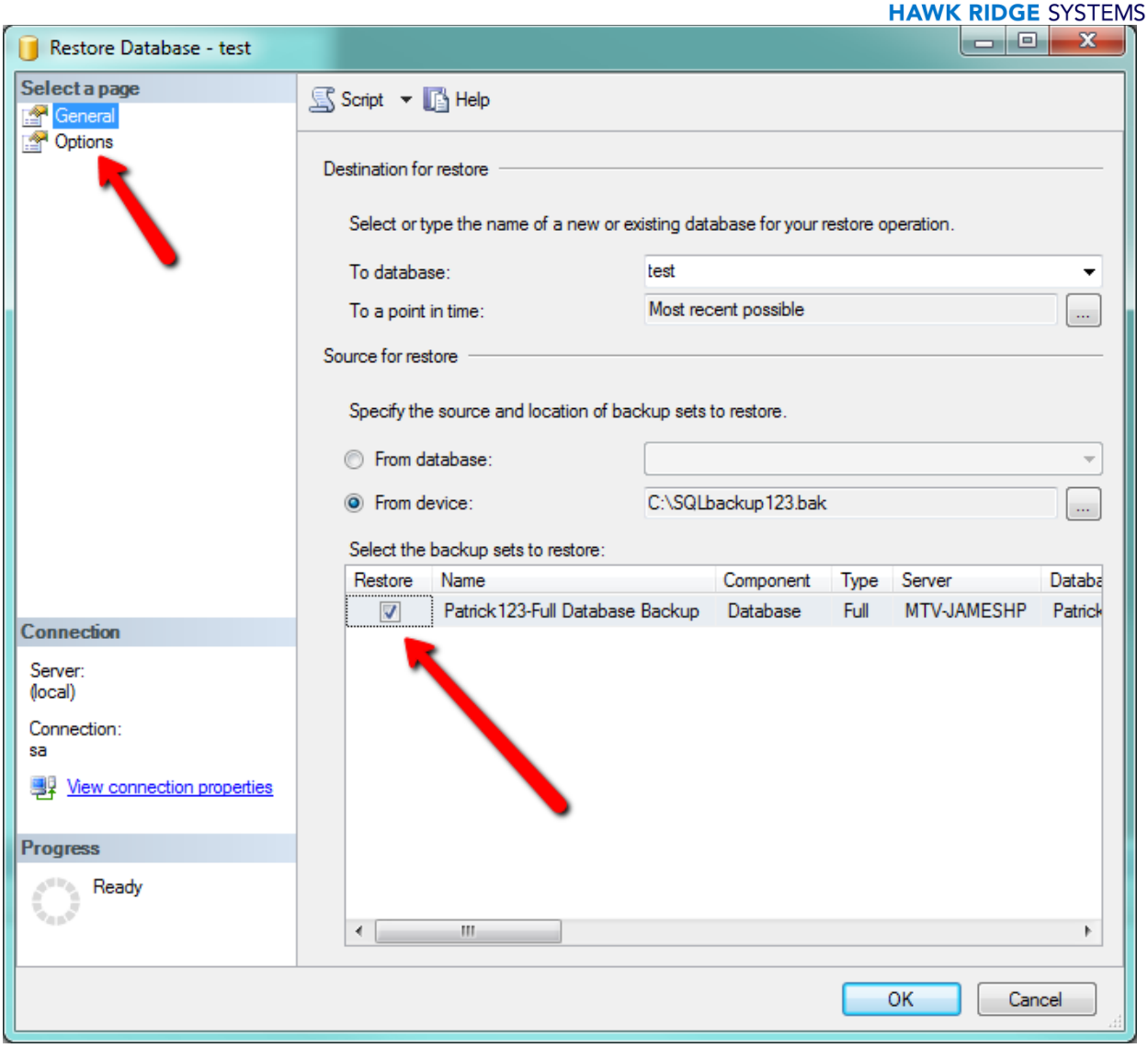
8. In the Specify Backup dialog box, click **Add**.

9. In the Locate Backup File dialog box, select the database backup file and click **OK** twice to return to the Restore Database dialog box.



10. Under **Select the backup sets to restore**, click **Restore** for the database to restore.

11. In the left pane, select **Options**.



12. In the right pane, verify that the paths to the database files are correct. SQL defaults to the paths used when backing up the database.

13. Click **OK** to start the restore.

14. Repeat this procedure for additional file vault databases, including the

ConisioMasterDb database.

15. Exit Microsoft SQL Server Management Studio.

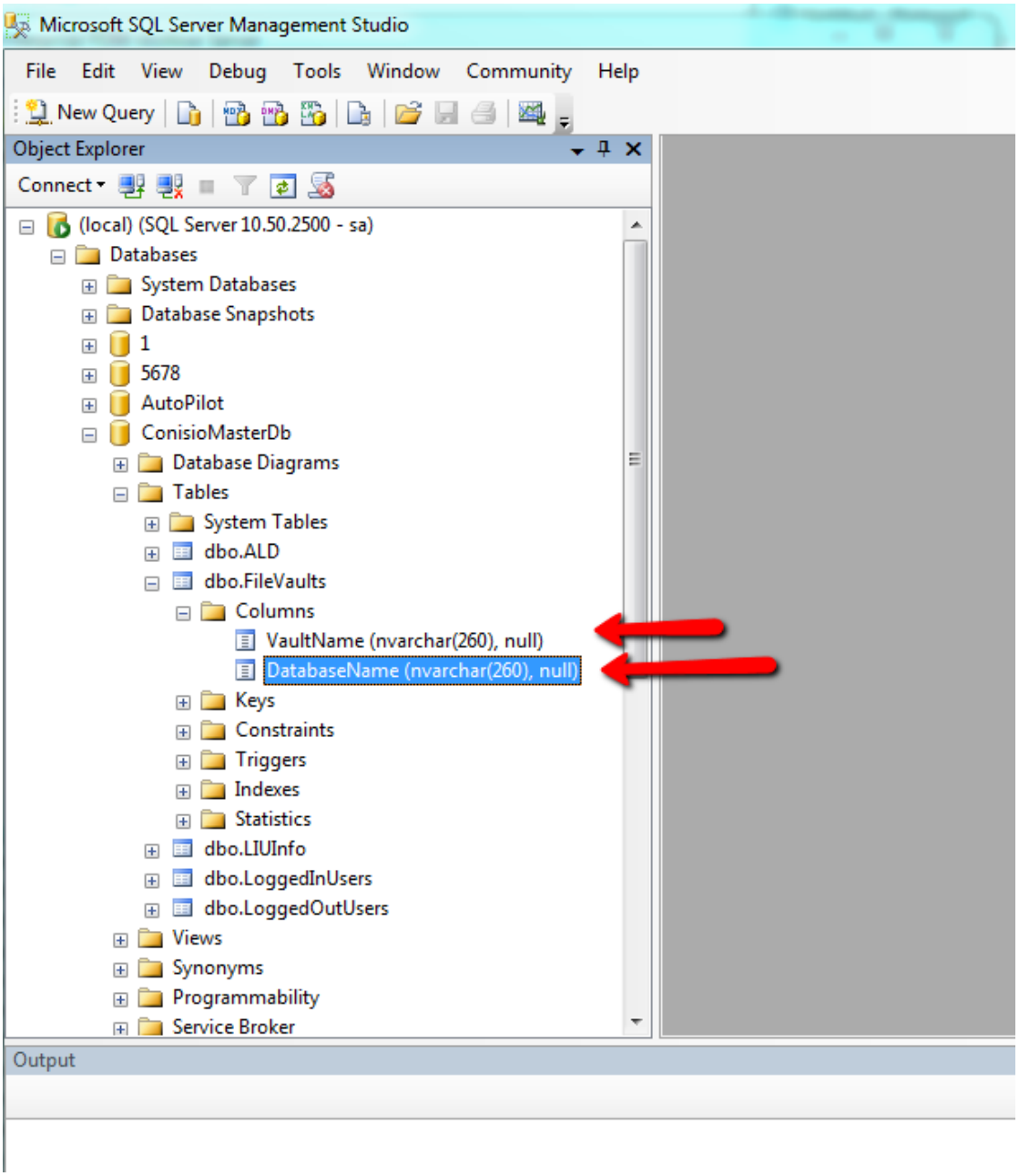
Verifying the ConisioMasterDb Restore

After you restore the **ConisioMasterDb** database, ensure that information in the **VaultName** and **DatabaseName** columns of the **FileVaults** table is correct. If either entry is missing, notifications cannot be processed.

1. Open Microsoft SQL Server Management Studio and click **Connect**.

2. Expand **Databases** > **ConisioMasterDb** > **Tables** > **dbo.FileVaults**.

3. Click **Columns**, and verify the **VaultName** and **DatabaseName**.



4. Exit Microsoft SQL Server Management Studio.

Restoring the Archive Server and File Vault Archives

Use this procedure to restore the archive server setting to the previous settings, including all login settings and user information.

1. On the new archive server, restore the physical vault archives from the backup (folders 0-F) to the same location as before the backup.

2. Install the archive server.

   Use the settings you used in the original install. If unsure, use the default options. Define the root folder path as you defined it originally.

3. Restore the archive server configuration settings backup file Backup.dat to the archive root folder.

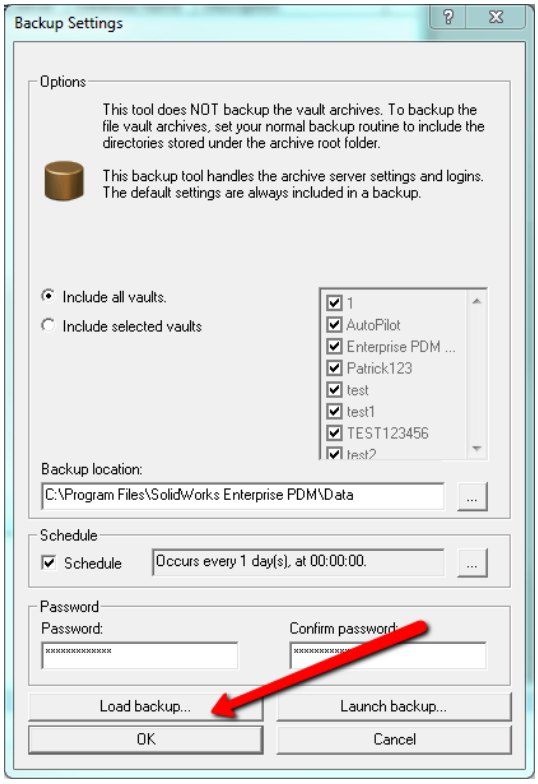
4. Open the SolidWorks Enterprise PDM Archive Server dialog box by doing one of the following:

   • On Windows 7 and Windows Server systems prior to Windows Server 2012, from the Windows **Start** menu, select **All Programs** > **SolidWorks Enterprise PDM** > **Archive Server Configuration**.

   • On Windows 8 and Windows Server 2012 or later, on the **Apps** screen, under **SolidWorks Enterprise PDM**, click **Archive Server Configuration**.

5. Select **Tools** > **Backup settings**.

6. In the Backup Settings dialog box, click **Load Backup**.



7. Locate the archive server settings backup file Backup.dat and click **Open**.

8. In the Enter Password dialog box, type the backup file password.

9. When the settings are restored, click **OK**.

10. Close the SolidWorks Enterprise PDM Archive Server dialog box.

Reference:

2014 SolidWorks Enterprise PDM Installation guide pp 88-94