

CARLI I-Share Oracle 12c/ODBC New Installation Guide: Windows (64 bit) & Access (64 bit)

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I. Introduction

Before You Start...

- These instructions cover a **NEW** installation of Oracle 12c on a Windows 10 (64-bit) workstation that has a 64-bit version of Microsoft Access 2013 or higher.
- These instructions may be applied to earlier 64-bit versions of Windows (Windows 7 or Windows 8), though Oracle does not certify that the 12c clients are supported on those systems.
- These instructions assume that no previous version of Oracle has been installed on the PC. If your PC has an existing version of Oracle, please contact the CARLI Office before you begin this installation process.
- A CARLI Oracle Account (username and password) is required before installation and to run MS Access reports or Strawn Utilities. Your library's Director or I-Share Liaison should request an Oracle username/password for each individual staff member by filing a Work Request Online (WRO). For more information, see <http://www.carli.illinois.edu/products-services/i-share/reports/starting-access-reports> .
- If you run into problems at any point please **stop** and seek assistance from CARLI. The CARLI website contains a frequently asked questions list for Oracle installations. You may also contact CARLI staff at support@carli.illinois.edu.
- The Oracle 12c 64-bit client will not work with Gary Strawn's applications, which are 32-bit software. To use the Strawn tools, you may install the Oracle 10g 32-bit clients alongside Oracle 12c, making sure that the installations are in different directories.
- CARLI's servers require that the Oracle 12c client on the PC use encryption. If your campus uses Oracle clients to connect to other local Oracle databases, the encryption set up required to connect to CARLI servers may impede connections to local Oracle databases. Before proceeding with this installation, consult your local IT staff and CARLI, if necessary.
- Make sure that the Windows login used during this installation has **Local Administrator** rights before you begin. Consult your local IT Department if you are unsure or do not have Local Administrator rights.
- Once the uninstall process has started, **do not** leave it unattended or start working on a different application until you have completed the process. Doing either may cause the application to freeze and require a reboot to resolve. Rebooting at the wrong time could greatly complicate the uninstall process.
- Shutdown all other applications. Temporarily disable any PC firewall & virus software during installation.
- If you are running **Norton AntiVirus 2006** or later, linking in Section VI *will not work* by default. Read Microsoft's Knowledge Base Article 329820 (<http://support.microsoft.com/kb/329820>) for help. Otherwise, consult with your IT department.

Why all the reboots?

For a cleaner and faster uninstall (and install) process. Rebooting the PC...

- ...just before critical work helps minimize services competing for system resources.
- ...then shutting down all other programs minimizes program fragments and memory leaks.
- ...after making registry changes ensures that the link between PC files and previous registry data no longer exists.

How do I know which versions I'm using?

To check whether your version Windows runs as 32-bit or 64-bits, choose from the following according to the operating system.

Windows 10, option 1

1. Select the Windows menu button
2. Select the settings button
3. Select the System icon
4. Select the About option in the navigation pane.
5. Check the System Type value. It will state either a 32-bit or 64-bit operating system.

Windows 10, option 2

1. Select the Windows menu button
2. Find and Select the Windows System folder
3. Select the Control panel icon
4. Select the System icon
5. Check the System Type value. It will state either a 32-bit or 64-bit operating system.

Windows 8

1. Select the Windows menu button
2. Select the PC settings tile (a gear)
3. Select the PC and devices option in the navigation pane
4. Select the PC info option in the navigation pane.
5. Check the System Type value. It will state either a 32-bit or 64-bit operating system.

Windows 7

1. Select the Windows menu button
2. Select the Control panel icon
3. Select the System icon
4. Check the System Type value. It will state either a 32-bit or 64-bit operating system.

To check whether your version of Access runs as 32-bit or 64-bits, do one of the following according to the application version.

Access 2010 and later

1. Open Microsoft Access
2. Select Open Other Files
3. Select Account
4. Select the About Access button
5. At the top of the About Microsoft Access window, you will find either 32-bit or 64-bit at the end of the line stating Microsoft Access 201X (X for the last digit in the version).

Access 2007

1. Open Microsoft Access
2. Select the Microsoft Office button in the upper left corner
3. Select Resources
4. Select About

II. Downloading the Oracle 12c Client Package

Before You Start

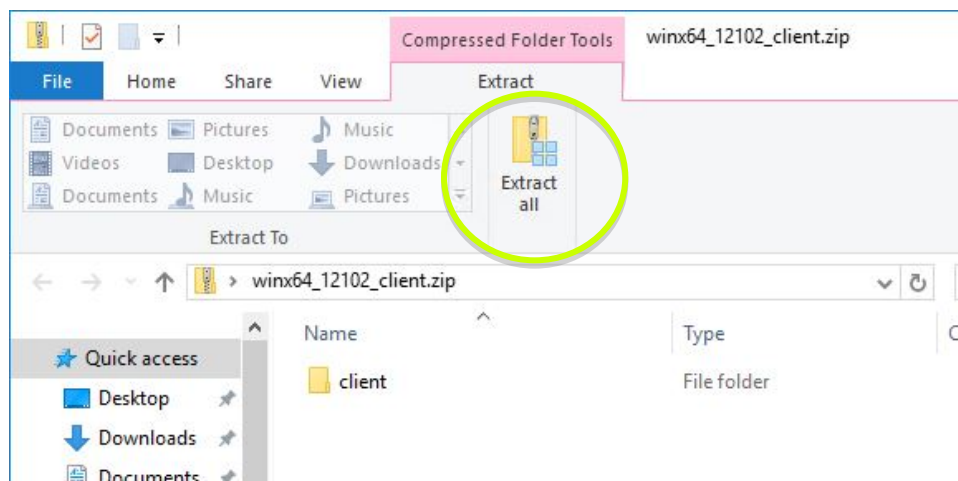
The .zip download requires 900MB free space. The installation requires **an additional** 500MB free space. In addition to the .zip file there is one other file to download.

Instructions

1. Download the package and the additional file.
 - a. Locate and download the Oracle 12 installation files for 64-bit operating systems to your Desktop or Downloads folder:

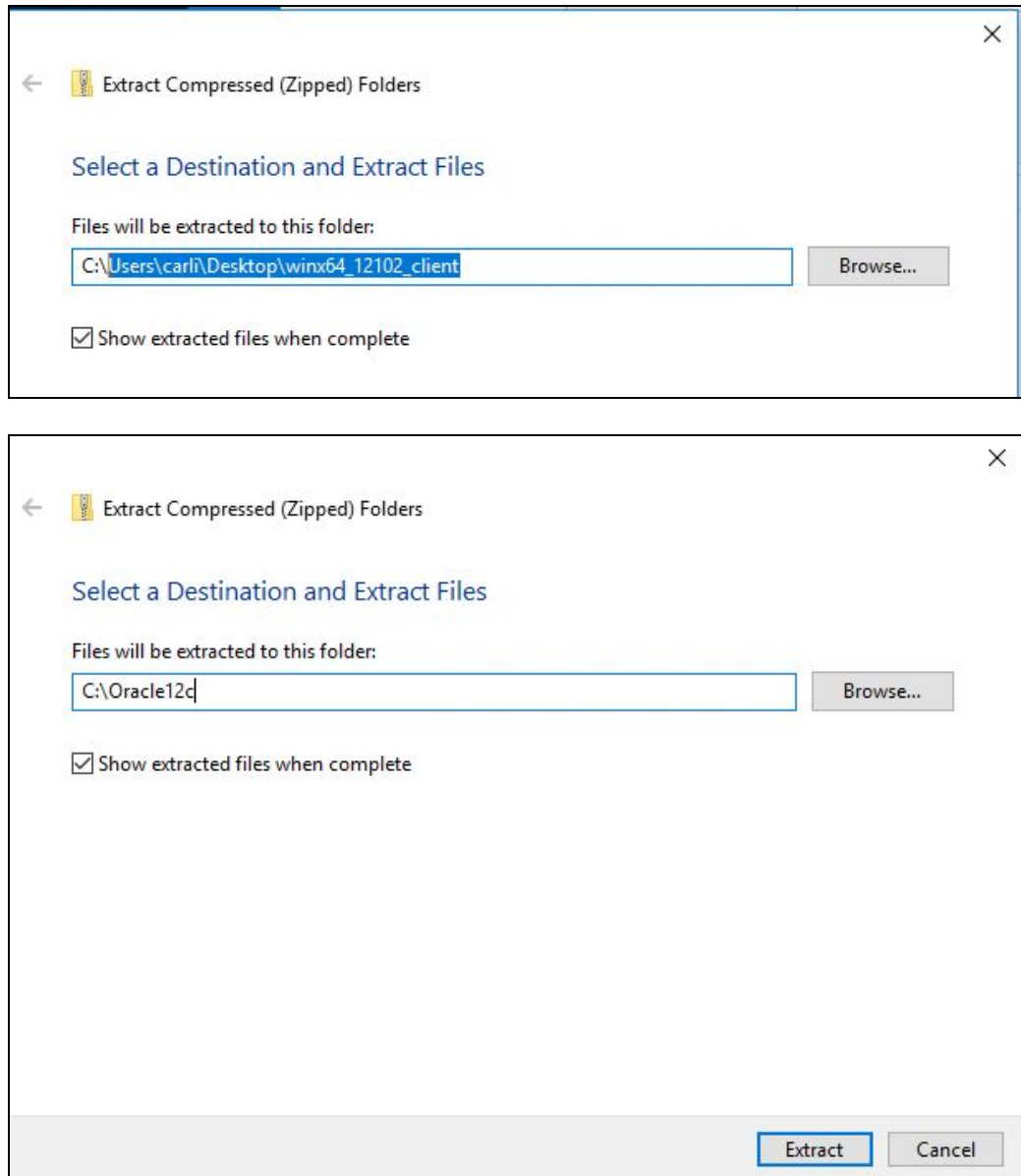
Version 12102 for Windows 64 bit (winx64_12102_client.zip)
 - b. Wait for the download to complete. This file (over 900MB) may take several minutes to download completely.
2. Extract the package
 - a. Create a new folder on your PC that will be used when you will extract the .zip package in the next step. CARLI recommends naming the folder **C:\Oracle12c**.
Warning: DO NOT create this new folder within an existing \oracle\ folder!
 - b. Locate and open the **winx64_12102_client.zip** file (e.g., by double-clicking). Windows' built-in file extractor will be displayed.
 - c. In the window, select Extract, then Extract All

Figure 2-1. Extraction using Windows built-in file extractor. Select the Extract tab, then choose Extract All.



- c. In the Extract Compressed (Zipped) Folders window, Change the default location that appears to C:\Oracle12c. Then choose Extract.

Figure 2-2. Extraction using Windows built-in file extractor. Change whatever the default is (top image) to C:\Oracle12c (bottom image).



3. Once extraction completes, Windows will open a file explorer window for the new C:\Oracle12c folder.

The Oracle 12c ODBC package is ready to install!

III. Installing Oracle 12c

Before You Start

Be sure that you have the Oracle 12c installation for your version of Windows, supplied by CARLI. See section II. **Downloading the Oracle 12c Client Package** for more information.

Be sure that the Oracle installation files are in the folder you created, C:\Oracle12c.

Be sure that you log on to the computer with administrative rights to install software and update the computer, and that you run the command prompt “As Administrator.”

Installing Oracle 12c for Windows (64-bit)

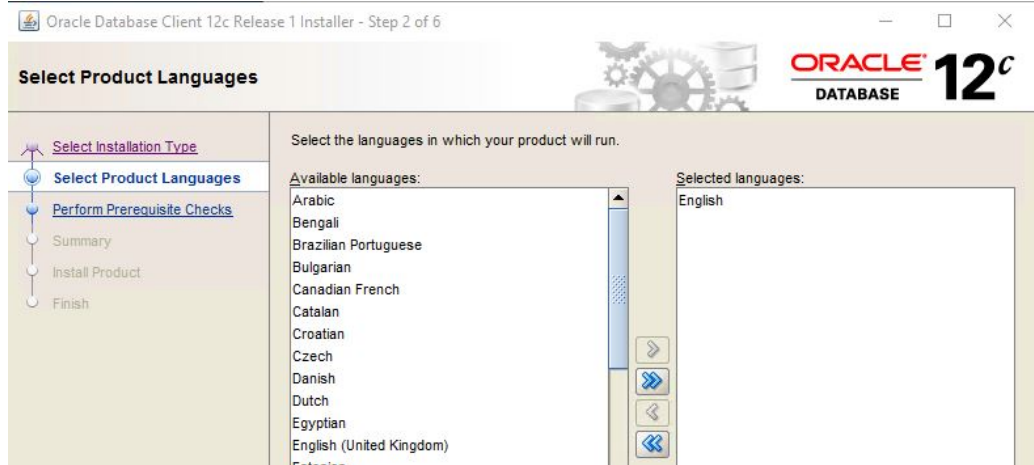
1. Restart your computer.
2. Log on to the PC as an Administrator and ensure that there are no open programs.
3. Open a file explorer window and navigate to the folder containing the installation files, **C:\Oracle12c\client**.
4. Locate and open **setup.exe**.
5. Windows may prompt you to ask if setup.exe may make changes to the computer; answer **Yes**. A command line window will appear briefly checking the memory and graphics capability of your workstation. Then the Oracle Universal Installer will launch.
6. On the Installation screen, choose **Custom**, then select **Next**.

Figure 3-1. Universal Installer Installation screen. Select a custom installation. You may wait several minutes before reaching the next screen. Do not panic.



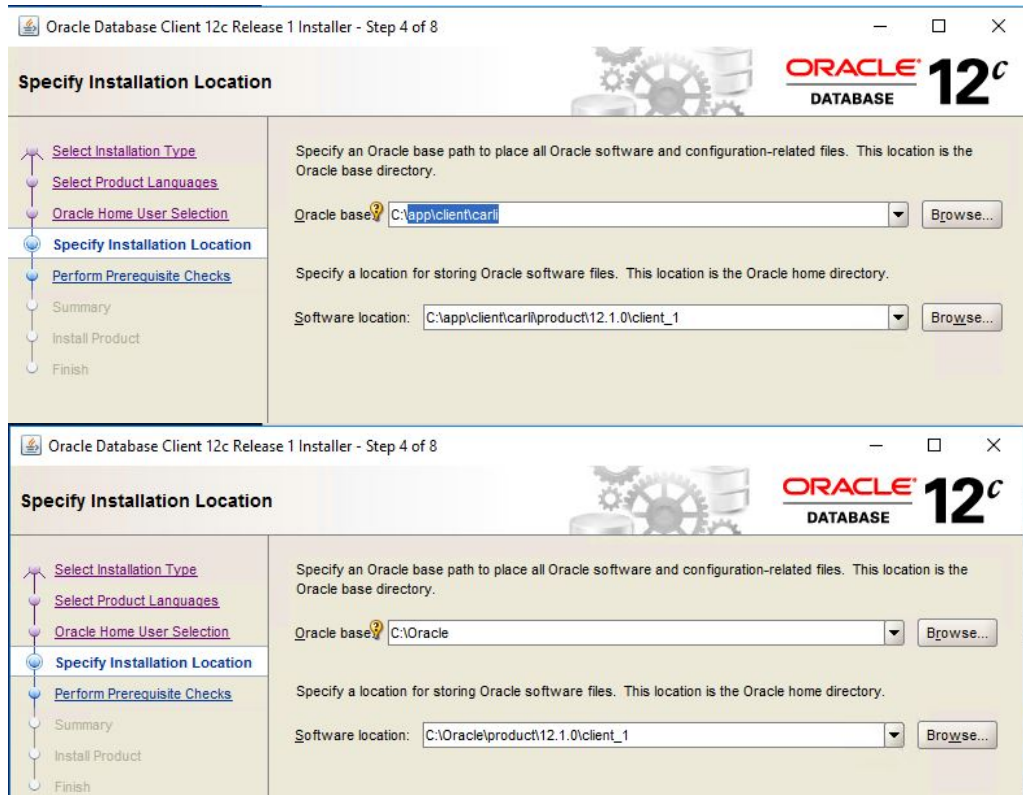
- On the language screen, check that English is in the Selected Languages column on the right, and select **Next**.

Figure 3-2. Universal Installer languages screen. Choose English.



- On the Oracle home user screen, keep the choice of **Use Windows Built-in Account** and select **Next**.
- On the installation location screen, type in the Oracle Base box, **C:\Oracle**. This should change the Software Location box as well. Select **Next**.

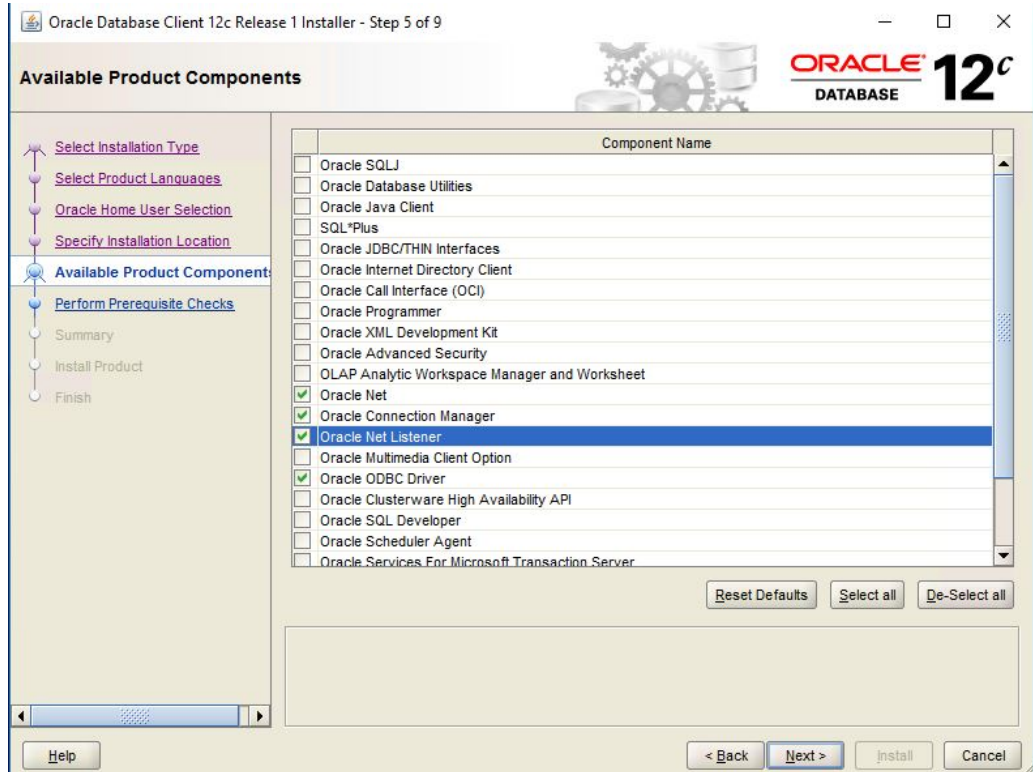
Figure 3-3. Universal Installer installation locations screen. Highlight the text in Oracle base (top image) and change to C:\Oracle, which modifies both boxes (bottom image).



10. When the Available Product Components screen appears, locate and select the following components:

- Oracle Net
- Oracle Connection Manager
- Oracle Net Listener
- Oracle ODBC Driver

Figure 3-4. The Available Product Components screen with designated options checked.



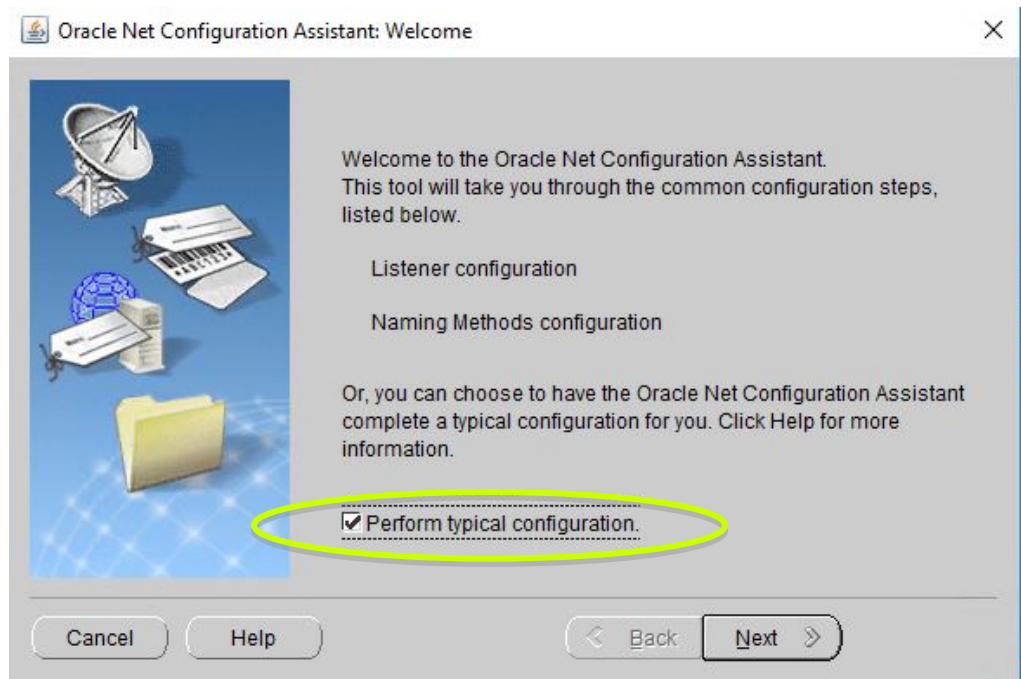
11. Select **Next**. The installer will then perform pre-requisite checks over the next several minutes.

12. At the summary screen, select **Install** to begin installing the files. The installation may last several minutes.

Note: If you did not disable virus detection or desktop firewalls, you may receive a warning from Windows Firewall blocking the installer. Select the boxes for private networks and choose to allow access.

- As installation completes, the Oracle Net Configuration Assistant will open. Select the box for **Perform typical configuration** check box and click **Next**.

Figure 3-5. Oracle Net Configuration Assistant screen. Choose to perform a typical configuration.



- The universal installer will return to the Finish screen. Select **Exit** to conclude installation.

Oracle 12c ODBC is now successfully installed on Windows!

IV. Oracle/ODBC Configuration

Before You Start

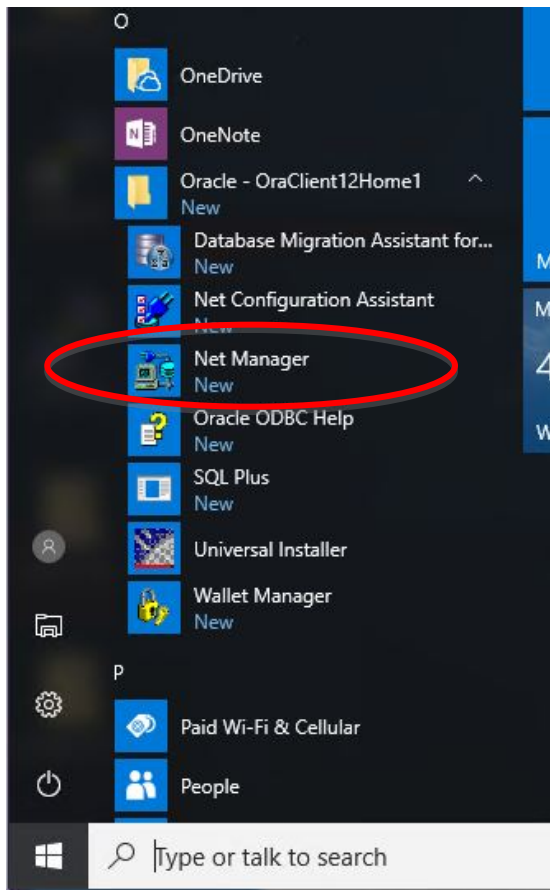
These instructions cover a **NEW** installation of Oracle 12c on a workstation with no other Oracle instances installed. If your institution uses Oracle for other applications, and your workstation carries other versions of Oracle, you should consult with your information technology staff before configuring Oracle 12c.

These instructions will configure your PC to run queries/reports against a copy of your library's production databases, allowing you to run the CARLI Reports Access database or to use the Gary Strawn tools. Reports and queries can also be run against the Training databases; for configuration instructions to Training databases, see the document "Reporting Against the Voyager Training Databases" on the CARLI website.

Part 1: Configuring the Oracle Service Name

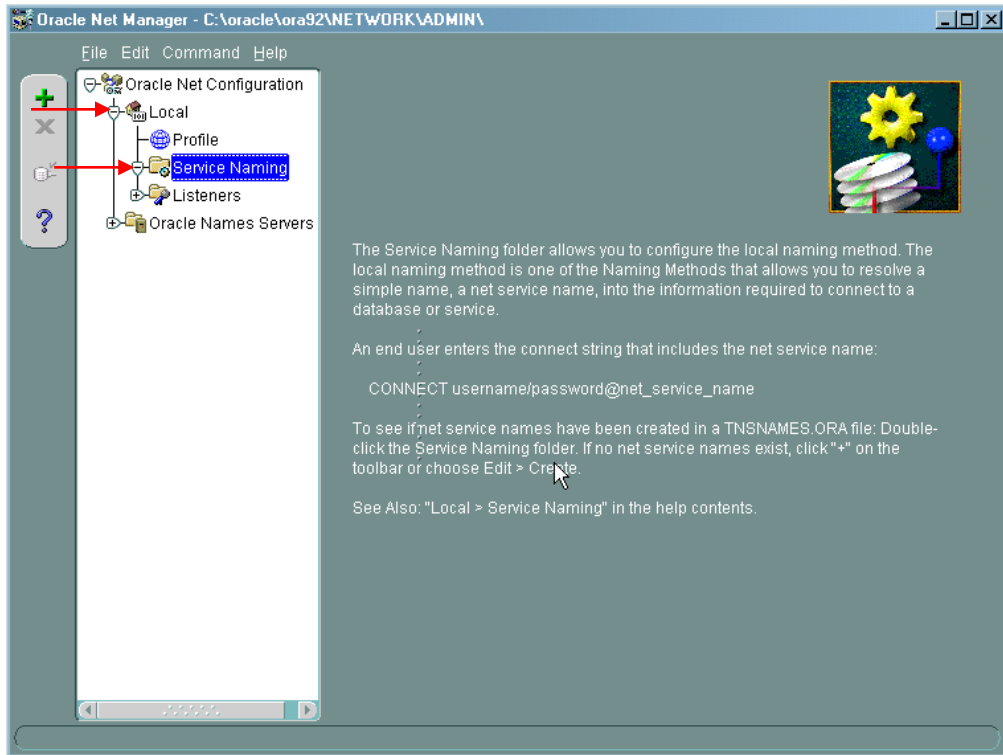
1. Restart your computer.
2. Log on to the PC as an Administrator and ensure that there are no open programs.
3. Locate and open Oracle Net Manager
 Select **Windows menu > Oracle - OraClient12c_home1 > Net Manager**. If prompted to allow launch.exe to make changes to your computer, answer **Yes**. Net Manager may take a few moments to open.

Figure 4-1. Oracle Net Manager's location on the Windows menu.



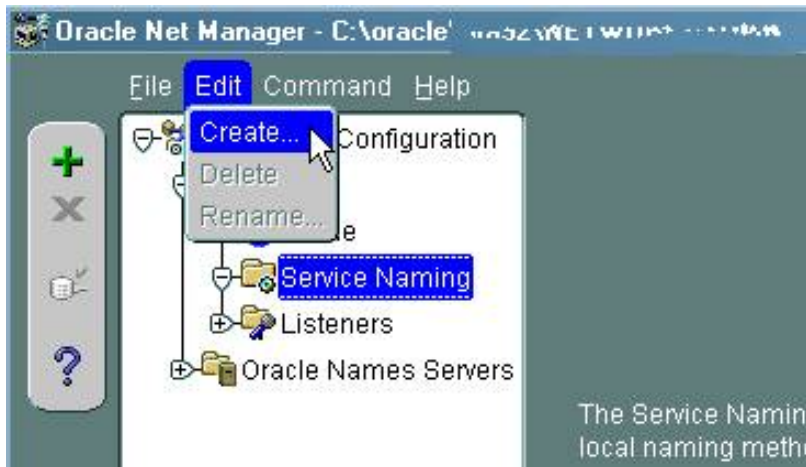
4. When Net Manager opens, you should expand the configuration tree. Locate and select the plus for the Local folder. Then locate and select the plus for the Service Naming folder.

Figure 4-2. Oracle Net Manager, locate the buttons to expand the configuration tree.



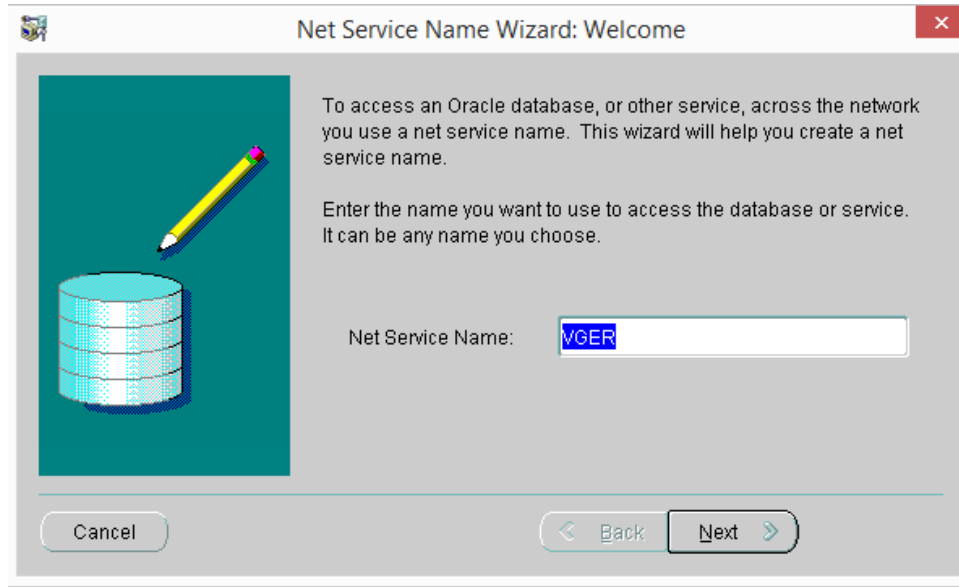
5. Highlight the **Service Naming** folder. Then select the **Edit** menu followed by **Create**.

Figure 4-3. Oracle Net Manager, create a new service name with **Edit > Create**.



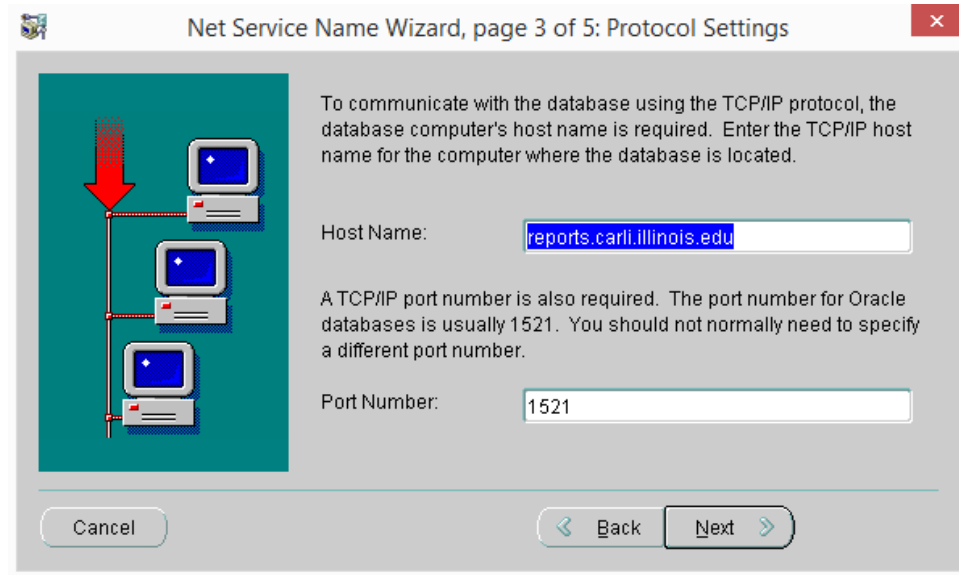
- The Net Service Name Wizard, page 1 of 5 appears. Enter **VGER** for the **Net Service Name** and then click **Next**.

Figure 4-4. Net Service Name Wizard, enter the name with **VGER**.



- On Net Service Name Wizard, page 2 of 5, choose choose **TCP/IP (Internet Protocol)** and click **Next**.
- On Net Service Name Wizard, page 3 or 5, enter **reports.carli.illinois.edu** for the Host Name, and keep the default Port Number of **1521**. Then click **Next**.

Figure 4-5. Net Service Name Wizard, enter the report server address and port.



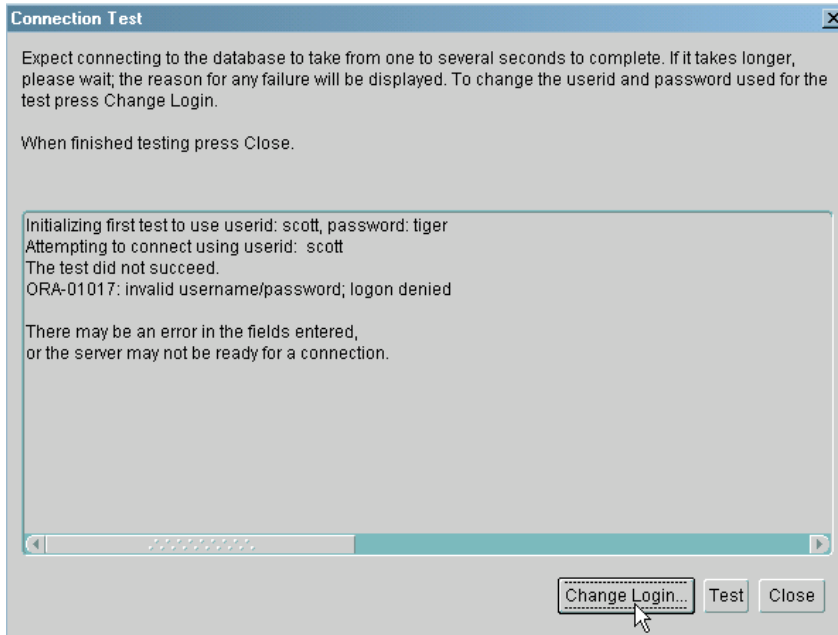
9. On Net Service Name Wizard, page 4 of 5, in the Service Name box, enter your library's three-letter I-Share code in uppercase letters. For example: CSC or GSU. See Appendix A for a list of I-Share library three-letter codes. Keep the default Connection Type of "Database Default". Then click **Next**.

Figure 4-6. Net Service Name Wizard, enter your library's three letter code in all caps.



10. On Net Service Name Wizard, page 5 of 5, click Test.
11. A database test will begin immediately using the default "scott/tiger" username and password. You will see a message "invalid username or password".

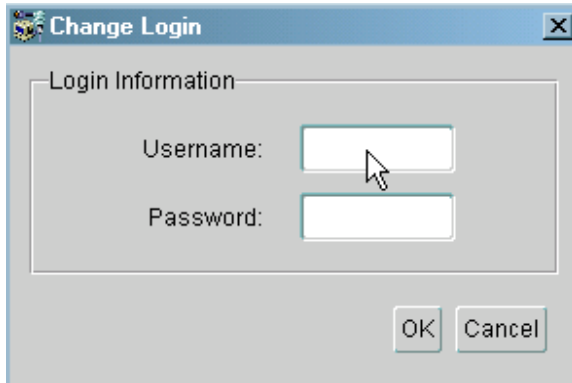
Figure 4-7. Connection test screen. Username "scott" doesn't exist in your database.



12. Click the **Change Login** button.

- Enter your Oracle username and password (not your Voyager operator ID), and click **OK**. Oracle usernames and passwords are case-sensitive. Enter them exactly as assigned by CARLI.

Figure 4-8. Connection test login screen. Enter your oracle credentials.



- On the Connection Test screen, select **Test**.

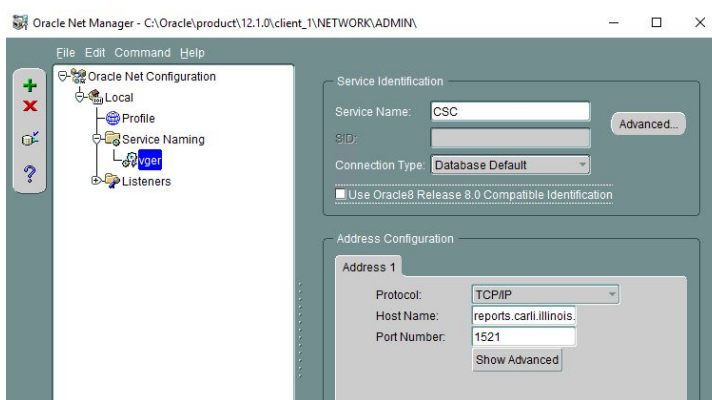
If you are using the correct username and password, then you should see the message “The connection test was successful.”

If the test was unsuccessful, try the test again, making sure the Oracle username and password were entered correctly. Also, please review the settings listed above.

If the test continues to be unsuccessful, click **Close** and **Cancel** at the Test Service screen and contact the CARLI Office for assistance. A failed test may indicate a problem with your network configuration, your Oracle installation, or your PC configuration. You may also wish to verify that your Oracle account name and password are correct on a workstation where Oracle is already working.

- If the test was successful, close the Connection Test window by selecting **Close**, then select **Finish** to complete the Net Service Name Wizard.

Figure 4-9. Net Manager with a successfully configured service name.



- From the Net Manager screen, choose **File > Save Network Configuration** to save your work.
- Exit Net Manager by choosing **File > Exit**

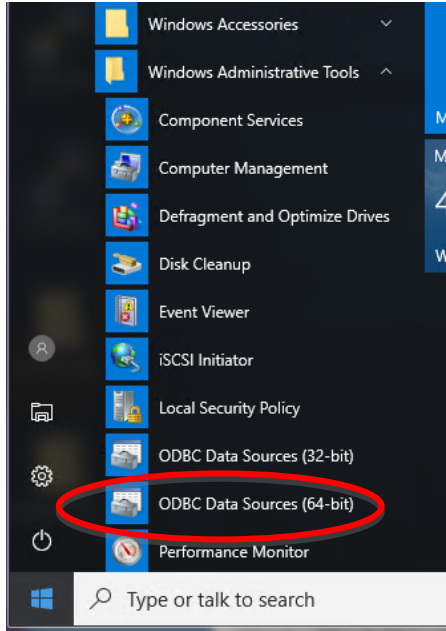
Oracle 12c is now successfully configured on Windows!

Part 2: Configuring the 64-bit Microsoft ODBC Administrator

These instructions cover configuration of the 64-bit Oracle ODBC driver only in 64-bit Windows environments. Instructions for Windows 32-bit systems are available on the CARLI website.

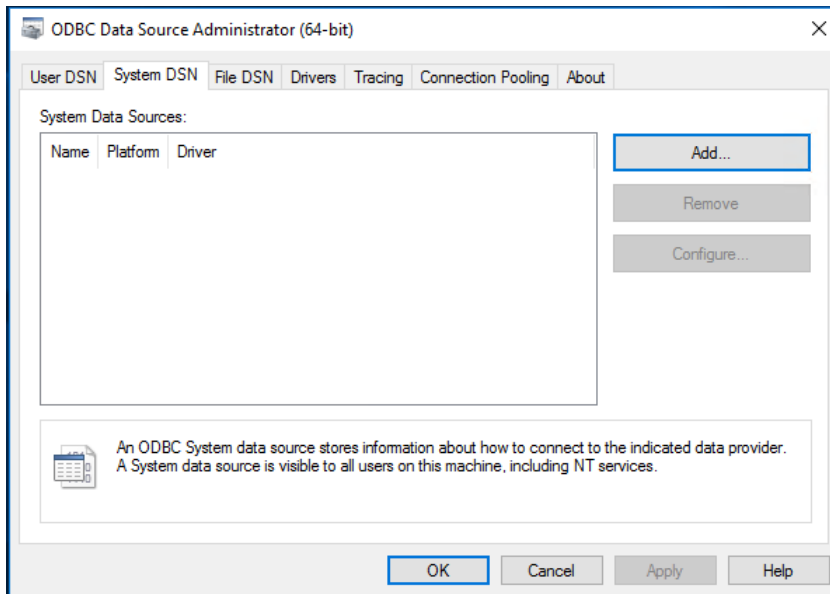
16. Locate and open the 64-bit **ODBC Data Source Administrator**.
Windows menu > Windows Administrative Tools > ODBC Data Sources (64-bit)

Figure 4-10. Windows menu open to ODBC Data Sources. Select the 64-bit version.



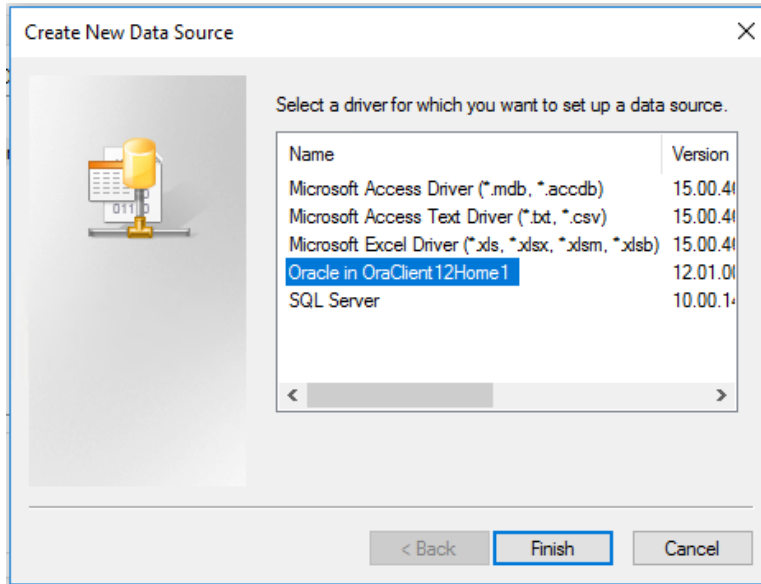
17. Open the **System DSN tab** (the 2nd tab)

Figure 4-11. The 64-bit ODBC Administrator application, set to the System tab.



- Click **Add** to create a new Name. Choose the “**Oracle in OraClient12Home1**” driver type and click **Finish**.

Figure 4-12. New Data Source driver list, find Oracle in OraClient12Home1.

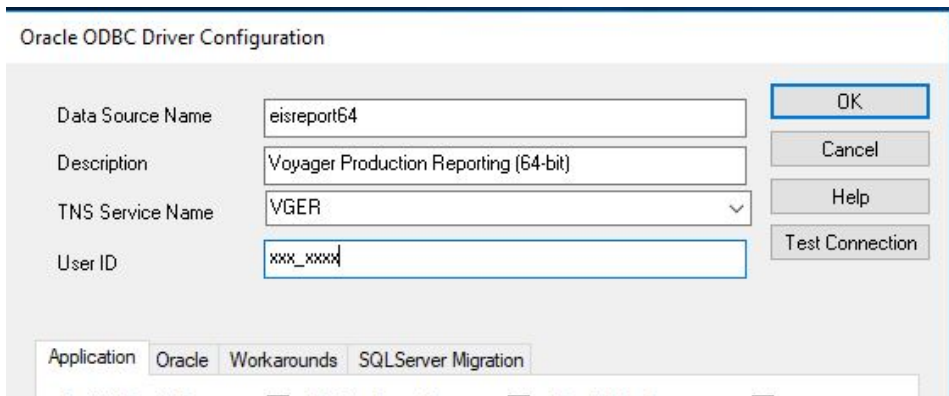


- In the **Oracle ODBC Driver Configuration** box that appears, enter these values:

[Data Source Name] **eisreport64**
 [Description] **Voyager Production Reporting 64-bit**
 [TNS Service Name] **VGER**
 [User ID] **<your Oracle username>**

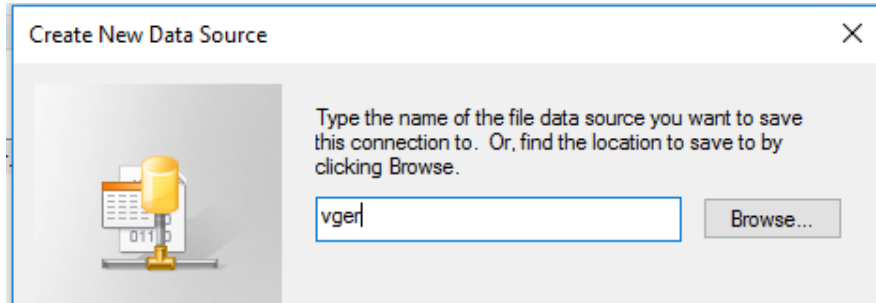
Do not change any settings on the bottom half of the configuration screen. Click **OK**.

Figure 4-13. Oracle ODBC Driver Configuration screen.



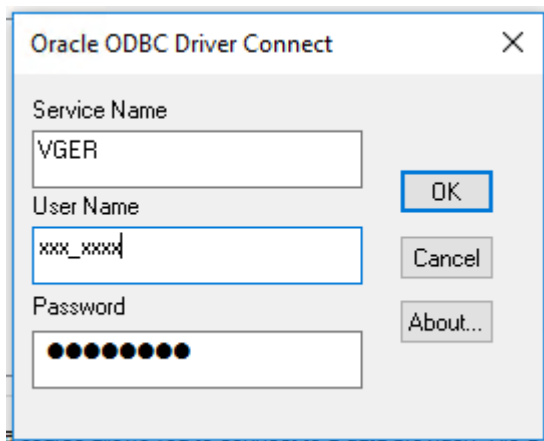
- 20. Next, test the ODBC connection by creating a File DSN entry.
 - a. Open the **File DSN** tab (the 3rd tab) and select **Add**.
 - b. Select type **Oracle in OraClient12Home1** and select **Next**.
 - c. Name this New Data Source **vger** and select **Next**.

Figure 4-14. Creating a File Data Source, enter “vger” (or any name) for the test.



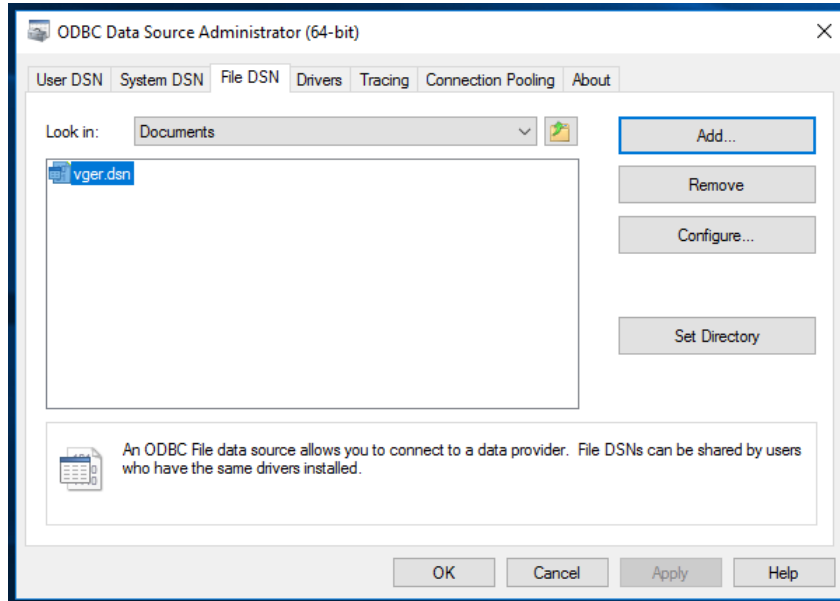
- d. Select **Finish**.
- e. In the **Microsoft ODBC for Oracle Connect** box that appears enter these values and select **OK**:
 - [User Name] **<your Oracle username>**
 - [Password] **<your Oracle password>**
 - [Server] **VGER**

Figure 4-15. Using the file data source name to test the connection.



- f. If the box disappears and you find yourself back at the third tab, the test was successful. If you receive an error message, please check the values you entered and try again. Also, check the values created in the System DSN created above and try again. If the error message persists, contact the CARLI Office for assistance.

Figure 4-16. If the file data source test works, you'll return to the ODBC Administrator screen without any errors.



- g. If all was successful, delete the File DSN you just created by highlighting the name **vger.dsn** and clicking **Remove**. Answer **Yes** when asked if you are sure you want to remove the data source.

21. Exit the **ODBC Data Source Administrator** by clicking **OK**.

Your workstation is now successfully configured to connect to Voyager over Oracle 12c ODBC!

V. Link the CARLI_Reports.mdb File

Before You Start

These instructions cover installation of a freshly installed or downloaded copy of the CARLI_Reports_20XX.mdb database file, and configuring that file to run queries and reports against your library's production Voyager database.

CARLI strongly recommends that you use the latest version of the CARLI Reports file in place of the generic **Reports.mdb** file. As of this writing the latest file is **CARLI_reports_2016a.mdb** file.

CARLI_reports_20XX.mdb files include the shared SQL and reports prepared by CARLI staff and I-Share library staff, along with Ex Libris' pre-packaged reports that I-Share libraries may find useful.

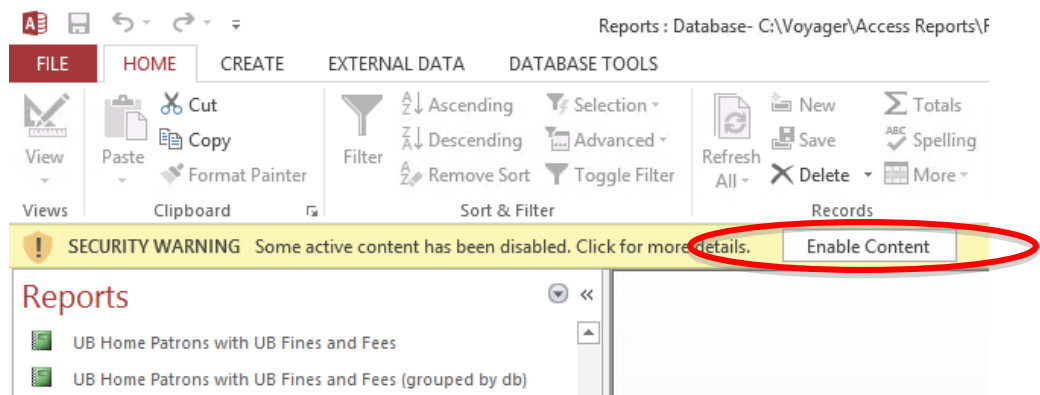
If you already have a previous CARLI_Reports.mdb file from another workstation, you may be able to continue using that .mdb without any additional configuration. If the .mdb file does not work, simply try relinking it according to the instructions below. The CARLI website also includes instructions for copying queries from your old file into the new database file.

These instructions apply only to workstations running 64-bit versions of Microsoft Access 2013 and later. If your institution only offers 32-bit Office, check the CARLI website for the correct instructions. At this time, Office 365 installations of Access are not supported.

Instructions for MS Access 2013 or later

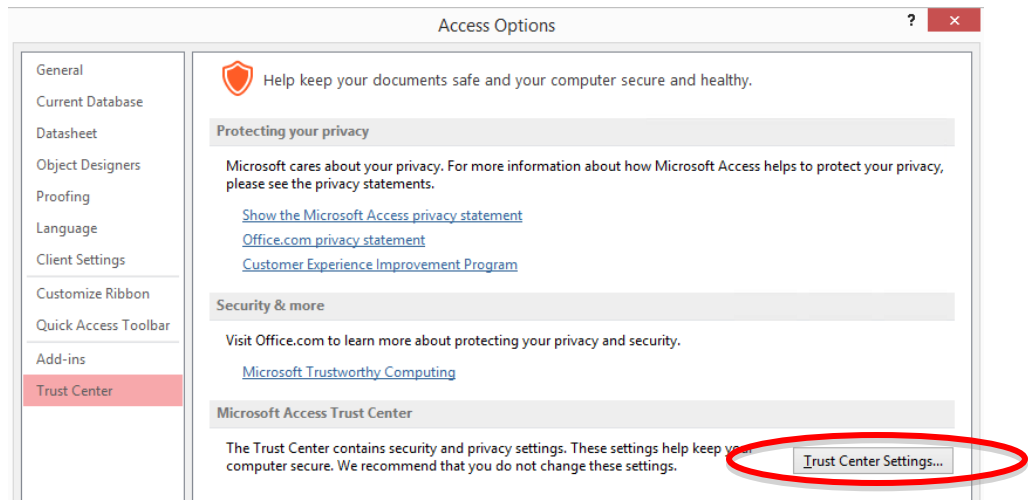
1. Open your new CARLI_Reports database file. If you are prompted with a security warning, select Enable Content.

Figure 5-1. Access provides a security warning about the macros and scripts that make the reports database more effective. Choose to enable the content.



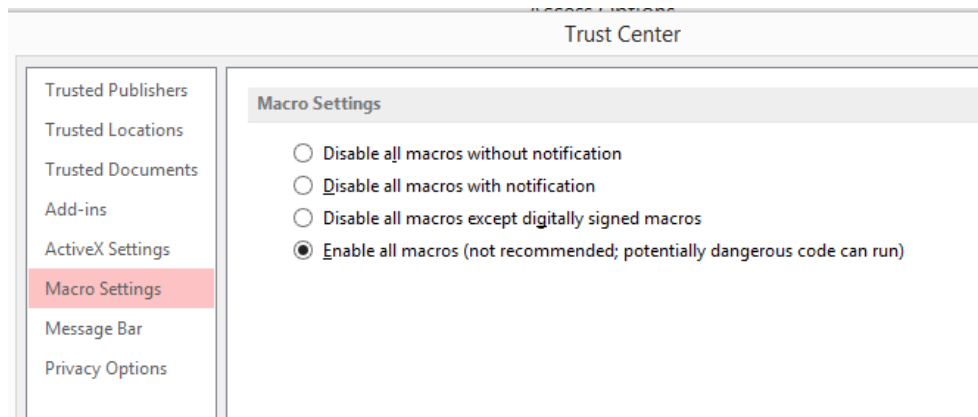
2. Enable Access to run the table linking macros by selecting **File > Options**, then select **Trust Center** in the navigation pane, and finally select the **Trust Center Settings...** button.

Figure 5-2. Access Options window, choose Trust Center, then Trust Center Settings.



3. Select **Macro Settings** in the navigation pane. Then, select the button next to **Enable all macros**. Select **OK** to close the Trust Center, then select **OK** again to close Access Options.

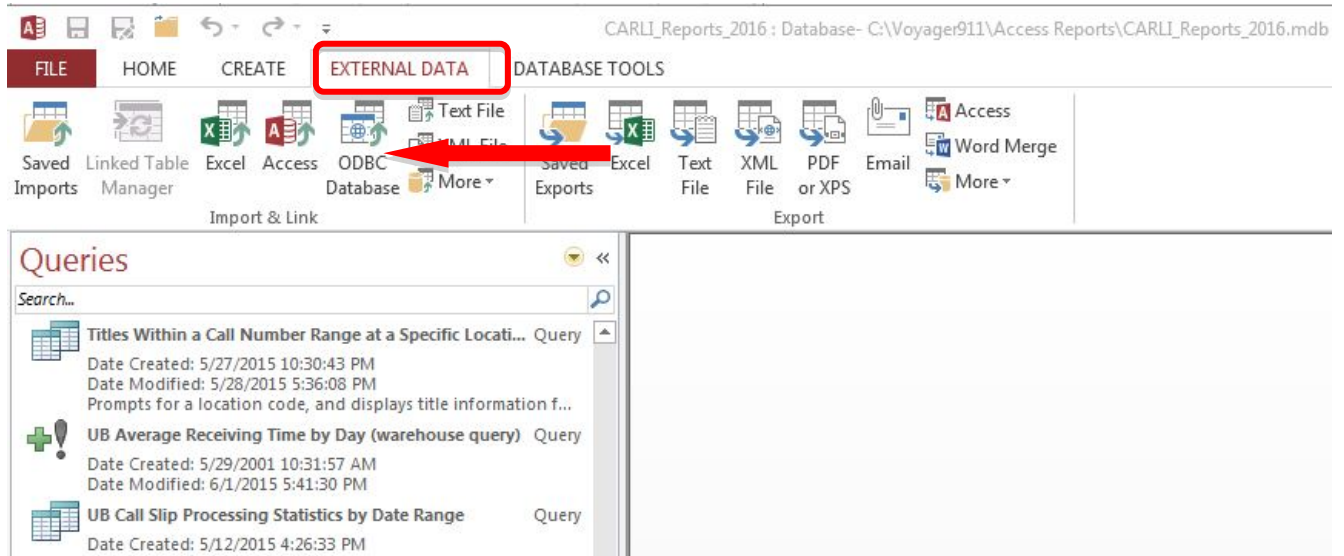
Figure 5-3. Access Trust Center, choose Macro Settings, then Enable all Macros.



4. Exit and restart MS Access.

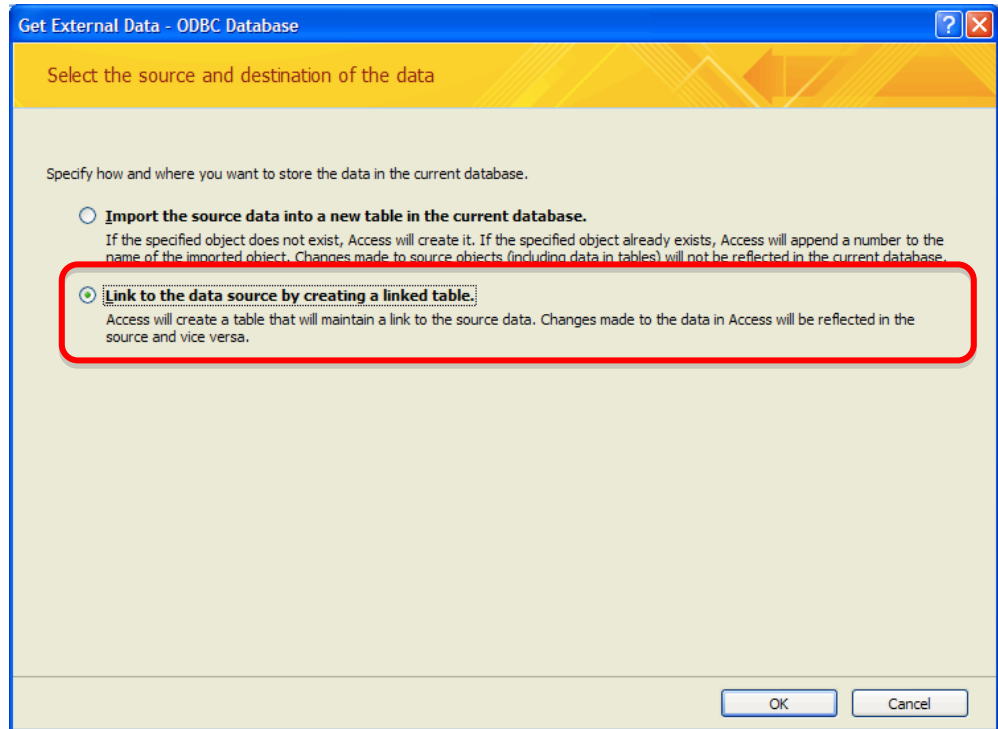
- Open the CARLI_Reports_20XX.mdb and begin linking tables by selecting **External Data > ODBC Database**.

Figure 5-4. Begin linking the database from the External Data ribbon.



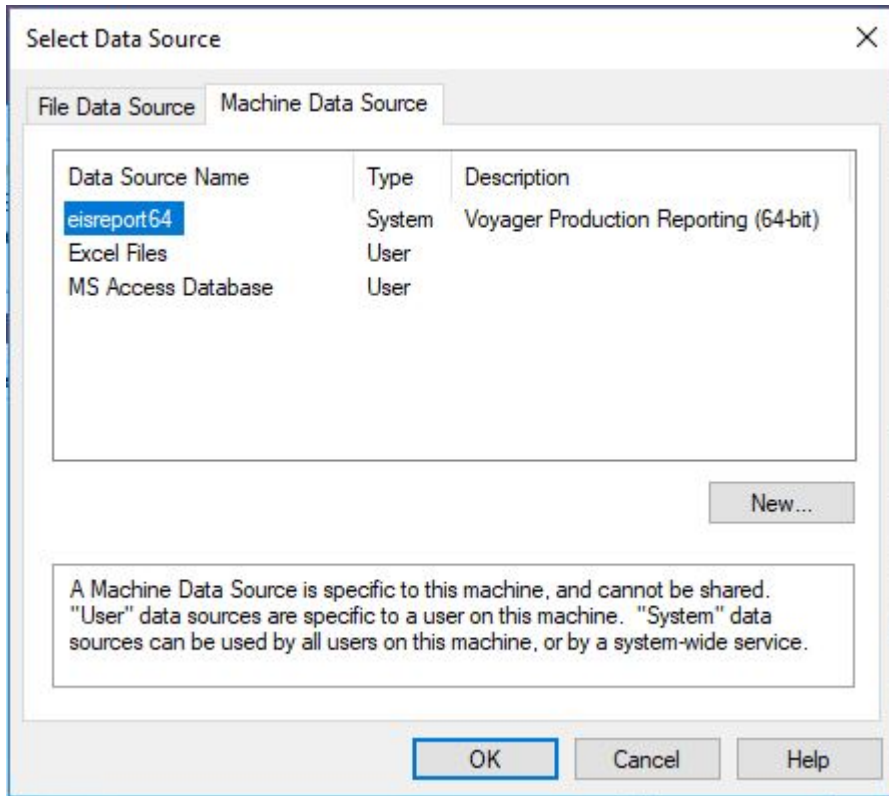
- On the Get External Data-ODBC Database screen, select **Link to the data source by creating a linked table**, then select **OK**.

Figure 5-5. The Get External Data wizard screen, choose to link to the data source.



- On the Select Data Source screen, select the **Machine Data Source** tab, then locate and choose **eisreport64**, and click **OK**.

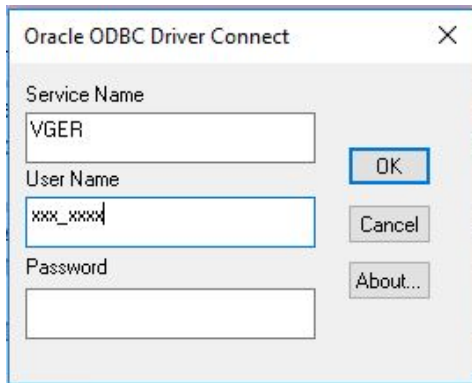
Figure 5-6. The Select Data Source screen should show you the data source name that you created in section IV part 2. If not, you may be on a 64-bit version of Access.



- When the Microsoft ODBC for Oracle Connect screen appears, enter these values and select **OK**.

[Service Name] **VGER**
 [User Name] **<your Oracle username>**
 [Password] **<your Oracle password>**

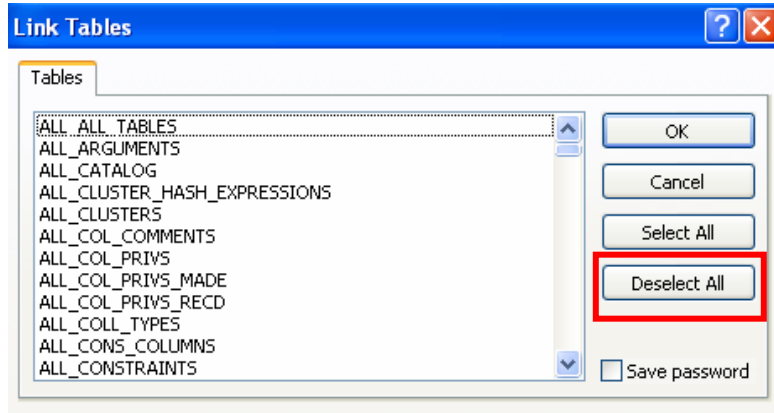
Figure 5-7. The Microsoft ODBC for Oracle Connect screen prompts for your Oracle credentials.



NOTE: It may take a few minutes before the next screen appears.

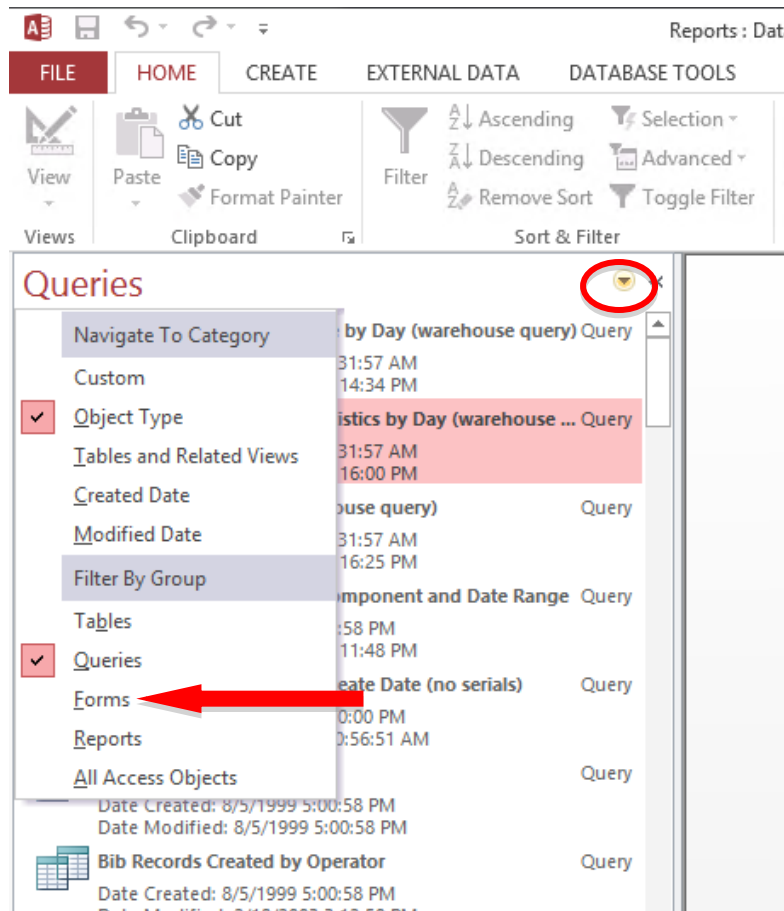
- When the Link Tables screen appears, choose **Deselect All**. Wait for the button to refresh, and select **OK**.

Figure 5-8. The Link Tables window; when you choose Deselect All, the button may stay dimmed for a few moments.



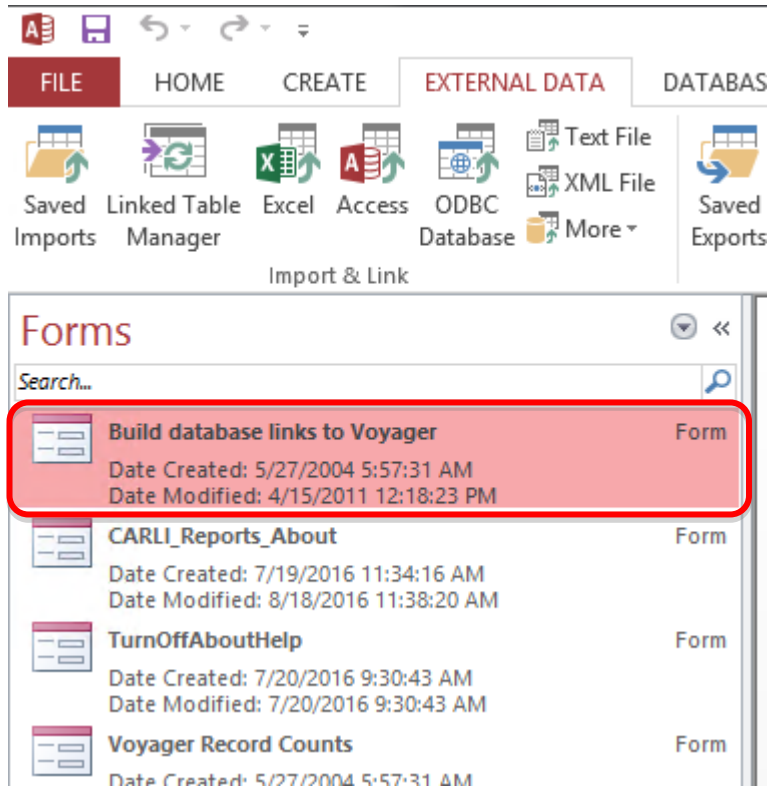
- Go to the Access navigation pane, and change the listing to Forms; Select the drop-down arrow, then locate **Forms** on the list.

Figure 5-9. Access Navigation Pane provides a list of different objects in the database. Select the down arrow to choose different categories. Choose Forms.



11. Locate and open the **Build database links to Voyager** form.

Figure 5-10. Open the Build database links to Voyager form.



12. In the **Build database links to Voyager** form, enter the following values. Remember that values are case-sensitive.

ODBC Name	eisreport64
Connect String	VGER
DB User ID (remove dbread)	<your Oracle Username>
Password (remove existing *s)	<your Oracle Password>
Tablespace***	XXXDB
Relink checkbox	Checked

***Where **XXX** represents your I-Share Voyager three-letter code in uppercase letters. See Appendix A.

- Click **Connect**. The status window of the form will list each table as it is successfully linked. The linking process may take several minutes.

If you receive "error!" statements followed by "Process stopped too many errors!," click Close and repeat steps 11-12 again, carefully checking the information being entered. If you continue to receive error messages, contact the CARLI Office for assistance.

Figure 5-11. The Build database links to Voyager form, with the status box showing that all tables have been linked.

Build database links to Voyager

ODBC Name:

Connect String:

DB User ID:

Password:

Tablespace: Relink

```

VOYAGER_DATABASES linked successfully.
WOPAC_PID_PATRON_KEYS linked successfully.
Z3950_ATTRIBUTES linked successfully.
all_tab_columns error!
user_tab_columns created successfully.
Linking Completed.
    
```

- When the linking completes the status window will return to the first table; you may scroll to the end to see if the message "Linking Completed" appears. Select **Close** to close the build links form.

**The CARLI Reports database is now successfully linked!
You may now run queries and reports against the database.**

Appendix A

CARLI REV 11/28/2017

LIBRARY	CODE
Abraham Lincoln Pres Lib & Museum	ALP
Adler University	ADL
Augustana College	AUG
Aurora University	ARU
Benedictine University	BEN
Black Hawk College	BHC
Bradley University	BRA
Carl Sandburg College	CSC
Catholic Theological Union	CTU
Chicago State University	CSU
College of DuPage	COD
Columbia College	COL
Concordia University Chicago	CON
Danville Area Community College	DAC
DePaul University	DPU
Dominican University	DOM
Eastern Illinois University	EIU
Elmhurst College	ELM
Eureka College	ERK
Governors State University	GSU
Greenville College	GRN
Harper College	WRH
Heartland Community College	HRT
Illinois Central College	ICC
Illinois College	ILC
Illinois Eastern Community Colleges	IEC
Illinois Institute of Technology	IIT
Illinois Math & Science Academy	IMS
Illinois State Library	ISL
Illinois State University	ISU
Illinois Valley Community College	IVC
Illinois Wesleyan University	IWU
JKM Library	JKM
John Wood Community College	JWC
Joliet Junior College	JOL
Judson University	JUD
Kankakee Community College	KCC
Kishwaukee College	KIS
Knox College	KNX
Lake Forest College	LFC
Lewis & Clark Community College	LAC
Lewis University	LEW
Lincoln Christian College & Seminary	LCC
Lincoln College	LNC
Lincoln Land Community College	LLC

LIBRARY	CODE
MacMurray College	MMC
McHenry County College	MHC
McKendree University	MCK
Meadville Lombard Seminary	MLS
Millikin University	MIL
Monmouth College	MON
Moody Bible Institute	MBI
Morton College	MRT
National-Louis University	NLU
The Newberry Library	NBY
North Central College	NCC
North Park University	NPU
Northeastern Illinois University	NEI
Northern Illinois University	NIU
Northern Seminary	NBT
Oakton Community College	OAK
Olivet Nazarene University	ONU
Parkland College	PRK
Principia College	PRC
Quincy University	QCY
Richland Community College	RCC
Robert Morris University	RMC
Roosevelt University	ROU
Rush University	RSH
Saint Francis Medical Ctr College of Nursing	SFM
Saint Xavier University	SXU
Sauk Valley Community College	SVC
School of the Art Institute Chicago	SAI
South Suburban College	SSC
Southeastern Illinois College	SEI
Southern Illinois University Carbondale	SIC
Southern Illinois University Edwardsville	SIE
Southern Illinois University School of Medicine	SIM
Southwestern Illinois College	SWI
Spertus Institute of Jewish Studies	SCJ
Trinity Christian College	TRN
Trinity International University	TIU
Triton College	TRT
University of Illinois at Chicago	UIC
University of Illinois at Springfield	UIS
University of Illinois at Urbana-Champaign	UIU
University of Saint Francis	USF
University of St. Mary of the Lake	SML
Western Illinois University	WIU
Wheaton College	WHE

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