

Oracle Database in x64 Operation Systems

Introduction

This document intends to clarify the steps needed on installing Oracle Database Express in a x64 Operational Systems, configuring Indusoft connection and setting up the StADOSvr.ini file. This document also intends to clarify the steps needed on connecting to the Oracle Database Server and installing the Oracle client.

The procedure here described is not the only solution available, although is one verified by InduSoft.

Notice that Oracle Database can be installed normally in x86 Operational Systems. Even so it is necessary to setup StADOSvr.ini.

Initial Considerations

Besides InduSoft tools all external software kits here related are available free of charge and easily found on internet. The source websites are listed at the end of this document.

During this process, some entries of the original system registry will be changed. Therefore, make sure you have full administration privileges. It is also strongly recommended that the user creates a backup of the current registry in case something goes wrong.

Configuring the StADOSvr.ini

The steps described below will guide users to configure the StADOSvr.ini.

- 1. From a workstation with InduSoft Web Studio installed, run the Notepad as Administrator.
- 2. File->Open and select the StADOSvr.ini from the BIN folder of the installation directory (e.g. *C:\Program Files\InduSoft Web Studio v7.0\BIN\StADOSvr.ini*):
- 3. In Count, add one to the value configured. (e.g. Count=8 to Count=9);



```
StADOSvr - Notepad
```

```
[Providers]
DefaultSaveMSec=3
DefaultAssembly=System.Data
DefaultConnectionClass=System.Data.OleDb.OleDbConnection
DefaultDataAdapterClass=System.Data.OleDb.OleDbDataAdapter
DefaultCommandBuilderClass=System.Data.OleDb.OleDbCommandBuilder
DefaultValueString=@Value
DefaultValueString=@Value
DefaultValueAddNumber=1
DefaultBoolType=INTEGER
DefaultIntegerType=INTEGER
DefaultIntegerType=RAL
DefaultRealType=RAL
DefaultStringType=VARCHAR(255)
DefaultTimeStampType=DATETIME
DefaultSingleConnection=0
```

4. After the last Provider, add the following one:

Assembly9=Oracle.DataAccess.Client ConnectionClass9=Oracle.DataAccess.Client.OracleConnection DataAdapterClass9=Oracle.DataAccess.Client.OracleDataAdapter CommandBuilderClass9=Oracle.DataAccess.Client.OracleCommandBuilder ValueString9=Value ValueAddNumber9=1 ValueAddNumber9=1 ValueStringPrefix9=: BoolType9=Number(1) IntegerType9=Number(10) RealType9=Number StringType9=VARCHAR(255) TimeStampType9=TIMESTAMP(0) EnableTop9=0 EnableRowCount9=1

NOTE: The number in front of the parameters must be the same as the value configured in Count.



StADOSvr - Notepad

File Edit Format View Help Assembly8=MySql.Data ConnectionClass8=MySql.Data.MySqlClient.MySqlConnection DataAdapterClass8=MySql.Data.MySqlClient.MySqlDataAdapter CommandBuilderClass8=MySql.Data.MySqlClient.MySqlCommandBuilder ValueString8=@Value ValueAddNumber8=1 EnableTop8=0 EnableLimit8=1 Provider9=MSDAORA2 Assembly9=Oracle.DataAccess.Client ConnectionClass9=Oracle.DataAccess.Client.OracleConnection DataAdapterClass9=Oracle.DataAccess.Client.OracleDataAdapter CommandBuilderClass9=Oracle.DataAccess.Client.OracleCommandBuilder ValueString9=Value ValueAddNuḿber9=1 ValueStringPrefix9=: BoolType9=Number(1) IntegerType9=Number(10) RealType9=Number StringType9=VARCHAR(255) TimeStampType9=TIMESTAMP(0) EnableTop9=0 EnableRowCount9=1

5. Save and close it.

Installing the Oracle Database Client

1. Download the Oracle Database Client x86 available in the following link:

http://www.oracle.com/technetwork/database/enterprise-edition/downloads/112010-win32soft-098987.html

- 2. Extract the files;
- 3. Run the setup.exe as Administrator;
- 4. Select the Administrator option;



| 👙 Oracle Client Installer - Configurando o Cliente - Etapa 1 de 6 | | | | |
|---|--|--|--|--|
| Selecionar Tipo de Instala | | | | |
| 🔎 🥥 Selecionar Tipo de Instalação | Que tipo de Instalação você deseja? | | | |
| Especificar a Localização da Ins | nstantClient (174,0MB) | | | |
| Executar Verificações de Pré-Re | iq Instala o Software Instant Client | | | |
| V Resumo | 💡 🧿 🛕 dministrador (1,02GB) | | | |
| 🍳 Instalar Produto | Instala a console de gerenciamento, ferramentas de gerenciamento, serviços de rede, utilitários e software | | | |
| U Finalizar | cliente básico. | | | |

- 5. Click in next;
- 6. In Oracle Base configure:

C:\app\oracle

7. In Software Localization configure:

C:\app\oracle\product\11.2.0\client_1

- 8. Click in next;
- 9. Follow the steps to install the software;
- 10. Copy the tnsnames.ora from the Oracle Server installation to the following path:

C:\app\oracle\product\11.2.0\client_1\network\admin\

11. Open the tnsnames.ora. In HOST, configure the IP of the server computer.

| This the second |
|---|
| File Edit Format View Help |
| <pre># tnsnames.ora Network Configuration File: E:\app\Administrator\product\11.2.0\db} # Generated by Oracle configuration tools.</pre> |
| <pre>DBORACLE = (DESCRIPTION = (ADDRESS = (PROTOCOL = TCP) (HOST = 10.12.136.70) (PORT = 1521)) (CONNECT_DATA = (SERVER = DEDICATED) (SERVICE_NAME = DBOracle)))</pre> |
| ORACLR_CONNECTION_DATA = (DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = IPC)(KEY = EXTPROC1521)) |



- 12. Reboot the computer;
- 13. Open the InduSoft Web Studio;
- 14. Click on the menu Ribbon->Project->Options->Default Database;
- 15. The connection string should be:

Provider=MSDAORA2; Data Source=DBNAME (e.g. Provider=MSDAORA2; Data Source=INDUSOFT)

16. In Username and Password, configure it based on the Username and password of the Oracle Server.

| Default Database Configuration | | | | |
|---------------------------------|-----------------------------------|--|--|--|
| Settings Database: Primary 💌 | | | | |
| Connection string: | Provider=MSDA0RA2; Data Source=IN | | | |
| User name: | indusoft | | | |
| Password: | ••••• | | | |
| Retry Interval: | 120 Secs. Advanced | | | |
| | OK Cancel | | | |

17. Click OK.

Installing the Oracle Database Express

1. Download the Oracle Database Client x86 available in the following link:

http://www.oracle.com/technetwork/database/database-technologies/expressedition/downloads/index.html

- 2. Extract the files;
- 3. Run the setup.exe as Administrator;
- 4. Specify a password to the Database;
- 5. During the installation, an error will occur because the Oracle Database Express is not certified to run in a X64 computer;





- You can force the Oracle installation if you create the Key_XE.reg file according the next steps.
- Open the path of the error, in this case:
 "C:\Users\VINICI~1.CHI\AppData\Local\Temp\{7300721B-3D22-4D5E-AEAA-12931A839FAB}\KEY.XE.reg";
- 8. Create a copy of the OracleMTSRecoveryService.reg file in this folder;
- 9. Rename the file to: KEY_XE.reg;

| Computer Local Disk (C:) Users Vinicius.Chicone AppData Local Temp {7300721B-3D22-4D5E-AEAA-12931A839FAB} | | | | | | |
|---|--|------------------|-----------------------------|--------|--|--|
| ✓ Include in library ✓ Share with ✓ Burn New folder | | | | | | |
| ites | Name | Date modified | Туре | Size | | |
| ktop | 🚳 _isres_0x0416.dll | 24/02/2014 16:22 | Application extens | 324 KB | | |
| vnloads | 🚳 _isuser_0x0416.dll | 24/02/2014 16:22 | Application extens | 256 KB | | |
| ent Places | ChkPortDll2.dll | 24/02/2014 16:22 | Application extens | 44 KB | | |
| pbox | 🚳 GetHostnameDII.dll | 24/02/2014 16:22 | Application extens | 40 KB | | |
| | InstallVS2K5 | 24/02/2014 16:22 | Windows Batch File | 1 KB | | |
| ies | ISBEW64 | 24/02/2014 16:22 | Application | 105 KB | | |
| uments | 🚳 ISRT.dll | 24/02/2014 16:22 | Application extens | 256 KB | | |
| sic | B KEY_XE | 24/02/2014 16:22 | Registration Entries | 1 KB | | |
| ures | Provide the second seco | 24/02/2014 16:22 | Rich Text Format | 22 KB | | |
| 205 | 🛃 OracleHorizontalBanner | 24/02/2014 16:22 | Bitmap image | 9 KB | | |
| | Ø OracleMTSRecoveryService | 24/02/2014 16:22 | Registration Entries | 1 KB | | |

- 10. Click on the OK button in the error installation to continue;
- 11. Open the path of your client installation: C:\app\oracle\product\11.2.0\client_1 and copy the tnsnames.ora and sqlnet.ora;
- 12. Open the Local Disk Folder (C:);
- 13. Create a new folder tnsora;



14. Paste the files in this new folder;

| ↓ Computer ↓ Local Disk (C:) ↓ tnsora | | | | |
|---------------------------------------|--------------|------|------------|------------------|
| ✓ Include in library ▼ | Share with 🔻 | Burn | New folder | |
| rites | Name | ^ | | Date modified |
| ktop | sqlnet | | | 24/02/2014 15:50 |
| vnloads | insnames 📄 | | | 24/02/2014 16:16 |

- 15. Open the tnsnames.ora file;
- 16. Now you need to include the XE connection, so replicate the first configuration (DBORACLE connection) in the end of the file content;

| - | | | | |
|---|--|--|----------------|------------|
| ſ | tnsnames - Notepad | | | |
| L | Ella Esta Estate Mission I Isla | | | |
| L | File Edit Format View Help | | | |
| | <pre># tnsnames.ora Network C # Generated by Oracle co</pre> | onfiguration File: E nfiguration tools. | :\app\Administ | rator\prod |
| | DBORACLE = (DESCRIPTION = | TCD) (40CT 10.13 | 126 70 (2027 | 1501 |
| h | (ADDRESS = (PROTOCOL | = 1CP)(HOSI = 10.12 | .136./U)(PORT | = 1521)) |
| L | (CONNECT_DATA = | | | |
| L | (SERVER = DEDTCATE | | | |
| L | | | | |
| L | (SERVICE_NAME = | Undo | | |
| L | | 01100 | | |
| L | | | | |
| L | | Cut | | |
| L | | cur | | |
| | ORACLR_CONNECTION_DAT | Conv | | |
| | (DESCRIPTION = | Сору | | |

17. Change the name and the Service_Name to XE and the HOST to localhost;



tnsnames - Notepad

```
File Edit Format View Help
# tnsnames.ora Network Configuration File: E:\app\Administrator\pro
# Generated by Oracle configuration tools.
DBORACLE =
  (DESCRIPTION =
    (ADDRESS = (PROTOCOL = TCP)(HOST = 10.12.136.70)(PORT = 1521))
    (CONNECT_DATA =
      (SERVER = DEDICATED)
      (SERVICE_NAME = DBOracle)
    )
  )
ORACLR_CONNECTION_DATA =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = IPC)(KEY = EXTPROC1521))
    (CONNECT_DATA =
      (SID = CLREXtProc)
      (PRESENTATION = RO)
    )
  )
LISTENER_DBORACLE =
  (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))
XE =
  (DESCRIPTION =
    (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))
    (CONNECT_DATA =
       (SERVER = DEDICATED)
      (SERVICE_NAME = XE)
    )
  ٦
```

- 18. Save and close it.
- 19. Open the Oracle Express installation folder:

C:\oraclexe\app\oracle\product\11.2.0\server\network\ADMIN

- 20. Copy the listener.ora file;
- 21. Paste it in the C:\tnsora\ folder;



| ↓ Computer ► Local Disk (C:) ► tnsora | | |
|---------------------------------------|-------------------------|------------------|
| ✓ Include in library ▼ | Share with 🔻 🛛 Burn New | folder |
| rites | Name | Date modified |
| ktop | listener | 24/02/2014 16:32 |
| vnloads | sqlnet | 24/02/2014 15:50 |
| ent Places | Insnames | 24/02/2014 16:16 |
| nhov | | |

- 22. Open the Control Panel->System and Security->System;
- 23. Select Advanced System Settings;



24. Select Environment Variables...;



| System Properties |
|--|
| Computer Name Hardware Advanced System Protection Remote |
| You must be logged on as an Administrator to make most of these changes. |
| Performance |
| Visual effects, processor scheduling, memory usage, and virtual memory |
| Settings |
| User Profiles |
| Desktop settings related to your logon |
| Settings |
| Startup and Recovery |
| System startup, system failure, and debugging information |
| Settings |
| Environment Variables |

25. In System Variables, select New;

| gram Files (x86)\Foxit Software\ |
|--|
| RPROFILE%\AppData\Local\Temp |
| RPROFILE%\AppData\Local\Temp |
| |
| |
| dexe\app\oracle\product\11.2.0\ |
| idexe\app\oracle\product\11.2.0\ rogram Files (x86)\Java\jre7\lib\e |
| |



- 26. In Variable Name, configure: tns_admin;
- 27. In Variable Value, configure: C:\tnsora;

| New System Variable | X |
|---------------------|-----------|
| Variable name: | tns_admin |
| Variable value: | C:\tnsora |
| | OK Cancel |

- 28. Click OK;
- 29. Reboot the computer;
- 30. Open the InduSoft Web Studio;
- 31. Click on the menu Ribbon->Project->Options->Default Database;
- 32. The connection string is:

Provider=MSDAORA2; Data Source=XE

33. In Username configure system, and in Password configure the password configured in the Oracle Express installation;

| Default Database Configuration | | | | |
|---------------------------------|-----------------------------------|--|--|--|
| Settings Database: Primary 🔻 | | | | |
| Connection string: | Provider=MSDA0RA2; Data Source=XI | | | |
| User name: | system | | | |
| Password: | ••••• | | | |
| Retry Interval: | 120 Secs. Advanced | | | |
| | OK Cancel | | | |

34. Click OK.



Final Considerations

The procedure here described installs Oracle Express and Oracle Client to run in x64 Operational Systems. It has been successfully executed on three different Microsoft systems including Windows Server 2008 R2, Windows 7 and Windows 8.



Map of Revision

| Revision | Author | Date | Comments |
|----------|------------------|-------------------|-------------------|
| A | Vinícius Chicone | February 25, 2014 | Document creation |