# Development Workbench Service XML Development Oracle FLEXCUBE Investor Servicing Release 14.1.0.0.0 [May] [2019]





# **Table of Contents**

1 Preface	
1.1 Audience	
2 Introduction	
3 Service XML	
3.1 Process Steps	
4 ODT Silent Utility	
4.1 Prerequisites	
4.2 How to run utility on Windows/Unix	
4.3 Configuration of SilentODTUtility	
4.3.1 SilentOdt.properties	
4.3.2 ODTOperations.properties	
4.3.3 GW_CONFIG.properties	
4.4 Generation of Web service Artifacts through SilentOdtUtility	
4.4.1 Log Files	
4.4.2 Ant Build Scripts	
4.4.3 Gateway Property Files	

### **1** Preface

This document describes the webservice development using Oracle FLEXCUBE Development Workbench for Universal Banking.

### **1.1 Audience**

This document is intended for FLEXCUBE Application developers/users that use Development Workbench to develop various FLEXCUBE components.

To Use this manual, you need conceptual and working knowledge of the below:

Proficiency	Resources
FLEXCUBE Functional Architecture	Training programs from Oracle Financial Software Services.
FLEXCUBE Technical Architecture	Training programs from Oracle Financial Software Services.
FLEXCUBE Object Naming conventions	Development Overview Guide
Working knowledge of Web based applications	Self Acquired
Working knowledge of Oracle Database	Oracle Documentations
Working knowledge of PLSQL developer	Respective vendor documents
Working knowledge of PLSQL & SQL Language	Self Acquired
Working knowledge of XML files	Self Acquired

### 2 Introduction

This Document explains the steps to create/Modification of Service xml and generating webservice artifacts for building ear file using the Oracle FLEXCUBE Development Workbench for Universal Banking

### 3 Service XML

Oracle FLEXCUBE Development Workbench provides the developer with a user friendly console for defining a gateway service of FCUBS.

One Service XML corresponds to one Gateway Service. All the Function Ids which are part of the particular service would be captured in the Service XML along with the Operation details.

ODT assist developers in developing the webservice with the capability of generating the Following artifacts for building ear file.

Files	Description							
<service name="">Src\*Impl.java</service>	IMPL files for service							
<service name="">WSDL\*.wsdl</service>	WSDL files for service							
<service name="">Config\*.xml</service>	Config files							
<service name="">XSD\*.xsd</service>	Service specific xsd's							
<service name="">Common\*.xsd's</service>	Common XSD's (call forms ) part of service							
<service name="">\<service name="">\META- INF\application.xml</service></service>	Config XML's for building the Web service							
<service name="">\<service name="">\META- INF\MANIFEST.MF</service></service>								
<pre><service name="">\<service name="">\commons- codec-1.2.jar</service></service></pre>	Utility Jar for building the web service							
<service name="">\<service name="">\wscommon.jar</service></service>	Utility Jar for building the web service							
Sample Ant file	For building service ear file							

Note: Non-extensibility function Id's operations don't allow add/modify any existing service; it will allows delete operation only.

### 3.1 Process Steps

Login to the Oracle FLEXCUBE ODT using the credentials maintained (refer 02-ODT Administration.docx for creating users)

Map the session to the release and environment as required (Refer 03-ODT Getting Started.docx for detailed explanation)

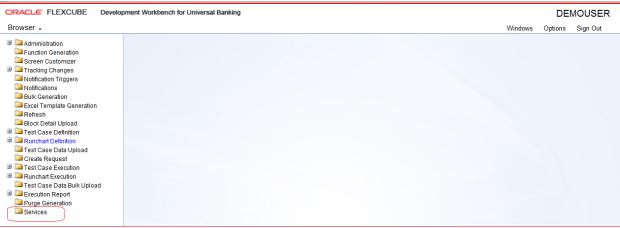


Fig 3.1: ODT Screen Showing Services Option

Click on Service node in the browser tree found in the Landing page of ODT.

Services window gets launched, while creating a new Service in ODT, below information needs to be provided in the Header section.

Services			-
Action New -	Service Name	12	
Save XML Path			
Service Description	Module	PE	
Function id Details		Ope	erations 🕂 🗕
Function ID	Ext/Non-Ext	Type Xsd Name	-
			-

Fig 3.2: Service Screen

While loading an Existing Service in ODT

	Choose File to Upload			-		22					
					Search Service	ρ					
Upload File Browse	Organize • New folder				III • 🚺	0				Operations	+-
chood int	My Documents	* Name	Date modified	Туре	Size	-	T)	pe Xsd Name			
	🔛 My Music	2 FCUBSACService	3/10/2014 7:01 PM	SXML File	4 KB						
	😫 My Pictures	FCUBSBLService	3/10/2014 7:01 PM	SXML File	1 KB						
	📓 My Videos	FCUBSBrokerService	3/10/2014 7:01 PM	SXML File	8 KB						
	Ji Oracle	FCUBSCAService	3/10/2014 7:01 PM	SXML File	2 KB						
	Saved Games	FCUBSCcyService	3/10/2014 7:01 PM	SXML File	14 KB						
	Searches	2 FCUBSCFService	3/10/2014 7:01 PM	SXML File	14 KB	Ε.					
	rt Computer	2 FCUBSCoreService	3/10/2014 7:01 PM	SXML File	18 KB						
	🏭 System (C:)	FCUBSCPGServices	3/10/2014 7:01 PM	SXML File	3 KB						
	📖 Data (D:)	2 FCUBSCustomerService	3/10/2014 7:01 PM	SXML File	7 KB						
	apache-ant-1.7.0-bin	FCUESDEService	3/10/2014 7:01 PM	SXML File	15 KB	1.2					
	🔐 apache-ant-1.9.2-bin	2 FCUBSGLService	3/10/2014 7:01 PM	SXML File	5 KB						
	🔒 app	FCUBSICService	3/10/2014 7:01 PM	SXML File	10 KB						
	L CALLFORM_PATH	2 FCUBSIFService	3/10/2014 7:01 PM	SXML File	2 KB						
	🗼 citi	2 FCUBSISService	3/10/2014 7:01 PM	SXML File	7 KB						
	🤣 Service	FCUBSLeadService	3/10/2014 7:01 PM	SXML File	1 KB						
	📕 СПТ_12.0	FCUBSLMService	3/10/2014 7:01 PM	SXML File	11 KB	-					
	File name: FCL	JBSCoreService			All Files (*.*)	-					
					Open Canc	el la					

Fig 3.3: Loading Service XML

3erv	rice Description Core Ser	vice		Module Core	
	Function id Details				Operations + -
		Function ID	Ext/Non-Ext	Type Xsd Name	
	STDCOUNT		Non-Extensible	ST-STCountryCodes-Types.xsd	
	CODSCHME		Non-Extensible	CO-RPSchMnt-Types.xsd	
	CODBENFT		Non-Extensible	CO-RPBenPlan-Types.xsd	
	CODELPLN		Non-Extensible	CO-RPEIPIan-Types.xsd	
	STDLCHOL		Non-Extensible	ST-LCHoliday-Types.xsd	
	CSDDEVPR	×E	Extensible	CS-Project-Types.xsd	
	CSDACCTR	×E	Extensible	CS-TransferAccount-Types.xsd	
	SMDUSHOL	×8	Extensible	SM-UserHoliday-Types.xsd	
	CSDACTRP	×E	Extensible	CS-AccountBranchMaintenance-Types.xsd	
	CSDDEVDT	×E	Extensible	CS-Developer-Types.xsd	
	CSDECASC	×E	Extensible	CS-Csdecasc-Types.xsd	
	CSDSNCSC	×E	Extensible	CS-Csdsncsc-Types.xsd	
	CSDACLTR	×5	Extensible	CS-AccountClassTransfer-Types.xsd	

Fig 3.4: Screen after Loading Service XML.

The Header portion of the Function Generation screens consists of the following fields:

#### Action

New and Load options are provided for this field. For a new Service development, select the action as New

If the action is load then corresponding Service xml has to be loaded using browser option in Save Xml Path; all the header information will get populated.

#### Service Name

If the action is selected as new, Service name has to be selected from service LOV.(Service LOV will fetch values from GWTM\_SERVICES\_MASTER For new service, service name needs to be added in GWTM\_SERVICES\_MASTER of business schema )

Services					 			 	 				 			
																×
Action New 💌	Servio	e Nam	e				/1									
Save XML Path																
Service Name	×				м	lodule					×=					
					(VI	loquie										
Service Name FCUBSCoreService																
Service Description													Opera	tions	+ -	
		Ext	Non-E:	xt					Т	ype X:	sd Nan	ne				^
Search Reset																
<< < 1of1 > >>																
Service Name Service Description																
FCUBSCoreService Core Service																
*																
																-

Fig 3.5: Lov to populate Service name.

### Service Description

On Select of service name service description will be populated in service description field

### Module

If the action is selected as New, Module has to be selected from Module LOV.(Module LOV will fetch values from SMTB\_MODULES of Business schema ).

Module Name need not always be from the LOV. Note that Artifacts would be generated based on the Module Name specified. Hence provide source Folder module names (Example: Core for CS) in this field

Servic	es											_ ×
												×
	Action New 🔻		Ser	rvice Name FC	UBSCoreService	•	1					
	Save XML Path											
Modul	e Code		×			Module		<b>5</b> 5	a			
						Module						
	Module Code ST											
	Module Description									Operations	+ -	
				Ext/Non-	Ext			Type Xsd Na	me			*
			Reset									
		<< < 1of1	> >>									
	Module Code	Module Description	*									
ST	Sta	tic Maintenance										
			-									-
-												

Fig 3.6: Lov to populate Module Code.

### Save Xml Path

If the action is New, save xml path is optional. If provided, then the generated units will be saved in the path mentioned.

Note that the value in the Save Xml Path will be used only if the Save Format is Client Path and if the User has given "CURRENT\_DIRECTORY" in the User Preferences Work Directory.

The label description of the field will change depending on the action .If the action is load, ODT attaches a Browse button to it so that user can browse the Service xml and load it.

Services			_ ×
			<b>X</b>
Action New 🔻	Service Name FCUBSCoreService	I	
Save XML Path D:RADTOOL			
Service Description Core Service	Module S	ST 🗾 🔁	
Function id Details			Operations + -
Function ID	Ext/Non-Ext	Type Xsd Name	·
			~

Fig 3.7: Screen to Show save Xml Path.

### Function Id Details:

Developer can attach the Function IDs which are part of this service. He can also remove the same from service if not required.

### **Function Id**

Select the function id from function id LOV for adding the function id for that service Function Id LOV will populate data from SMTB\_MENU. Make sure that FC\_FUNCTION\_ID values are selected for Function Id so that physical radxml file for the same function Id exists. Example: Select STDCIF and not STGCIF

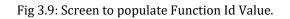
Services			-
Action New 🔻	Service Name FCUBSCoreService	E E	
Save XML Path D'RADTOOL			
Function Name~Module	2		
runcuon wante-module	Module	e ST 📕	
Function Name STDCIF			
Module ST			Operations + -
	Ext/Non-Ext	Type Xsd Name	*
Search Reset			
<<10f1>>>>			
Function Name Module STDCIF ST			
31			
			*

Fig 3.8: Lov to populate Function Id.

### Extensible/Non-Extensible:

On Select of Function id, this field value would be populated

Jeivic	••			= ^
	Action New 🔻	Service Name FCUBSCoreService	×E	
	Save XML Path D:\RADTOOL			
0.	rvice Description Core Service		le ST	
56	Nice Description Core Service	Modu		
_	Function id Details			Operations + -
	Function ID	Ext/Non-Ext	Type Xsd Name	
V	STDCIF 🗾	Extensible		
_				
				-



### Type Xsd Name:

Type XSD name would be defaulted along with Operations for an Extensible Function Id. For Non Extensible Function Id, Type XSD name has to be explicitly mentioned in the field

### **Operation:**

Operation Codes would be defined in each radxml which has to be defaulted in the Service XML as well. Select function id checkbox and click on Operations. Operation details popup screen will be displayed.

Services							
Action New   Service Name FCUB Save XML Path DIRADTCOL	SCORESE	RVICE	×5				
Operation Details X		Module [	51	P	5		
Load Radxml BROWSE							
	sible			Type Xsd Na	me	Operations	+ -
Default Operations							
Operation Code ^							
•							-
Ok							

Fig 3.10: Screen to Show Operations.

### **Operation Details Screen:**

### Load Radxml

Operation details screen attaches a Browse button to it so that user can browse the Function id RAD XML and load it to populate operations

Services															
		ction New - Path D \RADTO	OL			Service Na	me FCUBS	CORESERVI	CE	25				<b>x</b> ×	
Operation	Details						×	M	odule SI			×5			
Upload	Load Rac	ixml		BROWSE											
opiouu				^									Oper	alions 🕂 —	
						10 1 h 10		sible			Tyı	e Xsd Name		<b>^</b>	
	Upload	File		Browse		Default Oper	ations								
					]										
							Ŧ								
														Ŧ	
							Ok								

Fig 3.11: Screen to Load Radxml.

Default Operations: Click on Default operation. Operation code and Type Xsd Names will be default from loaded RADXML.

ation Details	×	Module	SI		*5		
Load Radxml STDCIF_RAD.xml BROWSE							
Summary Query Operation						Operation	s 🕂 –
perior	sible			Type Xsd F	tame		
Default Operation							
Operation Code enyCustomer							
elecustomer	-						
lifyCustomer							
norizeCustomer	-						
leteCustomer							
seCustomer							
openCustomer	-						
	-						
	+						

Fig 3.12: Screen to Default Operations..

### Save: ServiceXML

ODT saves all the activities carried out by the developer in an xml file hereby referred to as SXML. Persistence of the WEBSERVICE is achieved through SXML and RADXML.

If some changes are required on the webservice in a future release, the same SXML can be loaded and changes can be done on this SXML. ODT can segregate the changes done on different releases and saves the SXML accordingly.

SXML will adhere to following naming convention Service Name + .sxml Example: FCUBSCoreService.sxml

## 4 ODT Silent Utility

The Following operations are supported in silent utility of ODT

- 1. LOGIN
- 2. SETRELEASE: Setting Release and Environment Details
- 3. BULKGENERATION: Bulk Generation of RADXML's units
- 4. REFRESH: Bulk refresh of RADXML's
- 5. SXML\_REFRESH: Bulk refresh of Service XML's
- 6. SXML\_UPDATER: Bulk Updater of service XML's based on the changes in RADXML's
- 7. SXML\_BULKGENERATION: Bulk Generation of web service artifacts.

Execution of Operation will be as per the sequence maintained in OdtOperations.properties.

Example: 1. Operation = LOGIN

2. Operation= SETRELEASE

3. Operation=REFRESH

If sequence of operations is as above, then Login Operation, Set Release and Refresh Operations would be processed in respective sequence

### Note: login and set release are mandatory operations to be performed.

### 4.1 Prerequisites

• JDK

### License Information:

JDK is distributed by Sun Microsystems, Inc under Java Development Kit Binary Code License agreement. *Instructions:* Installer requires JDK 1.7 xx, xx version to be downloaded in the system and the sa

Installer requires JDK 1.7.xx\_xx version to be downloaded in the system and the same Should be set as environmental variable

• Apache Ant 1.7.1

Instructions:

Installer requires ANT 1.7.1 version to be downloaded in the system and the same should be set as environmental variable

### 4.2 How to run utility on Windows/Unix

After copying the installer sources and library folder to your local system, make sure you uncheck the read only check box in source properties and apply the same to all the sub folders. The screen shot below shows how the source folder in your local system should look like.

ile Edit View Tools Help			
Organize 👻 Include in library 👻	Share with 🔻 🛛 Burn	New folder	
Name	Date modified	Туре	Size
🛃 lib	3/11/2014 10:44 AM	File folder	
🏂 resource	3/11/2014 10:44 AM	File folder	
🔊 readme.txt	3/11/2014 10:44 AM	Text Document	4 KB
🔊 silentodt.bat	2/5/2014 4:14 PM	Windows Batch File	1 KB
🔊 silentOdt.sh	2/5/2014 4:14 PM	SH File	1 KB

Fig 4.2.1: Source of SilentODTUtility.

### 4.3 Configuration of SilentODTUtility

All Configuration files can be found inside /resource folder of the utility. **Note:** Please copy jaxb-xjc.jar to lib folder. This can be obtained from application server libraries. For example, in Weblogic 12c <Oracle\_Home>\oracle\_common\modules\com.sun.xml.bind.jaxb-jxc.jar

Also make sure ojdbc6.jar is available under lib folder

#### 4.3.1 SilentOdt.properties

The sample property file has been given below. Please refer the details mentioned for each property in the below table. Some of them are encrypted using ODTPassEncryption.bat (ODTPassEncryption.sh for unix). Use 16 characters length of symmetric key for encryption (Preferably Alphanumeric) which will be prompted for input from user when the encryption utility is lunched. The same symmetric key must be mentioned in the property file as well.

```
2 ##ODT Version ==> 12.2/12.1/12.0.2/12.0.1/11.4 etc
3 ##type ==> FCUBS/FCIS/ELCM ; specifies the product
4 ##release
          ==> Release of the product specified
6 odtVersion=12.2
7 #FCUBS, FCIS, ELCM, PAYMENTS
8 type=FCUBS
9 release=FCUBS_12.2.0.0.0
10 productDesc=Oracle FLEXCUBE Universal Banking
11 ReleaseMonth=May
L2 ReleaseYear=2016
13
14 ###ODT DataSource Credentials
L6 OdtJdbcUrl=040fjmATqNKRRdNFP9UR3eeXUUMaPnZJ1gtHVtXkIyVEgM1qCkuNqcIs96vR4NFq
L7 OdtDbUser=0DT121
L8 OdtDbPassword=ITgBkLEJpG06AuYE6jJkmg==
19 SymmetricKey=oraclefinancials
20
22 #logread Default set to N
23 #Default Path set to User Home directory, if not provided
24 #LEVEL ==>DEBUG/INFO/WARNING/SEVERE ; default value is INFO
26 logreqd = Y
27 logpath = D:/DESTTEMPDIR/ODT/log.txt
28 level = DEBUG
29
30
32 ##JAVA HOME is mandatory
33 ##WEBLOGIC and WebSphere Home would be required only if ANT scripts are being generated.
34 ##Use Backward Slash(\) for File Separator
36 JAVA HOME=C:\Program Files\Java\jdk1.8.0 73
37 WEBLOGIC_HOME=D:\Oracle\Middleware
38 WAS HOME=D:\WAS
```

ODT Data Source Detail Credentials					
OdtJdbcUrl	Jdbc Url jdbc:oracle:thin:@10.184.xx.xx:1521:FCDEMO				
OdtDbUser	DB User name				
OdtDbPassword	DP Password				
Logger Properties					
Logreqd	Y/N. Default set to N,				
Logpath	Provide the path where the Logger files will be generated.				
Level	Provide the Logger Level.				
	This can be either DEBUG/INFO/WARNING/SEVERE.				
	Provide as DEBUG for writing detailed log.				
	Default value would be set to INFO				
	System Properties:				
JAVA_HOME	Maintain the Java installed location				
WEBLOGIC_HOME	Maintain the oracle weblogic installed location				

WAS HOME	Maintain the IBM websphere installed location

<u>Note:</u> WEBLOGIC\_HOME and WAS\_HOME are optional and would be used for generating template Ant scripts whereas JAVA\_HOME is mandatory to run silentOdt utility

### 4.3.2 ODTOperations.properties

Configure the Operations files as per Requirement.

The Following operations are supported in silent utility of ODT

- 8. LOGIN
- 9. SETRELEASE: Setting Release and Environment Details
- 10. BULKGENERATION: Bulk Generation of Radxml units
- 11. REFRESH: Bulk refresh of radxml
- 12. SXML\_REFRESH: Bulk refresh of Service Xmls
- 13. SXML\_UPDATER: Bulk Updater of service Xmls based on the changes in radxml's
- 14. SXML\_BULKGENERATION: Bulk Generation of web service artifacts.

Execution of Operation will be as per the sequence maintained in OdtOperations.properties. *Example:* 

1. Operation = LOGIN

2. Operation= SETRELEASE

3. Operation=REFRESH

If sequence of operations is as above, then Login Operation, Set Release and Refresh Operations would be processed in respective sequence

### Note: login and setrelease are mandatory operations to be performed.

#### 4.3.3.1 Login

**Userid:** Provide the ODT Userid which is created in the ODT Application **Password:** Provide the ODT Password which is created in the ODT Application

25 1.operation = LOGIN
26 1.userId= RADTOOL
27 1.password= wS/PEjVOI5pdJ7aYvjLuNQ==
28

Fig 4.3.3.1: SilentODT Login Properties

Login to Tool				
operation	Login			
Userid	ODT Userid which is created in the			
	ODT Application			
password	ODT Password which is created in the			
	ODT Application. Encrypted using			
	ODTPassEncryption.bat. Refer section			
	4.3 for more details about encryption.			

Login should always be the first operation which to be configured as part of any execution

### 4.3.3.2 Set Release

This operation can be used for setting Release and Environment Preferences for SilentODTUtility

**relcode:** Provide the ODT Release Code which is created in the ODT Application **envCode:** Provide the ODT Environment Code which is created in the ODT Application **langcode:** Provide the Lang code for above mentioned release code

Connection to the FLEXCUBE schema would be established based on data maintained in ODT or through the data in env\_config.xml as explained in earlier section

6	##Set Release and Environment for the User
7	## 2.operation= SETRELEASE
8	## 2.relCode=MODEL_BANK
9	## 2.envCode=MODEL_BANK_DEV_ENV
10	## 2.langCode=ENG
11	
10	

Fig 4.3.3.2: SilentODT Set Release Properties

Set Release and Environment for User					
operation	SETRELEASE				
relCode	ODT Release Code which is created in the ODT Application				
envCode	ODT Environment Code which is created in the ODT Application				
langCode	Lang code for above mentioned release code				

### **4.3.3.3** Bulk Generation

For generating all radxml artifacts for release in bulk this feature can be used.

**radxmlListFile**: Prepare text file which contains absolute path of all radxml's. Provide same file path

**srcPath**: source Path Refers to the path where all radxml's are presented .List File would be generated by the Tool in this case.

Note that only either of radxml List File or srcPath should be present .If both is present, then radxmlListFile parameter would be considered for Bulk Generation

### fileType *:*

EXTENSIBLE – artifacts generated only for extensible screens

NON\_EXTENSIBLE - artifacts generated only for non-extensible screens

BOTH - artifacts for all files would be generated

destPath: Provide the path where the files will be generated.

gen: Provide the type of files to be generated

example : UIXML, SYS\_JS, MAIN\_SPC, MAIN\_SQL, KERNEL\_SPC, KERNEL\_SQL

12		
13	##Bulk Generation Utility	
14	<pre>## 3.operation=BULKGENERATION</pre>	
15	## 3.radxmlListFile=D:\ODT123\ABC.TXT	A File containing absolute path of all radxmls to be processed
16	## #3.srcPath=Z:\FCUBS12.0\MAIN	Source Path Refers to the path where all radxmls are presnt.List File
	would be generated by the Tool in this cas	se.
17	##	Note that only either of radxmlListFile or srcPath should be present .
18	##	If both are present ,then radxmlListFile would be considered for Bulk
	Generation	
19	## 3.fileType=EXTENSIBLE	EXTENSIBLE/NON_EXTENSIBLE/BOTH
20	## 3.destpath=D:\RADTOOL	destination Path
21	## 3.gen = UIXML,SYS_JS	Files to be Generated seperated by coma. Possible entries are listed below
22	##	
	UIXML, SYS_JS, MAIN_SPC, MAIN_SQL, KERNEL_SPC,	.KERNEL_SQL,CLUSTER_SPC,CLUSTER_SQL,CUSTOM_SPC,CUSTOM_SQL,UPLOAD_SPC,UPLOAD_SQ
	L,	
23	##	
	UPLOAD_TRIGGER, UPLOAD_TABLE_DDL, XSD_FILES,	MENU_DETAILS, LABEL_DETAILS, AMEND_DETAILS, SUMMARY_DETAILS, SCREEN_DETAILS, LOV_D
	ETAILS,	
24	##	
	BLOCK_PK_COLS, CALL_FORM_DETAILS, BLOCK_DETA	AILS, DATASCR_DETAILS, FUNCTION_CALL_FORMS, GATEWAY_DETAILS, NOTIFICATION_DETAILS,
	FUNCTION_PARAMETERS	
25	## NOTIFICATION_TRIGGER, PURGE_DETAILS, AF	RCHIVE_TBL_DEF
26	<u>\</u>	

Fig 4.3.3.3: SilentODT Bulk Generation Properties

Bulk Generation Utility				
Input	Output			
radxmlListFile	UIXML,SYS_JS,MAIN_SPC,MAIN_SQL,KERNEL_SPC,KERNEL_SQL,			
srcPath	CLUSTER_SPC,CLUSTER_SQL,CUSTOM_SPC,CUSTOM_SQL,			
fileType	UPLOAD_SPC,UPLOAD_SQL,UPLOAD_TRIGGER,UPLOAD_TABLE_DDL,			
gen	XSD_FILES,MENU_DETAILS,LABEL_DETAILS,AMEND_DETAILS,			
destpath	SUMMARY_DETAILS,SCREEN_DETAILS,LOV_DETAILS,			
	BLOCK_PK_COLS,CALL_FORM_DETAILS,BLOCK_DETAILS,			
	DATASCR_DETAILS,FUNCTION_CALL_FORMS,GATEWAY_DETAILS,			
	NOTIFICATION_DETAILS, FUNCTION_PARAMETERS			
	NOTIFICATION_TRIGGER,PURGE_DETAILS,ARCHIVE_TBL_DEF in destpath			

### 4.3.3.4 Refresh

Refresh Functionality allows developers to upgrade the existing radxml to its later version keeping the sub version specific changes intact. Three kinds of refresh can done using the Tool.(Please refer the 09-Development\_WorkBench\_Source\_Upgrade.docx)

- 1) Child Refresh
- 2) Screen Child Refresh
- 3) Source Refresh

### Refresh Type: Provide the refresh Type

(CHILD\_REFRESH/SCRCHILD\_REFRESH/SOURCE\_REFRESH)

srcFileList: A txt File containing the List of all Sources radxml's. I.e. radxml's which has to be refreshed

**baseFileList:** A txt File containing the List of all base radxml's.

srcReIType: Provide the release type of Source Radxmls list(KERNEL/CLUSTER/CUSTOM)

baseRelType: Provide the release type of base Radxmls list (KERNEL/CLUSTER/CUSTOM)

destpath: Provide the path where the files will be generated

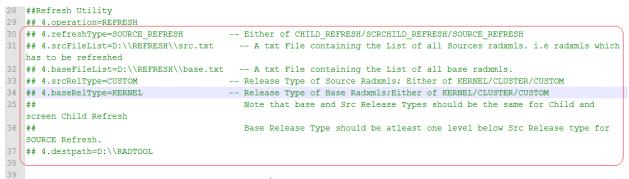


Fig 4.3.3.4: SilentODT Refresh Properties

Refresh Utility				
Input	output			
refreshType	Refreshed Radxml's in destpath			
srcFileList				
baseFileList				
srcRelType				
baseRelType				
destpath				

### **4.3.3.5** Service XML Bulk Generation

Web service artifacts can be generated through this operation

sxmlListFile: Prepare text file which contains absolute path of all Service xml .

- radxmlListFile: Prepare text file which contains absolute path of all radxmls which are used for those services .
- **xsdListFile:** Prepare text file which contains absolute path of all XSDs which are used for those services. Non-extensibility/Common XSDs are copied from this path

**srcPath :** provide source folder path which is option (Tool will create radxmlListFile and xsdListFile by itself from the srcPath

Note that if srcPath is provided, radxmlListFile and xsdListFile need not be provided

gen: Provide type of Files to be Generated (separated by coma) . Options are IMPL\_FILE, CONFIG\_FILES,WSDL\_FILE,XSD\_FILES,GW\_WS\_PROP\_FILES,ANT\_BUILD

**nonExtServicesReqd**: Y/N Specifies whether NonExtensible Operations has to included in the generated Components

**destpath:** Provide the path where the files will be generated. **validateXsds** : Y/N. Default set to Y, *If value set to 'Y' all XSD will be validated by tool* 

40	## Service XML Componenet Generator	
41	## 5.operation=SXML_BULKGENERATION	
42	## 5.sxmlListFile=D:\\ODT123\\TEST\\srcFile.TXT	List Of Absolute path of all sxml files in a text file
43	## 5.radxmlListFile=	A txt File containing the List of all radxmls.
44	## 5.xsdListFile=	A txt File containing the List of all xsds. This
	parameter is required only if NonExt Operations are Required	d.
45	##	Nonextensile XSds are copied from this path
46	## 5.srcPath=Z:\\EXEC\\FLEXCUBE_Kernel\\FCUBS_12.0.0\\MAIN	Src Path. Tool will create radxmlListFile and
	xsdListFile by itself from the srcPath if provided	
47	##	Note that if srcPath is provided,radxmlListFile and
	xsdListFile need not be provided	
48	<pre>## 5.gen=IMPL_FILE,CONFIG_FILES,WSDL_FILE,XSD_FILES</pre>	Files to be generated. Possible entries are Listed
	below	
49	##	
	IMPL_FILE, CONFIG_FILES, WSDL_FILE, XSD_FILES, GW_WS_PROP_FILES	,ANT_BUILD
50	## 5.nonExtServicesReqd=Y	Y/N Specifies whtherNonExtensible Operations has to
	included in the Generated Components	
51	## 5.destpath=D:\RADTOOL	destination Path
52	## 5.validateXsds=Y	validate the xsds Y/N

Fig 4.3.3.5: SilentODT Service XML Bulk Generation Properties

Service XML Component Generator		
Input	output	
sxmlListFile		
radxmlListFile	IMPL_FILE,CONFIG_FILES,WSDL_FILE,XSD_FILES,GW_WS_PROP_FIL	
xsdListFile	ES,ANT_BUILD in destpath	
srcPath		
nonExtServicesReqd		
destpath		
validateXsds		

### **4.3.3.6** Service XML Updater

This feature can be used to update the Service XMLs with the latest data from Radxmls. Following details will be updated.

- 1) Any addition, deletion or modification of operation codes in function Id would be updated in Service XML
- 2) If any **function Id is removed from the service (specified in radxml)**; then the same would be removed from Service XML

Note that if any **new function Id** is attached to the service (in Radxml); then the same will **not be updated in the Service XML**. This has to added manually in the Service XML through ODT user interface

**Operation**: SXML\_UPDATE

sxmlListFile: Prepare text file which contains absolute path of all Service xml. Provide same file path .

**radxmlListFile:** Prepare text file which contains absolute path of all radxmls which are used for those services . Provide same file path

**srcPath**: Provide source folder path. This field is optional (Tool will create radxmlListFile and SxmlListFile by itself from the srcPath)

Note that if srcPath is provided, radxmlListFile and sxmlListFile need not be provided

destpath: Provide the path where the files will be generated.

**confirmStage** : SINGLE\_STAGE\_UPDATE(Default Value should not be modified by developer)

56	## Service XML Updater			
57	## 6.operation=SXML_UPDATER			
58	## 6.sxmlListFile=D:\\ODT123\\TEST\\srcFile.TXT	List Of Absolute path of all sxml files in a text file		
59	<pre>## 6.radxmlListFile=</pre>	A txt File containing the List of all radxmls.		
60	## 6.xsdListFile=	A txt File containing the List of all xsds. This		
	parameter is required only if NonExt Operations are Required	l.		
61	##			
62	<pre>## 6.srcPath=Z:\\EXEC\\FLEXCUBE_Kernel\\FCUBS_12.0.0\\MAIN</pre>	Src Path. Tool will create radxmlListFile and		
	xsdListFile by itself from the srcPath if provided			
63	##	Note that if srcPath is provided,radxmlListFile and		
	xsdListFile need not be provided			
64	## 6.destpath=D:\\RADTOOL	destination Path		
đ5_	<pre>## 6.confirmStage=SINGLE_STAGE_UPDATE</pre>			
	SINGLE_STAGE_UPDATE/UPDATE_FROM_STAT_FILES/STAT_FILE_GEN			
66	##	SINGLE_STAGE_UPDATE : Updation of service Xmls in		
	one step process.			
67	##	If any New function id is found mapped to a		
	Service, it will not be updated.			
68	##	STAT_FILE_GEN : First Stage if Updation carried in		
	2 Steps. generates Stat Files in destPath.			
69	##	User can decide whether to update new		
	FunctionId's to Service Xmls			
70	##	UPDATE_FROM_STAT_FILES : Second Step . Utility will		
	update the Service Xml based on the confirmation			
71	##	information provided by User in the Stat files		
	generated in previous Stage.Stat Files has to be placed in the destPath			
72	#			

Fig 4.3.3.6: SilentODT Service XML Updater Properties

Service XML Updater		
Input	output	
sxmlListFile	updated Service XML's in destpath	
radxmlListFile		
xsdListFile		
srcPath		
destpath		
confirmStage		

### 4.3.3.7 Service XML Refresh

Refresh Functionality allows us to upgrade the existing service xml to its later version keeping the sub version specific changes intact.

- **srcFileList:** Prepare text file which contains absolute path of all Service xml, same file should be provide i.e. service xml which has to be refreshed
- **baseFileList:** Prepare text file which contains absolute path of all base service xmls. Provide same file path .
- For instance, for a custom development team ; all the latest Kernel files has to mentioned in baseFileList while the custom Service XMLs to be refreshed has to be mentioned in the srcFileList

srcReIType: Provide the release type of Source Radxmls list(KERNEL/CLUSTER/CUSTOM)

**baseRelType:** Provide the release type of base Radxmls list (KERNEL/CLUSTER/CUSTOM)

baseRelType should be at least one level below srcRelType for SOURCE Refresh.

For Instance, for a custom development team, srcReIType would be CUSTOM and baseReIType can be either KERNEL/CLUSTER depending on the base source type

destpath: Provide the path where the files will be generated.

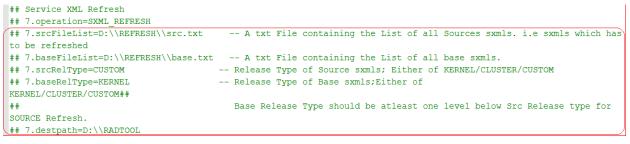


Fig 4.3.3.7: SilentODT Service XML Refresh Properties

	Service XML Refresh
operation	Refreshed Service XML's in destpath
srcFileList	
baseFileList	
srcRelType	
baseRelType	
destpath	

### 4.3.3 GW\_CONFIG.properties

This properties files parameters are used for generation gateway web service properties files. This configuration file is optional. Provide only if Gateway Web service property files (**GW\_WS\_PROP\_FILES**) is being generated as part of Service XML Bulk generation operation

EJB\_APP\_NAME: Provide Name of the deployed EJB Application

**EJB\_APP\_SERVER:** Provide Application server name in which ear deployed

EJB\_JNDI\_NAME: EJB JNDI Name is the reference name of the ejb by which the ejb has

been deployed

EJB\_SERVER\_URL: Application server IP Address & port where the EJB application is deployed.

**EJB\_SERVER\_USERNAME:** User Name of the application server where the EJB application is deployed.

**EJB\_SERVER\_PASSWORD:** Password of the application server where the EJB application is deployed

**GW\_WS\_LOGGER\_PROP\_FILE\_PATH:** Provide the Location of Logger Property File path in the server where web service is to be deployed. Provide path including the file name. *Example.: D:/Kernel11.1/GW\_WS/config/gw\_ws\_logger.properties(Windows path)* /oraint1/kernel//Gateway/GWWS/config/gw\_ws\_logger.properties (Linux or UNIX)

**GW\_WS\_LOGGER\_FILE\_PATH:** Provide the location where debug files will be written Example : D:/Kernel11.1/GW\_WS/log/ (Windows) /oraint1/kernel/FC120INS\_DEBUG/Gateway/GWWS/log (Linux or Unix)

**GW\_WS\_PROP\_FILE\_PATH:** Path where property file is placed in the server. This will be referred in web.xml of web service property file

Example: D:/Kernel11.1/GW\_WS/prop/ (Windows) /oraint1/kernel/FC120INS\_DEBUG/Gateway/GWWS/prop (Linux or UNIX)

##Location of Logger Property File path in the server where Webservice is to be deployed.
##Provide Path Including File Name
GW\_WS\_LOGGER\_PROP\_FILE\_PATH=/home/oral1gas/Gateway11.0/GW\_WS/config/gw\_ws\_logger.properties
##Location where Debug Files will be written
GW\_WS\_LOGGER\_FILE\_PATH=/home/oral1gas/Gateway11.0/GW\_WS/log
#Location of Gateway Property File. If not provided ; assumed to be same as of Logger property File Path
GW\_WS\_PROP\_FILE\_PATH=/home/oral1gas/Gateway11.0/GW\_WS/prop

XSD\_PATH=/home/oral1gas/Gateway11.0/GW\_WS/XSD

EJB SERVER PASSWORD=weblogic1

Fig 4.3.4.1: SilentODT GW Config Properties

	GW_CONFIG
EJB_APP_NAME	Provide Name of the deployed EJB Application
EJB_APP_SERVER	Provide Name of the deployed EJB Application

EJB_JNDI_NAME	<i>EJB JNDI Name</i> is the reference name of the ejb by which the ejb has been deployed
EJB_SERVER_URL	Application server IP Address & port where the EJB
	application is deployed.
EJB_SERVER_USERNAME	User Name of the application server where the EJB
	application is deployed.
EJB_SERVER_PASSWORD	Password of the application server where the EJB
	application is deployed.
GW_WS_LOGGER_PROP_FILE_PATH	Provide the Location of Logger Property File path in
	the server where web service is to be deployed.
	Provide path including the file name.
GW_WS_LOGGER_FILE_PATH	Provide the location where debug files will be written
GW_WS_PROP_FILE_PATH	Path where property file is placed in the server. This
	will be referred in web.xml of web service property file.
XSD_PATH	XSD Path.

### 4.4 Generation of Web service Artifacts through SilentOdtUtility

To generate web service artifacts for a service, configure the property files of the utility as explained in the previous section.

Following operations needs to be configured in OdtOperations.properties in respective sequence 1) LOGIN

2) SETRELEASE

.

3) SXML\_BULKGENERATION

Provide following values for gen parameter of SXML\_BULKGENERATION IMPL\_FILE, CONFIG\_FILES, WSDL\_FILE, XSD\_FILES, GW\_WS\_PROP\_FILES, ANT\_BUILD

Double click the batch file silentOdt.bat/sh present in the ODT source.

)rganize 🔻 🛛 Include in library 🔻	Share with 🔻 🛛 Burn	New folder		
lame	Date modified	Туре	Size	
🏂 lib	3/11/2014 10:44 AM	File folder		
🏂 resource	3/11/2014 10:44 AM	File folder		
🛐 readme.txt	3/11/2014 10:44 AM	Text Document	4 KB	
🔊 silentodt.bat	2/5/2014 4:14 PM	Windows Batch File	1 KB	
📝 silentOdt.sh	2/5/2014 4:14 PM	SH File	1 KB	

#### Fig 4.4.1: SilentODT Sources

This displays the screen as follows.

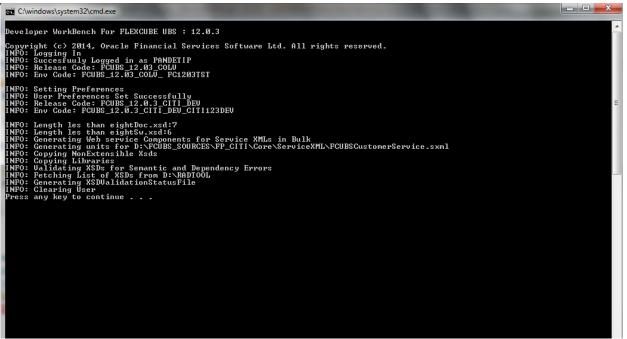


Fig 4.4.2: SilentODT Running in Command Prompt

After successful built operation, The Following Service artifacts files will be generated in the destination directory specified

Files	Description	
<service name="">Src\*Impl.java</service>	IMPL files for service	
<service name="">WSDL\*.wsdl</service>	WSDL files for service	
<service name="">Config\*.xml</service>	Config files	
<service name="">XSD\*.xsd</service>	Service specific xsd's	
<service name="">Common\*.xsd's</service>	Common XSD's (call forms ) part of service	
<service name="">\<service name="">\META- INF\application.xml <service name="">\<service name="">\META- INF\MANIFEST.MF</service></service></service></service>	Config XML's for building the Web service	
<service name="">\<service name="">\commons- codec-1.2.jar</service></service>	Utility Jar for building the web service	
<service name="">\<service name="">\wscommon.jar</service></service>	Utility Jar for building the web service	
Sample Ant file	For building service ear file (Can be modified by Dev team as per Folder structure )	





### 4.4.1 Log Files

#### ServiceGenerationStatus.csv

Generation status will be saved in above mentioned file. This will be generated in the destination path

#### XSDValidationErrors.csv

XSD Validation errors, if any, will be saved in above mentioned file. This will be generated in the destination path

### • Utility Log File

Log File of the utility would be generated in the path configured in SilentOdt.properties. This can be used in case of any troubleshooting

Proceed only if status is Success for all services in ServiceGenerationStatus.csv and XSDValidationErrors.csv is not generated

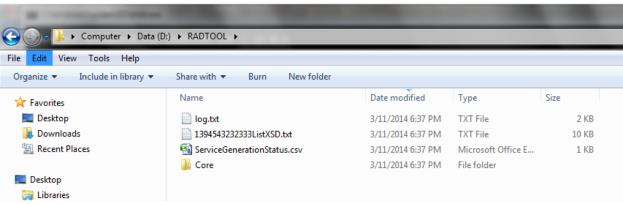


Fig 4.4.1.1: SilentODT Generated log Files.

### 4.4.2 Ant Build Scripts

Tool will generate the sample ant scripts for weblogic and web sphere application server.

Developer can write ant script based on sample ant script or same ant file can be used for building ear file .

WLANTBuild.xml – Ant script for web logic server

WASAntBuild.xml - Ant Script for web sphere server

e Edit View Tools Help						
Organize 🔻 Include in library 👻	Share with 🔻 🛛 Burn 🛛 New fo	lder			8≡ ▼ 🗖	
🔆 Favorites	Name	Date modified	Туре	Size		
📃 Desktop	🍌 Config	3/12/2014 10:52 AM	File folder			
〕 Downloads	🔒 lib	3/12/2014 10:52 AM	File folder			
💹 Recent Places	🔐 Src	3/12/2014 10:52 AM	File folder			
	🗼 Wsdl	3/12/2014 10:52 AM	File folder			
Desktop	WASAntBuild.xml	3/12/2014 10:52 AM	XML File	3 KB		
词 Libraries	WLANTBuild.xml	3/12/2014 10:58 AM	XML File	4 KB		
🧸 panraju						
🖳 Computer						
🏭 System (C:)						
👝 Data (D:)						
🔮 DVD RW Drive (F:)						
FCUBS_12.0.2.0.0 (\\10.184.133.3						
🖵 FLEXCUBE_Kernel (\\10.184.133.						
Network						
🥺 Control Panel						
🧾 Recycle Bin						
Beehive Extensions for Explorer						
Oracle Content Servers						

Fig 4.4.1.2: SilentODT Generated Files Ant Build Files.

### 4.4.3 Gateway Property Files

Gateway property files would be generated in GW\_WS folder inside destination folder. .Following files would be generated.

- gw\_ws\_logger.properties
- GW\_WS\_Prop.properties
- •



Development Workbench Service XML Development [May] [2019] Version 14.1.0.00

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 www.oracle.com/financialservices/

Copyright © [2007], [2019], Oracle and/or its affiliates.

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.