

## WinRecs Technical Guide

*For Microsoft SQL 2008/2008R2*



**Version 8**

**July 2014**

## **MED2020 Health Care Software Inc.**

MED2020 Health Software Inc. (MED2020) is the leading provider of modular health information management solutions for the Canadian health care industry and is headquartered in Ottawa, Ontario. Solutions are offered to assist in capturing, reporting and analyzing health data to support enhanced information sharing, encourage informed decision making and streamline facility operations. MED2020's flagship product, WinRecs, is the foundation for a complementary suite of modules that have also been designed to assist health information management departments with their operational needs.

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In this document **SQL Server** refers to **Microsoft® SQL Server 2008 R2™**

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## About This Document

The information contained in this document focuses on the installation and maintenance of the MED2020 WinRecs 2.8.9\_.002 application or newer.

To learn more about using WinRecs please refer to the WinRecs User Guide, also available as a download from the MED2020 Client site, located at <ftp://web.med2020.ca>.

## Document Conventions

Throughout this Technical Guide, text formatting is used to complement the information provided.

**Function keys and key sequences are distinguished by large bold text.**

Example:     **CTRL+M**

*References to modules, functions and other values as displayed on the screen are distinguished by italic text.*

Example:     *WinRecs Application Menu*

**File names, paths and cross-references to other sections of the User Guide are distinguished by bold text.**

Example:     **Command line used for installing Microsoft® SQL Server**

Example:     **D:\setup.exe /template.ini**

Values to be typed are distinguished by the courier font.

Example:     Type 01011920 in the field.

**Note:** Important notes and hints are distinguished by dark red text with light gray background.

Example:     **Note:**     This is an important note.

# 1 Introduction

## READ THIS SECTION BEFORE INSTALLING ANY SOFTWARE

This document was written for a moderately technical audience. It is assumed throughout the document that the user is familiar with the fundamental concepts with respect to file, computer, server and network administration. This document will detail the proper procedures for installing a database server specific to a WinRecs installation. Administering computers, servers or networks other than instructions contained in this guide are outside the scope of this document and MED2020's support services. If the user is not familiar with basic computer, server and network administration, the user should seek professional assistance with the installation of a WinRecs database server, as MED2020 cannot be liable for catastrophic data loss. MED2020 does not undertake data backup or data recovery services under a standard support contract unless your facility has agreed to additional support options.

The information contained in this document is provided to assist with the installation of WinRecs suite and *Microsoft® SQL Server* through WinRecs. This installation assumes that the *Microsoft® SQL Server 2008 R2™* is installed through WinRecs as all the required configurations for mounting and installing the database is already applied in the WinRecs. Hence the client does not have to reconfigure the *Microsoft® SQL Server* to work with WinRecs.

Management Studio is installed when installing *Microsoft® SQL Server*. This administrative tool is rather extensive and, for the purposes of this document, references to Management Studio are limited to the tasks necessary to attach and detach WinRecs databases.

For facilities with limited data or computing requirements, the *Microsoft® SQL Server 2008™ Express* can be used. This free database software, also provided by *Microsoft®*, provides limited data storage and is ideal for smaller WinRecs installations. However, this version of the database software does not provide additional support applications such as the Management Studio. If your environment has an installation of Management Studio, you might be able to use it to connect to, and administer, your Express database(s) and/or server(s). This document assumes that Management Studio is installed on the WinRecs database server.

*Microsoft® SQL Server 2008™* is a commercial database server, generally used by facilities with larger data repositories or those who must support a large number of simultaneous connections.

Crystal Reports is also installed as an integrated part of the WinRecs application.

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**Note:** Your software license with MED2020 does not provide a commercial version of these software products. This is available from MED2020 as a separate license. Please contact [sales@med2020.ca](mailto:sales@med2020.ca) or call 1-800-461-2020 for more information and a quote.

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For more information on maintaining *Microsoft® SQL Server* database applications, it is recommended that you consult the *Microsoft®* support [web site](#) or your product documentation.

Contact MED2020 [Client Services](#) for more assistance with any information contained in this document.

## 2 Technical Requirements

This section contains guidelines on what is required in terms of hardware (HW) and software (SW).

### 2.1 Client Work station Requirements

The following table specifies the minimum requirements for the WinRecs installation on the client work station:

- **Min. Required:** Refers to minimum specification by which the application can run; however, this is the base minimum (not recommended)
- **Min. Recommended:** This is the basic level recommended by MED2020
- **Preferred:** This is the preferred recommendation by MED2020

	Min. Required	Min. Recommended	Preferred
CPU	Pentium III	Pentium IV 2 GHz	Dual Core CPU +
RAM	256 MB	1 GB	2 GB +
Video	800 x 600	1024 x 768	1280 x 1024 +
Monitor	15"	17"	19" +
OS	Windows 2000	Windows XP	Windows 7 +

Other requirements:

- All systems should have a CD/DVD Rom
- All systems should have internet access
- If the user chooses the application to self-update, they must have Write access to the installed WinRecs folder and its sub-folders.

### 2.2 Server Requirements

The MED2020 database must reside on an SQL server. The database requires (at minimum) SQL2000 with Windows Server 2000. However, acceptable server specifications must be identified on a per-client basis by verifying the minimum requirements with Microsoft® for the version of Windows® and SQL that was chosen for the installation.

Depending on how the system deployment is planned, as a single-server solution, a multiple-server solution, or a clustered solution, the computer hardware that MED2020 WinRecs and components will run on is important for acceptable application performance.

There are many factors that you must consider that can affect the hardware requirements. They include the following:

- Number of users the MED2020 WinRecs implementation will support and the way the application will be used, such as for intensive reporting
- Number of servers and how they are configured Microsoft® SQL Server® performance and availability
- Integration of MED2020 WinRecs with the Health Level Seven (HL7) Service
- Performance of your servers and the local area network (LAN).

Once an Operating System and version of SQL has been selected, the Microsoft® website should be consulted for minimum required hardware specifications:

- **SQL Server® 2005 System Requirements** (<http://go.microsoft.com/fwlink/?linkid=53211>)
- **SQL Server® 2008 System Requirements** (<http://go.microsoft.com/fwlink/?LinkId=149063>)

MED2020 supports up to the latest version of Windows and SQL. At this time support extends to Windows 2008 R2 and SQL 2008 R2. However, minimum hardware requirements are set by Microsoft® for the specific versions selected.

The only requirement outside of the Microsoft-defined specifications would be the Hard disk space required to accommodate your database. A blank (with system records) database is approximately 1 GB. On average you will require 1GB per 10,000 records plus any space required by temp tables and log data.

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**Note:** Due to the collation of the WinRecs Database, it is stated in the administrator's guide that WinRecs must run on its own SQL Server and not be shared with other applications.

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### 3 Before You Begin...

Prior to beginning installation of WinRecs, please ensure that you have everything you need to complete the installation.

- Prior to installing any software, ensure that you have made backup copies of your sensitive data, and you have your backups readily available.
- You know the exact path to your databases.
- You read all the important notes and hints distinguished by light gray background.

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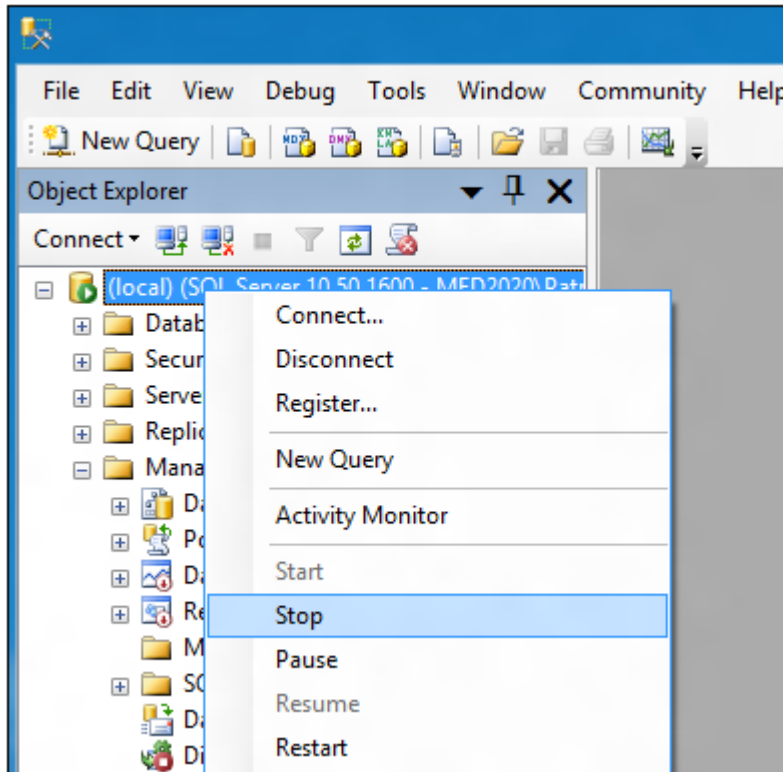
**Note:** MED2020 will not be held responsible for data loss, nor can MED2020 assist with data backup and recovery. Instructions for backup and recovery are found [later in this document](#).

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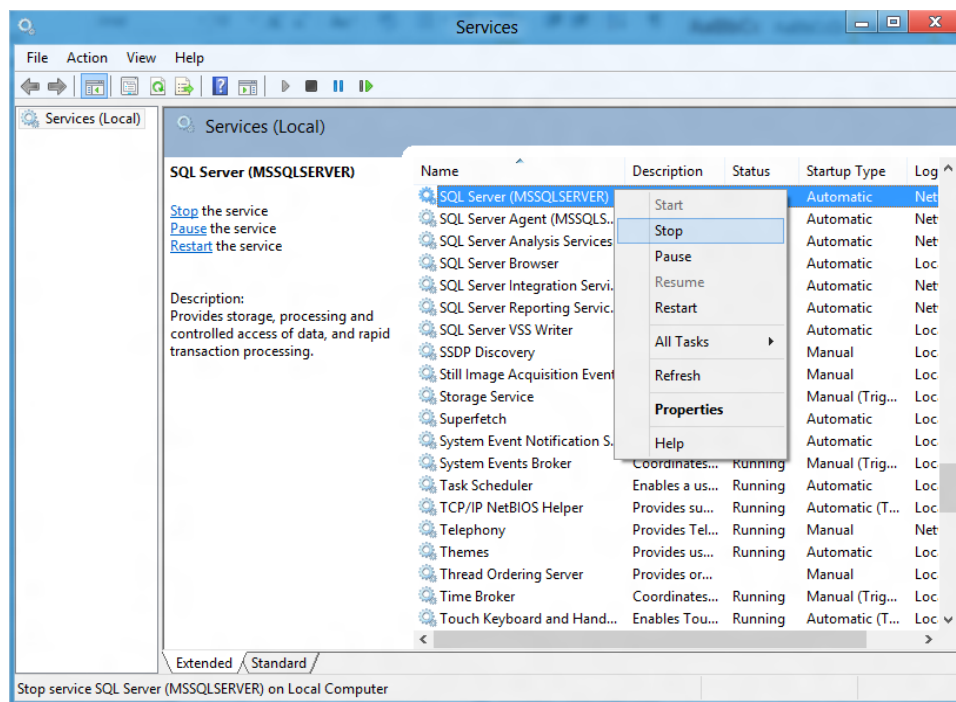
## 4 Database Management and Server Maintenance

### 4.1 Starting and Stopping SQL Server

The SQL server can be started or stopped in 3 different ways:



1. From Server Management Studio (above image)



2. From services in *Administrative Tool*
3. Through command line in the command prompt
 

```
net stop MSSQLSERVER          net start MSSQLSERVER
```

**Note:** Do not stop the service while client workstations or HL7 interface applications are running.

## 4.2 Shutting Down the WinRecs Server

It is recommended that the following steps be performed to successfully shutdown the WinRecs server:

- Advise all WinRecs client users to disconnect and discontinue use of the WinRecs system until the maintenance is complete
- If an HL7 interface is installed:
  - Stop the Admit / Discharge / Transfer (ADT) interface that feeds messages to the WinRecs HL7 interface
  - Stop the WinRecs HL7 interface
- It is now safe to shut down the WinRecs Server, or perform other system maintenance tasks.

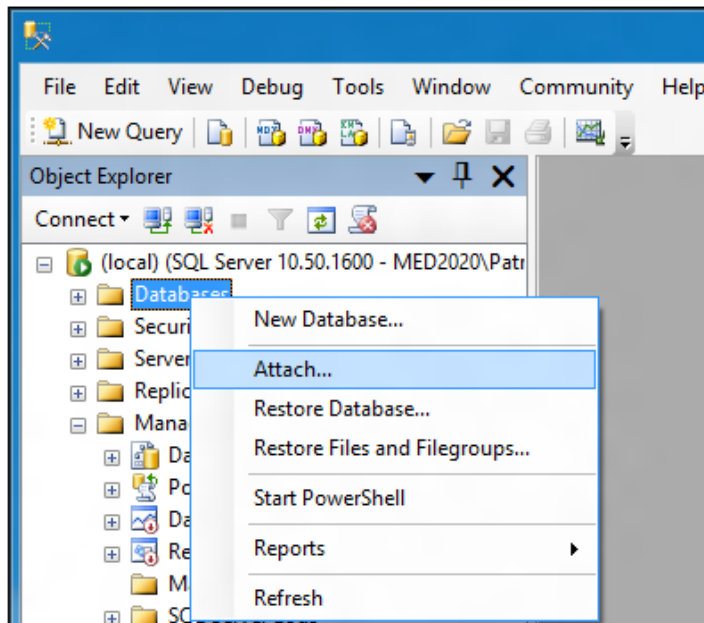
**Note:** All users in your facility must be logged off WinRecs when these steps are performed. Otherwise, data may be lost.

Before proceeding with the following instructions, ensure that the WinRecs database files are available and have been extracted and copied to their permanent folder on the server. Once a database has been attached, it cannot be moved until the database is detached at which time the system will be unavailable. More details on detaching and moving databases are provided later in [section 7.1.3](#). Since the process relies on the *MED2020Main* user account, before proceeding to the following instructions, it is necessary that your SQL Server has the MED2020 account set up.

There are two ways of inserting the MED2020Main user:

1. by running the full setup installation or
2. by running the MEDSQL4<sup>1</sup> utility and selecting setup user.

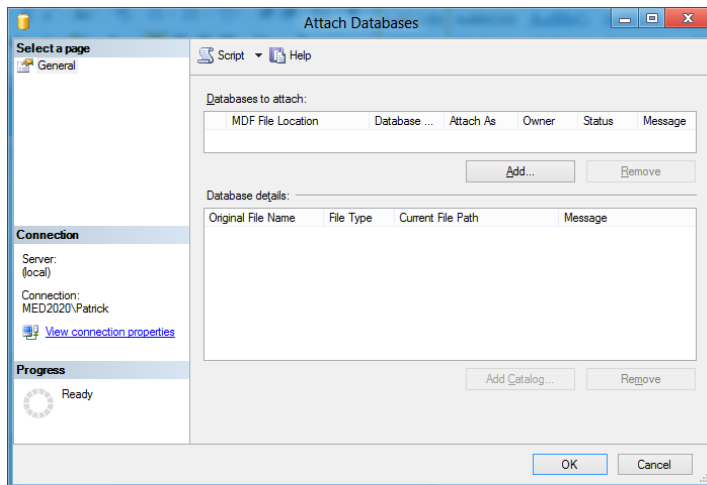
### 4.3 Attaching the WinRecs Database



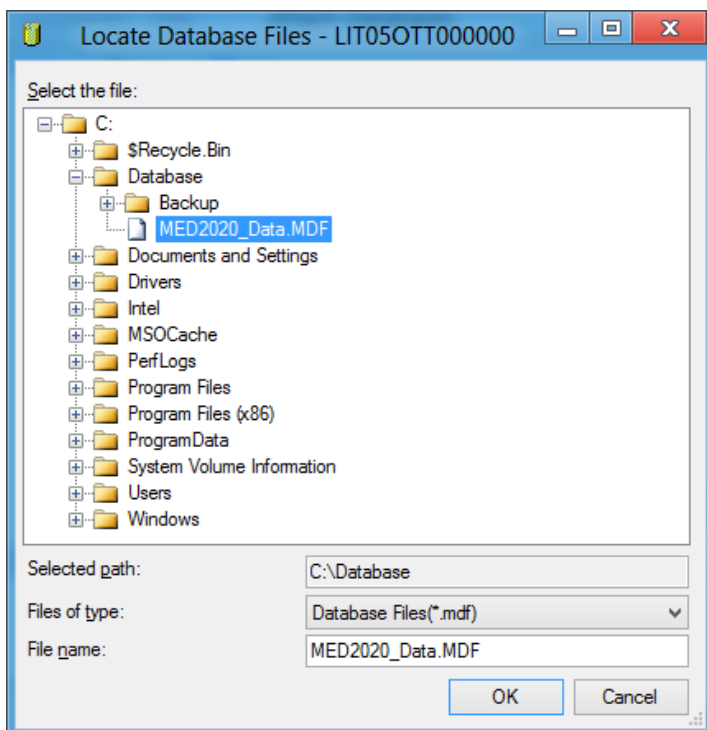
Right click on *Database* and select *Attach*.

---

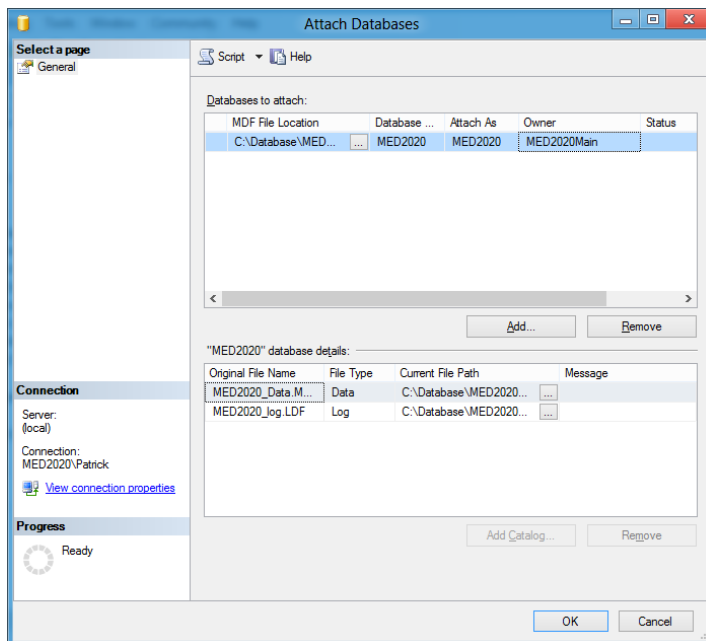
<sup>1</sup> MEDSQL4 is a third party utility embedded in the full installation package of WinRecs



Click *Add* to select database



Select the mdف and click *OK*



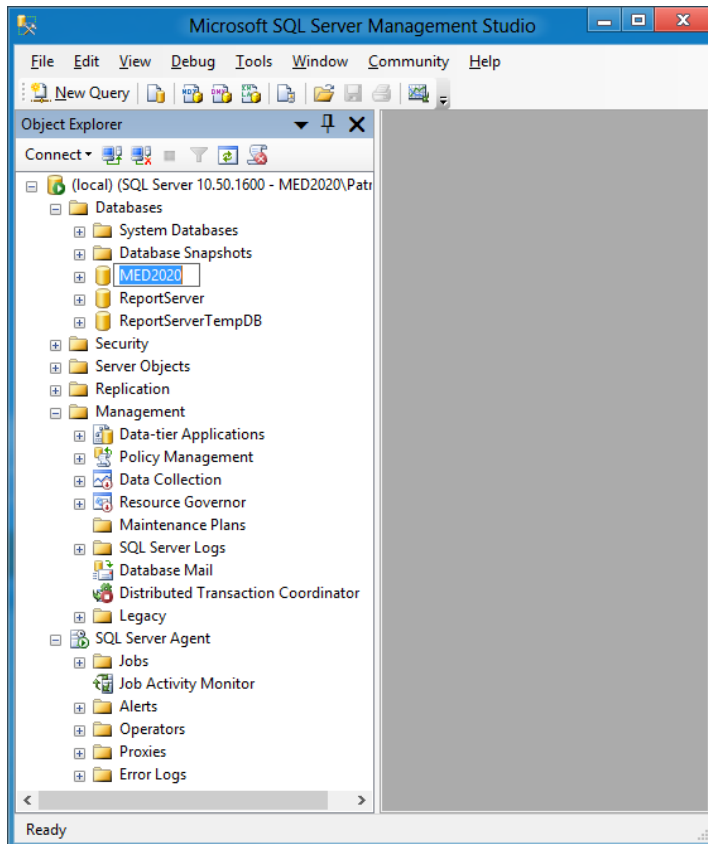
The database and log files are now displayed.

Click on *Owner* and set it to MED2020Main. If the box is too small to see all the text, you may have to stretch out the box as done in the above screen.

If you wish to change the database name, you will need to change the text in the field *Attach As*.

Click the *OK* button to accept the settings; you will be notified of an error if attaching the database was unsuccessful

**Note:** The location of the transaction log is determined by the properties of the mdf file. For more information on storing the transaction log on a different drive, consult [section 5.2](#) (Moving the transaction log to a different drive)



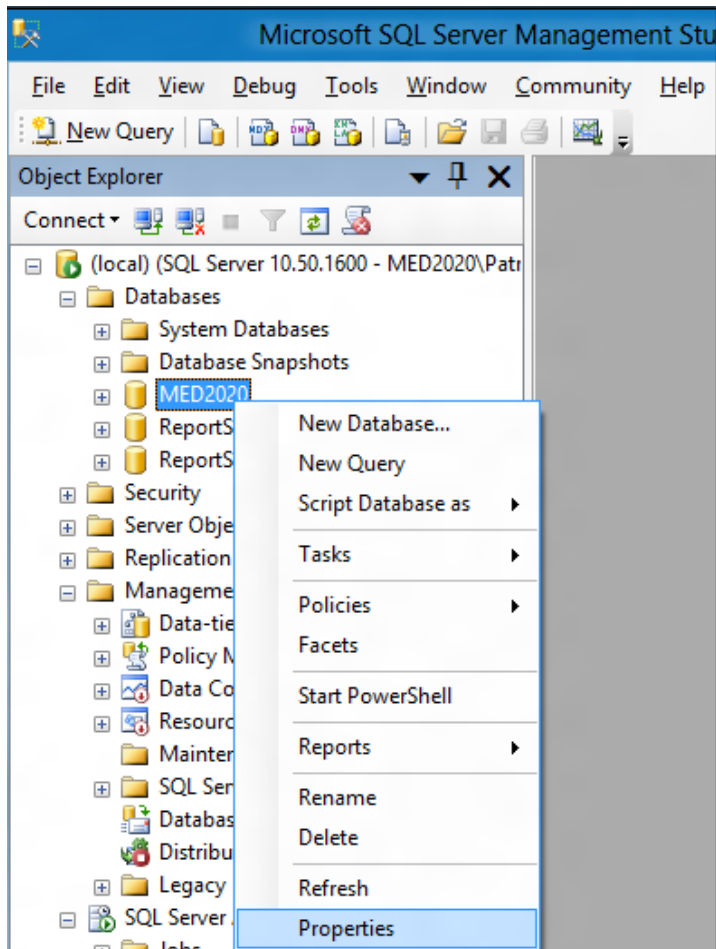
Once the database has been successfully attached, it is displayed in the tree view under *Databases*

## 4.4 Detaching the WinRecs Database

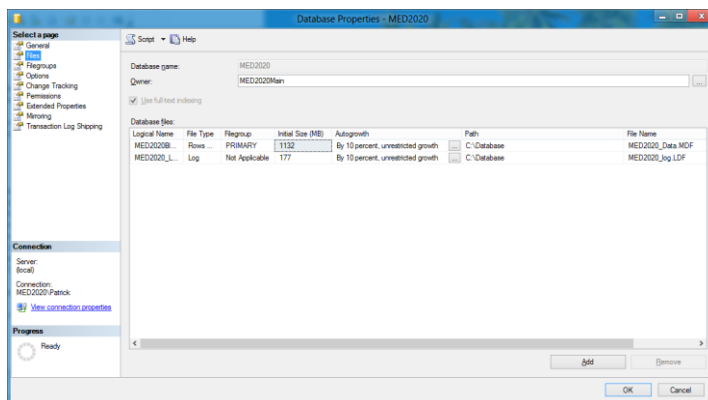
The following steps are used to successfully detach the WinRecs database.

**Note:** All WinRecs users in your facility must not be using the WinRecs application when these steps are performed. Otherwise, data might be lost.

Before detaching the database, verify the location of the data file that will be used in the post-detach activities:



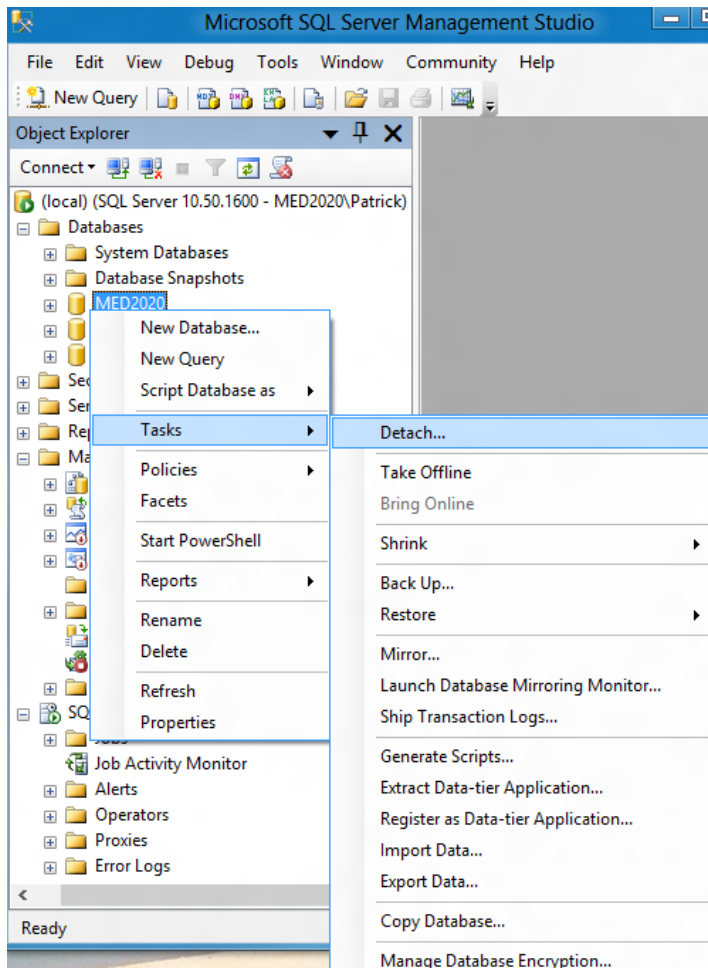
Right-click on the database and select *Properties*



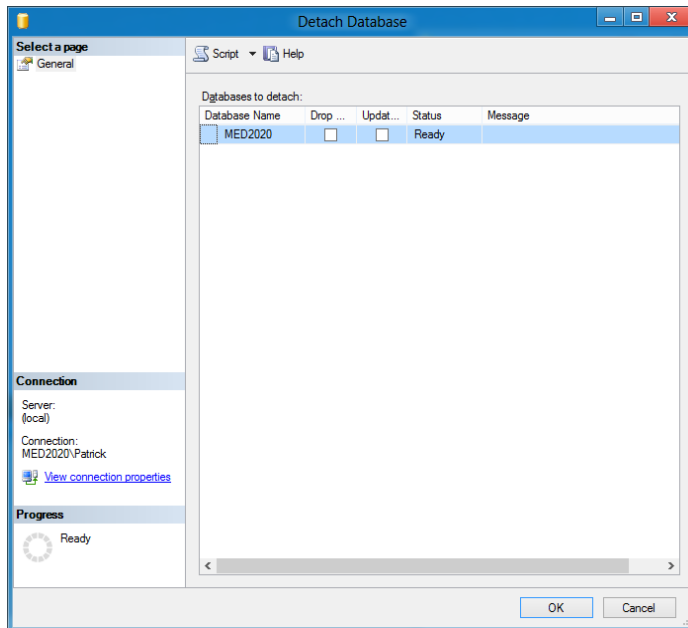
Click the *Files* tab

Once the path is verified click *Cancel* to proceed with detaching the database



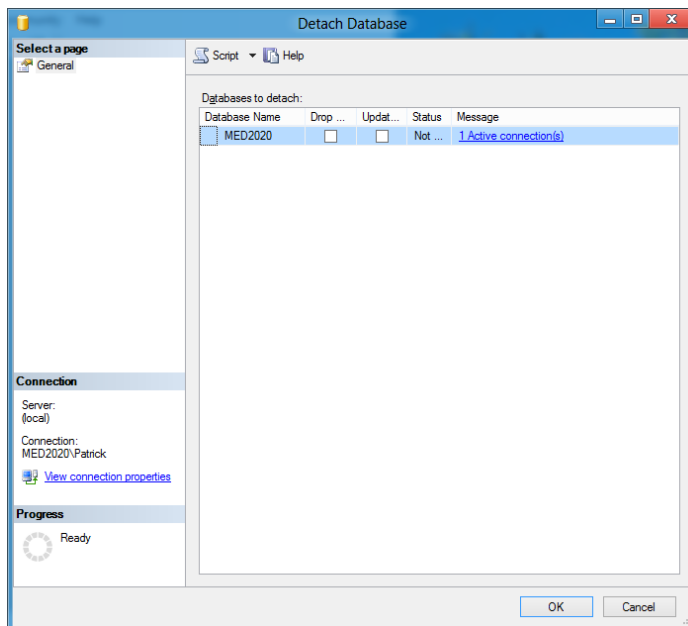


Right click on the database and select *Tasks->Detach*.



Click **OK** to detach the database. The WinRecs database has been detached and is no longer displayed in the tree view.

If SQL reports active connections but no one is logged in to WinRecs, please perform the following steps:



- Check off Drop Connections.
- Then click OK to detach the database.

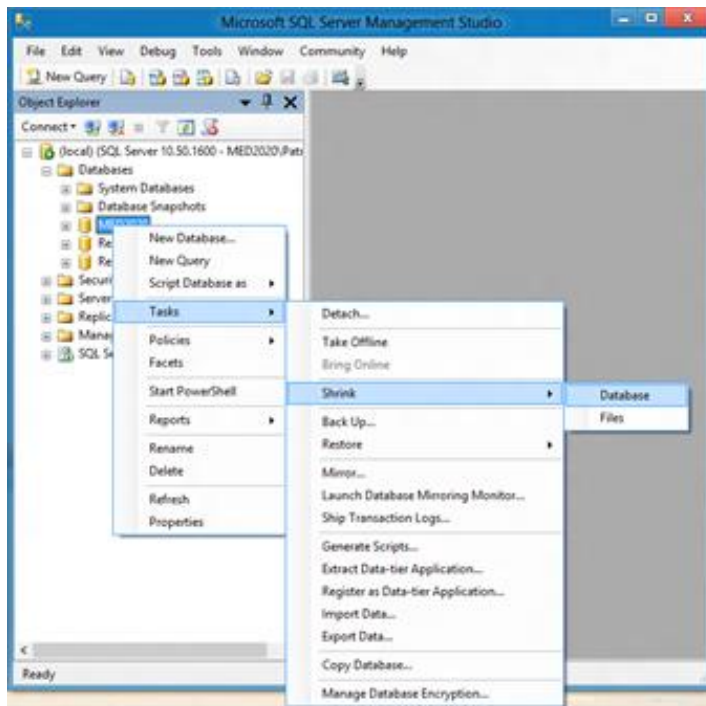
The WinRecs database has been detached and is no longer displayed in the tree view.

## 5 Advanced Database Management and Server Maintenance

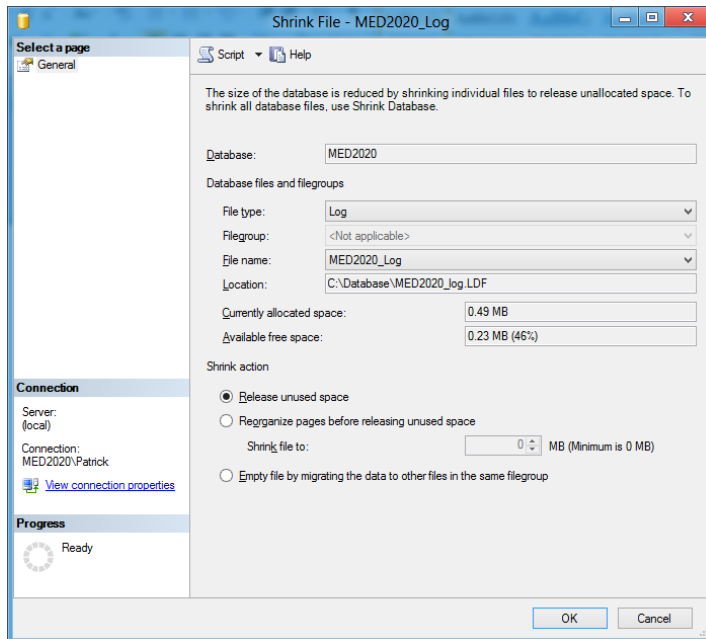
The following sections detail steps that may assist when the WinRecs database disk space is low.

### 5.1 Shrinking the Log File

From within SQL Server Management Studio, expand the following sections in the tree view to reveal the WinRecs database in the list:



- Navigate to the WinRecs database
- Right-click on the database and select Tasks->Shrink-> Files



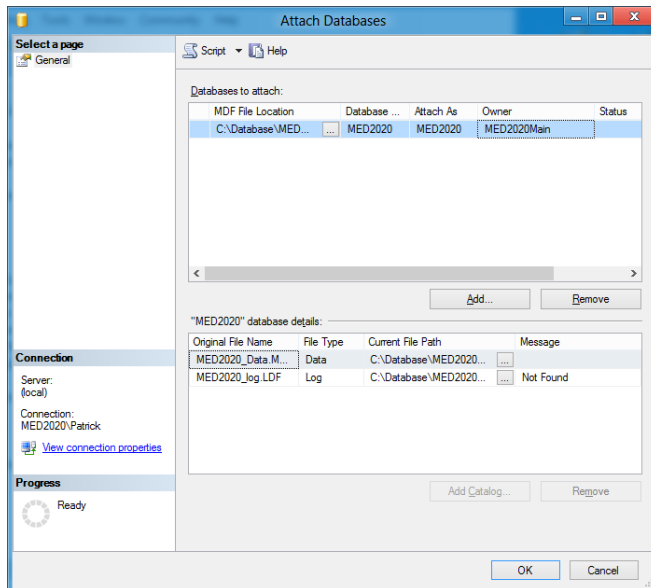
- Under Database files and filegroups, in the file type drop-down list, select the Log
- Under Shrink action, select Release unused space, click OK

## 5.2 Moving the Transaction Log to a Different Drive

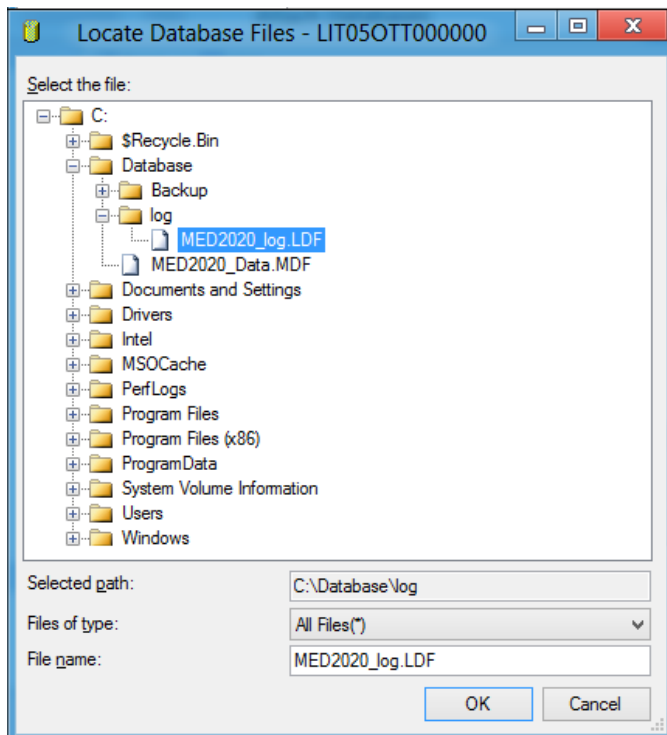
The size and growth of the Transaction Log can often impede the availability and performance of the WinRecs database. When this occurs, we recommended that you move the Transaction Log to a different physical location, using the following steps:

- Identify the location and physical file name of the Transaction Log
- Detach the database ([see section 4.4](#))
- Relocate the Transaction Log (LDF) file to the new location
- Attach the database file as previously instructed ([see section 7.1.2](#))
- In SQL Server Management Studio, re-attach the database

The Attach Database window will indicate that the log file cannot be found.



- Click the elipsis (...) for the log file



- Select the correct path to the .LDF
- Click *OK*; the *Current File Location* for the transaction log should now be registered correctly.

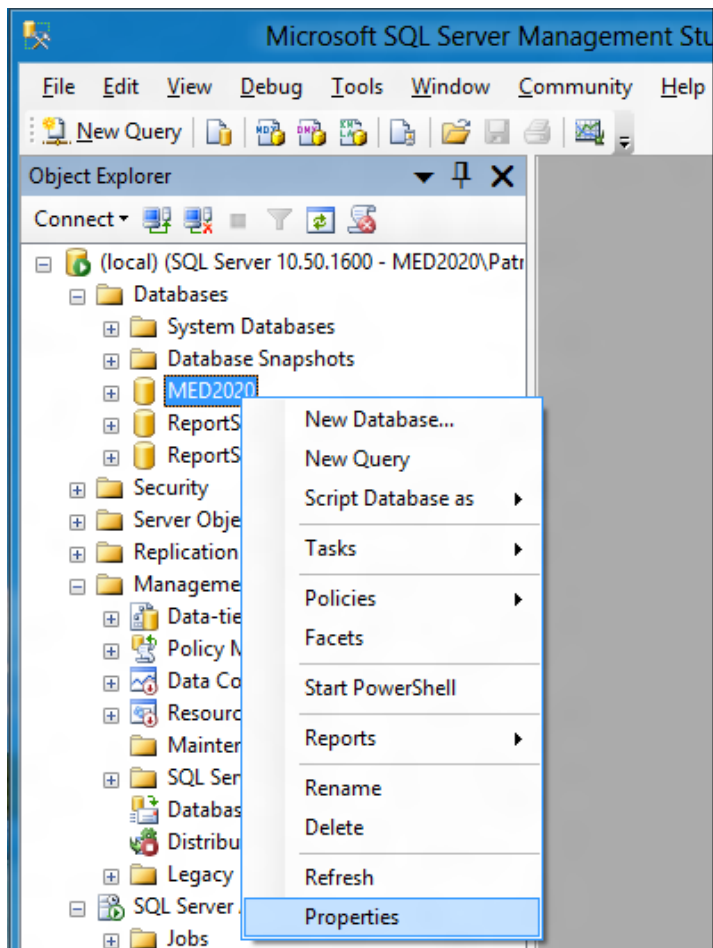
Complete the remaining steps to attach the database as per instructions in [section 4.3](#).

## 5.3 Setting Recovery Model

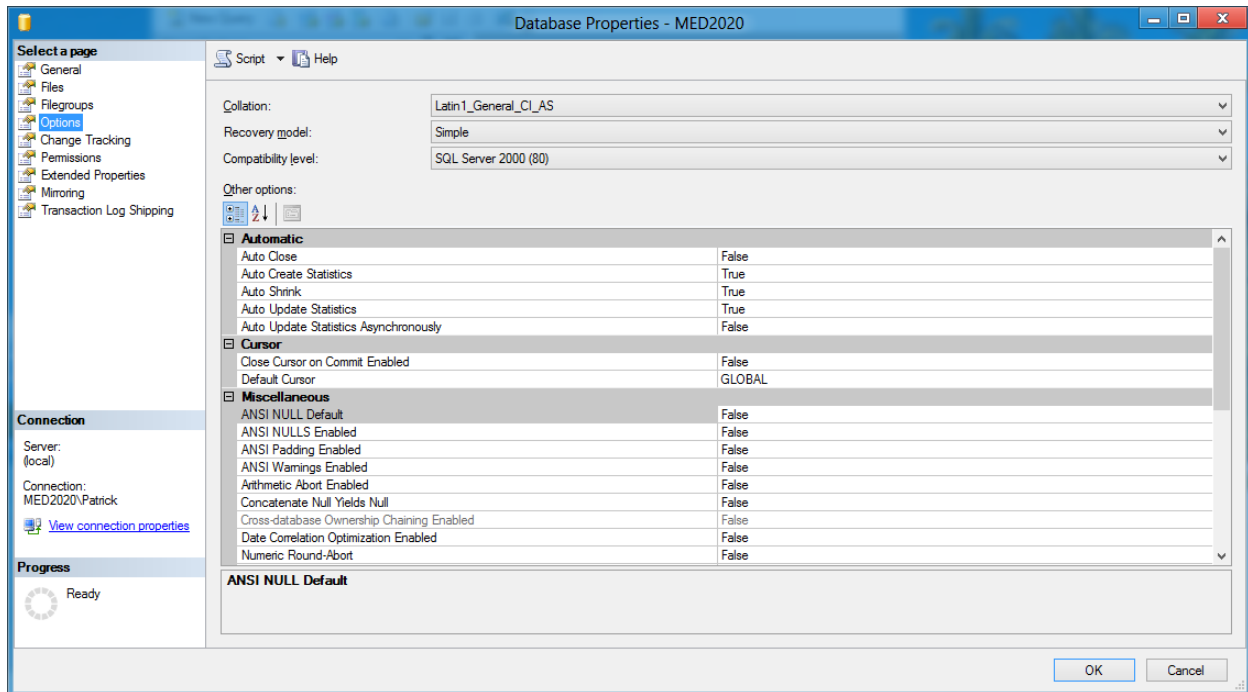
The recovery model determines to what extent databases can be recovered in the event of failure. By default, all SQL databases are configured with a Full Recovery model.

For customers who are consistently running out of disk space and cannot relocate the transaction log to an alternate drive, the recovery model can be changed to *Simple* which will reduce the amount of disk space that the transaction logs will consume.

From within SQL Server Management Studio, expand the following sections in the tree view to reveal the WinRecs database in the list:



- Navigate to the *WinRecs* database
- Right-click on the database and select *Properties*



- Click the *Options* tab
- In the *Recovery*: Model drop-down list, select the recovery model.

The following table can be used to determine the most appropriate method:

Recovery Model Name	Recovery Model Description
Bulk-Logged	The Bulk-Logged recovery model has fewer recovery options than the Full model, but it has a less severe performance impact on bulk operations. It uses less log space on certain bulk operations because it records only the operations' results. With this model, however, you can't restore to a specific mark in the database, nor can you restore just parts of the database.
Full	The FULL recovery model gives you the most recovery flexibility. It's the default recovery option for new databases. This model allows you to restore just part of a database or do a complete recovery. Assuming the transactions logs haven't been damaged, you can also recover up to the last committed transaction prior to a failure. This method uses the most transaction log space of all the recovery models and it causes minimal impact on SQL Server performance.
Simple	The SIMPLE recovery model is the easiest of the three to implement and it uses the least amount of storage space. However, recovery is limited to when the database was last backed up.

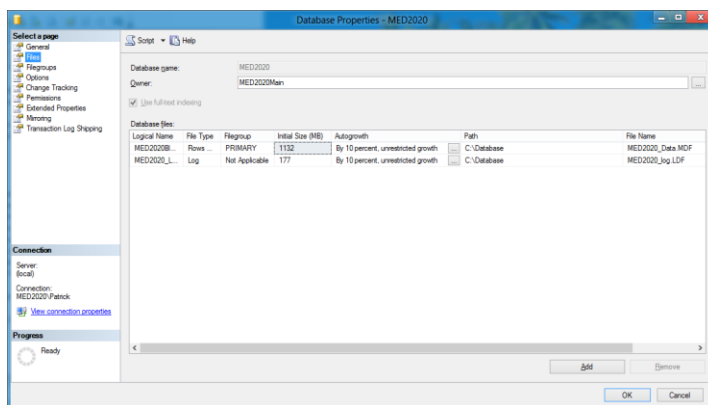
Once the recovery model has been selected, click *OK*.

## 5.4 Sizing the Database

Properly sizing the database avoids the need for additional overhead associated with growing data files. Limiting the amount of physical database growth will help prevent the fragmentation of data files.

From within SQL Server Management Studio, expand the following sections in the tree view to reveal the WinRecs database in the list:

- Navigate to the WinRecs database
- Right-click on the database and select Properties



**Note:** As a baseline, it is recommended to set the data files to 10%, unrestricted growth.

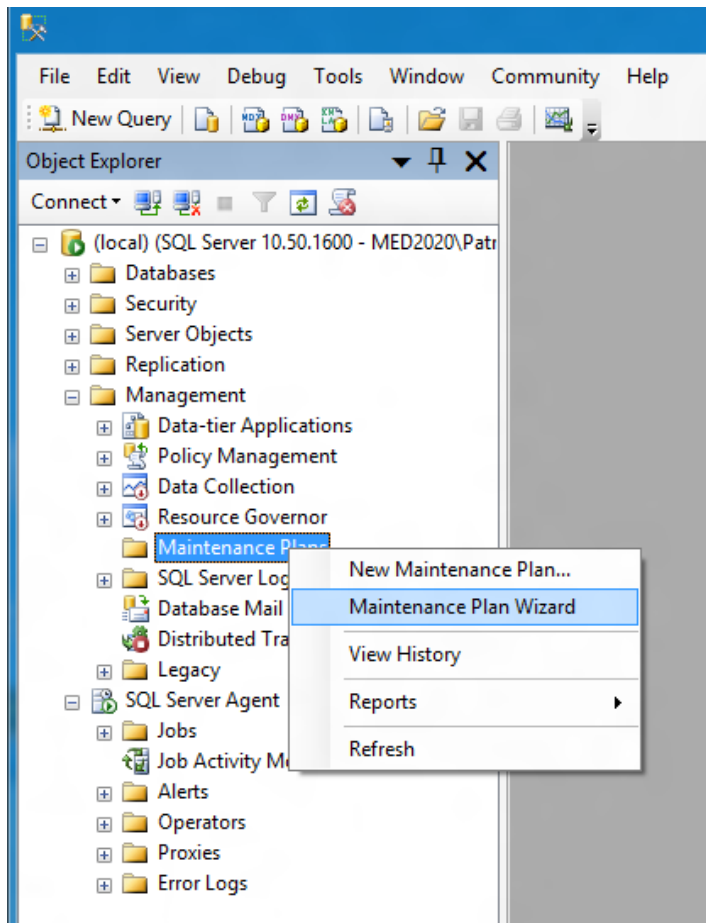


## 5.5 Backing up the Databases

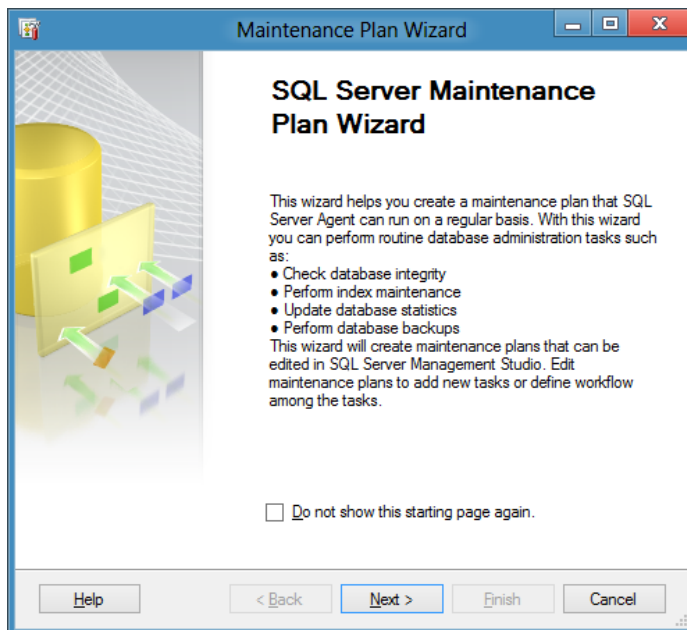
It is recommended to use SQL Server to backup databases as the data files are locked when attached. Only select tools are able to back up open data files. Additionally, SQL Server is faster at creating database backups than other software solutions.

This method also ensures that, in the event of a network backup failure, a local backup is available.

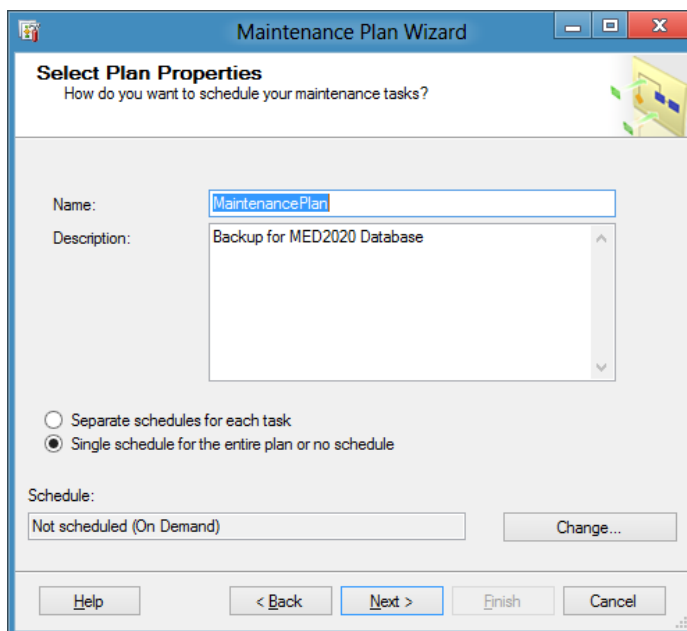
- In SQL Server Management Studio, expand the tree to the Management options



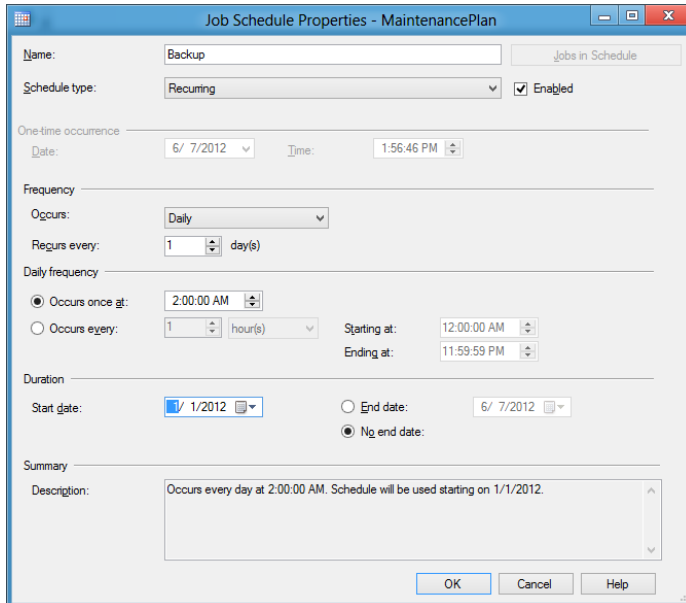
- Navigate to *Management*
- Right-click on *Maintenance Plans* and select *Maintenance Plan Wizard*



- Click *Next*



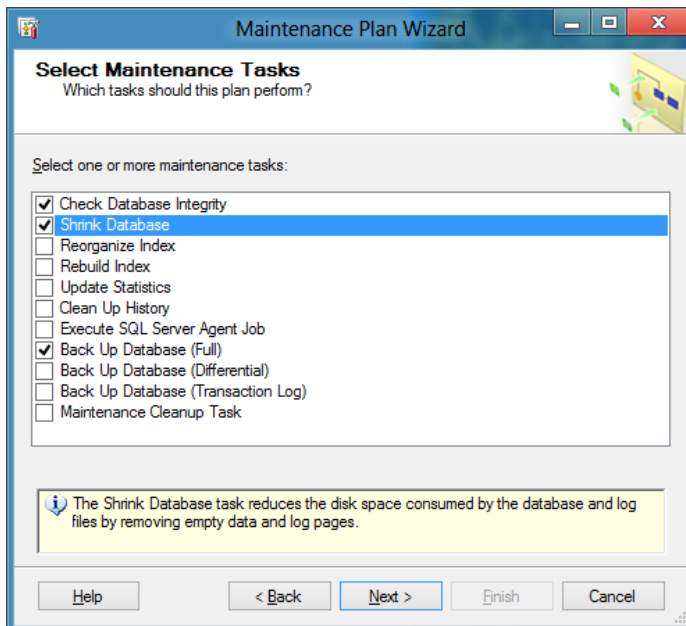
- Give the *Maintenance Plan* a name
- Before proceeding, click Change to define a schedule



The dialog box 'Job Schedule Properties - MaintenancePlan' contains the following fields and options:

- Name:** Backup
- Schedule type:** Recurring (dropdown), ☒ Enabled
- One-time occurrence:** Date: 6/ 7/2012, Time: 1:56:46 PM
- Frequency:** Occurs: Daily (dropdown), Regurs every: 1 day(s)
- Daily frequency:**
  - ☒ Occurs once at: 2:00:00 AM
  - ☐ Occurs every: 1 hour(s)
  - Starting at: 12:00:00 AM, Ending at: 11:59:59 PM
- Duration:**
  - ☒ Start date: 1/1/2012
  - ☐ End date: 6/ 7/2012
  - ☒ No end date
- Summary:** Description: Occurs every day at 2:00:00 AM. Schedule will be used starting on 1/1/2012.
- Buttons: OK, Cancel, Help

- Enter all the information to define the schedule for the job to run
- Click *OK* to return to the previous screen, then click *Next*



The 'Maintenance Plan Wizard' screen 'Select Maintenance Tasks' asks 'Which tasks should this plan perform?'. It features a list of tasks with checkboxes:

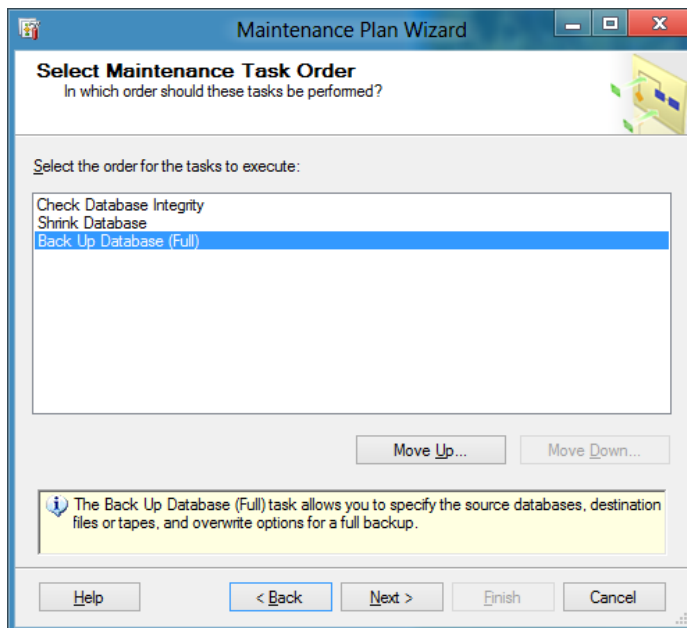
- ☒ Check Database Integrity
- ☒ Shrink Database
- ☐ Reorganize Index
- ☐ Rebuild Index
- ☐ Update Statistics
- ☐ Clean Up History
- ☐ Execute SQL Server Agent Job
- ☒ Back Up Database (Full)
- ☐ Back Up Database (Differential)
- ☐ Back Up Database (Transaction Log)
- ☐ Maintenance Cleanup Task

A yellow information box states: 'The Shrink Database task reduces the disk space consumed by the database and log files by removing empty data and log pages.'

Buttons at the bottom: Help, < Back, Next >, Finish, Cancel.

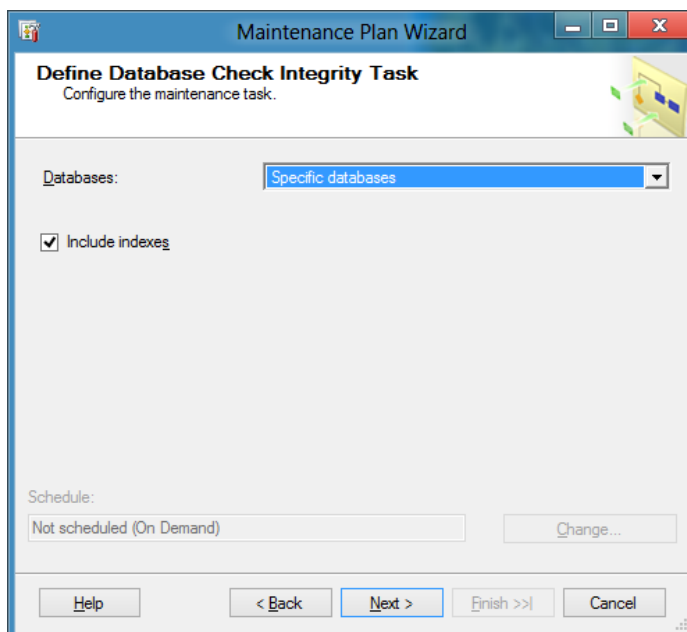
- Place a check mark in *Back Up Database (Full)*

It is recommended to also perform *Check Database Integrity* as well as *Shrink Database*.



- Select order then click *Next*<sup>2</sup>

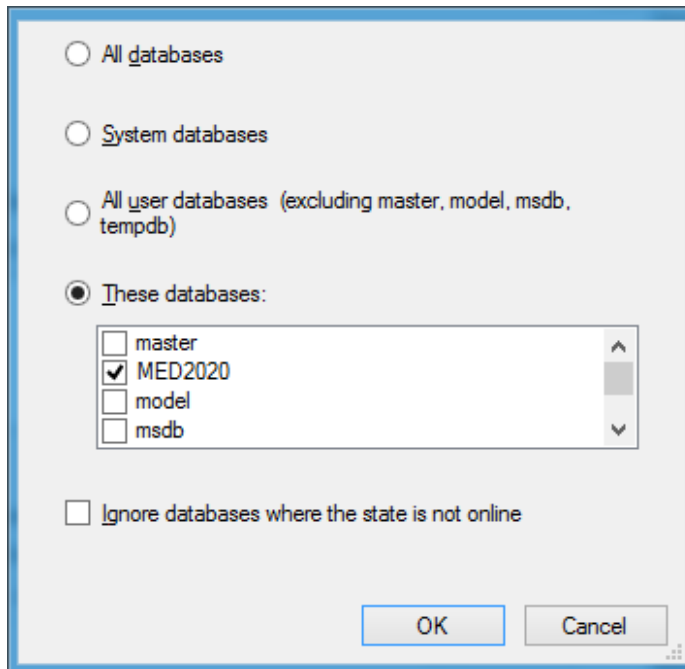
**Note:** The existing order is the recommended one.



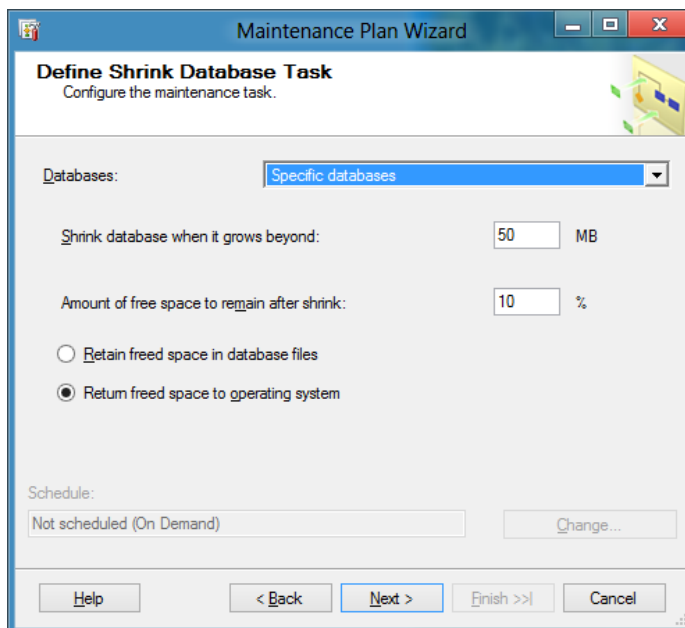
- Click on the *Databases* drop-down

---

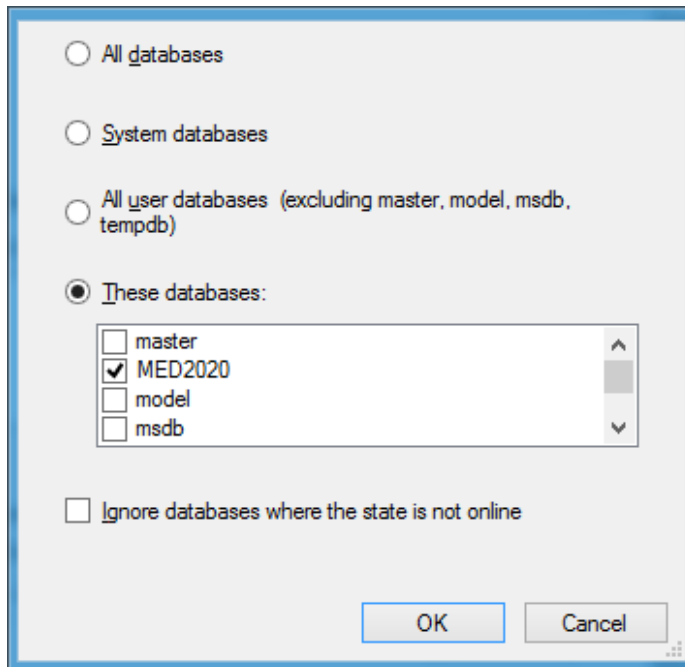
<sup>2</sup> The existing order is the recommended one



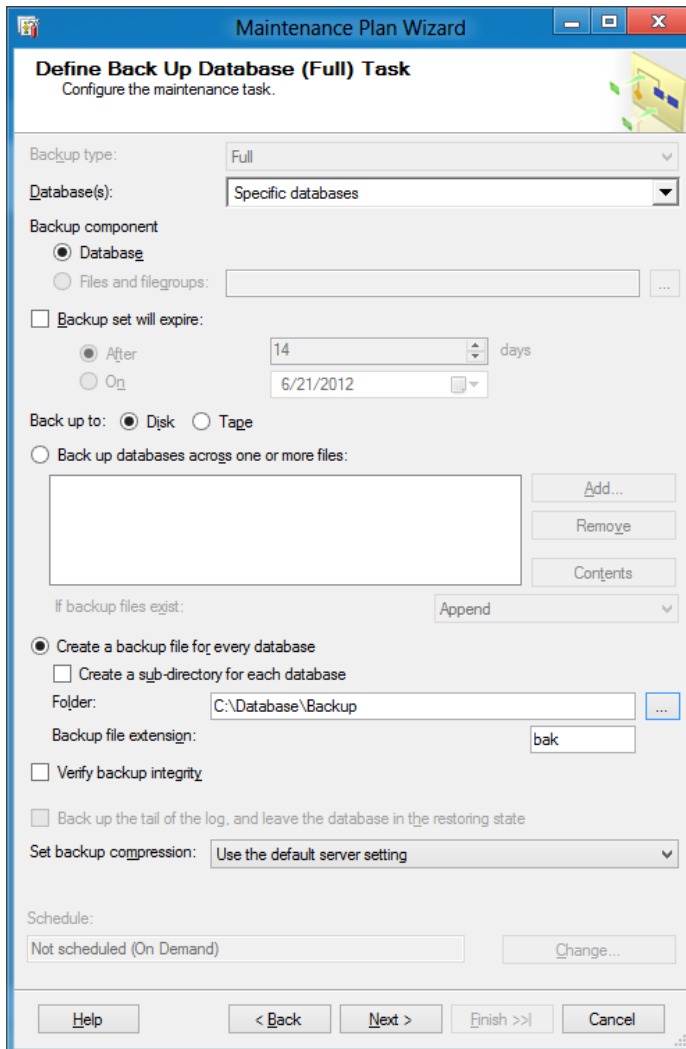
- Select the database(s) and click *OK*
- This will return you to the previous screen, click *Next* to proceed



- Click on the *Databases* drop-down



- Select the database(s) and click *OK*; this will return you to the previous screen. Click *Next* to proceed



**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 6/21/2012

Back up to: ☒ Disk ☐ Tape

☐ Back up databases across one or more files:

If backup files exist: Append

☒ Create a backup file for every database

☐ Create a sub-directory for each database

Folder: C:\Database\Backup

Backup file extension: bak

☐ Verify backup integrity

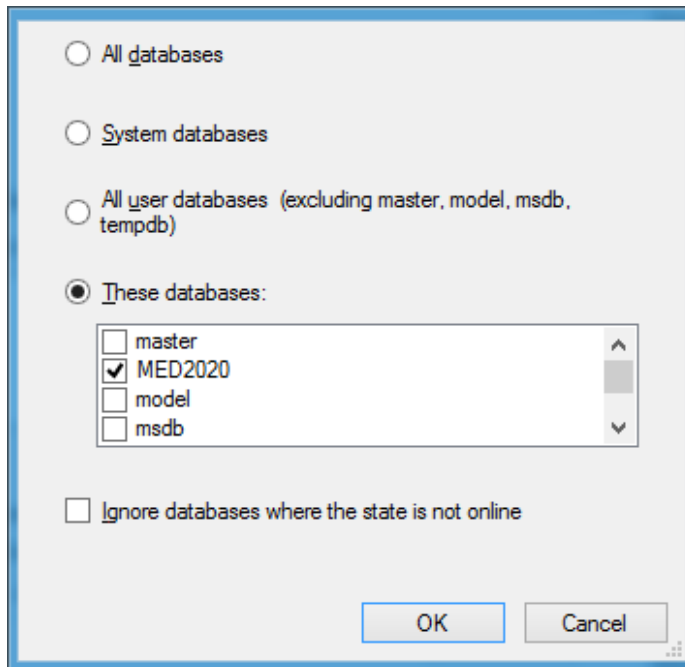
☐ Back up the tail of the log, and leave the database in the restoring state

Set backup compression: Use the default server setting

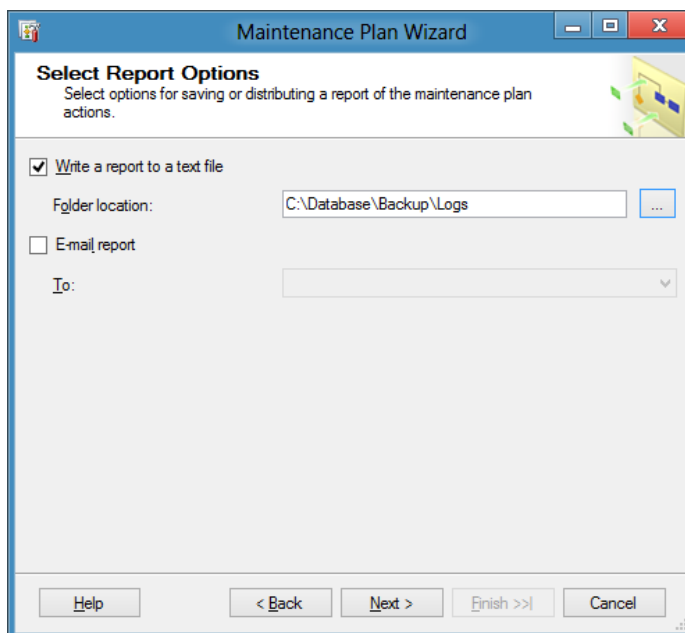
Schedule:

Not scheduled (On Demand)

- Select Create a Backup for every database
- For the Folder location, click the elipsis (...) and browse to the folder in which you wish to store your backups
- Click on the *Database(s)* drop-down

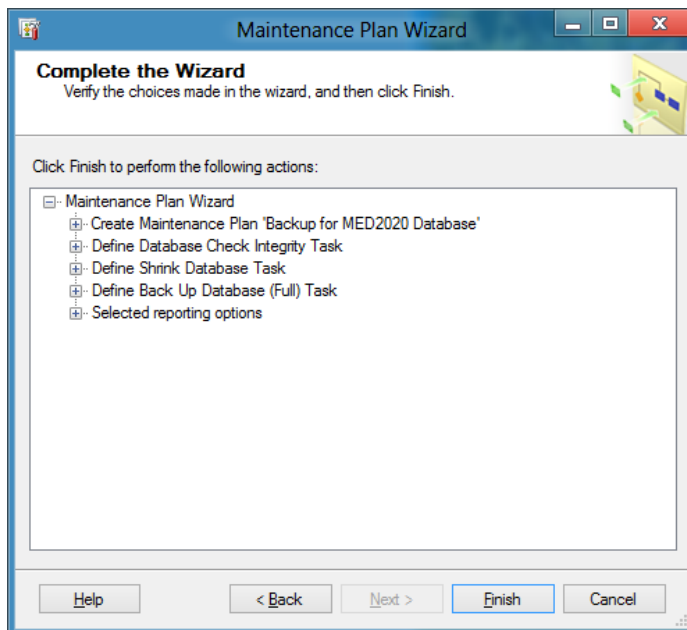


- Select *These databases* and click *OK*; this will return you to the previous screen. Click *Next* to proceed

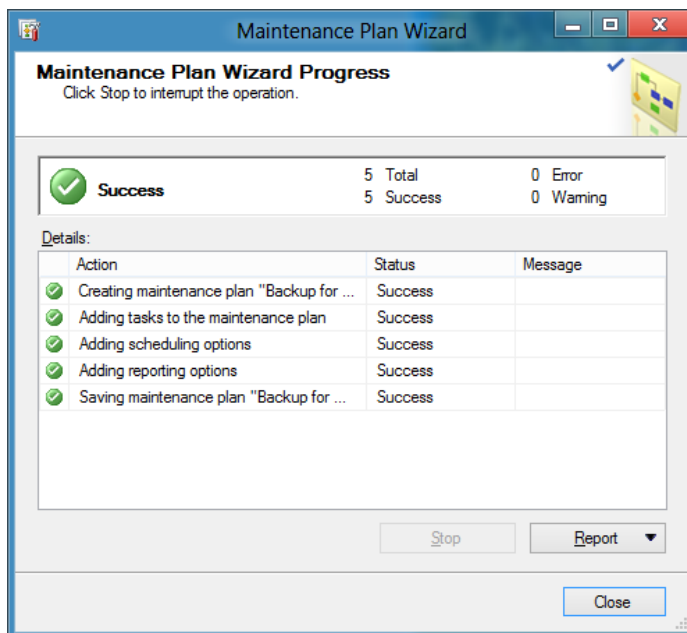


- For *Folder location*, click the elipsis (...) and brows to the folder in which you wish to store your backup reports
- Click *Next*





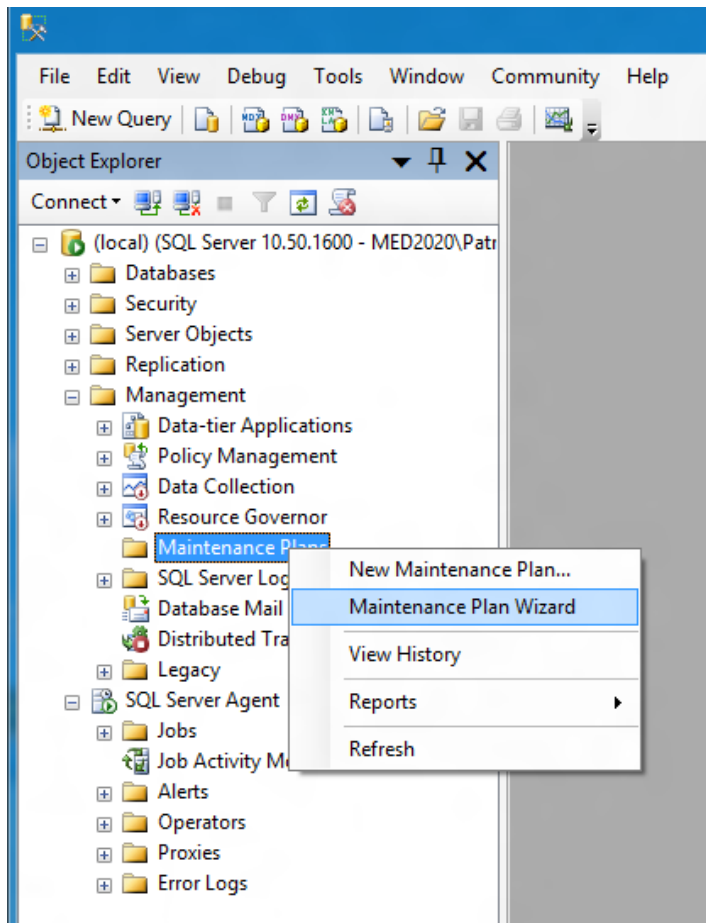
- Click *Finish*



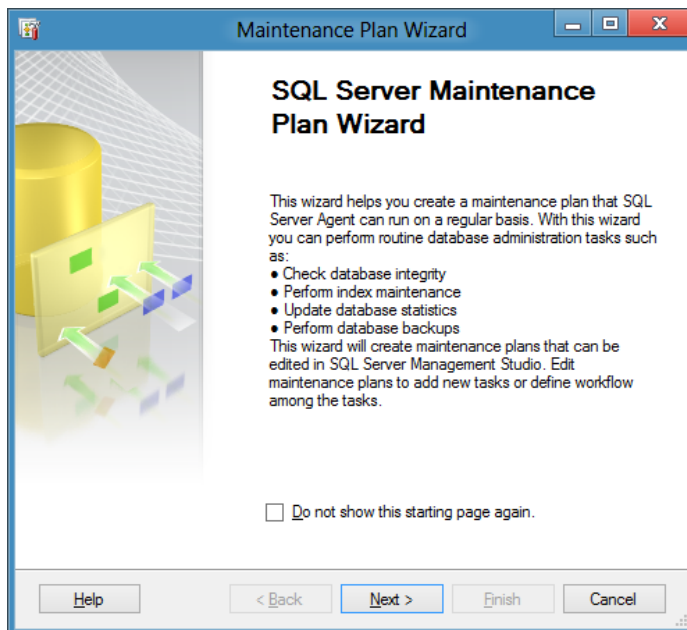
- Click *Close*

**Note:** Be sure to verify the maintenance jobs by running them at least once prior to establishing a routine schedule as part of your recovery process.

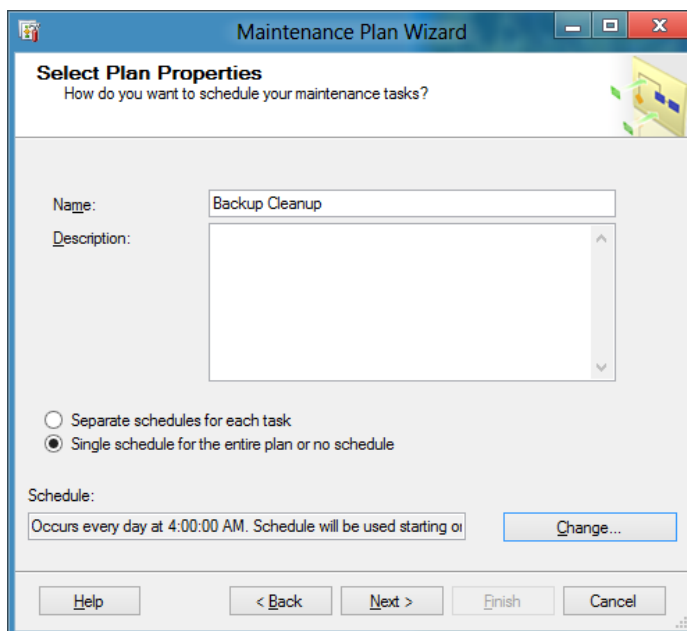
## 5.6 Backup Databases Cleanup



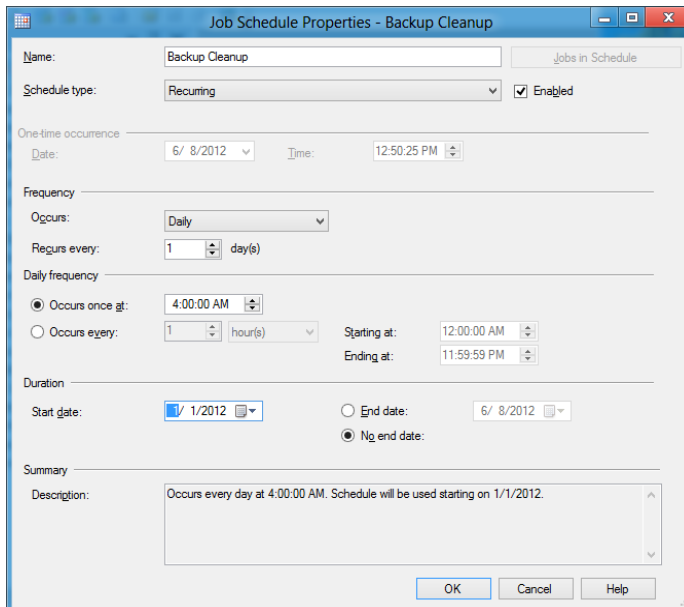
- Navigate to *Management*
- Right-click on *Maintenance Plans* and select *Maintenance Plan Wizard*



- Click *Next*



- Give the *Maintenance Plan* a name
- Before proceeding, click *Change* to define a schedule

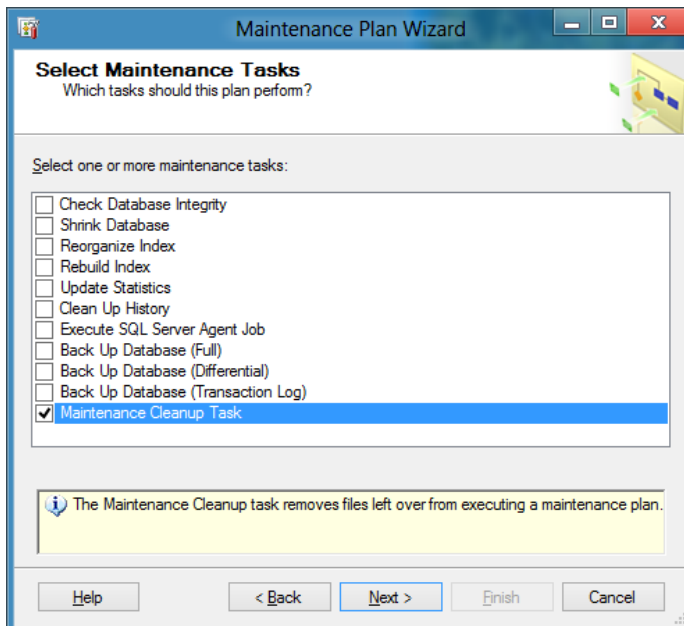


The dialog box is titled "Job Schedule Properties - Backup Cleanup". It contains the following fields and options:

- Name:** Backup Cleanup
- Schedule type:** Recurring (dropdown menu)
- Enabled:** ☒
- One-time occurrence:**
  - Date:** 6/ 8/2012
  - Time:** 12:50:25 PM
- Frequency:**
  - Occurs:** Daily
  - Repeats every:** 1 day(s)
- Daily frequency:**
  - ☒ Occurs once at: 4:00:00 AM
  - ☐ Occurs every: 1 hour(s)
  - Starting at:** 12:00:00 AM
  - Ending at:** 11:59:59 PM
- Duration:**
  - Start date:** 1/1/2012
  - ☐ End date: 6/ 8/2012
  - ☒ No end date:
- Summary:**
  - Description:** Occurs every day at 4:00:00 AM. Schedule will be used starting on 1/1/2012.

Buttons at the bottom: OK, Cancel, Help.

- Enter all the required information to define the schedule for the job to run
- Click *OK* to return to the previous screen
- Then click *Next*

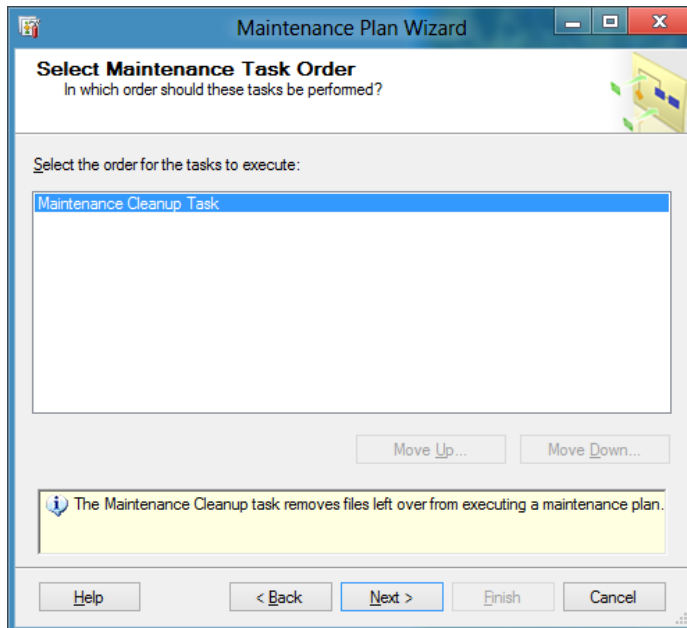


The dialog box is titled "Maintenance Plan Wizard" and "Select Maintenance Tasks". It contains the following elements:

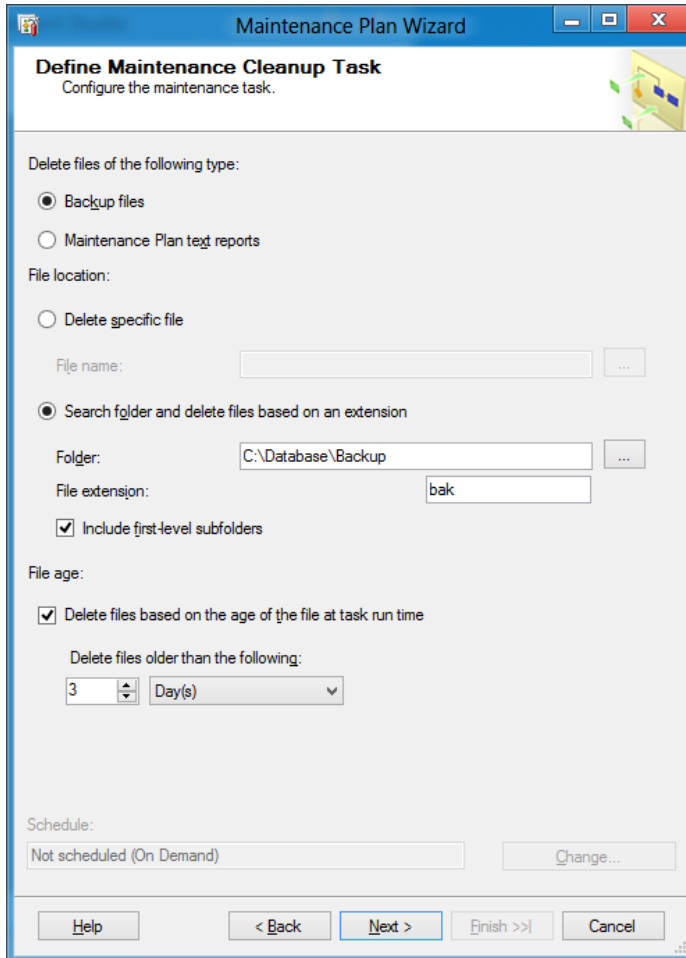
- Select one or more maintenance tasks:**
  - ☐ Check Database Integrity
  - ☐ Shrink Database
  - ☐ Reorganize Index
  - ☐ Rebuild Index
  - ☐ Update Statistics
  - ☐ Clean Up History
  - ☐ Execute SQL Server Agent Job
  - ☐ Back Up Database (Full)
  - ☐ Back Up Database (Differential)
  - ☐ Back Up Database (Transaction Log)
  - ☒ Maintenance Cleanup Task
- Information:** The Maintenance Cleanup task removes files left over from executing a maintenance plan.

Buttons at the bottom: Help, < Back, Next >, Finish, Cancel.

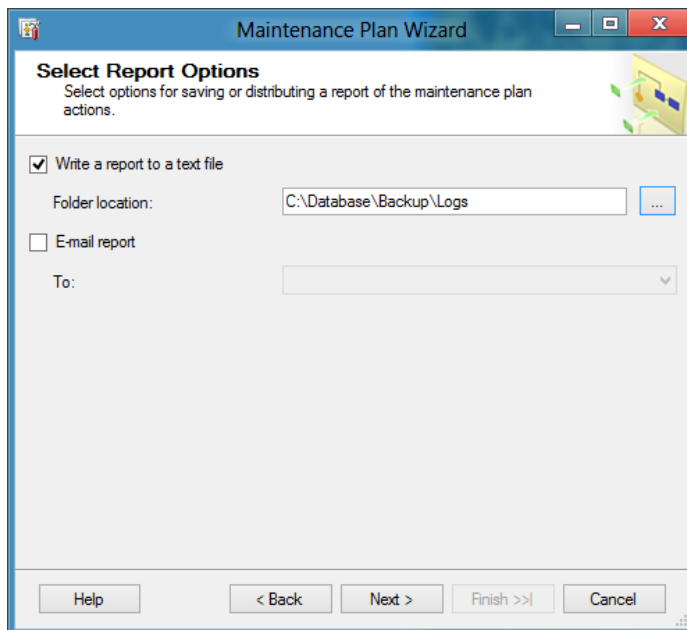
- Place a check mark in *Maintenance Cleanup Task*
- Click *Next*



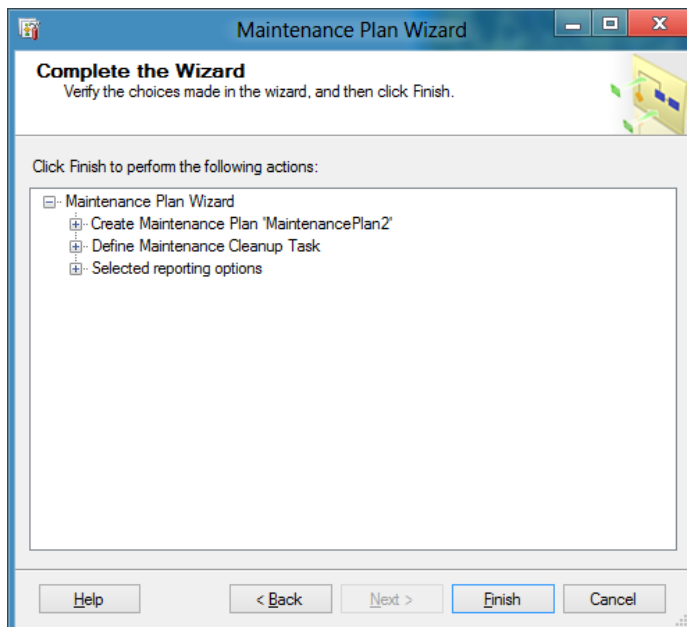
- Click *Next*



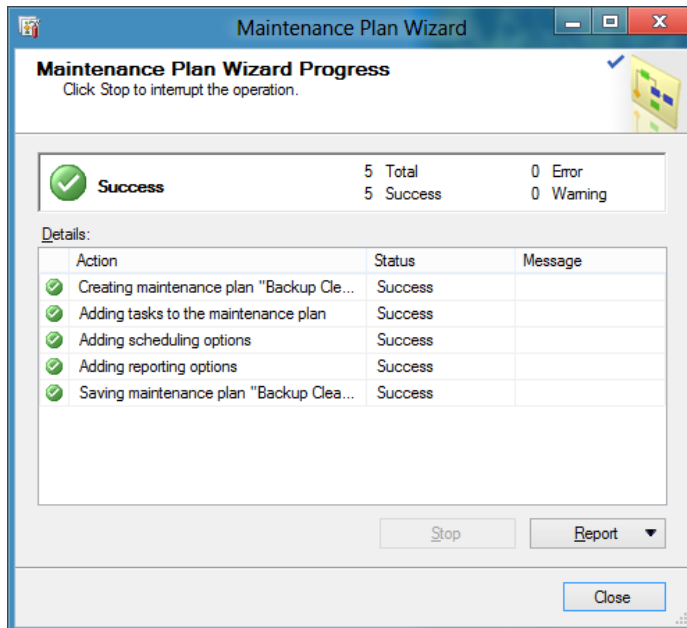
- Under the *Delete files of the following types*, select *Backup Files*
- Select *Search folder and delete files based on extension*
- For *Folder*, click the elipsis (...) and browse to the folder that contains your backups
- Key in **bak** for *File extension*
- Place a check mark in *Include first-level subfolders*
- Under *File age*, check *Delete files based on the age of the file at task runtime*
- Under *Delete files older than the following*, using arrows select **3**
- Click *Next*



- For *Folder location*, click the elipsis (...) and browse to the folder in which you wish to store your backup cleanup logs
- Click *Next*



- Click *Finish*



- Click *Close*



## 5.7 Relocating/Cloning WinRecs to another Server

Prepare the current server by performing the steps in the section entitled Shutting Down WinRecs ([see section 4.2](#)). **Do not reboot the server.**

- Detach the WinRecs and/or Batch-In database(s) that will be moved to a new folder, drive or server
- Archive (create a zip file of) the Database (.mdf) and Transaction Log (.ldf) files

**Note:** Do not change the file names of the Database or Transaction Log files.

- Archive, copy and relocate the “WR2 Reports” folder and/or any shared reports folders used by WinRecs client workstations
- Proceed with the installation of the new server as described in [section 4.1](#)
- Un-zip and re-attach the databases using the instructions in [section 4.3](#)

## 5.8 Re-Indexing the Database

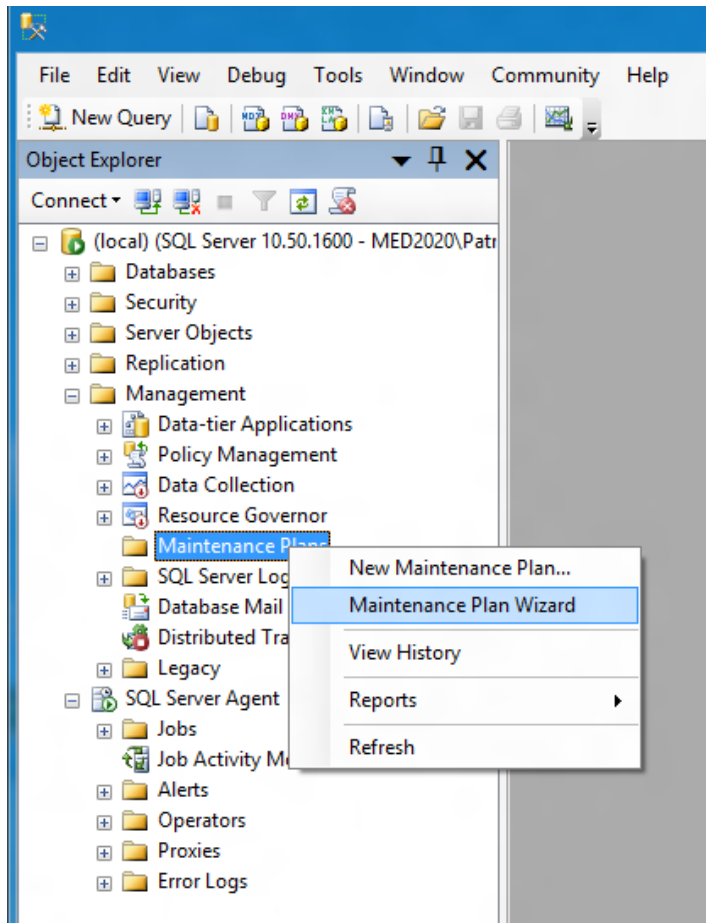
This section provides instruction on how to set up a re-indexing job on your WinRecs client server.

**Note:** Currently it is not possible to Re-Index a database without SQL Management Studio or Enterprise Manager. For sites still using SQL 2000 MSDE, we recommend that you upgrade to SQL 2008 R2 Express, which properly supports this functionality.

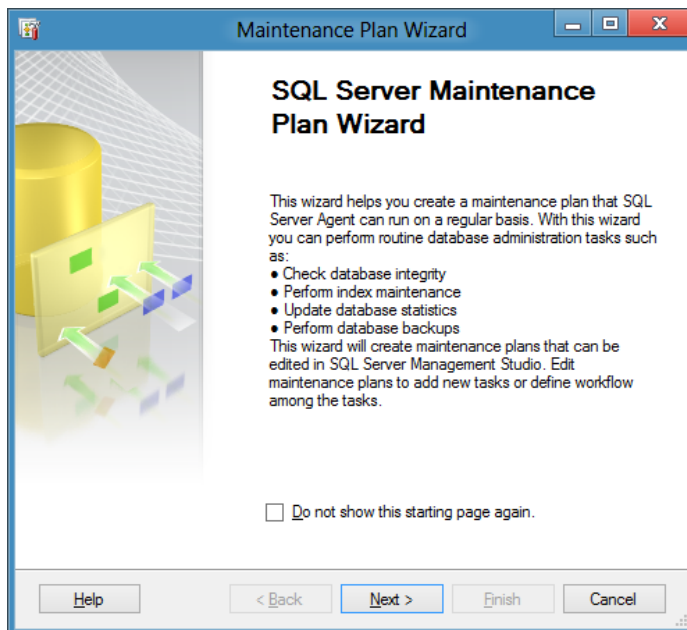
Regular re-indexing will greatly assist in the performance of the SQL database. We recommend re-indexing the WinRecs database according to the following guidelines:

Database Size	Frequency of Indexing
Databases < 5 GB in size	Re-index once per week
Databases 5 – 10 GB in size	Re-index twice per week
Databases 10-25 GB in size	Re-index every other day
Databases >25 GB in size	Re-index every day

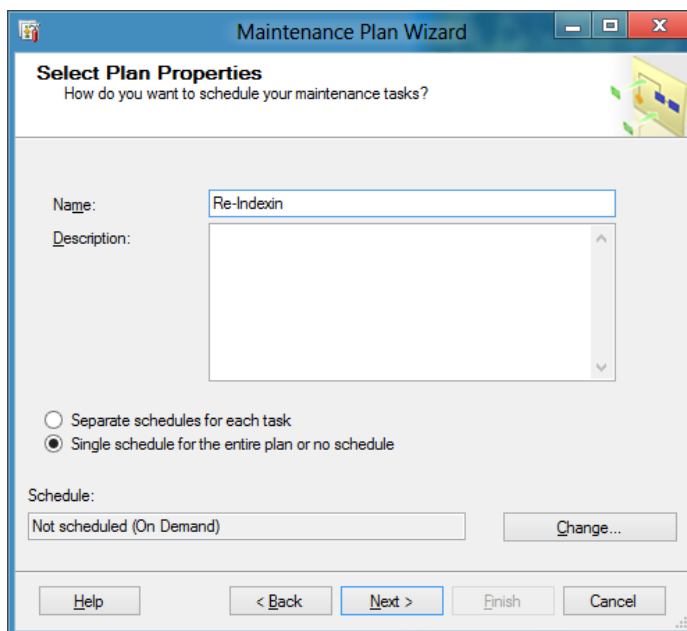
In SQL Server Management Studio, expand the tree to the Management options:



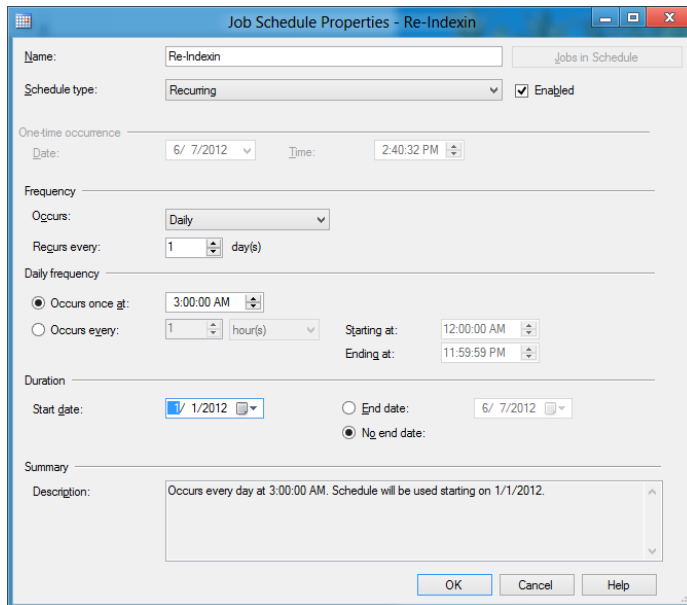
- Navigate to *Management*
- Right-click on *Maintenance Plans* and select *Maintenance Plan Wizard*



- Click *Next*



- Give the *Maintainance Plan* a name
- Before proceeding, click *Change* to define a schedule
- Click *Next*

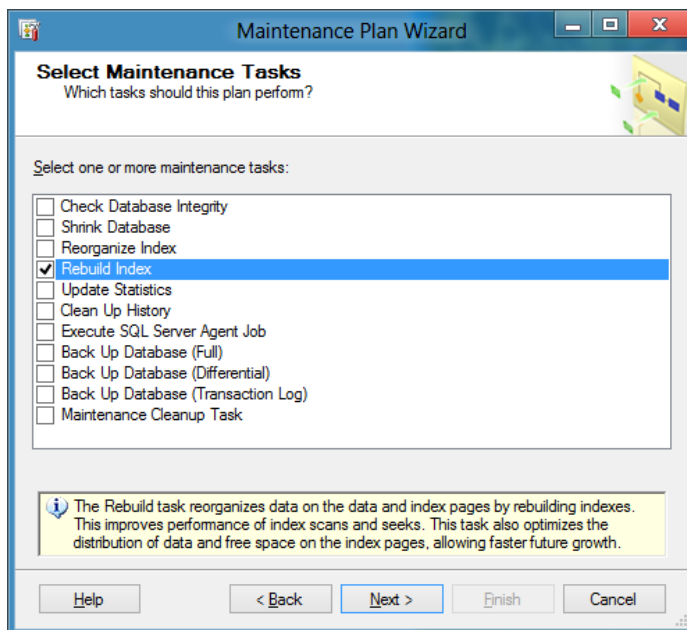


The dialog box is titled "Job Schedule Properties - Re-Indexin". It contains the following fields and options:

- Name:** Re-Indexin
- Schedule type:** Recurring (dropdown menu)
- Enabled:** ☒
- One-time occurrence:**
  - Date:** 6/ 7/2012
  - Time:** 2:40:32 PM
- Frequency:**
  - Occurs:** Daily
  - Rekurs every:** 1 day(s)
- Daily frequency:**
  - ☒ Occurs once at: 3:00:00 AM
  - ☐ Occurs every: 1 hour(s)
  - Starting at:** 12:00:00 AM
  - Ending at:** 11:59:59 PM
- Duration:**
  - Start date:** 1/1/2012
  - ☐ End date: 6/ 7/2012
  - ☒ No end date:
- Summary:**
  - Description:** Occurs every day at 3:00:00 AM. Schedule will be used starting on 1/1/2012.

Buttons at the bottom: OK, Cancel, Help.

- Enter all the information to define the schedule for the job to run
- Click *OK* to return to the previous screen, then click *Next*



The screen is titled "Maintenance Plan Wizard" and "Select Maintenance Tasks". It asks "Which tasks should this plan perform?".

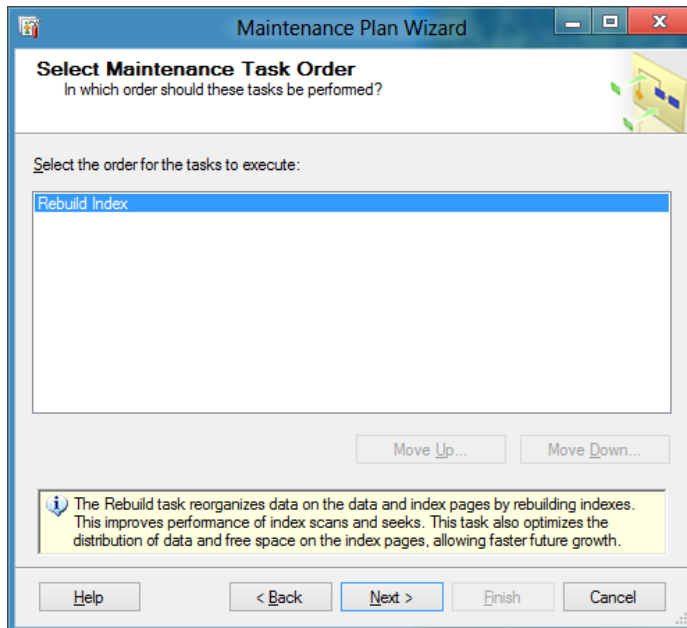
**Select one or more maintenance tasks:**

- ☐ 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

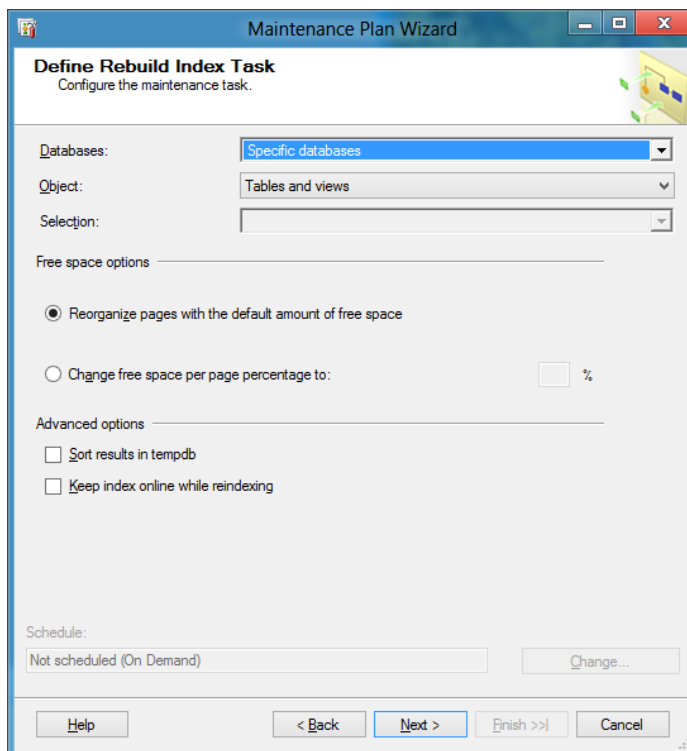
**Help:** The Rebuild task reorganizes data on the data and index pages by rebuilding indexes. This improves performance of index scans and seeks. This task also optimizes the distribution of data and free space on the index pages, allowing faster future growth.

Buttons at the bottom: Help, < Back, Next >, Finish, Cancel.

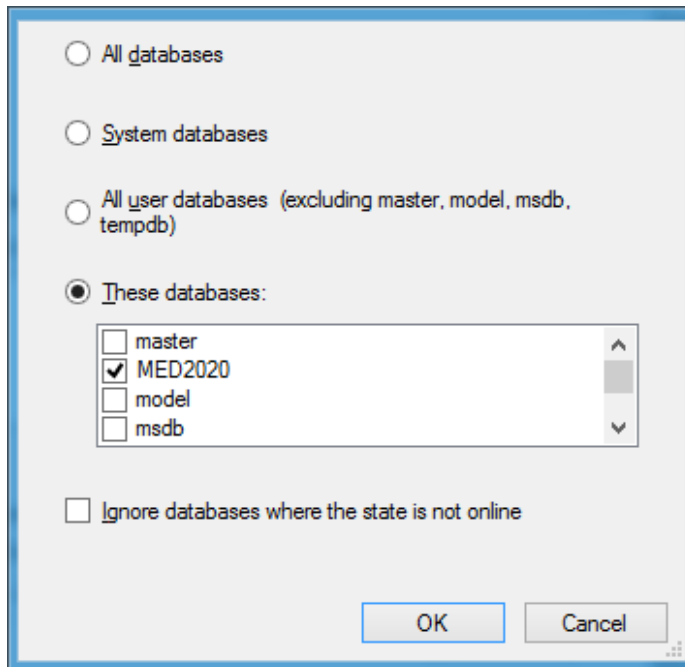
- Select *Rebuild Index*
- Click *Next*



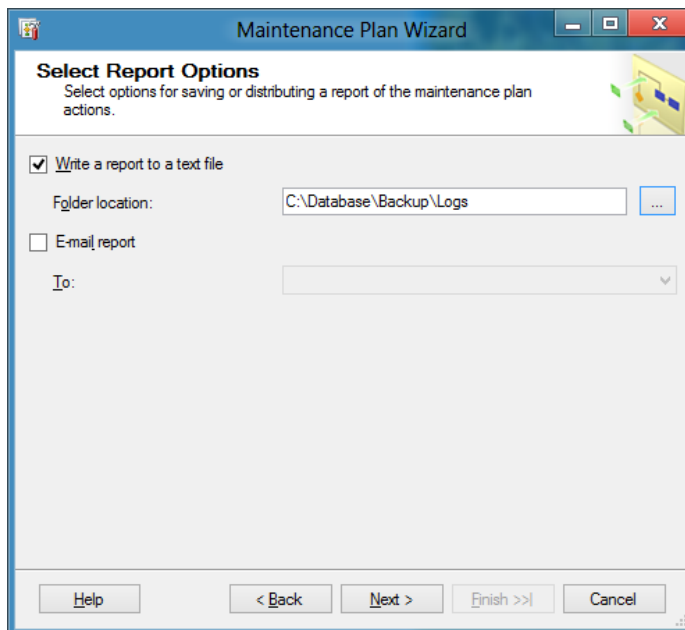
- Click *Next*



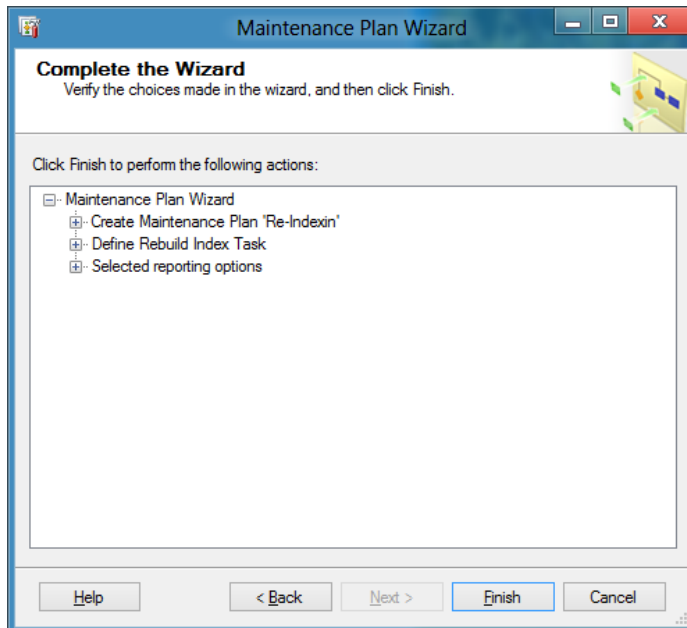
- Click on the *Databases* drop-down



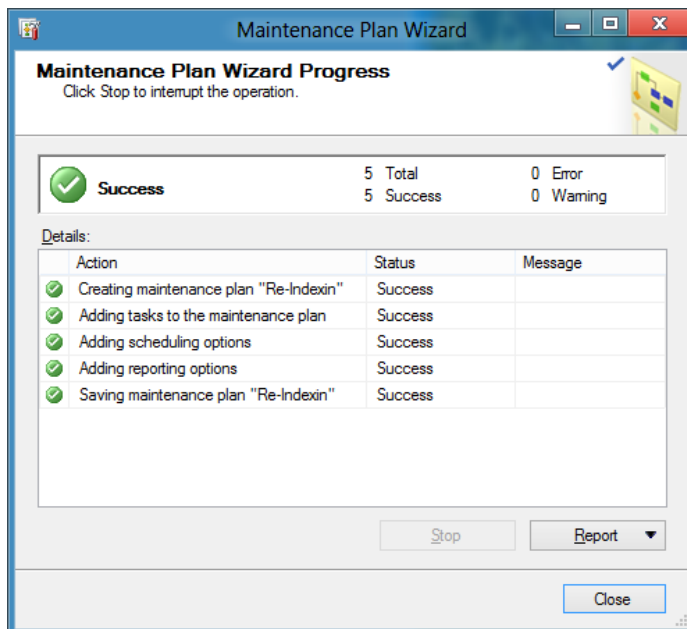
- Select *These Databases* and check your database, then click *OK*; this will return you to the previous screen. Click *Next* to proceed



- For *Folder Location*, click the elipsis (...) and browse to the folder in which you wish to store your re-index logs, Click *Next*



- Click *Finish*



- Click *Close*

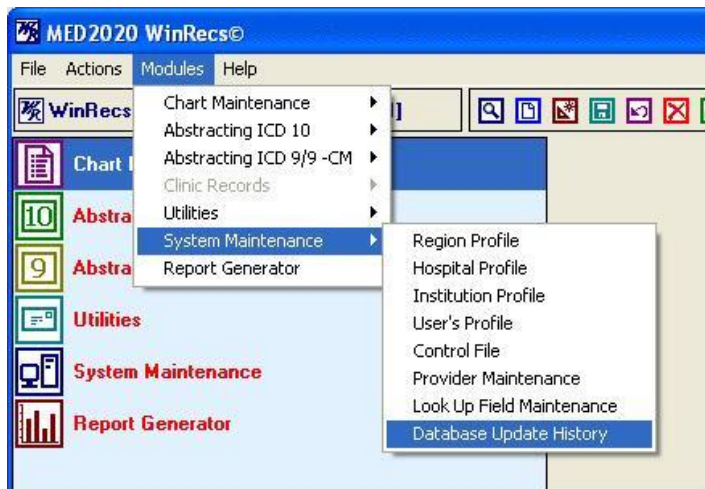
## 6 WinRecs Updates

Patches, updates and service releases are intermittently made available to WinRecs customers to resolve critical issues, implement enhancements to the application or update important edits, mandated by the Canadian Institute for Health Information (CIHI) and the provincial Ministries of Health.

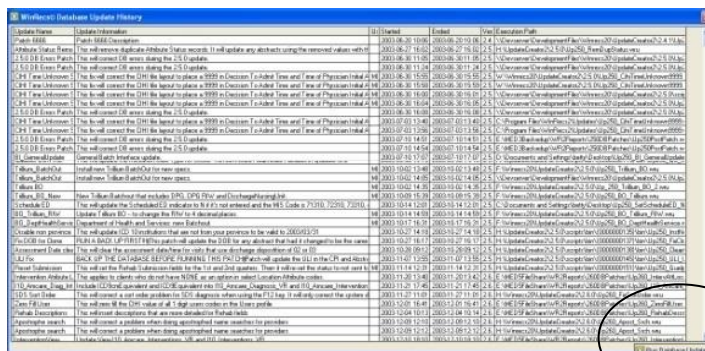
### 6.1 WRU Updates

WinRecs patches, supplied as WRU files, run SQL scripts to update database stored procedures and/or tables. To install MED2020-supplied database patches:

- Log in to WinRecs

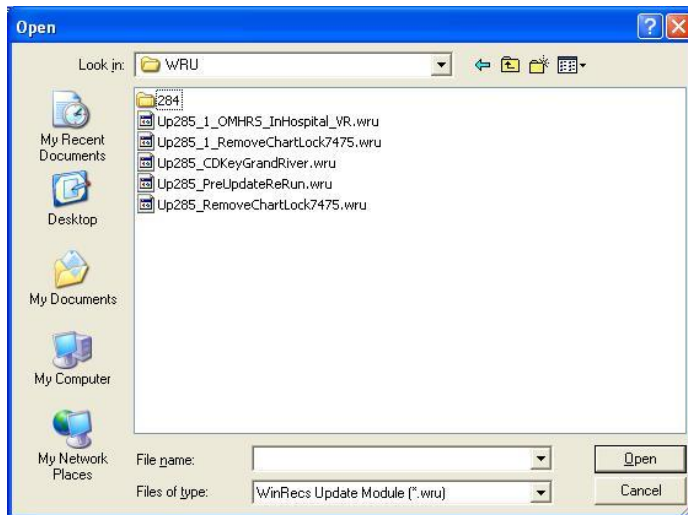


- Select *Database Update History* from the *Modules->System Maintenance* menu-> *Database Update History*

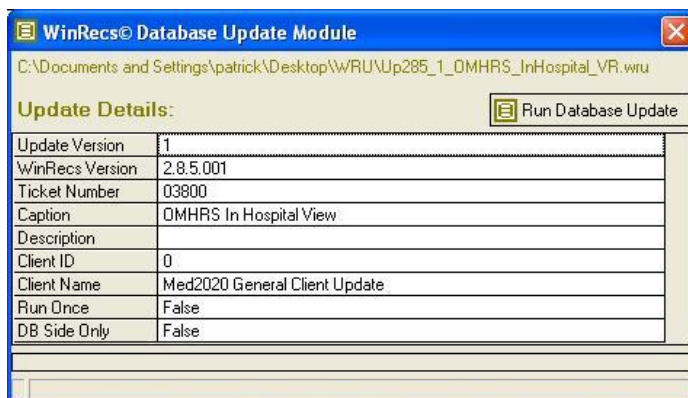


- Click Run Database Update at the bottom-right of the screen

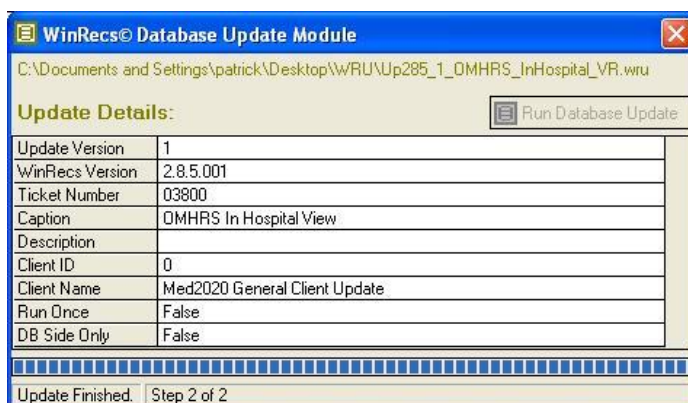




- Search for the patch (.wru) file and once selected, click *Open*

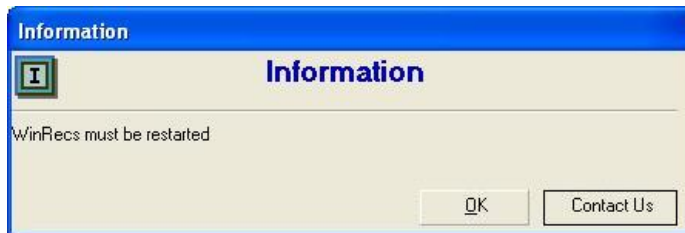


- Once the patch information is displayed, click *Run Database Update* to begin the installation



The progress bar will display the status of the installation. Once completed, *Update Finished* is displayed in the status bar.

- Click the Windows close control (X) at the top right to exit from the smaller screen



- WinRecs must be restarted after running an update
- Click *OK* to close WinRecs

Changes to the database have been applied. The WinRecs client will be updated (if applicable) during the next login.

Each of the following updates is identified with a specific colour of banner in the WinRecs application as follows:

- EXE patch update is represented in Green
- Service release update is represented in light blue
- Annual release update is represented in dark blue

However, the screenshots in this document are in grey to represent all three updates

## 6.2 EXE Patch Updates

EXE patch updates are sub-release patch updates for service releases; the first patch for the 2.8.8\_003 release would be “.01” (example 2.8.9\_001.**01**).

You must be on the service release that the patch is intended for; for example you must be on 2.8.9\_001 to be able to apply 2.8.9\_001.01.

Further detailed documentation on how to perform required steps is released with every update.

## 6.3 Service Release Updates

Service release updates are usually made available at quarterly intervals. These updates are cumulative throughout the same annual version and include all previous EXE patches. The first service release is numbered “\_001” (example 2.8.9\_**001**).

You must be working in the annual release that the service release is intended for; for example you must be working in 2.8.9 to be able to apply patch 2.8.9\_001.

Detailed documentation about how to perform required steps is provided with every update.

## 6.4 Annual Release Updates

Annual release updates are provided at the end of each fiscal year. These updates contain all the edits and changes mandated for the new fiscal year. The annual release will be the next digit up in the current series (example 2.8.9).

You must be working in the most recent service release from the previous year in order to apply the annual release; for example you must be on 2.8.8\_00X to be able to apply 2.8.9. (X = the latest service release version)

Detailed documentation about how to perform required steps is provided with every update in the *Update Guide*.

## 7 Interfaces

### 7.1 Batch In Interface

The following instructions detail the process for installing a Batch In (BI) Interface for WinRecs.

A Batch Interface is a custom module that is used to import text files containing specifically-formatted patient data into WinRecs. This data is produced by an external patient records system, such as an ADT system.

The process outlined in this document will be the same for the installation of a new BI interface or an upgrade/modification to an existing BI except for the 'Detaching a BI Database' step which only applies to an upgraded or modified BI.

**Note:** Batch Interfaces are custom modules that are developed on a per-client basis. If you have any questions regarding this process, contact a MED2020 Client Services Representative. Contact information is available above in the section 'Contact MED2020'.

#### 7.1.1 Extracting the Batch-In Interface Files

The BI is delivered in a .zip file. The .zip will contain two files – an mdf and an ldf file.

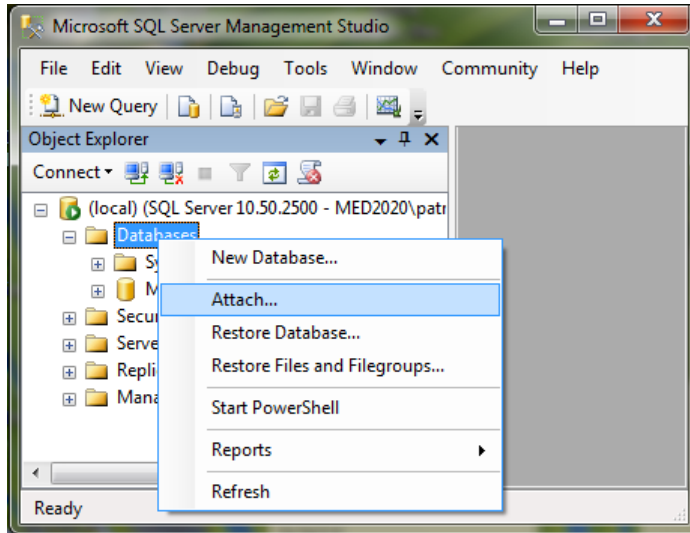
1. Save the .zip file to a local drive on the WinRecs server. This file should be placed in the location where you want the extracted files to reside
2. Double click the .zip file to extract the documents. Copy the extracted documents and place them either in the same location as the .zip file or some other convenient location on the WinRecs server

If the .zip file is not unzipped by double-clicking it, you may need to use WinZip or 7-zip for this purpose

3. Once the files are extracted proceed with the following steps.

## 7.1.2 Attaching the BI in SQL Server

To attach a database:



In the SQL Server menu go to *Local* → *Databases*. Right-click on *Databases* and, from the drop-down menu, select *Tasks* → *Attach*.

In the *Attach Databases* window click the *Add* button. Navigate to where the *mdf* and *ldf* files have been saved. Select the *mdf* file and click *OK*.

If there are multiple Batch Interfaces to be installed, repeat the above steps for each *mdf* file.

In the *Attach Databases* window, under the *Owner* column, click on the owner name and select *MED2020Main* from the drop-down menu that appears for all *mdf* files.

Optionally, the name of the Batch Interface can also be changed at this stage. Click on the name of the BI in the *Attach As column*. This will allow you to overwrite the text for the name.

---

**Note:** It is not necessary to change the name of the BI.

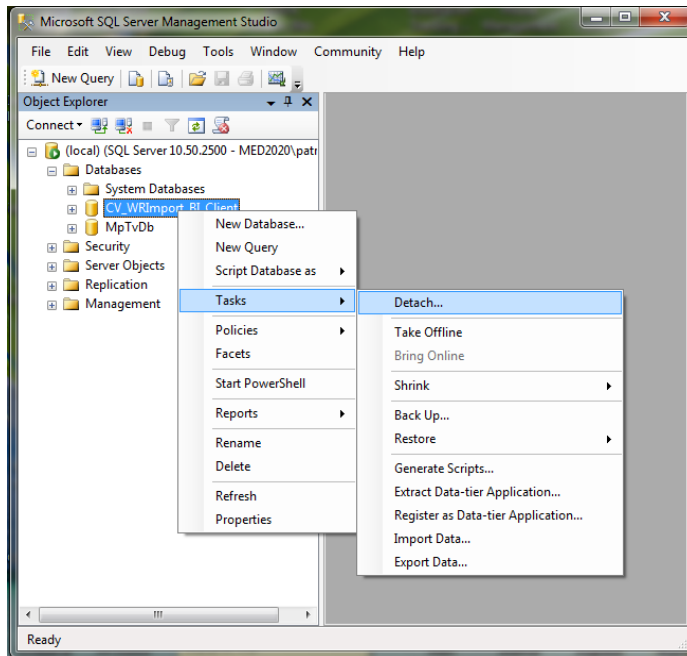
---

For step-by-step see [section 4.3](#)

### 7.1.3 Detaching a BI Database (Updates Only)

If the BI is a new interface this step will not be necessary. However, if the BI is an update to an existing interface it will be necessary to detach the **original** BI in SQL server.

To detach a database:



In the SQL Server menu go to *Local* → *Databases*. Right-click on *Databases* and, from the drop-down menu, select *Tasks* → *Detach*. In the *Detach* window that opens, select the database you want to detach and click *OK*.

For step-by-step see [section 4.4](#)

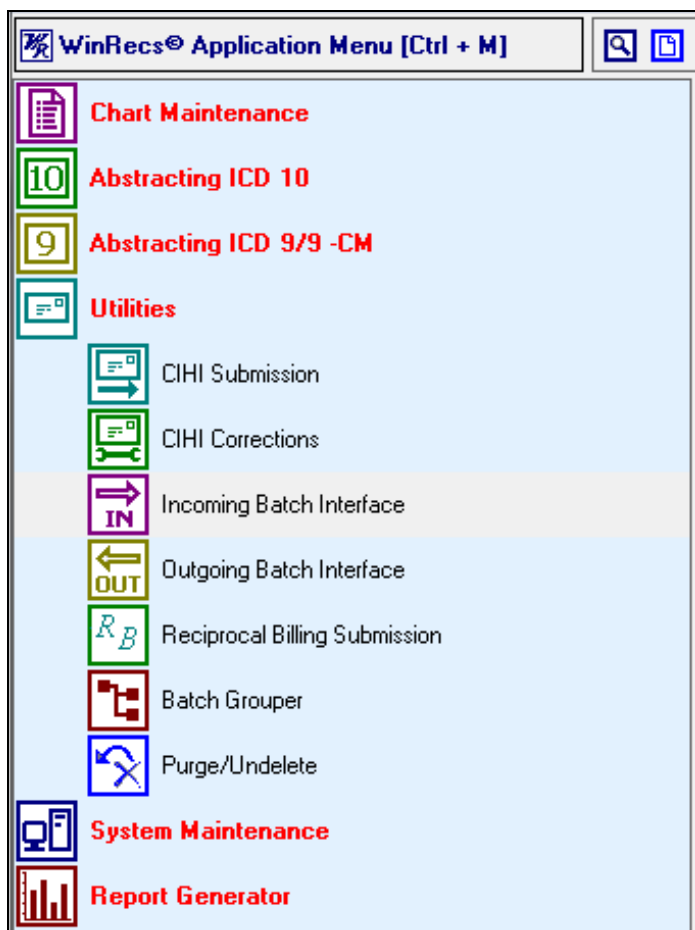
### 7.1.4 Selecting the BI in WinRecs

The following steps require access to WinRecs and can be performed by a Health Information Management professional in your facility. If a member of IT Services will be performing these steps a login to WinRecs will be required.

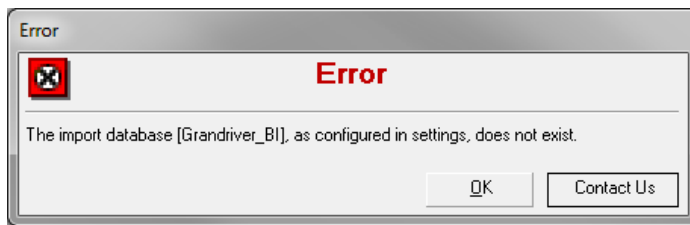
When the BI is used for the first time for each database, the user will need to configure WinRecs to use the BI. This can be done from any WinRecs application.

**Note:** It is recommended that you initially attach the new BI in your WinRecs test environment. Once you are satisfied with the results of any testing, follow the same steps to attach the BI in your live environment.

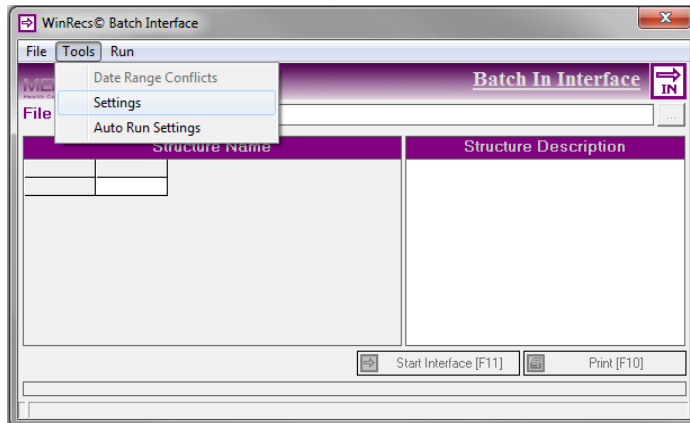
1. From the WinRecs application menu, go to Utilities and open Incoming Batch Interface.



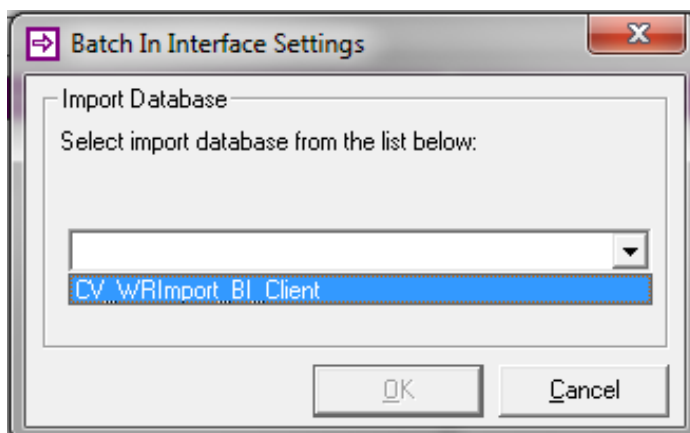
2. If you receive the following error screen when you first run the BI, click **OK** and proceed to the WinRecs Batch Interface screen.



3. Click OK (see above)



4. In the WinRecs Batch Interface window, click Tools → Settings



5. The Batch In Interface Settings dialog box will open. Select the appropriate BI database from the drop down box and click OK.
6. Close the WinRecs Batch Interface window.

The BI is now available for all users in the environment.

### 7.1.5 Running the Batch In Interface

Details on how to run the BI are provided in the WinRecs User Guide in Section 6 – Interfaces. Please refer to this document if you require detailed information on how to use the BI once it is attached.



## 7.2 HL7 Interface

The following instructions detail the process for installing an HL7 Interface for WinRecs. HL7 is the industry standard for the exchange of data between systems over an existing network. WinRecs currently supports HL7 version 2.3. The WinRecs HL7 interface accepts incoming data from another hospital system, such as an ADT system, interprets the information received and updates the WinRecs database.

---

**Note:** Note: The WinRecs HL7 interface is a separate executable running outside of the main WinRecs application. MED2020 recommends that the HL7 interface program be installed on the database server. If you have any questions regarding this process, contact a MED2020 [Client Services Representative](#). Contact information is available above in the section Contact MED2020.

---

### 7.2.1 Installing the HL7 Interface

The installation of the HL7 application/service is done via the WinRecs installation package. The WinRecs installation package can be found on MED2020's FTP site at <ftp://web.med2020.ca/wr2update>

### 7.2.2 Extracting the HL7 Custom Update Scripts

The HL7 custom interface is delivered in a .zip file.

1. Save the .zip file to the WinRecs server
2. Double click the .zip file to extract the executable and WRU. Save the extracted files to a temporary directory on the WinRecs server

If the .zip file is not unzipped by double-clicking it, you may need to use WinZip or 7-zip for this purpose

### 7.2.3 Applying the HL7 Custom Update Scripts

The following steps should first be applied to the Test environment. Once the interface has been tested, these same steps can be followed to apply the interface to the live environment.

---

**Note:** Data sent by the HL7 interface may override configured system defaults

---

1. Stop the HL7 data transmission to the Test environment, if it is already running
2. Close WinRecs2HL7 in the Test environment if it is already running
3. Apply the .wru HL7 script from WinRecs in the Database Update History screen by clicking at the top of the screen on Modules, then System Maintenance, then Database Update History
4. Replace the old WinRecs2HL7.exe in the Test environment with the new .exe
5. Start WinRecs HL7 in the Test environment by double-clicking the WinRecs2hl7.exe
6. Start the HL7 data transmission to the Test environment

7. Test the new interface thoroughly in the Test environment before switching to the Live environment by sending various test transactions and verifying that they were inserted, as required, into WinRecs
8. Upon successful testing, repeat steps 1 through 7 for your organization's live environment

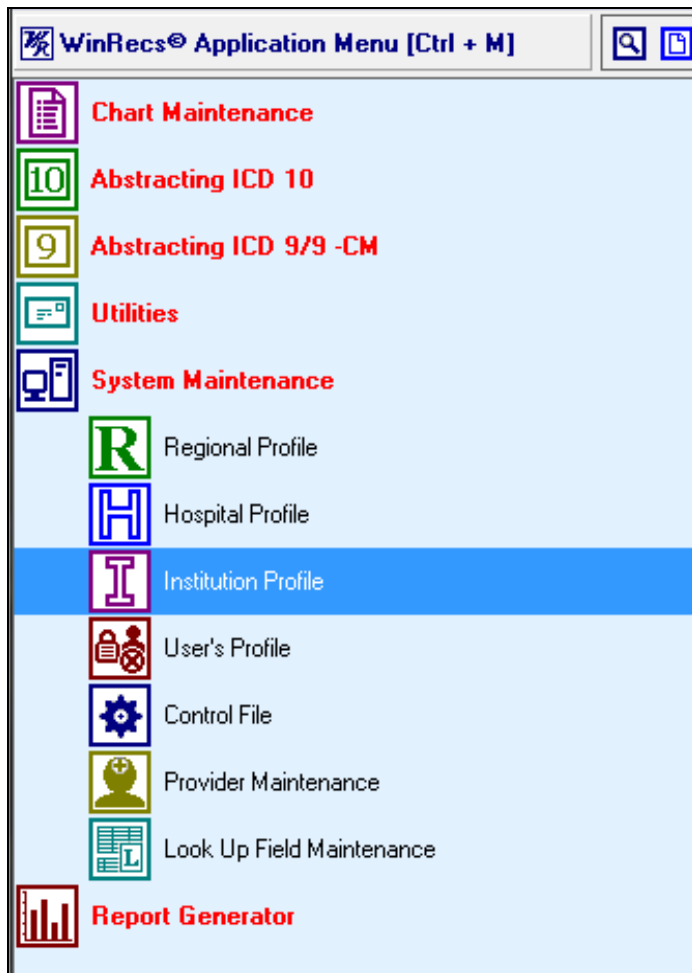
#### **7.2.4 Running the HL7 Interface**

Details on how to run the HL7 interface are provided in the **WinRecs User Guide**. Please refer to this document if you require detailed information on how to use the HL7 interface once it is installed.

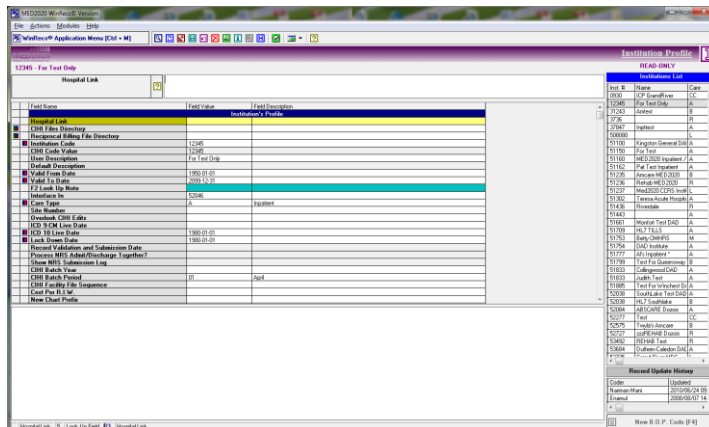
## 7.3 Configuring Interface Values

### 7.3.1 Configure the Institution Profile

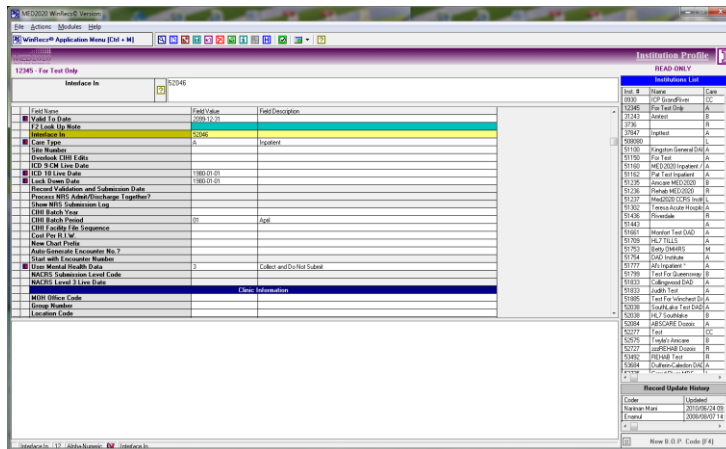
1. From the WinRecs Application menu or Modules menu go to System Maintenance and open the Institution Profile.



2. Note the institutions in the Institutions List. Each institution expecting updates via the BI must be updated as follows:
  - Double-click on the institution entry in the Institution List.



- Update the Interface In value with the corresponding value found in the *BatchInterface* data file.



- Save the record.

## 7.3.2 Configure Lookup Field Maintenance

- Every lookup table that corresponds to data in the batch text file must be updated with the corresponding Interface In value. Example lookup tables include:
  - Disposition Code
  - Entry Code
  - Gender
  - H.C.N. Province
- From the WinRecs Application menu or the Modules menu, select System Maintenance and open Lookup Field Maintenance. You can also press the F4 key to display the tables.
- In Lookup Field Maintenance click on the grey bar underneath the IDLE label and from the drop-down list select the lookup table corresponding to data found in the batch file.

4. Update the Interface In value with the corresponding value found in the Batch-Interface data file.
5. Save the record.

This process must be completed for any lookup tables that will use information from the new BI. For more information on locating table values, users can refer to Lookup Field Maintenance in the WinRecs User Guide.

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