**SQL Server 2014 Installation**

**and Oracle to SQL Server Instructions**

These instructions are for the SQL Server 2014 Express installation.

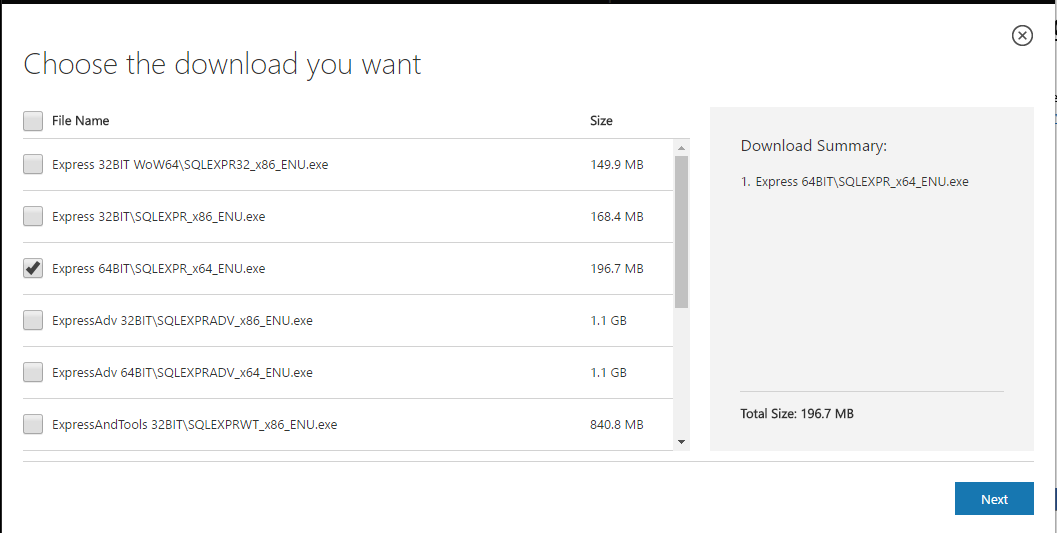
There is a fully licensed version of SQL Server 2014 on

[\\srv-file-ut.dac.daifuku.com\DPT\_Files\Buildmaster](file:///\\srv-file-ut.dac.daifuku.com\DPT_Files\Buildmaster)

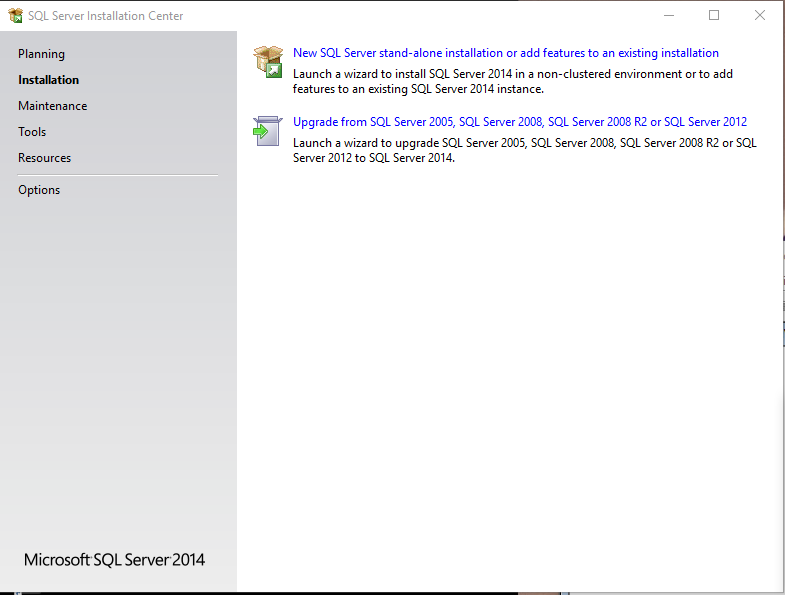
1. SQL Server 2014 Express webpage (Use licensed version for Customer)

<https://www.microsoft.com/en-US/download/details.aspx?id=42299>

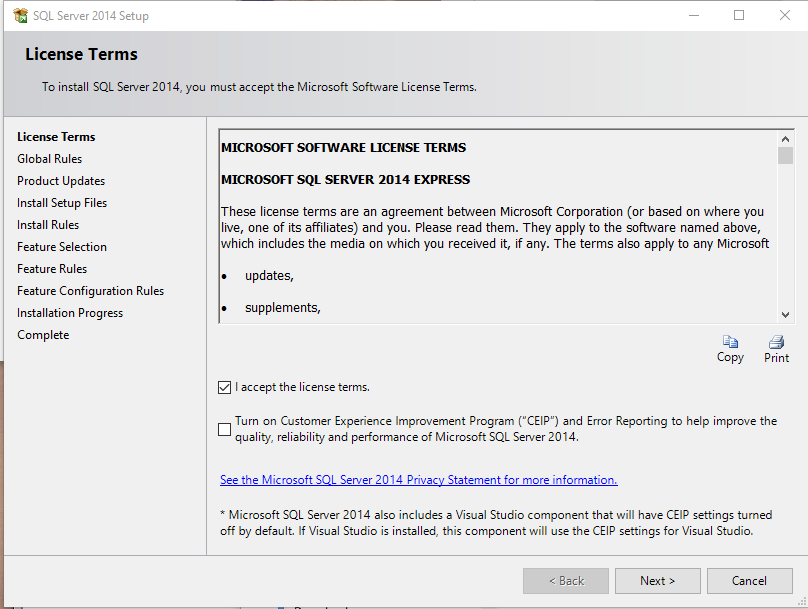
1. Select the Express 64BIT\SQLEXPR\_x64\_ENU.exe version



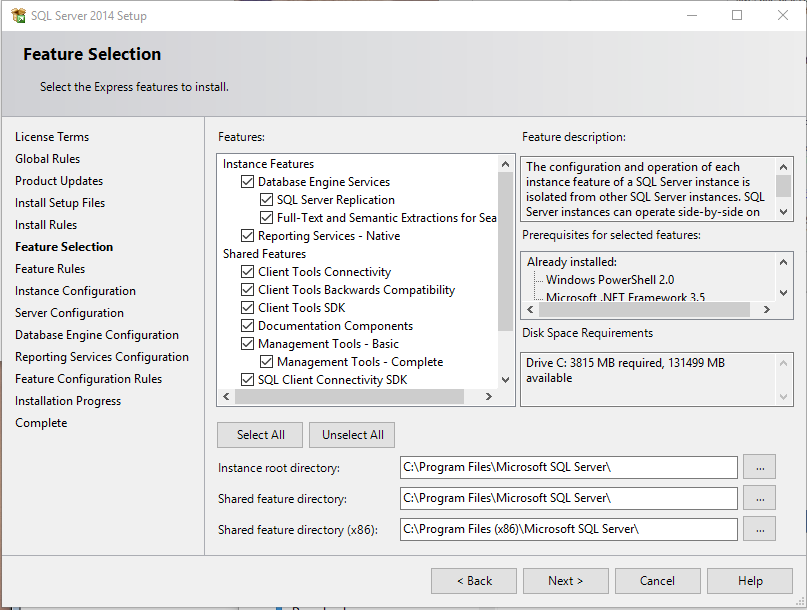
1. Move the downloaded file to desired installation directory (C:\Tools) and install in desired directory (example: C:\Tools\MS SQL 2014)
2. Select the Setup.exe file in the newly created directory
3. Select the New Server option



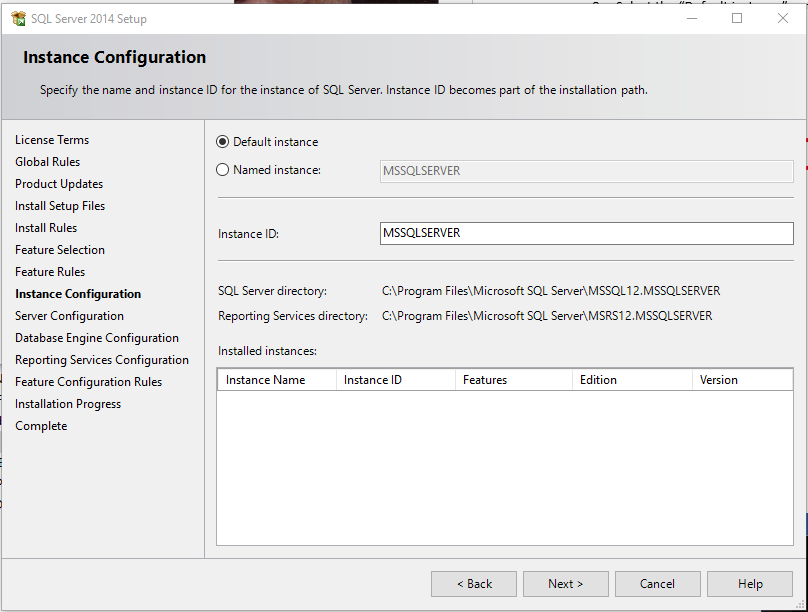
1. Accept the License terms and select Next



1. Verify that all boxes are checked (default) and select Next.



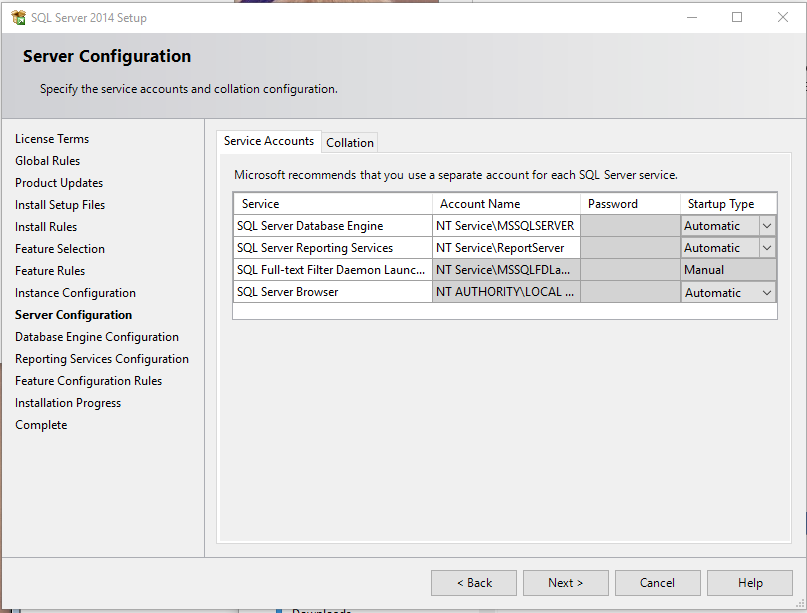
1. Select the “Default instance” option. Set the Instance ID to desired name (MSSQLSERVER) then select Next.

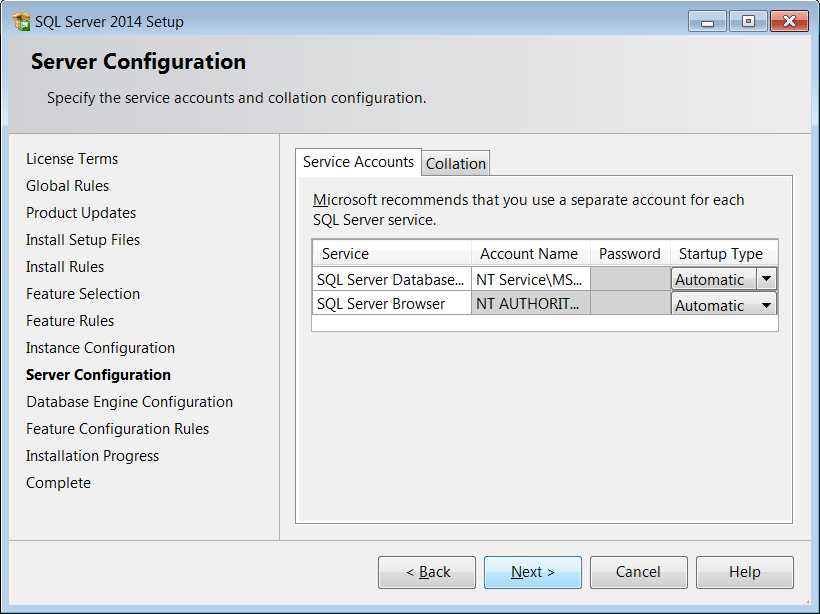


1. If there is an SQL Server Agent option, select “Disabled” for the startup type.

Select “Automatic” for the SQL Server Browser option.

Select Next.

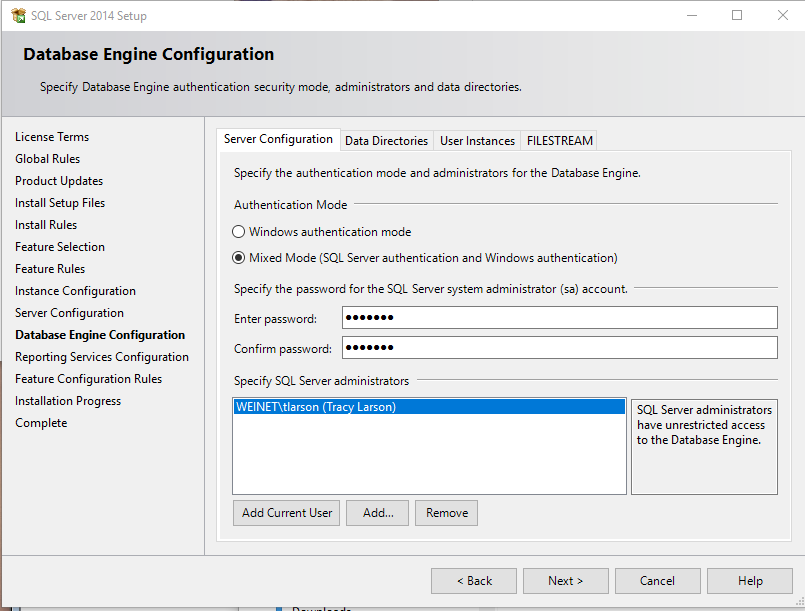


This screen is from the licensed 2014 version found on buildmaster.

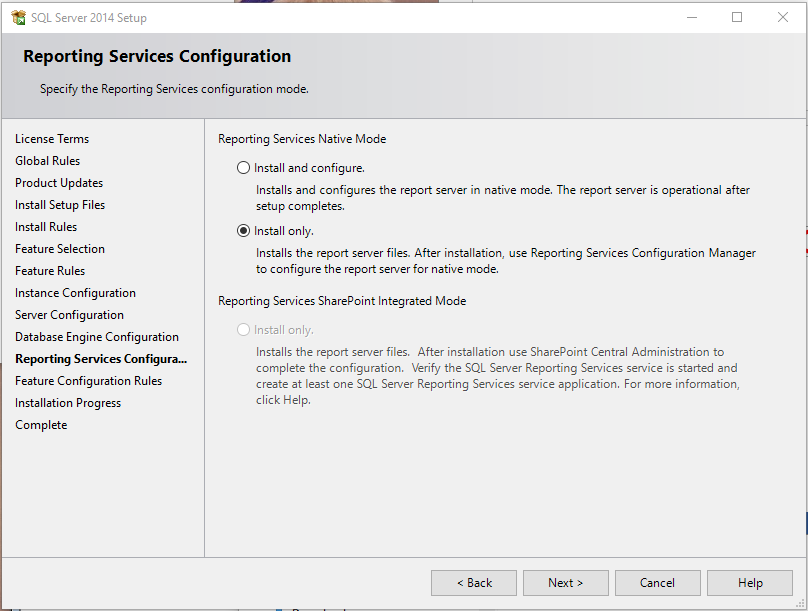
1. Select the “Mixed Mode” option. Setup the password “Asrs123” (SQL Server default password requirements won’t allow us to use “asrs”). You can change the password requirements for the “sa” login later, using the SQL Server Management Studio and set the password to “asrs” then.

Select the “Add Current User” button.

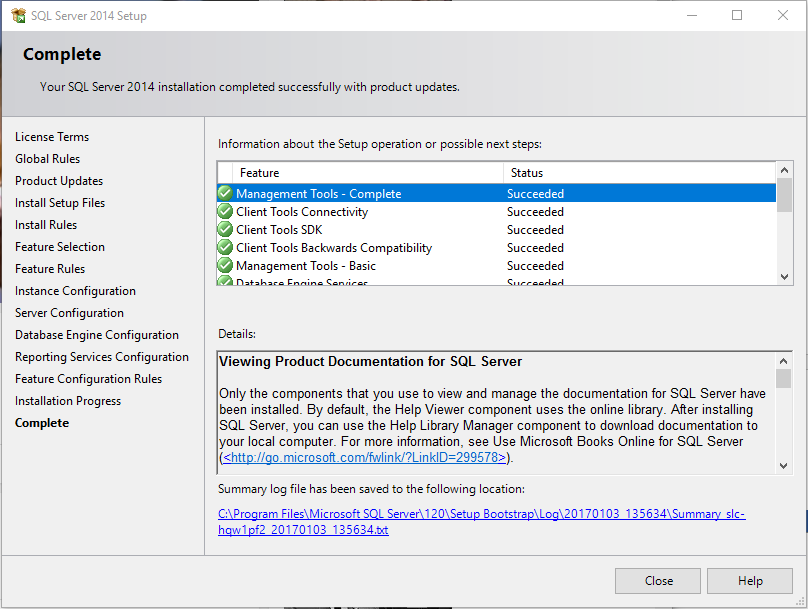
Select Next.



1. Select “Install only” option to avoid setting up unnecessary files. Then select Next



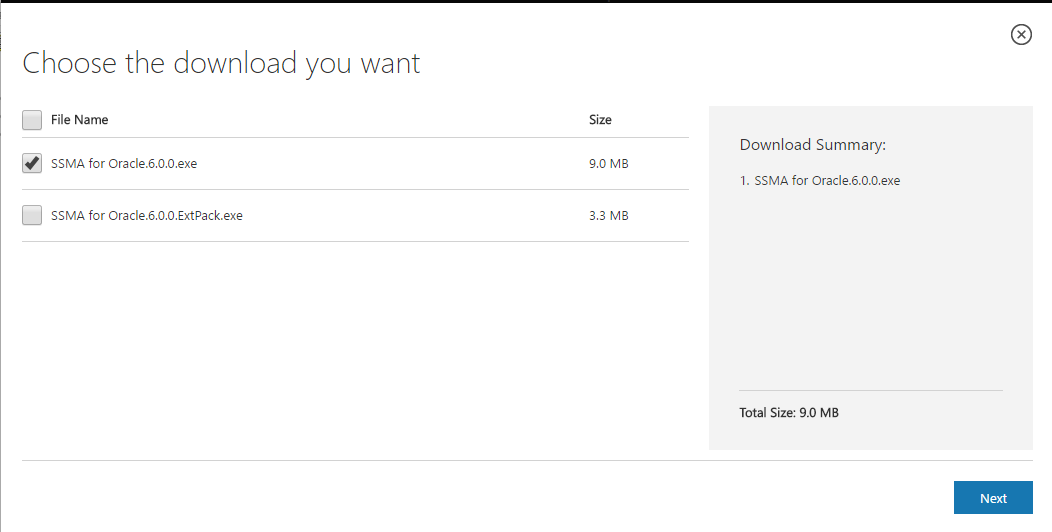
1. If all goes well you get this screen.



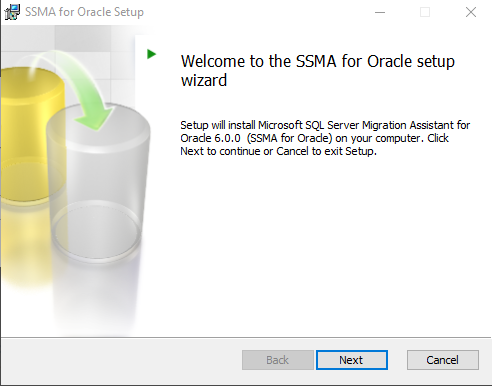
1. Download the Microsoft SQL Server Migration Assistant (Oracle)

<https://www.microsoft.com/en-us/download/details.aspx?id=43689>

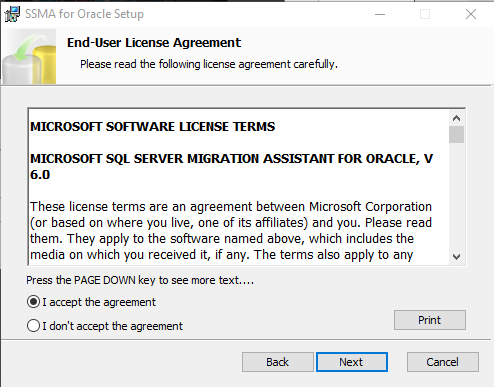
1. Select the SSMA for Oracle…..exe



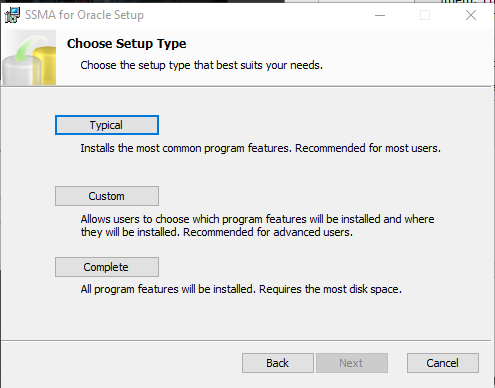
1. Run the SSMA for Oracle….. file



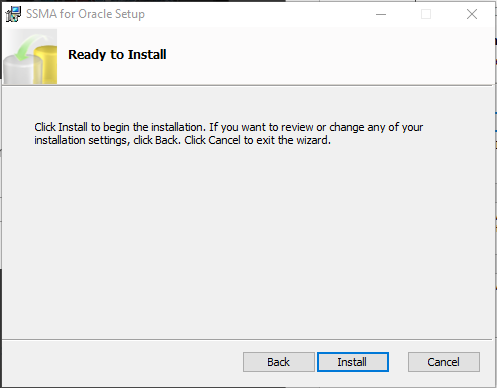
1. Accept the license.



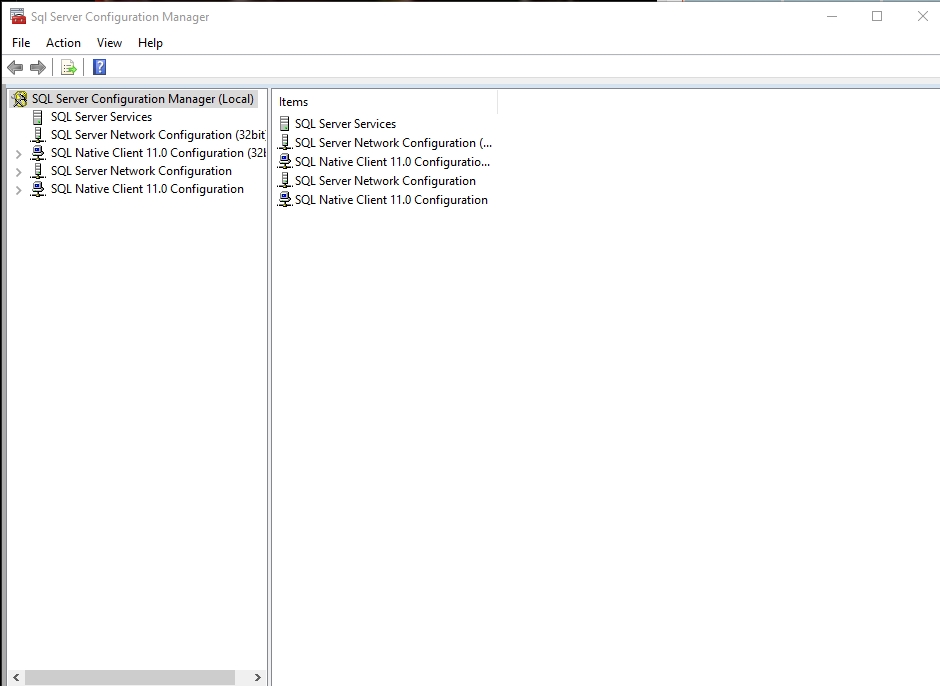
1. Select the “Typical” installation.



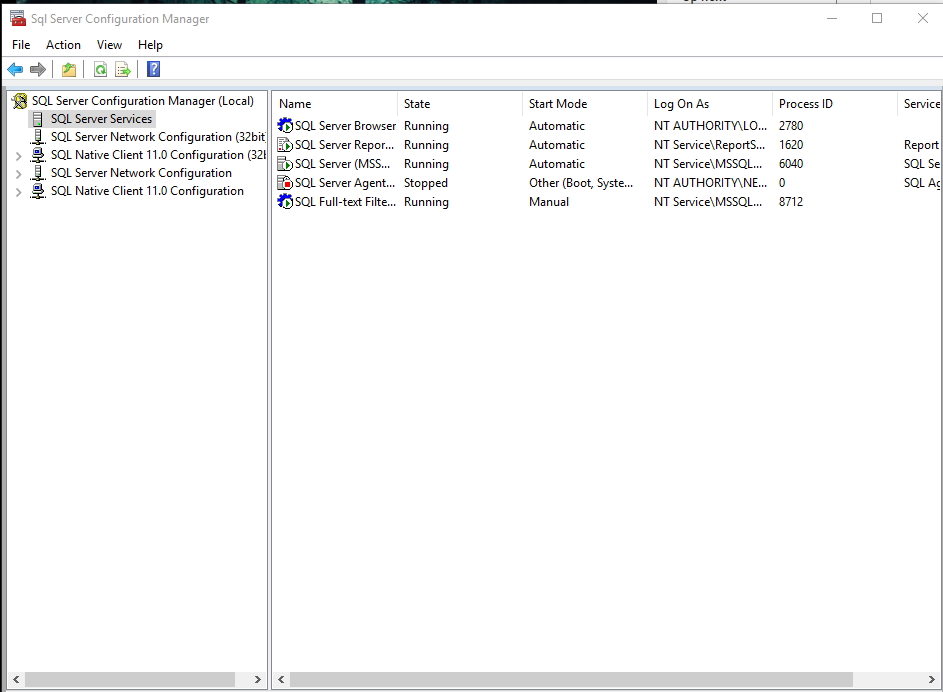
1. Select Install.



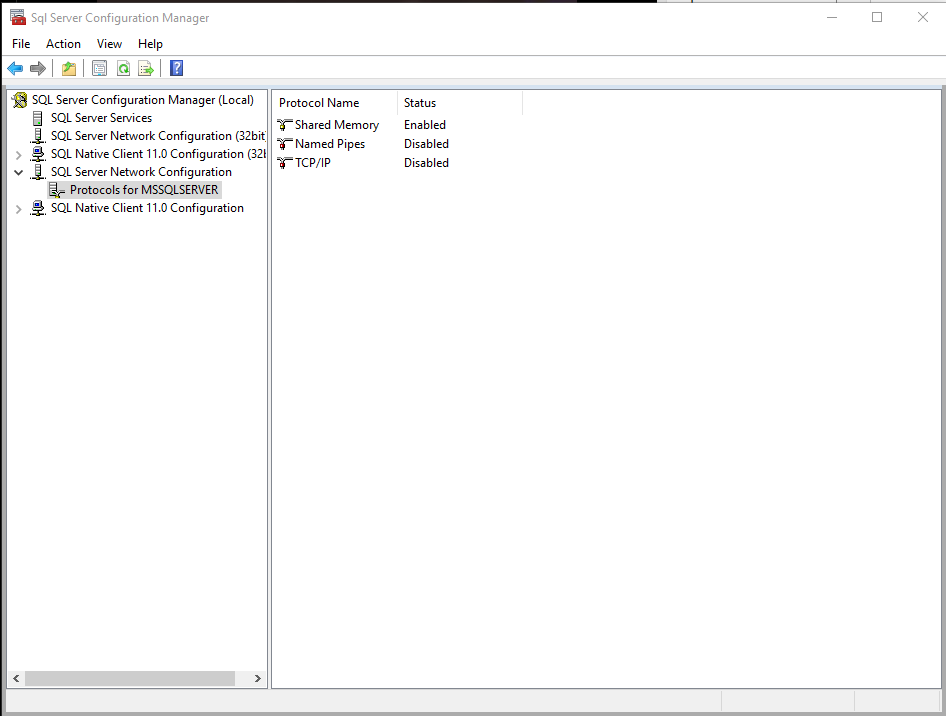
1. Next select the “SQL Server 2014 Configuration Manager” menu item from the Windows Menu.



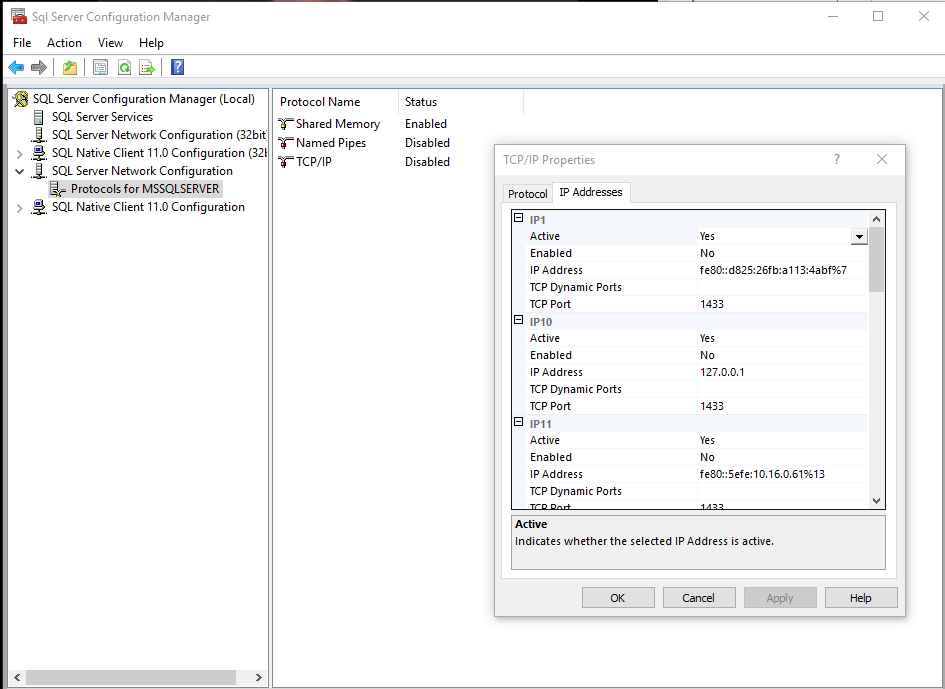
1. Select the “SQL Server Services” and verify that the processes are running (green arrows by the menu items).



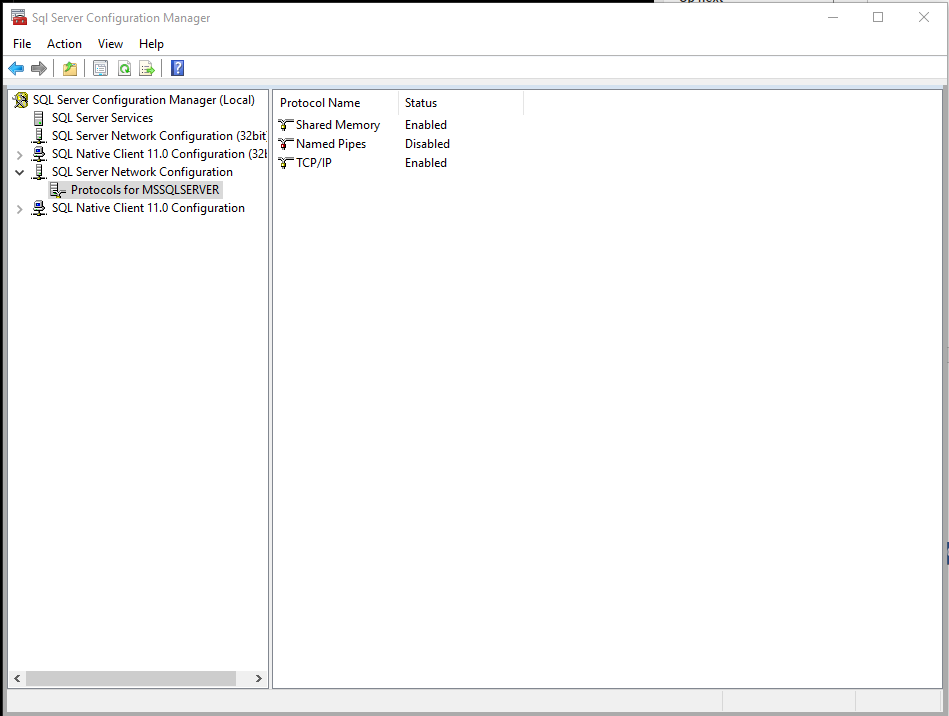
1. Select the SQL Server Network Configuration, and the “Protocols for MSSQLSERVER”



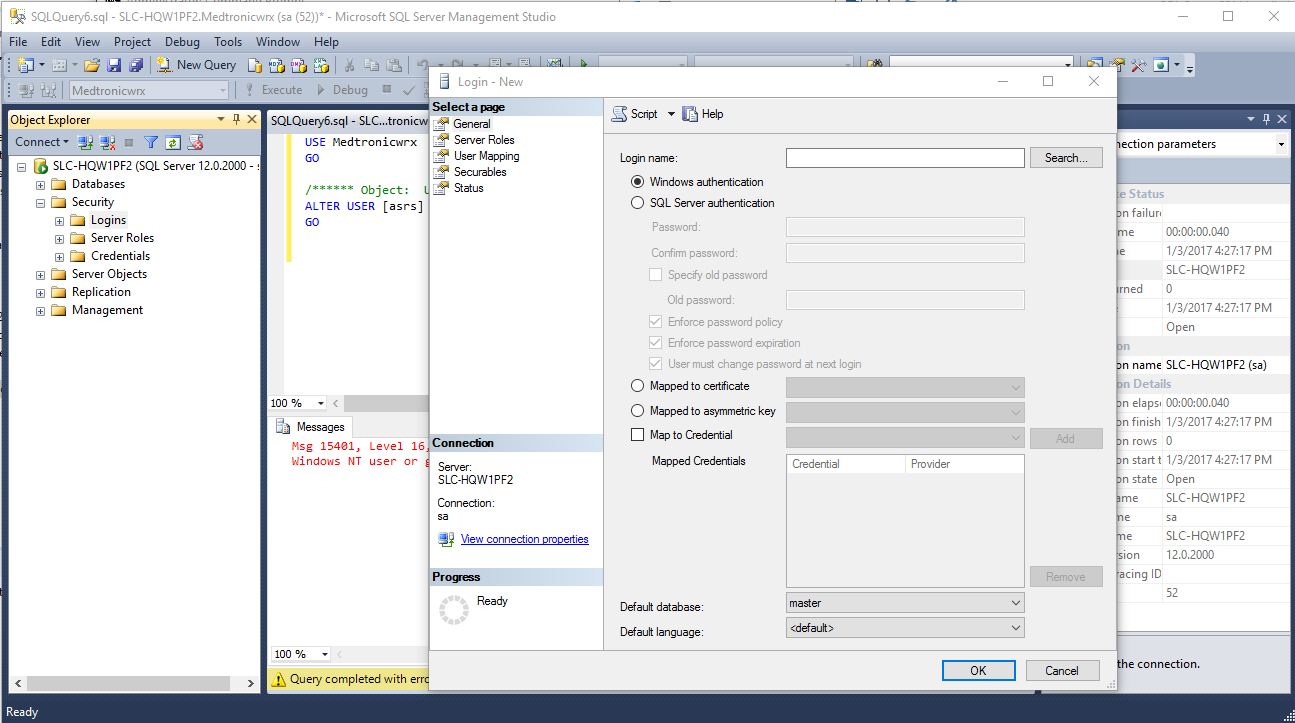
1. Select the TCP/IP option and scroll down to the IPAll option and set the TCP Dynamic Ports to (blank) and the TCP Port to 1433 (or desired Port number).



1. Make sure that the TCP/IP is “Enabled” and then restart the SQL Server using the Configuration Manager or use the Microsoft Services screen.



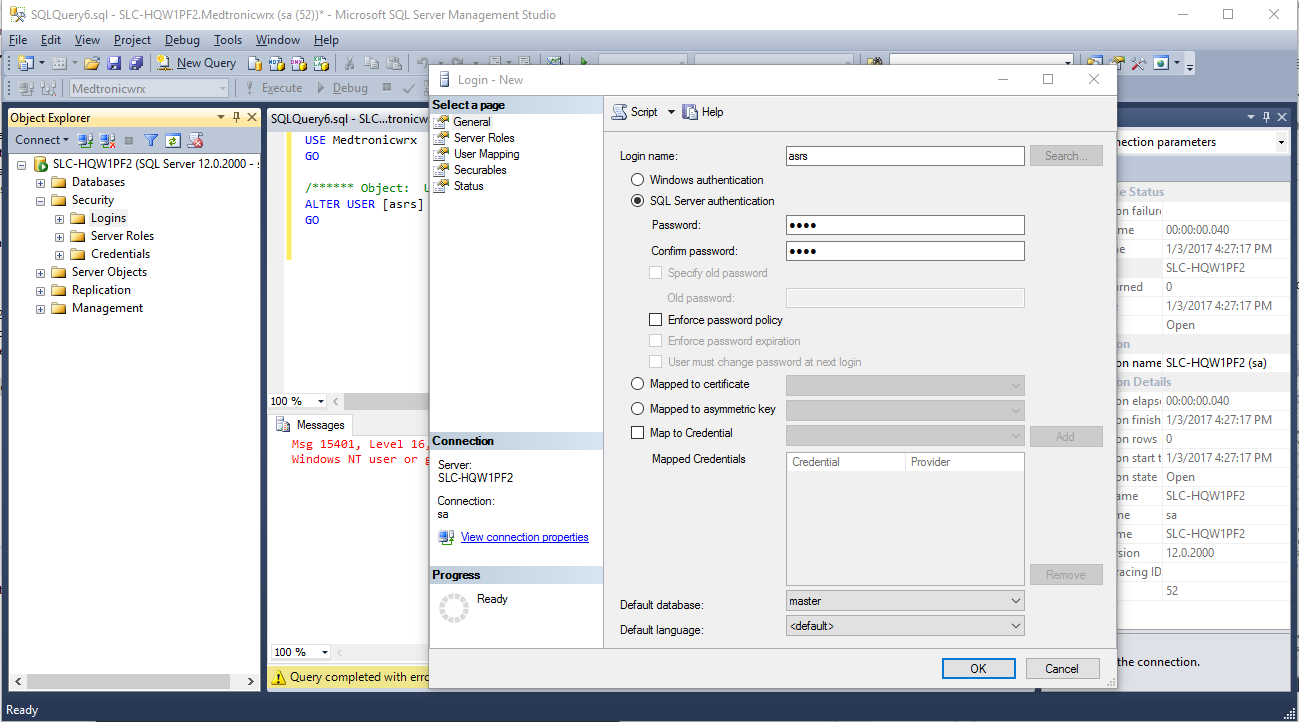
1. Run the “Microsoft SQL Server Management Studio”
2. Select Security
3. Right Click on “Logins” and select “Add”



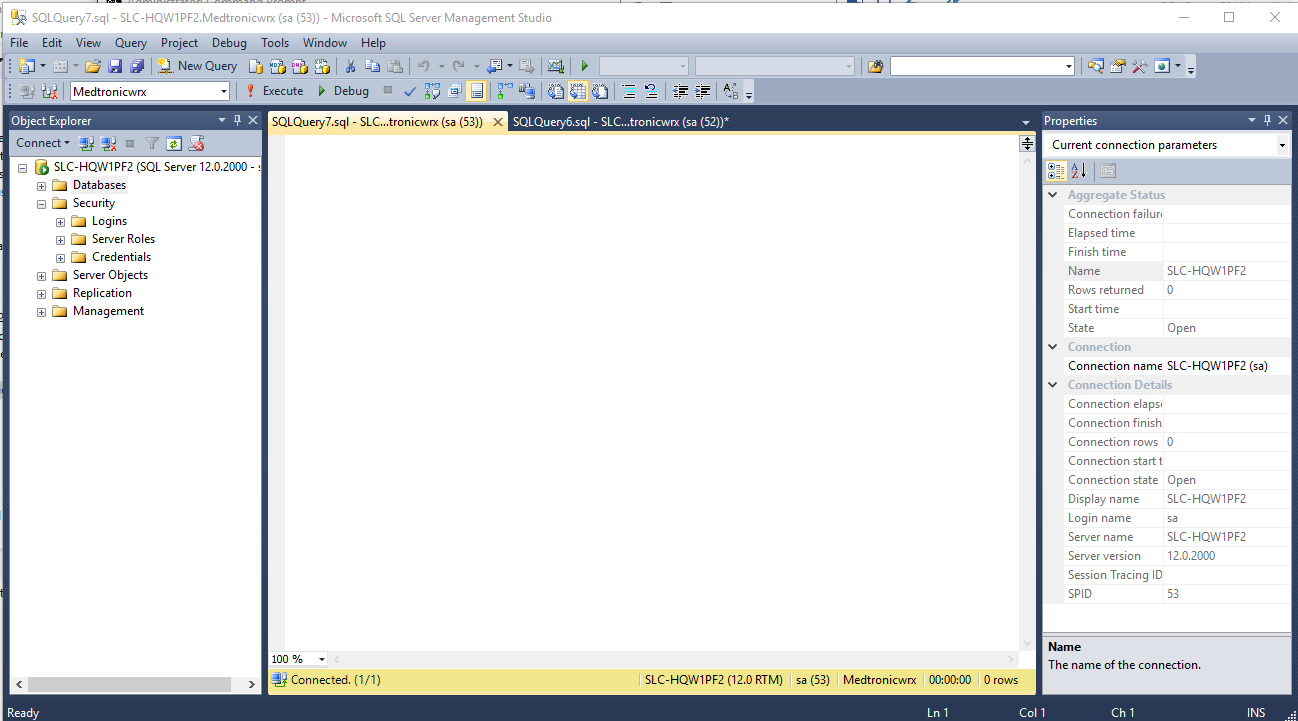
1. Add the “asrs” login name, Select the SQL Server authentication and add a password.

(If “asrs” is selected as password then unclick the box “Enforce password policy”).

(If desired, change the “sa” login password to “asrs” the same way).



1. Select “New Query” from the Management Studio menu.



1. Add the following Code to the screen. Modify the Database name to the desired Database name. Select the Execute button. Verify that the commands executed Successfully

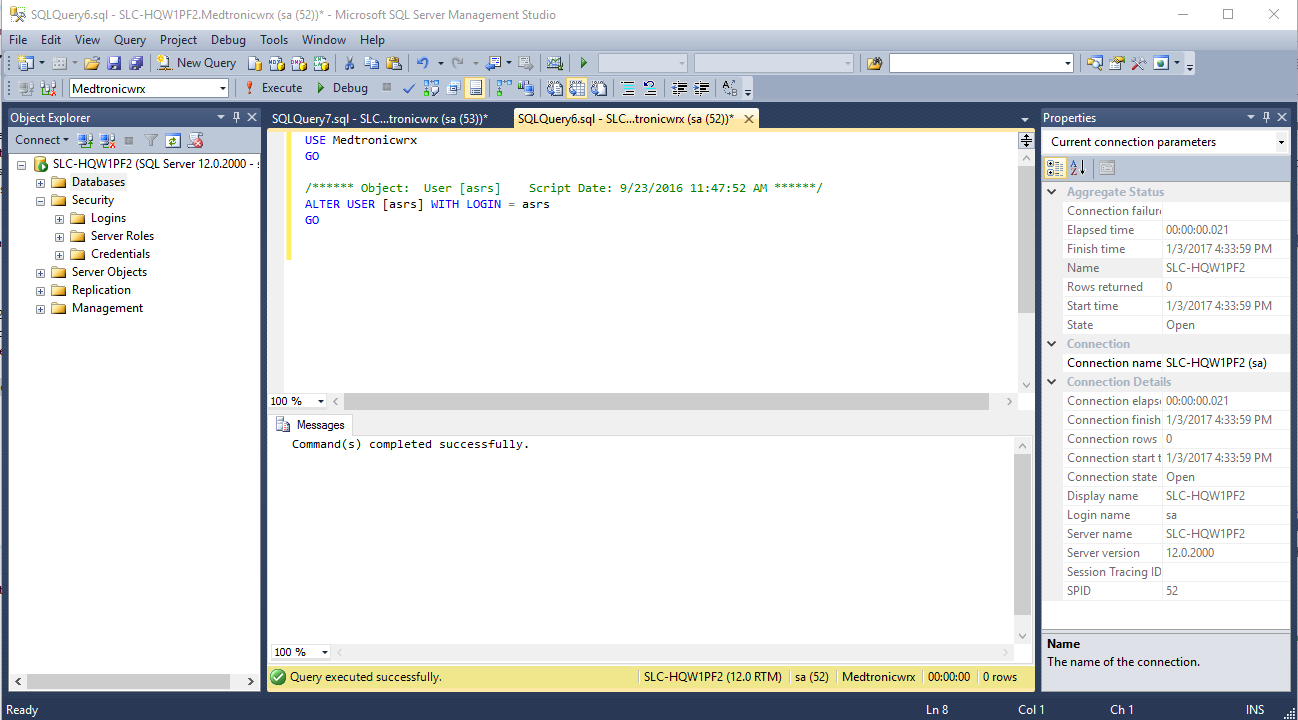
USE [Petwrx]

GO

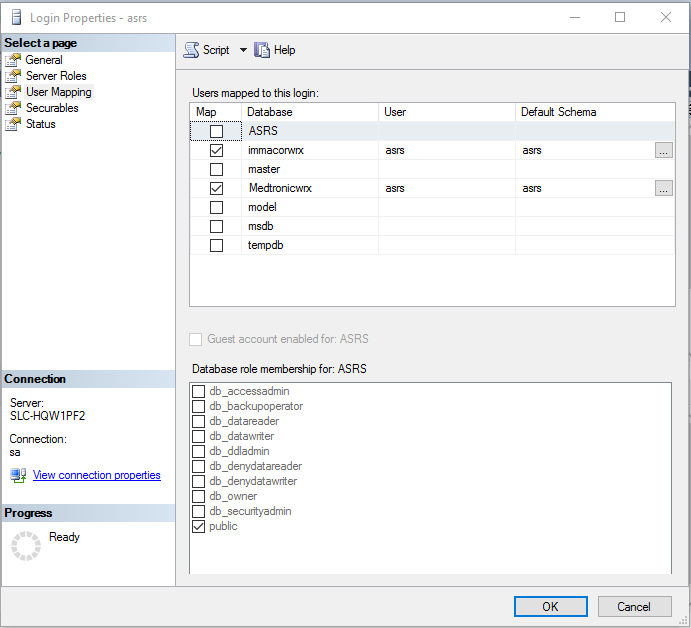
/\*\*\*\*\*\* Object:  User [asrs]    Script Date: 9/23/2016 11:47:52 AM \*\*\*\*\*\*/

ALTER USER [asrs] WITH LOGIN = asrs

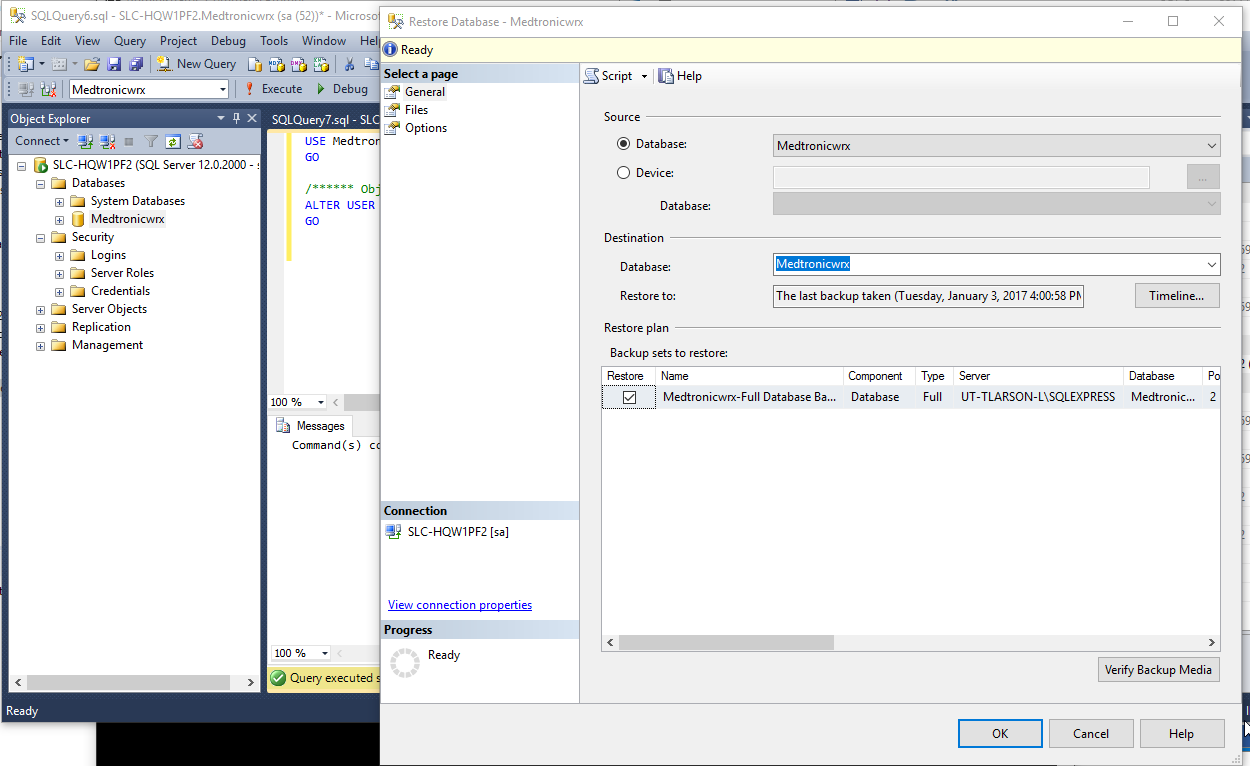
GO



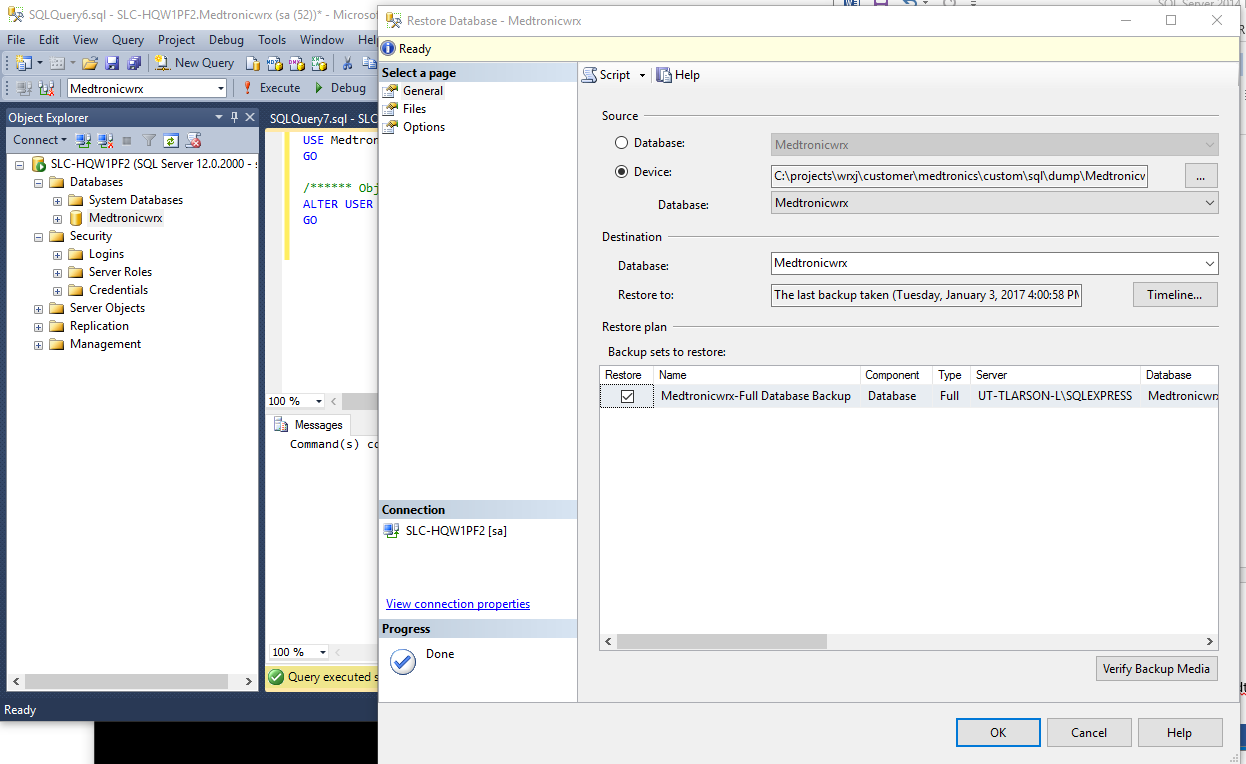
1. Verify that the SQL Server user “asrs” is linked to the correct default schema



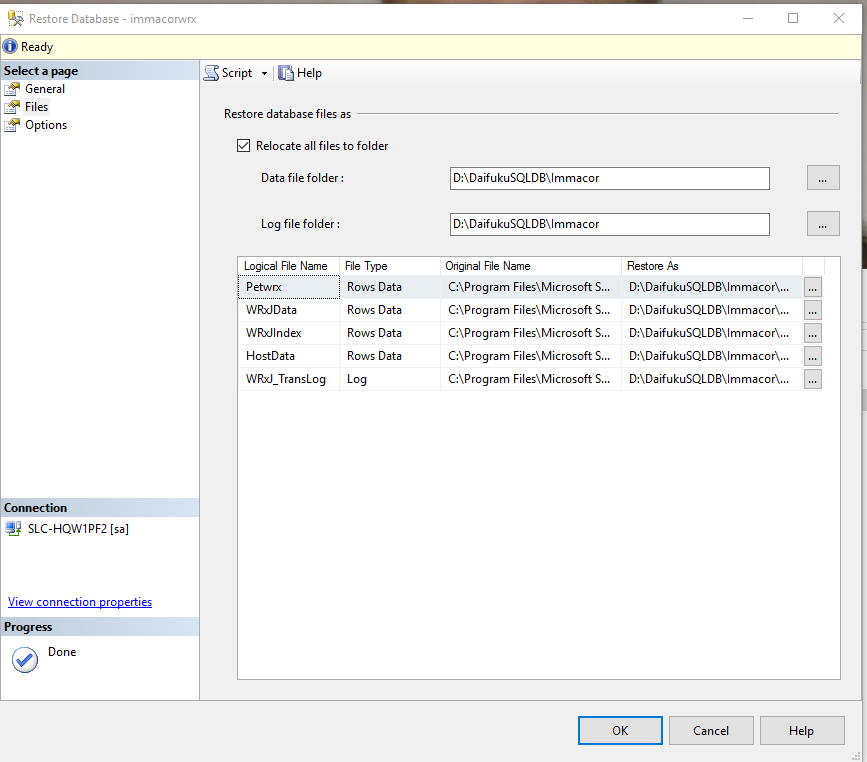
1. Right click on the database name (Medtronicwrx) and select the “Tasks” option, then select the “Restore” Option, then the “Database” option to get the following screen.



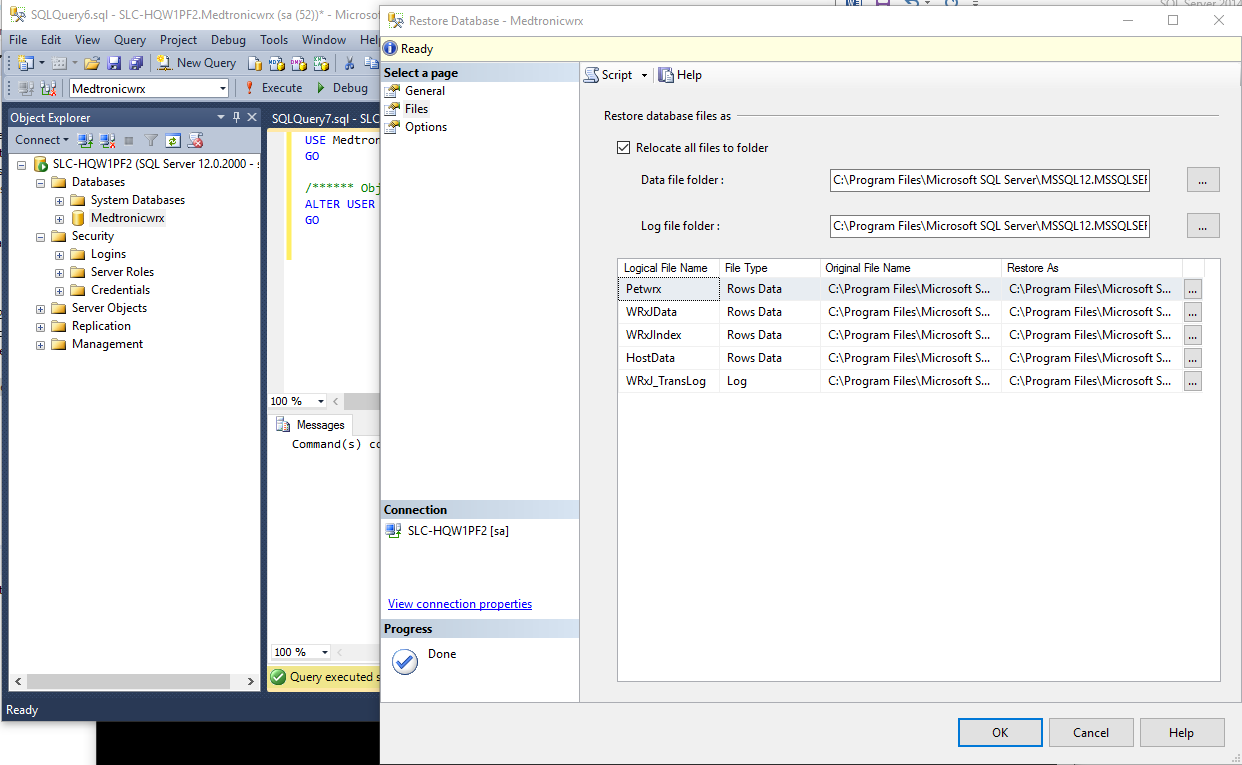
1. Select “Device”, then the “browse” button, and “Add” the location where the SQL Database “.bak” file is located.



1. Select the location for the SQL Server “.mdf” file. (This file has the capacity to grow so make sure that the location has room to handle the growth).



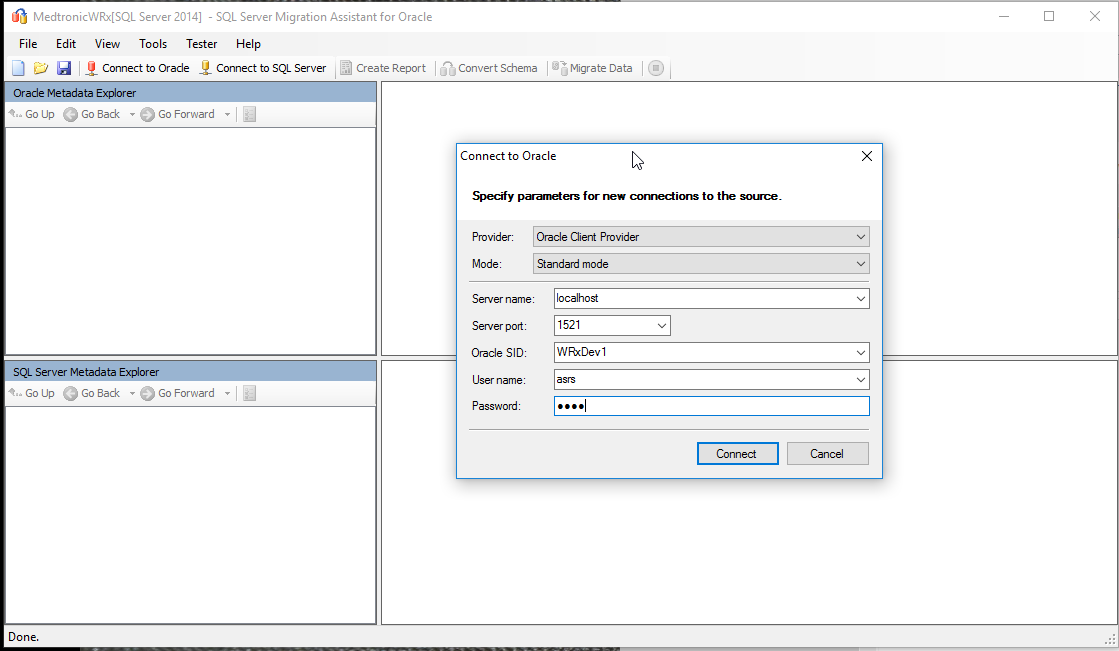
1. Select the “File” menu option. If the name of the destination SQL Server database is different from the name of the SQL Server data base which created the “.bak” file, then check the “Relocate all files to folder” box so the database is installed in the correct directory structure.



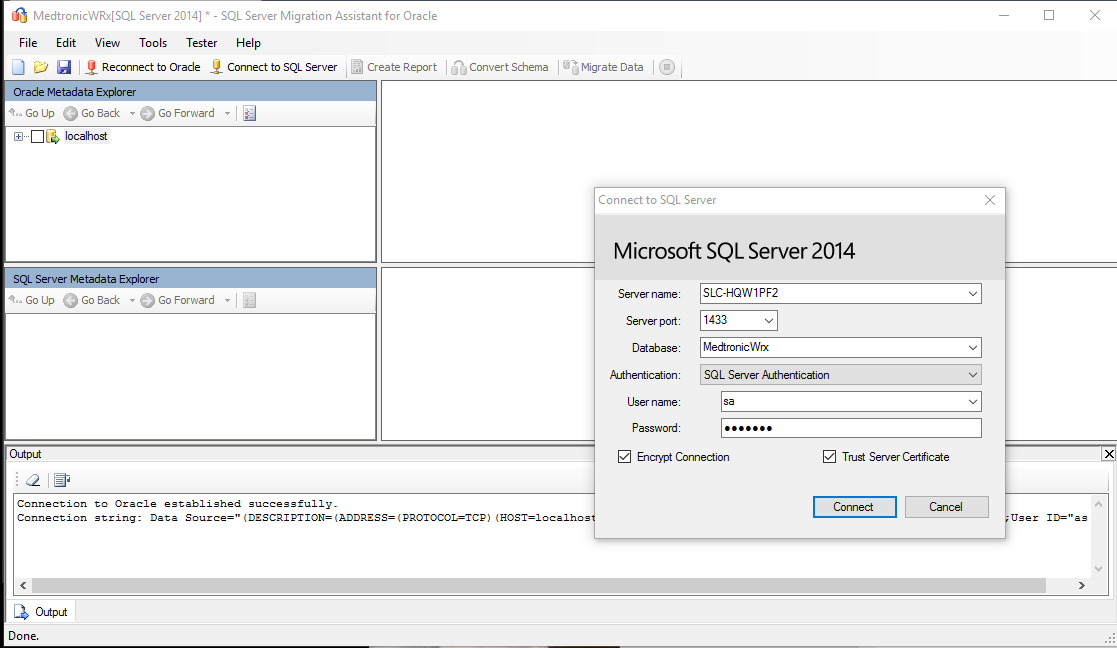
1. Once you have a baseline database you can then determine the differences between the Oracle database tables and the new baseline SQL Server tables.

See the end of the document for my suggested best method for transferring data from Oracle to SQL Server.

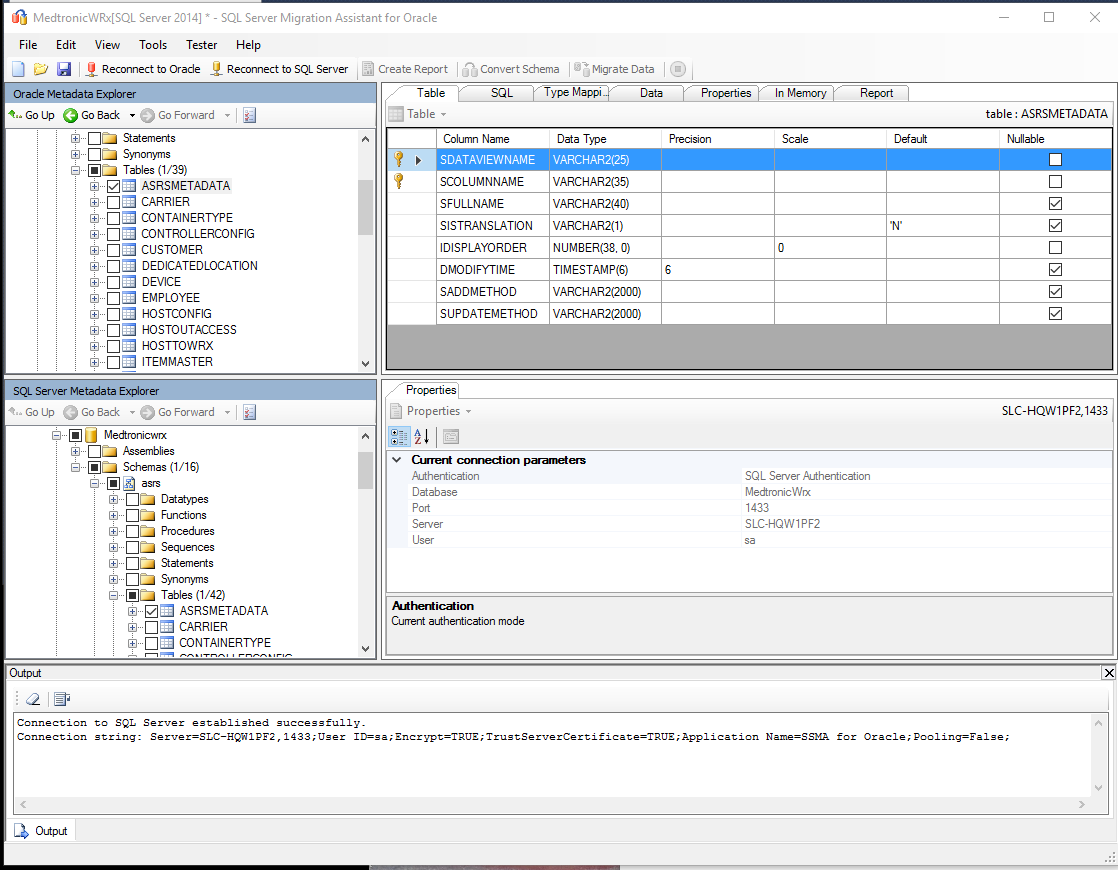
1. Ways of transferring data from Oracle to SQL Server
   1. If the table is the same on Oracle and SQL Server then the easiest way to transfer the data is using the “SQL Server Migration Assistant for Oracle”.
      1. Startup the Migration Assistant and then connect to the Oracle database using information similar to the following screen.



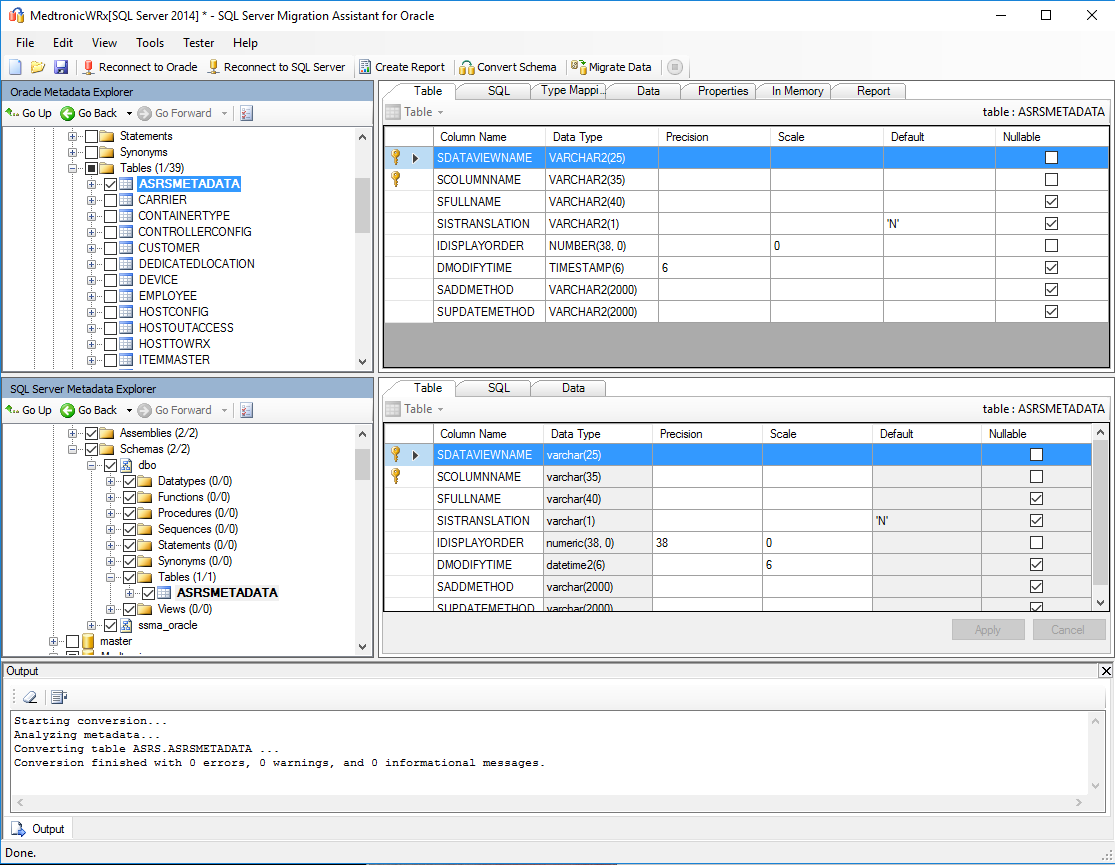
* + 1. Connect to the SQL Server with data similar to the following screen



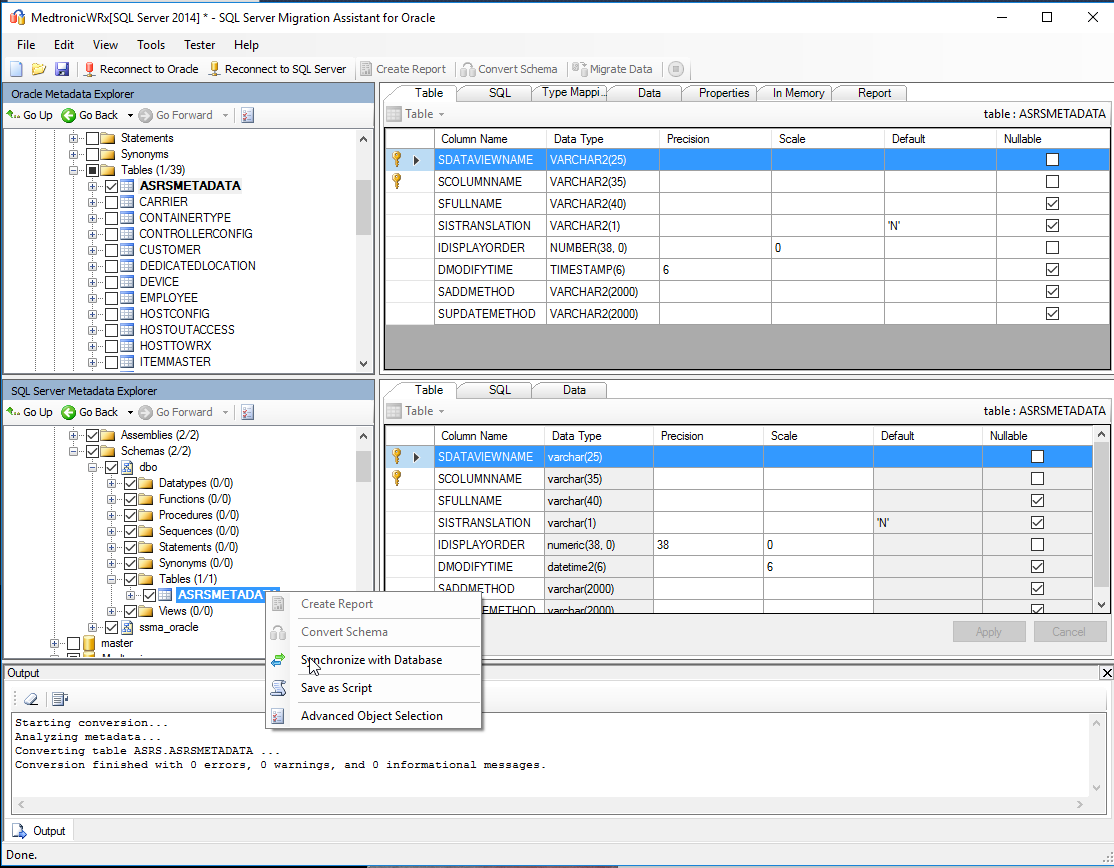
* + 1. Select the Schema and then modify the destination for the specified database. Change it from ASRS.dbo to <databasename>.asrs (See the end of the document for more details).
    2. Select the desired table from the Oracle table window and then select the corresponding table in the SQL Server window. (This can be used to migrate all the tables).



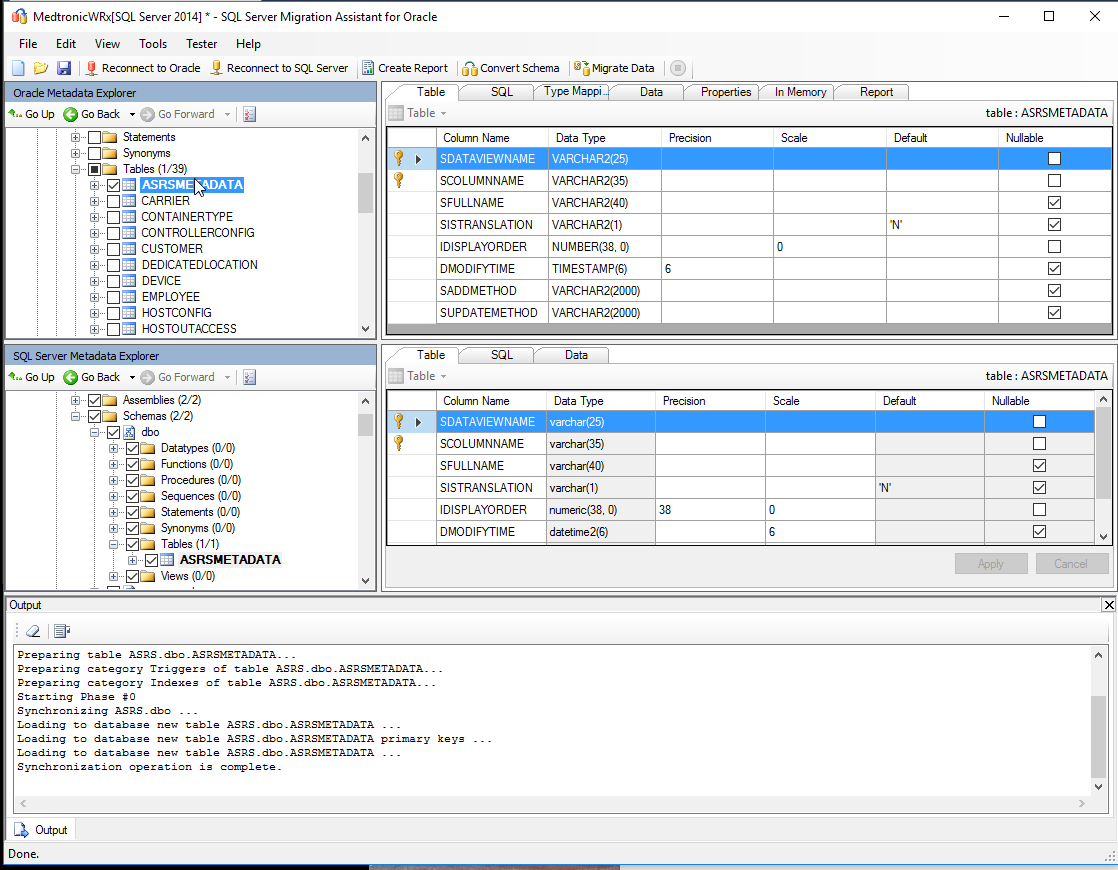
* + 1. Select the Convert Schema option at the top of the screen.



* + 1. Then right click on the table in the SQL Server window that was just converted and select the “Synchronize with Database” option.



* + 1. Once the Synchronizing is complete, select the “Migrate Data” option at the top of the screen.



* 1. Another option for transferring data from Oracle to SQL Server is to create the Insert Scripts from SQL Developer or Toad and then use the SQL Server Management Studio to Insert the data into the new table. (This only transfers the data from the Oracle table to the SQL Server table, which won’t include the new fields in the SQL Server table, if any. (Verify and add any necessary field data by editing the Insert Statements or just use the SQL Server Management Studio.
  2. If the table has a lot of rows and a couple of new fields which are not being used in the customers WRx system, then you can use the SQL Server Migration Assistant for Oracle to first transfer the rows to a temporary database table in SQL Server and then use the SQL Server Management Studio to copy all the columns from the temporary SQL Server table (with the old table columns) to the new SQL Server table (with all the new columns).

(Export option directly to the desired database and table).

The information above is what I’ve learned this past month. If you have more valuable information that will make database migrations easier in the future, please add your own knowledge base to the above, along with any corrections. (Please update everyone with your information

How to convert an Oracle database to a <database>.asrs.<table> instead of a ASRS.dbo.<table>

In SSMA, you can map an Oracle schema to any available SQL Server schema.

**To modify the database and schema**

1. In Oracle Metadata Explorer, select **Schemas**.

The **Schema Mapping** tab is also available when you select an individual database, the **Schemas** folder, or individual schemas. The list in the **Schema Mapping** tab is customized for the selected object.

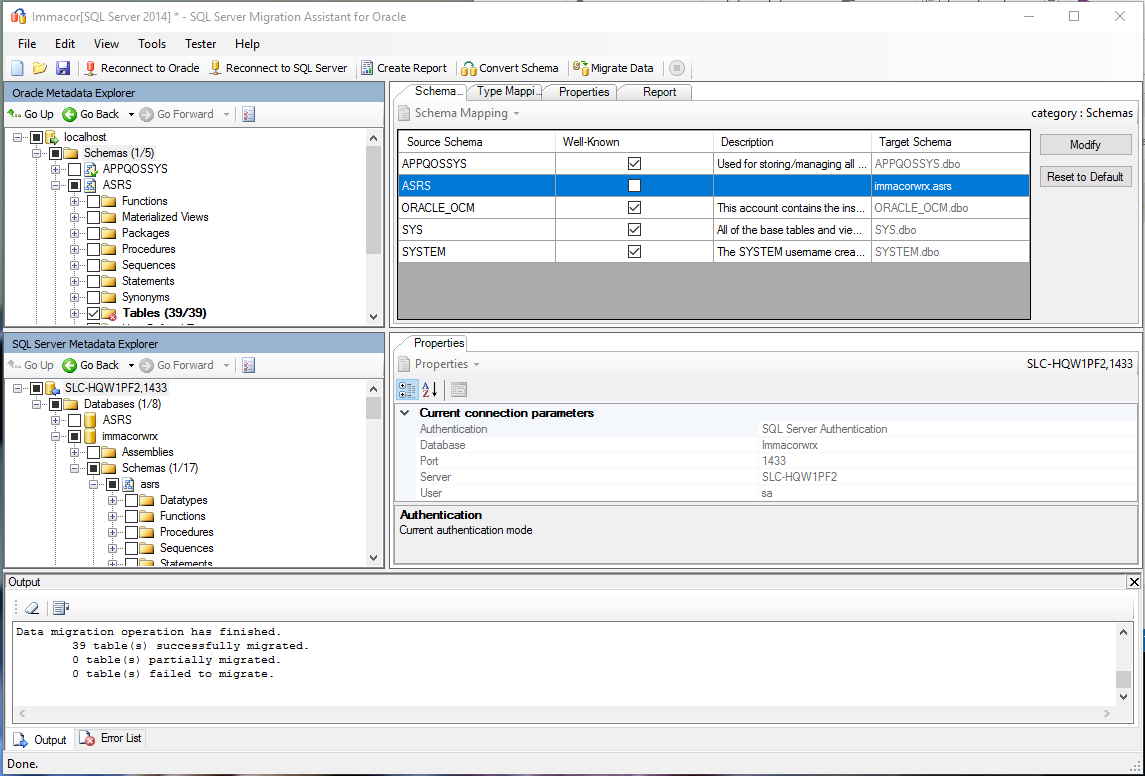
1. In the right pane, click the **Schema Mapping** tab.

You will see a list of all Oracle schemas, followed by a target value. This target is denoted in a two part notation (database.schema) in SQL Server where your objects and data will be migrated.

1. Select the row that contains the mapping that you want to change, and then click **Modify**.

In the **Choose Target Schema** dialog box, you may browse for available target database and schema or type the database and schema name in the textbox in a two part notation (database.schema) and then click **OK**.

1. The target changes on the **Schema Mapping** tab.



There are many ways to convert and old Oracle database to the new database and move it to SQL Server.

The following steps are my suggestion to do this.

1. In Oracle convert the old WRx database to the new WRx database.
2. In SQL Server Management Studio, copy the scripts from the following files and execute them using the SQL Query. (Of course as usual modify the data base name).

C:\projects\wrxj\customer\immucor\custom\tsql\scripts\CreateDB.sql

C:\projects\wrxj\customer\immucor\custom\tsql\scripts\CreateUser.sql

C:\projects\wrxj\customer\immucor\custom\tsql\jwmsadd.sql

C:\projects\wrxj\customer\immucor\custom\tsql\HostSchema.sql

C:\projects\wrxj\customer\immucor\custom\tsql\jwmsviewsdef

1. Use the SQL Server Migration Assistant for Oracle to copy the data from the new WRx Oracle database to the SQL Server database that you just created.
   1. Change the schema destination as described above
   2. Select the Oracle tables (make sure the destination is the desired schema in the SQL Server Metadata Explorer panel
   3. Select the “Convert Schema” button.
   4. Right click on the tables in the SQL Server Metadata Explorer and select the “Synchronize with Data” button.
   5. Select the tables again in the Oracle Metadata Explorer and then select Migrate Data.

Modify wrx.properties

Comment out the Oracle references and uncomment the SQL Server references

#database=OracleDB

database=SQLServer

#OracleDB.driver=oracle.jdbc.driver.OracleDriver

#OracleDB.url=jdbc:oracle:thin:@10.4.128.7:1521:immucorwrx

#OracleDB.url=jdbc:oracle:thin:@localhost:1521:WRxDev

#OracleDB.user=asrs

#OracleDB.password=+9syze7chyzh

#OracleDB.maximum=40

#OracleDB.realDB=Y

#OracleDB.MaxRows=1000

#OracleDB.TransactionDebugging=false

SQLServer.driver=com.microsoft.sqlserver.jdbc.SQLServerDriver

SQLServer.url=jdbc:sqlserver://localhost:1433;instanceName=MSSQLSERVER;databaseName=immucorwrx

#SQLServer.url=jdbc:sqlserver://10.16.1.87:52121;instanceName=SRV-SOFTSQL-VM;databaseName=immucorwrx

SQLServer.user=asrs

SQLServer.password=+9syze7chyzh

SQLServer.maximum=40

SQLServer.realDB=Y

SQLServer.MaxRows=1000

SQLServer.TransactionDebugging=false

Modify factory.properties file

Comment out the Oracle references and uncomment the SQL Server references

# Database

#com.daifukuamerica.wrxj.jdbc.DBMetaData=com.daifukuamerica.wrxj.jdbc.oracle.OracleMetaData

#com.daifukuamerica.wrxj.jdbc.DBErrorCodes=com.daifukuamerica.wrxj.jdbc.oracle.OracleErrorCodes

com.daifukuamerica.wrxj.jdbc.DBMetaData=com.daifukuamerica.wrxj.jdbc.sqlserver.SQLServerMetaData

com.daifukuamerica.wrxj.jdbc.DBErrorCodes=com.daifukuamerica.wrxj.jdbc.sqlserver.SQLServErrorCodes