Microsoft

Step-by-Step Guide to Install ora2pg on Windows

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This document is meant to be used as a Quick Installation Guide for enabling migration of schema & data from Oracle to Azure Database for PostgreSQL using ora2pg tool. Complete details on the tool can be found at http://ora2pg.darold.net/documentation.html

Pre-Requisites

The following software must be installed in the Windows machine prior to installing ora2pg:

- Perl 5.10 or more

- Oracle Instant Client or Full Oracle installation

- [optional] Visual C++ or Visual Studio Express

- DBD::Oracle Perl Module

- ora2pg

It is recommended that you use the order above to proceed with the installation.
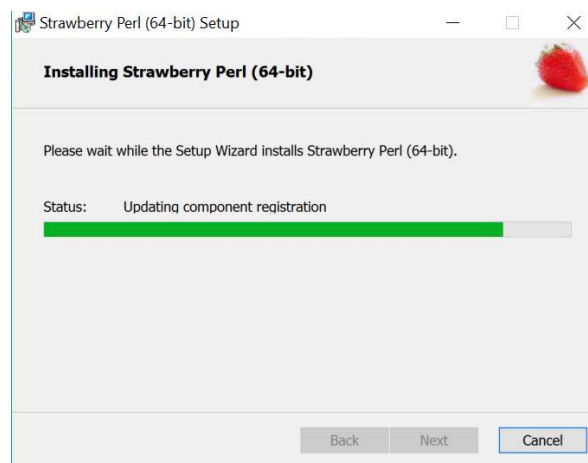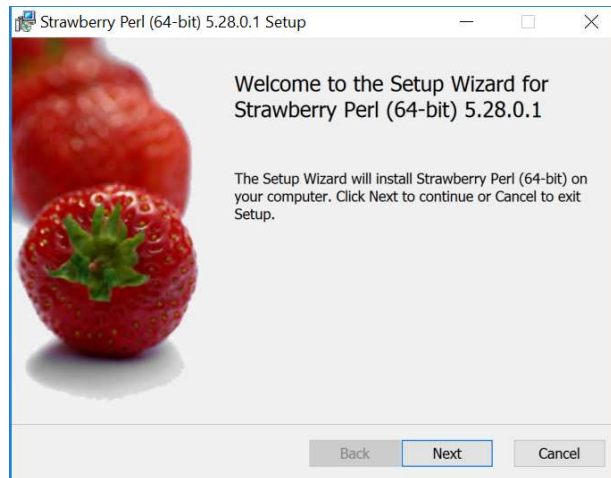
Note that the version of Windows used for this exercise is a Windows Server 2016

Installing Perl 5.10 or more

1) go to http://strawberryperl.com/ and download the latest version of Perl – as of now 5.28 is the latest version

2) Double click on strawberry-perl-5.28.0.1-64bit
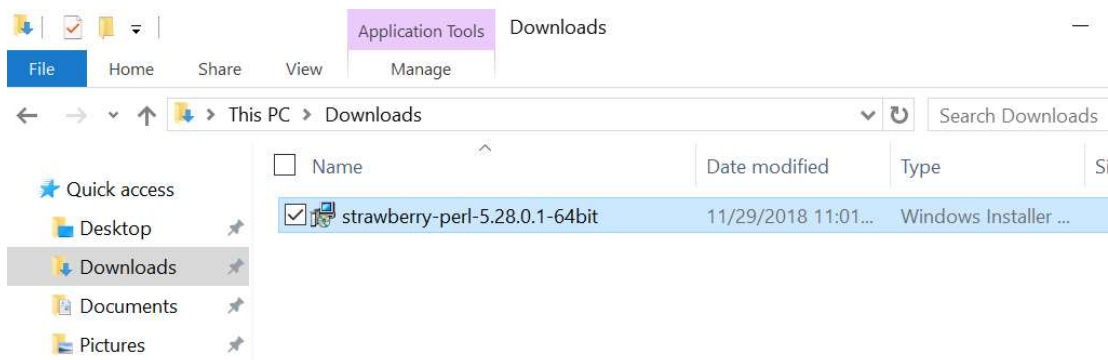
3) Run the wizard until the end of installation:

4) Verify that Perl was installed successfully:

cmd> perl --version

Installing Oracle Instant Client or Full Oracle Installation

1) Go to https://www.oracle.com/technetwork/database/enterprise-edition/downloads/index.html and download either the oracle client or a full Oracle Installation

   For this exercise a full Oracle Database software will be installed

2) Extract the Oracle file *winx64_12201_database.zip* to any location
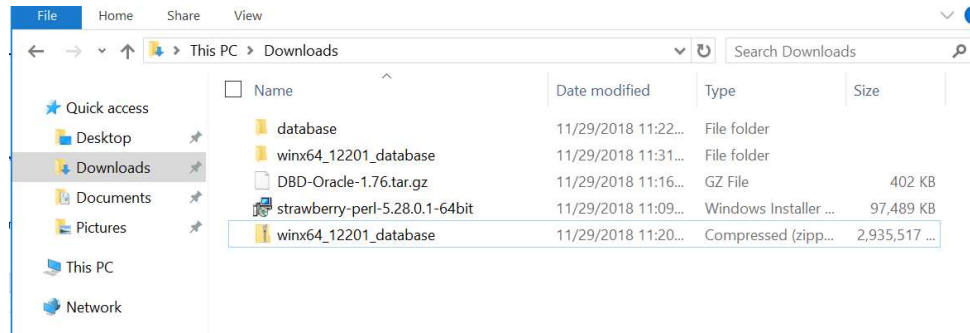
3) Navigate to the extracted folder "winx64_12201_database" -> database and double click on setup to install the Oracle database
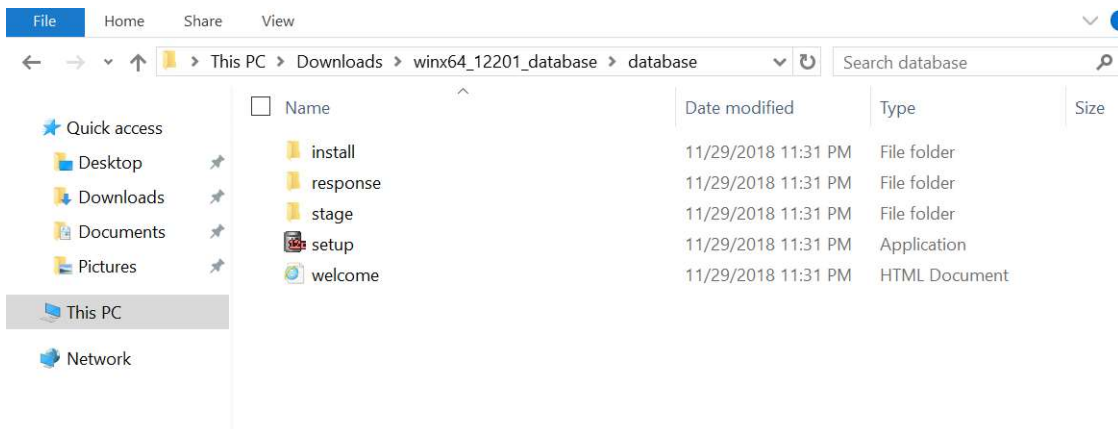
4) Run the wizard until it finishes and wait for the Oracle product to be installed
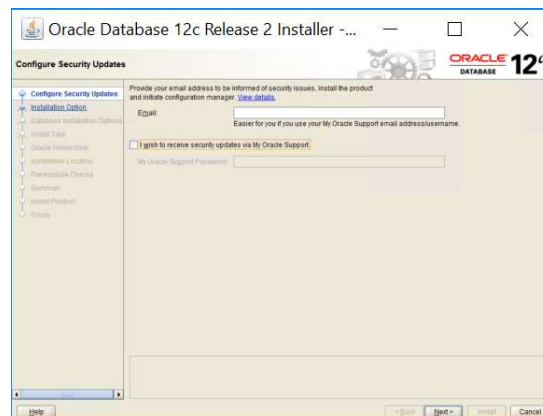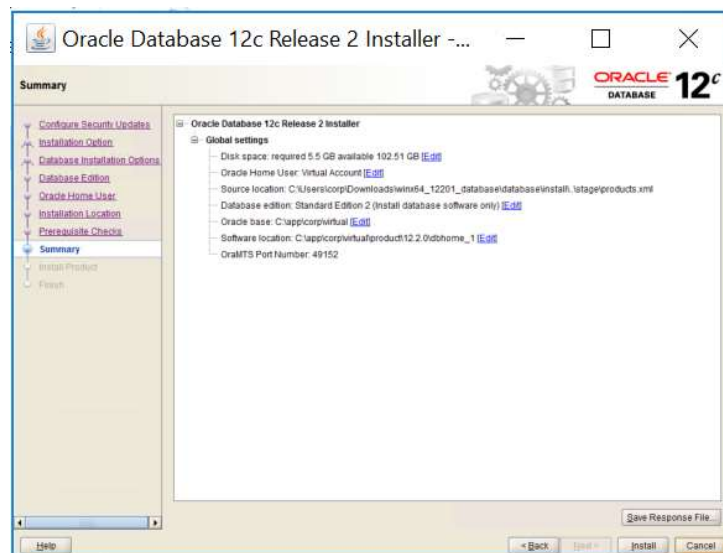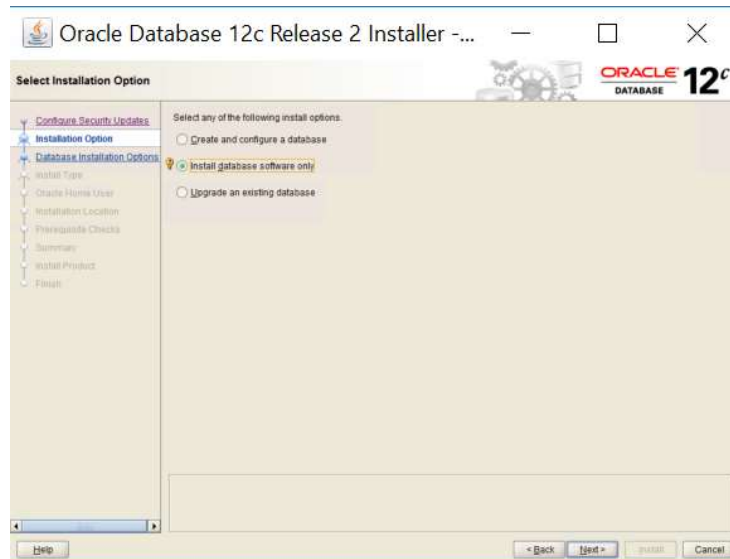
Installing DBD::Oracle Perl Module

1) Go to https://metacpan.org/pod/DBD::Oracle and click on "Download"

   The file DBD-Oracle-1.76.tar.gz will be downloaded

2) Extract the file to the C:\ drive – use winzip or winrar or any other "untar" tool available in the machine

3) Open a Command Prompt (cmd) and navigate to the C:\DBD-Oracle-1.76

cd c:\DBD-Oracle-1.76\DBD-Oracle-1.76\

4) Set your ORACLE_HOME to the Instant Client directory

set ORACLE_HOME=C:\app\corp\virtual\product\12.2.0\dbhome_1

5) Set your NLS parameter as below

set NLS_LANG=.WE8ISO8859P15

```
C:\Users\corp>cd c:\DBD-Oracle-1.76\DBD-Oracle-1.76\

c:\DBD-Oracle-1.76\DBD-Oracle-1.76>set ORACLE_HOME=C:\app\corp\virtual\product\12.2.0\dbhome_1

c:\DBD-Oracle-1.76\DBD-Oracle-1.76>set NLS_LANG=.WE8ISO8859P15
```

6) Once the NLS and ORACLE_HOME parameters are set, run the following:

perl Makefile.PL

```
c:\DBD-Oracle-1.76\DBD-Oracle-1.76>perl Makefile.PL
Using DBI 1.641 (for perl 5.028000 on MSWin32-x64-multi-thread) installed in C:/Strawberry/perl/vendor/lib/auto/DBI/
Configuring DBD::Oracle for perl 5.028000 on MSWin32 (MSWin32-x64-multi-thread)

If you encounter any problem, a collection of troubleshooting
guides are available under lib/DBD/Oracle/Troubleshooting.
'DBD::Oracle::Troubleshooting' is the general troubleshooting
guide, while platform-specific troubleshooting hints
live in their labelled sub-document (e.g., Win32
hints are gathered in 'lib/DBD/Oracle/Troubleshooting/Win32.pod').

Installing on a MSWin32, Ver#10.0
Using Oracle in C:/app/corp/virtual/product/12.2.0/dbhome_1
DEFINE _SQLPLUS_RELEASE = "1202000100" (CHAR)
Oracle Version 12.2.0.1 (12.2)
Found oci directory
Using OCI directory 'oci'

client_version=12.2


DEFINE= -Wall -Wno-comment -DUTF8_SUPPORT -DORA_OCI_VERSION=\"12.2.0.1\" -DORA_OCI_102 -DORA_OCI_112


Checking for functioning wait.ph
```

```
Checking for functioning wait.ph

System: perl5.028000 Win32 strawberry-perl 5.28.0.1 #1 Sat Jun 23 13:55:45 2018 x64
Compiler:   gcc -s -O2   -s -O2 -DWIN32 -DWIN64 -DCONSERVATIVE -D__USE_MINGW_ANSI_STDIO -DPERL_TEXTMODE_SCRIPTS -DPERL_
PLICIT_CONTEXT -DPERL_IMPLICIT_SYS -DUSE_PERLIO -fwrapv -fno-strict-aliasing -mms-bitfields
Linker:     not found
Sysliblist:

Checking if your kit is complete...
Looks good
LD_RUN_PATH=C:/app/corp/virtual/product/12.2.0/dbhome_1/lib:C:/app/corp/virtual/product/12.2.0/dbhome_1/rdbms/lib
Using DBD::Oracle 1.76.
Using DBD::Oracle 1.76.
Using DBI 1.641 (for perl 5.028000 on MSWin32-x64-multi-thread) installed in C:/Strawberry/perl/vendor/lib/auto/DBI/
Generating a gmake-style Makefile
Writing Makefile for DBD::Oracle
Writing MYMETA.yml and MYMETA.json
```

[optional]

The next step is to run nmake install. Visual Studio Express or Visual C++ Express is needed on the Windows Server, so nmake is a command enabled in the windows server.

 https://social.technet.microsoft.com/wiki/contents/articles/50941.visual-studio-express-2017-offline-installer-win7-install-instructions.aspx?Redirected=true

Complete the installation of Visual Studio Express in order to enable nmake.

[\optional]

"C:\Program Files (x86)\Microsoft Visual Studio\2017\WDExpress\VC\Tools\MSVC\14.16.27023\bin\Hostx86\x86\nmake.exe" install

```
c:\DBD-Oracle-1.76\DBD-Oracle-1.76>"C:\Program Files (x86)\Microsoft Visual Studio\2017\WDExpress\VC\Tools\MSVC\14.16.27023\bin\Hostx86\x86\nmake.exe" install

Microsoft (R) Program Maintenance Utility Version 14.16.27024.1
Copyright (C) Microsoft Corporation.  All rights reserved.

        "C:\Strawberry\perl\bin\perl.exe" -MExtUtils::Command::MM -e cp_nonempty -- Oracle.bs blib\arch\auto\DBD\Oracle\Oracle.bs 644
Files found in blib\arch: installing files in blib\lib into architecture dependent library tree
Appending installation info to C:\STRAWB~1\perl\lib/perllocal.pod
```

At this point you are all set.

Installing ora2pg

1) Go to https://sourceforge.net/projects/ora2pg/ to download ora2pg

2) Go to ora2pg installation folder

    cd ora2pg-19.1

3) Type perl Makefile.PL

```
c:\>cd ora2pg-19.1

c:\ora2pg-19.1>perl Makefile.PL
Checking if your kit is complete...
Looks good
Invalid LICENSE value 'GPLv3' ignored
Generating a gmake-style Makefile
Writing Makefile for Ora2Pg
Invalid LICENSE value 'GPLv3' ignored
Writing MYMETA.yml and MYMETA.json

Done...
----------------------------------------------------------------------------
Please read documentation at http://ora2pg.darold.net/ before asking for help
----------------------------------------------------------------------------
Now type: dmake && dmake install
```

4) Set the environment variables: ORACLE_HOME and LD_LIBRARY_PATH

    ORACLE_HOME=<Oracle client software location>

LD_LIBRARY_PATH=<Oracle client software location>/lib

In this install:

set ORACLE_HOME=C:\app\corp\virtual\product\12.2.0\dbhome_1

set LD_LIBRARY_PATH=C:\app\corp\virtual\product\12.2.0\dbhome_1\lib

```
c:\ora2pg-19.1>set ORACLE_HOME=C:\app\corp\virtual\product\12.2.0\dbhome_1

c:\ora2pg-19.1>set LD_LIBRARY_PATH=C:\app\corp\virtual\product\12.2.0\dbhome_1\lib
```

5) gmake && gmake install

```
c:\ora2pg-19.1>gmake && gmake install
cp lib/Ora2Pg.pm blib\lib\Ora2Pg.pm
cp lib/Ora2Pg/GEOM.pm blib\lib\Ora2Pg\GEOM.pm
cp lib/Ora2Pg/PLSQL.pm blib\lib\Ora2Pg\PLSQL.pm
cp lib/Ora2Pg/MySQL.pm blib\lib\Ora2Pg\MySQL.pm
"C:\Strawberry\perl\bin\perl.exe" -MExtUtils::Command -e cp -- scripts/ora2pg blib\script\ora2pg
pl2bat.bat blib\script\ora2pg
"C:\Strawberry\perl\bin\perl.exe" -MExtUtils::Command -e cp -- scripts/ora2pg_scanner blib\script\ora2pg_scanner
pl2bat.bat blib\script\ora2pg_scanner
Installing C:\STRAWB~1\perl\site\lib\Ora2Pg.pm
Installing C:\STRAWB~1\perl\site\lib\Ora2Pg\GEOM.pm
Installing C:\STRAWB~1\perl\site\lib\Ora2Pg\MySQL.pm
Installing C:\STRAWB~1\perl\site\lib\Ora2Pg\PLSQL.pm
Installing C:\STRAWB~1\perl\site\bin\ora2pg
Installing C:\STRAWB~1\perl\site\bin\ora2pg.bat
Installing C:\STRAWB~1\perl\site\bin\ora2pg_scanner
Installing C:\STRAWB~1\perl\site\bin\ora2pg_scanner.bat
"Installing default configuration file (ora2pg_dist.conf) to C:\ora2pg"
Appending installation info to C:\STRAWB~1\perl\lib/perllocal.pod
```

ora2pg is set.

Testing ora2pg installation

Type ora2pg –version as following:

```
c:\ora2pg-19.1>ora2pg --version
Ora2Pg v19.1
```

References

http://ora2pg.darold.net/documentation.html

http://strawberryperl.com/

https://www.oracle.com/technetwork/database/enterprise-edition/downloads/index.html

https://metacpan.org/pod/DBD::Oracle

https://blog.pythian.com/dbdoracle-and-windows-64bit/