

Lab 1 – TFS Backup and Restore

Overview

During this lab, you will use the new TFS Backup Plan power tool which first appeared in the TFS 2010 Power Tools in September 2010. You will install the Power Tools, create a TFS Backup plan and execute a full backup of your TFS Server. Optionally, you can then delete your TFS databases and restore them from the backups.

System Requirements

In order to complete this lab you will need the Visual Studio 2010 RTM virtual machine that is publically available for you to download from the Microsoft website.

Exercises

This Hands-On Lab comprises the following exercises:

1. Installing the TFS 2010 Power Tools
 2. Creating a TFS Backup Plan
 3. Trigger Backup and Verify
 4. Restoring from backup
 5. Check TFS is restored
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Estimated time to complete this lab: **30-35 minutes**.

Exercise 1: Installing the Power Tools

Before you begin

You will need to check to see if you already have the September 2010 release of the TFS 2010 Power Tools installed on your system. If you already have it installed, you can skip to exercise 2.

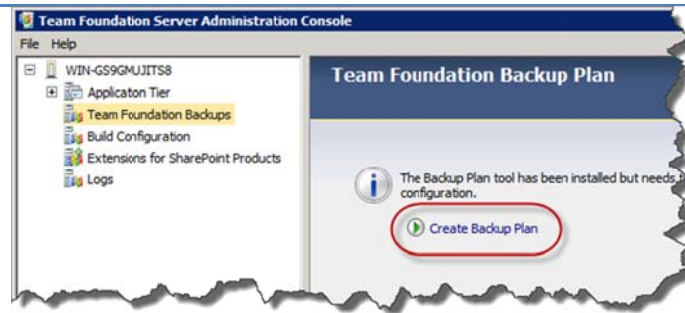
If you need to install the Power Tools, and your trainer does not have the install file available locally, you can download the file from the Visual Studio Gallery at <http://tinyurl.com/2ufvfwf>

Task	Detailed Steps
Logging onto the lab virtual machine	<ol style="list-style-type: none"> 1. Start the lab Virtual Machine if it is not already started 2. Log in as Administrator if you have not already done so. The password is P2ssw0rd
Install the Power Tools	<ol style="list-style-type: none"> 1. Install the Power Tools by double-clicking the TFPT.MSI file. 2. If the “Open File – Security Warning” dialog is displayed, click Run 3. On the Welcome screen, click Next 4. Click “I accept the terms in the license agreement” and click Next 5. On the Setup Type page, click Custom and click Next 6. For the purpose of this exercise, the only required Power tool is the “TFS Backup Plan”. <div data-bbox="593 1072 1169 1379" data-label="Image"> </div> <p>To allow you to explore the other Power Tools, leave the other Power Tools selected as shown above and click Next.</p> 7. Click Install <i>Allow approximately 5 minutes for the installation</i> 8. On the Setup Completed Successfully page, click Finish

Exercise 2: Creating a TFS Backup Plan

In this exercise you will create a full nightly backup to backup all TFS databases as well as the SharePoint and SQL Reporting Services databases. You will also accept the default schedule which will execute your backup every morning at 2am.

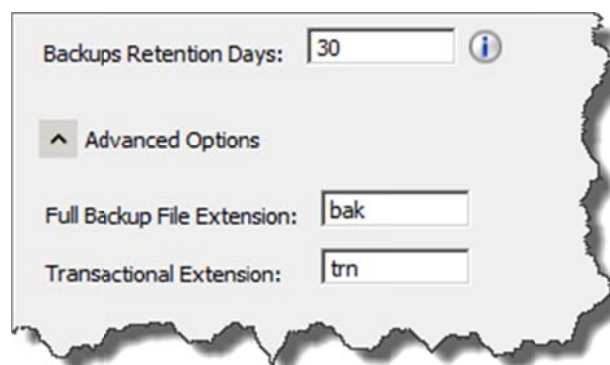
Task	Detailed Steps
Lab Prerequisite - Create Shared Folder	<ol style="list-style-type: none"> 1. Create a new folder on the C: drive in your virtual machine named "TFS2010_Backups" 2. Shared the folder as "TFS2010_Backups" 3. Ensure the NT AUTHORITY\LOCAL SERVICE account have Full Control in both the Share Permissions and the NTFS permissions for the folder.
VHD ISSUE WORKAROUND	<p>If you are using the publically downloadable VHD from Microsoft, you will need to complete the following steps to work around a configuration issue with the virtual machine.</p> <ol style="list-style-type: none"> 1. Start Reporting Services Configuration Manager Start All Programs Microsoft SQL Server 2008 Configuration Tools Reporting Services Configuration Manager 2. Enter the following details then click Connect Server name: WIN-GS9GMUJITS8 Report Server Instance: MSSQLSERVER 3. Click Report Manager URL 4. Click Apply 5. Click Exit
Creating a nightly full backup plan	<ol style="list-style-type: none"> 1. Start the TFS Administration Console Start All Programs Microsoft Team Foundation Server 2010 Team Foundation Administration Console 2. Select the Team Foundation Backups node in the left panel 3. Click Create Backup Plan in the main content panel. NOTE – It might take a few moments to start the wizard after you click this.



The Backup Plan Wizard starts

4. Click **Next**
5. In the **Provide Backup Plan Initial Configuration Settings** screen, enter the **Network Backup Path**. This should be a UNC path where the backup files should be placed.
For this lab, enter the following path
\\WIN-GS9GMUJITS8\TFS2010_Backups

You can also specify how long the backups should be kept for. The default is 30 days and you can set a value between 30 and 999 days.
6. Click **Advanced Options**. Notice you can specify the files extensions for the backup files.

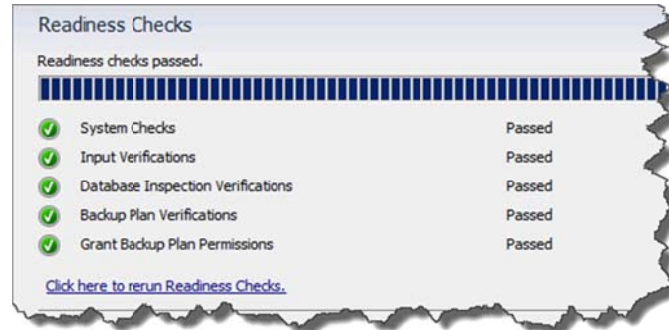


7. Click **Next**
8. On the **Select External Databases** page, accept the default values to backup both the Reporting databases and the SharePoint databases in this plan. Click **Next**
9. On the **Provide Task Scheduler Account Information** page, accept the **NT AUTHORITY\LOCAL SERVICE** system account and click **Next**
10. If email has been configured on your TFS Server, you can provide an email address to send backup failure notifications to. If email has not been configured, choose **No email alerts**. Click **Next**
11. Accept the default **Nightly Full Schedule**. This will schedule a full backup at 2am every morning. You may wish to click **Advanced Schedules Options** to see what other options are available.

Click **Next**.

12. Review the settings and correct any values they are not correct.
Click **Next** to verify the settings.

13. Once the verification steps have completed and all 5 steps show
“Passed”, click on **Create Plan**.



14. The backup plan is then created and you should see four steps
shown as **Complete** when the plan has been created.

15. Click **Next**

16. Click **Close** to finish the wizard

Exercise 3: Trigger backup and verify

Now the TFS backup has been created, we will trigger the backup plan manually and confirm the backup files are created.

Task	Detailed Steps
<p>Trigger the backup and verify the results</p>	<ol style="list-style-type: none"> 1. Start the TFS Administration Console Start All Programs Microsoft Team Foundation Server 2010 Team Foundation Administration Console 2. Select the Team Foundation Backups node in the left panel 3. Click Take Full Backup Now in the main content panel. <div data-bbox="596 736 986 1025" data-label="Image"> </div> 4. Once the backup reports “Successful completion”, click Close <div data-bbox="596 1153 1222 1621" data-label="Image"> </div> 5. Using Windows Explorer, open the folder you created to store the backup files in. This should be C:\TFS2010_Backups <p>You should see a bunch of files with “bak” and “trn” extensions in the folder assuming you did not change these extension defaults when you created the TFS Backup Plan.</p>

Name ^	Date modified	Type
BackupSets	13/09/2010 2:07 AM	XML Document
ConfigPT	13/09/2010 2:04 AM	XML Document
ReportServer_20100913020436F.bak	13/09/2010 2:06 AM	BAK File
ReportServer_20100913020702L.trn	13/09/2010 2:07 AM	TRN File
ReportServerTempDb_20100913020436F.bak	13/09/2010 2:06 AM	BAK File
ReportServerTempDb_20100913020702L.trn	13/09/2010 2:07 AM	TRN File
Tfs_Configuration_20100912181710.bak	12/09/2010 6:17 PM	BAK File
Tfs_Configuration_20100913020436F.bak	13/09/2010 2:05 AM	BAK File
Tfs_Configuration_20100913020702L.trn	13/09/2010 2:07 AM	TRN File
Tfs_DefaultCollection_20100913020436F.bak	13/09/2010 2:06 AM	BAK File
Tfs_DefaultCollection_20100913020702L.trn	13/09/2010 2:07 AM	TRN File
Tfs_Warehouse_20100913020436F.bak	13/09/2010 2:06 AM	BAK File
Tfs_Warehouse_20100913020702L.trn	13/09/2010 2:07 AM	TRN File
WSS_AdminContent_20100913020436F.bak	13/09/2010 2:06 AM	BAK File
WSS_AdminContent_20100913020702L.trn	13/09/2010 2:07 AM	TRN File
WSS_Config_20100913020436F.bak	13/09/2010 2:06 AM	BAK File
WSS_Config_20100913020702L.trn	13/09/2010 2:07 AM	TRN File
WSS_Content_20100913020436F.bak	13/09/2010 2:07 AM	BAK File
WSS_Content_20100913020702L.trn	13/09/2010 2:07 AM	TRN File

6. Close Windows Explorer

Exercise 4: Restoring from Backup

NOTE: This exercise is optional.

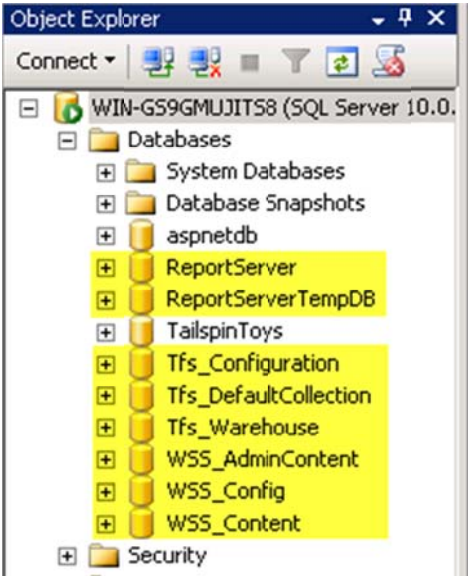
In this exercise, we will delete the TFS SQL Databases and restore them from the backup created in the previous exercises.



WARNING – READ THIS FIRST

In this exercise you will delete all TFS databases for the purpose of restoring them from the backup you created in the previous exercise. This exercise should ONLY be done on classroom-based, non-production systems.

Task	Detailed Steps				
<p>Start the Restore Wizard and confirm backup set is available</p>	<ol style="list-style-type: none"> 1. Start the Backup Plan Restore Wizard Start All Programs Microsoft Team Foundation Server 2010 Power Tools Team Foundation Server Backup Plan Backup Plan Restore Wizard 2. Once the wizard starts, click Next 3. Enter the location of the backup files. This should be \\WIN-GS9GMUJITS8\TFS2010_Backups <div data-bbox="595 1220 1342 1489" style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p>Select Backup Sets</p> <p>Point to the backup path and select the point in time you want to restore your Team Foundation Server to. Note: The most recent backup has been selected by default.</p> <p>Network Backup Path: <input type="text" value="\\WIN-GS9GMUJITS8\TFS2010_Backups"/> <input type="button" value="Browse..."/> List Backups</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Date</th> <th style="width: 50%;">Size</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table> </div> <ol style="list-style-type: none"> 4. Click List Backups and select the entry for the backup you completed in the previous entry. 5. Leave the Restore wizard on the screen and complete the next section to delete the SQL databases so we can then restore them. 	Date	Size		
Date	Size				
<p>Delete existing TFS databases so we can restore them</p>	<ol style="list-style-type: none"> 1. Start SQL Management Studio Start All Programs Microsoft SQL Server 2008 SQL Management Studio 2. Enter the following values and click Connect Server Type: Database Engine Server name: WIN-GS9GMUJITS8 				

	<p>Authentication: Windows Authentication</p> <ol style="list-style-type: none"> 3. Expand the Databases node 4. Right-click the ReportServer database and select Delete in the context menu. 5. In the Delete Object dialog, check the box labeled “Close Existing connections” 6. Click OK 7. Repeat steps 4 to 6 for each of the following databases <ul style="list-style-type: none"> • ReportServerTempDB • Tfs_Configuration • Tfs_DefaultCollection • Tfs_Warehouse • WSS_AdminContent • WSS_Config • WSS_Content  <ol style="list-style-type: none"> 8. Close SQL Management Studio
<p>Continue with the Team Foundation Server Restore Wizard</p>	<p>You should currently have the TFS Restore Wizard on the screen with the Select Backup Sets page visible and the backup set you created earlier selected.</p> <ol style="list-style-type: none"> 1. Click Next 1. On the Select SQL Server Instances page, accept the default of WIN-GS9GMUJITS8 for each of the Databases and click Next 2. Review the information on the confirmation page and then click

Next to verify the settings

3. Once the Readiness Checks have completed and passed, click the **Restore** button
4. Once the restore process has completed and it shows the three steps and being successfully complete, click **Next**
5. The **Review the Results** page should be shown with a big green Success icon.



6. Note the following information that is displayed on the last page of the Restore Wizard.

“You may need to purge the version control file cache on all TFS ATs and all TFS proxy servers that service the TFS instance prior to putting the TPC back online. For more information, see this KB article <http://support.microsoft.com/?kbid=2025763>”

Exercise 5: Checking TFS is restored

NOTE: This exercise is optional.

If you completed exercise 4, you should complete this exercise to ensure the backup has been successful.

Task	Detailed Steps
Start Visual Studio and reconnect to the restored TFS Server	<ol style="list-style-type: none">1. Start the Visual Studio 2010 Start All Programs Microsoft Visual Studio 2010 Microsoft Visual Studio 20102. Select Connect to Team Foundation Server from the Team drop down menu3. Select win-gs9mgujits8 from the list of TFS Servers4. Select at least one Team Project and click Connect5. Ensure that the Team Project appears in the Team Explorer window and make sure each of the nodes appears correctly under the Team Project node.6. Close Visual Studio 2010