Development of Maintenance Form Oracle FLEXCUBE Investor Servicing Release 14.7.5.0.0 Part No. F96063-01 [June] [2024]

FINANCIAL SERVICES



Table of Contents

1. Prefa	ace	3
1.1	Audience	3
1.2	Related Documents	3
2. Intro	duction	4
2.1	How to use this Guide	4
3. Over	rview of Maintenance Screen	5
4. Scre	en Development	6
4.1	Header Information	6
4.2	Preferences	8
4.3	Data Sources	9
4.4	Data Blocks	12
4.5	Screens	15
4.6	Field Sets	17
4.7	LOV	20
4.8	Attaching Call forms	24
4.9	Adding Summary	27
4.10	Amendable fields Maintenance	29
5. Gen	eration and Deployment of files	31
6. Gen	erated Units	33
6.1	Front End Units	33
6.1.1	1 Language xml	33
6.1.2	2 SYS JavaScript File	33
6.1.3	3 Release Type Specific JavaScript File	33
6.2	Data Base Units	
6.2.1		
6.2.2		
6.2.3		
6.3	Other Units	
6.3.1	1 Xsd	35
7. Exte	nsible Development	
7.1	Extensibility in JavaScript Coding	
7.2	Extensibility in Backend Coding	
7.2.1	,	
7.2.2	0	
7.2.3	3 By passing Base Release Functionality	38

1. Preface

This document describes Maintenance Screens in FLEXCUBE and the process of designing a simple Maintenance form 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 Screen Development	04-Development_WorkBench _Screen_Development-I.docx
Working knowledge of Web based applications	Self-Acquired
Working knowledge of Oracle Database	Oracle Documentations
Working knowledge of PLSQL & SQL Language	Self-Acquired
Working knowledge of XML files	Self-Acquired

1.2 <u>Related Documents</u>

<u>04-Development_WorkBench_Screen_Development-I.pdf</u> <u>05-Development_WorkBench_Screen_Development-II.pdf</u>

2. Introduction

2.1 How to use this Guide

The information in this document includes:

- Chapter 2 , "Introduction"
- Chapter 3 , "Overview of Call Form"
- <u>Chapter 4 , "Screen Development"</u>
- Chapter 5 , "Generated Units"
- Chapter 5 , "Extensible Development"

3. Overview of Maintenance Screen

Maintenance Function Id's are used for storing maintenance data which are required for processing of any contracts, batches or for any other maintenance which are dependent on this *Example: Customer maintenance screen*

If any customer wants to use the service of a bank, details about the customer will have to be maintained in the system . This will be maintenance data which will be required for other maintenances (creating account for the customer) as well as for transaction processing (debiting of customer account) Business logic for a maintenance function id would be provided by the Development Workbench generated files .Most of the cases, system provided logic would be sufficient .Extra validations can be coded in the hook packages by the developer.

4. Screen Development

Design and development of a Maintenance function id is similar to any other function lds. This section briefs the steps in designing a Maintenance screen. UTDFNDRL is sample function id used for demonstration in this document

For detailed explanation, refer the document: <u>04-Development_WorkBench_Screen_Development-I.pdf</u>

4.1 Header Information

Provide the header information as shown in the figure.

🛑 ORACLE FLEXCUBE Developme	nt Workbench for Un	iversal Banking — Mozilla Firefox							-	٥	\times
⑦ 웒 ≅ whf00iqw:8088	/FCJRADTool142G	A/RADLoginServlet#nogo								ŝ	≡
ORACLE' FLEXCUBE	Development Wo	orkbench for Universal Banking								Adr	nin
=							١	Windows	Options	Sign O	ut
Function Generation										-	. ×
									×L	C 7	9
Action	~	Function Type	Parent	~		Function Categor	Maintenance	~			
Function Id		Parent Function				Header Template	None 🗸				
Save XML Path		Parent Xml				Footer Template	None	~			
Search											^
Preferences											
DataSource											
ListOfValues											
DataBlocks											
Screens											
FieldSets											
Actions											
CallForms											
LaunchForms											
Summary											

Fig: Providing Header Information for Maintenance Screen

- For new screen select action As New.
- Enter Function ID → UTDFNDRL
- Function Type → Parent
- Function Category → Maintenance
- Parent Function Id → None
- Parent Xml \rightarrow None
- Header Template \rightarrow None (Only for Process flow screens)
- Footer Template → Maint Audit

		A .
⊘ A ≈ whf00iqw:8088/FCJRADTool142GA/RADLe	oginServlet#nogo	습 · ·
ORACLE' FLEXCUBE Development Workbench	for Universal Banking	Admir
=		Windows Options Sign Out
Function Generation		_ >
		📓 🗵 L C 🞸 🧃
Action New 👻	Function Type Parent	Function Category Maintenance V Save (CTRL + S)
Function Id UTDFNRL	Parent Function	Header Template None V
Save XML Path D:RADTOOL	Parent Xml	Footer Template None
earch		
Preferences		
DataSource		
ListOfValues		
DataBlocks		
Screens		
FieldSets		
Actions		
CallForms		
LaunchForms		
Summary		

Fig: Save icon used for saving the radxml

User can save work at any point in time. Click the save icon on top right for the same .In order to work again with it select action as Load and load radxml from the hard disk path

RACLE FLEXCUBE Development Workbench for Unive	an annung magne merer				٥	
A ≈ whf00iqw:8088/FCJRADTool142GA/	RADLoginServlet#nogo				☆	
RACLE' FLEXCUBE Development Work	ench for Universal Banking				Adr	mi
			Windows O	Options S	Sign O	Jut
ction Generation						
			a ×	LC	3	-
Action New ~	Function Type Parent 👻		Function Category Maintenance 👻			
Function Id UTDFNRL	Parent Function		Header Template None 🗸			
Save XML Path D RADTOOL	Parent Xml		Footer Template None 🗸			
ch Infor	mation					ſ
ferences Infor	mation Description	Information				
aSource	maton beschpton	Code				
OfValues 🔂	File Saved					
aBlocks						
eens						
dSets						
ons						
Forms						
nchForms		Ok				

Fig: Saved File Information page

Note the following while providing header information for Maintenance screen

i) Naming Convention:

The third letter of the function id has to be D. Ideally the function id name should have 8 characters.

ii) Footer Template

Make sure that the master data source has the audit columns if footer template is provided as Maint log.

Refer <u>04-Development_WorkBench_Screen_Development-I.docx</u> for detailed explanation

4.2 Preferences

- Details entered in Preferences are used in generating INCS for SMTB_MENU, SMTB_FUNCTION_DESCRIPTION and SMTB_ROLE_DETAILS.
- **Control String** → Developer needs to select the actions which should be available for this screen in FLEXCUBE.

6 ORACLE FLEXCUBE Development Workbench	for Universal Banking — Mozilla Firefox				-	
O 👌 ≅ whf00iqw:8088/FCJRADToo	142GA/RADLoginServlet#nogo					ి జ
ORACLE' FLEXCUBE Developme	nt Workbench for Universal Banking					Admin
×				W	/indows Options	Sign Out
Function Generation						_ ×
					🖁 🗙 L C	V 🧐
Action New 🗸	Function Type Paren	nt 🗸		Function Category Maintenance	•	
Function Id UTDFNRL	Parent Function			Header Template None V		
Save XML Path D:\RADTOOL	Parent Xml			Footer Template None	~	
Search	Preferences					ø ^
Preferences DataSource ListON/alues DataBlocks Screens FieldSets Actions CaliForms LaunchForms Summary	Head Office Function Logging Required Auto Authorization Module Auto Auto Authorization Tank Modifications Field Log Required Multi Branch Access Excel Export Required Java Functions GateWay Screen Menu Details Parameter Value Mappings		Module Module Description Module Group Branch Program Id Process Code SVN Repository URL	UT		
	Function Id UTDFNRL UTD	Module *	٩	(Module Descri	Control String + -]
			٩	Module Descri]

Fig: Providing Preferences for Maintenance Screen

Note the following points while providing details in Preferences screen

i) Control String

REVERSE, ROLLOVER, CONFIRM, LIQUIDATE, HOLD operations are not applicable for maintenance screens.

i) Defining Browser Menu Tree

Browser menu tree will be defined in the script generated for *smtb_function_description*. The following labels has to be maintained for generation of proper script Main Menu: LBL_{function id}_MAIN_MENU Sub Menu 1: LBL_{function id}_SUB_MENU_1 Sub Menu 2: LBL_{function id}_SUB_MENU_2 Description: LBL_{function id}_DESC *Example:* For UTDFNDRL, following labels has to be maintained LBL_UTDFNDRL_MAIN_MENU, LBL_UTDFNDRL_SUB_MENU_1, LBL_UTDFNDRL_SUB_MENU_2, LBL_UTDFNDRL_DESC Refer <u>Development_WorkBench_Screen_Development-I.docx</u> for detailed explanation on preferences.

4.3 Data Sources

- Right Click on Data Sources; click on Add. Add table window gets opened.
- If user knows the exact table name, he can enter name directly; else go to List Of values to get the list of tables available. Select the required table from the list.

NRACLE FLEXCUBE Development Workbenc	h for Universal Banking — Mozilla Firefox		– 🛛 ×
O A ≈ whf00iqw:8088/FCJRADTo	ol142GA/RADLoginServlet#nogo		☆ ≡
ORACLE FLEXCUBE Developm	ent Workbench for Universal Banking		Admin
=			Windows Options Sign Out
Function Generation			_ ×
			🖫 🗙 L C 🎸 🍯
Action Load V	Function Type Parent	Function Category Ma	intenance 🗸
Function Id UTDFNDRL	Parent Function	Header Template No	
Save XML Path DRL_RAD.xml		Footer Template Ma	
Search	AddTable	×	
		^	Refresh Data Source 🗘 🔷
Preferences	Table Name FUND%		
▶ DataSource	Alias Name	h With Parent	Relation Type
▶ ListOfValues	Ok Cancel		
▶ DataBlocks		BL.FUNDID=FUNDLANC	
▶ Screens	Data Source	BLFUNDID=GENERAL	
FieldSets		BL.FUNDID-SENERALL	
Actions	Table Name	Let a set of the set o	
CallForms LaunchForms		BL.FUNDID=FUNDUHC	
Launch-orms Summary		Search Reset BL.FUNDID=TXNPROC	
Summary		< < 1of42 > >> STBL_C.FUNDID=FUN	
	Table Na	SIBL_C.FUNDID=IPR	
	ASYNCPROCESSAMCTBL	STBLC.FUNDID=FUN	
	AUDITTRAILDETAILSYN	STBLC.FUNDID=TXN	
	AUDITTRAILDETAILTBL	BL:FUNDID=FUNDSALE	One To Many V
	AUDITTRAILDETAILTBLREPSYN	BL.FUNDID=FUNDRESI	One To Many 🗸
	AUDITTRAILHDRSYN	BL.FUNDID=FUNDTRA	One To Many V
	AUDITTRAILHDRTBL	BL.FUNDID=INCOMEDI	One To Many 🗸
	AUDITTRAILHDRTBLREPSYN		One To Many V
	CSTBS_CONTRACT	=FUNDLOADTBLL.FU	One To Many 🗸
	CSTBS_DOC_UPLOAD_MASTER CSTB_AUDIT_LOG		One To One 🗸
	CSTB_AUDIT_LOG		

Fig: Adding Data Sources for the Function id

- Select Master as Yes if added data source is Master Data Source for the screen. Every function id should have one master data source.
- **Primary Key columns** (i.e. Pk Cols) and **Primary Types** (i.e. Pk Types) are mandatory. If it is already maintained in user schema in STTB_PK_COLS it will populated automatically otherwise user needs to enter values without fail. If user misses Pk cols and Pk Types package generation will fail.

Note: Master Data Source cannot have any parent.

local Elexcube Development Workbench	for Universal Banking — Mozilla Fir	efox					-	٥	\times
O 🖄 ≅ whf00iqw:8088/FCJRADTool	142GA/RADLoginServlet#nogc)						☆	≡
ORACLE' FLEXCUBE Developme	nt Workbench for Universal Bank	king						Adr	nin
=						Windows	Options	Sign O	ut
Function Generation								-	. ×
							×L	С 🎸	9
Action Load V		Function Type Parent	×		Function Category Maintenan				
Function Id UTDFNDRL		Parent Function			Header Template None				
Save XML Path DRL_RAD.xml	OWSE	Parent Xml			Footer Template Maint Aud	it 🗸			
Search	Data Source Details						4	ኑ 😑 🗐	^
Preferences	Relation Type One Multi Record No	DID-RULEEFFECTIVEDATE		Parent Relation Where Clause Default Order By Type	Normal v				

Fig: Providing master Data Source Properties

• Right Click on Added Table (STTM_CUSTOMER) to add fields to the table. Popup window gets opened with available columns in data source. Select the required fields and click ok. Selected will get added to the Data Source Tree.

👏 ORACLE FLEXCUBE Development Workbench 1	for Universal Banking — Mozilla Firefox	– 🗖 🗙
◯ 🖄 ब्≏ whf00iqw:8088/FCJRADTool	142GA/RADLoginServlet#nogo	☆ ≡
ORACLE FLEXCUBE Development	nt Workbench for Universal Banking	Admin
=		Windows Options Sign Out
		🖩 🗵 L C 7 🧃
Action Load 🗸	Function Type Parent V	Function Category Maintenance V
Function Id UTDFNDRL	Parent Function	Header Template None 🗸
Save XML Path DRL_RAD.xml BR	OWSE Parent Xml	Footer Template Maint Audit
Search	Data Source Details	e = 🦻 <mark>^</mark>
Preferences DataSource FUNDDEMOGRAPHICSTRI FUNDDEMOGRAPHICSTRI FUNDLANGTI Add GeneraLOP Delete SHARESCHARACTERISTICSTBL FUNDUHCATREGCAPMANTTBL FUNDSIFECOESSINGRULESTBL_C FUNDSIFECOESSINGRULESTBL FUNDSIFECOTYPTBL FUNDSIFECOTYPTBL FUNDRESIDENCYTBL FUNDRESIDENCYTBL FUNDTRANSACTIONCURRENCYTBL INCOMEDISTRIBUTIONCURRENCYTBL INCOMEDISTRIBUTIONCURRENCYTBL INCOMEDISTRIBUTION	Data Source FUNDDEMOGRAPHICSTBL Master Relation Type Multi Record PK Cols + FUNDD-RULEEFFECTIVEDATE PK Types + VARCHAR2-DATE Upload Table Upload Table Upload Table Rest Pata Block XSD Node Rest Relation Rest Relation Rest PK Cols + Rest PK Cols + Rest PK Types +	Parent Relation Where Clause Default Order By Normal Normal Mandatory

Fig: Including Data Source Fields for the Data Source

				+	_
]	Field Name		Data Ty	pe	^
	FUNDID	(Varchar2	•	
1	RULEEFFECTIVEDATE	(Date	×	
	FUNDNAME	(Varchar2	~	
1	FUNDSHORTNAME	(Varchar2	~	
1	COUNTRY	(Varchar2	~	
				Ok	✓ Ca
				UK	Ga

Fig: Selecting Data Source Fields for the Data Source

Data Source Field Properties:

Only max length can be modified by the developer in data source field properties. Rest will be defaulted from table definition

6 ORACLE FLEXCUBE Development Workbench	or Universal Banking — Mozilla Firefox	- D X				
	🛇 🗞 📬 whf00iqw:8088/FCJRADTool142GA/RADLoginServlet#nogo					
ORACLE' FLEXCUBE Development Workbench for Universal Banking						
=		Windows Options Sign Out				
Function Generation		_ ×				
		🖬 🗵 L C 🞸 🍕				
Action Load V	Function Type Parent V	Function Category Maintenance 🗸				
Function Id UTDFNDRL	Parent Function	Header Template None V				
Save XML Path DRL_RAD.xml BRO	Parent Xml	Footer Template Maint Audit				
Search	Data Source Field Details	Refresh 😑 🧐 🔷				
Preferences DataSource FUNDDEMOGRAPHICSTBL FUNDD RULEEFFECTIVEDATE FUNDSTARTDATE FUNDSTARTDATE FUNDNAME	Column Name FUNDID Block Name BLK_FUND_DETAILS Field Name FUNDID	Data Type VARCHAR2 Max Length 8 Upload Table Column Not Required in Upload Tables				

Fig: Providing properties for Data Source Fields

Data model of a single function id would include multiple tables. All the tables need to add in the function id. Note the following while adding child data sources

Adding Child Data Source:

- Select Multi Record value as Yes if child data source is Multi record table.
- Child Data Source should always be associated with a parent.
- Relation is mandatory between parent and child. While giving relation, parent data source should come in left side of the relation.

6 ORACLE FLEXCUBE Development Workbench	n for Universal Banking — Mozilla Firefox			-		×
🗘 👌 🖻 whf00iqw:8088/FCJRADTool	1142GA/RADLoginServlet#nogo				☆	≡
ORACLE' FLEXCUBE Developme	nt Workbench for Universal Banking				Ad	min
=			Windows	Options	Sign C	ut
Function Generation						_ ×
				×L	C f	7 🧃
Action Load V	Function Type Parent		Function Category Maintenance V			
Function Id UTDFNDRL	Parent Function		Header Template None V			
Save XML Path DRL_RAD.xml BR			Footer Template Maint Audit			
Search	Data Source Details				er -	🧐 🔷
Preferences DataSource FUNDDEMOGRAPHICSTBL FUNDLANGTBL GENERALOPERATINGRULESTBL SHARESCHARACTERISTICSTBL FUNDUHCATREGCAPMAINTTBL_A TXNPROCESSINGRULESTBL FUNDSFREQDETBL FUNDSFREQDETBL FUNDSFREQDETBL FUNDSFREQDETBL FUNDRESIDENCYTBL FUNDRESIDENCYTBL FUNDTRANSACTIONCURRENCYTBL FUNDTRANSACTIONCURRENCYTBL FUNDCASTBUTIONRULETBL_I FUNDLOADTBL	Data Source FUNDLANGTBL Master Relation Type Multi Record PK Cols + FUNDD-RULEEFFECTIVEDATE-LA PK Types + VARCHAR2-DATE-VARCHAR2 Upload Table Upload Table Upload Table Rest Data Block XSD Node Rest Relation Rest Relation Rest PK Cols + Rest PK Cols + Rest PK Types +	NGUAGE	FUNDDEMOGRAPHICSTBL > FUNDDEMOGRAPHICSTBL.FUNDID=FUNDL Normal > Mandatory			

Fig: Providing properties for Child Data Source

Note: A data source cannot be parent to itself.

Note the following while adding data sources:

- If the data source is designed with relation type as 1: N with its parent, then it should have at least one more Pk col than its parent (assuming relationship is based on Pk cols).
- ii) Master data source needs to have the audit columns if footer template is Maint audit; but those should not be added to data source fields as system will handle it

Refer <u>Development_WorkBench_Screen_Development-I.docx</u> for detailed explanation on data sources

4.4 Data Blocks

 Block Name should start with BLK_<short Name equivalent to data source but not exactly same as Data Source name>.

Add Block	×
Block Name BLK_FUNDDETAILS	
Ok Cancel	

Fig: Creating a new Data Block

- Select Parent block if added block is not Master Block.
- Select Multi Record (Yes/No) based on this value, available data sources will displayed in data source available text area.

NRACLE FLEXCUBE Development Workbench	for Universal Banking — Mozilla Firefox					- 0	×
◯ 🖄 ≅ whf00iqw:8088/FCJRADTool	142GA/RADLoginServlet#nogo					5	\equiv
ORACLE FLEXCUBE Developme	nt Workbench for Universal Banking				Windows Optic	Adr	
Function Generation					Windows Optio		ui . ×
					I 🗙 🛛		
Action Load V Function Id UTDFNDRL Save XML Path DRL_RAD.xml BR	Parent	tion Type Parent V Function		Function Category Header Template Footer Template	None V		
Search	Block Properties			r otter template		- 🛛 🦃	^
Preferences DataSource ListOfValues DataSource ListOfValues BLK_FUND_DETAILS BLK_FUND_DETAILS BLK_GENERAL_OPERATING BLK_KOLDING_LIMIT BLK_HOLDING_LIMIT_DETAILS BLK_TAN_HOLDING_LIMIT_DETAILS BLK_TAN_LIMIT_DETAILS BLK_TAN_LIMIT_OOMMUNICATION BLK_SIRULES BLK_TAN_ULIMIT_OOMMUNICATION BLK_FUND_SALE_COUNTRY BLK_FUND_SALE_COUNTRY BLK_FUND_SALE_COUNTRY BLK_FUND_SALE_COUNTRY BLK_FUND_SALE_COUNTRY BLK_FUND_SALE_COUNTRY BLK_FUND_SALE_COUNTRY BLK_FUND_RESIDENCY_RESTRICTION BLK_FUND_RESIDENCY_RESTRICTION BLK_FUND_RESIDENCY_RESTRICTION BLK_FUND_RESIDENCY_RESTRICTION	DIOCKINGINC	D_DETAILS _FUND_DEMOGRAPHICS _FUND_DEMOGRAPHICS 	Co Ma: Mu B				

Fig: Providing properties for Data Block

• Select the required data source and click move button to attach Data Source to the block

ORACLE FLEXCUBE Development Workbench for Univ	ersal Banking — Mozilla Firefox	- • ×
O A [™] whf00iqw:8088/FCJRADTool142GA	/RADLoginServlet#nogo	☆ ≡
ORACLE' FLEXCUBE Development Work	bench for Universal Banking	Admin
=		Windows Options Sign Out
Function Generation		_ ×
		🖫 🗷 L C 🞸 🤤
Action Load V	Function Type Parent V	Function Category Maintenance V
Function Id UTDFNDRL	Parent Function	Header Template None 🗸
Save XML Path DRL_RAD.xml BROWSE	Parent Xml	Footer Template Maint Audit
Search Blog	ck Properties	e — 🛛 🔊 ^
Preferences DataSource DataSource ListOrAluses A DataBlocks B BLK_OETAILS B BLK_OETAILS B BLK_OETAILOPERATING B BLK_INDENG_IMIT B BLK_INDENG_IMIT B BLK_INDENG_IMIT B BLK_INDENG_IMIT B BLK_INDES_TREQUENCY B BLK_INN_LIMIT_OCMANUNICATION B BLK_INN_LIMIT_OCMANUNICATION B BLK_INN_LIMIT_OCMANUNICATION B BLK_INN_LIMIT_SOURCY B BLK_INN_SALE_COUNTRY B BLK_FUND_SALE_COUNTRY B BLK_FUND_SALE_COUNTRY B BLK_FUND_RESIDENCY RESTRICTION	Block Name BLK_FUND_DETALS Block Title BL_SCR_FUND_DEMOGRAPHICS Parent Parent One To One Datasource Available CENERALOPERATINGRULESTBL SHARESCHARACTERUSTICSTBL FUNDFORMULATBL SPECIFICPINNDFRUCEDATESETUPTBL FUNDRADETALISTBL FUNDRADETALISTBL FUNDSHARECLASSTBL	XSD Node Fund-Details Comment ID CMT_SCR_FUND_DEMOGRAPHICS

Fig: Attaching Data Sources to Data Block

Adding multi record data source to data block:

User on selecting Multi record 'Yes' in data block properties all the data sources with multi record Yes will be populated. *Multi Data Source once used to one block won't available for reuse whereas single record data source can be used in multiple blocks*

Select Block Fields:

- Right click on added block. Select Fields window will get opened. Developer needs to check the right side check box to add the required fields.
- Field Name: It should not be the same as column name .Special characters are also not allowed in the field name (including underscore and space)
- Label Code: It will be automatically populated based on field name.

ORACLE FLEXCUBE Development Workbe	nch for Univer	sal Banking — Mozilla Firefox	:				-	
⑦ 👌 ≅ whf00iqw:8088/FCJRADT	ool142CA/0	ADLoginCondot#nogo						\$
								Aami
						Windows	Options	Sign Out
Action Load 🗸		Fun	ction Type Parent V			Function Category Maintenance V		
Function Id UTDFNDRL		Paren	t Function			Header Template None V		
Save XML Path DRL_RAD.xml	BROWSE	F	arent Xml			Footer Template Maint Audit 🗸		
earch	Select F	Fields & Add Ul Fields						
	DataSou	rce fields UI Fields				Fund-Details		
						CMT SCR FUND DEMOGRAPHICS		
		Datasource	DDEMOGRAPHICSTBL V					
		Column Name	Field Name	Label Code	^	No v		
						Normal V		
		CUSTOMER_NO	CUSTNO	LBL_CUSTNO				
		CUSTOMER_TYPE	CUSTTYPE	LBL_CUSTTYPE		Added		
		CUSTOMER_NAME1	CNAME	LBL_CNAME		31		
		ADDRESS_LINE1	ADDR1	LBL_ADDR1		pr.		
		COUNTRY	CNTY	LBL_CNTY				
		NATIONALITY	NLTY	LBL_NILTY				
		LANGUAGE	LANG	LBL_LANG				
						<u> </u>		
	4							
	4							
	Y				×			
	Y				Ok Cano			
► BLK FUND LOAD	\sim							

Fig: Adding Block Fields to Data Block

Refer <u>Development_WorkBench_Screen_Development-I.docx</u> for detailed explanation on data blocks and block field properties

4.5 <u>Screens</u>

- Right click on Screens node to add a new screen
- Screen Name should start with CVS_<Name>.
- By default screen are divided into 3 parts.
- One Main Screen is Mandatory.
- Tabs can be defined on any of the screen portions as required
- User can add sections to tabs.
- Each section can be divided into partitions.

STACLE FLEXCUBE Development Workbench	or Universal Banking — Mozilla Firef	ox						-		×
◯ 🖄 ≅ whf00iqw:8088/FCJRADTool1	42GA/RADLoginServlet#nogo								ជ	=
ORACLE FLEXCUBE Development	t Workbench for Universal Banking)							Adn	nin
×						Wind	lows Op	tions S	Sign Ou	ıt
Function Generation										- ×
							2	(L (C 7	9
Action Load V	F	Inction Type Parent	*		Function Ca	tegory Maintenance v				
Function Id UTDFNDRL		ent Function				mplate None V				
Save XML Path DRL_RAD.xml BRC	WSE	Parent Xml			Footer Ter	mplate Maint Audit	~			
Search	Screen Details							- X		🤉 ^
Preferences	Screen Name CVS_M	IAIN		Main Screen						
▶ DataSource	Screen Title LBL_FM	IDRL_DTL	Q	OBIEE						
▶ ListOfValues	Screen Size Large		~	 Visible Query Required 						
▶ DataBlocks	Exit Button Type Defaul	Cancel	×	Query Required	quired					
▲ Screens										
►CVS_MAIN										
CVS_SCR_MULTILANGDET							+			
►CVS_SCR_GOR ►CVS_SCR_SHARESCHARACTERISTICS	Argument Name	Source Block	Source Field	Argument Value	Target Block	Target Field	Active	^		
CVS_SCR_HOLD_LIMIT_INV_CAT										
CVS TXNPROCESSINGRULESTBL DTL										
CVS_SCR_FUNDSALECOUNTRY										
► CVS_SCR_FUNDRESIDENCYTBL										
►CVS_SCR_FUNDTRANSACTIONCURREI										
►CVS_SCR_CORP_ACTIONS_DTL										



🍅 ORACLE FLEXCUBE Development Workbench for U	Jniversal Banking — Mozilla Firefox	- 🗆 X
O A ≈ whf00iqw:8088/FCJRADTool1420	GA/RADLoginServlet#nogo	☆ ≡
ORACLE' FLEXCUBE Development Wo	orkbench for Universal Banking	Admin
×		Windows Options Sign Out
Function Generation		_ ×
		🖫 🗶 L C 🎸 🎯
Action Load V	Function Type Parent V	Function Category Maintenance V
Function Id UTDFNDRL	Parent Function	Header Template None V
Save XML Path DRL_RAD.xml BROWS	Parent Xml	Footer Template Maint Audit
Search Ta		Dependent Fields 🖶 💻 🗐 🤷
Preferences	Screen Name CVS_MAIN Visible	
▶ DataSource	Tab Name TAB_HEADER	
▶ ListOfValues	Tab Label	
▶ DataBlocks	Tab Type	
A Screens	Add Section	×
← CVS_MAIN ← HEADER		
TAB_HEADER	Section Name SEC_FUND	
▲ BODY		
► TAB_MAIN	Ok Cancel	
▲ FOOTER		

Fig: Creating new section in TAB_MAIN in the body of screen CVS_MAIN

ORACLE FLEXCUBE Development Workbend	ch for Univer	sal Banking — Mozilla F	irefox							-	٥	×
🔿 🖻 whf00iqw:8088/FCJRADTo	ool142GA/R	ADLoginServlet#nog	jo								ដ	, =
ORACLE FLEXCUBE Developm	ment Workbe	ench for Universal Ba	nking								Ac	dmin
×	_								Windows	Options	Sign	Out
unction Generation												_ >
										×L	C 7	4
Action Load V			Function Type Parent	~			Function Cate	gory Ma	ntenance 🗸			
Function Id UTDFNDRL			Parent Function				Header Tem	plate No	ne 🗸			
Save XML Path DRL_RAD.xml	BROWSE		Parent Xml				Footer Tem	plate Ma	int Audit 🗸 🗸			
earch	Section	on Details								=	• 📧	9
Preferences	~	Section Name SE	EC_FUND_DEMO1			Visible						
DataSource		Section Label			ρ	Collapse						
ListOfValues						Multiple Section						
DataBlocks												
Screens CVS MAIN		Partition Details								+ -		
A HEADER		Partition SI No			Partition Name			Width	Sub-partitions	^		
TAB_HEADER		1	PART FUND DEMO1					6 🗸	2 ~			
▲ BODY ▲ TAB MAIN		2	PART FUND DEMO2					3 🗸				
SEC FUND DEMO1		2	TART_TOND_DEMO2				6					
 SEC_2												
▲ FOOTER												
► TAB_FOOTER												
CVS SCR MULTILANGDET										~		

Fig: Defining partitions for the Section

4.6 Field Sets

A group of fields can be grouped together in a Field set which can be placed together in the screen

- Field Set Name should start with FST_<>.
- Select the Block adding to field set.
- All fields available to the block will be displayed in to the data block fields text area. Move fields from data block fields to Field set fields.
- The order of fields in *field set fields* will reflect in the screen as well

local Elexcube Development Workbench f	for Universal Banking — Mozilla Firefox				- 0	×
O A ≈ whf00iqw:8088/FCJRADTool	142GA/RADLoginServlet#nogo				ź	≲ ≡
ORACLE' FLEXCUBE Developmen	nt Workbench for Universal Banking				A	dmin
×				W	findows Options Sigr	n Out
Function Generation						_ ×
					🖬 🗶 L C 🕻	7 🤢
Action Load V	Function Type Parent V		Fun	ction Category Maintenance 🗸		
Function Id UTDFNDRL	Parent Function			ader Template None V		
Save XML Path DRL_RAD.xml BR	OWSE Parent Xml		Fo	ooter Template Maint Audit	~	
Search	Fieldset Properties				- 2	🧐 ^
Preferences DataSource DataSource DataBlocks DataBlocks Screens FieldSets FST_FUNDFORMULA_COMPUTE2 FST_FUNDSALECOUNTRY FST_FUNDRESIDENCYTBL	Fieldset Name FST_GOR_MIFID Fieldset Label Data Bick_GENERAL_OPERATING V Multi Record No V Fieldset Height Number Of Rows	s	Fieldset Type Normal Screen Name CVS_SCR_GOR circen Portion Body Tab Name TAB_FATCANFO Section Name SEC_MIFID Partition Name SEC_MIFID_P1	v v v v v v v v v v v	 Horizontal Fieldset ReadOnly Navigation Button Navigation Button Fu Width ✓ Visible 	11
FST_FUNDRESIDENCYTBL_MULTI FST FUNDSALECOUNTRY MULTI	Data Block Fields		FieldSet Fields	Subpartition Name		
FST_FONDSALECCONTRT_MOLT	MIFIDCLASSIFICATION	1 0	NVESTMENTHORIZON	2 ~		
FST_FUND_DEMO1	MIFIDPRODCLASSDESC		IIFIDFUND	[1 v]		
FST_FUND_DEMO2		О т	ARGETMARKET	1 ~		
FST_MULT_LANG1		44				
FST_GOR_BASICINFO		44				
FST GOR AUTOREDEMP						

Fig: Attaching Fields to a Field set

6 ORACLE FLEXCUBE Development Workber	nch for Universal Banking — M	ozilla Firefox									-	٥	×
O A and whf00iqw:8088/FCJRADT	ool142GA/RADLoginServle	t#nogo										☆	=
ORACLE' FLEXCUBE Develop	ment Workbench for Univer	sal Banking										Ad	lmin
≡										Windows	Options	Sign (Out
Function Generation										_			_ ×
											×L	C 7	1
Action Load V		Function Type Parent	~				Fi	unction Category M	laintenanc	e 🗸			
Function Id UTDFNDRL		Parent Function						Header Template	lone 💊	·			
Save XML Path DRL_RAD.xml	BROWSE	Parent Xml						Footer Template	laint Audit	~			
Search	Fieldset Propertie	s									=	- 🐹 🗳	> ^
Preferences	Fieldset Nan Fieldset Lab Data Bio Multi Reco View Ty Fieldset Heig Number Of Rov	el BLK_GENERAL_OPERATING	2 • •		Scre Scree T Secti	dset Type en Name in Portion ab Name on Name on Name	Normal CVS_SCR_GOI Body TAB_FATCAINFI SEC_MIFID SEC_MIFID_P1	۰ ۶ ۵	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>		Horizontal Fi ReadOnly Navigation B Navigation B Width Visible	lutton	
FST_FUNDRESIDENCYTBL_MULTI FST_FUNDSALECOUNTRY_MULTI		Data Block Field	ds			FieldS	iet Fields	Subpartition	Name				
FST_FUNDSALECOUNTRT_MULTI			^			STMENTH	ORIZON	2	~				
FST_FUND_DEMO1						FUND		1	v	Ť			
FST_FUND_DEMO2						ETMARK	т	1	~	1			
FST_MULT_LANG1				ÞÞ	MIFID	CLASSIFI	CATION	2	v				
FST_GOR_BASICINFO				44	MIFID	PRODCL	ASSDESC	1	v	1			
FST_GOR_AUTOREDEMP								1		1			
FST_GOR_MIN_MAX_HOL										1			

Fig: Order of fields in the field set highlighted

• Select the screen portion (Header/Body/Footer) where this field set has to be placed. Select remaining details like tab, section and partition.

ORACLE FLEXCUBE Development Workbench for Un	iversal Banking — Mozilla I	Firefox							-	٥	
🔿 🖄 🔤 whf00iqw:8088/FCJRADTool142G	A/RADLoginServlet#no	go								5	3
DRACLE' FLEXCUBE Development Wo	orkbench for Universal Ba	inking								Ac	dm
								Windo	ws Options	s Sign	Out
Function Generation											-
								I	🖁 🗙 L	С 🎸	
Action Load V		Function Type Parent	~			F	unction Category Mainten	ance 🗸			
Function Id UTDFNDRL		Parent Function					Header Template None	v			
Save XML Path DRL_RAD.xml BROWS	E	Parent Xml					Footer Template Maint A	udit 🗸			
	eldset Properties				_					- 🔊 -	0
					-						-7
Preferences	Fieldset Name	ST_GOR_MIFID				Fieldset Type Normal	~		Horizontal F	ieldset	
DataSource	Fieldset Label					Screen Name CVS_SCR_GO	R v		ReadOnly	Button	
ListOfValues		LK_GENERAL_OPERATING	÷ ~			Screen Portion Body	~		Navigation		i.
DataBlocks	man riccord	o ~				Tab Name TAB_FATCAINF			Width		
Screens		ingle 🗸				Section Name SEC_MIFID	~		Visible		
FieldSets	Fieldset Height				L	Partition Name SEC_MIFID_P1	~				
FST_FUNDFORMULA_COMPUTE2	Number Of Rows										
FST_FUNDSALECOUNTRY											
FST_FUNDRESIDENCYTBL											
FST_FUNDRESIDENCYTBL_MULTI		Data Block Fiel	ds			FieldSet Fields	Subpartition Name	,			
FST_FUNDSALECOUNTRY_MULTI FST GOR MIFID			^			INVESTMENTHORIZON	2 ~				
FST_GOR_MIND FST_FUND_DEMO1						MIFIDEUND	1 v				
FST_FUND_DEMOT						TARGETMARKET	1 v				
FST_FUND_DEM02 FST_MULT_LANG1				ĐĐ	님						
FST_MOLT_LANGT				44		MIFIDCLASSIFICATION	2 ~				
					\checkmark	MIFIDPRODCLASSDESC	1 ~				

Fig: Providing details where Field Set has to be placed

Once fields are added to field set, developer can check the preview of the designed screen. Right click on Screen Name and click on Preview.

🔶 Fund Rules Detail		
New Enter Query		
Fund ID *	Fund Class * Open-Ended V	Fund Type *
Rule Effective Date *	AMC *	Fund Type Description
Fund Start Date *	AMC Description	Fund Family *
Fund Name *	Legal Entity	Fund Family Description
Fund Name Short *	Legal Entity Description	Fund Country *
Fiscal Year Start Date *	Brokers Mandatory? * No V	Fund Country Description
Fiscal Year End Date *	Fund Enabled? * Yes V	Registrar *
Primary Registration *	Minimum Holding Period	0 Registrar Description
Address Fund Identification Number	Fund Tax ID	Trustee *
Fund Base Currency *	Fund Ticker Symbol	Trustee Description
Fund Base Currency	IRA Investments Allowed No V	Custodian *
Description	Fund Suspended? * No v	Custodian Description
•	Umbrella Fund? No V	Hedge Fund No 🗸
Min Amt for Tax ID-Indv *	Umb. Fund	Relationship Termination
Min Amt for Tax ID-Corp *	Currency of Expression No V	Date
Existing Fund? No 🗸	Fund	Fund Domicile
Input by	DateTime	Mod No
Authorized by	DateTime Record	d Status Exit
	Authorization	n Status

Fig: Preview of the designed Screen

Adding Multi entry block to field set.

- On selecting a multiple block, Multi Record Property will be defaulted to Yes.
- In case of Multi record, View type can be either Single or Multiple (By Default).

🔶 Multi Language Details			×
Details	to Page + - II		
Language Code *	Fund Name		
		~	
		Ok	Exit

Below image shows a multiple view multi record field set

Fig: Multiple View Multi Record Field set

• For multi record single view navigation button should be checked.

ڬ ORACLE FLEXCUBE Development Workbench f	or Universal Banking — Mozilla Firefox	- o ×
O A ➡ whf00iqw:8088/FCJRADTool1	42GA/RADLoginServlet#nogo	ත් ≡
ORACLE FLEXCUBE Developmen	t Workbench for Universal Banking	Admin
Function Generation		Windows Options Sign Out – × 📓 🗶 🗓 C 🕫 🍓
Action Load V Function Id UTDFNDRL Save XML Path DRL_RAD.xml BR0	Function Type Parent Parent Parent Parent Parent Function Parent Xml	Function Category Maintenance V Header Template None V Footer Template Maint Audit V
Search	Fieldset Properties	📼 🗷 🦃 🔷
FST_GOR_ADV_OPT FST_GOR_LNTORDER_PRO FST_GOR_TXN_CANL FST_GOR_CHQ_WRI FST_SHARE_BASICINFO FST_SHARE_PREF FST_SHARE_PREF FST_SHARE_CERT_DTL FST_INV_CAT1 FST_INV_CAT1 FST_INV_CAT2	Fieldset Name FST_TPR_TAB_BASIC_INFO Fieldset Label Data Block BLK_TXNLPROCESSING_RULE: Multi Record Yes View Type Single Fieldset Height Number Of Rows	Fieldset Type Normal ✓ Horizontal Fieldset Screen Name CVS_TXNPROCESSINGRULEST ∨ ReadOnly Screen Portion Body ∨ Tab BASIC_INFO ∨ Navigation Button Full Section Name SEC_1 ∨ Partition Name SEC1_PART1 ✓

Fig: Properties for Single View Multi Record Field set

Below figure shows the preview of a single view multi record field set

Transaction Processing Rules		×
		I of 1 ▶
Fund ID *	Rule Effective Date *	
Basic Info Transaction Rules Unit Holder R	Rules Transaction Limit Pricing Policies SI Specific Info SI Rules For Frequency	
Transaction Type * Transaction Frequency * Select One Transaction Enabled? * Yes Gross Amount * Gross Unit * Transaction Suspended? * No	 ✓ 1 of 1) TransactionType Description Start Date * End Date * Net Amount * Net Unit * Net Unit * Restrict Sale to Investor * Yes ↓ Maximum IPO Issue Size Allow Systematic Plans? 	
		Ok Exit

Fig: Preview for Single View Multi Record Field set

4.7 <u>LOV</u>

List Of values can be defined for the function id using LOV node

- To add LOV right click on List of Values Node. LOV Name should start with LOV_<name>. *Example: LOV_FUNDCOUNTRY.*
- LOV Type This field can be Null or Internal.
- Enter valid query and click on populate button.

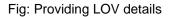
local CRACLE FLEXCUBE Development Workbence	h for Universal Banking — Mozilla Fire	fox					-	- 0	×
🔿 👌 🗝 whf00iqw:8088/FCJRADTo	ol142GA/RADLoginServlet#nogo							5	≣ ל
ORACLE' FLEXCUBE Developm	nent Workbench for Universal Bank	ing						A	dmin
=						Wind	lows Optio	ns Sign	Out
Function Generation									- ×
							🖁 🗙 L	C 🞸	- 🧐
Action Load V		Function Type Parent	~		Function Categor	Maintenance 🗸			
Function Id UTDFNDRL	P	arent Function			Header Template	None V			
Save XML Path DRL_RAD.xml	BROWSE	Parent Xml			Footer Template	Maint Audit 🗸 🗸			
Search	List Of Values Details						Refresh	- 🔊	^
Preferences	LOV Name * LOV	FUNDCOUNTRY							_
▶ DataSource			CODE DOMICII EDES	CRIPTION FROM DOMICIL	ETBI				
▲ ListOfValues	LOV Type Inter								
LOV_FUNDCOUNTRY	LOV TYPE								
LOV_FUNDBASECURRENCY									
LOV_FUNDTYPE							Populate	1	
LOV_FUNDFAMILY	Query Columns	Data Type Visib	e Reduction Field	Reduction Field Type	Reduction/Column Label	is Mandatory	-	1	
LOV_AMCID	,,						WIII NO.		
LOV_REGISTRARID	DOMICILECODE	VARCHAR2 V Yes		TEXT V	LBL_COUNTRY_CODE1	₽ No ✓			
LOV_TRUSTEEID	DOMICILEDESCRIPTION	VARCHAR2 V	✓ Yes ✓	TEXT 🗸	LBL_COUNTRYNAME	₽ No ∨			
LOV_CUSTODIAN									
LOV_GOR_PRICDECFREQ									
LOV_GOR_EXCHANGERATESOURCE									
LOV_CANCELINST							~	·	
LOV_CANCELLATIONPRICEBASIS	<						>		

Fig: Defining new LOV

LOV Query	×
SELECT DISTINCT DOMICILECODE DOMICILEDESCRIPTION FROM DOMICILETEL	
	//.
Ok Cancel	

Fig: Providing LOV query

ORACLE FLEXCUBE Development Workbench	n for Universal Banking — Mozilla Fire	fox							-	٥	×
🔿 🖄 📬 whf00iqw:8088/FCJRADToo	ol142GA/RADLoginServlet#nogo									ង	=
ORACLE FLEXCUBE Developm	ent Workbench for Universal Bank	ing								Ad	lmin
								Wind	lows Options	Sign C	Jut
Function Generation											_ ×
									🖁 🗙 L	С 🎸	9
Action Load V		Function Type Paren	t v				Function Category	Maintenance 🗸			
Function Id UTDFNDRL	P	arent Function					Header Template	None V			
Save XML Path DRL_RAD.xml B	ROWSE	Parent Xml					Footer Template	Maint Audit 🗸 🗸			
Search	List Of Values Details								Refresh	- 🛛 🗳	
Preferences	LOV Name * LOV	FUNDCOUNTRY									
DataSource		- ECT DISTINCT DOMIC	CILECODE,DC	MICILEDESCRI	IPTION FROM DO	OMICILE	TBL		\sim		
ListOfValues	LOV Type Inter	nal 🗸									
LOV_FUNDCOUNTRY											
LOV_FUNDBASECURRENCY											
LOV_FUNDTYPE									Populate		
LOV_FUNDFAMILY	Query Columns	Data Type Vi	sible Redu	ction Field	Reduction Field	Type	Reduction/Column Label	Is Mandatory	-		
LOV_AMCID			es v Yes		TEXT V	iype	LBL COUNTRY CODE1	No v	101111100		
LOV_REGISTRARID				-							
	DOMICILEDESCRIPTION	VARCHAR2 V	es 🗸 Yes	v	TEXT 🗸		LBL_COUNTRYNAME	P No V			
LOV CUSTODIAN											



- Reduction/Column Labels are mandatory. If user won't provide will get error on click of LOV button after deployment in FLEXCUBE
- After defining LOV go to block and corresponding field where the LOV has to be attached.

Block Field Properties to attach LOV to the field

- **Display Type:** Select display type as Lov.
- Lov Name: Select the required Lov name from the list of all defined LOV's.
- Click on return fields tab. The result fields maintained in the LOV query will be populated on click of *Default from Lov Definition* button
- Select the desired field (and its block)to which the result of the LOV query should be defaulted
- If return field is not required to be defaulted to any field in the screen, return field value can be left blank.

ۏ ORACLE FLEXCUBE Development Workbench for U	Jniversal Banking — Mozilla Firefox	- o ×
O A ≈ whf00iqw:8088/FCJRADTool1420	GA/RADLoginServlet#nogo	☆ =
ORACLE' FLEXCUBE Development W	Vorkbench for Universal Banking	Admin
=		Windows Options Sign Out
Function Generation		_ ×
		🖬 🗙 🗞 C 🔗 🤤
Action Load V	Function Type Parent	Function Category Maintenance 🗸
Function Id UTDFNDRL	Parent Function	Header Template None 🗸
Save XML Path DRL_RAD.xml BROW	Parent Xml	Footer Template Maint Audit
Search	Block Field Properties	📼 🗷 😡 🦃 🏠
Preferences A DataSource ListOtValues DataBlocks BLK_FUND_DETALS FUNDID RULEEFFECTIVEDATE FUNDTARTDATE FUNDNAME FUNDNAMESHORT FUNDCLASS FUNDTYPE FUNDEASECURRENCY	Field Name + FUNDCOUNTRY Field Label LBL_FUNDCOUNTRY DataSource FUNDCOUNTRY DataType + FUNDCOUNTRY Data Type + Varchar2 v Display Type Lv v Item Type Database Item v Parent Field Related Field FUNDCOUNTRYDESC v LOV Name LOV_FUNDCOUNTRY v Fieldset Name FST_FUND_DEMO2	XSD Tag FUNDCOUNTRY Image: Comment ID CMT_FUNDCOUNTRY Image: CMT_FUNDCOUNTRY I
FUNDCOUNTRY FISCALENDYEAR AIXCID BROKERSALLOWED REGISTRARID TRUSTEEID FUNDENABLED	DOMICILECODE BLK_FUND_DETAILS	

Fig: Attaching LOV to a block Field

Use of Bind Variable

If the list of values should be based on any other field value from the screen, bind variables can be used.

Example:

Define lov as shown in below query; where clause should contain condition with '?'.

```
SELECT cust_ac_no, branch_code, ccy
from sttms_cust_account
where cust_no = ?
and record_stat = 'O'
and once_auth = 'Y'
and ac_stat_de_post = 'Y'
```

In the block field, after selecting return fields, click on bind variables tab. Click on **Default from Lov Definition** button. New rows will be created depending on the number of bind variable provided in the LOV query. Select the bind filed in the screen (and its block) for the LOV. Data type of the field has also to be selected.

⊌ ORACLE FLEXCUBE Development Workbench	for Universal Banking — Mozilla Firefox	- a x
○ 🖄 🔤 whf00iqw:8088/FCJRADTool	142GA/RADLoginServlet#nogo	ය ස
ORACLE' FLEXCUBE Developme	nt Workbench for Universal Banking	Admi
=		Windows Options Sign Out
Function Generation		
		🖫 🗵 L C 🎸 🤤
Action Load V	Function Type Parent V	Function Category Maintenance
Function Id UTDFNDRL	Parent Function	Header Template None 🗸
Save XML Path DRL_RAD.xml BR	Parent Xml	Footer Template Maint Audit
Search	Block Field Properties	- M 💽 🦃
FUNDBASECURRENCYDESC BTN_UMBFNDLOV AMCIDDESC REGISTRARIDDESC TRUSTECIDDESC CUSTODANDESC FUNDID1 RULEEFFECTIVEDATE1 FUNDTYPEDESC FUNDCAUNTRYDESC BTN_MUTILANGDET BTN_SHARECHARA BTN_GENOPERUL BTN TKANSPROC	Field Name + BTN_UMBFNDLOV Field Label LBL_UMB_FUND DataSource Column Name + Data Type + Varchar2 Display Type Lov Item Type Control Parent Field Related Block LOV Name + Column Name + Fieldset Name FST_FUND_DEMO1 CLASSID	XSD Tag UMB_FUND Required Comment ID Image: Comment ID Read Only Field Size • Calender Text Maximum Length Depression of the propup Edit Required Maximum Value Uppercase Only Maximum Value Not Required Maximum Value Not Required Maximum Value Not Required Maximum Value Not Required TextArea Rows Popu P Adit Nation Default Value Hot Key Required Preview Value Exact Fetch Mask Id Joint Hotler Hot Key Required
BTN_FSC BTN_FRL BTN_FTC BTN_CORPORATEACTIONS	Custom Attributes Events Bind Variables Return Fields Related Field Bind Variables Mapping Biock Name	Default From Lov Definition Bind Variable Data Type
BTN_FUNDLOAD BTN_FUNDFORMULA BTN_AINFO	BLK_FUND_DETAILS	UMBRELLAFUND V NUMBER

Fig: Defining bind variable for the LOV

4.8 Attaching Call forms

Maintenance Call forms can be attached to a maintenance screen. Refer the document <u>15-</u> <u>Development of Call Form.docx</u> for developing call forms

Attaching Call forms

- Add button to block to launch call form on button click.
- Right click on Block
- Select Add fields. Select fields and Add UI field's window will be launched
- Select UI Fields tab. Click add row button. Enter button name and click ok.
- Select display type as button and enter field label.

Selec	ect Fields & Add UI Fields		×
DataS	aSource fields UI Fields		
			-
		Data Type	^
	BTN_FPCDET	~	
		Ok	✓ Cancel
		OK	Gancer

Fig: Defining Button field

• Add Call form details to Call form node

ORACLE FLEXCUBE Development Workbench for						- 0	
-							×
O A ≈ whf00iqw:8088/FCJRADTool1	42GA/RADLoginServlet#nogo	C				☆	=
ORACLE' FLEXCUBE Development	t Workbench for Universal Ban	king				Ad	min
=				,	Windows Optio	ons Sign (Dut
Function Generation							_ ×
					🖬 🗙 🛛	L C 7	9
Action Load V		Function Type Parent V		Function Category Maintenance	v		
Function Id UTDFPRIC		Parent Function		Header Template None V			
Save XML Path 'RIC_RAD.xml BRC	OWSE	Parent Xml		Footer Template Maint Audit	v		
Search	Call Form Details					Ľ	> ^
Preferences							
► DataSource							
► ListOfValues				Screen Arguments Depende	ent Fields 🛨 🗖		
▲ DataBlocks	Function ID	Parent Data Block	Parent DataSource	Relation	Relation Type	^	
▶BLK_FUNDPRICEHDRTBL		BLK_FUNDPRICECOMPONENTTBL ~	FUNDPRICECOMPONENTTBL ~	OMPONENTTBL.FUNDID = FUNDDEMO 🌄	One To One		
▶BLK_FUNDPRICEDETAILTBL							
▶BLK_FUNDPRICECOMPONENTTBL							
BLK_VW_ADDINFO							
▶BLK_SUMMARY							
▶BLK_FPC_HDR							
BLK_FPC_DTL							
▶BLK_FPC_COMP							
▶ Screens							
▶ FieldSets							
Actions							
CaliForms							
LaunchForms							
Summary							

Form Details									
						S	creen Arguments Dependent	t Fields 🛨 🗖	
Relation	Relation Type	Callform Screen		Display T	Гуре	Active	Rest Relation With P	arent ′	^
TBL.FUNDID = FUNDD	EMO 🔽 One To One 🗸		v []	Button	~	Yes 🗸			

Fig: Defining details of the Call form to be attached in call form node

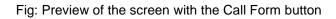
- Add event to button.
- On selecting event type as call form or launch form or sub screen button will be displayed on bottom of the screen.
- If user needs to place button position in desired place on the screen, event type should be Normal .User has to write code in release specific JavaScript file to launch the screen.

NRACLE FLEXCUBE Development Workbench	h for Un	iversal Banking — Mozi	lla Firefox						-	٥	×
🔿 👌 🗝 whf00iqw:8088/FCJRADToo	ol142G	A/RADLoginServlet#	nogo							☆	≡
ORACLE' FLEXCUBE Developme	ent Wo	rkbench for Universal	Banking							Adr	nin
=								Wir	ndows Options	Sign O	ut
Function Generation											. ×
									🗄 🗶 L	C 7	9
Action Load V			Function Type Parent	~			Function Cate	gory Maintenance 🗸			
Function Id UTDFPRIC			Parent Function				Header Temp	late None 🗸			
Save XML Path PRIC_RAD.xml B	ROWS	E	Parent Xml				Footer Temp	olate Maint Audit V			
Search	Ble	ock Field Propertie	es						- 🛛	🗔 🦃	^
REFLECTINTRADING NETASSETVALUE TOTALASSETS FORMULABUILDER NAVLOT HWM SWINGPRICEBASIS SWINGINGPRICE BITN_FPCDET COEENABLED LATESTPRICE BLK_FUNDPRICECOMPONENTTBL ▶BLK_VW_ADDINFO			· ·	A > >	Maxii Mir Maximu Tex TextAr	XSD Tag [Field Size • mum Length nimum Value [ximum Value] ximum Value [m Decimals] xtArea Rows [rea Columns] Default Value [Mask Id]	FPCDTL		Required Visible Read Only Calender Text Popup Edit R Uppercase O LOV Validatio Input by LOV Not Required Report Paran Format Requ Hort Key Requ Focus Required Jack Key Requ Exact Fetch Joint Holder H Required	equired nly n Required Only In Xsd neter ired uired red	
►BLK_SUMMARY ►BLK_FPC_HDR ►BLK FPC DTL	Cus	tom Attributes Events							+ -		
►BLK_FPC_COMP		Event Name	Function Nar	ne	Event Type	Button So	creen CallForm Nar	ne Screen Na	ame ^		
► Screens ► FieldSets		onclick v	fnshowfpcdetails()		Subscreen V	CVS_SCR V					
Actions											

Fig: Defining event to the button such that call form is linked to the button

• Check the preview.

\diamond							
New	Enter Query						
	Fund ID *			Effective Date *	k		
Fu	nd Base Currency			ISIN No			
NAV Comput	ation						
		Vet Asset Value		NAV Lot			
		Total Assets		Total Net Assets *	k		
		Formula Builder		No. of Unit Holders *	k		
	Real NAV/Lot *			Declared NAV/Lot *	k		
	Floor Price *			Ceiling Price *	k		
FI	Outstanding Units *			-	No v		
	Outstanding Units *			High Water Mark (HWM)			
	Reflect In Trading	Select ~		Hurdle Rate			
Sw	inging Price Basis			HWM + Hurdle			
	Swinging Price				Ok		
					OK		
Fund Price (Currency Details						
	Input by		DateTime				
Auth	orized by		DateTime				
	Mod No	Reco	ord Status			Ok	Exit



4.9 Adding Summary

1) Add entry in Preferences node for Summary screen

CRACLE FLEXCUBE Development Workbench	h for Universal Banking — Mozilla Firefox				- 0
O 🖄 ≅ whf00iqw:8088/FCJRADToo	bl142GA/RADLoginServlet#nogo				\$
ORACLE FLEXCUBE Developme	ent Workbench for Universal Banking				Adm
=				Windows	Options Sign Out
Function Generation					-
				.	🗙 L C 🎸 🤤
Action Load V	Function Type Pa	irent v		Function Category Maintenance V	
Function Id UTDFNDRL	Parent Function			Header Template None V	
Save XML Path DRL_RAD.xml B	ROWSE Parent Xml			Footer Template Maint Audit	
Search	Preferences				
Preferences	Head Office Function Logging Required Auto Autonization Tank Modifications Field Log Required Multi Branch Acces Excel Export Requi Java Functions GateWay Screen Monti Detail Parameter Value Mappings	5	Modul Module Description Module Grou Branch Program I Process Cod SVN Repository URI	n Unit Trust	
		UT UT		Control Module Description Unit Trust Unit Trust	String 🗭 🖻

Fig: Adding Summary screen details in Preferences node

- 2) Click on Summary Node.
 - Enter Summary title .Select label code from lov.
 - Select Data Block master block and summary blocks will be displayed. Select required block from drop down list.
 - Select Data Source for summary.
 - Select Summary Type.
 - Select Summary Screen size.
 - Enter if anywhere clause is required.
 - Enter Default order by if required.
 - Enter Multi Branch where clause if required.
 - Attach the fields required in the summary result grid
 - If the field is required as part of filtering, query has to be checked for the particular field
 - Provide the position of fields in Result grid and Summary Query set.

ORACLE FLEXCUBE Development Workbench	for Universal Banking — Mozi	lla Firefox								-	٥	×
○ Se and whf00iqw:8088/FCJRADTool	l142GA/RADLoginServlet#	nogo									☆	≡
ORACLE' FLEXCUBE Developme	ent Workbench for Universal	Banking									Adr	nin
=								W	Vindows	Options	Sign Or	ut
Function Generation												. ×
										×L	C 7	9
Action Load V		Function Type Parent V				Fu	nction Category	Maintenance 🗸				
Function Id UTDFNDRL		Parent Function				H	leader Template	None 🗸				
Save XML Path DRL_RAD.xml BR	ROWSE	Parent Xml					Footer Template	Maint Audit	<u>~</u>]			
Search	Summary Details										🔯 🦃	^
Preferences > DataSource > ListOValues > DataBlocks > Screens > FieldSets Actions CallForms LaunchForms Summary	Data Blocks Data Source Summary Type Summary Screen Size	LBL_FUNDRULESSUMM BLK_SUMMARY VW_EDR_SUMMARY Bulk Authorization Medium Criteria Based Search Suttons Fields Ordering			Default Where Claus Default Order E Multi Branch Whe Claus Main Summary Scree	By ie in W	/ebServices Requ	iired	2			-
		Data Block Fields	•		Fields Selected	Query	Properties	Ì				
			~		STATUS		Properties					
					FUNDID		Properties					
				DD			Properties					
				44	FUNDNAME		Properties					
					FUNDNAMESHORT		Properties					
					FUNDCLASS		Properties					
					<		>	·				
			~									

Fig: Providing Properties for Summary Screen

Summary Preview

Right click on summary node and click on preview.

Fund Rules Summary							
Execute Query ⊄ Advanced S	Search 🥱 Res	set 🖌 Cle	ar All				
Authorization Status Fund ID Fund Name AMC ID Latest Rule Fund Ticker Symbol Hedge Fund	· · ·	×		Rule Effect Fu Fund E Fund Identification	und Type	~	2
Records per page 15 v 4 1	of 1	Go to Pa	age				^
Authorization Status R	lecord Status	Status	Fund ID	Rule Effective Date	Fund Name	Fund Name Short	Fund Clas
							_
	_						~
Authorize View Changes							/
							Exit



4.10 Amendable fields Maintenance

Amendable Fields

If user needs to modify data of a particular field on unlock, in Workbench developer has to maintain fields as amendable.

- Click ACTIONS node.
- Click on *Amendables* button next to the action for which the field has to be made amendable
- Select the fields in each block which user can modify for the selected action.

Data Blocks		DataBlock Fields		
BLK_FUND_DETAILS BLK_GENERAL_OPERATING	^	New Allowed Delete Allowed All Record	is 🗌 Mandatory	/
BLK_MULTI_LANGUAGE_DTL BLK_HULTI_LANGUAGE_DTL BLK_SHARES_CHARACTERISTICS BLK_HOLDING_LIMIT_DETAILS BLK_HOLDING_LIMIT_DETAILS BLK_TXN_PROCESSING_RULES BLK_TXN_ROCESSING_RULES BLK_TXN_LIMIT_COMMUNICATION BLK_SI_RULES_FREQUENCY BLK_SI_RULES_FREQUENCY BLK_FUND_SALE_COUNTRY BLK_FUND_SALE_COUNTRY BLK_FUND_SALE_COUNTRY_DETAIL BLK_FUND_RESIDENCY_RESTRICTION BLK_FUND_RESIDENCY_RESTRICTION_DETAILS BLK_FUND_TRANSACTION_CURRENCY_DETAILS BLK_CORPORATE_ACTION	~	Field NameFUNDIDRULEEFFECTIVEDATEFUNDSTARTDATEFUNDSTARTDATEFUNDNAMEFUNDAMESHORTFUNDCLASSFUNDTYPEFUNDFAMILYFUNDCOUNTRYFISCALSTARTYEARFISCALENDYEARAMCIDBROKERSALLOWED	Amendable	

Fig: Maintaining amendable fields

5. Generation of files

Generate Files

• Click on generate button select the required files to generate and click on Generate button.

RACLE FLE	CUBE	Development Workbench for Univer	rsal Banking				Adn
						Windows Op	tions Sign Ou
ction Generation						Windows Op	aons Sign of
						. ×	LC 7
RadXML		Menu Details Datasource Details COV Details Slock Details Sreen Details Armendable Details	Label Details Block PK Columns Glock PK Columns Glock State Glock State	Xsds Screen Html Upload Table Trigger Upload Tables Definition Archive Table Definition			
		Information Description		Information Code	ELCM MetaData Class		
		Request successfully Process	sed				~
SI.No					File Type	Status	^
1	UTDF	UL.			UIXML	Generated V	
2	UTDFI	10			JS	Generaled v	
}	UTDFI	40			HTML	Generated ¥	
	UTDF	40			HTML	Generated v	
i	UTDFI	νE		Ok	HTML	Generated v	
	UTDFI	NDRL_CVS_SCR_MULTILANGDET_TA	B_HEADER.html		HTML	Generated 🗸	
	UTDFI	NDRL_CVS_SCR_MULTILANGDET_TA	B_MAIN.html		HTML	Generated 🗸	
	UTDF	NDRLCVS_SCR_MULTILANGDETTA	B_FOOTER.html		HTML	Generated v	
	UTDF	NDRLCVS_SCR_GORTAB_HEADEF	R.html		HTML	Generated v	
0	UTDFI	VDRLCVS_SCR_GORTAB_BASICIN	IFO.html		HTML	Generated 🗸	
1	UTDFI	VDRL_CVS_SCR_GOR_TAB_AUTOM	ATICREDPRE.html		HTML	Generated V	
2	UTDFI	VDRLCVS_SCR_GORTAB_MINMAX	HOLCHK.html		HTML	Generated V	
3	UTDF	NDRLCVS_SCR_GORTAB_ADVANC	CEOPTIONS.html		HTML	Generated	
	UTOF		DEDDDDDDDDDDD			Constant of the	\sim



Testing

- Launch the screen from FLEXCUBE
- Try sample operations on the screen (NEW,MODIFY,QUERY etc.)

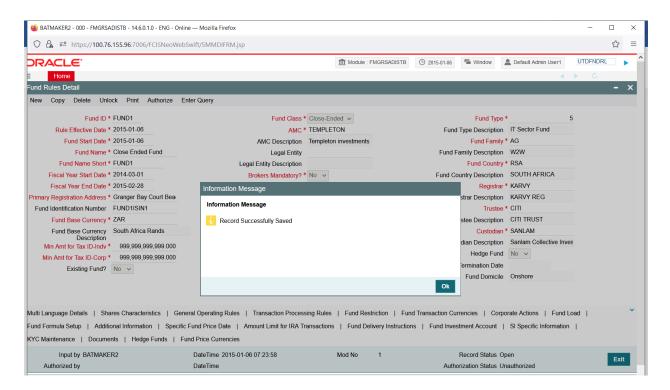


Fig: Saving Record for the function id in FLEXCUBE

6. Generated Units

The following units will be generated for a Maintenance screen.

Refer document <u>Development_WorkBench_Screen_Development-II.docx</u> for detailed explanation on the same.

6.1 Front End Units

6.1.1 Language xml

This file is an XML markup of presentation details, for the designed Call Form specific to a language.

6.1.2 SYS JavaScript File

This JavaScript file mainly contains a list of declared variables required for the functioning of the screen.

6.1.3 Release Type Specific JavaScript File

This file won't be generated by the Tool. It has to be manually written by the developer if he has to write any code specific in that release.

6.2 Data Base Units

6.2.1 Static Scripts

The following static scripts generated are required for the proper functioning of a Call Form screen. Refer document on generated units for detailed explanation

i) Menu Details

Scripts for SMTB_MENU and SMTB_FCC_FCJ_MAPPING, SMTB_ROLE_DETAIL, SMTB_FCC_GCJ_MAPPING are required for the functioning of Maintenance screen

- ii) Lov Details
- iii) Amendable Details
- iv) Label details
- v) Screen Details
- vi) Block details
- vii) Data Source Details
- viii) Call form details

ix) Summary Details

6.2.2 System Packages

The Main Package contains the basic validations and backend logic for the Maintenance function id. The Main package contains the mandatory checks required. It will also contain function calls to the other packages generated by Workbench.

The main package has the below stages for a maintenance form:

- Converting Ts to PL/SQL Composite Type
- Checking for mandatory fields
- Defaulting and validating the data
- Writing into Database
- Querying the Data from database
- Converting the Modified Composite Type again to TS

Each of these stages has a 'Pre' and 'Post' hooks in the Kernel, Cluster and Custom Packages. And these Hooks are called from the Main Package itself

Main Package has the system-generated code and should not be modified by the developer Kernel, Cluster and Custom Packages are the packages where the respective team can add business logic in appropriate functions using the Pre and Post hooks available.

6.2.3 Hook Packages

Release specific packages will be generated based on the release type (KERNEL.CLUSTER or CUSTOM). Developer can add his code in the release specific hook package.

The Main Package has designated calls to these Hook Packages for executing any functional checks and Business validations added by the user. The structure for all the Hook Packages are the same, like:

Fn_Post_Build_Type_Structure Fn_Pre_Check_Mandatory Fn_Post_Check_Mandatory Fn_Pre_Default_and_Validate Fn_Post_Default_and_Validate Fn_Pre_Upload_Db Fn_Post_Upload_Db Fn_Pre_Query

Fn_Post_Query

These Functions are called from the Main package using the Pre and Post Hooks available in the Main Package. The 3 Hook Packages namely Kernel, Cluster and Custom Packages have similar structure and are for the respective teams to work on.

6.3 Other Units

6.3.1 <u>Xsd</u>

Xsd's will be generated if gateway operations are required for the particular function id. Maintenance for the same has to be done in *Actions* node.

7. Extensible Development

Developer can add his code in hook packages and release specific JavaScript file.

7.1 Extensibility in JavaScript Coding

For release specific JavaScript coding, code has to be written in release specific JavaScript file. It follows the naming convention as: (Function Id)_(Release Type).js **Example:** Code in UTDFNDRL_CLUSTER.js is exclusive to cluster release

This JavaScript file allows developer to add functional code and is specific to release. The functions in this file are generally triggered by screen events. A developer working in cluster release would add functions based on two categories:

- Functions triggered by screen loading events
 Example: fnPreLoad_CLUSTER(), fnPostLoad_CLUSTER()
- Functions triggered by screen action events
 Example: fnPreNew_ CLUSTER (), fnPostNew_ CLUSTER ()

7.2 Extensibility in Backend Coding

Release specific code has to be written in the Hook Packages generated.

7.2.1 Functions in Hook Packages

Different functions available in the Hook Package of a Maintenance Form are:

1) Skip Handler : Pr_Skip_Handler

This can be used to skip the logic written in another release. Example: logic written in KERNEL release can be skipped in CLUSTER release

2) Fn_post_bulid_type_structure

If any change has to be made in the field values obtained from the form before start of processing, code can be written here

- 3) Fn_pre_check_mandatory
- 4) Fn_post_check_mandatory

Any extra mandatory checks on the field values from the screen can be written here.

- 5) Fn_pre_query
- 6) Fn_post_query

Any specific logic while querying can be written in these functions. It is called from fn_query of the main package.

- 7) Fn_pre_upload_db
- 8) Fn_post_upload_db

Any logic while uploading data to tables can be written here.

- 9) Fn_pre_default_and_validate
- 10) Fn_post_default_and_validate

Any release specific logic for defaulting and validation can be written here. It is called from the fn_default_and_validate in the main package.

7.2.2 Flow of control through Hook packages

The flow of control through the Hook Packages for a particular stage is as explained in the figure below

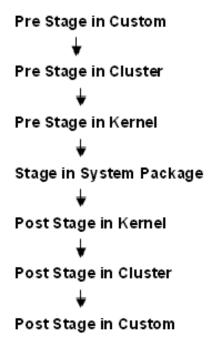


Fig: Flow of control through Hook Packages

Example: For Fn_check_mandatory, flow will be as

UTPKS_UTDFNDRL_MAIN. Fn_Check_Mandatory UTPKS_UTDFNDRL_CUSTOM.Fn_Pre_Check_Mandatory UTPKS_UTDFNDRL_CLUSTER.Fn_Pre_Check_Mandatory UTPKS_UTDFNDRL_KERNEL.Fn_Pre_Check_Mandatory UTPKS_UTDFNDRL_MAIN .Fn_Sys_Check_Mandatory UTPKS_UTDFNDRL_KERNEL.Fn_Check_Mandatory UTPKS_UTDFNDRL_CLUSTER.Fn_Check_Mandatory UTPKS_UTDFNDRL_CLUSTER.Fn_Check_Mandatory UTPKS_UTDFNDRL_CLUSTOM.Fn_Check_Mandatory

7.2.3 By passing Base Release Functionality

There are auto generated functions like FN_SKIP_<RELEAE_TYPE> which would determine whether or not a particular hooks needs to be called.

Developer also has an option to bypass the base release hook if need be. For example if the validations written in *UTPKS_UTDFNDRL_KERNEL.FN_PRE_CHECK_MANDATORY* are not required or not suitable for the Cluster release, system provides an option to bypass the code written by Kernel team. Similarly a Custom release can also bypass the code written by Kernel and Custom Releases. This can be achieved by calling procedures

PR_SET_SKIP_<RELEASE_TYPE> and **PR_SET_ACTIVATE_<RELEASETYPE>**. These procedures will be made available in the main package and the development teams of Customization teams can use these procedures to skip and re-activate the hooks of parent release.

The Developer should avoid adding validations or Checks in the Pre Stage of any function, like Fn_Pre_Check_Mandatory, etc and should aim to add all the validations in the Fn_Post_Default_and_Validate.

For Example let us see the flow for the Mandatory Stage for STDCIFD:

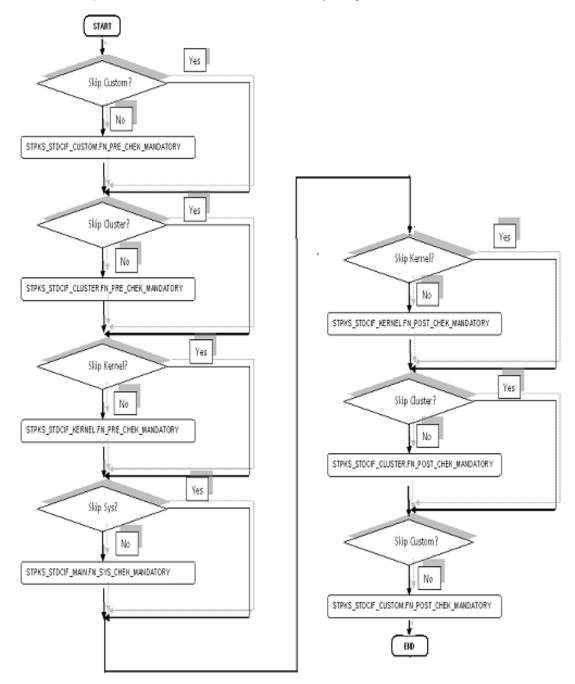


Fig: Flow of control explaining skip logic in packages



Development of Maintenance Form [June] [2024] Version 14.7.5.0.0

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 www.oracle.com/financialservices/

Copyright © [2007], [2024], 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.