Development of Maintenance Form Oracle Banking Trade Finance Release 14.5.2.0.0 [August][2021]



Contents

1.	Prefa	ce	3
1	.1	Audience	3
1	.2	Related Documents	3
2.	Intro	luction	3
2	.1	How to use this Guide	3
3.	Over	view of Maintenance Screen	4
4.	Scree	n Development	4
4	.1	Header Information	4
4	.2	Preferences	6
4	.3	Data Sources	7
4	.4	Data Blocks	12
4	.5	Screens	14
4	.6	Field Sets	16
4	.7	LOV	20
4	.8	Attaching Call forms	23
4	.9	Adding Summary	27
4	.10	Amendable fields Maintenance	29
5.	Gene	ration and Deployment of files	30
6.	Gene	rated Units	33
6	.1	Front End Units	
	6.1.1	Language xml	33
	6.1.2	SYS JavaScript File	33
	6.1.3	Release Type Specific JavaScript File	33
6	.2	Data Base Units	33
	6.2.1	Static Scripts	
	6.2.2	System Packages	
	6.2.3	Hook Packages	34
6	.3	Other Units	34
0	.5	Xsd	
7.		sible Development	
	.1	Extensibility in JavaScript Coding	
7	.2	Extensibility in Backend Coding	
	7.2.1	Functions in Hook Packages	35
	7.2.2	Flow of control through Hook packages	35
	7.2.3	By passing Base Release Functionality	36

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	Self Acquired
Language	
Working knowledge of XML files	Self Acquired

1.2 Related Documents

04-Development_WorkBench_Screen_Development-I.docx 05-Development_WorkBench_Screen_Development-II.docx

2. Introduction

2.1 How to use this Guide

The information in this document includes:

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

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 Ids. This section briefs the steps in designing a Maintenance screen. STDCINF is sample function id used for demonstration in this document

For detailed explanation, refer the document: <u>4-Development WorkBench</u> <u>Screen Development-I.docx</u>

4.1 Header Information

Provide the header information as shown in the figure.

DRACLE FLEXCUBE Development Workbe	nch for Universal Banking	DEMOUSER
Browser +		Windows Options Sign Out
unction Generation		
		国 凶 国 夜 留 -
Action None *	Function Type Parent -	Function Category Maintenance -
Function Id	Parent Function	Header Template None -
Save XML Path	Parent Xml	Footer Template None ~
DataSource ListOrValues DataBlocks Screens FieldSets Actions CaliForms LaunchForms Summary		

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

DRACLE FLEXCUBE Development Workbent	h for Universal Banking	DEMOUSER
Browser -		Windows Options Sign Out
unction Generation		
Action New •	Function Type Parent -	Function Category Maintenance + Save (CTRL + S)
Function Id STDCIFD	Parent Function	Header Template None -
Save XML Path D1RADTOOL	Parent Xml	Footer Template None -
sarch		
Stateliocka Stateliocka Statens FieldSeta Adions California California California Summary		

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

Browser -	nent Workbench for Universa	il Banking		Windows	DE Options	MOUSER Sign Out
Function Generation						-
Adion New • Function Id STDCIFD Save XML Path DrRADTOOL		Function Type Parent Parent Function Parent Zona		Function Category Maintenance • Header Template None • Fooler Template None		9 W 4
Baardh Preferances DalaSource ListOrValues DalaBlocks Screens FreeSslet Actions Califorms LaunchForms Summary	Enformation Er (1) File Saved	ror Description Of of Download File Download Do you want to open or save this file Name: RAD.2IP Type: WinRAR 2IP archive From: 10.184.132.100 Open	e7			
		While files from the interest can be harm your computer. If you do not save this file. <u>What a the mile?</u>	e useful, some files can potentially trust the source, do not open or			

Fig 12.3: 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.

RACLE FLEXCUBE Development	pment Workbench for Universal Banking				Windows		EMO	
Inction Generation					THIQOWS	option	is on	in Out
					6	×	目仔	Q.
Action New ·	Function	Type Parent ·		Function Category Main	lenance 👻			
Function Id STDCIFD	Parent Fun	ction		Header Template None				
Save XML Path D'IRADTOOL	Paren	t Xml		Footer Template None				
arch	Preferences							9
Preferences DataSource ListOfvalues Screens FieldSets CallForms LaunchForms Summary	Head Office F Logging Req Auto Authoriz Auto Authoriz Tank Modific Field Log Re Mutt Branch Excel Export	uired ation ations quired Access	Module Module Description Branch Program Id Process Code SVN Repository URL Transaction Block Name Transaction Field Name	ST PE Static Maintenance Choose Block • Choose Field •				
	Function Id		Module *	Module De	51.00	0.000	a little	-
DataSource DistOrAlues DataBlocks Screens HeldSets CaliForms CaliForms LaunchForms		рт		Static Maintenance				

Fig 12.4: 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.
- 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

Description: LBL_{function id}_DESC Example: For STDCIFD, following labels has to be maintained LBL_STDCIFD_MAIN_MENU, LBL_STDCIFD_SUB_MENU_1, LBL_STDCIFD_SUB_MENU_2, LBL_STDCIFD_DESC

Refer <u>Development WorkBench</u> <u>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.

Browser - Function Generation	ment Workbench for Universal Banking	DEMOUSER Windows Options Sign Out
Action New + Function Id STDCIPD Save XML Path DrRADTOXL Search	Function Type Parent Parent Function Parent Xml AddTable	Function Category Maintenance Header Template None Foolar Template None X
Preferances DataBource LestOvalues DataBlocks Screens FreidSels Adons CallForms SunchForms SunchForms	Table Name STTM_CUSTOMER%	arent Relation Type
	Table Name Table Name Table Name Tim_CUSTOMER_ALTERNATE_BRANCH STTM_CUSTOMER_CAT STTM_CUSTOMER_NAM_DETAIL STTM_CUSTOMER_NAM_DETAIL STTM_CUSTOMER_PARAM STTM_CUSTOMER_PARAM STTM_CUSTOMER_PARAM STTM_CUSTOMER_PRE_MAGE STTM_CUSTOMER_SRC_DETAILS STTM_CUSTOMER_SRNO STTM_CUSTOMER_NUSED STTM_CUSTOMER_VW	

Fig 12.5: 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.*

	pment Workbench for Unive	rsal Banking			1255			DEMO			No.
Browser - Function Generation					Windo	ws	Optio	ns S	Sign C	Dut	~
Function Generation						12		- 1	3 6		
							×			4	1
Action New -		Function Type Parent			Function Category Maintenance	٠					
Function Id STDCIFD		Parent Function			Header Template None -						
Save XML Path D/IRADTOOL		Parent Xml			Footer Template None	٠					
Search	Data Source Detail	s						+	-	9	•
Preferences DataSource STM_CUSTOMER UstOValues DataBlocks Screens FieldSets Actions CallForms Summary		STTM_CUSTOMER Yes • One To One • No • CUSTOMER_NO VARCHAR2	0	Parent Relation Where Clause Default Order By Type	Normal Mandatory		000				

Fig 12.6: 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.

DRACLE FLEXCUBE Devel	opment Workbench for Unive	ersal Banking					[DEMO	ous	ER
Browser -					Wind	ows	Optic	ins s	Sign O	Jut
unction Generation						-				-
							×		3 6	1 4
Action New -		Function Type Parent			Function Category Maintenance	•		÷ - 9		
Function Id STDCIFD		Parent Function			Header Template None -					
Save XML Path D/IRADTOOL		Parent Xml			Footer Template None	٠				
earch	Data Source Deta	ils								9
Deferences	Data Source	STTM_CUSTOMER		Parent	· · ·	11				
DataSource STTM_CUSTOMER	Master	Yes -		Relation		-	UD			
ListOfValues	Relation Type	One To One 👻		Where Clause			2			
DataBlocks Delate	Multi Record	No 🝷		Default Order By	Concernance of the second seco		2			
Screens		CUSTOMER_NO	2	Туре	Normal •					
FieldSets	PK Types *	VARCHAR2	2		I Mandatory					
CallForms	Upload Table									
a LaunchForms										
Carl Summary										

Fig 12.7: Including Data Source Fields for the Data Source

Browser -	ment Workbench for Universal Banking				Windows		MOUSER Sign Out
Function Generation			_				-
Action New -	Function Type Parent	*			Function Category Maintenance -		
Function Id STDCIFD	Parent Function				Header Templals None •		
Save XML Palh DORADTOOL	Parent Xmi				Foolar Template Nona	•	
Search	Select Fields		×				+ = 9
Preferences				Parent			
DalaSource STTM CUSTOMER	V CUSTOMER_NO	VARCHAR2		Relation		000	
DistOfValues	V CUSTOMER_TYPE	CHAR		Where Clause		20	
DalaBlocks	V CUSTOMER_NAME1	VARCHAR2		Delaull Order By Type	Normal 👻		
FieldSals	Z ADDRESS_LINE1	VARCHAR2			F Mandalory		
CaliForms	ADDRESS_LINE3	VARCHAR2					
TaunchForms	ADDRESS_LINE2	VARCHAR2					
Summary	ADDRESS_LINE4	VARCHAR2					
	COUNTRY	VARCHAR2					
	SHORT_NAME	VARCHAR2					
	NATIONALITY	VARCHAR2	Е				
	LANGUAGE	VARCHAR2	-				
		· · · · · · · · · · · · · · · · · · ·	1				
		Ok Cancel					

Fig 12.7: 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

Browser -	nent Workbench for Unive	rsal Banking		Windows		
unction Generation						DEMOUSER Options Sign Out
	Ser - <u>Vindows</u> Options Sign Out in Generation					
Action New -		Function Type Parent -		Function Category Maintenance •	DEMOUSER Windows Options Sign Out - X - X - X - X - X - X - X - X - X - X	
Function Id STDCIFD		Parent Function		Header Template None 👻		
Save XML Path D:IRADTOOL		Parent Xml		Footer Template None		
arch	Data Source Field	Details			Refr	esh - 9
Search Data Source Field Details Refersh Ei Preferences Column Name CustoMER_NO Data Type VARCHAR2 Image: STIM_CUSTOMER_NO Block Name MaxLength Image: Stime						
	rt - Window Option Sign Out Exercision Verified Details Verified Details Verified Details Verified None Verified Details Verified Verifie					
	Field Name	CUSTNO	Upload Table Column			DEMOUSER tions Sign Out
COUNTRY	Column Name CUSTONER_NO Data Source Field Details Ref Column Name CUSTONER_NO Data Type VARCHAR2 Image: Custon Column Name Image: Custon Name Image: Custon Column Name<					
	E:= 12 7.1	Duna i din a nuna nuti an	fou Data Course Fiel	da		

Data model of a single function id would include multiple tables .All the tables needs to added 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.

	ent Workbench for Univer	sal Banking				112/01/2010		NOU	
Browser -						Windows	Options	Sign	Out
							×E	Ø	9
Action New -		Function Type Parent			Function Category Mainte				
Function Id STDCIFD		Parent Function			Header Template None				
Save XML Path D/IRADTOOL		Parent Xml			Footer Template None	•			
earch	Data Source Detail	S						+ -	9
Preferences DataSource Stru_CUSTOMER GROUP_D CUSTOMER_NO RELATIONSHIP LISTOMARE_NO CUSTOMER CUSTOMER_NO CUSTOMER_NO CUSTOMER	Master Relation Type Multi Record PK Cols *	STTM_CUST_GROUP No • One To Many • Yes • GROUP_ID-CUSTOMER_NO VARCHAR2-VARCHAR2	00	Parent Relation Where Clause Default Order By Type	STTM_CUSTOMER STTM_CUSTOMER CUSTOM Normal • Mandatory		000		

Fig 12.7: Providing properties for Child Data Source

Note: A data source cannot be parent to itself.

Note the following while adding data sources:

- i) 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></u> for detailed explanation on data sources.</u>*

4.4 Data Blocks

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

	¢
BLK_CUSTOMER	
Ok Cancel	

Fig 12.8: 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.

ACLE FLEXCUBE Develop	ment Workbench for Unive	rsal Banking			DEM	NOUSE
owser .				Windows	Options	Sign Out
ction Generation						
					×	8 🧃
Action New -		Function Type Parent		Function Category Maintenance 👻		
Function Id STDCIFD		Parent Function		Header Template None -		
Save XML Path D:/RADTOOL		Parent Xml		Footer Template None 🔹	-	
rch	Block Properties				+	- 🔊
🚞 Preferences	Block Name	BLK_CUSTOMER	XSD Node	Customer		
DataSource	Block Title		XSD Node Annotation		2	
B STTM_CUST_GROUP	Parent	•		Yes 💌		
DataBlocks	Relation Type	One To One 🔻		No 🔹		
BLK_CUSTOMER	Block PK Fields					
Screens FieldSets		Datasource Available	Datasource	Added		
Actions		STTM_CUSTOMER				
ia CallForms						
Summary			44			
			44			
		1				

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

	ment Workbench for Unive	ersal Banking							DUSE	
Browser 🖌 unction Generation					Wind	ows	Optio	ins t	Sign Ou	t
							×		7 🧃	4
Action New -		Function Type Parent	•		Function Category Maintenance	e 🕶				
Function Id STDCIFD		Parent Function			Header Template None 👻					
Save XML Path D:\RADTOOL		Parent Xml			Footer Template None	٠				
earch	Block Properties							+ -	<u>ai</u> 5	
Preferences Block Name DataSource Block Title Block T	BLK_CUSTOMER		XSD Node	Customer		1				
	Block Title		2	XSD Node Annotation		_	2			
B STTM_CUST_GROUP	Parent		•	Master Block	Yes -					
ListOfValues DataBlocks	Relation Type	One To One 👻		Multi Record Block Type	No - Normal -					
BLK_CUSTOMER	Block PK Fields	Detection	ce Available	Datasouro						
Screens FieldSets			ce Avaliable	STTM CUSTOMER	ce Added					
Carlons Actions		STIM_COSTOMER		STIM_COSTOMER						
CallForms										
Summary										
				44						

Fig 12.10: 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 where as 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.

CRACLE FLEXCUBE Development Workbe	nch for Universal Banking - Windo	ows Internet Explorer	Andrew Constant Manual V	test .	1 1 1		
	pment Workbench for Universal	Banking				DE	MOUSER
Browser -					Windows	Options	Sign Out
Function Generation							
					G.		77 🧃 d
Action New ·		Function Type Parent	•	Function Ca	tegory Maintenance 💌		
Function Id STDCIFD		Pareni Function		Header Ten	nplale None 💌		
Save XML Paih DIRADTOOL		Parent Xmi		Fooler Ten	iplate None 👻		
Search	Select Fields & Add Ul Field	s		×		+	= 🔊 🧐
Preferences	DataSource fields UI Fiel	lds		omer			
🖃 🧱 DalaSource						9	
STTM_CUSTOMER STTM_CUST_GROUP		TTM_CUSTOMER -		-			
ListOfValues	Column Name	Field Name	Label Code	^ ·			
DalaBlocks	CUSTOMER_NO	CUSTNO	LBL_CUSTNO	nai 👻			
BLK_CUSTOMER	CUSTOMER_TYPE	CUSTTYPE	LBL_CUSTTYPE	ded			
FieldSols	CUSTOMER_NAME1	CNAME	LBL_CNAME	200			
Actions	ADDRESS_LINE1	ADDR1	LBL_ADDR1				
CaliForms	COUNTRY	CNTY	LBL_CNTY				
Summary	☑ NATIONALITY	NLTY	LBL_NLTY				
	I LANGUAGE	LANG	LBL_LANG				
	V						
	Ω.						
				+			
				Ob Consel			
				Ok Cancel			

Fig 12.11: 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 Screens

- 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.

ORACLE FLEXCUBE Develop	oment Workbench for Unive	ersal Banking					DE	EMO	JSEF
Browser -						Windows	Options	Sig	n Out
Function Generation									-
							×	3	S
Action New 👻		Function Type Parent	1997 - 19		Function Category	Maintenance 🔻			
Function Id STDCIFD		Parent Function			Header Template	None 🔻			
Save XML Path D:\RADTOOL		Parent Xml			Footer Template	None 🔻			
Search	Screen Details						1	- AU	7 9
Preferences	Screen Name	CVS_MAIN		Main Screen					
DataSource ListOfValues	Screen Title	LBL_CUST	22	Visible					
DataBlocks	Screen Size	Small	•						
🖃 🚞 Screens	Exit Button Type	Default Cancel	•						
CVS_MAIN									
HEADER BODY								+	_1
I TOOTER	Argument	Name Source Block	Source Field	Argument Value	Target Block	Target Field	Acti		
FieldSets	Argument	Name Source Block	Source Heid	Argument value	Target Block	Target Field	ACU	ve	
CallForms									
aunchForms									
Carl Summary									

Fig 12.12: Providing properties to new Screen

RACLE FLEXCUBE Developr	nent Workbench for Universal Banking	DEMOUSEF Windows Options Sign Out
nction Generation		
		G 🗶 🗏 🖗 🧐
Action New + Function Id STDCIFC Save XML Path CritRADTOOL	Function Type Parent Parent Function Parent Xml Parent Xml	Function Category Mainlenance Header Template None Fooler Templa
arch	Tab Details	Dependent Fields 🦊 🗕 🔬 🦃
 Preferances DataSource ListOvalues Gorens Soverns HEADER TAB_HEADER BODY TAB_HAN TAB_HAN TAB_FOOTER TAB_FOOTER FeldSels Adlons CaliForms Summary 	Screen Name CVS_MAIN Tab Name TAB_MAIN Tab Labei Tab Type Add Section Section Name SEC_CUST Ok Cancel	×

Fig 12.13: Creating new section in TAB_MAIN in the body of screen CVS_MAIN $% \mathcal{A} = \mathcal{A} =$

RACLE FLEXCUBE Developr	ment Workbench for Universal E	Banking				DE	MOUSE
Browser -					Windows	Options	Sign Out
nction Generation							-
						× =	V
Action New 🔻		Function Type Parent		Function Category Mainte	enance 👻		
Function Id STDCIFD		Parent Function		Header Template None	+		
Save XML Path D:\RADTOOL		Parent Xml		Footer Template None	•		
arch	Section Details						- 🛛 🗐
Preferences DataSource ListOfValues DataBlocks DataBlocks	Occubilityanic	_CUST SECT #	♥ Visible ♥ Collapse				
CVS_MAIN	Partition Details						+ -
TAB_HEADER	Partition SI No		Partition Name	Width	Sub-p	artitions	*
🖃 🚞 BODY	1	PART1		50 🔻			
TAB_MAIN SEC_CUST	2	PART2		50 🔻	T		
G DOTER							*
TAB_FOOTER FieldSets CallForms CallForms LaunchForms Summary							

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

Browser -	nent Workbench for Universal Banking			Vindows	DEI Options	MOUSE Sign Ou	
unction Generation							-
Action New Function Id STDCIFD Save XML Path D1RADTOOL	Function Type Parent Parent Function Parent Xml		Function Category Mainter Header Template None Footer Template None				
earch	Fieldset Properties					- 🛛 🗳	,
 Preferences DataSource ListOVAlues DataBlocks Screens FST_CUST1 FST_CUST2 Actions CallForms LaunchForms Summary 	Fieldset Name Fieldset Label Data Block Multi Record View Type Fieldset Height CUSTNO C	Screen Portion Tab Name Section Name Partition Name Number Of Rows	VS_MAIN	E	Horizont: ReadOni Navigatic	ly	

Fig 12.14: Attaching Fields to a Field set

Browser -	nt Workbench for Universal Banking	DEMOUSE Windows Options Sign Out
inction Generation		
Action New Function Id STDC/FD Save XML Path D:/RADTOOL	Function Type Parent Parent Function Parent Xml Fieldset Properties	Function Category Maintenance - Header Template None - Footer Template None -
aarch Fieldset Properties	Screen Name Screen Portion Tab Name Patition Name Number Of Rows	

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

ACLE FLEXCUBE Develop	nent Workbench for Universal Banking		Window	DEMOUSE
ction Generation				6
				🖬 🗶 🗏 🗗 🧐
Action New -	Function Type Parent 👻		Function Category Maintenance	-
Function Id STDCIFD	Parent Function		Header Template None 👻	
Save XML Path D:\RADTOOL	Parent Xml		Footer Template None	-
ch	Fieldset Properties	\sim		- 🔍 🗳
h Fieldset Properties Preferences DataSource ListOV/alues DataBlock Screens Fieldsets Fieldsets View Type Fieldset Height Cultorrms Summary Fieldset Able Data Block Fields	Screen Name Screen Portion Tab Name Section Name Partition Name PART1 Number Of Rows	V V	☐ Horizontal Fieldset ☐ ReadOnly ☐ Navigation Button ☑ Visible	

Fig 12.15: 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.

🔶 Main		S
🖹 New 🦻 Enter Query		
Customer No		
Name		
Туре		
Address		
Maker	Date Time:	
Checker		
	Date Time:	Exit
Mod No	Record Status	
	Authorization Status	
2		

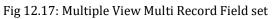
Fig 12.16: Preview of the designed Screen

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).

🔶 Main		×
🗗 New 🦻 Enter Query		
Customer No Name Type Address		
I	Go to Page	+ - =
Group Id	Customer No Relation	
Maker Checker	Date Time: Date Time:	Exit
Mod No	Record Status Authorization Status	

Below image shows a multiple view multi record field set



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

Browser -	ment Workbench for Univer	sai banking					Window	DEMOUS ws Options Sign C
Inction Generation								
Action Load 🔻		Function Type Parent				Fund	ion Category Maintenance	*
Function Id STDCIFD		Parent Function				Head	ler Template None 🔻	
Save XML Path STDCIFD_RAI	BROWSE	Parent Xml				Foo	ter Template Maint Audit	-
arch	Fieldset Properties							<u> </u>
Carl Preferences	Fieldset Name	FST_CUST2		Scree	n Name	CVS_MAIN	-	🗂 Horizontal Fieldse
Action Load Action Load Function Id STDC/FD Function Id STDC/FD Parent Function Save XML Path STDC/FD_RAL PROWSE Parent Xml Parent Xml Fieldset Properties Fieldset Name Fieldset Fields Fieldset Height Fieldset Height Fieldset Fields Field	×	F ReadOnly						
				Та	b Name		-	Navigation Button
	manurrecoord		s	Sectio	n Name		*	Visible
		Single	P	artitio	n Name	PART1	•	
	Fieldset Height		Nun	nber (of Rows			
		Data Block Fields		1997		Field Sot Fields	Subpartition Name	
		Data Diock Fields						
					1000000000000		-	
					020002000.000		-	
			44	11	RELATIO	ON	_	
BLK_CUSTOMER								_
			44					
				1				
I DOTER								
FieldSets								
FST_CUST1 FST_CUST2								
- Actions								

60

Fig 12.18: Properties for Single View Multi Record Field set

🔶 Main		
🗗 New 🖻 Enter Query		
Customer No Name Type Address		↓ 1 of 1 ▶
Group Id Customer No Relation		
Maker Checker	Date Time: Date Time:	
Mod No	Record Status Authorization Status	Exit

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

Fig 12.18: Preview for Single View Multi Record Field set

4.7 LOV

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_COUNTRY.*
- Enter valid query and click on populate button

							🔚 🗶	1 🗏 🗸 🧃		
Action Load 👻		F	Function Type Pare	nt 👻		Function Cat	egory Maintenance 👻			
Function Id STDCIFD		Pa	rent Function			Header Ten	nplate None 🔻			
Save XML Path STDCIFD_RAI	BROWSE		Parent Xml			Footer Ten	nplate Maint Audit 👻			
arch	List Of Val	ues Details						- A		
DataSource STTM_CUSTOMER STTM_CUST_GROUP ListOfValues Lov_oCUNTRY	LOV Query select country_code, description from sttm_country where auth_stat = 'A' and record_stat = 'O'									
🛙 🚞 DataBlocks		uery Columns	Data Type	Visible	Reduction Field	Reduction Field Type	Reduction/Column Lat	el 🔺		
								-		
a 🚞 Screens a 🛅 FieldSets										

Fig 12.19: Defining new LOV



Fig 12.20: Providing LOV query

Function Generation											1	. ×
									×	= 73	1	4
Action Load 👻		Function Type Parent	~			Fun	ction Category Mainte	nance 👻				
Function Id STDCIFD		Parent Function				Hea	ader Template None	-				
Save XML Path STDCIFD_RAI	BROWSE	Parent Xml				Fo	ooter Template Maint /	Audit 👻				
Search	List Of Values Deta	iils								-	<u>a</u> 🦃	^
Preferences DataSource B TTM_CUSTOMER B STTM_CUST_GROUP CUST_GROUP LIStOfValues LOV_OCUNTRY		LOV_OCUNTRY select country_code,description	a from sttm_ca	ountry where auth_stat	= 'A' and reco	ord_stat = 'O'			(Рори	ate	
DataBlocks	Query Colu	imns Data Type	Visible	Reduction Field	Reduct	tion Field Type	Reductio	on/Column La	bel		-	
Greens FieldSets	COUNTRY_CO	DE VARCHAR2 -	Yes 🕶	Yes 👻	TEXT	•	LBL_CNTRY		×E			
 Actions CallForms LaunchForms Summary 	DESCRIPTION	VARCHAR2 -	Yes 🔻	Yes 👻	TEXT	•	LBL_COUNTRY		×I		-	

Fig 12.21: Providing LOV details

- Redn/Col 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

unction Generation				
				🔚 🗶 🗏 🐬 🍯
Action Load -	Function Type	Parent	Function Category Main	itenance 🔻
Function Id STDCIFD	Parent Function		Header Template Non	e 🔻
Save XML Path STDCIFD_RAL	BROWSE Parent Xml		Footer Template Main	nt Audit 👻
Search	 Block Field Properties 			- 🛛 🗖 🗐
Preferences	Field Name * CNTY	XSD Ta	CNTY	C Required
DataSource	Field Label LBL_CNTY	XSD Annotation	n 🔽 🖓	Visible
STTM_CUSTOMER STTM CUST GROUP	DataSource STTM_CUSTOMER	Field Size	e *	Read Only
ListOfValues	Column Name * COUNTRY	Maximum Lengti	n 3	Calender Text
LOV_COUNRTY	Data Type * Varchar2 -	Minimum Value	e	Popup Edit Required
🖃 🚞 DataBlocks	Display Type Lov -	Maximum Value	e	Uppercase Only
BLK_CUSTOMER	Item Type Database Item 👻	Maximum Decimal:	5	LOV Validation
CUSTNO	Parent Field 👻	TextArea Row	5	Required
	Related Block	 TextArea Column: 		Input by LOV Only
ADDR1	Related Field	Default Value	e 🗾	Not Required In Xsd
CNTY	LOV Name LOV_COUNRTY	▼ Preview Value		Report Parameter
DINLTY	Off Line LOV Name	Maskl	d A	
	Fieldset Name			
ELK_GROUP Creens				
FieldSets		Return Fields Related Field		
Carlons Carlons	Return Fields Mapping		<	Default From Lov Definition
CallForms	Query Column	Block Name	Retu	rn Field Name
Summary	COUNTRY_CODE	BLK_CUSTOMER -	CNTY	-
	DESCRIPTION	BLK_CUSTOMER -		•

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.

					10 A	
Action Last	Function Type Parent		Function Category			
Function Id STOCHE	Parent Function		Header Template None			
Save XIII, Path D-RADTOOLV	Parent Xml		Footer Template Maint	Audi 🛩		
earch	Block Field Properties					- 619
Proteinaces OtaSource OtaSource OutoCountrey CutoCrates OutoBroos Outo	Field Name CUSTNO Field Label LBL_CUSTNO XSO Tag CUSTNO XSO Tag CUSTNO Display Type Tert Mam Type Database film Parent Field Related Field Related Field Man Decimals LOY Name LOY_ACCOUNT Fieldset Name FST_GROUP		Data Type Varobar2 DataBourse STTME_CUST_G MaxLength Feed Size Column Name Maskid Off Line LOV Name Image Source	10152	Popup Edit Req3 Required Required Visible Population Calender Text Population Uppercase Only Policy Validation Req3 Policy Req3 In Xad Report Parameter Read Only	
RELATION Sorvens FieldSets Actions Califorms Califorms Summary	Custom Attributes Exercit Bind Variables Mapping Block Name BLK_CUSTOMER	Ratum Fields	Custino Custino	out tom LoV definitio Detatype STRING		

Fig 12.23: 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>14-</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.

Select Fields & Add UI Fields	×
DataSource fields UI Fields	
Field Name Data Type	•
BTM_MIS	
Ok	Cancel

Fig 12.24: Defining Button field

• Add Call form details to Call form node

							🗏 🎸 🧐
Action Load 👻		Function Type Parent	-	Func	tion Category Mai	ntenance 👻	
Function Id STDCIFD		Parent Function		Hea	der Template Nor	ne 🔻	
Save XML Path STDCIFD_RAL	BROWSE	Parent Xml		Foc	oter Template Mai	nt Audit 🛛 🛨	
rch	Call Form Details						ũ
Preferences							
G STTM_CUSTOMER G STTM_CUST_GROUP				1	Creen Arguments		Fields+-
ListOfValues	Function ID	Parent Data Block	Parent DataSource	Relation	Relation Type	Callform Screen	Display 1 ^
LOV_COUNRTY	MICCUSTM	BLK_CUSTOMER -	STTM_CUSTOMER -	<pre>FTTM_CUSTOMER.COSTOMER_NO = </pre>	One To One		Button
DataBlocks DataBlocks DataBlocks							
CUSTNO							
ADDR1							
🚞 LANG							
BTM_MIS							
Creens Screens							
TieldSets							
CallForms							
LaunchForms							
Summary							
							~
	•						•
	<						- F

Fig 12.25: 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

Function Generation							
							🔚 🗶 🗏 🐬 🎯 🖕
Action Load -		Function Type	Parent 👻			Function Category Mainte	enance 🔻
Function Id STDCIFD		Parent Function				Header Template None	•
Save XML Path STDCIFD_RAI	BROWSE	Parent Xml				Footer Template Maint	Audit 👻
Search	Block Field Prope	rties					- 🛛 🗔 🗐
Preferences	Field Name	BTM_MIS		XSD Tag	MIS		C Required
DataSource STTM_CUSTOMER	Field Label	LBL_MIS	* E	XSD Annotation	MIS	2	Visible
STTM_CUST_GROUP	DataSource			Field Size *	ĸ		E Read Only
ListOfValues	Column Name			Maximum Length			Calender Text
DV_COUNRTY	Data Type	x 🔹		Minimum Value			Popup Edit Required
DataBlocks	Display Type	Text 👻		Maximum Value			Uppercase Only
BLK_CUSTOMER BLK_CUSTNO	Item Type	Control 👻		Maximum Decimals			LOV Validation
CUSTIVE	Parent Field	-		TextArea Rows	1		Required
CNAME	Related Block			TextArea Columns			Input by LOV Only
ADDR1	Related Field			Default Value		*1	Not Required In Xsd
CNTY	LOV Name		•	Preview Value	-		Report Parameter
DI NLTY	Off Line LOV Name	Bo	-	Mask Id		*5	
CANG	Fieldset Name						
Screens	Custom Attributes	vents Related Field					
🖃 🚞 CVS_MAIN							+ -
HEADER BODY	Event Nam	e Fun	iction Name	Event Type Bu	tton Screen	CallForm Name	Screen Name
	onunload	*		Callform - CVS	_MAIN -	MICCUSTM -	CVS_CUSTOI
SEC_CUST							
SEC_GROUP							
FieldSets Actions							
CallForms							
a LaunchForms							
Canal Summary							
-25-22.04 115							

Fig 12.26: Defining event to the button such that call form is linked to the button

• Check the preview.

🔶 Main				×
🔁 New 🤄 Enter Query				
Customer No				
Name				
Type Address				
l≪	Go to Page		+ - ==	
Group Id	Customer No	Relation	·	
•		III	•	
MIS Change Log				
Maker	1	Date Time:		
Checker	1	Date Time:	_	
			Exi	t
Mod No		cord Status tion Status		

Fig 12.27: Preview of the screen with the Call Form button

4.9 Adding Summary

1) Add entry in Preferences node for Summary screen

action Generation								
							< 🔳	73 😡
Action Load -	Function Ty	rpe Parent +		Function Catego	ry Maintenance 👻	-		
Function Id STDCIFD	Parent Function	on		Header Templa	te None 👻			
Save XML Path STDCIFD_RAI	BROWSE Parent X	.ml		Footer Templa	te Maint Audit	•		
arch	Preferences							Ľ.
Preferences	🔽 Head Office Fur	nction	Module	ST	×E			
DataSource STTM CUSTOMER	🔽 Logging Requir	red	Module Description	Static Maintenance				
STTM_CUSTOMER	🔽 Auto Authorizati	on	Branch Program Id					
istOfValues	🔽 Tank Modificatio	ons	Process Code					
DataBlocks	Field Log Requ	rired	SVN Repository URL			-		
BLK_CUSTOMER CUSTNO	Multi Branch Ac	cess	Transaction Block Name	Choose Block				
CUSTTYPE	Excel Export Re	quired	Transaction Field	Choose Field	•			
CNAME			Name					
DDR1								
					0	Control	String	+ -
🚞 LANG 🎦 BTM_MIS	Function Id		Module *	Mo	dule Description			*
BLK_GROUP	STDCIFD	ST	A E	Static Maintenance				
CVS_MAIN	STSCIFD	ST	×1	Static Maintenance				
TieldSets								-
Actions	2. 1							
🚞 CallForms 词 LaunchForms								
Summary								

- 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 any where 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 .

a B LL, CROUP b Screens b C VS_MAIN b FieldSets c Califorms c LauchForms c LauchForms b C VS_MAIN c Califorms c Caliform	Function Category Maintenance Header Template None Footer Template Maint Audit									
ch	Summary Details									(
DataSource STM_CUSTOMER J	Data Blocks Data Source Summary Type Summary Screen Size	STTM_CUSTOMER Summary Medium	F		Default Where Clause Default Order By Multi Branch Where Clause Main Summary Screen	WebServic Required	85	000		
ADDR1 CNTY		1			Fields Selected	Query	LOV Name			
BTM_MIS					CUSTNO			-		
					CNAME			*		
	Parent Function Parent Xml Summary Details Title Data Blocks BLK_CUSTOMER Data Source Summary Type Summary Screen Size Medium Data Block Fields Custom Buttons Fields Ordering Data Block Fields	ADDR1			¥					
			44		CNTY					
CallForms				-	NLTY			-		
				-				+		

Summary Preview

Right click on summary node and click on preview.

◆ ₿ Exe	cute Query ᠿ Advance	d Search 🏼 🏟 Res	et 🖵 Clear All							×
	Authorization Status Customer No	•	<u>></u> =		Rec	ord Status	-			
Recor	ds per page 15 👻 📊	🛯 1 of 1 🕨 🔰		2						*
	Authorization Status	Record Status	Customer No	Name	Туре	Address	Country	Nationality	Language	
										E
										-
•									Þ	
									Exit	

Fig 12.29: Summary Screen Preview

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.

Amendable DetailsQUERY		×		
Data Blocks	Data Blocks DataBlock Fields			
BLK_CUSTOMER BLK_GROUP	New Allowed Delete Allowed All Records	Mandatory		
	Field Name	Amendable		
	CUSTNO			
	CUSTTYPE			
	CNAME			
	ADDR1			
	CNTY			
	NLTY			
	LANG			
	BTM_MIS			
		Ok Cancel		

Fig 12.30: Maintaining amendable fields

5. Generation and Deployment of files

Generate Files

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

nation		×	Aeta Da	a	Others	
Error Description Request successfully Processed		Error Code ARD-SAVE-007	RD-SAVE-007		 Xsds Xsd With Annotations Screan Html Upload Table Trigger 	
		0% of DownLoadFile from 10.18		Notification Details	Upload Tables Definition Archive Table Definition	
		File Download	X	irgo Cietails		
		Do you want to open or sa		ile Type	Status	
		Name: RAD.ZIF Type: WinRAF			Generated	
		From: 10.184.1	132.100		Generalsd -	
		Open Save Cancel			Generated -	
					Generaled -	
	STDCIFCCVS_MAINTAB_FOOTER html	While files from the la	ternet can be useful, some files can potentially		Generated	
	sipks_stdoid_main spc	ham your computer. I save this file, What's	f you do not trust the source do not open or		Generalad	
	stpks_sldclfd_kernel.spc		and hare		Generated	
	sipis_stdoid_main sql		SQL.		Generaled	
	stpks_sldclfd_kernel.sql		SOL		Generated	
	CST8_FIELD_LABELSSTOCIFD.INC		INC		Generalsd	
	CSTB_OTHER_LABELSSTDCIFD INC		INC		Generated	
	OSTE FID CALLFORMS STOCIFOLINC		INC		Generaled -	

Fig 12.30: Generation of Files

Deploy files

• Click on deploy button select the required files to deployed to server and click on deploy. On successful deployment status will be displayed as Deployed.

Front-End File	s System Packages	Hook Packages		Meta Data	Othe	ers
RadXML ℤ Screen Xml ℤ System JS	Main Package Spec Main Package Body Notification Triggers Upload Package Spec Upload Package Body	Kernel Package Spec Kernel Package Body Utuster Package Spec Utuster Package Spec Custor Package Spec Custor Package Body	Menu Details Datasource Details Datasource Details DotA Details Screen Details Amendable Details Call form Details S Summary Details	Label Details Details Source Provide the Provided HTML Source Provided HTML Source Provided HTML Source Provided HTML Purge Details	umns Xsd With Annol Forms Screen Html iils Upload Table T etails Upload Tables imeters Archive Table D	Frigger Definition
\$	CSTB_FIELD_LABELSSTDCIFD.INC		1	INC	Deployed *	
ł	CSTB_OTHER_LABELSSTDCIFD.INC		1	INC	Deployed -	
;	CSTB_SUMMARY_INFOSTDCIFD.INC		1	INC	Deployed -	J
	STTB_AUDIT_PK_COLSSTDCIFD.INC		1	INC	Deployed -	
	CSTB_FID_DATA_BLOCKSSTDCIFD.INC		1	INC	Deployed -	
	CSTB_FID_DATA_SOURCESSTDCIFD.INC		1	INC	Deployed -	
	CSTB_FID_SCR_TABSSTDCIFD.INC		1	INC	Deployed -	
0	CSTB_FID_SCREENSSTDCIFD.INC		1	INC	Deployed -	
1	SMTB_MENUSTDCIFD.INC		1	INC	Deployed -	
2	SMTB_ROLE_DETAILSTDCIFD.INC		I	INC	Deployed -	
3	SMTB_FUNCTION_DESCRIPTIONSTDCIFD.INC	>	I	INC	Deployed -]
4	SMTB_FCC_FCJ_MAPPING_STDCIFD.INC		I	INC	Deployed -	L
5	STDCIFD_RAD.xml		F	RADXML	Generated -	

Fig 12.30: Deployment of Files

Testing

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

		• ■ • 🕲 • 🖬 •		2 🛛
Menu 47	Customer Maintenance			×
🖶 61rdlexp_Main_Menu 🦱				<u>_</u>
C Account Transactions				
C Accounting & MIS	Customer No 000111749	Nationality	IN	
Acdscpgr_Main_Menu	Name Demo Cusi	Language	ENG	
Carditx1_Main_Menu	Type * Individual	Country	IN	
Cardityn_Main_Menu	Corporale			
Crjrna1_Main_Menu	Flank			
Carpcas1_Main_Menu	Information Message			
C Acrpfvb1_Main_Menu				
Acrpmov1_Main_Menu	Group Information Message			
Acrpmove_Main_Menu	Record Successfully Saved			+ - 5
Crreva1_Main_Menu	Group Id OL			
Acrunco1_Main_Menu				-
🔁 Aedacitm_Main_Menu				
Aedbritm_Main_Menu				
Aedcaitm_Main_Menu				
🖸 Aedclitm_Main_Menu				
B Aedcontr_Main_Menu				
Aedcsitm_Main_Menu			Ok	~
Aedcxitm_Main_Menu	<			1
🗄 Aedcyitm_Main_Menu	MIS Change Log			
🗄 Aeddeitm_Main_Menu	uitz cualifianda			
Aedfsitm_Main_Menu	Maker 329444 Date Time:			
🗄 Aedftitm_Main_Menu	Checker 2012-03-01 16 09:09			
🗄 Aedfxitm_Main_Menu	Date Time:			
🗄 Aediqitm_Main_Menu				Exit
🗄 Aedmaint_Main_Menu	flod No 1 Record Status Open	1		
🗄 Aedmiitm_Main_Menu	Authorization Status Unau	thorized		
🗄 Aedmsitm_Main_Menu				
Aedpcitm_Main_Menu				
🗄 Aedpditm_Main_Menu				
🗄 Aedreitm_Main_Menu				
E Aedrfitm_Main_Menu				
🗄 Aedsiitm_Main_Menu				
Amrfndhd_Main_Menu				
Amrfunbl_Main_Menu				
P Ammaumu Main Menu				
Fig 12.30:	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 Xsd

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 STDCIFD_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 befor 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

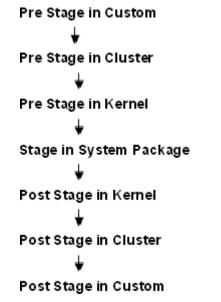
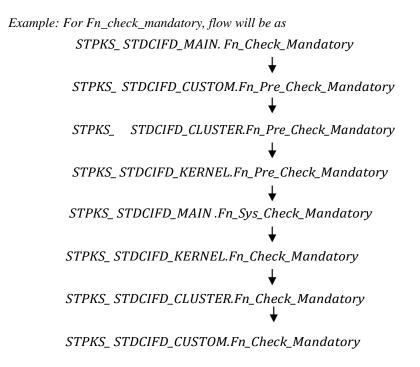


Fig 12.31: Flow of control through Hook Packages



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 *STPKS_STDCINF_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:

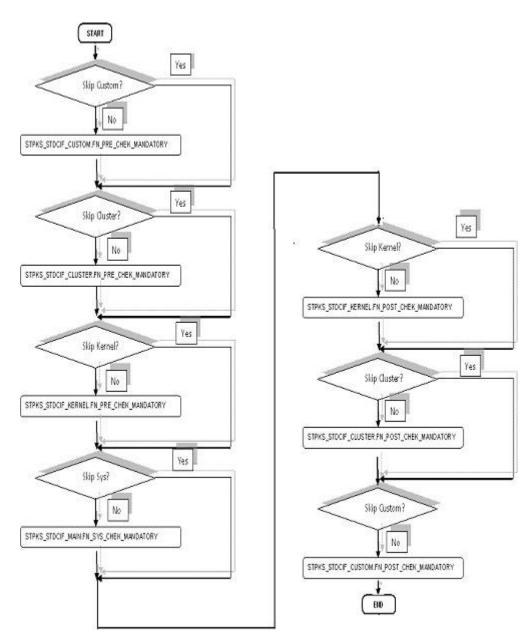


Fig 12.31: Flow of control explaining skip logic in pacakges



Development of Maintenance Form [August] [2021] Version 14.5.2.0.0

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 © 2021, Oracle and/or its affiliates. All rights reserved.

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

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

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

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

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

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