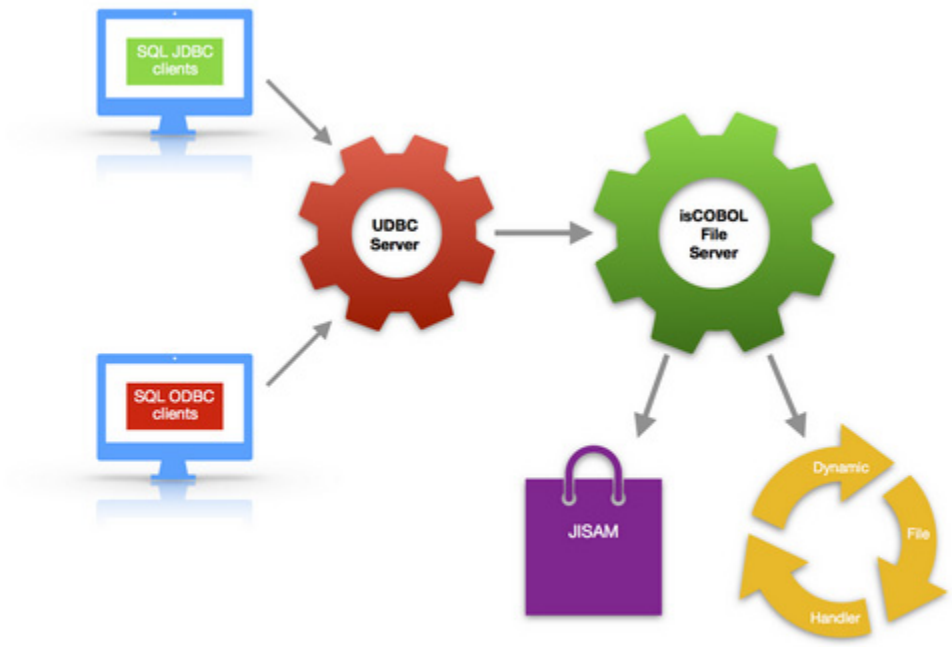
isCOBOL UDBC

Overview

The UDBC Server receives connections from SQL clients and provides them with access to COBOL files through the isCOBOL File Server. See isCOBOL File Server for more information on how to set up the isCOBOL File Server in order to allow remote access to files.

EFD dictionaries for each file are required. Compile COBOL programs with the -efd option to create an EFD dictionary for each file described in the FILE SECTION.

The below picture summarizes how SQL clients access COBOL files.



Getting Started

The setup of an isCOBOL UDBC environment requires the following steps:

1. Download and install the Java Runtime Environment (JRE)
2. Download and install isCOBOL UDBC
3. Activate the License

In order to activate your isCOBOL Evolve products, you will need the e-mail you received from Veryant containing your license key. Contact your Veryant representative for details.

Download and install the Java Runtime Environment (JRE)

JRE version 8 or 11 must be installed on your machine in order to use isCOBOL UDBC. For best results and performance, install the latest update build available for your platform.

Self-extracting setups are provided for the Windows platform

On Unix/Linux platforms Java may be already installed. If it's not the case, you can install it using the appropriate system commands (e.g. yum, or apt-get).

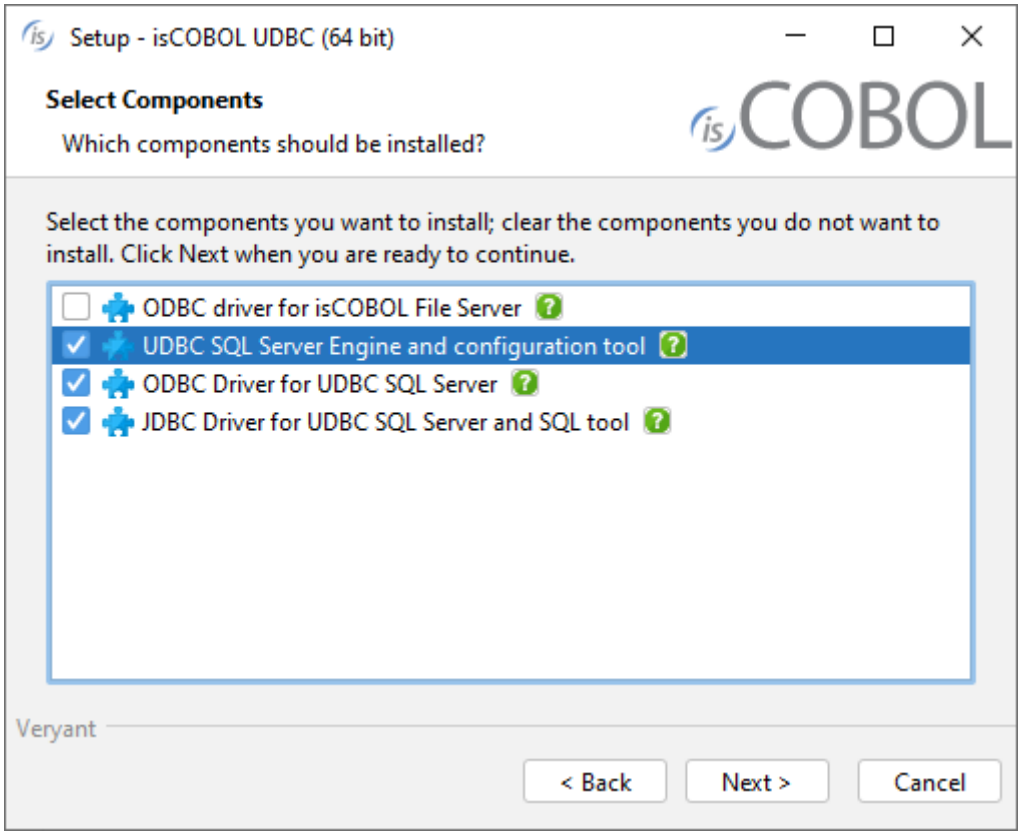
Download and install isCOBOL UDBC

Windows

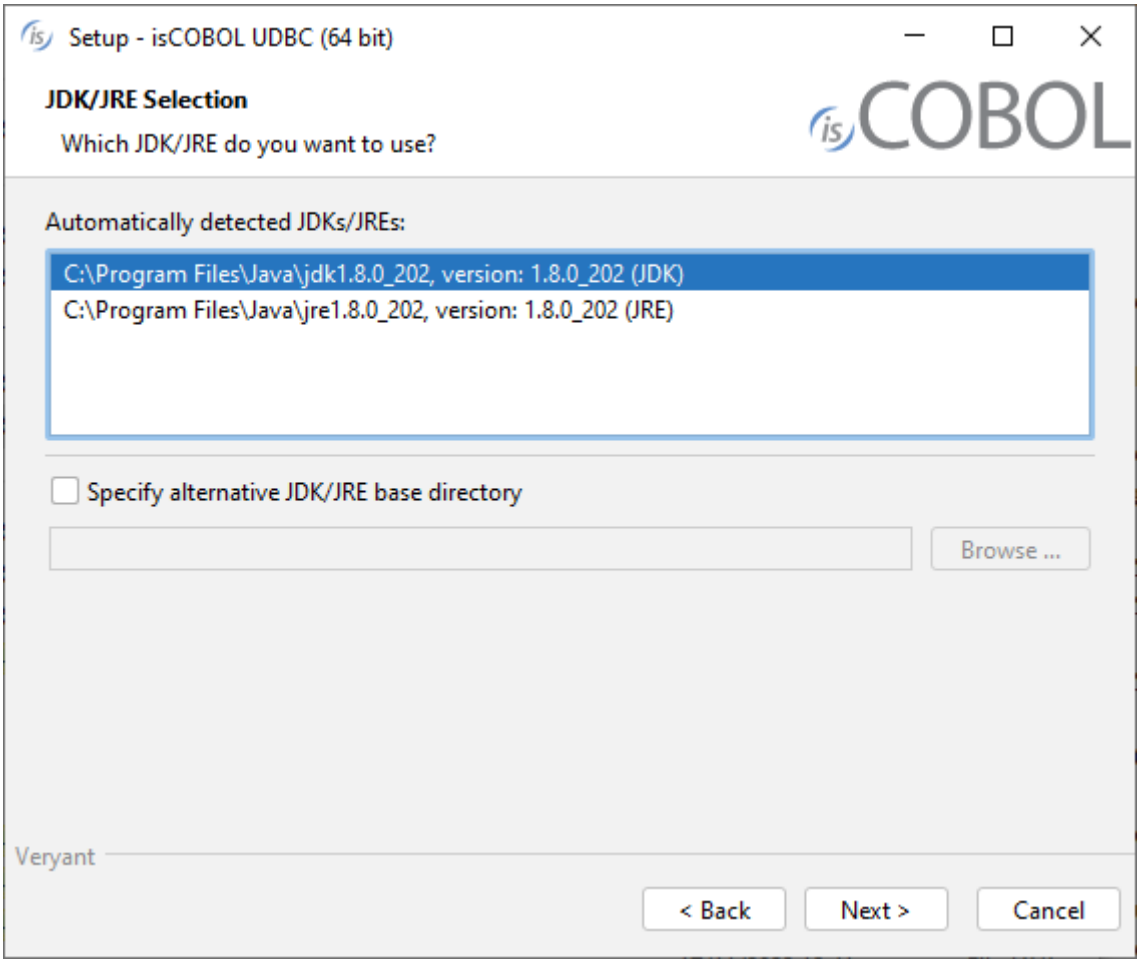
1. If you haven't already done so, Download and install the Java Runtime Environment (JRE).
2. Go to "https://support.veryant.com".
3. Sign in with your User ID and Password.
4. Click on the "Download Software" link.
5. Scroll down to the list of files for Windows x64 64-bit or Windows x86 32-bit. Select isCOBOL_UDBC_2024_R1_*n*_Windows.*arc*.msi, where *n* is the build number and *arc* is the system architecture.
6. Run the downloaded installer to install the files.

Note - If your Windows has the option "Run as Administrator", you should run the setup with that option, otherwise the setting of environment variables might silently fail.

7. Select the desired items from the list of products when prompted.



8. Select your JDK/JRE when prompted



9. Follow the wizard procedure to the end. In the process you will be asked to provide the installation path ("C:\Veryant" by default) and license keys. You can skip license activation and perform it later, as explained in Activate the License.

Quiet mode

The isCOBOL UDBC setup supports the msi quiet mode. Settings can be driven with a response file.

A response file is a text file with name-value pairs that represent installer variables.

A response file is generated automatically after an installation is finished. The generated response file is found in the *.install4j* directory of the isCOBOL UDBC and is named *response.varfile*.

When an installer is executed, it checks whether a file with the same name and the *.varfile* extension can be found in the same directory and loads that file as the response file. For example, if an installer is named *foo_setup.msi* on Windows, the response file next to it has to be named *foo_setup.varfile*.

For more information about msi setups and their command line options, see Microsoft Standard Installer Command-Line Options.

Linux, FreeBSD, Mac OSX and SunOS

1. If you haven't already done so, Download and install the Java Runtime Environment (JRE).

2. Go to "https://support.veryant.com".
3. Sign in with your User ID and Password.
4. Click on the "Download Software" link.
5. Scroll down, and select the appropriate .tar.gz file for the product and platform you require.
6. Extract all contents of the archive. For example,
   on Linux 32 bit:

```
gunzip isCOBOL_UDBC_2024_R1_*_Linux.32.i586.tar.gz
tar -xvf isCOBOL_UDBC_2024_R1_*_Linux.32.i586.tar
```

   on Linux 64 bit:

```
gunzip isCOBOL_UDBC_2024_R1_*_Linux.64.x86_64.tar.gz
tar -xvf isCOBOL_UDBC_2024_R1_*_Linux.64.x86_64.tar
```

   on FreeBSD:

```
gunzip isCOBOL_UDBC_2024_R1_*_FreeBSD.64.tar.gz
tar -xvf isCOBOL_UDBC_2024_R1_*_FreeBSD.64.tar
```

   on Mac OSX:

```
gunzip isCOBOL_UDBC_2024_R1_*_MacOSX.64.x86_64.tar.gz
tar -xvf isCOBOL_UDBC_2024_R1_*_MacOSX.64.x86_64.tar
```

   on SunOS:

```
gunzip isCOBOL_UDBC_2024_R1_*_SunOS.64.tar.gz
tar -xvf isCOBOL_UDBC_2024_R1_*_SunOS.64.tar
```

Other Unix

isCOBOL UDBC is available only for the following UNIX platforms:

- Linux 32 bit
- Linux 64 bit
- FreeBSD
- Mac OSX 64 bit
- SunOS

No other UNIX porting is available.

Distribution Files

For information on a specific distribution file, please see the README file installed with the product.

Activate the License

If you provided license keys during the installation, on Windows, you should skip reading this chapter.

isCOBOL UDBC looks for the following configuration property for the license key:

```
iscobol.udbc.license.2024=<license_key>
```

The key should be stored in one of the following files (if they exist):

Windows

1. \etc\iscobol.properties in the drive where the working directory is
2. C:\Users\<username>\iscobol.properties (the setup wizard saves licenses here, if you don't skip activation)
3. iscobol.properties found in the Java Classpath
4. a custom configuration file passed on the command line
5. %ISCOBOL%\iscobol.properties

Unix/Linux

1. /etc/iscobol.properties
2. $HOME/iscobol.properties
3. iscobol.properties found in the Java Classpath
4. a custom configuration file passed on the command line
5. $ISCOBOL/iscobol.properties

NOTE - Files are listed in the order they're processed. If the license key appears in more than one of the above files, then the last occurrence is used.

Testing the product using sample data

File Server startup

isCOBOL UDBC requires isCOBOL File Server to be up and running.

The isCOBOL File Server is provided along with isCOBOL.

Assuming that you have correctly installed isCOBOL and its thin client, you can start the File Server with the following command:

```
iscserver -fs
```

This guide assumes that you're running isCOBOL UDBC on the same machine as the isCOBOL File Server.

Sample data files and EFD dictionaries are installed with isCOBOL under *sample\as\fs\odbc*. Data files have to be created using the batch file *create.bat* available in that folder.

Database configuration

Windows

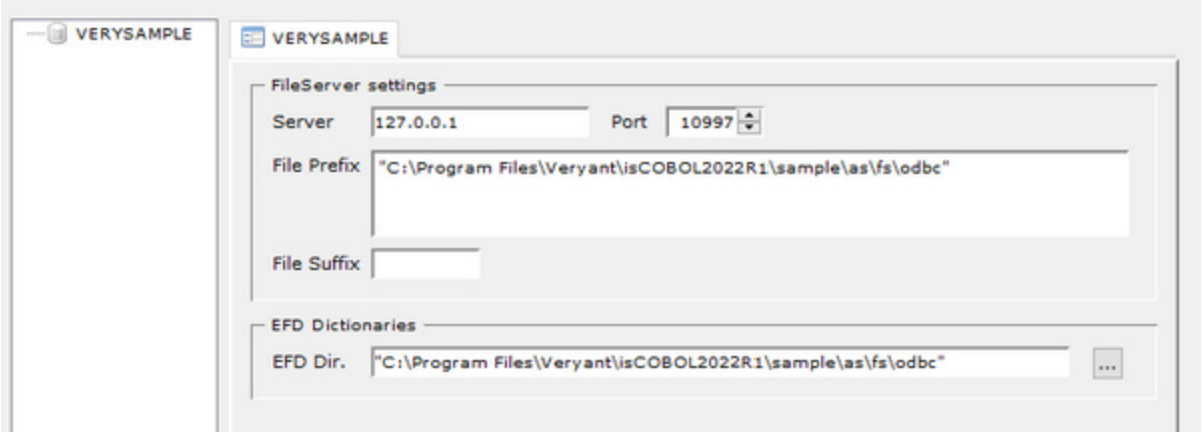
Run the UDBC Configuration Tool using the link available in Start -> Programs -> isCOBOL UDBC 2024R1

Create a new database in the following way:

1. Click on *File / New Database*
2. Type the desired name (e.g. "VERYSAMPLE")

3. Press Enter to confirm

Complete the mandatory fields as follows:



Click on the *Save* button.

Linux/Unix

A sample configuration file is provided with the product. You will find a file named *udbc.ini* in the folder vUDBC2024R1/etc.

Copy that file either under /etc or in the user home directory.

Edit it and ensure that the entries EfdDirectory and FilePrefix point to the proper directory. The directory is *$ISCOBOL/sample/as/fs/odbc* and contains both data files and EFD dictionaries. Data files have to be created using the script *create.sh* available in that folder.

If a graphical desktop is available, you can manage the ini file with the following graphical utility:

```
/opt/vUDBC2024R1/bin/vudbccfg
```

Thin Client and Code Prefix:

VUDBCCFG can be used in thin client environment as well. Use this command to start it:

```
iscclient -hostname <server-ip> -port <server-port> -utility COBVUDBCCFG
```

The utility will configure databases on the server machine.

First query on isCOBOL UDBC

Windows

1. Run the UDBC Server using the link available in Start -> Programs -> isCOBOL UDBC 2024R1

A correct startup will produce a similar output:

```
Veryant VDBC 2024R1  Server console
Starting service:
 C:\Veryant\isCOBOL_UDBC2024R1\bin\vsqld.exe  6789
 on port 6789 ... Succesful, Mainpid is: 0
```

2. Run the Utility Shell using the link available in Start -> Programs -> isCOBOL UDBC 2024R1 -> Utility

In the Utility Shell, start the command-line SQL tool by issuing the command:

```
visql -cstring jdbc:veryant:127.0.0.1:6789:VERYSAMPLE -u admin
```

Where VERYSAMPLE is the name of the database.

You will be prompted for a password, type 'admin'.

Type a query to select data from one of the archives available in the database:

```
select * from file1
GO
```

Check the result.

Linux/Unix

1. Run the UDBC Server with the command:

```
/opt/isCOBOL_UDBC2024R1/bin/vudbcserver
```

A correct startup will produce a similar output:

```
isCOBOL UDBC 2024 R1 Server console
Starting service:
 /opt/isCOBOL_UDBC2024R1/bin/vsqld  6789
 on port 6789 ... Succesful, Mainpid is: 0
```

2. Run the command-line SQL tool by issuing the command:

```
/opt/isCOBOL_UDBC2024R1/bin/visql -cstring jdbc:veryant:127.0.0.1:6789:VERYSAMPLE -u
   admin
```

Where VERYSAMPLE is the name of the database.

You will be prompted for a password, type 'admin'.

Type a query to select data from one of the archives available in the database:

```
select * from file1
GO
```

Check the result.