visure

InstallationGuide Visure Requirements ALM 8.1 Server

Table of Contents

1. Introduction

Welcome to the installation guide for Visure Requirements ALM version 8.1. This guide contains the necessary information to perform a correct installation of the **Server** application.

Visure Requirements ALM 8.1 is a fully rearchitectured version of Visure Solutions' leading requirements management software. While providing better performance and increased speed, version 8.1 also includes a more secure way of accessing the Visure database and projects.

Visure Requirements ALM 8.1 is composed of two major components, the Client and the Server. The Client at the same time is composed of two sub-components, the Visure Requirements ALM 8.1 Client and the Visure Requirements ALM 8.1 Administration Center. The Visure Requirements ALM 8.1 Client is used by the end-user to manage requirements, risks, tests and other artifacts of the lifecycle, whereas the Visure Requirements ALM 8.1 Administration center is focused on managing the projects, access rights, users and other administrative features.
The Server, on the other side, handles the connections to the databases, licenses, and other server configurations.

1 2 Compatibility

1.1 Warnings

- Commercial open database Microsoft SQL Server 2005 is no longer supported. Microsoft ended the extended support for SQL Server 2005 on April 12, 2016 (https://www.microsoft.com/en/server-cloud/products/sql-server-2005/).
- In order to comply with GDPR, throughout 2019 several applications have implemented additional authentication steps. Several integrations may no longer work using the user´s username and password and may need to request an API Token. Examples of these integrations include Atlassian JIRA and Azure DevOps.

1.2 Compatibility

WARNING
Please review this list carefully, as there may be database changes that can affect compatibility between versions.

Visure Requirements ALM 8.1 use the same database schema as version 8.0, that means that previous versions database doesn't need to be migrated, just upgrade the client and server version and connect to the existing database.

Once the database is migrated to the latest version, previous Visure Requirements versions will not be able to access the database.

The following product versions are compatible with Visure Requirements ALM 8.1:

IMPORTANT NOTE:

- Visure Templates 6.x and 7.x: Templates created with an older version of Visure will not be compatible.

  NOTE:

  In order to migrate project templates to the latest version, create a new Visure project in Visure Requirements 7.x/6.x and then migrate the repository to Visure Requirements 8.
- Visure Report Manager 8
- License Server (X-Formation)
- Integrations:
  - Visure Requirements integration with Atlassian JIRA 8.1
  - Visure Requirements integration with Azure DevOps 8.1
  - Visure Requirements integration with HP ALM 8
  - Visure Requirements integration with Enterprise Architect 8.1
  - Visure Requirements integration with GitLab 8.1

- Add-ins:
  - MS Word Import plugin 8.1
  - MS Excel Import plugin 8.1
- Plugins:
  - Traceability Parser 8.1
  - Source Code Parser 8.1
  - Test Management 8.1
  - Risk Management 8.1
  - Visure Quality Analyzer 8
  - XRI Import / Export 8.1
  - ReqIF Import Export 8.1
  - VR Formulae plugin 8.1
  - Review Session Creation 8.1
  - Item Templates 8.1

2 System Requirements

Visure Requirements ALM 8.1 requires the following in order to function properly:

2.1 Hardware

Recommended:	
Processor:	Multicore processor is recommended for better performance (Xeon recommended)
Hard Disk Drive:	10 GB free minimum
RAM memory:	16-32 GB of free memory recommended

2.2 Dependencies

The following components are provided with the installer:

- Microsoft Visual C++ 2015-2022 redistributable x64 - 14.38.33130
- Microsoft .Net runtime – 8.0.0 (x64)
- Python 3.8.10 (64 bit)

2.3 Operating Systems

- Microsoft Windows Server 2008 / Microsoft Windows Server 2008 R2 64-bit
- Microsoft Windows Server 2012 / Microsoft Windows Server 2012 R2 64-bit
- Microsoft Windows Server 2016 64-bit
- Microsoft Windows Server 2019 64-bit
- Microsoft Windows Server 2022 64-bit
- Microsoft Windows 10 64-bit
- Microsoft Windows 11 64-bit

2.4 Databases

- Microsoft SQL Server: 2012, 2014, 2016, 2017, 2019,2022
- ORACLE: 10, 11, 12C, 19C
- Postgres 13,14,15,16

For smaller deployments, with a relatively small number of items (< 5000 items) and concurrent users (< 5 concurrent users) the following databases are currently supported:

- SQL Server Express
- Oracle Database Express

NOTE: These databases have built-in performance restrictions. Visure Solutions highly encourages a thorough review of these restrictions before deploying them.

2.5 License & License Server

Visure Requirements ALM 8 requires a valid license to operate. Whereas in Visure Requirements 5.x node-locked licenses were available, Visure Requirements ALM 8 deprecates this feature, and only floating licenses are available.

Refer to Section 5 of this document for install instructions.

2.6 Ports & Networking

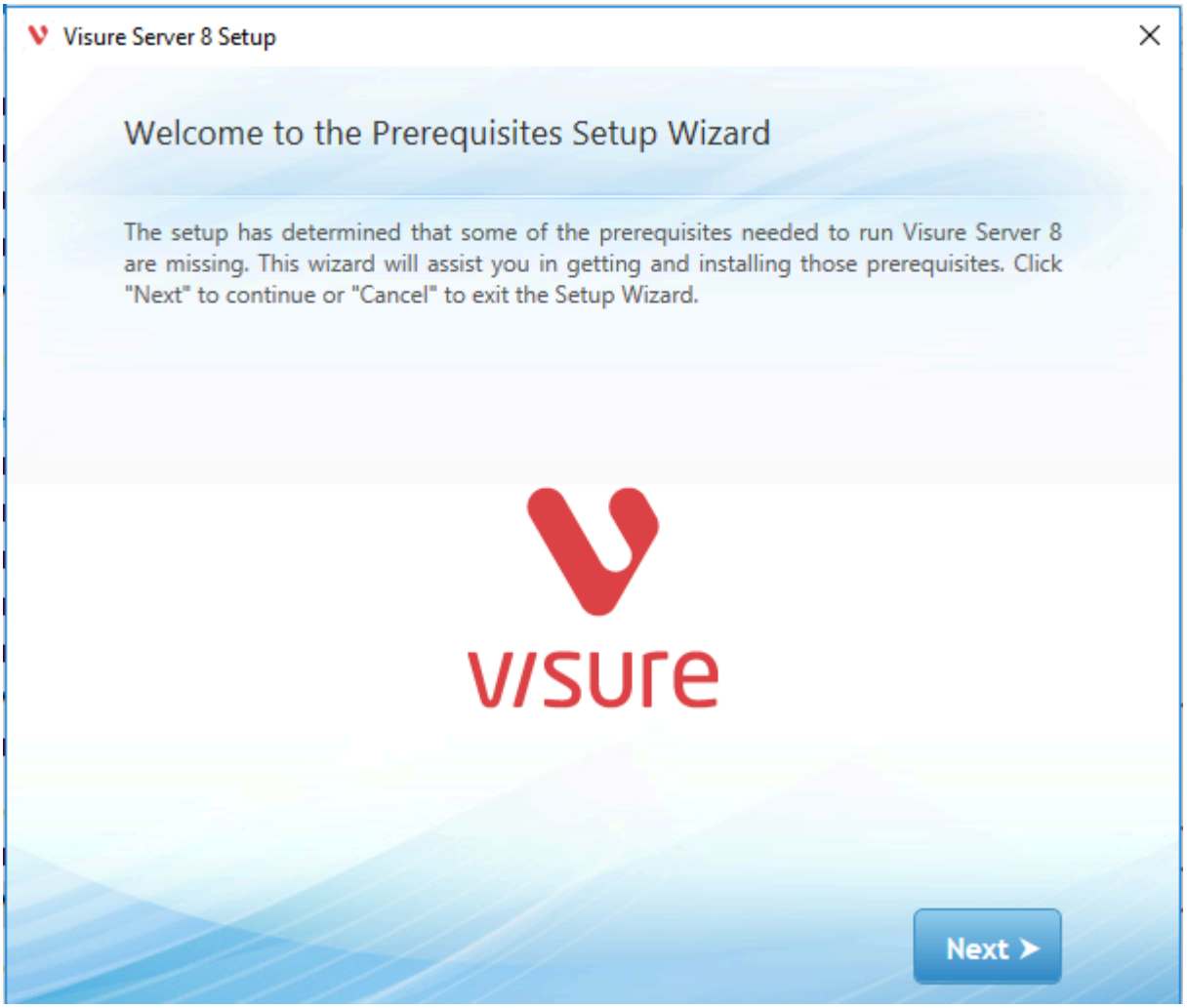
Visure Requirements ALM 8 requires 3 ports to operate:

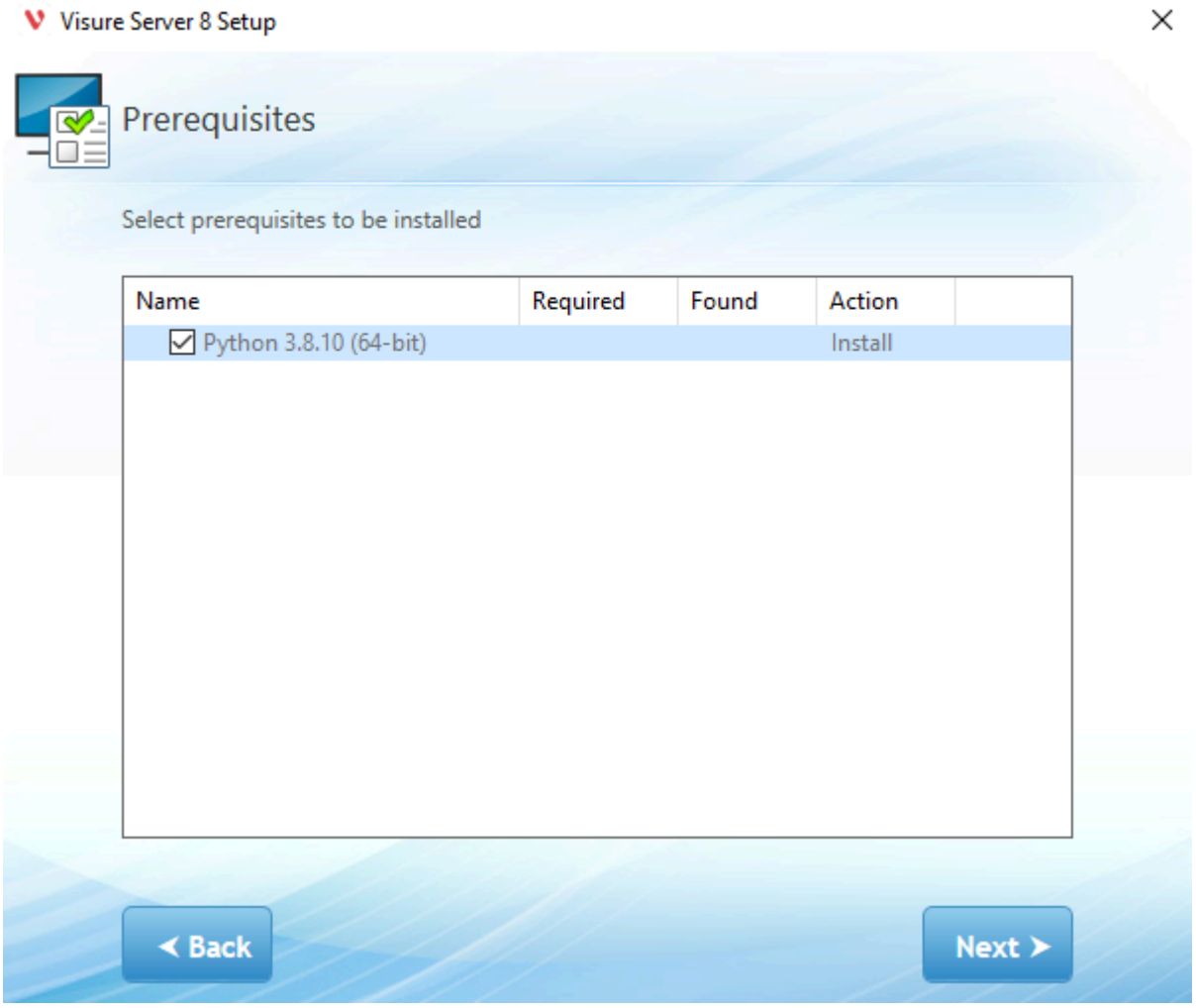
Visure Requirements ALM 8 Server – 9091
X-Formation License Server – 6200
Database
SQL Server – 1433,1434
Oracle – 1521
Postgres – 5432

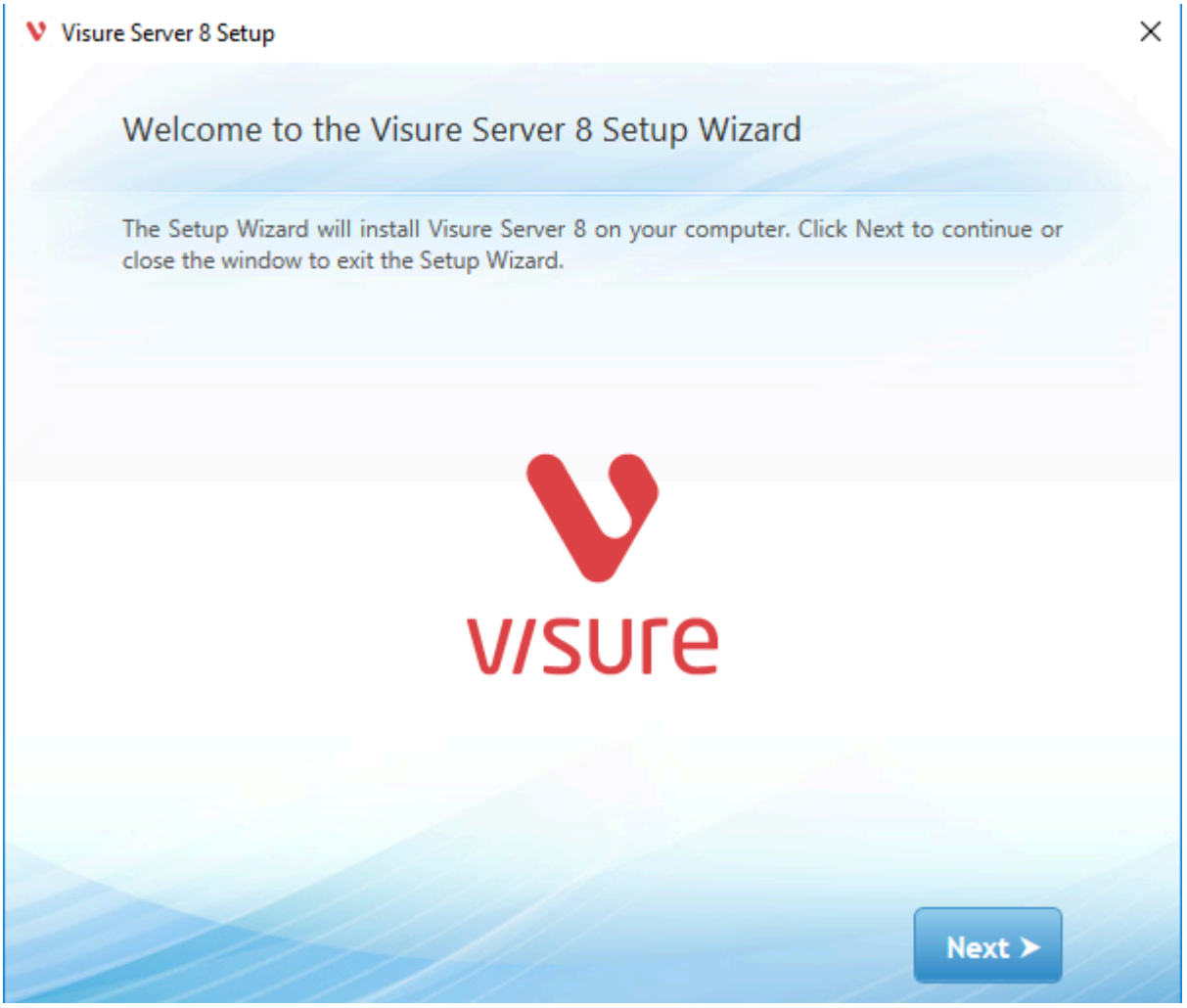
NOTE: These ports are the defaults and can be changed either during installation or through their settings.

3 Installation Instructions

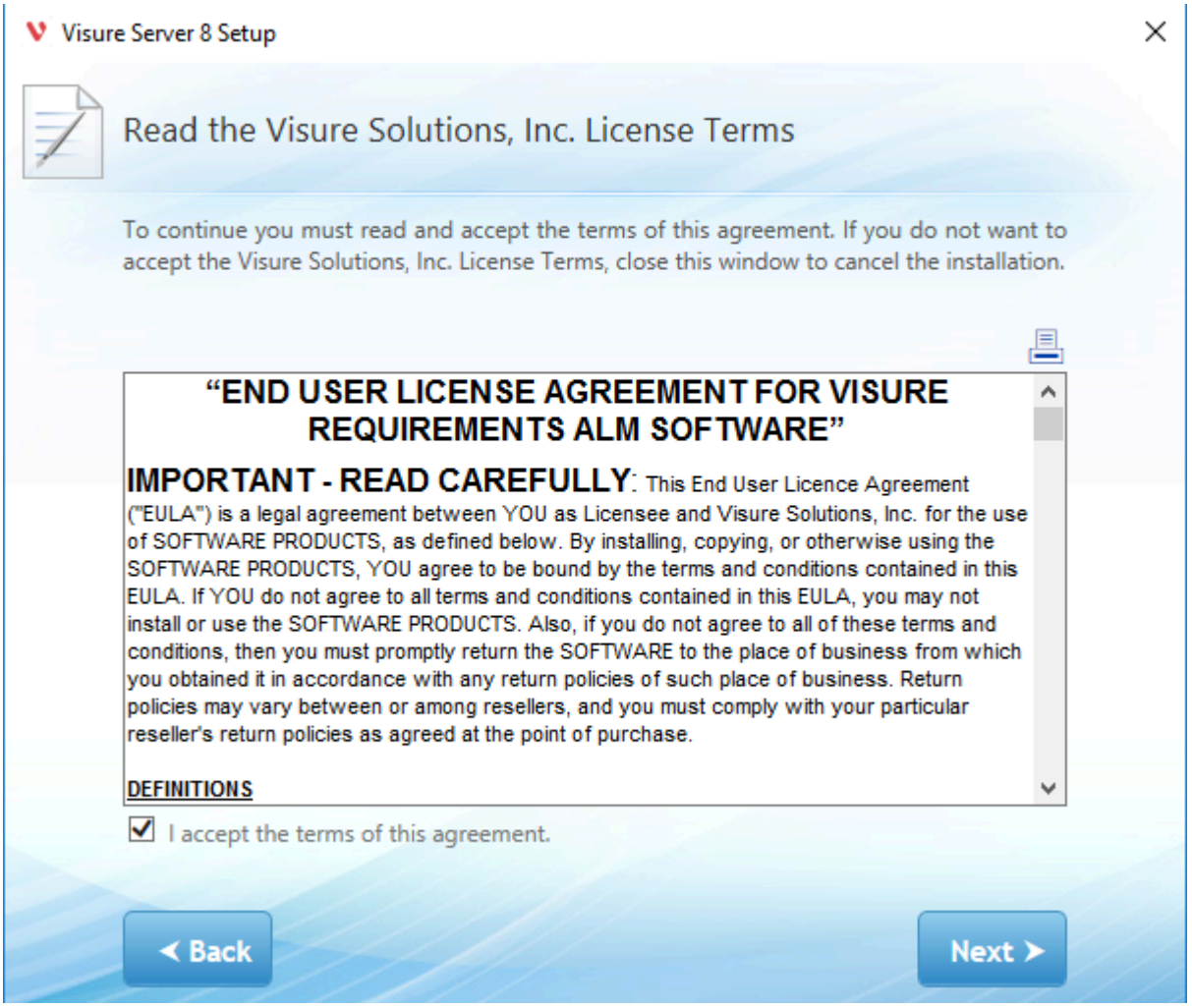
1. Download the Visure Requirements ALM Server installer from the Visure Community Portal
2. Run the installer with a Windows Administrator account
3. Follow the prompts to install Visure Server:



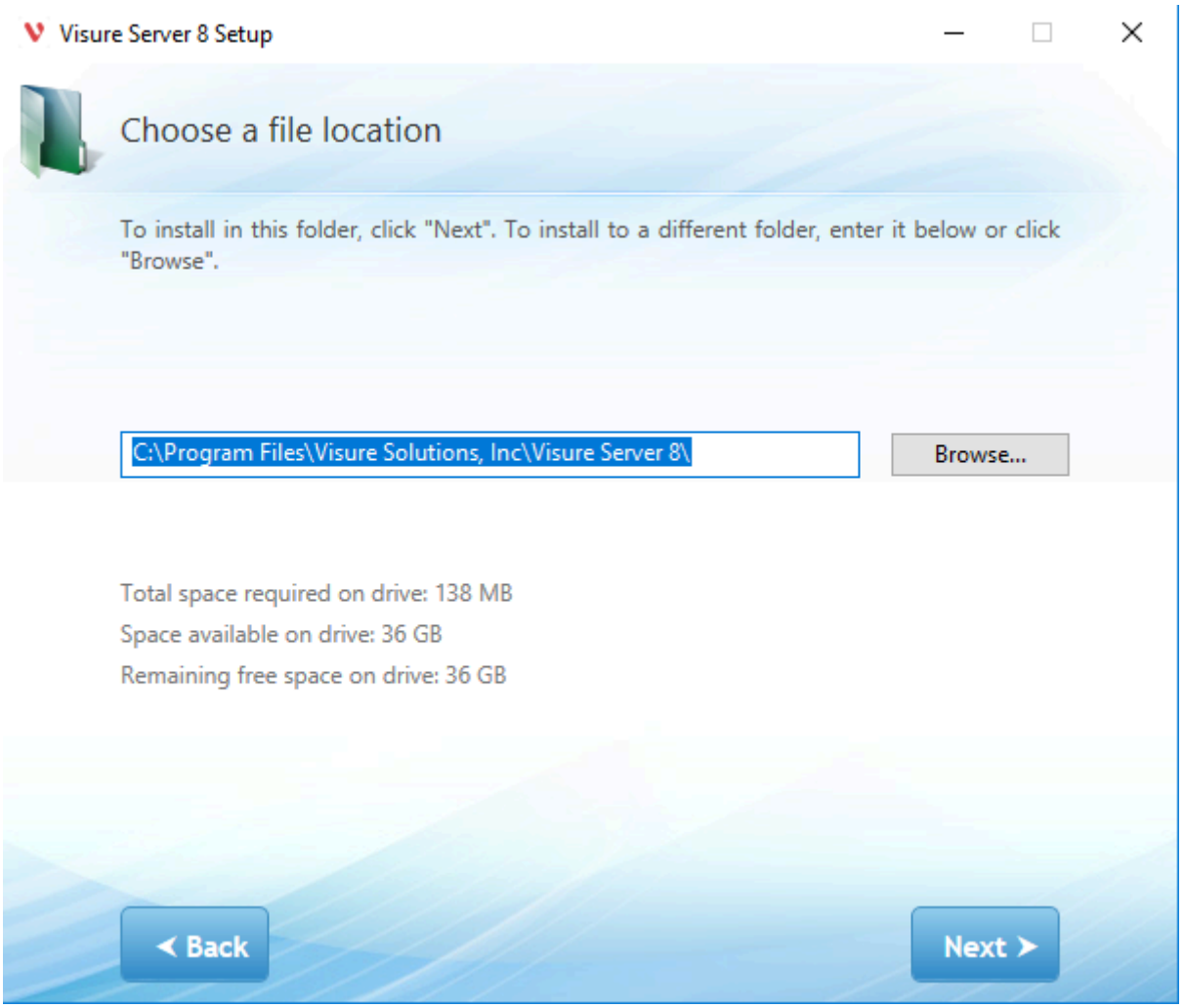




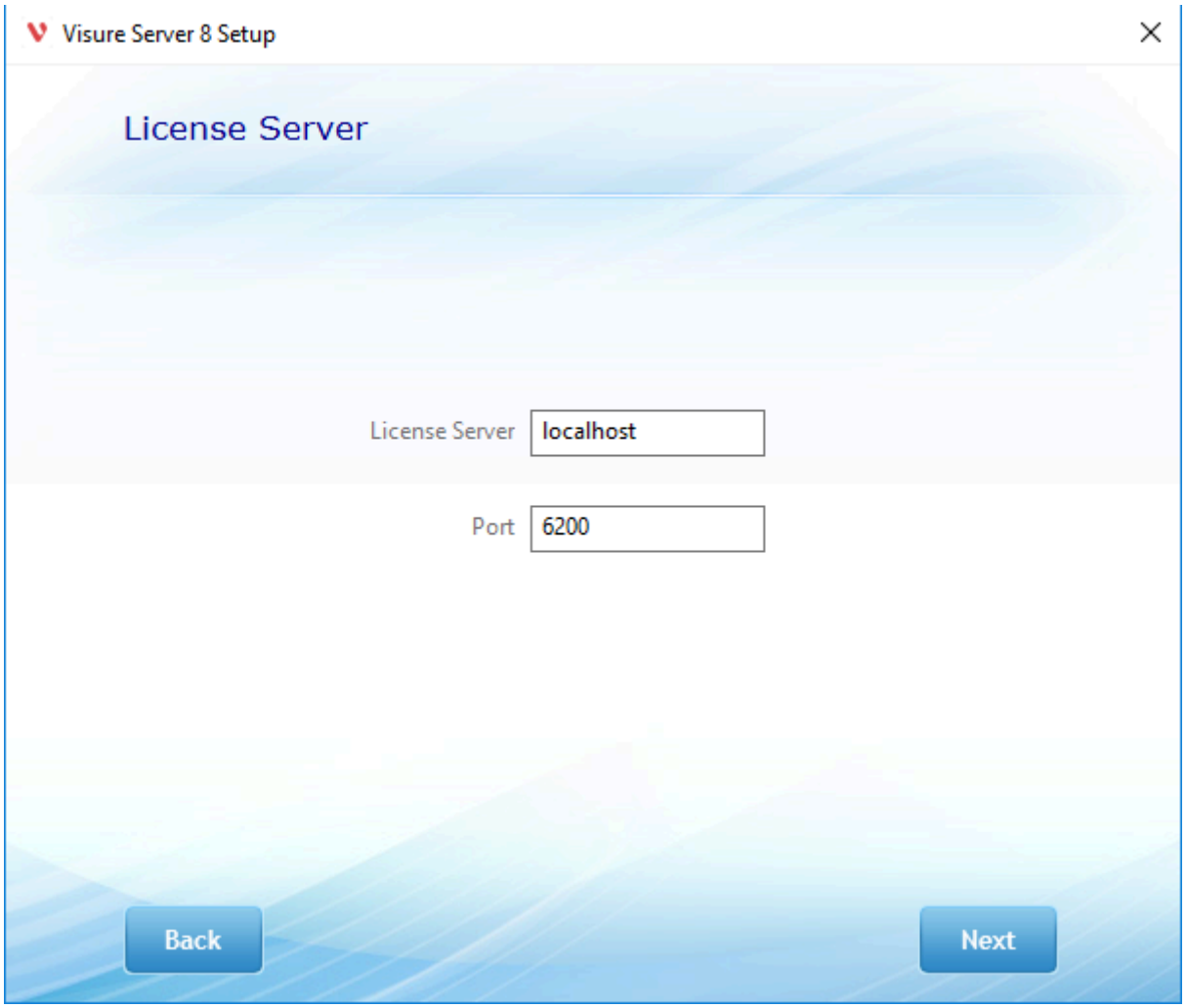
4. Read and accept the License Agreement:



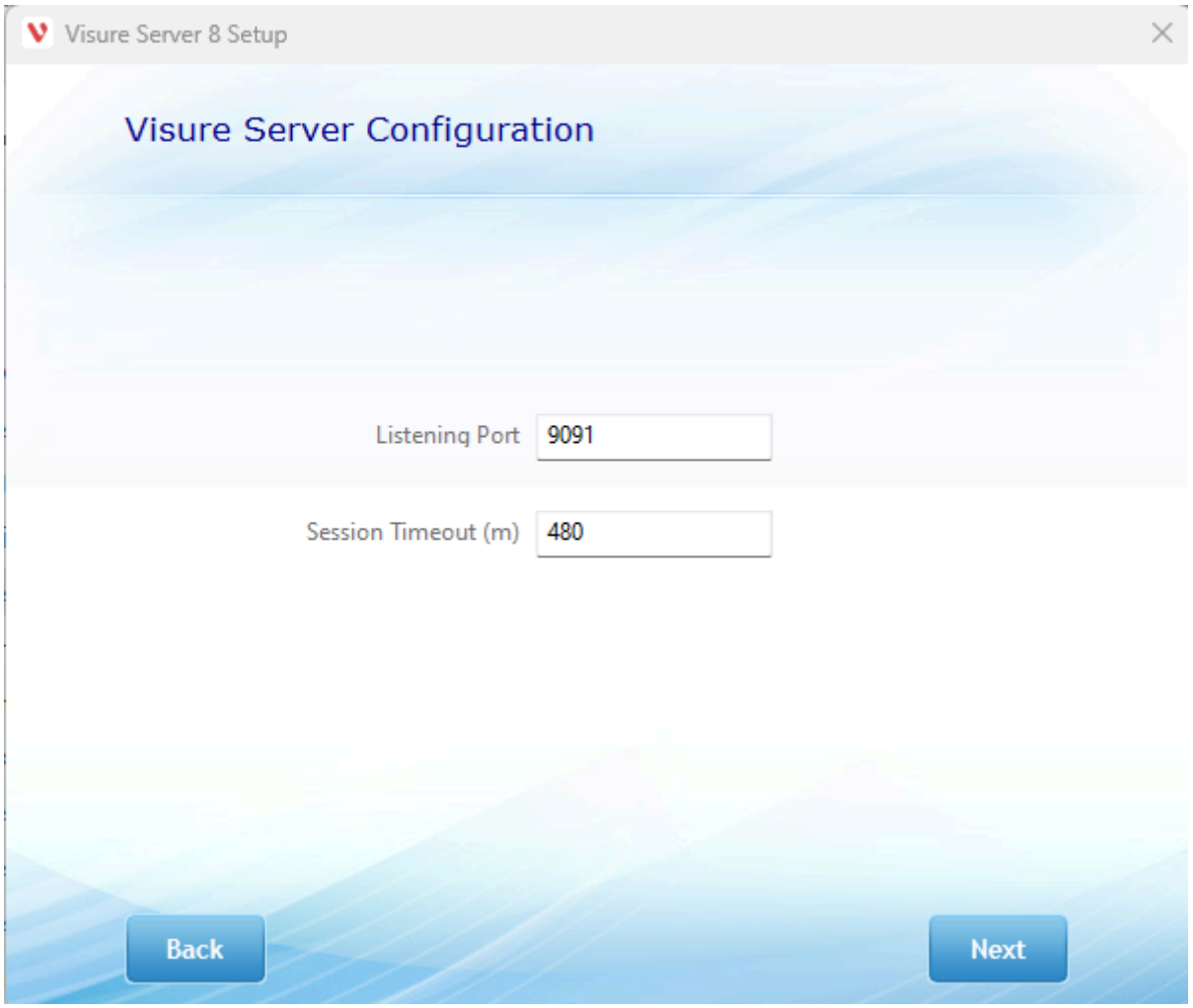
5. Select installation folder
   (by default "C:\Program Files\Visure Solutions, Inc\Visure Server 8"):



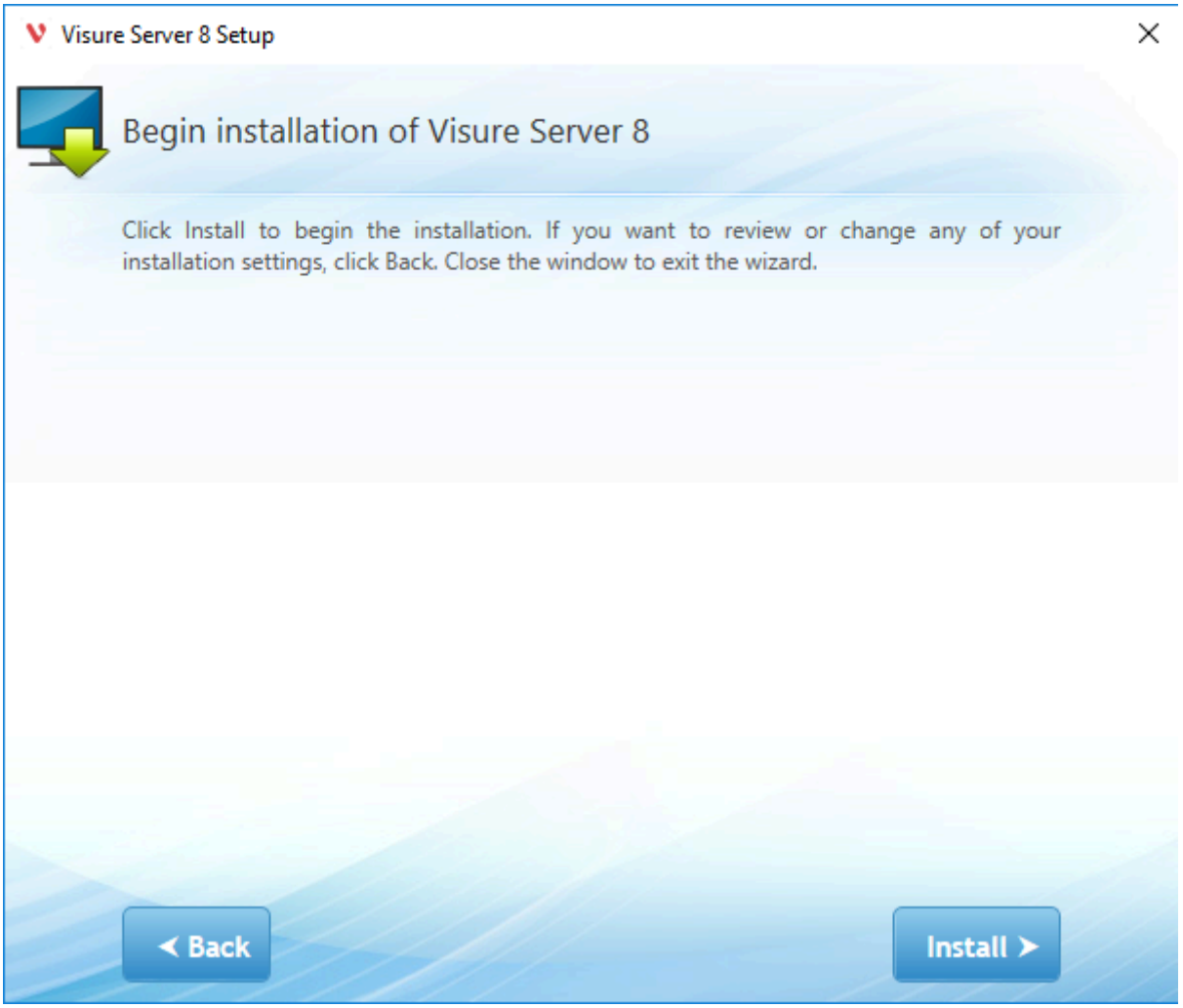
6. Specify the location of the License Server:

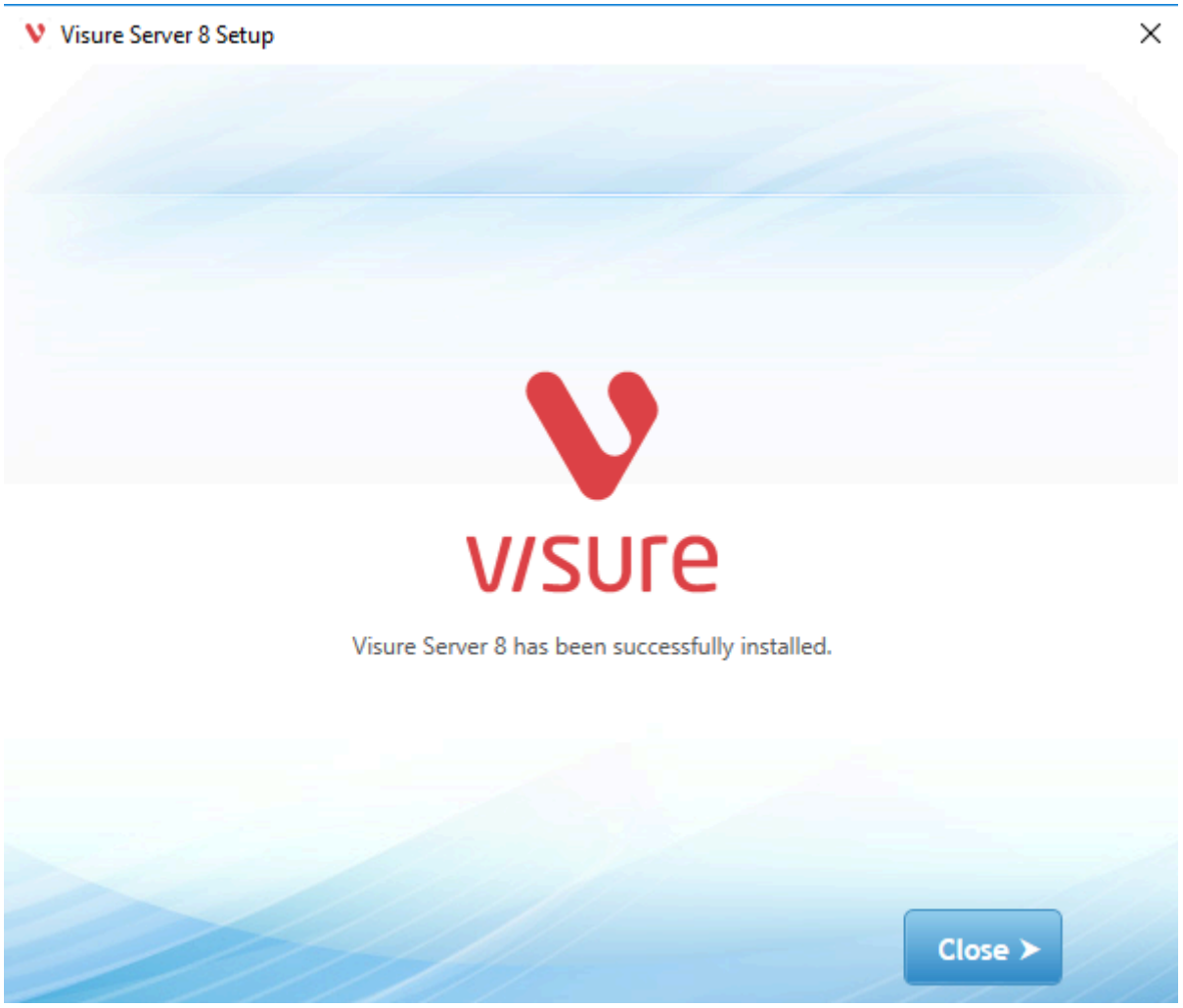


7. Specify the port the Server will use (default is 9091), and the default session timeout in minutes:



8. Complete the installation:





Unattended installation

msiexec /quiet /i
C:\Users\Administrator\Downloads\VisureRequirementsALMServer_8.1.0.5134.msi

From web:
msiexec /quiet /i
C:\Users\Administrator\Downloads\VisureRequirementsALMServer_8.1.0.5134.msi

For Powershell
PS C:\WINDOWS\system32> Start-Process msiexec -ArgumentList '/i
"https://storage.googleapis.com/visure_downloads/Products/Visure%20Requirements/8.1.0.5134
/VisureRequirementsALMServer_8.1.0.5134.msi"', '/qn', '/norestart' -NoNewWindow -Wait

4 License and License Server

Visure Requirements ALM 8 Server does not need a license to work. However, the Client does need licenses to operate.

You can find the download and installation guide for the License Server on the Visure Community Portal

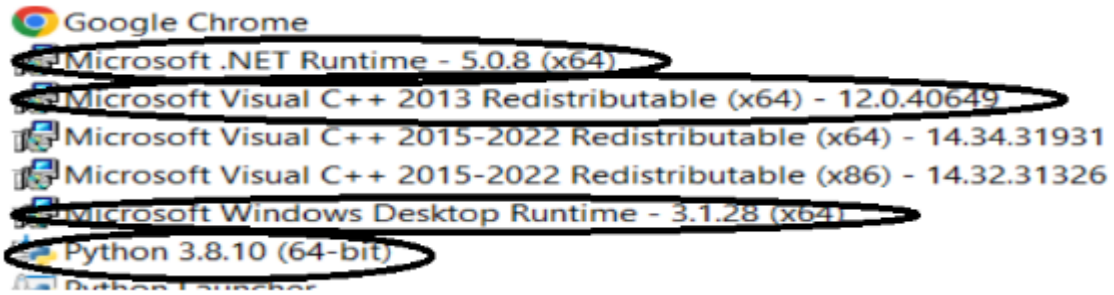
5 Troubleshooting

a. Insufficient Privileges Error When trying to Install Visure Server 8.1

If at the end of the install process you get an error message like:

Service "Visure ALM 8 Server" (Visure ALM 8 Server) failed to start. Verify that you have sufficient privileges to start system services.

This is a strange error that happens when trying to install Visure Server 8.1, sometimes a hardware reset should be enough, however if this does not fix it you have to reinstall some prerequisites.



the items that are enclosed are the prerequisites that must be installed to fix the error, they must be on **that version specifically**. If you find these in a different version, **you must uninstall them manually and then let the Visure server installer install them**.

In case your computer has any other version of python than 3.8.10 please uninstall it. Then install Visure Server, if python fails to install along with visure server and you still get the same error, please manually install python 3.8.10 and try again.

6 Appendix 1 - Database Requirements

This appendix will cover the tasks that need to be completed before connecting to the database.

You must have a database user setup with the correct permissions and the correct ODBC driver installed on the machine.

6.1 Database User

6.1.1 ORACLE databases

User Access rights, roles and privileges needed to save/upgrade

Information to be requested from your database administrator:

The database administrator should provide the following information:

- Login ID and password of a user of the ORACLE Server with has the privileges needed.
- Tablespace with assigned quote to the user for tables, where the tables will be stored within the ORACLE database.

- Tablespace with assigned quote to the user for tables for indexes, where the indexes will be stored within the ORACLE database.
- Service, this is the Name of the Local Network Service used to access the ORACLE database.
- Database access configuration files (tnsnames.ora and sqlnet.ora).

Roles needed by the database user:

CONNECT
RESOURCE

Privileges needed by the database user:

CREATE SESSION, ALTER SESSION,
CREATE SYNONYM,
CREATE TABLE,
CREATE TRIGGER,
CREATE VIEW,
CREATE PROCEDURE,
CREATE SEQUENCE

Example script for the database user creation: before running the following script you need to modify the path in which the database files are going to be saved, as well as the name of the user and the tablespaces:

```
CREATE TABLESPACE VISURE_REQUIREMENTS_TABLES
DATAFILE 'C:\app\Administrator\oradata\oracle11\VISURE_REQUIREMENTS_TABLES'
SIZE 100M REUSE
AUTOEXTEND ON MAXSIZE unlimited
DEFAULT STORAGE (INITIAL 10M NEXT 10M PCTINCREASE 50 MINEXTENTS 1
MAXEXTENTS 249)
ONLINE;

CREATE TABLESPACE VISURE_REQUIREMENTS_INDEXES
DATAFILE 'C:\app\Administrator\oradata\oracle11\VISURE_REQUIREMENTS_INDEXES'
SIZE 100M REUSE
AUTOEXTEND ON MAXSIZE unlimited
DEFAULT STORAGE (INITIAL 10M NEXT 10M PCTINCREASE 50 MINEXTENTS 1
MAXEXTENTS 249)
ONLINE;

CREATE USER VISURE_REQUIREMENTS_USER
IDENTIFIED BY test
DEFAULT TABLESPACE VISURE_REQUIREMENTS_TABLES
TEMPORARY TABLESPACE temp;

GRANT
CREATE SESSION, ALTER SESSION,
CREATE SYNONYM,
CREATE TABLE,
```

CREATE TRIGGER,
CREATE VIEW,
CREATE PROCEDURE,
CREATE SEQUENCE
TO VISURE_REQUIREMENTS_USER;

ALTER USER VISURE_REQUIREMENTS_USER QUOTA UNLIMITED ON VISURE_REQUIREMENTS_TABLES;
ALTER USER VISURE_REQUIREMENTS_USER QUOTA UNLIMITED ON VISURE_REQUIREMENTS_INDEXES;

6.1.2 Microsoft SQL Server databases

User Access rights, roles and privileges needed to save/upgrade

Information to be requested from your database administrator:

- SQL Server Name/Location: Machine in which Visure Database is saved: computer where the SQL Server is located.
- Login ID and password of a user of the SQL Server with database creation rights.
- Database: name of the database where the new Visure Database will be stored.

Roles needed by the database user:

db_owner
db_datareader
db_datawriter
db_ddladmin

Privileges needed by the database user:

Execute over Stored Procedures

To create a database user:

2. In Object Explorer, expand the **Databases** folder.
3. Expand the database in which to create the new database user.
4. Right-click on the **Security** folder, point to **New**, and select **User…**.
5. In the **Database User – New** dialog box, on the **General** page, select one of the following user types from the **User type** list: **SQL user with login**, **SQL user without login**, **User mapped to a certificate**, **User mapped to an asymmetric key**, or **Windows user**.
6. In the **User name** box, enter a name for the new user. If you have chosen **Windows user** from the **User type** list, you can also click on the ellipsis **(…)** to open the **Select User or Group** dialog box.
7. In the **Login name** box, enter the login for the user. Alternately, click on the ellipsis **(…)** to open the **Select Login** dialog box. **Login name** is available if you select either **SQL user with login** or **Windows user** from the **User type** list.
8. In the **Default schema** box, specify the schema that will own objects created by this user. Alternately, click on the ellipsis **(…)** to open the **Select Schema** dialog box. **Default schema** is available if you select either **SQL user with login**, **SQL user without login**, or **Windows user** from the **User type** list.
9. **(Optional, check with your database administrator)** In the **Certificate name** box, enter the certificate to be used for the database user. Alternately, click on the ellipsis **(…)** to open

the **Select Certificate** dialog box. **Certificate name** is available if you select **User mapped to a certificate** from the **User type** list.

10. (**Optional, check with your database administrator)** In the **Asymmetric key name** box, enter the key to be used for the database user. Alternately, click on the ellipsis **(…)** to open the **Select Asymmetric Key** dialog box. **Asymmetric key name** is available if you select **User mapped to an asymmetric key** from the **User type** list.
11. Click on OK.

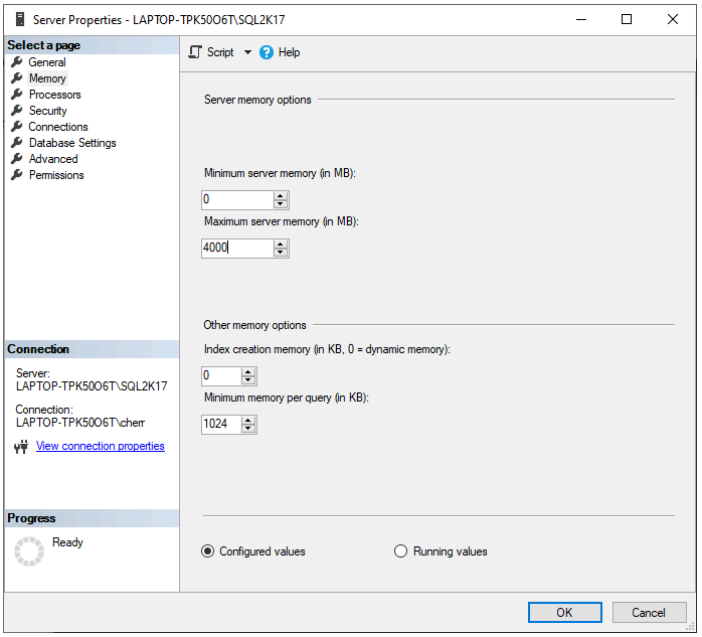
To give roles to a database user:

1. In Object Explorer, expand the **Security** folder.
2. Expand the **logins** folder.
3. Select the appropriate login and do a right click selecting **Properties**.
4. Select **user mapping** page.
5. Select the Database by clicking on the **Map** column of the corresponding database.
6. In the **Database role membership** for: [user] check the options:
    1. db_datareader
    2. db_datawriter
    3. db_ddladmin
    4. db_owner
7. Click on OK.

Server Memory

By default, MS SQL Server does not have a limit on the RAM memory usage, this may turn into high RAM consume by sql server that can cause performance or unexpected behaviors while working with Visure.

We recommend setting a limit for the maximum server memory (this limit depends on the server capability, number of users, etc..), this limit is defined on the server properties in MS SQL Server Management Studio:

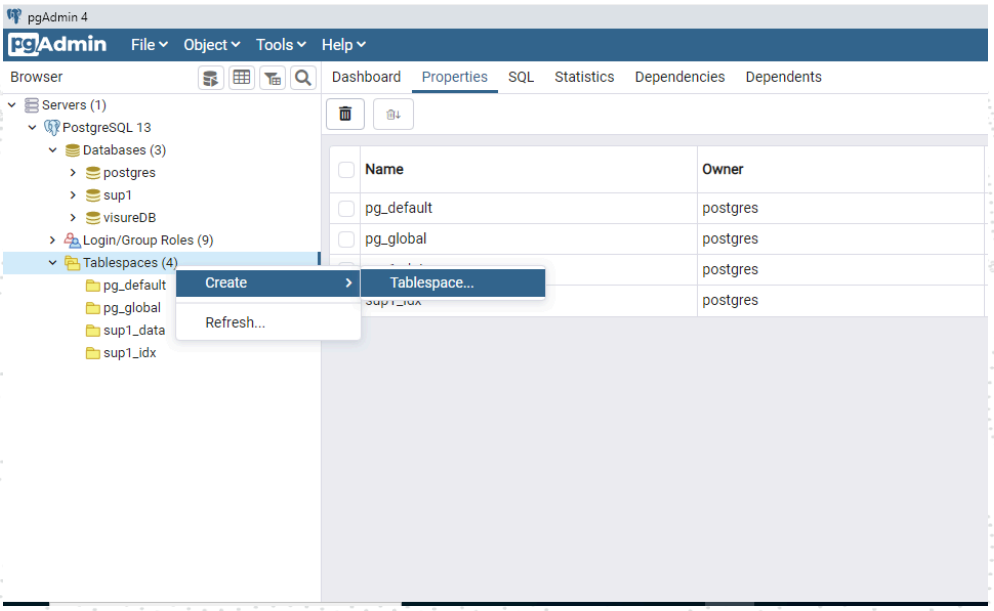


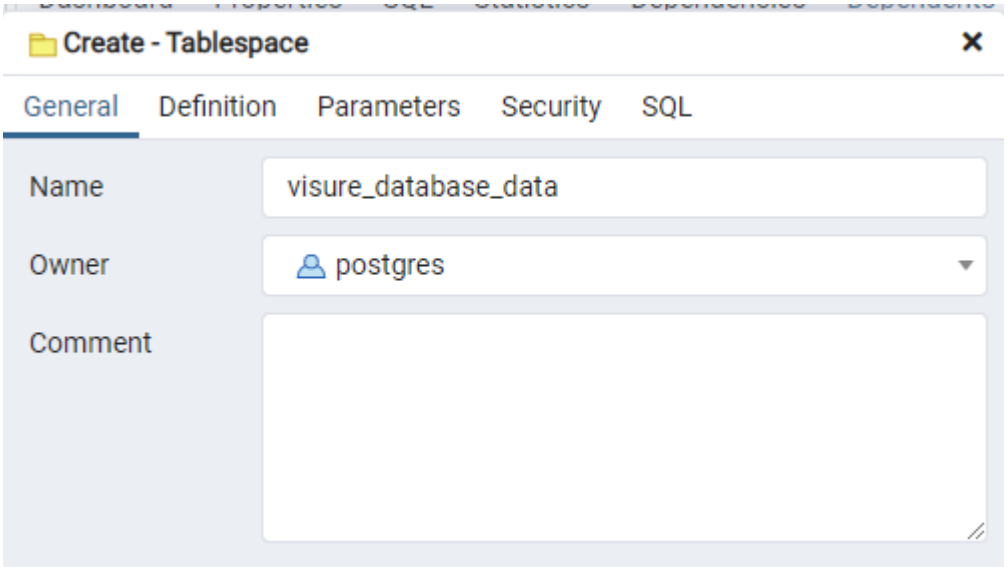
6.1.3 Postgres databases

1. Execute Postgres pgadmin
2. Create database, schema and tablespaces

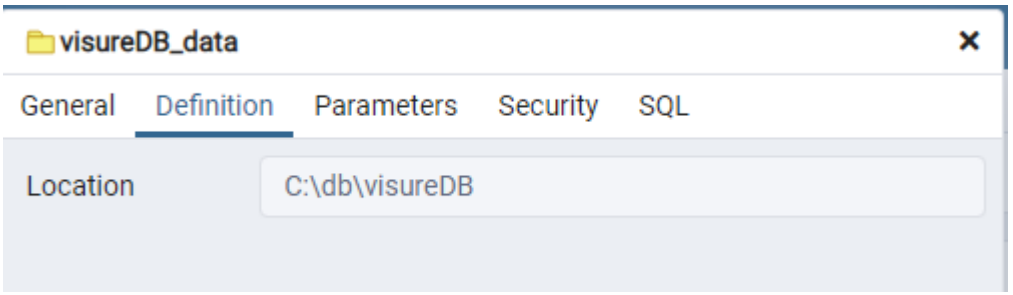
The first this to do is create a tablespace :

will create 2 tablespaces, one for tables and other for the indexes, We give a name to each one of them, i.e, Visure_database_data & Visure_database_indexes:

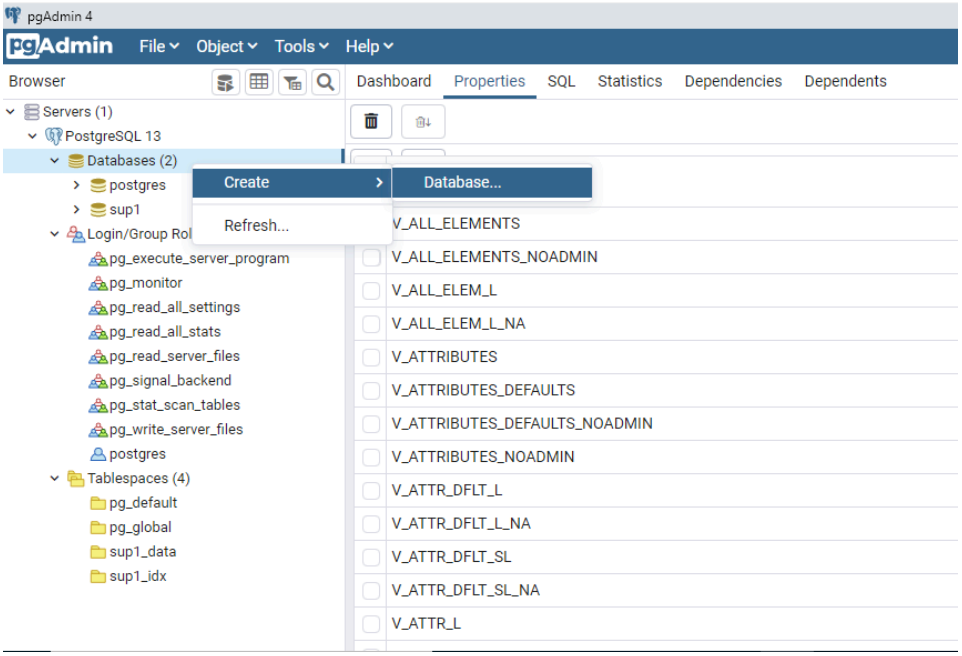




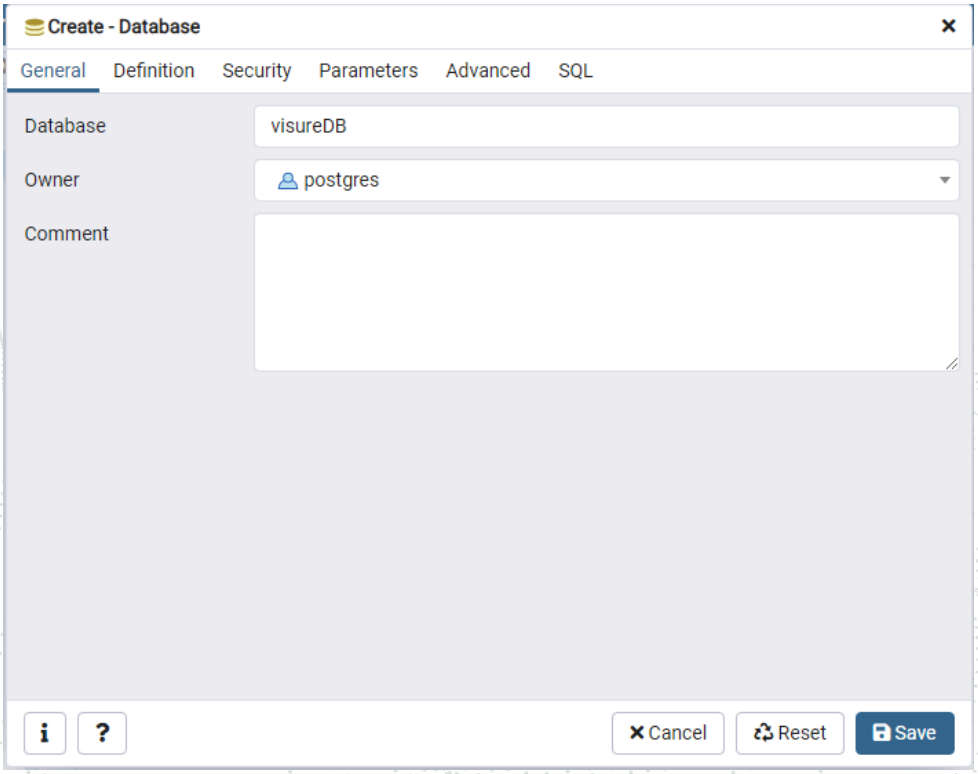
On the Definition tab we will need to set an absolute path where data files will be stored



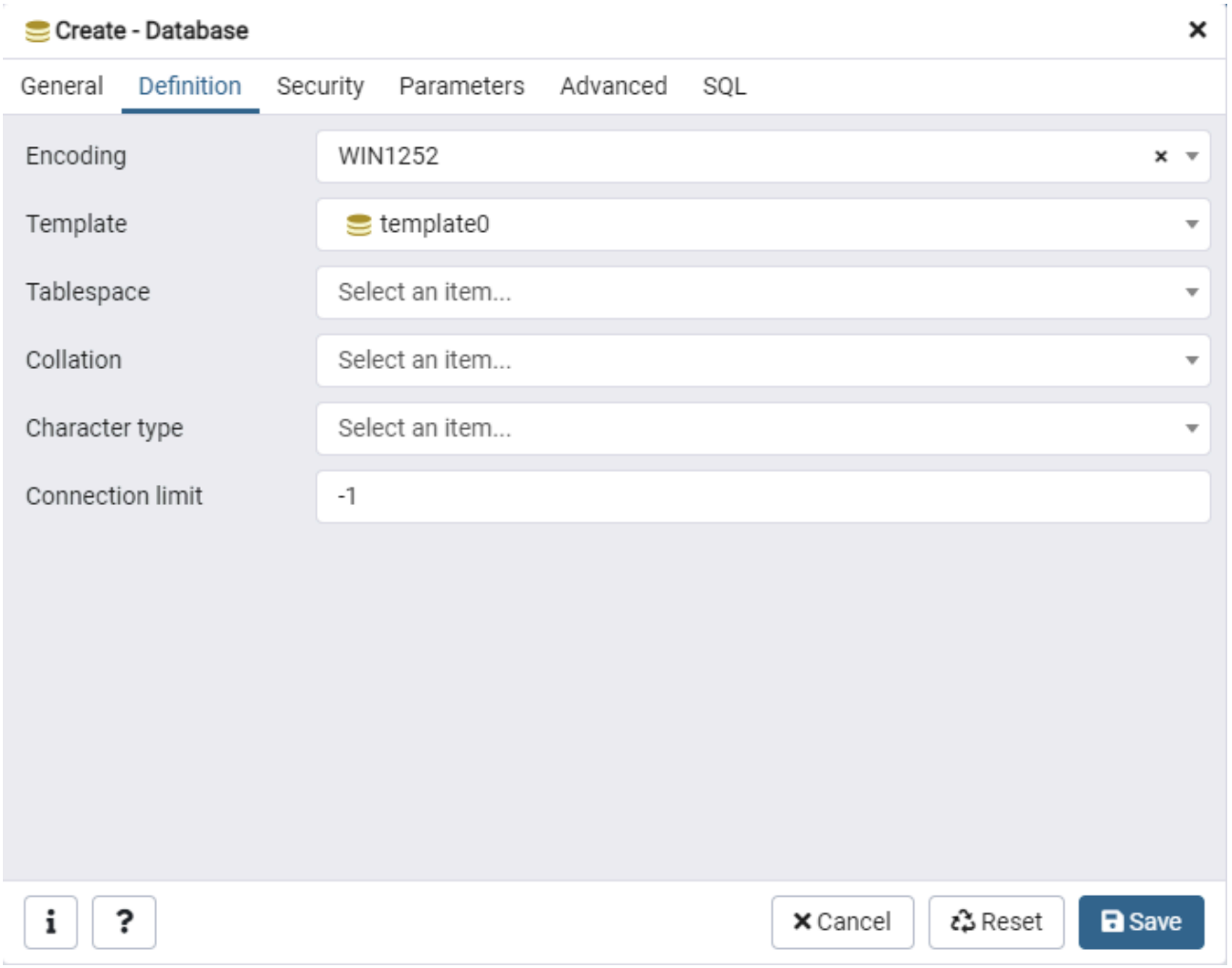
Then we will create a database



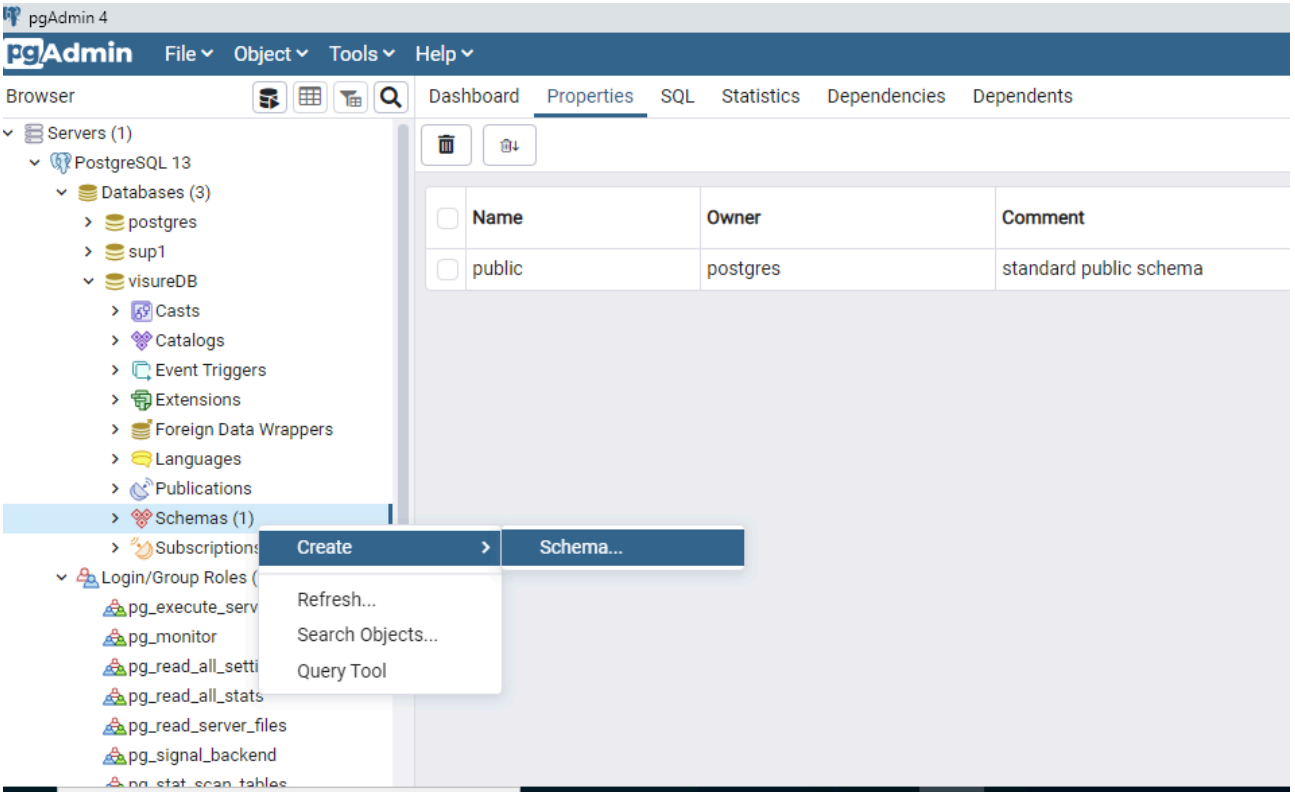
We leave postgres as owner:



On Definition tab select:
Encoding: WIN1252
Template: Template0



Next we will create a schema on the recently created database:



6.2 ODBC Drivers

The communication between a **Visure Requirements 8.1 ALM** Client and the Visure Database goes through a DSN and ODBC. It is needed to download and install the recommended ODBC driver associated to the database version in which the Visure Database is going to be saved.

NOTE: The following section contain links to external sources. If you encounter a broken link please inform us through the Visure Community Portal and look for the requested driver on the website of the provider of the data base. The links included in the following table are provided by Microsoft and Oracle and can be modified at their discretion by their owners.

Depending on the database engine the following ODBC driver versions are required.
(**only 64-bit ODBC drivers are supported)**:

	Version	ODBC Supported drivers	Download links For detailed information, Check the chapter ODBC Drivers
Microsoft SQL Server	2008	SQL Native Client 10.0	X64 Package
	2012	SQL Native Client 11.0	X64 Package
	2014	Microsoft® ODBC Driver 11 for SQL Server®	X64_Package
	2016	Microsoft® ODBC Driver 13 for SQL Server®	X64_Package
	2017/2022	Microsoft ODBC Driver 17 for SQL Server	X64_Package
Oracle	10	10.2.0.5 Driver versions with known issues that may cause malfunctions in **Visure Requirements 6 ALM**: ● 10.1.0.X (all versions with X < 31) ● 11.2.0.1 (in Windows 7 64-bit and in Windows 8 64-bit)	Download
	11	11.2.0.4	
	12	12.1.0.2	
	19 C	19.3.0.0	
Postgres	13,14,15, 16	ANSI64	**https://www.postgresql.org/download/products/2-drivers-and-interfaces/** > psqlODBC > MSI > ANSI64 > 32 or 64 depending on your needs. I downloaded the generic one.

Detailed download and installation instructions for the listed ODBC Drivers are below.

6.2.1 Microsoft SQL Server

1. Microsoft SQL Server 2008: downloading & installing the ODBC Driver

Download the **Microsoft SQL Server Native Client 10.0** from the following link:

www.microsoft.com/download/details.aspx?id=27596

Direct links to packages:

X64 Package (sqlncli.msi) for 64-bit architectures.

IA64 Package (sqlncli.msi) for Intel Itanium architectures.

Install the package following the wizard instructions and with admin rights.

2. Microsoft SQL Server 2012: downloading & installing the ODBC Driver

Download the **Microsoft SQL Server Native Client 11.0** from the following link:

www.microsoft.com/download/details.aspx?id=29065

Direct links to packages:

X64 Package (sqlncli.msi) for 64-bit architectures.

Install the package following the wizard instructions and with admin rights.

3. Microsoft SQL Server 2014: downloading & installing the ODBC Driver

Download the **Microsoft SQL Server Native Client 11.0** from the following link:

http://www.microsoft.com/en-us/download/details.aspx?id=36434

Direct links to packages:

X64 Package (sqlncli.msi) for 64-bit architectures.

Install the package following the wizard instructions and with admin rights.

4. Microsoft SQL Server 2016: downloading & installing the ODBC Driver

Download the **Microsoft ODBC Driver 13 for SQL Server** from the following link:

https://www.microsoft.com/en-us/download/details.aspx?id=50420

Direct links to packages:

X64 Package (sqlncli.msi) for 64-bit architectures.

Install the package following the wizard instructions and with admin rights.

5. Microsoft SQL Server 2017/2019: downloading & installing the ODBC Driver

Download the **Microsoft ODBC Driver 17 for SQL Server** from the following link:

https://www.microsoft.com/en-us/download/details.aspx?id=56567

Direct links to packages:

X64 Package (sqlncli.msi) for 64-bit architectures.

Install the package following the wizard instructions and with admin rights.

6.2.2 ORACLE Database

6. Oracle Database 10: downloading & installing the ODBC Driver

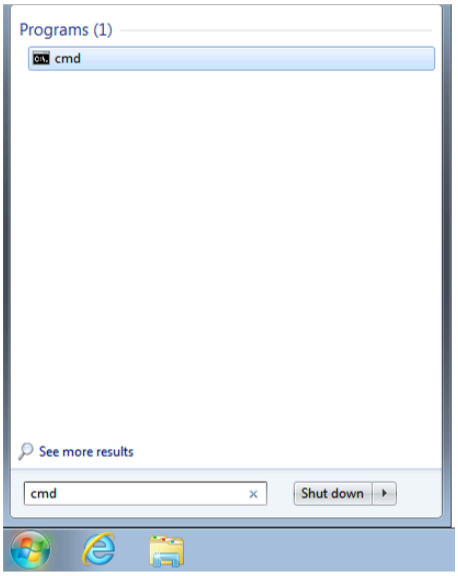
Download the **Basic** (**instantclient-basic-win32-10.2.0.5.zip**) and **ODBC** (**instantclient-odbc-win32-10.2.0.5.zip**) Instant Client Packages for version **10.2.0.5** from the following link (registration required):

http://www.oracle.com/technetwork/topics/winsoft-085727.html

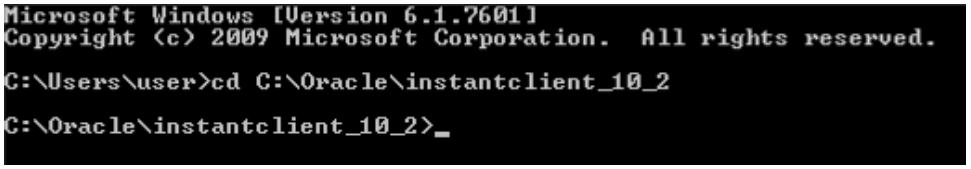
Unzip both files in the same folder and execute **odbc_install** from the *Command Prompt*.

For example,

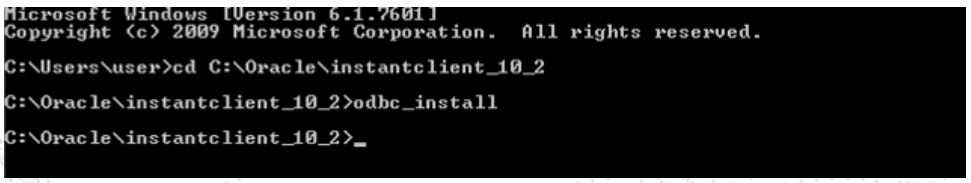
1. Unzip the instantclient-basic-win32-10.2.0.5.zip in the folder: *"C:\Oracle\instantclient_10_2"*
2. Unzip the instantclient-odbc-win32-10.2.0.5.zip in the same folder.
3. Go to *Start/Run* and type *"cmd".* Hit *ENTER.*



4. Go to the folder *"C:\Oracle\instantclient_10_2" (cd C:\Oracle\instantclient_10_2).*



5. Type *odbc_install*



After the installation it is necessary to:

- Add the folder to the "PATH" system environment variable.
- Save the database access configuration files (tnsnames.ora and sqlnet.ora) in a local folder. These files should be provided by your Oracle database administrator.
- Define the TNS_ADMIN environment variable to point to the .ora files (tnsnames.ora and sqlnet.ora) directory.

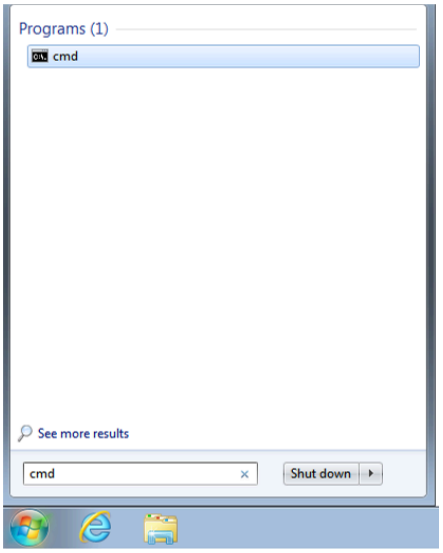
7. Oracle Database 11: downloading & installing the ODBC Driver

Download the **Basic** (**instantclient-basic-nt-11.2.0.4.0.zip**) and **ODBC** (**instantclient-odbc-nt-11.2.0.4.0.zip**) Instant Client Packages for version **11.2.0.4.0** from the following link (registration required):

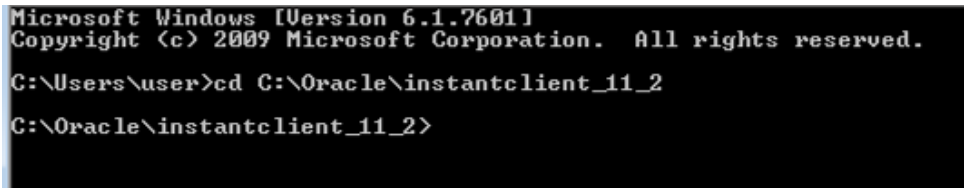
http://www.oracle.com/technetwork/topics/winsoft-085727.html

Unzip both files in the same folder and execute **odbc_install** from the *Command Prompt*.
For example,

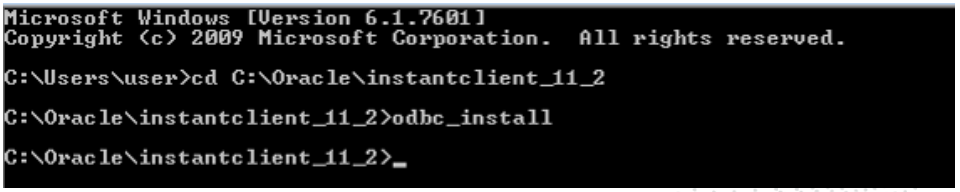
1. Unzip the instantclient-basic-nt-11.2.0.4.0.zip in the folder:
   "C:\Oracle\instantclient_11_2"
2. Unzip the instantclient-odbc-nt-11.2.0.4.0.zip in the same folder.
3. Go to *Start/*Run and type *"cmd".* Hit *ENTER.*



4. Go to the folder *"C:\Oracle\instantclient_11_2" (cd C:\Oracle\instantclient_11_2)*



5. Type *odbc_install*



After the installation it is necessary to:

- Add the folder to the PATH system environment variable.
- Save the database access configuration files (tnsnames.ora and sqlnet.ora) in a local folder. These files should be provided by your Oracle database administrator.
- Define the TNS_ADMIN environment variable to point to the .ora files (tnsnames.ora and sqlnet.ora) directory.

8. Oracle Database 12: downloading & installing the ODBC Driver

Download the **Basic** (**instantclient-basic-nt-12.1.0.2.0.zip**) and **ODBC (instantclient-odbc-nt-12.1.0.2.0.zip**) Instant Client Packages for version **12.1.0.2.0** from the following link (registration required):

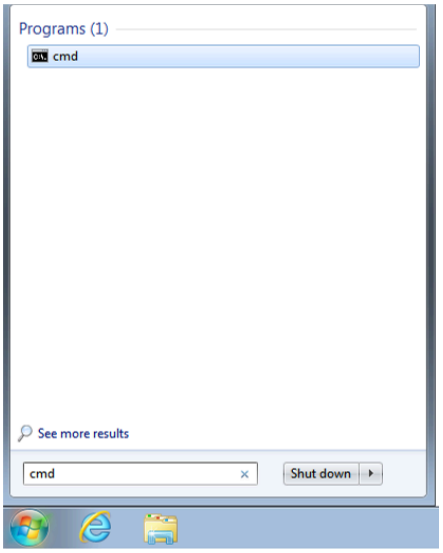
http://www.oracle.com/technetwork/topics/winsoft-085727.html

Unzip both files in the same folder and execute **odbc_install** from the *Command Prompt*.
For example,

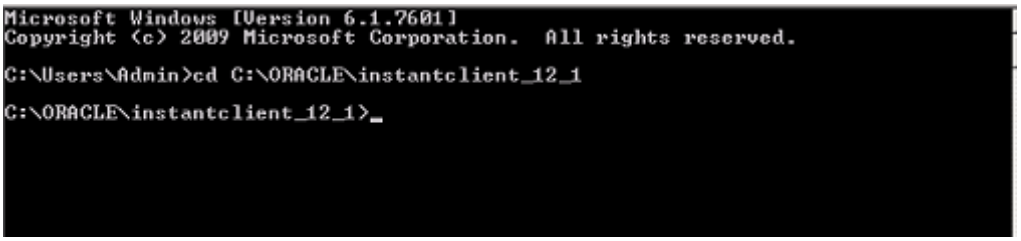
2. Unzip the instantclient-basic-nt-12.1.0.2.0.zip in the folder:

"C:\Oracle\instantclient_12_1"

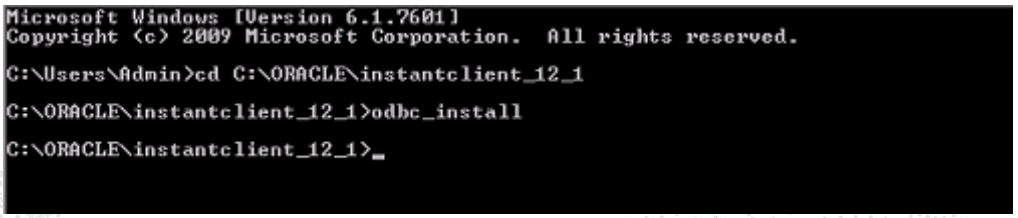
3. Unzip the instantclient-odbc-nt-12.1.0.2.0.zip in the same folder.
4. Go to *Start/Run* and type *"cmd".* Hit *ENTER.*



5. Go to the folder *"C:\Oracle\instantclient_12_1" (cd C:\Oracle\instantclient_12_1)*



6. Type *odbc_install*



After the installation it is necessary to:

- Add the folder to the PATH system environment variable.
- Save the database access configuration files (tnsnames.ora and sqlnet.ora) in a local folder. These files should be provided by your Oracle database administrator.
- Define the TNS_ADMIN environment variable to point to the .ora files (tnsnames.ora and sqlnet.ora) directory.

6.2.3 Postgres Database:

Drivers can be downloaded from:

https://www.postgresql.org/ftp/odbc/versions.old/msi/

6.3 Database Maintenance

Visure provides scripts to perform maintenance tasks on the Visure Databases both for SQL Server and ORACLE databases. For detailed instructions, follow our article on the Visure Community Portal.