March 5, 2018

Performing a Custom Installation of SQL Server for CDR Dicom

(c) 2016 SIRONA DENTAL, INC.

PURPOSE

The following information will assist you with performing a manual installation of SQL Server Express for CDR Dicom.

To describe this procedure CDR Dicom 5.13, which is the latest version of CDR Dicom at the time this document was prepared, will be used with Microsoft's SQL Server Express 2014 (SP1).

REQUIREMENTS

These instructions assume that you have the following:

- Access to, or a download of, SQL Server Express 2014 from Microsoft
- CDR DICOM 5.13 (either disk or download).
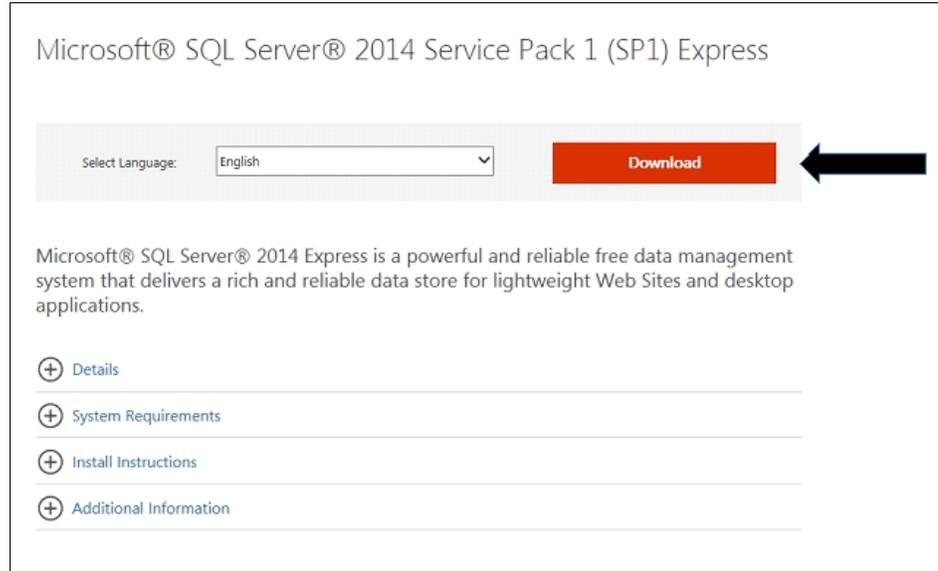
INSTALLATION

Perform the following steps to install SQL Server Express 2014 and configure it for CDR Dicom 5.13.

If you have already downloaded SQL Server Express 2014, you can skip ahead to the section "Install SQL Server Express 2014" on page 3 for step 4.
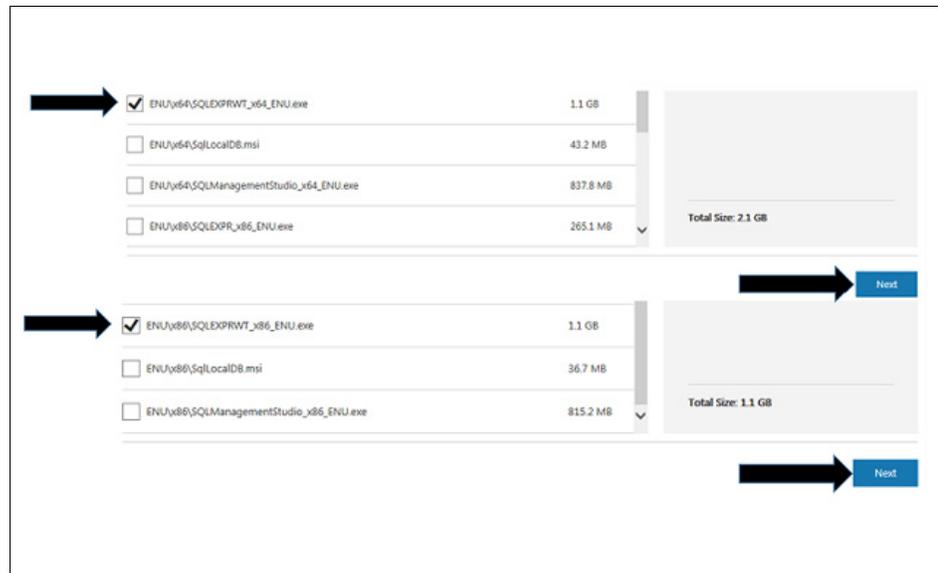
Download SQL Server Express 2014

1. Browse to the following website: https://www.microsoft.com/en-us/download/details.aspx?id=46697.
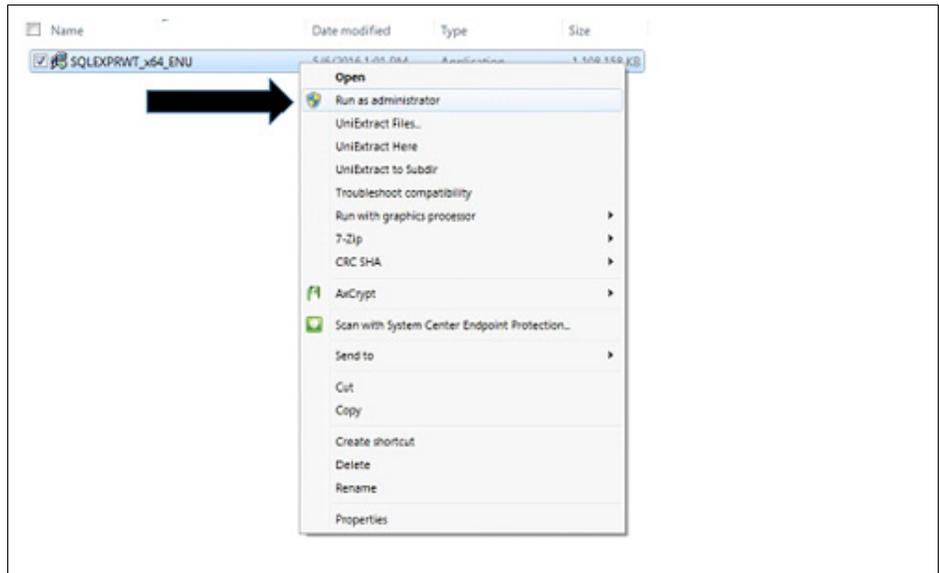
2. Click the Download button.

3. Select the following download option *(ENU\x64\SQLEXPRWT_x64_ENU.exe)* and click Next if using a 64-bit OS. If using a 32-bit OS click the *(ENU\x86\SQL-EXPTWT_x86_ENU.exe)* and click Next.
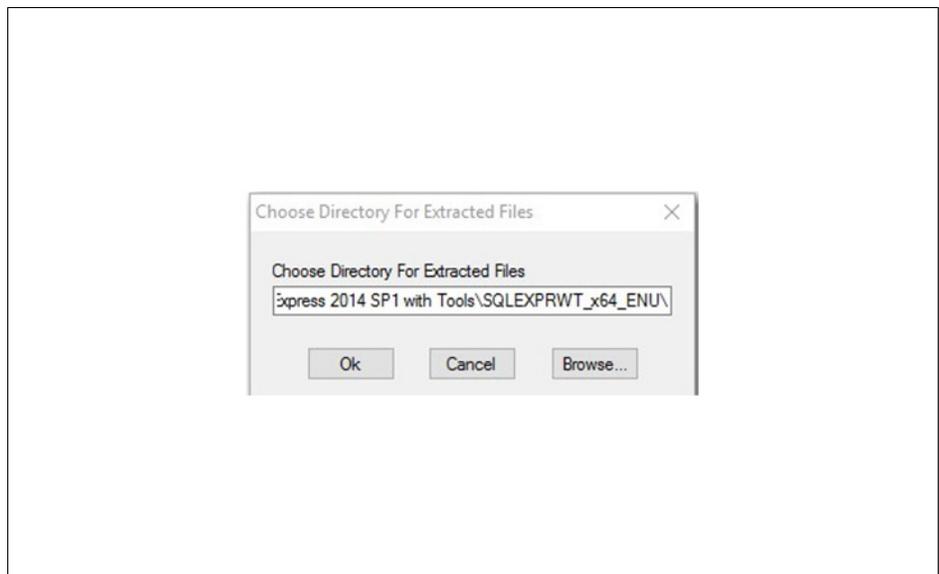
Install SQL Server Express 2014

4. Once the download is completed, browse to the download location, right click the SQLEXPRWT_x64_ENU.exe file and choose "Run as Administrator".
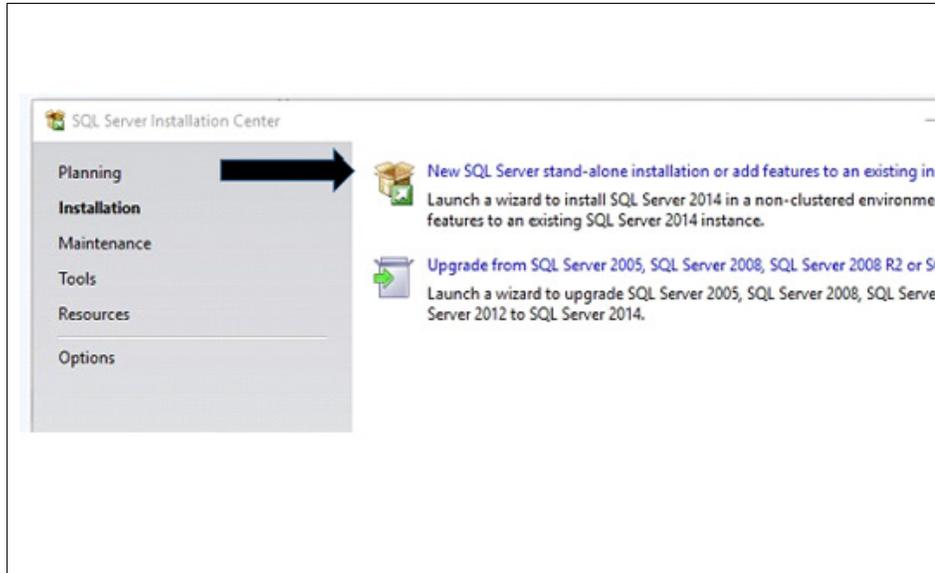

5. You will be prompted to choose the directory for extracted files. Click OK to extract into the same directory where the EXE file is located.
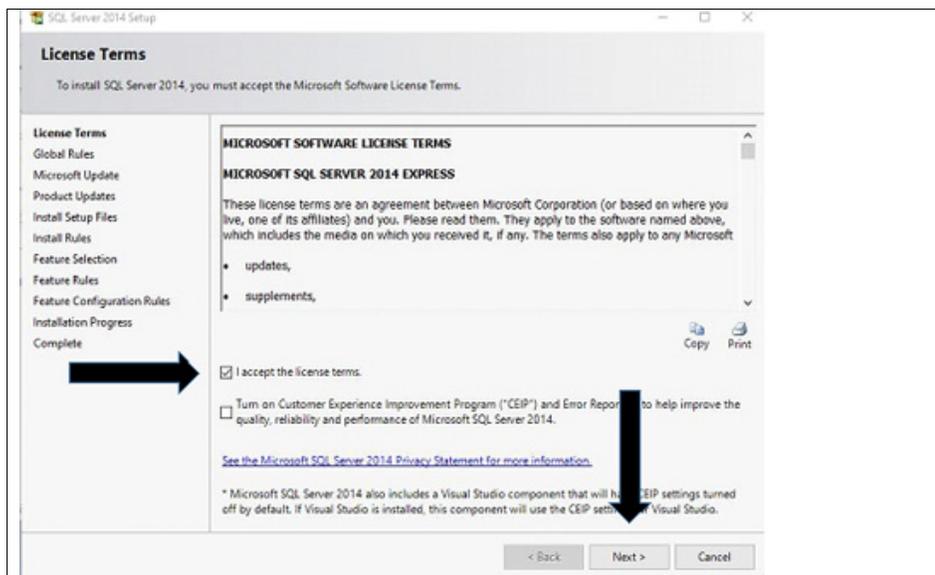
6. The SQL Server Installation Center should launch automatically. Click "New SQL Server stand-alone installation or add features to an existing installation".
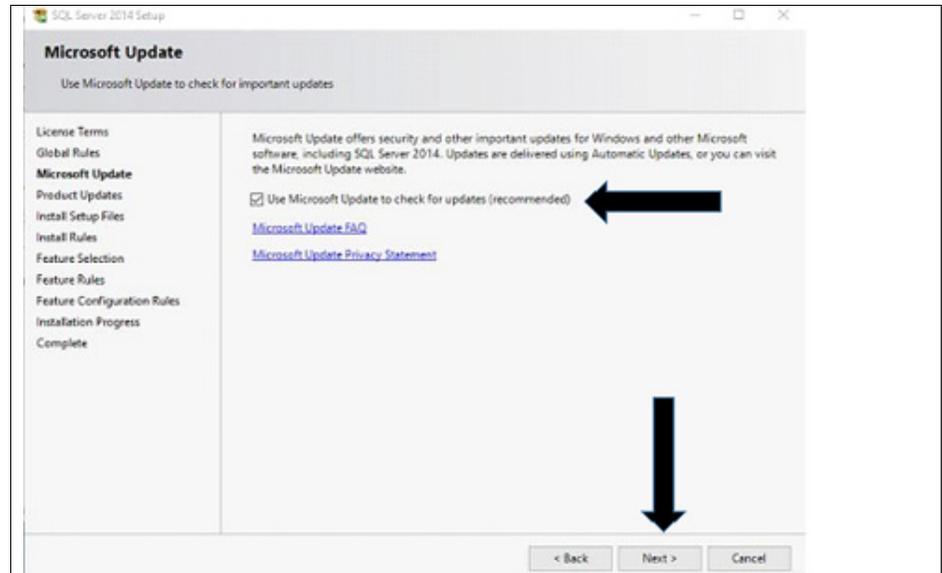
.

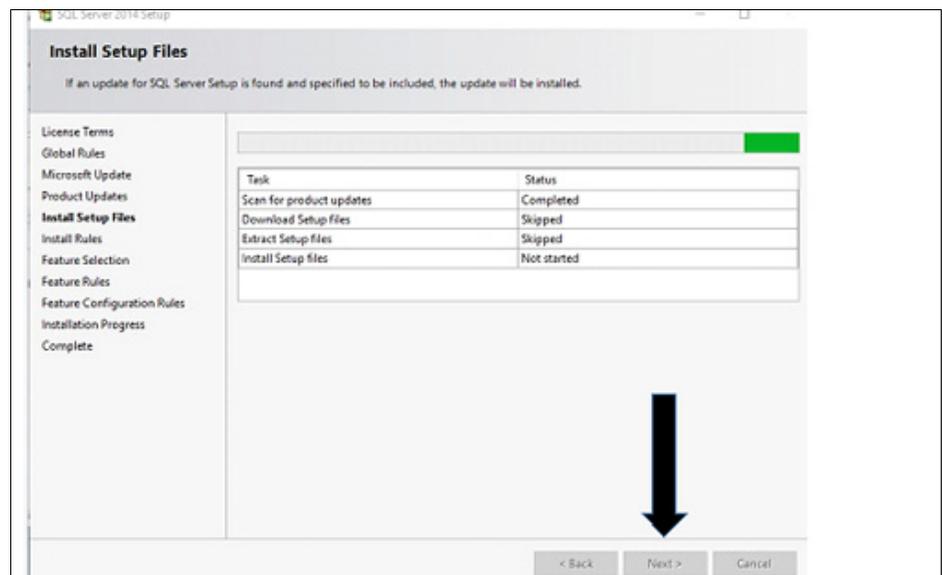**7.** Check the "I Accept the License Terms" check box and click Next.

8. Check the "Use Microsoft Update to check for updates (recommended)" and click Next.

9. You should see the following screen as the SQL Server Install Center checks for updates to MS SQL Express 2014 SP1 before the installation starts. Click on the Next button when it is available.
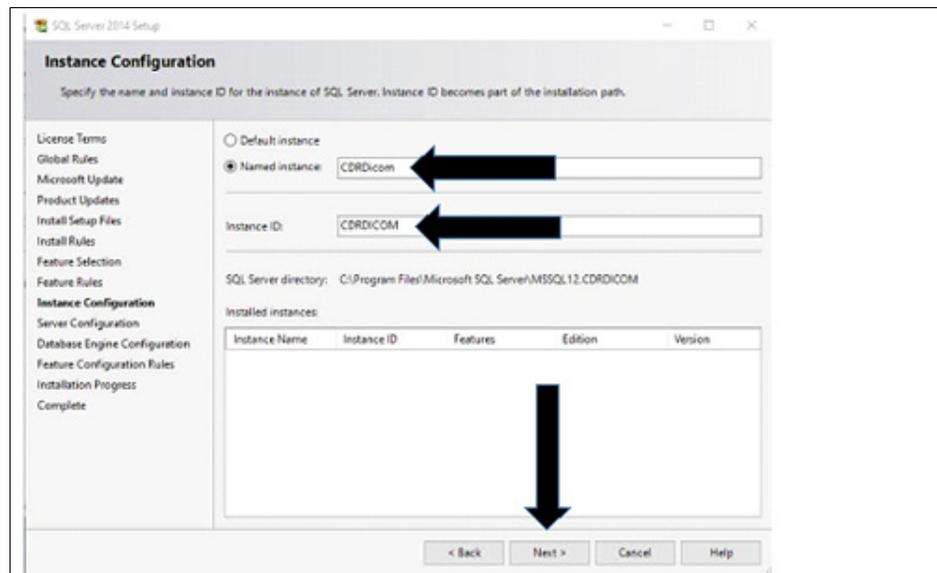
10. The following boxes should be checked by default. If they are checked, click Next. If they are not checked, ensure the same boxes are checked that appear in the screenshot below and then click Next.
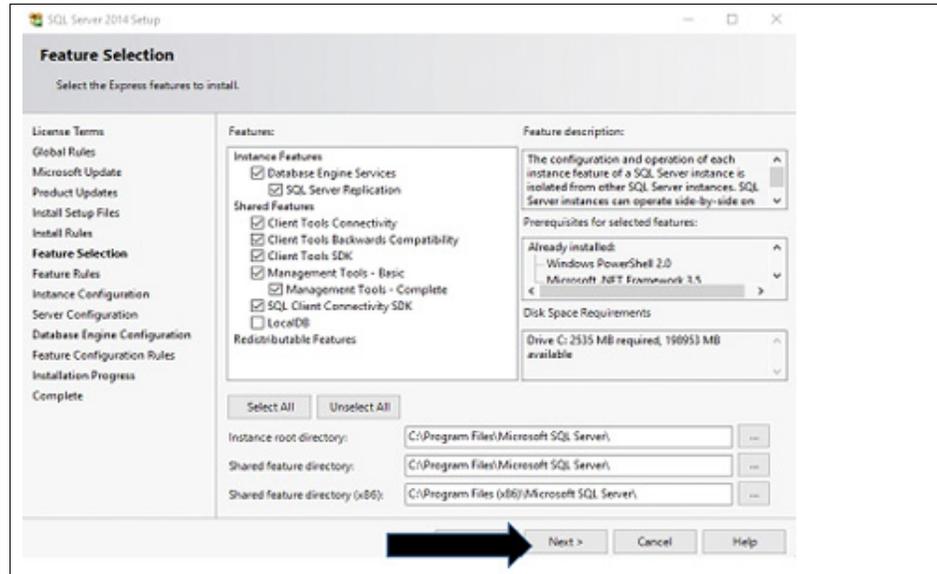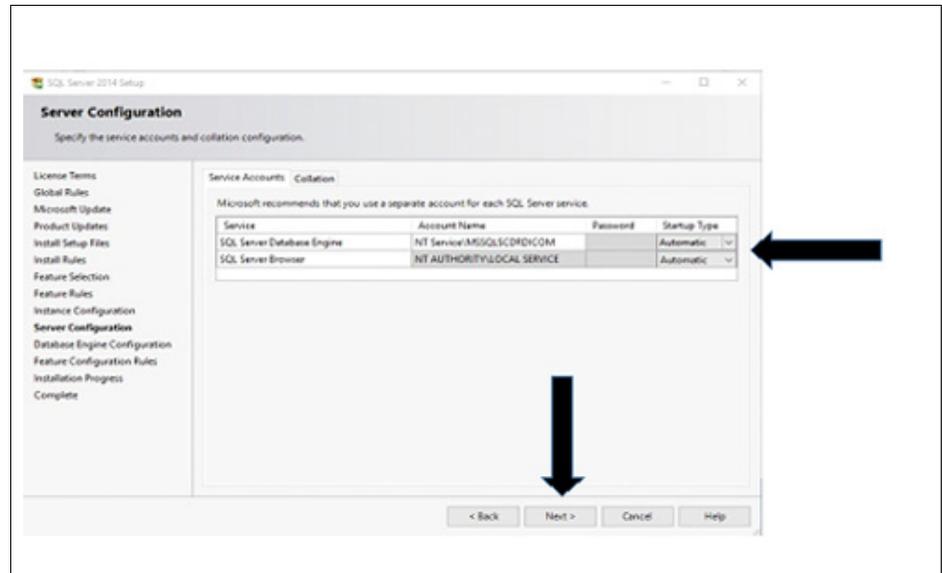

11. Make sure the named instance is selected and enter CDRDicom *(as shown)*. The Instance ID should be the same CDRDicom name. Click Next.
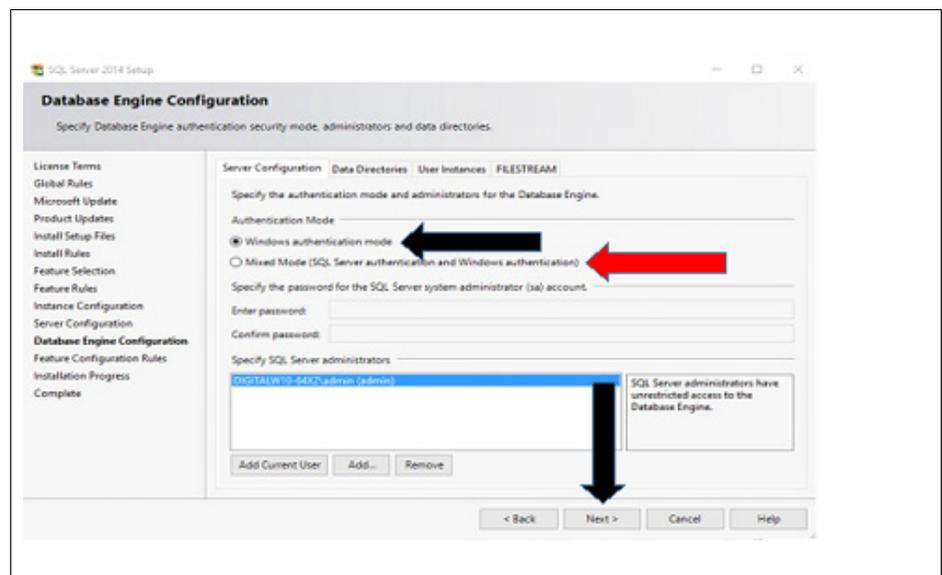
12. Ensure that the SQL Server Database Engine and the SQL Server Browser Startup Types are both set to "Automatic" and click Next.

13. By default "Windows Authentication Mode" is selected. We recommend using "Mixed Mode" *(red arrow),* which includes the SQL Server Authentication and Windows Authentication modes. Click Next.

- When you select "Mixed Mode", the "Enter Password" box is enabled for entry and you will need to specify the SQL server system administration (sa) password.
- For consistency, CDRDicom50! *(case sensitive)* is typically recommended as the password, although if you have concerns about using a default password, or if your facility has special security requirements, you have the option to input any password as long as it satisfies Microsoft's SQL Server Strong Password Requirements: https://docs.microsoft.com/en-us/sql/relational-databases/security/strong-passwords.

PLEASE NOTE: If you change your password, please make a note of this information and keep it in a safe location. If a support technician calls to assist you in the future, this password may be required.

14. When the installation is completed, click Close. If the main SQL Server Installation Window appears, click the "X" in the top right corner to exit.
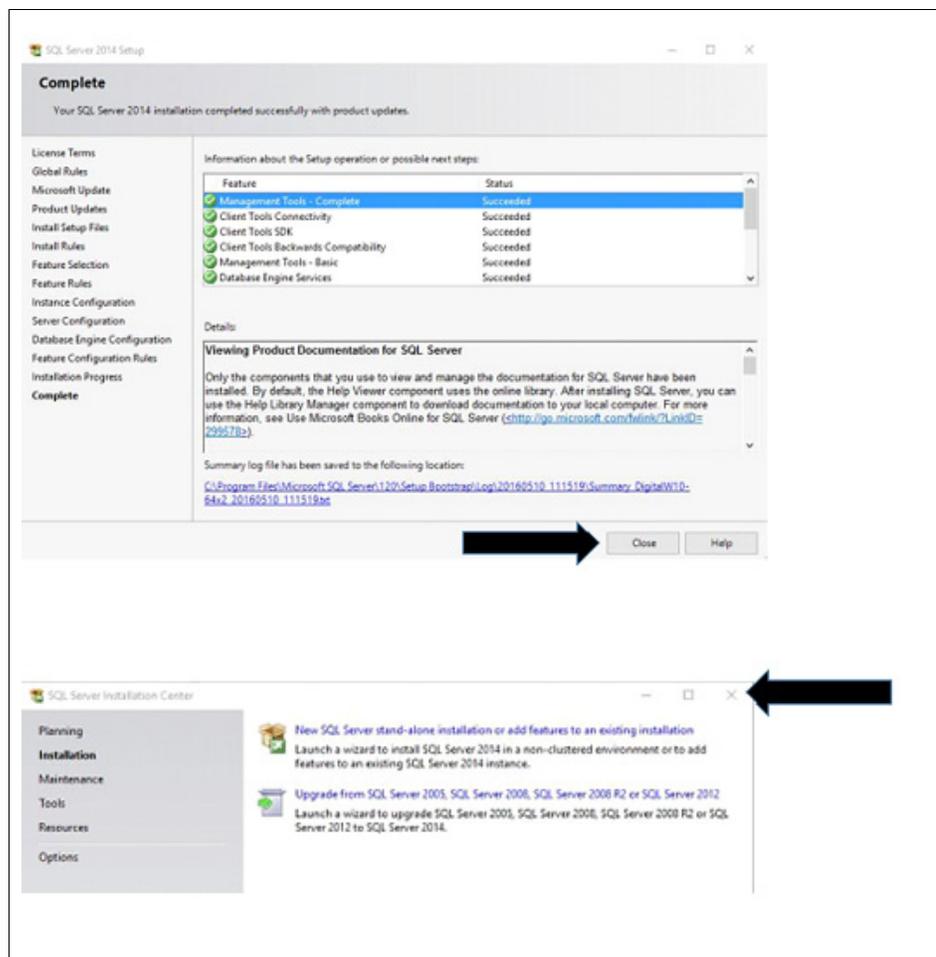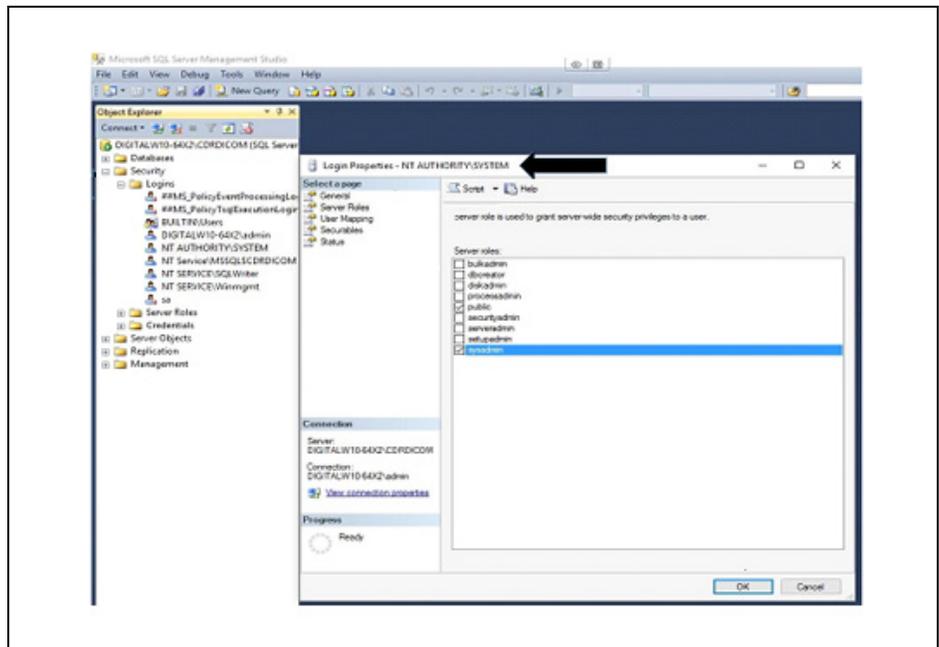
Open SQL Management Studio 2014

15. Open SQL Management Studio 2014 (Windows 10: Start > All Apps > Microsoft SQL Server 2014 > SQL Server 2014 Management Studio) and login using either Windows Authentication or SQL Server Authentication. *(This will depend on how the SQL Server was installed on page 7 for step 13.)*
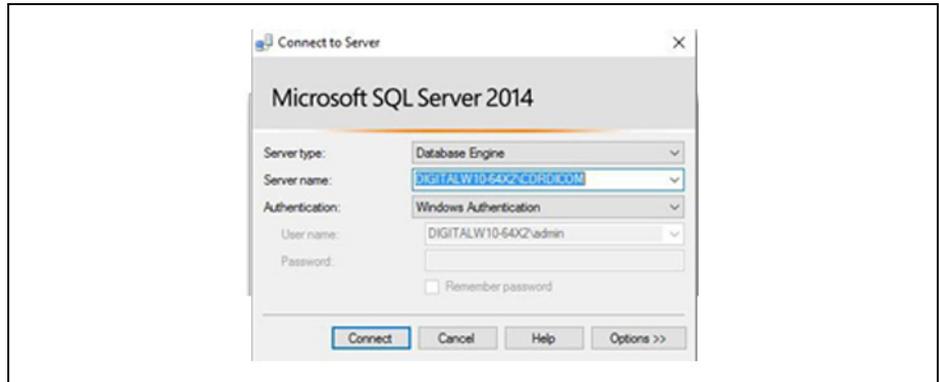
16. Once you are logged in, expand Security, then Logins, and double click on NT AUTHORITY\SYSTEM. The Login Properties page for NT AUTHORITY\SYSTEM should open *(right side of window)*.

17. In the Server Roles area the "public" checkbox should be selected automatically. Check the "sysadmin" box and click OK. Go to File > Disconnect and close SQL Management Studio.

PLEASE NOTE: If the NT AUTHORITY\SYSTEM is not listed *(on the left column)*, then the currently logged-in user does not, most likely, have administrator rights. In this case the office must login as administrator to make the required changes.

18. If the previous step is not completed and the CDR SERVER installation is started from the CDR 5.13 disk or download file, you may receive the error below. In that case, close the CDR SERVER installation, complete the previous step, and then restart the CDR SERVER installation. More information about Error 27553 Security Resolution is available, although for a different third party software. The corrective action steps, however, are the same as those that allow the CDR installation to complete without error.

Perform CDRServer Installation

19. After completing the previous steps, continue with the CDR SERVER installation. To start, click on the Install CDR Server button.
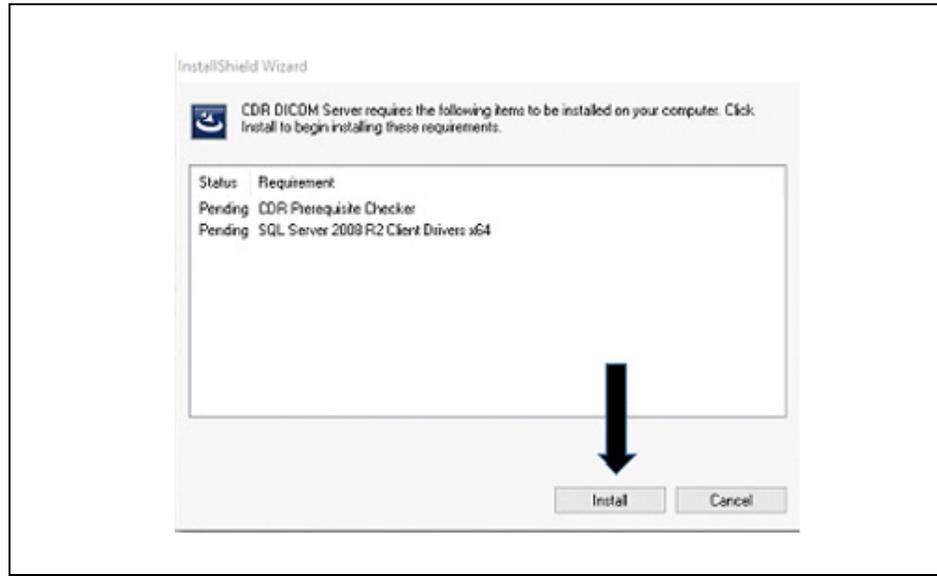

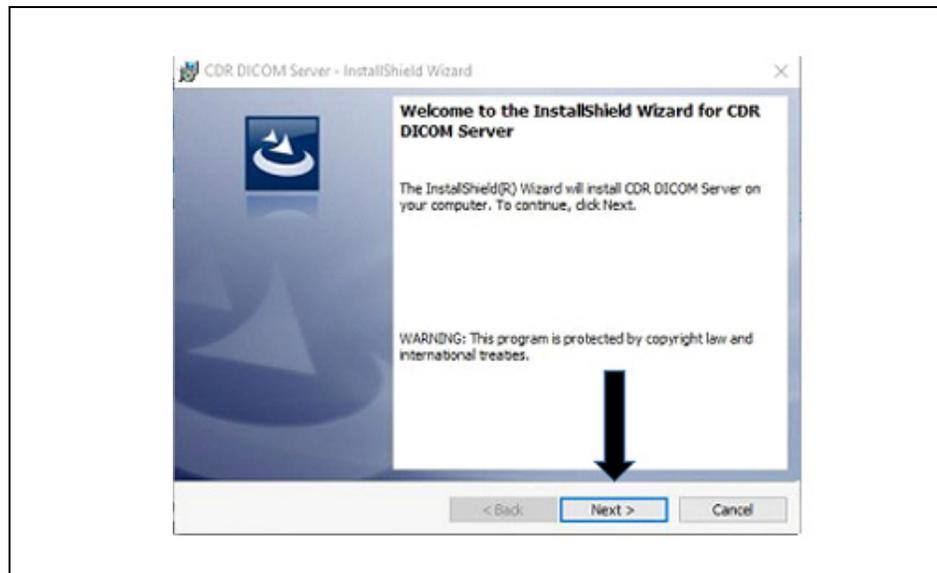**20.** Select language and click OK.
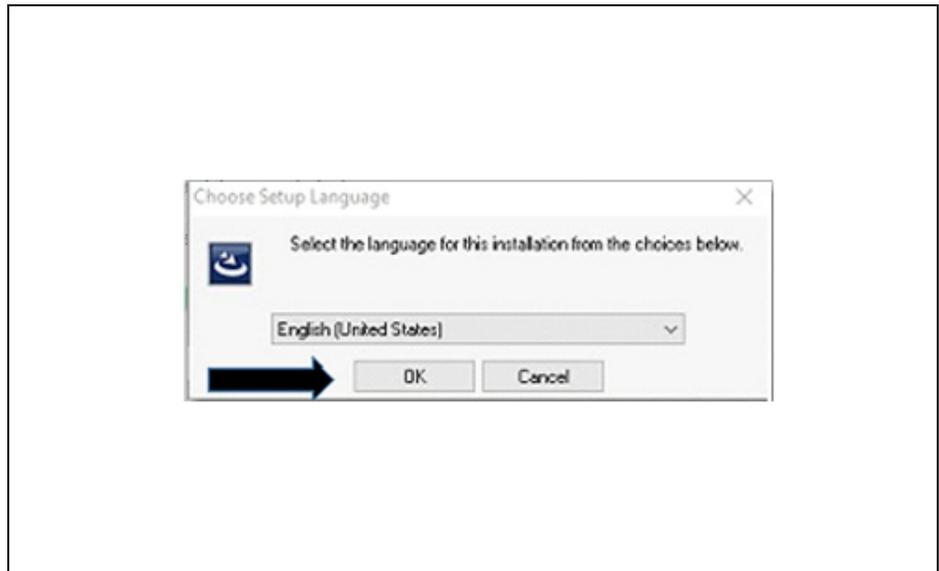
21. If prompted to install any prerequisites, click the Install button.

PLEASE NOTE: We encountered no issues or errors when installing the SQL Server 2008 R2 Client Driver x64 prerequisites when installing the CDR Dicom 5.13 CDR Server option on Windows 10 Pro x64.
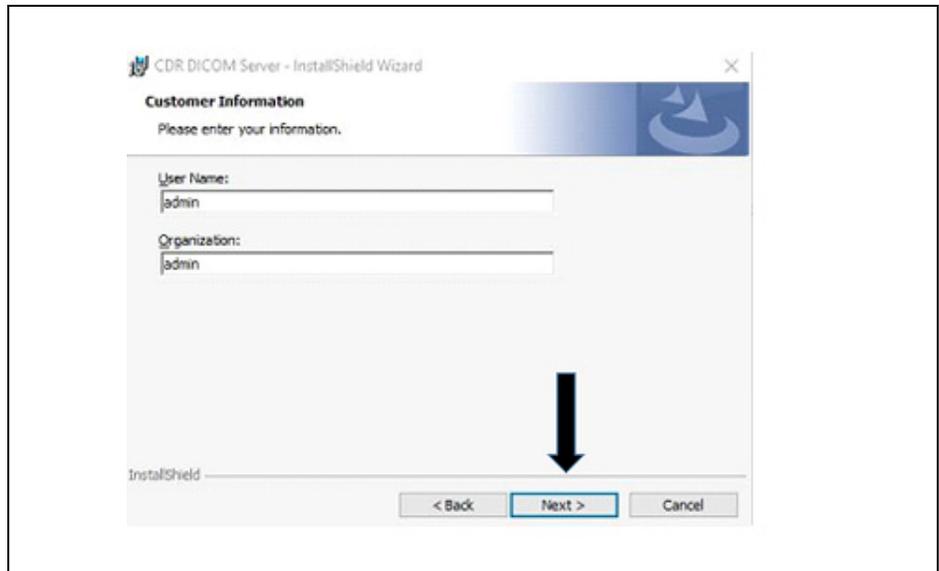

22. Click Next.

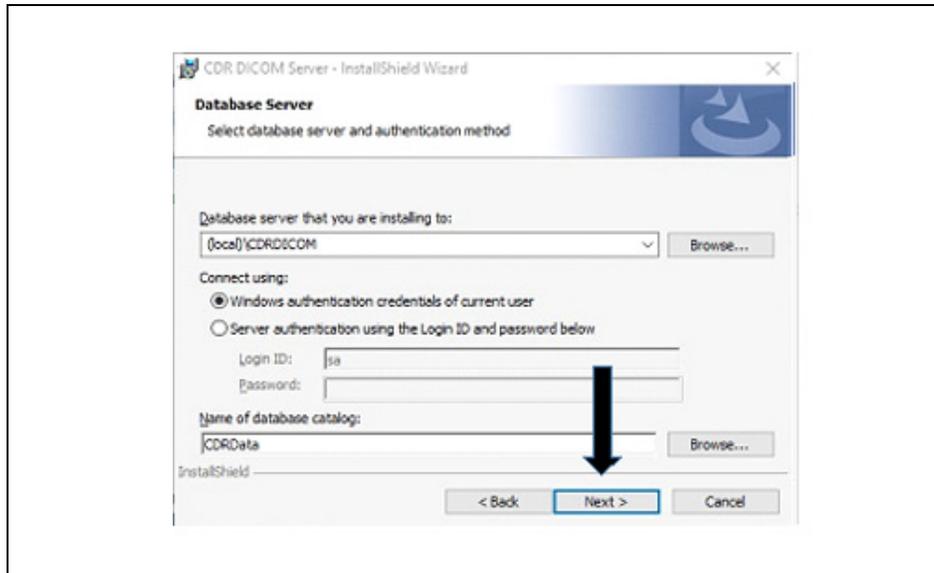**23.** Click Next after agreeing to the software license agreement.

**24.** Click Next after entering customer information ("User Name" and "Organization").

25. Depending on the authentication option selected during the manual SQL installation, choose either Windows or Server Authentication *(which requires the password used during the manual SQL installation). (See page 7 for step 13.)* The "Database server that you are installing to" and the "Name of database catalog" should be identical to the selections in the screenshot below and should not need to be changed. Click Next.
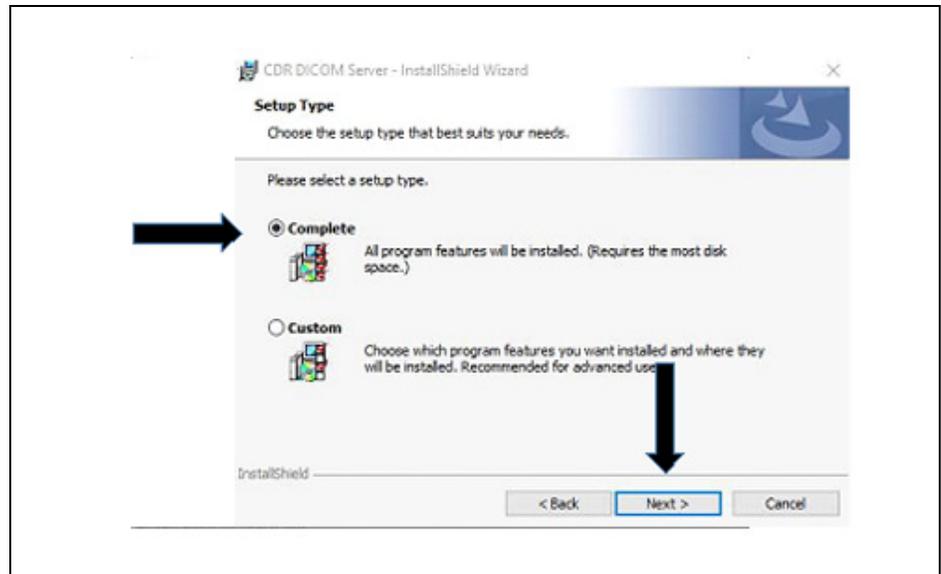

26. Click Next after selecting the appropriate image storage location. *(This location can always be changed later, if needed, through the CDR Data Administration utility.)*
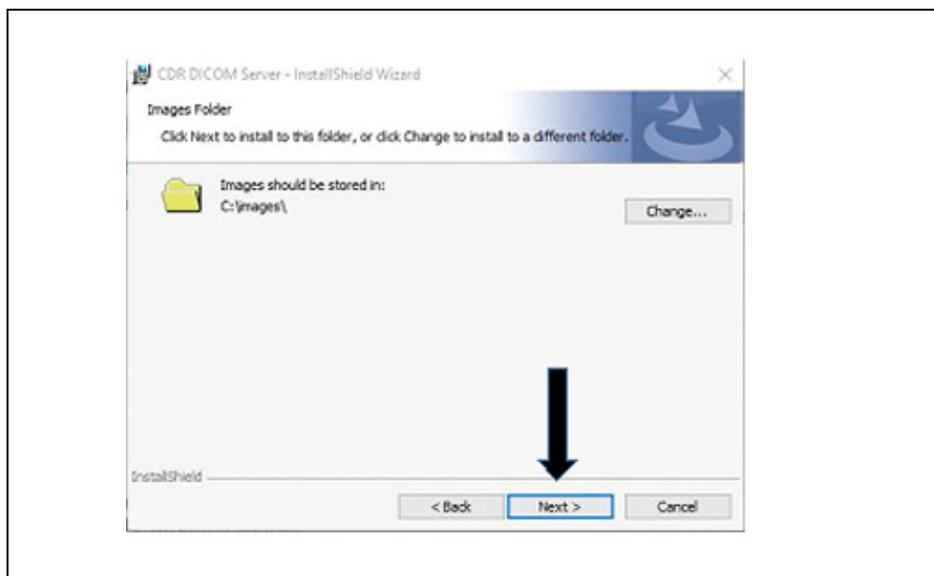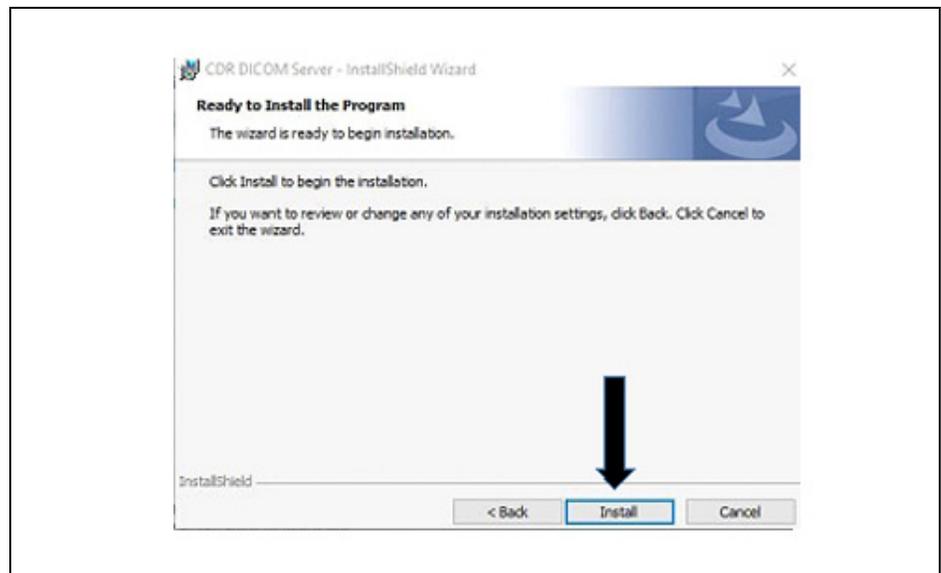
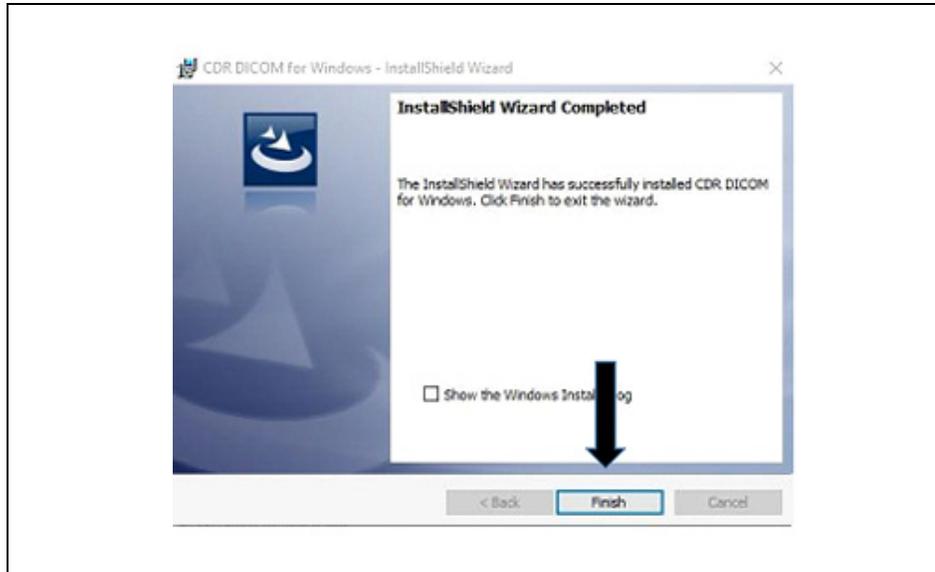**27.** Click Next after choosing the setup type "Complete".

28. Click Install.

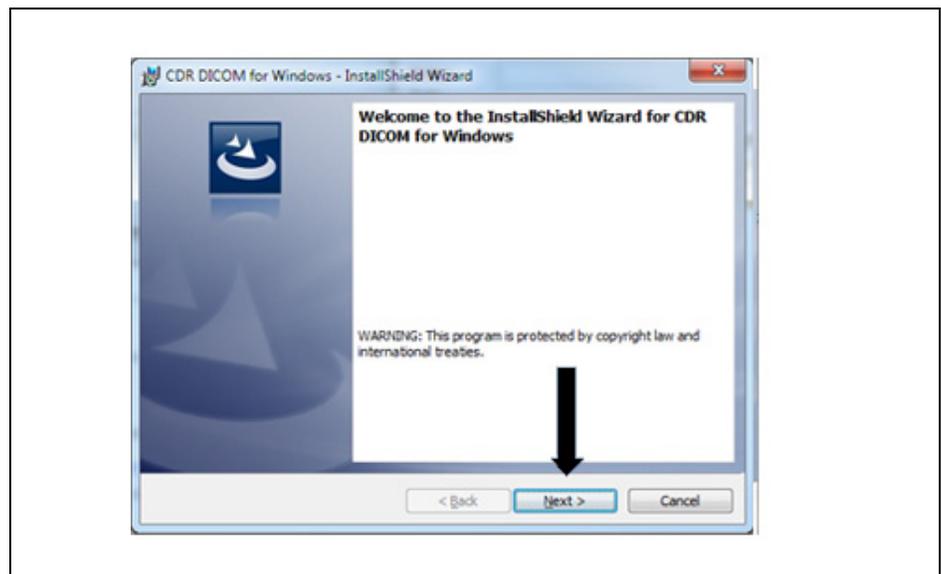**29.** Click Finish. At this point the CDR SERVER installation is complete.

Perform CDR Client Installation

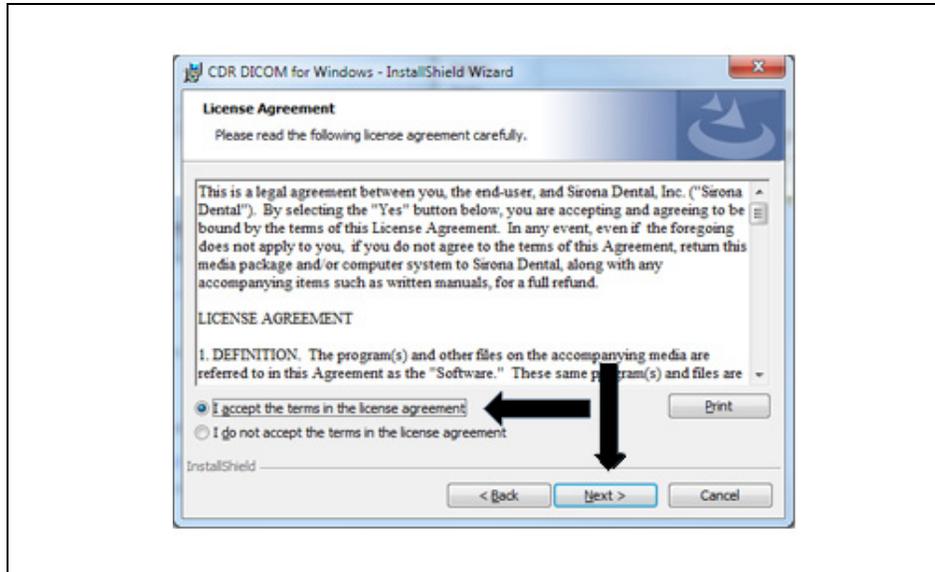**30.** Re-run the installer and choose the CDR CLIENT installation option.
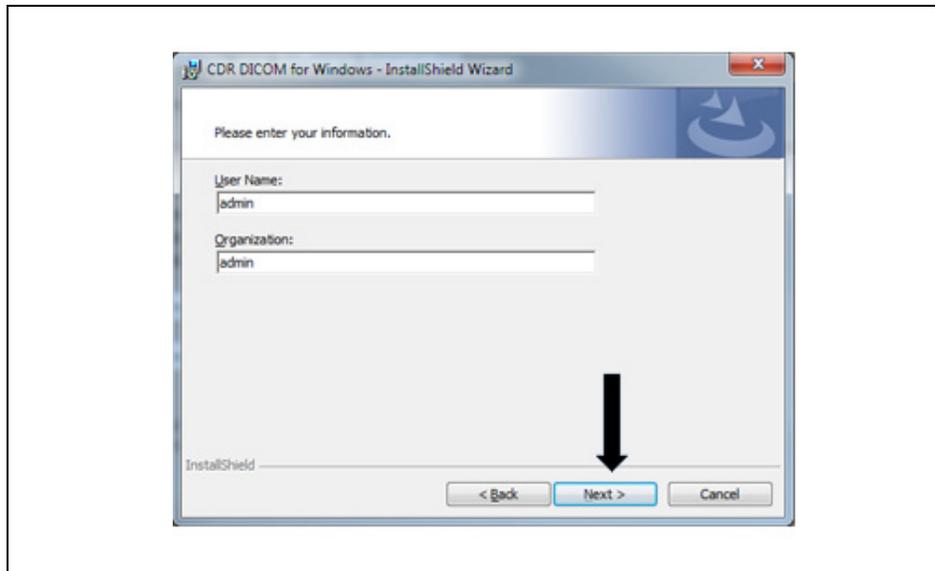

31. Click Next.

32. Click Next after agreeing to the software license agreement.

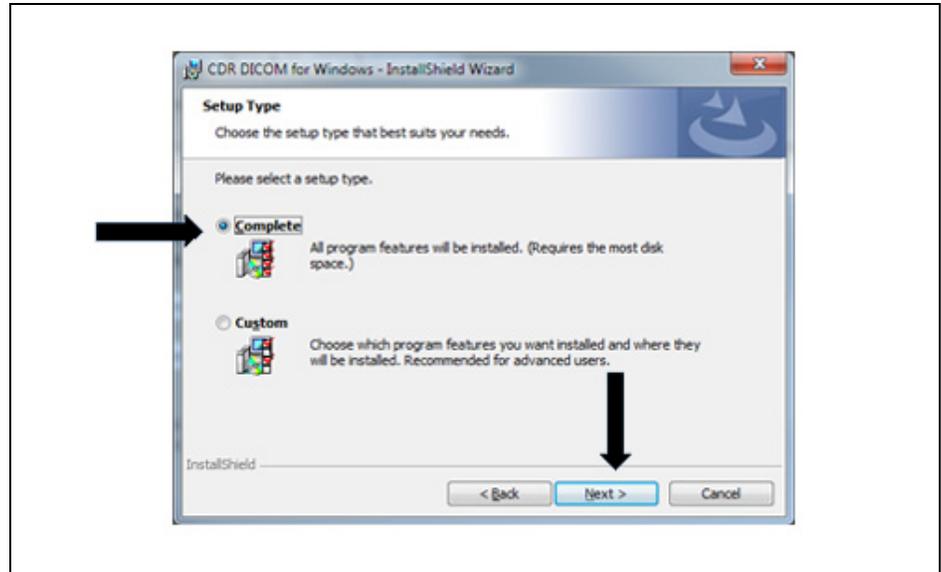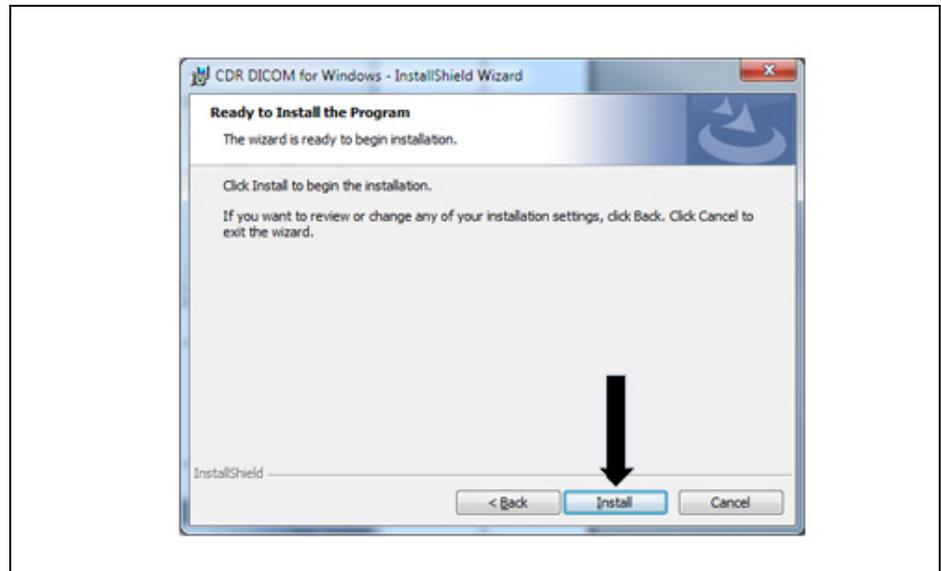**33.** Click Next after entering customer information ("User Name" and "Organization").

34. Click Next after choosing the setup type "Complete".

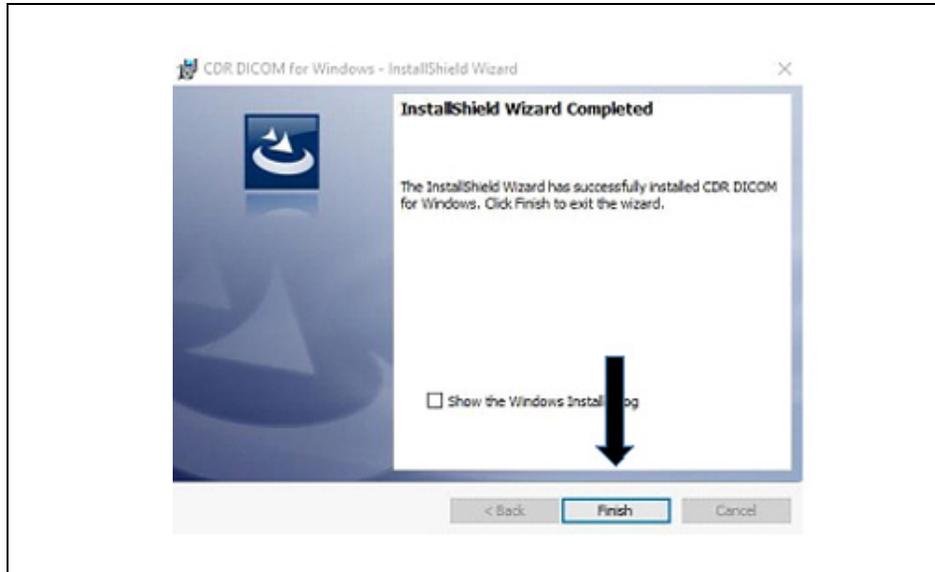**35.** Click Install.

36. Click Finish. At this point the CDR CLIENT installation is complete.

Verify SQL Server Connection

37. Open CDR Dicom for Windows from the desktop shortcut and verify connectivity to the SQL Server and Database by clicking "Test Connection". Also note that the "Enter the name of the Server" option on the server machine can be set to "(local)" *(if server is on the same PC).*
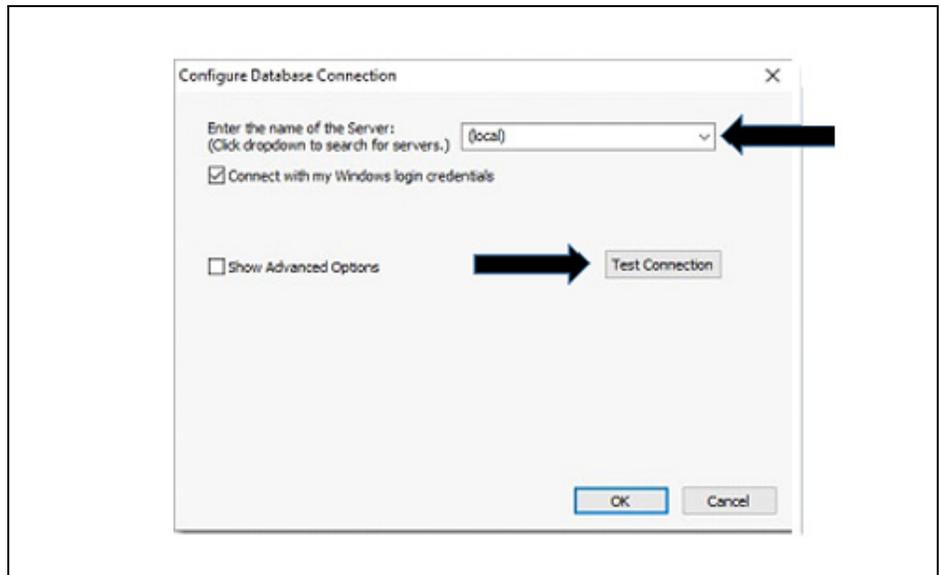
If you are on a client-only PC, however, you will need to enter or select your server PC name from the drop-down menu.
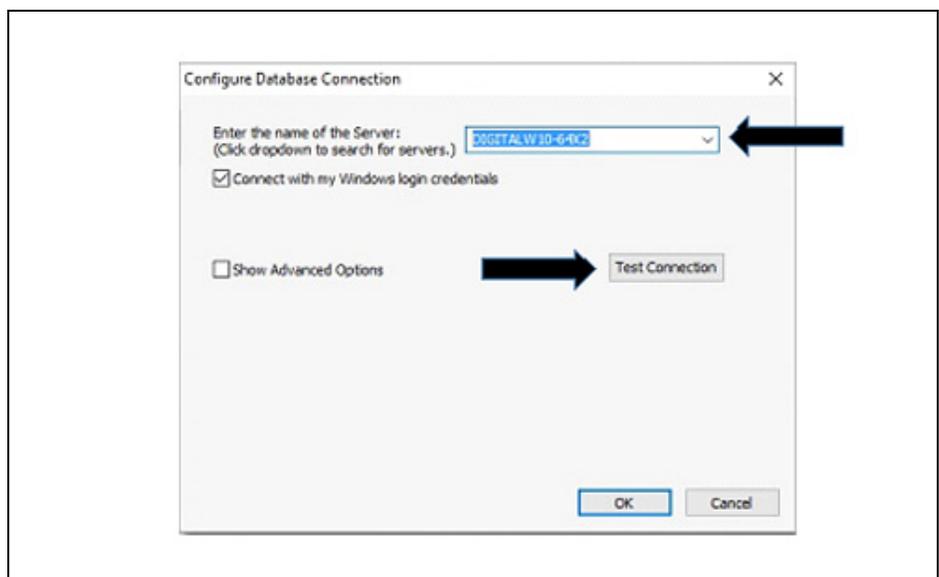
38. Verify that the Data Connection is good. If so, click "OK" and CDR Dicom for Windows 5.13 should open and be ready for use.

Performing a Custom Installation of SQL Server for CDR Dicom

Perform Troubleshooting if the "Test Connection" Fails

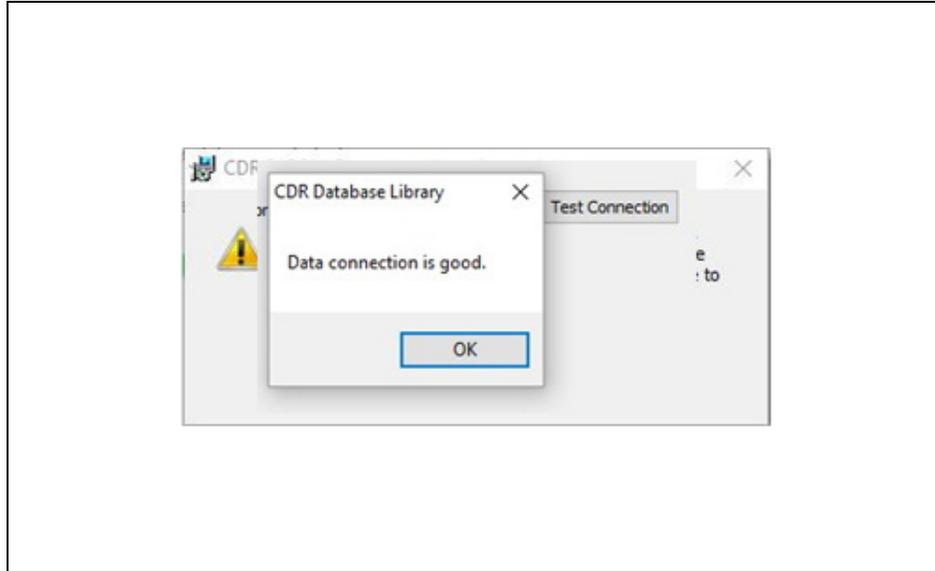**39.** Ensure that both the SQL SERVER (CDRDICOM) service and COMPUTER BROWSER services are running. These services can be checked in various ways but the two most common ones are as follows.

Windows Services:

Any OS: Click Start > Run and type in "services.msc" *(without quotes)*. Ensure that SQL Server (CDRDICOM) and Computer Browser services are running.

On Windows 7: Right-click on the Computer icon, click Manage, click Services and Applications in the left panel, and click Services. Ensure that SQL Server (CDRDI-COM) and Computer Browser services are running.

On Windows 8, 8.1, and 10: Right-click on the This PC icon, click Manage, click Services and Applications in the left panel, and click Services. Ensure that SQL Server (CDRDICOM) and Computer Browser services are running.

SQL Server Configuration Manager:

On Windows 7: Click the Start button > All Programs > Microsoft SQL Server 2014> Configuration Tools > SQL Server 2014 Configuration Manager. Click the SQL Server Services option in the left panel and ensure that the SQL Server (CDRDICOM) and SQL Server Browser services are running in the right panel.

On Windows 8: Drag mouse to the bottom left corner of screen and when the tile area is displayed, click on it. Click the down arrow to get to Apps, scroll over to Microsoft SQL Server 2014, and click the SQL Server 2014 Configuration Manager option. Click the SQL Server Services option in the left panel and ensure that the SQL Server (CDRDICOM) and SQL Server Browser services are running in the right panel.

On Windows 8.1: Click the Start button on the bottom left of the screen, click the down arrow to get to Apps, scroll over to Microsoft SQL Server 2014, and click the SQL Server 2014 Configuration Manager option. Click the SQL Server Services option in the left panel and ensure that the SQL Server (CDRDICOM) and SQL Server Browser services are running in the right panel.

On Windows 10: Click the Start button > All Apps > Microsoft SQL Server 2014 > SQL Server 2014 Configuration Manager. Click the SQL Server Services option in the left panel and ensure that the SQL Server (CDRDICOM) and SQL Server Browser services are running in the right panel.
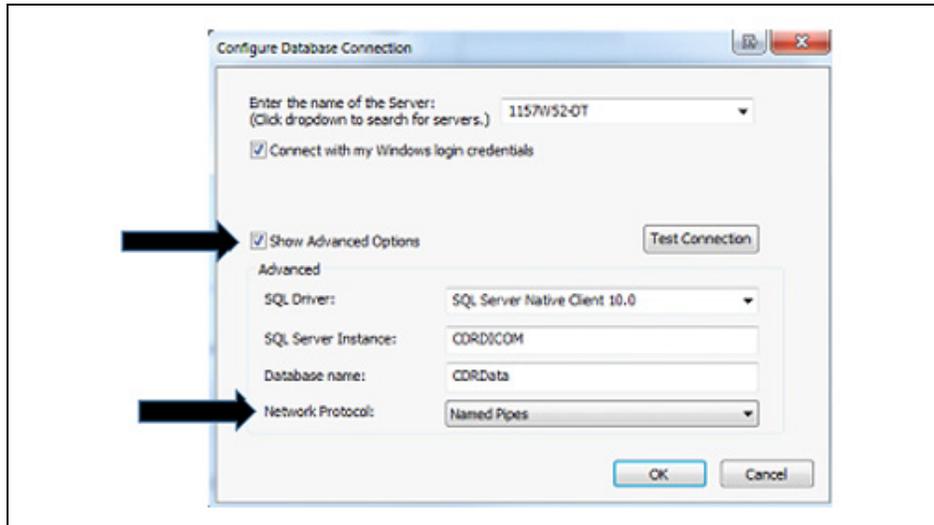
40. Ensure NAMED PIPES and TCP/IP are enabled in SQL Server Configuration Manager.
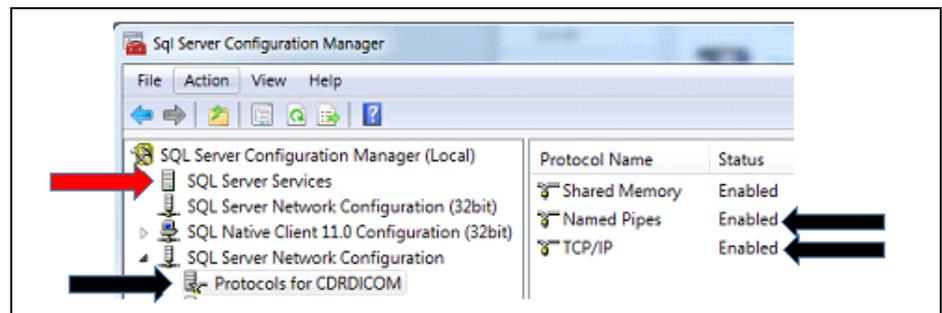
41. If the connection fails in the Configure Database Connection window, click "Show Advanced Options" and under the "Network Protocol" drop-down menu, choose "Named Pipes" and click Test Connection again.

42. For installations that selected the "Mixed Mode" authentication option during the manual installation of SQL Server 2014, you can try unchecking the "Connect with my Windows login credentials" box and then enter the logon info for the SQL Server "sa" account. If the instructions on page 7 for step 13. were followed per our recommendation, the "sa" password should be CDRDicom50! and then click Test Connection again.