

Installer Prerequisite Document
Oracle FLEXCUBE Universal Banking
Release 14.7.3.0.0
Part No. F91985-01
[February][2024]



Table of Contents

1. INSTALLER PREREQUISITE SETUP	1-1
2. STEPS TO CONFIGURE TNS_ADMIN	2-9
2.1 CONFIGURING TNS ADMIN IN WINDOWS MACHINE	2-9
2.2 CONFIGURING TNS_ADMIN IN LINUX MACHINE	2-10

1. Installer Prerequisite Setup

The Overview of this document is to share you the knowledge on how Installer is designed.

Note: Install 12C Client, Maintain JAVA Latest Version.

TNS_ADMIN Configuration:

If the target database is Autonomous Database, TNS_ADMIN must be configured. Refer to the section 'Steps to configure TNS_ADMIN' for detailed steps to configure TNS_ADMIN.

Two installer modes has to be used during setup of environment:

1. GUI Installer –

Located under \INSTALLER\SOFT\GUI

GUI Installer will be required for below activities:

- Property File Creation
- Basic Setup
- Environment Property file configuration

2. Silent Installer –

Located under \INSTALLER\SOFT

Silent Installer will be required for below activities:

- Database Setup
- EAR Build

Source Structure:

The Installation can be done in different ways and Source Structure should be maintained as below:

1. ROFC without OBCL:

The ROFC_OSDC.zip can be used without any modifications.

2. ROFC with OBCL:

The OBCL folder from OBCL_OSDC.zip should be copied parallel to INFRA folder of ROFC_OSDC.zip.

In addition, copy the following class folders from \INFRA of OBCL OSDC.zip file to ROFC_OSDC extracted sources \INFRA folder

In addition, copy the following class folders from \ADAPTERS\FCEXternal of OBCL OSDC.zip file to ROFC_OSDC extracted sources \ADAPTERS\FCEXternal folder

- PIApps
- PCommon

- PIDto
- PIEJB
- PIENTITIES
- PIKernel
- PIKernelDao
- PIUtility
- COCommon
- CODto
- COEJB
- COEntities
- COKernel
- COKernelDao
- COUtility

3. ROFC with ELCM:

ELCM and POJO folders from ELCM_OSDC.zip should be copied parallel to INFRA folder of ROFC_OSDC.zip

In addition, copy the following class folders from \INFRA of ELCM OSDC.zip file to ROFC_OSDC extracted sources \INFRA folder

- ELCMCommon
- ELCMDto
- ELCMEJB
- ELCMENTITIES
- ELCMGateway
- ELCMKERNEL
- ELCMKERNELJPA
- ELCMUTILITY
- ELCMWEB

4. ROFC without ELCM:

The ROFC_OSDC.zip can be used without any modifications.

5. OBCL without ELCM:

The OBCL_OSDC.zip can be used without any modifications.

6. OBCL with ELCM:

ELCM and POJO folders from ELCM_OSDC.zip should be copied parallel to INFRA folder of OBCL_OSDC.zip

In addition, copy the following class folders from \INFRA of ELCM OSDC.zip file to ROFC_OSDC extracted sources \INFRA folder

- ELCMCommon
- ELCMDto
- ELCMEJB
- ELCMEntities
- ELCMGateway
- ELCMKernel
- ELCMKernelJpa
- ELCMUtility
- ELCMWeb

5. ELCM: The ELCM_OSDC.zip can be used without any modifications.

6. PM: The PM_OSDC.zip can be used without any modifications.

7. CO-DEPLOY: The OBCL folder from OBCL_OSDC.zip and PM folder from PM_OSDC.zip should be copied parallel to INFRA folder of ROFC_OSDC.zip

Environment Setup Steps:

Below are the sequence of steps to be followed during Environment Setup:

1. Property File Creation: (Refer: FCUBS_Property_File_Creation.docx)

Two property files will get generated

- "fcubs.properties" required for application (EAR).
- "env.properties" common property required for environment setup.

2. Populating environment property file: (Refer next section)

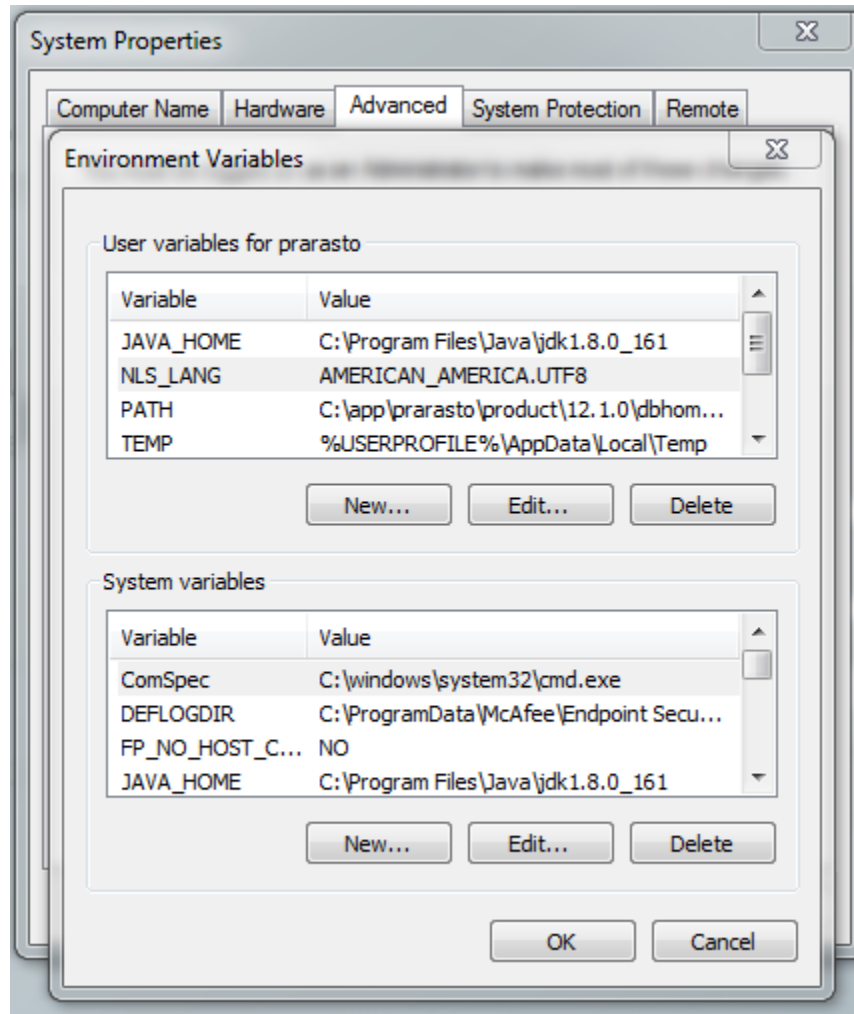
Database properties are to be populated from the "env.properties" generated during property file creation. Rest of the properties are to be manually updated.

3. NLS LANG settings:

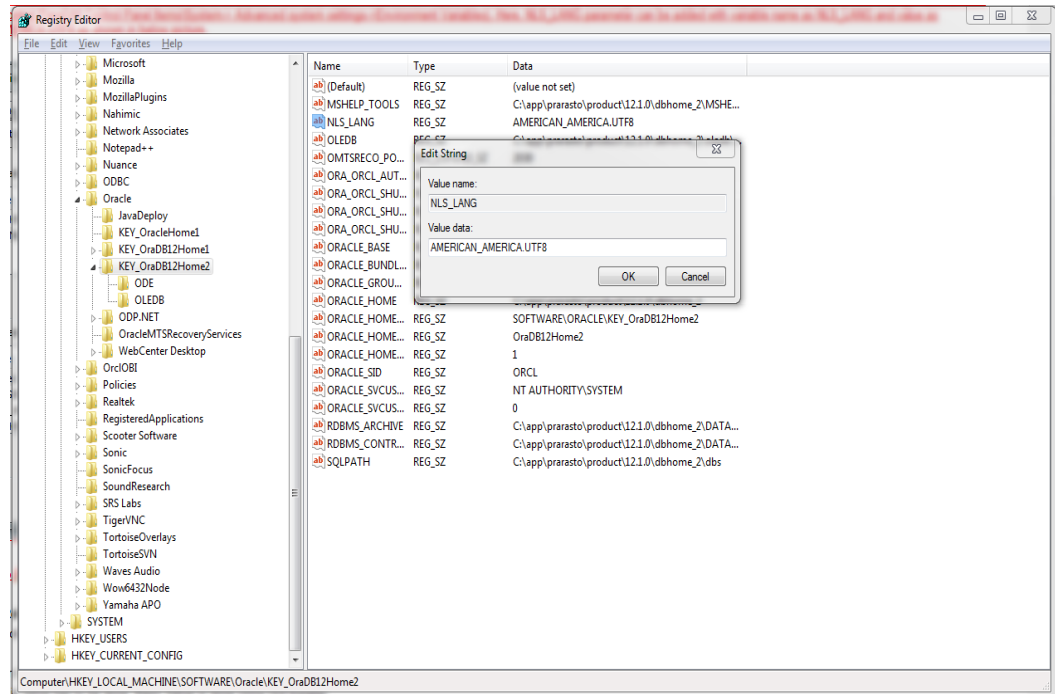
Before moving to DB setup, NLS_LANG parameter has to be added in the local system environment variables.

For Windows:

This can be done by browsing to My Computer->Properties->Advanced system settings->Environment Variables(or, Control Panel\All Control Panel Items\System->Advanced system settings->Environment Variables). Here, NLS_LANG parameter can be added with variable name as NLS_LANG and value as AMERICAN_AMERICA.UTF8 as shown in below picture.



After this, go to Run(shortcut:Windows+R), enter regedit, and click OK. It will open Registry Editor. Here, under Oracle DB KEY, NLS_LANG parameter can be added with variable name as NLS_LANG and value as AMERICAN_AMERICA.UTF8 as shown in below picture.



After this, please do a System Restart(Shutdown->Restart) so as to reflect the changes.

For Linux:

This can be done by opening a command bash shell and by setting environment variables in the command prompt,

```
export NLS_LANG= AMERICAN_AMERICA.UTF8
```

Running the above command in the installer location will set the environment variable in linux shell/terminal.

4. Database Setup: (Refer: FCUBS_DB_Setup.docx)

Database setup involves DDL Load, Object Compilation and Static Data Compilation.

5. Basic Setup: (Refer: FCUBS_DB_Setup.docx)

Post INC Load, basic setup has to be done. Basic Setup is done using GUI Installer.

6. Application EAR build: (Refer: FCUBS_EAR_Building)

FCUBS Application and Gateway EAR build can be done using the silent installer

Environment Property file configuration:

```
#Mon May 07 14:01:30 IST 2018
GW_PROPERTIES_PATH=D:/14.1/INSTALLER/Console_EXEC_24apr/Console_EXEC/INSTALLER/SOFT/
HOST_SMS=2/8gbcFjgT1KiiSYgRiG9anIzl3s66mDaAL9CF3Rt8I=
SYMMETRIC_KEY=oraclefinancialsolutions
ENTITY_ID2=ENTITY_ID2
ENTITY_ID1=ENTITY_ID1
PORT_SMS=1521
RECENT_BROWSE_LOCATION=C:/Users/piyushsh/Desktop/multi/fcubs.properties
CONTEXT_NAME=FCJNeoWeb
PASSWORD_SMS=AkAj+fQIxVwKdpHUeRMVcQ==
SOURCE_PATH=D:/14.1/INSTALLER/Console_EXEC_24apr/Console_EXEC
SCHEMA_NAME_ENTITY_ID2=VIZoPhrT9eG7FbuqqN/EYQ==
SCHEMA_NAME_ENTITY_ID1=Gz2Vvivp7T4XbStsj1DKww==
EXTERNAL_PROPERTY_PATH_REQUIRED=N
WEBLOGIC_HOME=C:/Oracle/Middleware/Oracle_Home/wlserver
SCHEMA_NAME_SMS=AkAj+fQIxVwKdpHUeRMVcQ==
PASSWORD_ENTITY_ID2=VIZoPhrT9eG7FbuqqN/EYQ==
COMPILE_IN_ALL_ENTITIES=Y
PASSWORD_ENTITY_ID1=Gz2Vvivp7T4XbStsj1DKww==
APPLICATION_TYPE=FCUBS
EXTERNAL_PROPERTY_PATH=
DECENTRALIZED=N
EAR_NAME=FCUBSMULT
EXTERNAL_JSUIXML_PATH=
EAR_DESTINATION_PATH=D:/14.1/INSTALLER/multi
ENTITY_NOS=2
DECENTRALIZED_FCUBS_PROPERTIES_PATH=
CONNECTING_STRING_ENTITY_ID2=FC141INSTESTPDB
CONNECTING_STRING_ENTITY_ID1=FC141INSTESTPDB
HOST_ENTITY_ID2=2/8gbcFjgT1KiiSYgRiG9anIzl3s66mDaAL9CF3Rt8I=
SERVICE_NAME_ENTITY_ID2=YtfaW53ngv1Tcgyh3fgZPA==
HOST_ENTITY_ID1=2/8gbcFjgT1KiiSYgRiG9anIzl3s66mDaAL9CF3Rt8I=
ConfigPath=D:/14.1/INSTALLER/Console_EXEC_24apr/Console_EXEC/INSTALLER/SOFT/config/A
SERVICE_NAME_ENTITY_ID1=YtfaW53ngv1Tcgyh3fgZPA==
PATCHSET_INSTALLATION=N
FCUBS_PROPERTIES_PATH=D:/14.1/INSTALLER/multi/fcubs.properties
ORACLE_HOME=C:/app/client/piyushsh/product/12.2.0/client_1
APPSERVER_HOME=C:/Oracle/Middleware/Oracle_Home/wlserver
CONNECTING_STRING_SMS=FC141INSTESTPDB
JAVA_HOME=C:/Program Files/Java/jdk1.8.0_151
PORT_ENTITY_ID2=1521
PORT_ENTITY_ID1=1521
SERVICE_NAME_SMS=YtfaW53ngv1Tcgyh3fgZPA==
EXTERNAL_JSUIXML_REQUIRED=N
```

NOTE: A single property file will be used for both DB Compilation and EAR build. Hence all the properties will be located in a single property file. Some properties may not be applicable during the certain setup and those should not be modified (should be left with default values).

Config Path

Absolute path to the folder containing the config files are to be provided. This is located under \INSTALLER\SOFT\config\Application

Java Home

Provide Home folder path of JDK1.8.

Oracle Home

Provide home folder path of Oracle Client or Database

Varedited

This property should not be changed. This is an internal property required by installer to identify if any changes are required in env.properties

Source and Destination Path

Specify the destination directory. Here destination path should be same as the source file path

FCUBS_PROPERTIES_PATH

Path where the fcubs property file is located .

GW_PROPERTIES_PATH

Provide the Gateways Properties Path.

APPLICATION_TYPE

Application Type is maintained as per the Application Name selected in the GUI Installer.

EXTERNAL PROPERTY PATH

If this is selected during installation, the corresponding path will be displayed here and the value of the parameter EXTERNAL PROPERTY FILE REQUIRED will be 'Y'.

EXTERNAL JSUIXML PATH

If this is selected during installation, the corresponding path will be displayed here and the value of the parameter EXTERNAL JSUIXML REQUIRED will be 'Y'.

EAR_NAME

Specify a name for the Application to be created.

EAR DESTINATION PATH

This is the local path where the built EAR will be saved. This gets updated automatically as per the path provided during the installation process.

CONTEXT_NAME

Specify a name for the Application Context

FCHome

Provide the FCHome Path. This will be the source path for DB setup/EAR build.

USER_NAME

Give the Schema Name

PASSWORD

Here Password should be encrypted. As Schema details provided by the GUI Installer, the env.properties file generates with the encrypted password.

Schema

Give the Instance Name.

NOTE: Path is maintained with '\\' as it is maintained only for WINDOWS. '\' slash will consider as an escape character so '\\' slash is given in windows.

On launch of GUI Installer for creating the property file, the env properties file gets generated which is present in **\\INSTALLER\\SOFT\\GUN\\logs** path will be copied to **\\INSTALLER\\SOFT\\logs** path. This method is followed for EAR creation and Back-end build as it is done by the Silent Installer.

If OBCL needs to install as Co-deployed along with ROFC then OBCL folder from OBCL OSDC zip should be placed parallel to ROFC folder in the ROFC OSDC zip.

If ELCM needs to install as Co-deployed along with ROFC then ELCM folder from ELCM OSDC zip should be placed parallel to ROFC folder in the ROFC OSDC zip. INFRA inside ELCM should be moved and merged with CORE INFRA.

If PAYMENTS needs to install as Co-deployed along with ROFC then PAYMENTS folder from PAYMENTS OSDC zip should be placed parallel to ROFC folder in the ROFC OSDC zip.

INFRA inside PAYMENTS should be moved and merged with CORE INFRA.

2. Steps to Configure TNS_ADMIN

Entry Criteria / Pre-Requisite:

- Oracle Database/Instant Client has to be install and present in the Windows or Linux Machine where this setup is being done.
- Autonomous Database Wallet provided by the Database Administrator

2.1 Configuring TNS ADMIN in Windows Machine

1. Create a new folder called TNS_ADMIN in Oracle Database/Instant Client Home path.

For example, Oracle Home path: C:/Software/Installation/WINDOWS.X64_193000_db_home

Name	Date modified	Type	Size
perl	7/5/2021 10:37 AM	File folder	
plsql	7/5/2021 10:37 AM	File folder	
precomp	7/5/2021 10:37 AM	File folder	
QOPatch	7/5/2021 10:37 AM	File folder	
R	7/5/2021 10:38 AM	File folder	
racg	7/5/2021 10:38 AM	File folder	
rdbms	7/5/2021 10:38 AM	File folder	
relnotes	7/5/2021 10:38 AM	File folder	
slax	7/5/2021 10:38 AM	File folder	
sqldeveloper	7/5/2021 10:38 AM	File folder	
sqlj	7/5/2021 10:38 AM	File folder	
sqlpatch	7/5/2021 10:38 AM	File folder	
sqlplus	7/5/2021 10:38 AM	File folder	
svrm	7/5/2021 10:38 AM	File folder	
suptools	7/5/2021 10:38 AM	File folder	
TNS_ADMIN	4/18/2022 3:17 PM	File folder	
ucp	7/5/2021 10:38 AM	File folder	
usm	7/5/2021 10:38 AM	File folder	
utl	7/5/2021 10:38 AM	File folder	
wwg	7/5/2021 10:38 AM	File folder	
xdk	7/5/2021 10:39 AM	File folder	
env.ora	8/26/2015 7:56 AM	ORA File	1 KB
schagent.conf	10/14/2016 4:20 PM	CONF File	3 KB
setup.bat	9/28/2018 11:35 PM	Windows Batch File	2 KB
setup.exe	11/14/2018 9:12 PM	Application	282 KB

2. Extract the Autonomous Database wallet inside the TNS_ADMIN folder.

^	□ Name	Date modified	Type	Size
	cwallet.sso	2/15/2022 10:17 AM	SSO File	7 KB
	ewallet.p12	2/15/2022 10:17 AM	Personal Information ...	7 KB
	keystore.jks	2/15/2022 10:17 AM	JKS File	4 KB
	ojdbc.properties	4/4/2022 12:14 PM	PROPERTIES File	1 KB
	README	2/15/2022 10:17 AM	File	4 KB
	sqlnet.ora	3/22/2022 1:11 PM	ORA File	1 KB
	tnsnames.ora	10/18/2022 10:01 AM	ORA File	9 KB
	truststore.jks	2/15/2022 10:17 AM	JKS File	4 KB

3. Edit the **sqlnet.ora** file and update the DIRECTORY path in the **sqlnet.ora** with the TNS_ADMIN folder path. Make sure to use \\ as the folder/directory separator in the path value.

For Example: C:\\Software\\Installation\\WINDOWS.X64_193000_db_home\\TNS_ADMIN

```

1 WALLET_LOCATION = {SOURCE = (METHOD = file) (METHOD_DATA = {DIRECTORY='C:\\Software\\Installation\\WINDOWS.X64_193000_db_home\\TNS_ADMIN'})}
2 SSL_SERVER_DN_MATCH=yes

```

4. Go to the **Edit the System Environment Variable** option in a machine and press **New** in the System Variables.
5. Enter the value for the Variable name as **TNS_ADMIN** and Variable value as TNS_ADMIN path and press **OK**.

Edit System Variable

Variable name:

Variable value:

2.2 Configuring TNS ADMIN in Linux Machine

1. Create a new folder called TNS_ADMIN in Oracle Database/Instant Client Home path.

Name	Size	Changed
oui		6/30/2022 1:01:17
owm		6/30/2022 1:00:26
perl		6/30/2022 1:00:26
plsql		6/30/2022 1:00:28
precomp		6/30/2022 1:00:26
QOpatch		6/30/2022 1:00:32
racg		6/30/2022 1:00:26
rdbsms		6/30/2022 1:00:26
relnotes		6/30/2022 1:00:26
sdk		6/30/2022 1:00:49
slax		6/30/2022 1:00:26
sqldeveloper		6/30/2022 1:00:26
sqlj		6/30/2022 1:00:26
sqlplus		6/30/2022 1:01:08
srvm		6/30/2022 1:00:26
suptools		6/30/2022 1:00:26
TNS_ADMIN		6/30/2022 1:58:01
ucp		6/30/2022 1:00:39
usm		6/30/2022 1:00:26
utl		6/30/2022 1:00:28
wwg		6/30/2022 1:00:26
wdk		6/30/2022 1:00:26

2. Extract the Autonomous Database wallet inside the TNS_ADMIN folder.

Name	Size	Changed
		6/30/2022 1:58:01 PM
cwallet.sso	7 KB	6/30/2022 1:58:01 PM
ewallet.p12	7 KB	6/30/2022 1:58:01 PM
keystore.jks	4 KB	6/30/2022 1:58:01 PM
ojdbc.properties	1 KB	6/30/2022 1:58:01 PM
README	4 KB	6/30/2022 1:58:01 PM
sqlnet.ora	1 KB	6/30/2022 1:58:01 PM
tnsnames.ora	3 KB	6/30/2022 1:58:01 PM
truststore.jks	4 KB	6/30/2022 1:58:01 PM
Wallet_ATPPDB01.zip	22 KB	6/30/2022 1:58:01 PM

3. Export the TNS_ADMIN path to the Linux machine.

export TNS_ADMIN=<Application Server TNS ADMIN path>

```
bash-4.2$ export TNS_ADMIN=/scratch/work_area/DEV/instantclient_19_14/network/admin
bash-4.2$ █
```



Installer Prerequisite Document
[February] [2024]
Version 14.7.3.0.0

Oracle Financial Services Software Limited
Oracle Park
Off Western Express Highway
Goregaon (East)
Mumbai, Maharashtra 400 063
India

Worldwide Inquiries:
Phone: +91 22 6718 3000
Fax: +91 22 6718 3001
<https://www.oracle.com/industries/financial-services/index.html>

Copyright © [2007], [2024], Oracle and/or its affiliates. All rights reserved.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate failsafe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.