

Tivoli Storage Manager for SharePoint 2010 to backup and restore SharePoint data

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Objectives

- Demonstration implementing and using Tivoli Storage Manager for SharePoint 2010 to backup and restore SharePoint data
- Demonstrate a full granular backup
- Demonstrate an incremental granular backups
- Demonstrate restoring a single file

Introduction

Tivoli Storage Manager for SharePoint software contains two types of backup function, Granular Backup and Platform Backup. These permit administrators to backup a SharePoint environment at any level, from an entire Farm to a specific Folder or List. Many users perform frequent Granular backups combined with less frequent Platform Backups. Granular backups, backup specific information instead of the larger scope of a platform backup, which backs up the entire farm.

Full granular backup

To perform a Full Granular Backup using the Tivoli Storage Manager for SharePoint Manager Application, perform the following steps:

1. Click **Data Protection > Custom Backup Builder > Granular Backup**.
2. For the **Plan Name**, type **Granular**.
3. Click the **Use Template** menu and click **Full + Incremental**. The template was previously created using the template builder wizard. The template populates many of the fields.
4. Click **OK** to accept the times.
5. On the left side next to the **Farm** menu, scroll and click **LABSERVER:SHAREPOINT**.
6. In the **Agent Group** menu, click **DEFAULT_GROUP_FOR_Farm**.
7. For the **Agent Group**, click the **Farm(LABSERVER:SHAREPOINT_CONFIG)** tree to expand it.
8. Select the **http://labserver** check-box.
9. Click **Save** and click **OK**.
10. When the save is finished, to run the plan immediately, click **Run Now**.
11. Select **Full**, and click **Run**.

To monitor the backup, perform the following steps:

1. In the upper right portion of the GUI, click **Job Monitor** tab.
2. Click the **Job Monitor** tab that appears beneath it. This displays the status of the Granular Backup you started.
3. Wait until the backup has completed before continuing.

Incremental backup

After creating a full granular backup and changing some SharePoint data you can perform an incremental backup. To perform an incremental backup, perform the following steps:

1. In the TSM for SharePoint (AvePoint DocAve) GUI, click **Data Protection > Custom Backup Builder > Granular Backup**.
2. On the right side of the window locate **Item Level Plan**.
3. Click the **Farm** menu and click **Farm(LABSERVER:SHAREPOINT)**.
4. Click **Granular** to display plan you created.
5. When the blue box is displayed, click **Daily** and click **OK**.
6. Click **Advanced** tab and ensure **Generate Full Text Index** is selected.
7. Click the **B** schedule clock.
8. When the blue box is displayed, click **OK**.
9. Click **Save** and click **OK**. Click **Run Now**.
10. In the window that opens, select **Incremental**, and click **Run**.
11. Click the **Go to the Job Report** button to view the job's process.
Wait until the incremental backup is complete before continuing.
This is an incremental backup.

Restore an individual item

The Tivoli Storage Manager for SharePoint software can restore of individual items. To restore a deleted file, use the TSM for SharePoint Manager Application to perform the following steps:

1. Navigate to **Data Protection > Restore Controller > Granular Restore**.
2. From the **Farm** menu, click **Farm(Labserver SHAREPOINT_CONFIG)**.
3. Click **Load Timeline**.
4. To display the most recent backup data available, click the very right most time point.
5. Browse through the backup data, expanding the Site Collection located beneath the instance.
6. Select the item that includes **Site1** in the description.
7. Scroll down the list under the **Site_1_TSM4SP** until you get to **Lists**.
8. Click the plus sign next to Lists.
9. Click the "i" next to "Shared Documents" to view the backed up files on the right.
10. Click the **Restore Option** of **Overwrite**. Use the Overwrite option on this restore, because even though the file is deleted and removed from the recycle bin, SharePoint keeps a copy in its dumpster. Files in the dumpster are removed after a long retention period.
11. Click **GO**.
12. When a warning about overwriting files displays, click **OK**.

You can verify the restore successfully completed by performing the following steps:

1. Click **Job Monitor > Job Monitor**
 2. Click **Granular Backup** menu and click **Granular Restore**.
 3. To verify that the file has been restored, start an **Internet Explorer Browser** session.
 4. Use the **Favorites** menu to open the site you accessed earlier. Click **Libraries > Shared Documents**.
 5. You can see the file verisign2 is restored. You might need to refresh the screen.
- An individual file has been restored from a granular backup.

Platform level backup

With the software, you can perform a Platform level backup and restore individual items from that backup. You must install the required Platform Recovery agents and backup the entire SharePoint platform.

To use the Agent Configuration Tool to install the Platform Recovery agents, perform the following steps:

1. Open the Start menu, click **All Programs > TSM for SharePoint > TSM for SharePoint Agent Tools > Agent Configuration Tool**.
2. In the Agent Configuration Tool, locate the **Agent Type** section at the bottom half of the page. Verify the check boxes next to **Platform Recovery Control Agent** and **Platform Recovery Member Agent** are selected.
3. Platform Level Backup loads and browses for the Member Agents through the Control Agent. It also performs backups for both Control and Member Agents. Click **Confirm**.
4. When prompted, click **Yes** to restart the services.
5. Double click on the **icon** to start TSM for SharePoint.
6. Log in with ID **admin** and password **admin**.
7. From the menu bar, click **Data Protection > Custom Backup Builder > Platform Backup**.
8. On the left side, click on the arrow next to Agent Host and click **LABSERVER**.
9. Expand the **LABSERVER** tree in the area directly underneath by clicking **LABSERVER**.
10. Select the check box next to the **Farm** (at the top of the list) and the **Web-Front-End Servers** (at the bottom of the list). This selects all the components to be included in the Platform backup.
11. Enter **Platform plan** in the blank box next to Plan Name.
12. Click the **Data Manager** tab.
13. Confirm that VDI is selected as the Backup Method. For Data Pruning no selection is needed. For Logical device select **TSM_Logical**.

For Platform backups, you cannot use the templates. In the Schedule area, you can set up to six unique schedules associated with that plan at once. (Each represented by one of the Clock icons at the top of the Schedule window.)

14. Click the **A** clock icon, it highlights yellow.
15. Check the box next to **Schedule A** to activate the Schedule. The clock icon you set currently is highlighted in green. When you configure other schedule, this active clock icon is highlighted in blue.
16. Select the **Restore Granularity Level** check-box so you can set the level of granularity on restore. Click the **Item** level. This allows you to restore individual files and file versions during a Platform Level restore. **NOTE:** Generating index files to increase restore granularity will result in longer backup times.
17. Select the **Full** Backup Type.
18. Click on the calendar icon located to the right of the Start Time field.
19. Click today's date and a time that is about 6 hours in the future.
20. Click **OK**.
21. Click the default time zone value in the TimeZone drop-down box. The default value is selected by the Browser.
22. Under interval, click **Advanced**. This will bring up another screen.
23. Click **Weekly**, recurring every 1 week on **Sunday**.
24. Click **OK**.

Incremental backup schedule

To define an Incremental backup schedule to complement the Full Backup schedule, perform the following steps:

1. On the same Platform plan, click the **B** clock, and select **Schedule B**. Select Backup Type **Incremental**.
2. Click **Advanced** interval option.
3. Select **Weekly**, recurring every **1** weeks, on every day except Sunday and click **Save**.
4. After the being saved, click **OK**. The plan displays in the column area on the right.
5. Run the plan immediately by clicking **Run Now**.
6. In the window that is displayed, select the **Restore Granularity Level** and **Item**.
7. Click **Run**.
8. You can click the **Go to The Job Report** button or click **Close**. You can also check the status of the job by going to **Job Monitor > Job Monitor > Platform Backup**.

The platform recovery agents are installed and a platform level backup has been completed.

Restore an individual file from a Platform backup

To perform a restore of a deleted file, perform the following steps:

1. Click the **Data Protection** tab at the top right of the TSM for SharePoint Manager Application.
2. Click **Restore Controller > Platform Restore**.
3. From the drop-down menu, click **LABSERVER** agent.

NOTE: If you had more backups you can browse the timeline, and select a date and time range to search for content. You can choose a time range in the Time Window fields for From and To. By default, it is one week from the current time.

4. Click **Load Timeline**. It will display the time points which you run the backup jobs on the time line. In this case you only did one platform backup, so you will only see one point. Moving the mouse on the time point, it will list the detailed information of the job in the pop-up window. Click the yellow time point, so you can review the contents of the job.
5. Under the Farm Name on the right of the screen to expand the data tree, click **LABSERVER**.
6. Expand **LABSERVER > Farm > Microsoft SharePoint Foundation WebApplication > Sharepoint 80 > WSS_Content**.
7. Click on the **Detail** button. This opens a new tab and lists the contents of the database.
8. Click the entry that includes **Site_1_TSM4SP** in the name, and click the magnifying glass icon to search the content inside of this backup.
9. For the Type, click **File/Item**.
10. Enter **verisign** for the criteria, click **Add**, and click **OK**. This brings up the matches to verisign.
11. Select the check box for verisign.bmp.
12. Select Restore Option **Overwrite** and click **Go**.
13. You are warned you that you are about to overwrite the contents at the destination site. Click **OK**. When prompted again if you are sure, click **OK**. This will start the restore process. Use the Overwrite option on this restore, because even though the file was deleted the file and removed it from the recycle bin, SharePoint retains a copy in its dumpster. Those files are removed those after a long retention period.

Monitor the job to completion, then verify that it completed successfully.

1. Click **Job Monitor > Job Monitor**.
2. Click **Granular Backup** and change it to **Platform Level Restore**.

You can also return to the application to verify that the file was restored. You must refresh the page. An individual item has been restored from a platform backup.