

SQL MAINTENANCE PLAN

For SAP Business One

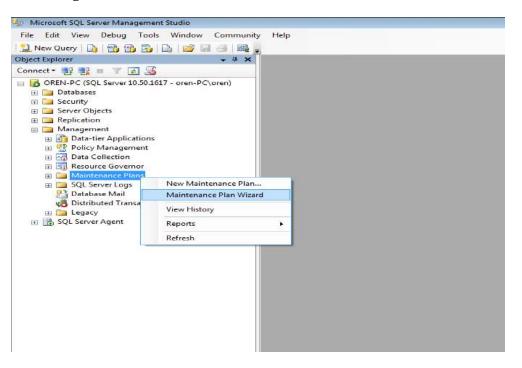
Create a maintenance plan to do integrity check, back up, shrink and clean old file created by the plan on database.



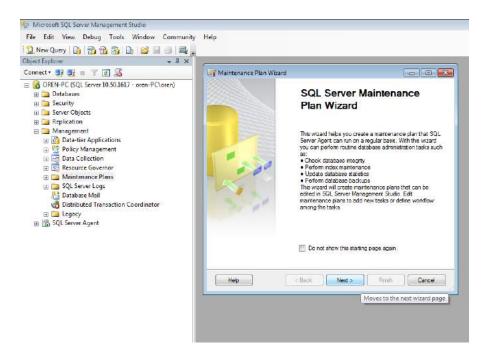


Maintenance Plan

- 1. Open Microsoft SQL Management Studio to find Maintenance Plan.
- 2. Right click on Maintenance Plan to select Maintenance Plan Wizard.



3. Click Next as shown below





4. Select Plan Properties page

👳 Microsoft SQL Server Management Studio		
File Edit View Debug Tools Window Community		
Object Explorer 🚽 🗸 🕹		
Connect 🕶 🛃 🜉 🝵 🍸 🛃 📓	🛐 Maintenance Plan Wizard	
Content of the second	Select Plan Properties How do you want to schedule your maintenance tasks?	
Replication		
 Management Management Policy Management Data Collection Resource Governor Maintenance Plans SQL Server Logs Database Mail 	Name: Demo	
 ✓ Distributed Transaction Coordinator 	 Separate schedules for each task Single schedule for the entire plan or no schedule Schedule: 	
	Not scheduled (On Demand) Qhange Help < Back	

4.1. On the Select Plan Properties page Enter:

- Name Name of the maintenance plan you are creating.
- Description describe your maintenance plan (optional but recommended).
- Select either one of the below to specify the recurring schedule of the maintenance plan. "Separate schedules for each task" (or) "Single schedule for the entire plan or no schedule". In case "Single schedule for the entire plan or no schedule" was chosen click on "Change" button under Schedule.



ettoplorer 🔹 🕴 🔹 🖓 👔	🗃 Maintenance Plan Wizard 👘 🔟	Job Schedule Prope	ties - Demo	- 6
(b) OPEN-PC (SQL Server 10.50.1617 - cren-PC\cren) ■ □ Databases ■ □ Security	Select Plan Properties How do you want to schedule your maintenance tasks?	Name. Schedule type	Recommendation of the second s	cledula
Server Objects RepCation Monagement Discuss Applications Policy Management Discuss Applications Discus Applications Discuss Applications Discus Applications	Negs: Dend Desoption:	Ore-tare accurrence — Date Frequency Occurs Recurs every:	8:27/2013 • • • Moddy • • • 1 • weekiljon • 1 • • •	
Batabase Mail G Distributed Transaction Coordinator G Distributed Transaction Coordinator SQL Server Agent	Separate schedules for each task Single achedule for the entre plan or no achedule	Dalyfrequency	Tuesday Thursday 😰 Sunday	
	Schedule: Not scheduled Ch Denand)	Occurs ence at: Occurs every:	12.00:00 AM (H) 1 2.00:00 AM (H) Ending et: 11.50:55 PM (H)	
	Helo c Back Ned > End Carcel	Duction Statidate	5/27/2013 🕞 - 🕒 End date: 5/27/2013 🕞 -	
		Summary	Occurs every week on Sunday at 12.00.00 AM. Schedule will be used starting on 6/27/2	1112

4.2. In the New Job Schedule dialog box enter

- Name The job schedule's name.
- Schedule type list select the type of schedule:
 - $\circ~$ Start automatically when SQL Server Agent starts
 - $\circ~$ Start whenever the CPUs become idle
 - Recurring. This is the default selection.
 - $\circ \ \ \, One time$
- Select or clear the Enabled check box to enable or disable the schedule.
- If Recurring is chosen as the Schedule type:
 - Frequency Select the frequency of occurrence:
 - If Daily- Select how often the job schedule repeats in days.
 - If Weekly, enter days of the week on which the job schedule needs to run.
 - If Monthly, select either Day or specific day of the week.
 - If the Day is selected, enter the date of the month and how often the job schedule repeats in months
 - If the specific day of the week is selected within the month that you want the job schedule to run and how often the job schedule repeats in months.
 - Under Daily frequency, specify how often the job schedule repeats on the day the job schedule runs:
 - If you select Occurs once at, enter the specific time of day when the job schedule should run in the Occurs once at box. Enter the hour, minute, and second of the day, as well as AM or PM.
 - If you select Occurs every, specify how often the job schedule runs during the day chosen under Frequency. For example, if you want the job schedule to repeat every 2 hours during the day that the job



schedule is run, select Occurs every, enter "2" in the first box, and then select hour(s) from the list. From this list you can also select minute(s) and second(s). Please note that the largest number allowed in the first box is "100".

- In the Starting at box, enter the time that the job schedule should start running. In the Ending at box, enter the time that the job schedule should stop repeating. Enter the hour, minute, and second of the day, as well as AM or PM.
- Under Duration, enter the start date and End date or No end date to indicate when the job schedule should stop running.
- If One Time, in the Date box, enter the date that the job schedule will be run. In the Time box, enter the time that the job schedule will be run
- Under Summary, in Description, verify that all job schedule settings are correct.
- Click OK.
- 5. Select Maintenance Tasks

The Maintenance Diag Minand	
Maintenance Plan Wizard Select Maintenance Tasks Which tasks should this plan perform?	
Select one or more maintenance tasks:	
 ✓ Check Database Integrity ✓ Shrink Database Reorganize Index ✓ Rebuild Index Update Statistics Clean Up History Execute SQL Server Agent Job ✓ Back Up Database (Full) Back Up Database (Differential) Back Up Database (Transaction Log) ✓ Maintenance Cleanup Task 	a maintenance plan.
Help < Back Next > Finish	Cancel

Choose the tasks that the plan needs to perform and Click Next. If Separate schedules for each task on the Select Plan Properties page above are selected, the order of the maintenance tasks cannot be changed.



6. Select Maintenance Task Order

🛐 Maintenance Plan Wizard		
Select Maintenance Task On In which order should these tasks be pe		
Select the order for the tasks to execute:		
Check Database Integrity Back Up Database (Full) Shrink Database Rebuild Index Maintenance Cleanup Task		
(i) The Back Up Database (Full) task allo files or tapes, and overwrite options for		Move Down
Help < Back	Next > Fin	iish Cancel

Rearrange the order in which the task needs to be performed by selecting the task and clicking the "Move Up" or "Move Down" buttons. Then click "Next".

7. Integrity Check Task

Configure the maintenance	heck Integrity Task
Databases:	<select more="" one="" or=""></select>
☑ Include indexes	
	All databases
	System databases
	 All user databases (excluding master, model, msdb, tempdb)
	These databases:
Schedule: Not scheduled (On Demand)	RSP RSPSrv
Help	SBODemoUS
	Ignore databases where the state is not online



• Define Database Check Integrity Task: Under Database, select the databases for which the Integrity check needs to be performed. Click Ok and when completed click Next.

- The options available are as below.
 - Under Databases to specify the databases affected by the task are.
 - All databases: The task runs against all Microsoft SQL Server databases except tempdb.
 - System databases: The task runs against SQL Server system databases except tempdb and user-created databases.
 - All user databases (excluding master, model, msdb, tempdb): The task runs against all user-created databases. No maintenance tasks are run against the SQL Server system databases.
 - $\circ~$ These databases: The task runs against only those databases that are selected. At least one database in the list must be selected if this option is chosen.
 - Include indexes check box: Checks the integrity of all the index pages and the table data pages.
- 8. Back Up Database

Locate Datab	
·	base Files - OREN-PC
Select the file:	
💌 😥 📴 SRE	
a 🧰 Kavi	tha BackUp
	New folder Secret-SPA
🖶 🧰 MDF	F
	ycled en Volume Information
Girling F:	
Add	
Remove	
TREAMY D	
Contenta	
SSQL10.MSSQLSER	
bak Selected path:	D:\Kavtha\BackUp
Files of type:	Backup Files(*bak;*tm)
stato File name:	Demo bak
	OK Cancel
	Add Carys Add Contents SQL10_MSSQL3ER bak Selected path: Files of type:

Select the database or databases on which to run a full backup. When finished, click Next.



- The following options are available on this page.
 - Backup type list: Displays the type of backup to be performed. This is read-only.
 - Databases list: Specifies the databases affected by this task.
 - Backup component: Select Database to back up the entire database. Select File and filegroups to back up only a portion of the database. If selected, provide the file or filegroup name. When multiple databases are selected in the Databases box, only specify Databases for the Backup components. To perform file or filegroup backups, create a task for each database. These options are only available if a single database is chosen from the Databases list above.
 - Backup set will expire check box: Specifies when the backup set for this backup can be overwritten. Select After and enter a number of days to expiration, or select on and enter a date of expiration.
 - Back up to: Specifies the medium on which to back up the database. Select either Disk or Tape. Only tape devices attached to the computer containing the database are available.
 - Back up database(s) across one or more files: Click Add to open the Select Backup Destination dialog box. Click Remove to remove a file from the box. Click Contents to read the file header and display the current backup contents of the file. Select Backup Destination dialog box. Select the file, tape drive, or backup device for the backup destination.

Configure the mainten	Database (Full) Task ance task:		
Backup type:	Full		
Database(s):	Specific databases		
Database			
Files and filegroups			
Backup set will expire:	14	days	
After	7/11/2013		
Back up to: 💿 Disk 🦳	And the second se		
Back up databases ac			
D:\Kavitha\BackUp\D		10	Add
			Remove
			Contents
If backup files exist:		Append	
🔿 Create a backup file fo	r every database	Append Overwrite	
Create a sub-directo	ony for each database	Overwide	
Folder	C:\Program Files\Microsoft SC	L Server\MSSQL10	MSSQLSER
Backup file extension:		bi	sk
Verify backup integrity			
Back up the tail of the	log, and leave the database in t	the restoring state	
Set backup compression:	Use the default server setting		
ichedule			
ichedule: Not scheduled (On Deman	d)		Change

• If backup files exist list: Specify how to handle existing backups. Select Append to add the new backups after any existing backups in the file or on the tape. Select Overwrite to remove the old content of a file or tape, and replace it with this new backup.



Seckup component Database Database Database Files and filegroups: Backup set will expire: Ater On Z/11/2013 Z/11/201 Z/11/2013 Z/11/201 Z/11/201 Z/11/201 Z/11/201 Z/11/201 Z/11/2	Configure the mainter	Database (Full) Ta nance task.	sk	- 2.
Backup component Databases Files and filegroups: Backup set will expire: After 7/11/2013 Back up to: Databases across one or more files: D.\Kavitha\BackUp\Demo.bak After Contents Fibackup files cgst: Contents Folder: C.\Program Files\Microsoft SQL Server\MSSQL10.MSSQLSER Backup file extension: Verify backup file og, and have the database in the restoring state Verify backup compression: Databases Do not compress backup Do not compress backup Do not compress backup	Backup type	Full		
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Aber Add Remove Contente bockup files ogst: Append Contente bockup files ogst: Aber Add Remove Contente bockup files ogst: Append Contente bockup files ogst: C.\Program Riles\Microsoft SQL Server\MSSQL10.MSSQLSER Bockup file extension: bak Verify bockup integrity Bock up the tail of the log, and leave the database in the restoring state Set backup compression: Use the default server setting Use the default server setting Log the default server Log the default server Log the default server	Same a sure of the second			(<u></u>
Back up databases acrogs one or more files:	@ Atter O Oa	14 7/11/2013		
D.\Kavitha\BackUp\Demo.bak Add Remove Contents H backup files ogst: Append Create a backup file for every database Contents Contents Contents D.\Kavitha\BackUp\Demo.bak Add Remove Contents If backup files ogst: Append Contents D.\Kavitha\BackUp\Demo.bak Contents Database Folder: C.\Program Files\Microsoft SQL Server\MSSQL10.MSSQLSER Data Database Folder: Database Database C.\Program Files\Microsoft SQL Server\MSSQL10.MSSQLSER Database Datababase Database Database Datababase Database D	Back up to: 💿 Dijsk 🦿) Tage		
Remove Remove Remove Contents If backup files ogst: 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 have the database in the restoring state Set backup compression: Use the default server setting Use the default server setting Do not compress backup		en en el construction de la constru		
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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 Use the default server setting Do not compress backup	Falden	C:\Program Files\Microsoft	SQL Server\MSSQL10	MSSQLSER
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Set backup compression: Use the default server setting Use the default server setting Compress backup Do not compress backup			bi	ak
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Use the default server setting Compress backup Do not compress backup	Backup file extensi <u>o</u> n:			ak
	Backup file extension: Verify backup integrity Back up the tail of the	log, and leave the database	In the restoring state	ak
Schedule)	Backup file extension: Verify backup integrity Back up the tail of the	log, and leave the database Use the default server sett Use the default server sett Compress backup	in the restoring state	ak -
Not scheduled (On Demand)	Backup file extension: Verify backup integrity Back up the tail of the Set backup compression:	log, and leave the database Use the default server sett Use the default server sett Compress backup	in the restoring state	-

- Create a backup file for every database: Create a backup file in the location specified in the folder box. One file is created for each database selected.
- Create a sub-directory for each database check box: Create a subdirectory under the specified disk directory that contains the database backup for each database being backed up as part of the maintenance plan.
- Folder box: Specify the folder to contain the automatically created database files.
- Backup file extension box: Specify the extension to use for the backup files. The default is .bak.
- Verify backup integrity check box: Verify that the backup set is complete and that all volumes are readable.
- Set backup compression: Select "Use the default server setting", "Compress backup" (or) "Do not compress backup".
- Define Backup Database (Differential): Select the database or databases on which to run a partial backup. When finished, click Next.
- Define Backup Database (Transaction Log): Select the database or databases on which to run a backup for a transaction log.



9. Database Shrink Tasks

Databases:	<select more="" one="" or=""></select>
Shrink database when it grov	21
Amount of free space to rema	air 💿 All databases
Retain freed space in dat	at 💿 System databases
Return freed space to operation of the space of the sp	 All user databases (excluding master, model, msdb, tempdb)
chedule: lot scheduled (On Demand)	These databases: SBODemoUS SBODemoUS SBODemoUS Starwood

This task attempts to reduce the size of the selected databases. When complete, click Next.

- Databases: Specify the databases affected by this task.
- Shrink database when it grows beyond box: Specify the size in megabytes that causes the task to execute.
- Amount of free space to remain after shrink box: Stop shrinking when free space in database files reaches this size (as a percentage).

• Retain freed space in database files: The database is condensed to contiguous pages but the pages are not deallocated, and the database files do not shrink. Use this option if you expect the database to expand again, and you do not want to reallocate space. With this option, the database files do not shrink as much as possible.

• Return freed space to operating system: The database is condensed to contiguous pages and the pages are released back to the operating system for use by other programs. This database files shrink as much as possible. This is the default option.



10. Reorganize Index Task

Define Rebuild Configure the mainte			4
Databases:	Specific databases		1
Object	Tables and views		
Selection:	1		
Free space options			
~	with the default amount of free space a per page percentage to:	<u> </u>	
Advanced options			
5 Sort results in temp	db		
📄 Keep index online	while reindexing		
chedule :			
chedule: Not coheduled (On Dem;	inď)	Change	

This task helps to select the server or servers where index pages need to be moved into a more efficient search order. When complete, click Next. The options available are:

ne options available are:

- Databases list: Specify the databases affected by this task.
- Object list: Limit the Selection list to display tables, views, or both. This list is only available if a single database is chosen from the Databases list above.
- Selection list: Specify the tables or indexes affected by this task. Not available when Tables and Views is selected in the Object box.
- Free space options area: Presents options for applying fill factor to indexes and tables.

• Default free space per page: Reorganizes the pages with the default amount of free space. This will drop the indexes on the tables in the database and re-create them with the fill factor that was specified when the indexes were created. This is the default option.

• Change free space per page to box: Drop the indexes on the tables in the database and re-create them with a new, automatically calculated fill factor, thereby reserving the specified amount of free space on the index pages. The higher the percentage, the more free space is reserved on the index pages, and the larger the index grows. Valid values are from 0 through 100.

• Advanced options area: Presents additional options for sorting indexes and reindexing.

• Sort results in tempdb check box: Determines where the intermediate sort results, generated during index creation, are temporarily stored. If a sort operation is not required, or if the sort can be performed in memory, the SORT_IN_TEMPDB option is ignored.

•



• Keep index online while reindexing check box: Uses the ONLINE option which allows users to access the underlying table or clustered index data and any associated non clustered indexes during index operations. Selecting this option activates additional options for rebuilding indexes that do not allow for online rebuilds: Do not rebuild indexes and Rebuild indexes offline.

11. Define Maintenance Cleanup Task

	Confi	gure th	e mantenance Cleanup	o Task	
Dele	te files	o of the	following type:		
(O)	Back	up files			
10	Man	tenano	e Plan text reports		
File I	ocatio	n:			
0	Delet	e spec	ific file		
10000	File na				
	Sean	ch folde	er and delete files based or	an extension	
1	Folder	ŧ		- 21014	(194400)
1	File ex	tension	1:	bak	
Į	In Inc	clude fi	rst-level subfolders		
File a	age:				
	Delet	e files l	based on the age of the file	at task run time	
	Dele	te files	older than the following:		
	4	121	Week(s)	*	
			Hour(s)		
			Week(a)		
			Month(s) Year(s)		
in the second	alutre				
Dell He	ached	iuled (C	On Demand)		Change

Used to specify the types of files to delete as part of the maintenance plan, including text reports created by maintenance plans and database backup files. When finished, click Next. The options available are

- Delete files of the following type: Specify the type of files to be deleted.
- Backup files: Delete database backup files.
- Maintenance Plan text reports: Delete text reports of previously run maintenance plans.
- File location: Specify path to files to be deleted.
- Delete specific file: Delete the specific file provided in the File name text box.
- Search folder and delete files based on an extension: Delete all files with the specified extension in the specified folder. Use this to delete multiple files at once, such as all backup files in the Tuesday folder with the .bak extension.
- Folder box: Path and name of the folder containing the files to be deleted.
- File extension box: Provide the file extension of the files to be deleted.
- Include first-level subfolders check box: Delete files with the extension specified for File extension from first-level subfolders under the folder specified in Folder.



• Delete files based on the age of the file at task run time check box: Specify the minimum age of the files that you want to delete by providing a number, and unit of time in the Delete files older than the following box.

• Delete files older than the following: Specify the minimum age of the files that you want to delete by providing a number, and unit of time (Hour, Day, Week, Month, or Year). Files older than the time frame specified will be deleted.

12. Select Report Options

actions.	a
Folder location:	C:\Program Files\Microsoft SQL Server\MSSQL10.
E-mail report	
To:	

Used to select options for saving or distributing a report of the maintenance plan actions. When finished, click Next. The options available are

• Write a report to a text file check box: Save the report in a file.

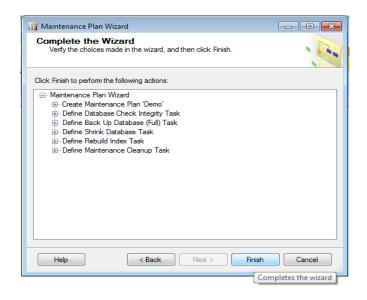
• Folder location box: Specify the location of the file that will contain the report.

• E-mail report check box: Send an e-mail when a task fails. To use this task you must have Database Mail enabled and correctly configured with MSDB as a Mail Host Database, and have a Microsoft SQL Server Agent operator with a valid e-mail address.

- Agent operator: Specify the recipient of the e-mail.
- Mail profile: Specify the profile that defines the sender of the e-mail.



13. Complete the Wizard



On the Complete the Wizard page, verify the choices made on the previous pages, and click Finish.

14. Maintenance Wizard Progress:

0	Success	5 Total 5 Success	0 Error 0 Warning
)eta	ails: Action	Status	Message
0	Creating maintenance plan "Demo"	Success	moodgo
0	Adding tasks to the maintenance plan	Success	
0	Adding scheduling options	Success	
0	Adding reporting options	Success	
0	Saving maintenance plan "Demo"	Success	
		Stop	Report

Depending on the options selected in the wizard, the progress page might contain one or more actions. The top box displays the overall status of the wizard and the number of status, error, and warning messages that the wizard has received.



The options available are:

- Details: Provides the action, status, and any messages that are returned from action taken by the wizard.
- Action: Specifies the type and name of each action.
- Status: Indicates whether the wizard action as a whole returned the value of Success or Failure.
- Message: Provides any error or warning messages that are returned from the process.
 - Report: Creates a report that contains the results of the Create Partition Wizard. The options are View Report, Save Report to File, Copy Report to Clipboard, and Send Report as Email.View Report - Opens the View Report dialog box, which contains a text report of the progress of the Create Partition Wizard.
 - Save Report to File Opens the Save Report As dialog box.
 - Copy Report to Clipboard Copies the results of the wizard's progress report to the Clipboard.
 - Send Report as Email Copies the results of the wizard's progress report into an email message.

Reference:

1. http://msdn.microsoft.com/en-us/library/ms191002.aspx