Running SIMS Patches and SQL Maintenance Tasks

Summary

This document explains and helps customers improve the speed and reliability of SIMS and FMS by running regular SIMS patches and optional SQL maintenance tasks. Microsoft SQL Server can be a complex technology and this document does not look to replace any Microsoft SQL Server Best Practice recommendations.

If you are not confident in running a SIMS or FMS patch or using SQL Management Studio please contact your local SIMS Support team for help and advice.

This document is suitable for both **Microsoft SQL Server 2012** and **Microsoft SQL Server 2014** database engines.

IMPORTANT NOTE: *Maintenance Tasks can only be created and managed on Microsoft SQL Server Standard or higher; they cannot be created if you're using Express SQL installations.*

Guidance for Schools

The simplest approach for improving the speed of SIMS or FMS, is to manually run the following SQL performance improvement patches on a regular basis. These patches can be run using either the dbUpgrade tool or SOLUS³ and obtained through the service desk.

Action	Description	Frequency
SIMS Patch ID 22573 **FMS Patch ID 22789**	Rebuilds the database indexes and improves performance.	Once a term
SIMS Patch ID 20647 **FMS Patch ID 22788**	Recreates the database statistics and improves performance.	Once a term

WARNING: Please be aware it is recommended to run these patches out of normal working hours as they can take a long time to complete.

When else should you run the performance improvement patches?

You may also wish to consider running the performance improvement patches after these events:

- after you have changed the SQL compatibility mode.
- after you have moved a SIMS or FMS database to a new server or SQL instance.

Guidance for support teams

As well as the performance improvement patches we recommend for individual schools, SIMS Support teams may also wish to run additional maintenance tasks to optimise their SQL databases; this includes customers who centrally host SIMS or FMS databases.

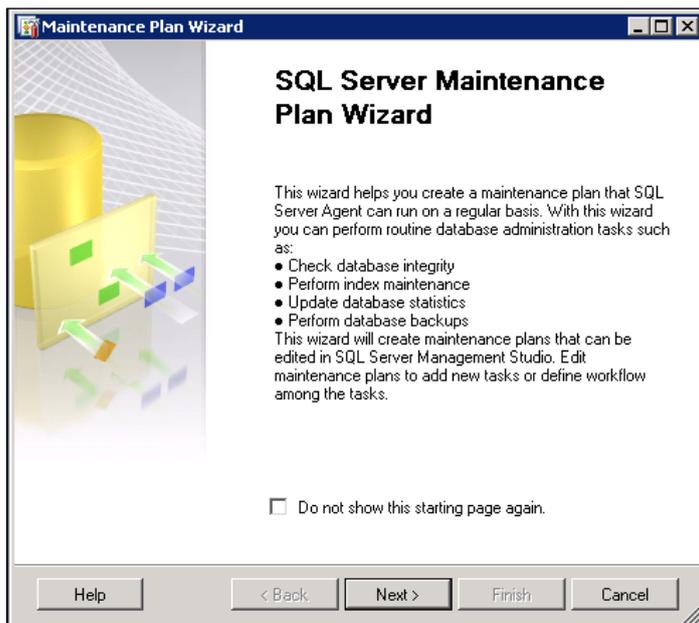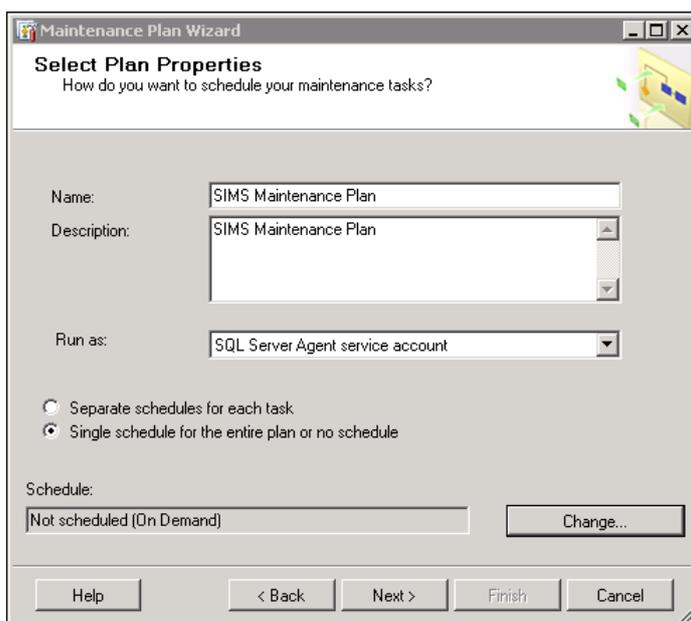| Action	Description	Frequency
Run Database Integrity SQL server command	Checks the database integrity for issues and errors.	Once a term
Run Clean-Up Tasks SQL server command	Removes older files as specified.	Once a term

Appendix

Resources

Description	Resources
Installing Microsoft SQL Server 2014	https://msdn.microsoft.com/en-US/library/bb500395(v=sql.120).aspx
Microsoft SQL 2012 Best Practice Analyser	https://www.microsoft.com/en-gb/download/details.aspx?id=29302

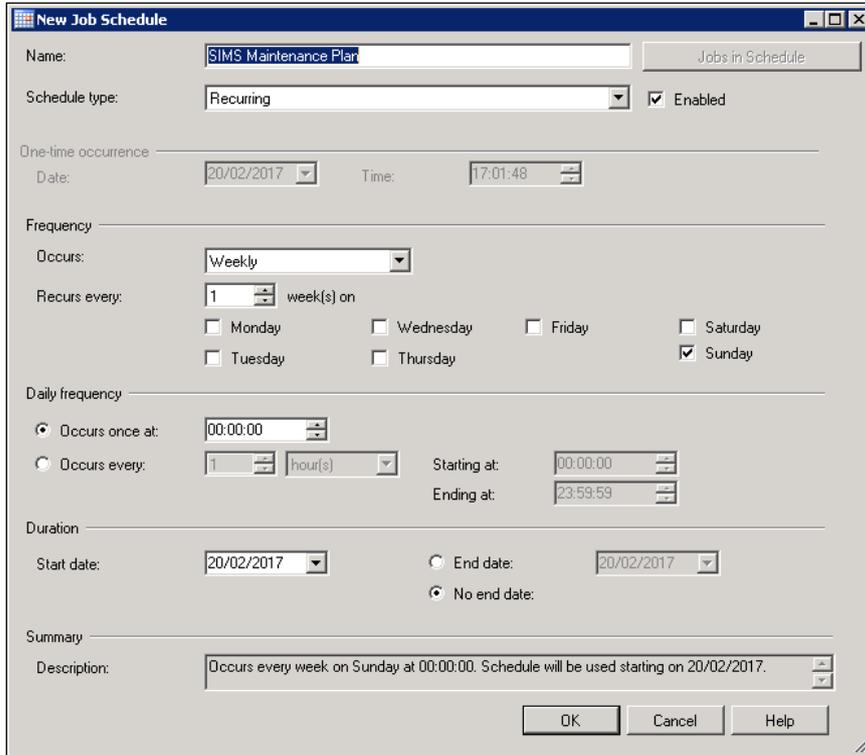## Creating a Maintenance Plan using SQL Management Studio

1. On the Microsoft SQL Server (or a workstation with Microsoft SQL Management Studio installed), Log in to your SQL instance as a System Administrator.

2. Once logged in, open the Management folder, and right click on Maintenance Plans, followed by Maintenance Plan Wizard.

3. The following screen will be displayed, press **Next** when you're ready.
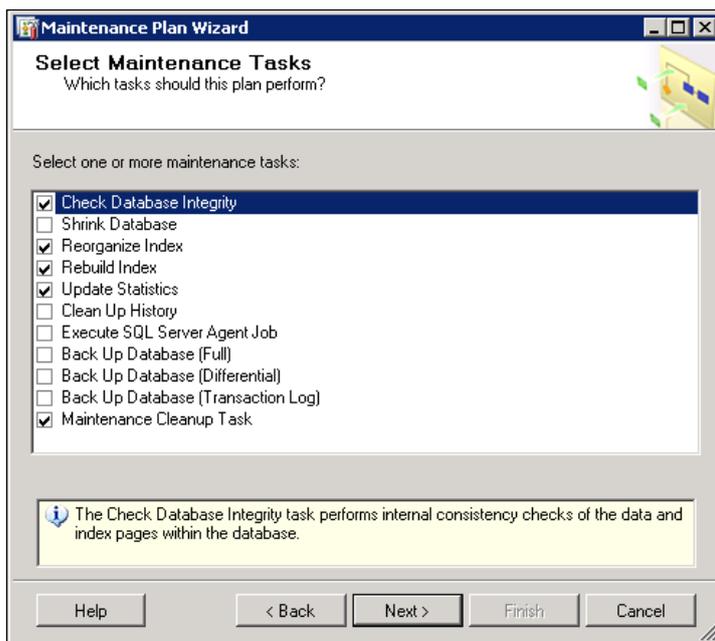

4. You will need to name your Maintenance Plan something relevant for future reference.
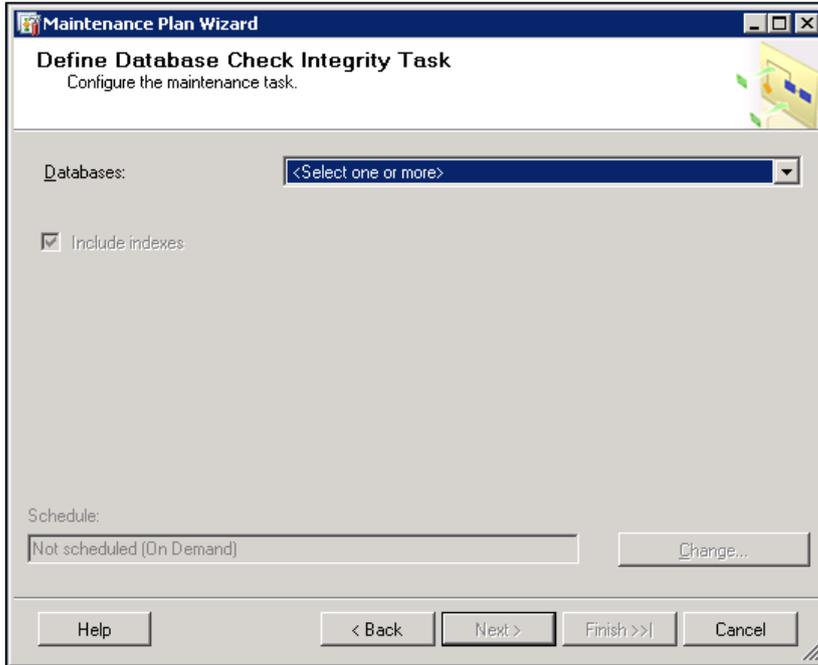
5. By default, the **Maintenance Plan Wizard** will assume no schedule, and an On Demand task only. If you want to change this, please click **Change**, and adjust the schedule accordingly.
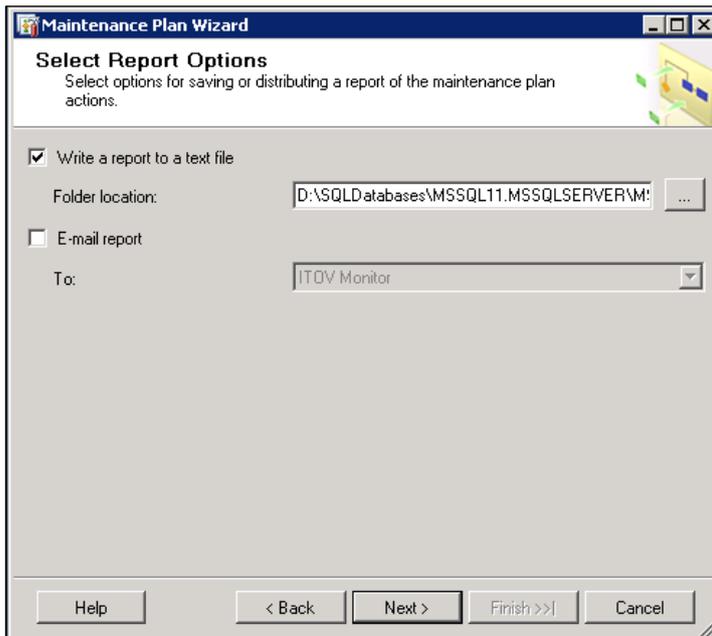

6. Next, select the type of maintenance task(s) you require. As an example, we recommend the following; **Check Database Integrity**, **Reorganise Index**, **Rebuild Index**, **Update Statistics**, and **Maintenance Cleanup Task**.
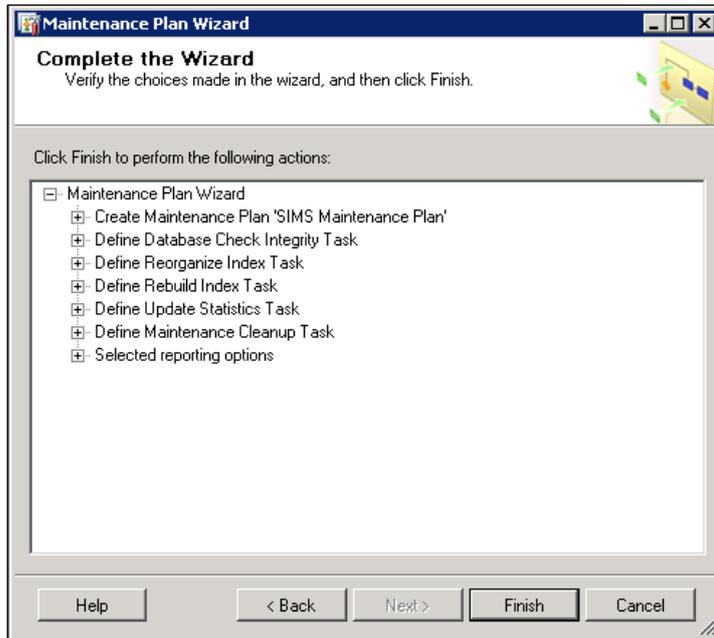
7. On the next screen, you can change the order of the tasks, but we recommend leaving this as default, so click **Next** again.

8. The following screen will allow you to select which database(s) to run the first maintenance task against. Please select '**These databases:**' and then only tick your SIMS and FMS databases.

9. Once all maintenance tasks have been configured, you can then choose to have a text file report of the Maintenance Plan upon completion, or have it emailed to you. This is your preference if you wish to have either of these enabled. Once completed, please click **Next**.

10. This is the final screen for setting up a Maintenance Plan. It provides you a summary of what you're setting up, and allows you to review the configuration. If you're happy with the configuration, click on **Finish**.

You have now successfully setup a scheduled, or on demand Maintenance Plan. This can be modified, or reviewed at a later date if necessary from within the Maintenance Plan folder that you right clicked at the beginning of this guide.