

Synergize Database Management Guide

All Customers

V1

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Disclaimer

The following publication, Synergize Database Management Guide documentation for Microdea customers is designed to assist the Synergize Administrator to configure, optimize, administer and maintain the Synergize environment. While every effort has been made to ensure that all material is as complete and accurate as possible, the enclosed material is presented on an “as is” basis. Microdea Inc. does not assume any liability or responsibility to any person or entity with respect to loss or damages incurred from the information contained in this workbook. This workbook was developed by Microdea Inc. and is an original work of Microdea Inc. Any similarities between material presented in this workbook and actual Synergize implementations are completely coincidental.

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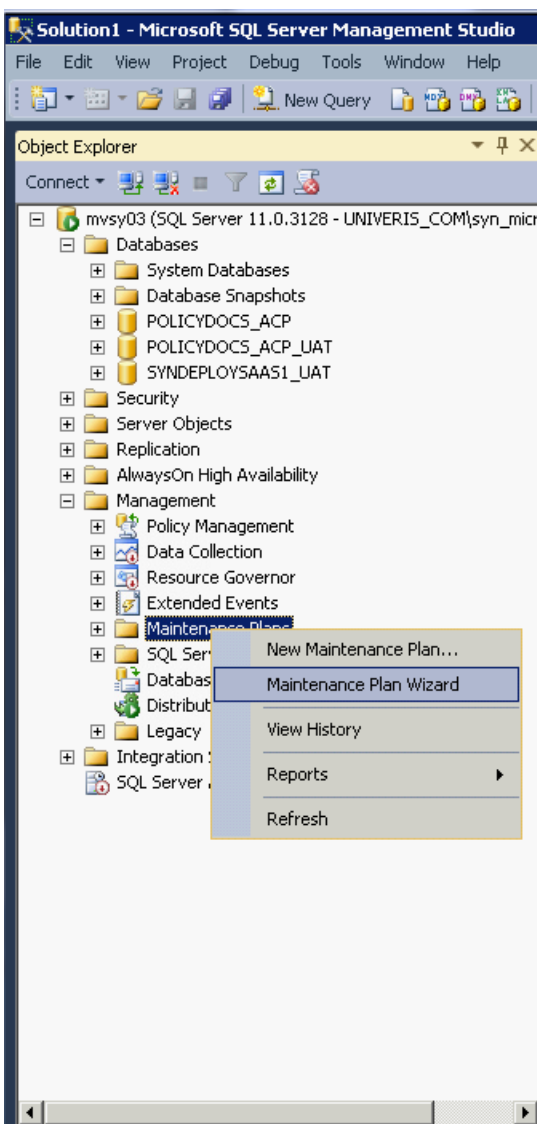
Database Backup and Maintenance

Two recommendations for maintaining SQL Server 2012 databases:

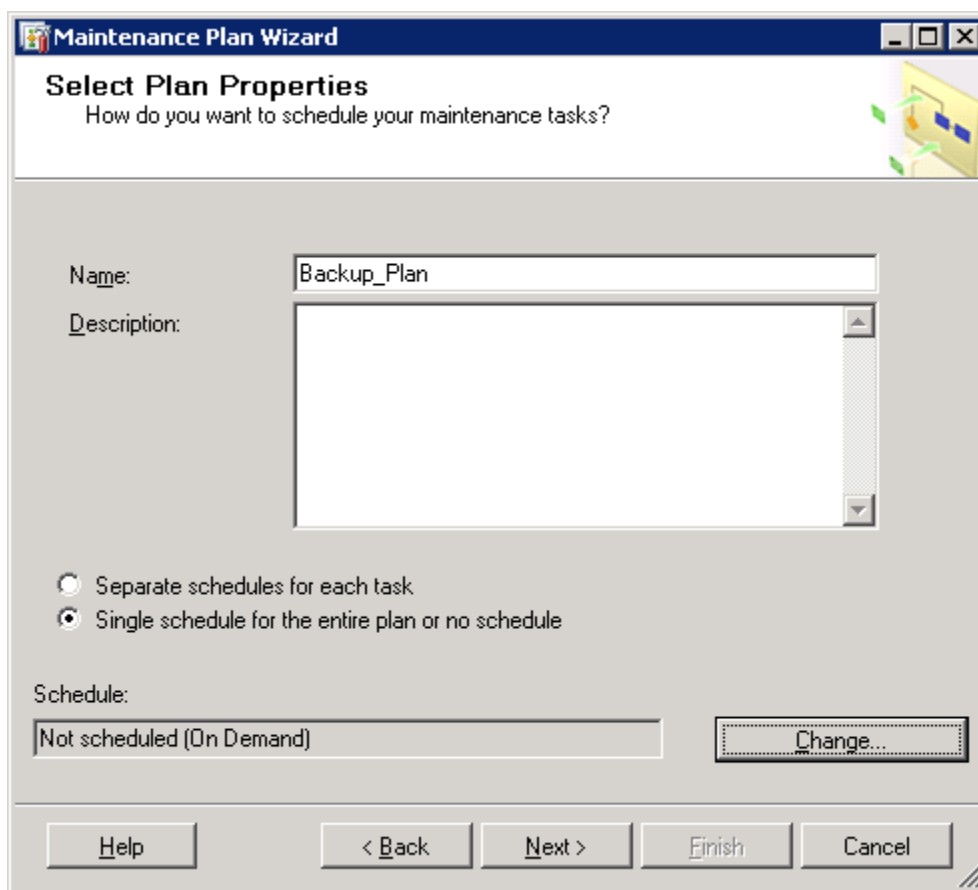
1. Create a Database Maintenance Plan that creates a Full Backup within SQL Server.
2. Create a Database Maintenance Plan that creates a Transaction Log back up within SQL Server.

Create Full Backups Using a Database Maintenance Plan within SQL Server 2012

1. Open the SQL Server Management Studio
2. Expand Management and right-click Maintenance Plans. Choose Maintenance Plan Wizard.



3. Click Next to proceed past the start page and to the first step of the wizard. Type a descriptive name for your maintenance plan.



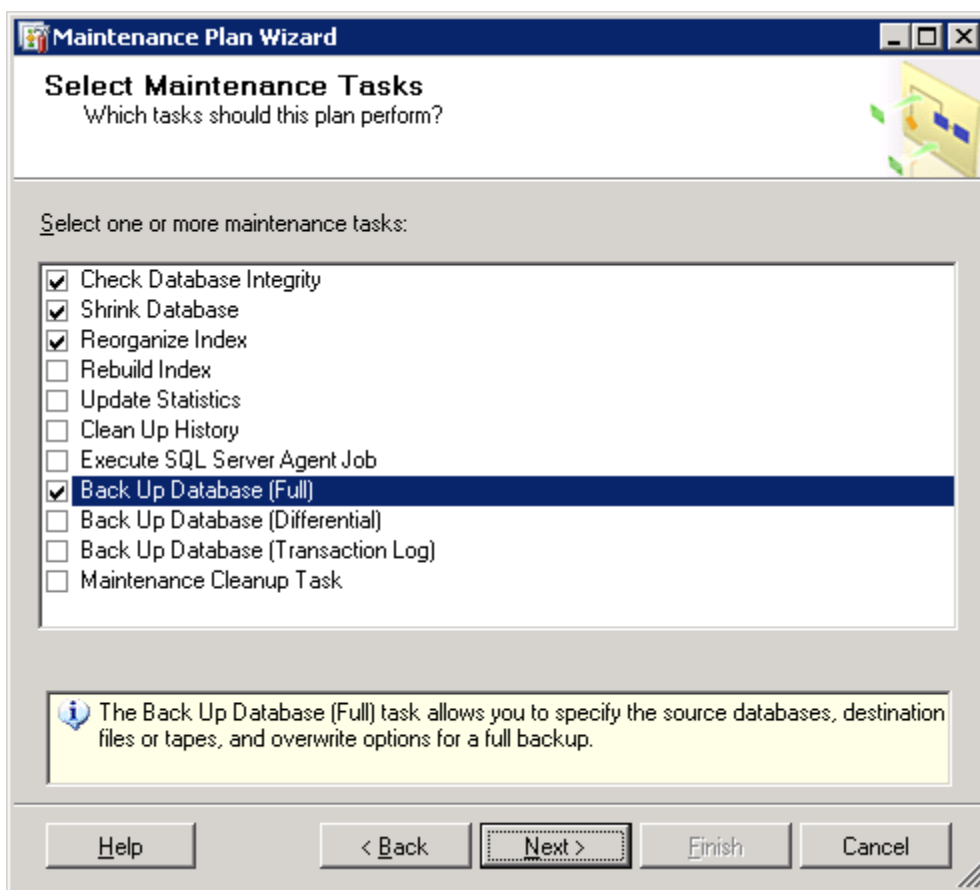
4. Make sure **Single schedule for the entire plan or no schedule** is selected (use the same schedule for all the tasks in this maintenance plan). Click the Change button to open the Job Schedule Properties window.
 - a. Choose Recurring for the Schedule type and select the Enabled check box. In the Frequency section, choose Occurs Daily and Recurs every 1 day. In the Daily frequency section, specify a time when the database is least utilized (e.g., 2:00 AM). Click OK.

The screenshot shows a dialog box titled "Job Schedule Properties - Backup_Plan". It contains the following fields and options:

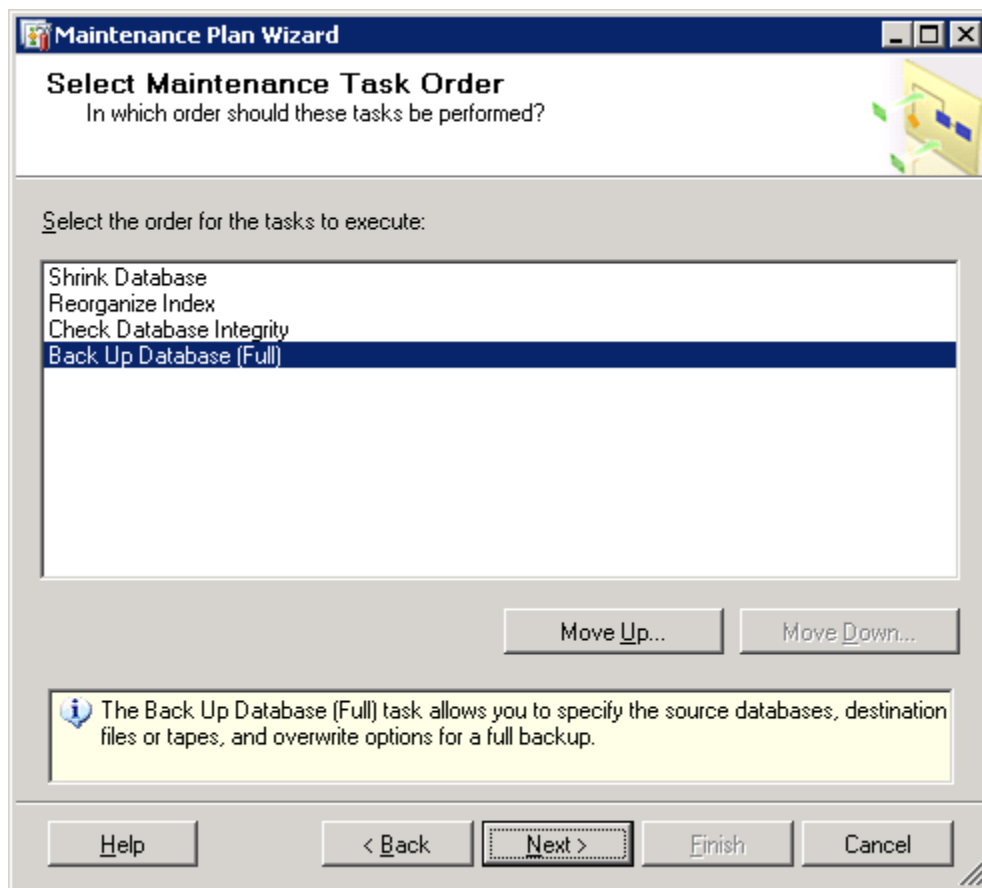
- Name:** Backup_Plan
- Schedule type:** Recurring (dropdown menu)
- Enabled:** Enabled
- One-time occurrence:**
 - Date:** 4/23/2010 (dropdown)
 - Time:** 4:01:00 PM (time picker)
- Frequency:**
 - Occurs:** Daily (dropdown)
 - Rekurs every:** 1 day(s)
- Daily frequency:**
 - Occurs once at: 2:00:00 AM (time picker)
 - Occurs every: 1 hour(s) (dropdown)
 - Starting at:** 12:00:00 AM (time picker)
 - Ending at:** 11:59:59 PM (time picker)
- Duration:**
 - Start date:** 4/23/2010 (dropdown)
 - End date: 4/23/2010 (dropdown)
 - No end date:
- Summary:**
 - Description:** Occurs every day at 2:00:00 AM. Schedule will be used starting on 4/23/2010.

Buttons at the bottom: OK, Cancel, Help.

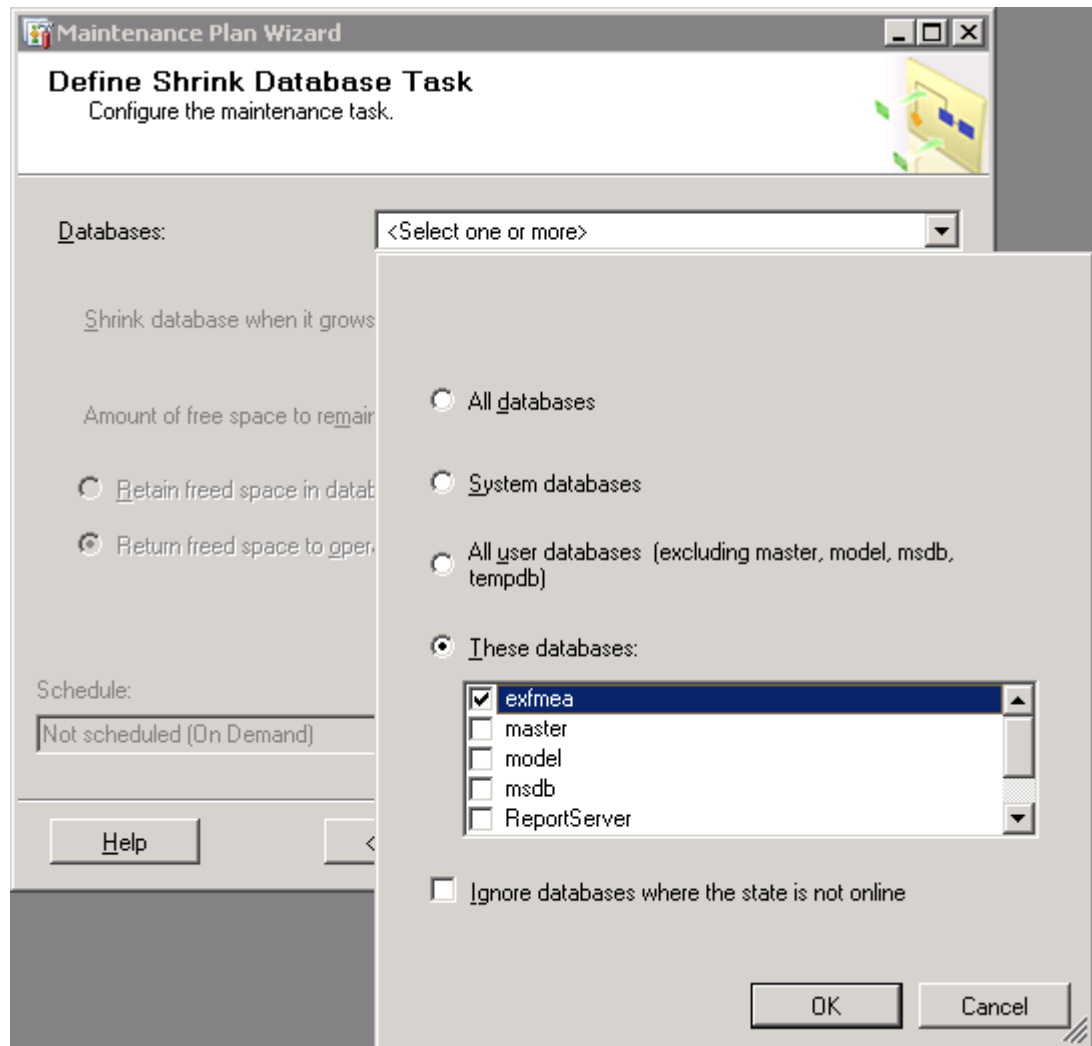
5. Click **Next** to proceed to the Select Maintenance Tasks page.
6. In the Select Maintenance Tasks page, select **Check Database Integrity, Shrink Database, Reorganize Index** and **Back Up Database (Full)**. Click **Next**.



7. On the Select Maintenance Task Order page, use the **Move Up** and **Move Down** buttons to arrange the tasks in the following order and then click **Next**.
 - a. Shrink Database
 - b. Reorganize Index
 - c. Check Database Integrity
 - d. Back Up Database (Full)



8. On the Define Shrink Database Task page click the down-arrow to the right of Databases and choose your database from the list. Click **OK** to close the database selection window. Keep the default values for **Shrink database when it grows beyond** (i.e., 50 MB) and for **Amount of free space to remain after shrink** (i.e., 10%). Click **Next**.



a.

9. On the Define Reorganize Index Task page, click the down-arrow to the right of Databases and choose your database from the list. Click **OK** to close the database selection window. Click **Next**.
10. On the Define Database Check Integrity Task page, click the down-arrow to the right of Databases and choose your database from the list. Click **OK** to close the database selection window. Click **Next**.
11. On the Define Back Up Database (Full) Task page, click the down-arrow to the right of Databases and choose your database from the list. Click **OK** to close the database selection window. Choose the media for the backup (i.e., Disk or Tape) and the location for the backup. Select **Verify backup integrity**. Click **Next**.

Maintenance Plan Wizard

Define Back Up Database (Full) Task
Configure the maintenance task.

Backup type: Full

Database(s): Specific databases

Backup component

Database

Files and filegroups: []

Backup set will expire:

After 14 days

On 5/ 7/2010

Back up to: Disk Tape

Back up databases across one or more files:

[] [Add...] [Remove] [Contents]

If backup files exist: Append

Create a backup file for every database

Create a sub-directory for each database

Folder: C:\Program Files\Microsoft SQL Server\MSSQL10.MSSQLSER []

Backup file extension: bak

Verify backup integrity

Back up the tail of the log, and leave the database in the restoring state

Set backup compression: Use the default server setting

Schedule: Not scheduled (On Demand) [Change...]

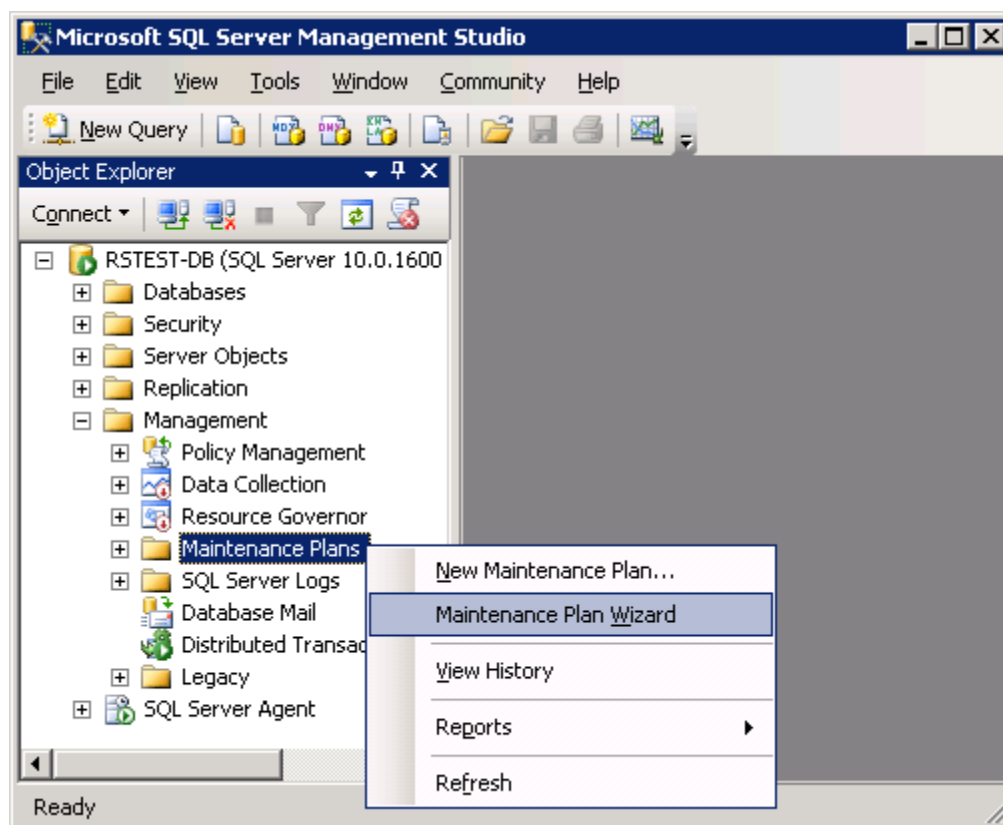
[Help] [< Back] [**Next >**] [Finish >>] [Cancel]

12. On the Select Report Options page, you can choose to have the maintenance plan generate reports. This is optional. Click **Next**.
13. The final page of the wizard summarizes the Maintenance Plan and the tasks that will be run. Click **Finish**.
14. The Maintenance Plan Wizard checks the settings and then adds the job to the SQL Server Agent Jobs and will run at the next scheduled time.

Create Transaction Log Backups Using a Database Maintenance Plan within SQL Server 2012

Note: *These instructions follow the same steps as above, but because we suggest running transaction log backups throughout the day (this may vary depending on your business needs), we suggest creating a separate Maintenance Plan, which has a more frequent schedule than once a day, for the transaction logs.*

- Open the SQL Server Management Studio by choosing **Start > Programs > Microsoft SQL Server 2012 > SQL Server Management Studio**.
- Expand **Management** and right-click **Maintenance Plans**. Choose **Maintenance Plan Wizard**.



- Click **Next** to proceed past the start page and to the first step of the wizard. Type a descriptive name for your maintenance plan (e.g., MaintenancePlan-Transaction_Log).
- Make sure **Single schedule for the entire plan or no schedule** is selected. Click the **Change** button to open the Job Schedule Properties window.
 - Choose **Recurring** for the Schedule type and select the **Enabled** check box. In the Frequency section, choose Occurs **Daily** and Recurs every **1** day. In the Daily frequency section, select Occurs every and choose **4 hours** and Starting at **12:00 AM** (assuming that you have followed the previous section's suggestion and set the full backup to 2:00 AM -- to ensure it will not be running at the same time as the full backup). Click **OK**.

Job Schedule Properties - MaintenancePlan-Transaction_Log

Name: MaintenancePlan-Transaction_Log Jobs in Schedule

Schedule type: Recurring Enabled

One-time occurrence

Date: 4/28/2010 Time: 9:54:39 AM

Frequency

Occurs: Daily

Rekurs every: 1 day(s)

Daily frequency

Occurs once at: 12:00:00 AM

Occurs every: 4 hour(s) Starting at: 12:00:00 AM
Ending at: 11:59:59 PM

Duration

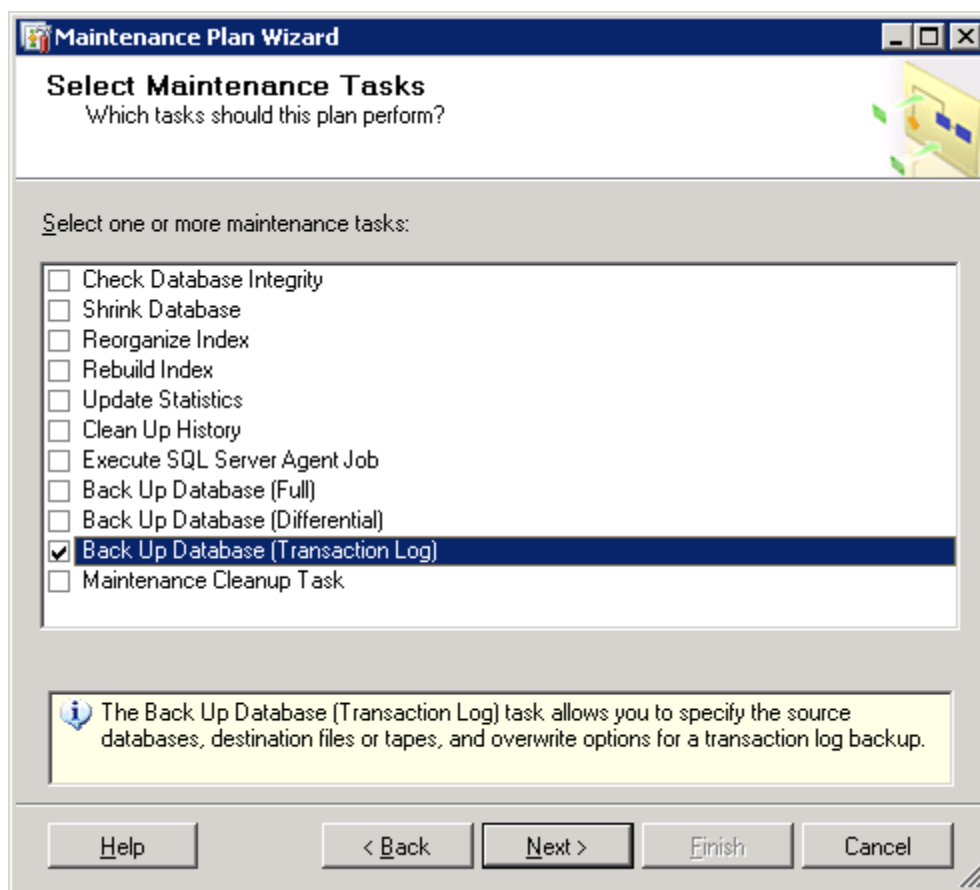
Start date: 4/28/2010 End date: 4/28/2010
 No end date:

Summary

Description: Occurs every day every 4 hour(s) between 12:00:00 AM and 11:59:59 PM. Schedule will be used starting on 4/28/2010.

OK Cancel Help

- Click **Next** to proceed to the **Select Maintenance Tasks** page.
- On the Select Maintenance Tasks page, choose **Back Up Database (Transaction Log)**. Click **Next**.



- On the Select Maintenance Task Order page click **Next**.
- On the Define Back Up Database (Transaction Log) Task page click the down-arrow to the right of Databases and choose your database from the list. Click **OK** to close the database selection window. Choose the media for the backup (i.e., Disk or Tape) and the location for the backup. Select **Verify backup integrity**. Click **Next**.

Maintenance Plan Wizard

Define Back Up Database (Transaction Log) Task
Configure the maintenance task.

Backup type: Transaction Log

Database(s): Specific databases

Backup component

Database

Files and filegroups: [Empty field] ...

Backup set will expire:

After: 14 days

On: 5/12/2010

Back up to: Disk Tape

Back up databases across one or more files:

[Empty list box] Add... Remove Contents

If backup files exist: Append

Create a backup file for every database

Create a sub-directory for each database

Folder: C:\Program Files\Microsoft SQL Server\MSSQL10.MSSQLSER ...

Backup file extension: .trn

Verify backup integrity

Back up the tail of the log, and leave the database in the restoring state

Set backup compression: Use the default server setting

Schedule: Not scheduled (On Demand) Change...

Help < Back Next > Finish >> Cancel

- On the Select Report Options page, you can choose to have the maintenance plan generate reports. This is optional. Click **Next**.
- The final page of the wizard summarizes the Maintenance Plan and the tasks that will be run. Click **Finish**.
- The Maintenance Plan Wizard checks the settings and then adds the job to the SQL Server Agent Jobs and will run at the next scheduled time.