Oracle® Banking Corporate Lending Development Workbench – Screen Development I





Oracle Banking Corporate Lending Development Workbench - Screen Development I, Release 14.8.1.0.0

G43513-01

Copyright © 2007, 2025, Oracle and/or its affiliates.

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.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. 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 fail-safe, 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.

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

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about 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 unless otherwise set forth in an applicable agreement between you and Oracle. 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, except as set forth in an applicable agreement between you and Oracle.

Contents

Purp	ose	
Acro	nyms and Abbreviations	
	ence	
Critic	cal Patches	
Con	ventions	
Dive	rsity and Inclusion	
Doci	umentation Accessibility	
Rela	ted Resources	
Scre	enshot Disclaimer	
$\bigcirc u$	orgiow of Saroan Dayalanment for Oracle ELEVELIRE	
	erview of Screen Development for Oracle FLEXCUBE	
1.1	RADXML	
1.2	Extensible Development	
1.3	Design Steps	
1.4	Save Radxml	
He	ader Information	
Pre	ferences	
Dat	a Sources	
4.1	Creating a New Data Source	
4.2	Data Source Columns	
4.3	Data Sources- Guidelines and Best Practices	
4.4	Delete Data Sources	
	2 5.555 2 5.65	
Dat	a Blocks	
5.1	Create Data block	

	5.1.1 Data Block Fields	6
	5.1.1.1 Field Name	10
	5.1.1.2 Field Label	10
	5.1.1.3 XSD Tag	10
	5.1.1.4 XSD Annotation	10
	5.1.1.5 Display Type	10
	5.1.1.6 Item Type	15
	5.2 Data block – Guidelines and Best Practices	21
	5.3 Delete Data Block	22
	5.3.1 Delete Block Field	23
	5.4 Rename Data Block	24
	5.4.1 Rename Block Field	25
6	Screens	
	6.1 Create New Screen	1
	6.1.1 Tabs	4
	6.1.2 Sections and Partitions	7
	6.1.2.1 Partition Details	10
	6.1.3 Multiple Screens in Same Function ID	10
	6.2 Screens- Guidelines and Best Practices	12
	6.3 Delete Screen	13
	6.3.1 Visible Flag	14
	6.4 Rename Screens	15
7	Field Sets	
	7.1 Create New Field Set	1
	7.1.1 Attach Field to a Field Set	5
	7.2 Field Sets- Guidelines and Best Practices7.3 Delete Field Set	6
		6
	7.3.1 Visible Flag for FieldSet 7.4 Rename Field Set	7
	7.4 Rename Field Set	O
8	LOVs	
	8.1 Define LOVs	1
	8.2 Attach LOV to Block Field	5
	8.3 LOVs- Guidelines and Best Practices	7
	8.4 Delete and Rename LOVs	7

Cal	I Forms	
9.1	Attach Call Forms	1
9.2	Call Forms – Guidelines and Best Practices	5
Lau	unch Forms	
10.1	Attach Launch Forms	1
10.2	Launch Forms- Guidelines and Best Practices	3
Acti	ions	
11.1	Web Service Information	1
11.2	Amendable Field Information	2
Sur	mmary	
12.1	Summary – Guidelines and Best Practices	5
Ger	neration and Deployment of files	
Арр	pendix	
A.1	Screen Preview	A-1
A.2	Locate Field	A-2
A.3	Maintain Label Code	A-4
A.4	Search and Undo Feature	A-5



Preface

This topic contains the following sub-topics:

- Purpose
- Acronyms and Abbreviations
- Audience
- Critical Patches
- Conventions
- · Diversity and Inclusion
- Documentation Accessibility
- Related Resources
- Screenshot Disclaimer

Purpose

This manual is designed to help acquaint you with the process of Oracle FLEXCUBE Screen Development using Enterprise Limits and Collateral Management Development Workbench.

Acronyms and Abbreviations

Table 1 Acronyms and Abbreviations

Acronyms	Abbreviations
FCUBS	Oracle FLEXCUBE Universal Banking Solution
OBCL	Oracle Banking Corporate Lending
ODT	Oracle Development Tool

Audience

This document is intended for Oracle FLEXCUBE Universal Banking Application developers/ users that use Development Workbench to develop various Oracle FLEXCUBE Universal Banking components. To use this manual, the user needs a conceptual and working knowledge of the below:



Table 2 Proficiency Details

Proficiency	Resources
Oracle FLEXCUBE Universal Banking Technical Architecture	Training programs from Oracle Financial Software Services.
Working knowledge of Web based applications	Self Acquired
Working knowledge of Oracle Database	Oracle Documentations

Critical Patches

Oracle advises customers to get all their security vulnerability information from the Oracle Critical Patch Update Advisory, which is available at <u>Critical Patches</u>, <u>Security Alerts and Bulletins</u>. All critical patches should be applied in a timely manner to ensure effective security, as strongly recommended by <u>Oracle Software Security Assurance</u>.

Conventions

The following text conventions are used in this document:

Table 3 Conventions

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at https://www.oracle.com/corporate/accessibility/.



Access to Oracle Support

Oracle customer access to and use of Oracle support services will be pursuant to the terms and conditions specified in their Oracle order for the applicable services.

Related Resources

For further information, refer to the documents:

- · Development Workbench Getting Started
- Development Workbench Administration
- Development Workbench Screen Development II
- Development Workbench Screen Customizer
- Development of Maintenance Form
- Development of Online Form
- Development of Call Form
- Child and Screen Childs Concept and Design
- Development of Launch Forms and Other Screens
- Development of Dashboard Form

Screenshot Disclaimer

Personal information used in the interface or documents is dummy and does not exist in the real world. It is only for reference purposes.

Overview of Screen Development for Oracle FLEXCUBE

This topic provides an overview of screen development for Oracle FLEXCUBE.

Oracle FLEXCUBE ODT provides the developer with a user-friendly console for designing and developing screens for Oracle FLEXCUBE.

ODT assists developers in designing screens with the capability of generating front-end scripting files, PL/SQL Packages, Static data scripts, XSDs, Excel templates, and HTML files. This generated code performs validations and does some processing which is common across screens in FLEXCUBE; only the Business logic specific to the screen has to be added by the Developer in the back end and front end units.

Example 1-1

Release Name: FC 11.3

Release Type: KERNEL, CLUSTER, CUSTOM

This topic contains the following sub-topics:

RADXML

This topic provides an overview of the Radxml file.

Extensible Development

This topic provides an overview of the extensible development of FLEXCUBE.

Design Steps

This topic explains the systematic instructions to develop a screen in ODT.

Save Radxml

This topic provides information on saving Radxml.

1.1 RADXML

This topic provides an overview of the Radxml file.

ODT saves all the activities carried out by the developer in an XML file hereby referred to as Radxml. The persistence of the screens is achieved through Radxml. All the units required for the working of a screen can be generated from its Radxml.

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

Radxml will adhere to the naming convention: Function Id name + RAD.xml

For Example: FTDTRONL_RAD.xml

1.2 Extensible Development

This topic provides an overview of the extensible development of FLEXCUBE.



Table 1-1 Extensible Development Stages

Extensible Development Stages	Description
KERNEL	This refers to the core product. For Example: FC 11.3
CLUSTER	This refers to any region-specific enhancements/developments done on top of the KERNEL product. The changes done in a CLUSTER pack will be noninvasive to the KERNEL product. For Example: FC 11.3 India cluster
CUSTOM	Any enhancements required by the customer/bank are done on this level. It will be noninvasive of the changes done in KERNEL and CLUSTER packs.
	For Example: Customizations for the MODEL bank on FC 11.3 India cluster

ODT can segregate the changes done on different releases and save the Radxml accordingly. It generates the files depending on the release type and developers can add the business logic to the release type-specific files. Thus the code remains noninvasive of the existing code.

1.3 Design Steps

This topic explains the systematic instructions to develop a screen in ODT.

- 1. Identifying the data sources and their relations.
- 2. Logically grouping the data sources into Data Blocks.
- 3. Designing Screen Layout
- 4. Logically grouping the Block Fields into Field sets
- 5. Attaching Call forms and launch forms if any
- Defining LOVs
- Designing Summary
- Defining Actions

Refer respective topics for detailed explanation of each step.

While Development, save radxml at constant intervals. Click **Save** icon to save Radxml in the user directory maintained.

1.4 Save Radxml

This topic provides information on saving Radxml.

While Development, save radxml at constant intervals. Click on **Save** icon in the top right for having the work. Radxml would be saved in the user directory maintained.

Header Information

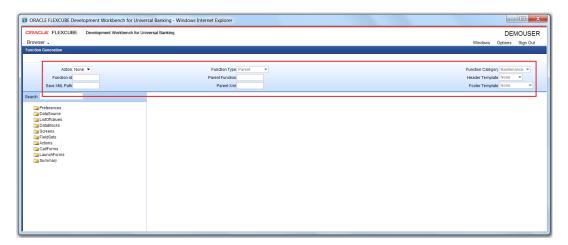
This topic provides the systematic instructions to update header information.

 Log in to the Development Workbench for Universal Banking using the credentials maintained.

Refer to the topic *Development Workbench - Administration* for creating users.

- Map the session to the release and environment as required.
 Refer Development Workbench Getting Started for detailed explanation.
- Click Function Generation node in the browser tree found in the Landing page of ODT.The Function Generation screen is displayed.

Figure 2-1 Function Generation



4. On **Function Generation** screen, specify the following.

For more information on this, refer to the field description table.

Table 2-1 Function Generation - field Description

Field	Description
Action	New and Load options are provided for this field.
	For a new screen development, select the action as New ; if an existing screen radxml has to be loaded for customization select the Load option.
	If the action is Load , then corresponding radxml has to be loaded using browser option in Save Xml Path ; all the header information will get populated



Table 2-1 (Cont.) Function Generation - field Description

Field	Description
Function Id	If the Action is selected as New , the function Id name needs to be specified. Function Id is the unique name with which a screen is identified.
	Function Id name should follow the FLEXCUBE standard naming convention.
	 Function Id name to have maximum length of 8 characters. For detail screens, the third character should be D. For report screens, the third character should be R. For call form function ids the third character should be C First 2 characters should specify the module name for which the particular function id is used (Recommanded). For example, For Funds Transfer Contract Input Screen name can be given as FTDTRONL. Here FT is the module (Funds Transfer), third letter D denotes it is a normal detail screen, and Length of the function Id is 8. If the action selected is Load, function Id field will be disabled. It will
	be picked up from the radxml which is loaded.
Function Type	The Function Type can be Parent or Child or Screen Child (based on the screen which has to be designed). For more information, refer to the <i>Function Type</i> table.
Parent Function	This field is applicable only if the function type is child/screen child and this field will be populated when the parent RAD xml is loaded. This is a read only field.
Save Xml Path	The label description of the field will change depending on the action. If the action is load, ODT provides a Browse button that user can browse the radxml and load it. Refer to the image – <i>Figure 2-2 Loading of an Existing radxml in ODT</i> .
	If the action is New, Save Xml Path is optional.
	If provided, then the generated units will be saved in the path mentioned.
	Note: The value in the Save Xml Path will be used only if the Save Format is Client Path and if the User has given CURRENT_DIRECTORY in the User Preferences of the Work Directory.
Parent XmI	This field is also applicable only if the Function type is child/screen child. If the Function Type is child/screen child user has to load the radxml of the Parent Function using browse button provided to this field. It is non editable field if the action is Load .
Function Category	Provide Function category depending on the type of screen being
	developed. ODT provides the following options: For more information on this, refer to the <i>Function Category</i> table.
Header Template	A template can be selected for header.
Trouver remplate	For more information on this, refer to the <i>Header Template</i> table.
Footer Template	A template can be selected for footer. The following options are provided.
	For more information on the field, refer to the Footer Template table.



Table 2-2 Function Type

Field	Description
Parent	This is the default option and can be used for normal screen development.
Child	This option can be selected if the screen has to be the child of another screen .i.e. inherits all the properties of another screen which will be its parent. Properties can be modified in the child level.
Screen Child	This option can be selected if the screen has to be the screen child of another screen, i.e. it inherits all properties from its parent. Only screen layout changes can be done in the screen child screen.

Table 2-3 Function Category

Field	Description
Maintenance	These screens are typically used to maintain static data used across the system. These screens include product definition function as well.
	Example: Branch Parameters Maintenance
Transaction	These screens are typically used to capture contract related data. Any operations related to contracts are performed in these screens
	Example: Funds Transfer Contract Input screen
Report	These screens are used to capture data required to generate a BI Publisher canned reports. Example : General Ledger balance report
Summary	If only query operation is required for the particular function Id, then function category can be selected as summary.
Others	If developer feels that existing handles provided in maintenance/ transaction screens in extensible framework is inadequate (or not necessary) for the screen; screen can be designed as others. Note that all business logic would have to be manually written by the developer for others screen.

Table 2-4 Header Template

Field	Description
None	This is the default header and should be used for all screens except workflow screens.
Process	This template can be selected for workflow screens. The following Fields will be added to the header section as part of this template.
	Workflow Reference Priority

Table 2-5 Footer Template

Field	Description
None	This is the default value.



Table 2-5 (Cont.) Footer Template

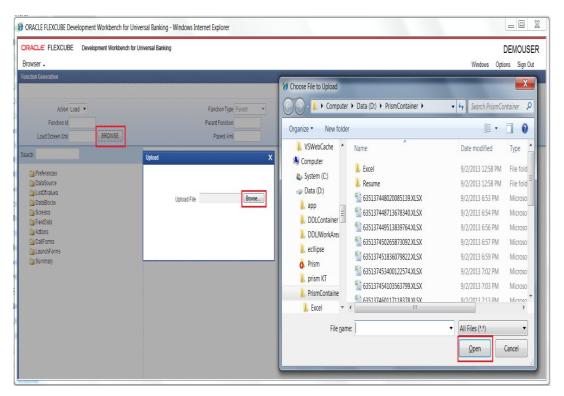
Field	Description
Maint audit	This template can be used for maintenance screens. Ensure that master data source has the standard audit columns.
	Audit block field names are reserved filed names and hence cannot be used as the name of any other block field.
	For more information on the field, refer to the Audit Column and corresponding Block Fields table.
	Note: When template is selected, ODT automatically adds the fields to Data Source and Blocks and adding these fields manually to data blocks results in erroneous behavior.
Maint Process	In this template along with maintenance audit fields System would automatically add a control block and Process related fields. This template can be used for workflow maintenance screens.
Process	Only process related Fields will be added to the Footer. This can be used for work flow transaction screens. As part of process template; previous remarks, remarks, outcome and audit block will be created in the footer.

Table 2-6 Audit column and corresponding Block Fields

Column Name	Block Field Name
MAKER_ID	MAKER
MAKER_DT_STAMP	MAKERSTAMP
CHECKER_ID	CHECKER
CHECKER_DT_STAMP	CHECKERSTAMP
MOD_NO	MODNO
RECORD_STAT	RECSTAT
ONCE_AUTH	ONCEAUTH
ONCE_AUTH	AUTHSTAT



Figure 2-2 Loading of an Existing radxml in ODT



Preferences

This topic explains the systematic instructions to set the preferences at function ID level.

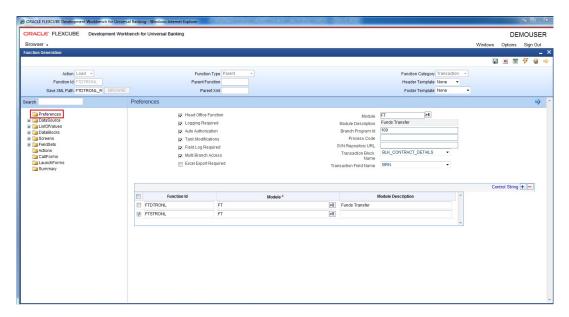
Function id level preferences like module, logging required, tanking modification Main menu, Sub-Menu1, Sub-Menu2 is maintained through Preferences screen in ODT.

The data maintained in preferences screen will be used for generating static data script for tables SMTB_MENU, SMTB_FUNCTION_DESCRIPTION, SMTB_ROLE_DETAIL and SMTB_FCC_FCJ_MAPPING.

1. Click the **Preferences** node in the **Function Generation** screen.

The **Function Generation** screen displays.

Figure 3-1 Preferences Screen in ODT Function Generation



2. On the **Preferences** screen, specify the fields.

For more information on this, refer to the field description table.



Table 3-1 Preferences - Field Description

Field	Description
Module	It captures the Module of the function id. Developer can choose module name from the list of values provided. List of values is populated based on the modules maintained in SMTB_MODULE table of the business schema (current FLEXCUBE environment to which tool is mapped).
	Module Code has to be provided mandatorily. Module name provided would be reflected in the script for SMTB_MENU generated by ODT (in module column). This will also be considered while naming the packages generated by the tool. First two characters of the packages generated will be taken from the module code maintained.
Module Description	Module description will automatically populated based on the module code selected.
Head office Function	It captures whether the function is a head office function or not. It will be reflected in the static script for SMTB_MENU in column HO_FUNCTION .
	If the function is a head office function, only query operation will be possible at all the other branches for the particular screen.
Logging Required	It captures whether logging is required for the function or not. This will also be reflected in script generated for SMTB_MENU (column LOGGING_REQD).
	If this option is selected, all the request and response for the function ID will be logged in CSTB_MSG_LOG . This is used for view change option.
Auto Authorization	It captures whether Auto Authorization is allowed for the function or not. This will also be reflected in script generated for SMTB_MENU (column AUTO_AUTH).
	Note : Auto authorization is possible only if it is allowed at function id level, user level and the branch level.
Tank Modification	It captures whether modification to be tanked for the function or not. This will be reflected in TANK_MODIFICATIONS column of SMTB_MENU table script.
	If tank modification is enabled, then the record in that screen would be logged to logging tables and taken up for processing (untanking) in later stage during EOD operations. Currently this is applicable only for maintenance screens.
Field Log Required	It captures whether field Logging is required for the function or not. This will be reflected in the FIELD_LOG_REQD column in SMTB_MENU. If field log required is enabled, then all operations on the screen will be logged to logging tables (STTB_FIELD_LOG.STTB_RECORD_LOG etc.,). Currently this is applicable only for maintenance screens.
Excel Export Required	This field captures whether option to export records from summary screen to excel is required.
Multi Branch Access	It captures whether multi branch access is required for the function Id or not. This will be reflected in MULTIBRANCH_ACCESS column of SMTB_MENU table script generated. If multi branch access is allowed, then records of different branches for the screen can be modified from a single branch.
Txn Block Name	It captures the Transaction Block Name. This is applicable only if multi branch access is allowed for the screen. Select the block from the select list which contains the field for branch code.

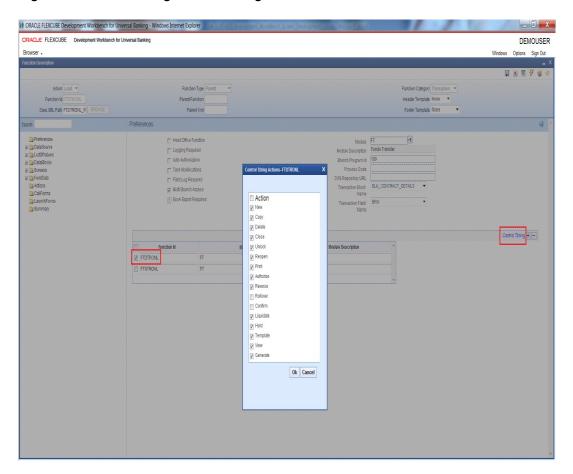


Table 3-1 (Cont.) Preferences - Field Description

Field	Description
Txn Field Name	It captures the Transaction Field Name. This is applicable only if multi branch access is allowed for the screen. Select list provides all the block fields for the transaction block selected.
	Choose the field for branch code from the list. Txn Block Name and Txn Field Name will be reflected in the system JavaScript file (SYS js) generated by ODT. Developer has to code for querying the records based on the branch code value of this field.
Branch Program ID	It captures branch program id for the function.
Process Code	This can be used to map which process needs to be initiated during screen launch. This is used for workflow screens.
SVN Repository Url	This is applicable only if integration to SVN (version control tool) is required. Path of the SVN repository till the module needs to be provided in this field.
	In the multiple entry block, developer needs to maintain all the related function Id names for the screen. ODT will default the name of the function Id to the first row of the multiple entry along with the module maintained earlier.
	If any other function id is required for the particular screen, developer has to add the row. Example: For FTDTRONL screen, developer designs a detail screen. He also wants to add one summary screen to the screen as well as gateway function Id for web services.
	For this, user can add two new columns FTSTRONL (for summary) and FTGTRONL (for gateway operations) to the block as shown in the image <i>Maintain menu details of a Function Id</i> .
	Each row in this block will be reflected as one row in SMTB_MENU, SMTB_FUNCTION_DESCRIPTION, SMTB_ROLE_DETAIL and SMTB_FCC_FCJ_MAPPING.
Control String	Control String defines the operations which can be done on the particular screen. Control String has to be maintained for function id. Select the function id for which control string has to be modified and click Control String .
	All the available operations can be found. Check all the operations which have to be allowed for the particular function id and click OK .
	Note: For summary screens, control string will be disabled. Normally control screens need to be provided only for the detailed screen. REVERSE, ROLLOVER, CONFIRM, LIQUIDATE, HOLD operations are applicable only for transaction screens. Control String will get reflected in the CONTROL_STRING column in SMTB_MENU for the particular function id. It will also be reflected in script for SMTB_ROLE_DETAIL.
	For more information, refer to the image <i>Maintaining control String for the function Ids</i> .



Figure 3-2 Maintaining control String



Data Sources

This topic describes the data sources.

The first step in developing Functions is to identify the tables and views involved in the Function being developed. Relations among these data sources and the types of these data sources have to be identified based on the functionality.

This topic contains the following sub-topics:

- Creating a New Data Source
 - This topic describes about the creating a new data source.
- Data Source Columns
 - This topic provides information on Data Source Columns.
- Data Sources- Guidelines and Best Practices
 - This topic provides a list of guidelines and best practices for creating data sources.
- Delete Data Sources
 - This topic provides the systematic instructions to delete data sources.

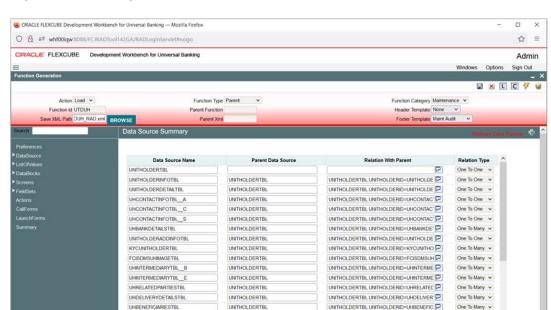
4.1 Creating a New Data Source

This topic describes about the creating a new data source.

For creating new data source developer may either

- 1. Right click on the data source node in the tree and select Add option.
- Left click on the data source node in the tree. On the data source screen click Add Data Source icon on the top right of the screen.





UHBENEFICIARIESTB

UNITHOLDERTBL

UHBENEFICIARIESTBL.UNITHOLDERID = UHBE

UNITHOLDERTBL MODULEID=VW ADDINFO MK

One To Many v

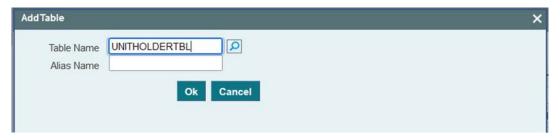
One To Many ~

Figure 4-1 Adding a New Data Source

Figure 4-2 Add Table window

UHBENEFICIARYCONTACTINFOTB

VW_ADDINFO



Alias Name: If same table is used more than once in the design, developer can differentiate the same using different alias names. Data source name will have table name appended with the alias name separated by ___.

Example: If table name is CSTB_UI_COLUMNS and alias name is A Data source name will be CSTB_UI_COLUMNS_A

4.2 Data Source Columns

This topic provides information on Data Source Columns.

This is an information column: tool will not allow the user to change the value.



Figure 4-3 Data Source Columns

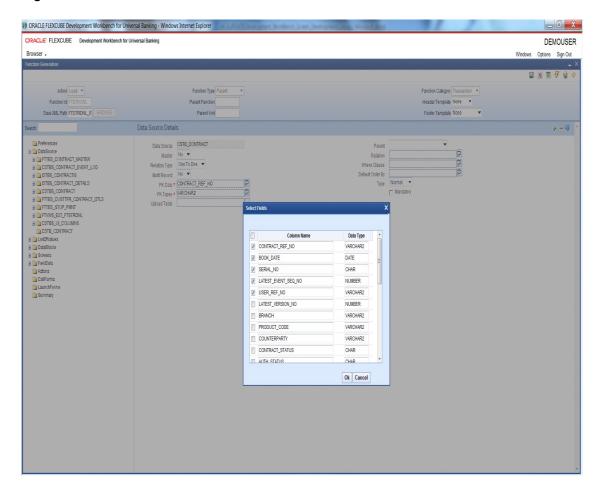


Table 4-1 Data Source Columns - Field Description

Field	Description
Max Length	The max length of column will be defaulted while adding a column and it can be overwritten. This value will be considered for the field max length of the designed screen. It means, at the run time system will not allow the user to enter the text more than this length.
Data Type	This shows about data type of the column selected and value will be populated while adding the column, this is a non-editable field.
Block Name	It is an information field, if the field is added to a block, that block name will be populated here.
Field Name	It is an information field. This displays the data block field to which the column is mapped.
Upload Table Column	If adapter upload package is required, column name in the upload table to which this column is mapped has to be provided. If the field is left blank, then the column name in upload table will be assumed to be same as the data source column name.
Not Required in Upload table	If the particular column is not mapped to any upload table column, then this option has to be checked.

This topic contains the following sub-topic:



4.3 Data Sources- Guidelines and Best Practices

This topic provides a list of guidelines and best practices for creating data sources.

Below are the basic steps to be followed while creating data sources:

- Identify the tables and views involved in the Function being developed.
- 2. Establish the hierarchy, Relation, and Relation Types among these Data Sources.
- 3. Ensure that the correct and full relation is mentioned in the Relation.
- 4. Identify the type of Data Source. It could be Normal, Summary, In Only, or Query Source.
- 5. Ensure that there is only one master Data source for the Function.
- 6. Based on the number of records that the data source might have for the function Id, set Multi Record to Y/N.
- System automatically defaults the PK Column information from STTB_PK_COLS while
 adding the data source. Based on the specific requirement of the function ID this can be
 modified.
- 8. If the data source is mandatory, that is if it is a multi-record data source and has to have at least one record or if it's a single record data source and is mandatory to have the record, check the mandatory flag.
- 9. In case there is a need to have a default where clause or order by clause, mention the same in the respective fields.

Below are the practices to be followed while creating data sources:

Table/View/Synonym Names should adhere to the standard FLEXCUBE naming conventions. Tables or views should have the 5th character as _ (underscore).
 The name should not have underscores together (example: ACTB_TEST__ODT is wrong). Synonyms should have an S appended before the first underscore of their table/view name.

For Example: Synonym for ACTB DAILY LOG should be ACTBS DAILY LOG

- Avoid using views as much as possible. Don't create a view data source with type as NORMAL. This will result in insert statements on the view in the packages generated.
- Views can be used for query-only purposes, i.e. select the data source type as the query for views. These can be used for designing summary data sources or a query block.
- PK Cols and PK types need not be the same as the primary key of the tables. It depends on the design logic.
- 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 the relationship is based on pk cols). For Example: Assume STTM_CUSTOMER is the parent data source (1:1) with Pk col as CUSTOMER_NO; STTM_CUST_ACCOUNT is the child of STTM_CUSTOMER with 1: N relation with the parent. Here STTM_CUST_ACCOUNT should have at least 2 Pk Cols so that each record of the multi-record can be uniquely distinguished.

CUSTOMER_NO and ACCOUNT_NO can be provided as Pk col so that each record can be identified with its account no.

Relationship can be STTM_CUSTOMER.CUSTOMER_NO= STTM_CUST_ACCOUNT.CUSTOMER_NO

The parent data source has to be above all of its child data sources in the tree.



4.4 Delete Data Sources

This topic provides the systematic instructions to delete data sources.

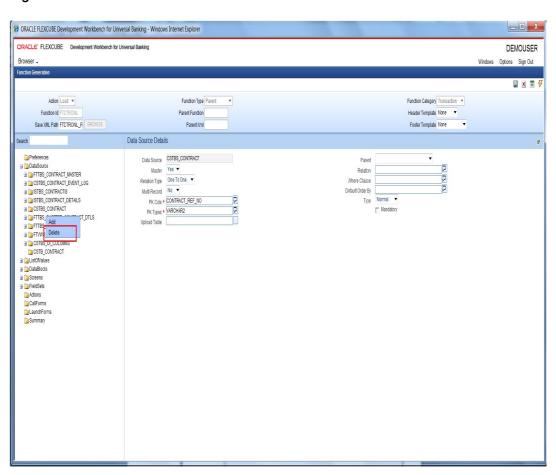
1. On the **Function Generation** screen, right-click on the **DataSource** to be deleted and select the **Delete** option.

OR

2. Click the **Delete** icon in the top left of the data source screen to delete the data sources.

When a data source is deleted, all the references to that data source or its columns will also be deleted from the RADXML, that is Data block fields referring to the particular data source column and all the references to those data block fields.

Figure 4-4 Delete a Data Source



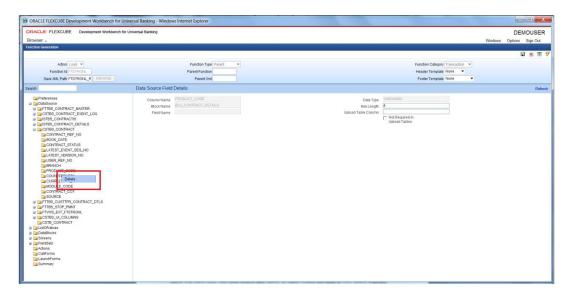
Note

The deletion of any element from Radxml is allowed only if that element has been created in the current release. If the data source has been created in a previous release, then the developer won't be allowed to delete the data source.



Similarly, the data source column alone can be deleted from the data source subjected to the condition mentioned above. Proper care has to be done while designing data sources as redesigning would be impossible in a later release.

Figure 4-5 Delete Field from Data Source



Data Blocks

This topic describes the data blocks.

Data block is a logical grouping of fields from one or more data sources. In general, one data block will have only one data source; but in cases where the data in tables is logically related multiple data sources can be grouped into a single data block.

Once the Data source definition is complete, Block structure of the function id has to be determined based on the functionality of the screen.

This topic contains the following sub-topics:

Create Data block

This topic provides the systematic instructions to create data block.

Data block – Guidelines and Best Practices

This topic provides a list of guidelines and best practices for creating data blocks.

Delete Data Block

This topic describes about the deletion of a data block.

Rename Data Block

This topic provides systematic instructions to rename the Data Block and Block field.

5.1 Create Data block

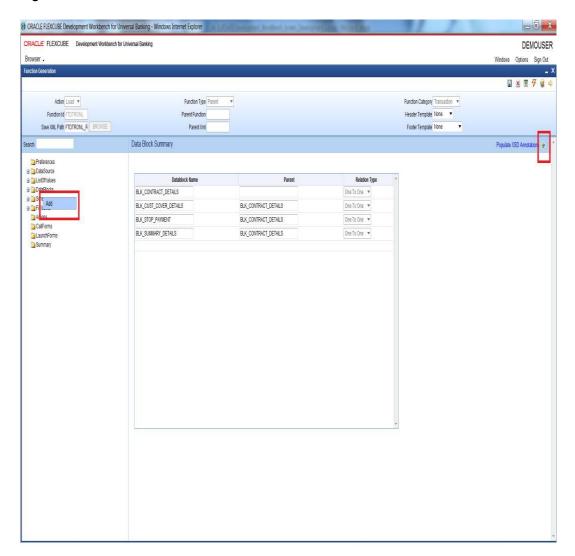
This topic provides the systematic instructions to create data block.

The Data block is a logical grouping of fields from one or more data sources. In general, one data block will have only one data source; but in cases where the data in tables is logically related multiple data sources can be grouped into a single data block. Once the Data source definition is complete, the Block structure of the function id has to be determined based on the functionality of the screen.

- 1. Right-click on the **Data Block** and select **Add** option to create the data block.
- 2. Or click the Add (+) icon in the top left of the data block screen to create new data block.



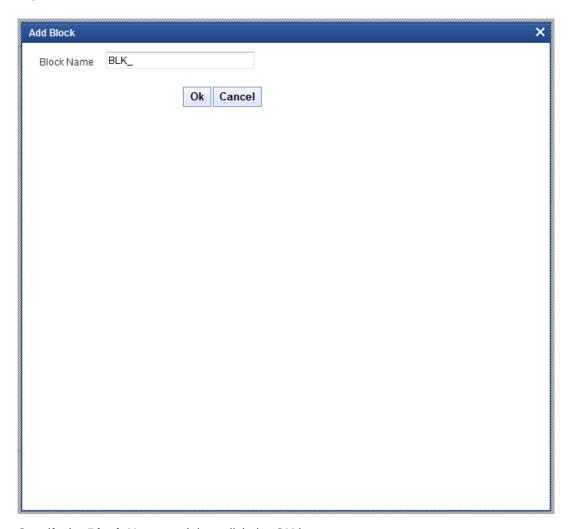
Figure 5-1 Add a New Data Block



The Add Block window displays.



Figure 5-2 Add Block Window



3. Specify the **Block Name** and then click the **OK** button.

The **Block Name** has to adhere to the following conventions:

- It has to start with BLK_.
- Block Name should not contain the table names which will be attached to the block.
 This is of high importance from the security point of view as Block Name will be exposed in request and response XML.

For example: if the data source name is **FTTB_CONTRACT_MASTER**, the block name can be **BLK_MASTER**; but not **BLK_FTTB_CONTRACT_MASTER**.

Block Properties screen displays.

Figure 5-3 Block Properties

4. Specify the Block Properties as follow:



Table 5-1 Block Properties

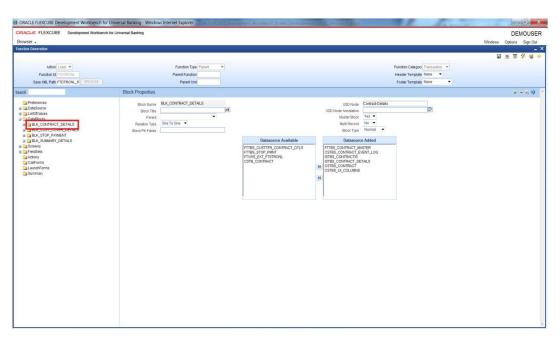
Field	Desription
Block Name	This field will have defaulted with the block name which is added. It is a non-editable field.
Block Title	Select the title of the block from the list of labels. If a new label needs to be created, then create and select from the list. For multi-record blocks, the block title will be displayed in the screen preview superseding the field set title. For single record blocks, block titles are not of any significance and hence need not be provided.
Parent	Select the parent block from the select list. All the data blocks will be available in the Select list. All data blocks except the master data block need to have a parent data block.
XSD Node	This field captures the XSD node name. ODT will use this name for the generation of the node in XSD's. This field will be defaulted based on Block Name (by removing BLK _ and replacing _ with -). If the developer wants, XSD Node field can be modified
XSD Annotation	This field captures the annotation for the XSD node specified. Description of Block title label will have defaulted as Annotation which can be modified by the developer.
Multi Record	Using this field developer can decide block type, whether the block is a single entry block or multiple entry blocks. Depending on this value, the field Data sources available will be populated. If the value is Yes the field Data source available will be populated with data sources that have flag Multi record Yes and vice versa. If the relation type is provided as one-to-one, multi-record has to be Yes and vice versa.
Block Pk fields	Primary key fields of the block have to be provided here. If more than one field forms the primary key, it has to be separated by ~. This data is used for building the change log of a screen.
Relation Type	The relation type with the parent data block has to be mentioned here. It can be One To One or One To Many .
Master Block	One master block is mandatory while designing the screen and using this flag you can define a block as master.
Block Type	 The type of the block can be selected depending on the requirement, below are the description of each type: Control: If the block is used only for UI purpose, and it is not required for processing in the backend, then the block can identified as Control type. Only control fields can be added to the Control block. Normal: This block will be used for normal processing. Request and response XML will contain this data block information. Summary: Block which is used for creating the summary screen. For normal request XML, this block won't be present in the request or response XML. Refer data block properties image.



Table 5-1 (Cont.) Block Properties

Field	Desription
Data Sources available	Depending on the Multi Record flag, data sources will be populated. Then the required data sources can be attached to the block. Validations for populating the data source: • Multi Record: Yes, All the data sources which have Multi Record flag YES and Relation Type One To One. • Multi Record: No, All the data sources which have Multi Record No. While attaching Data Sources to Blocks, multiple data sources should be selected only if such data Sources can be functionally clubbed. For Example: CSTM_PRODUCT and LCTM_PRODUCT_DEFINITION. Clubbing should not be arbitrary. A single entry data source can be mapped to more than one data block while a multi-record data source can be attached to only a single data block.
Data Sources Added	This list shows the data sources which can be attached to the particular data block. The data source shown depends on the value of the multi-record field. From the available data sources, the developer can add data sources he wants to be part of this data block. Those will come under the list Data source Added . He can also remove them from the data block. The buttons with arrow symbol are used for this addition and removal. Note that one data source can be attached to more than one data block, but each data source column can be mapped to a single data block field. Data Sources added in one release would not be allowed to be removed in any future releases.

Figure 5-4 Data Block Properties





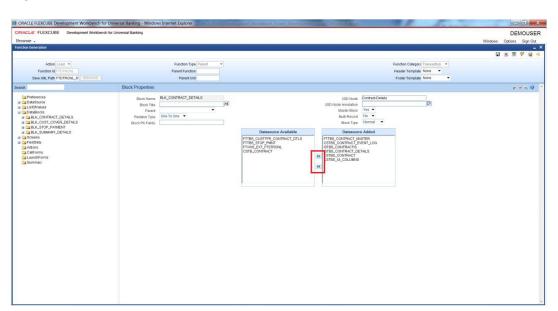


Figure 5-5 Attach Data Source to a Data Block

Data Block Fields

This topic describes the data block fields.

5.1.1 Data Block Fields

This topic describes the data block fields.

Data Block Fields are logical representation of the data source columns in the screen. Block fields can be added to a block either by: By selecting add fields option from the right click menu of the particular data block or By clicking on add field icon on the top left of data block screen.



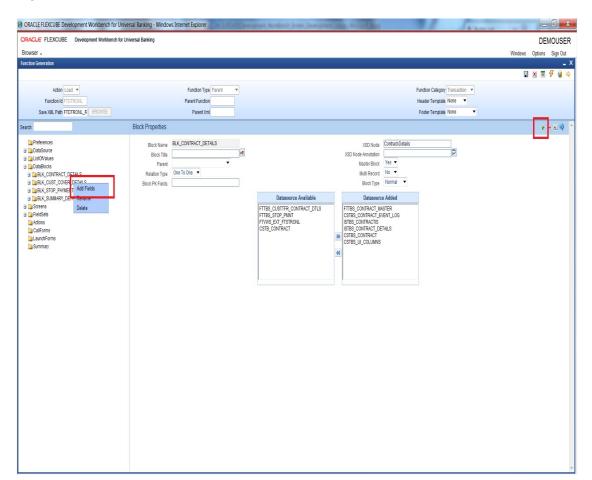


Figure 5-6 Add Block Field to a Data Block

The screen as shown below is launched. ODT provides option to add two kinds of fields.

• Data Source Fields: These fields correspond to data source columns created in the radxml. The select list provides the list of all data sources attached to the data block. On selecting a particular data source, all the data source columns which are not yet mapped to any block fields.



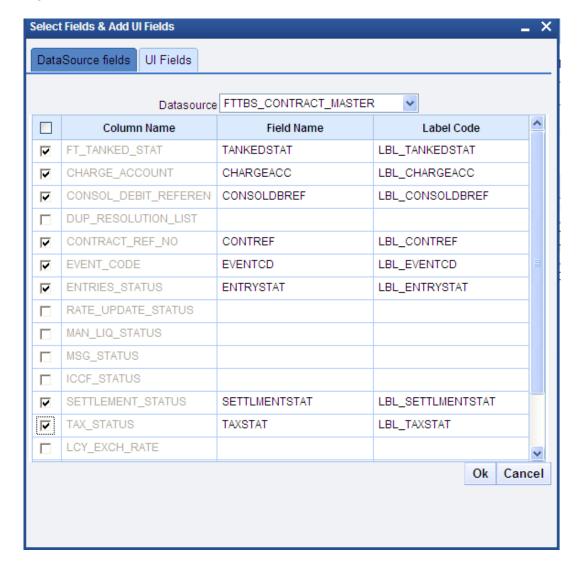


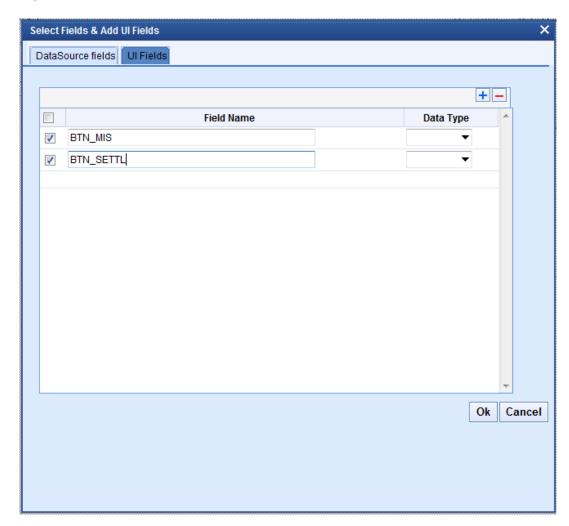
Figure 5-7 Add Data Source Fields to Data Block

Field Names and Label codes if maintained in CSTB_DATA_DICTIONARY will be defaulted. Otherwise, developer has to provide the field name as desired. Label codes will be defaulted based on the field name provided. Select all the fields which have to be included in the data block and click Ok.

UI Fields: UI fields are those which don't have a corresponding data source column .These fields won't be required as part of processing and hence won't be part of request or response xml. Usually fields like buttons, images, labels etc are defined as UI fields A control data block can have only UI fields.



Figure 5-8 Add UI fields to Data Block



Adhere to the following conventions while defining new block field.

- Field Name should not be the same as the column name. This is important as field name will be visible in request and response xml.
- Avoid special characters in the field name (like underscore).
 Example: if data source column name is CONTRACT_REF_NO, block field name can be CONTREFNO Provide the properties for the block field added.

This topic has the following sub-topics:

Field Name

This topic describes the field name.

Field Label

This topic describes the field label.

XSD Tag

This topic describes the xsd tag.

XSD Annotation

This topic describes the XSD Annotation.



- <u>Display Type</u>
 Display Type
- Item Type
 This topic describes the item type.

5.1.1.1 Field Name

This topic describes the field name.

Name of the field will be defaulted from the field name provided during creation of block fields. It is a non-editable field.

5.1.1.2 Field Label

This topic describes the field label.

This is also defaulted during block field creation. This represents the label code for the field. Corresponding label description will be displayed for the particular field.

Label code and its description have to be maintained in CSTB_LABELS. This can be achieved through ODT or by directly inserting scripts in the business schema. This field is editable. If developer wishes to change the default label code, he may do so. LBL code entered manually should be in the below format: LBL xsd tag Name

5.1.1.3 XSD Tag

This topic describes the xsd tag.

It will be defaulted when a field is added and whenever the label code gets modified. This value is used in the xsd's as xsd tag and same will be used for web service.

5.1.1.4 XSD Annotation

This topic describes the XSD Annotation.

Annotation for the xsd tag can be provided here. Description of the label code would be defaulted which can be modified by developer.

5.1.1.5 Display Type

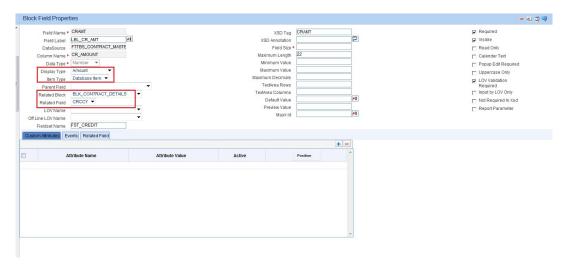
Display Type

Pre-defined values are available in the select box for this field. Value can be selected on requirement. This specifies the HTML display pattern for the field. Available options are:

Amount: The display type can be defined as Amount if it displays an amount. The field will
be formatted based on the currency which it picks from related block and Related Field.
Related block and Related Field values have to be mandatorily provided for Amount fields.
Related Field should come above the amount field in the screen and it should hold the
currency value for the amount.

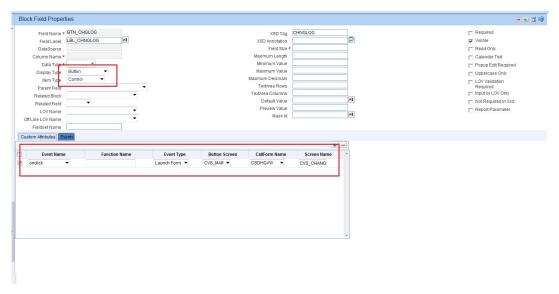


Figure 5-9 Define an Amount Data Block Field



• **Button**: If the display type for the field is a button, display type has to be selected as button. Action to be performed on clicking the button should be provided in the events tab Button can launch a sub screen, launch form, call form or invoke a user defined JavaScript function.

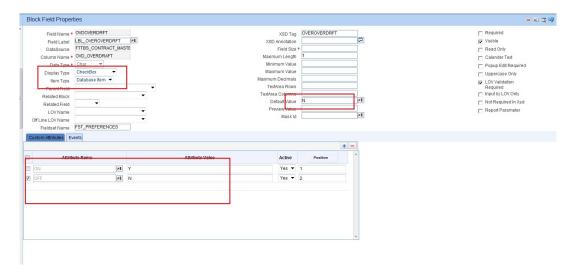
Figure 5-10 Define Field as button



• **Checkbox**: Checkbox is used for displaying checkboxes. Attribute Name will be ON and OFF. Attribute values can be provided as per design In the figure shown below: ON (checked) corresponds to Y in table and OFF to N Default value is selected as N.

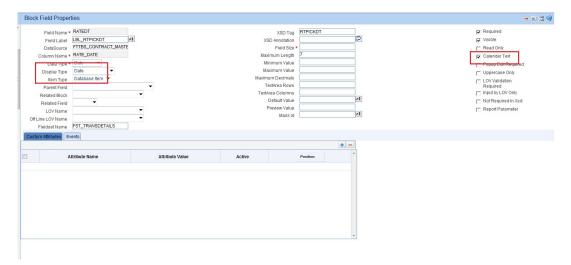


Figure 5-11 Define Field as Checkbox



Date: If the field is of date type display type can be selected as Date.

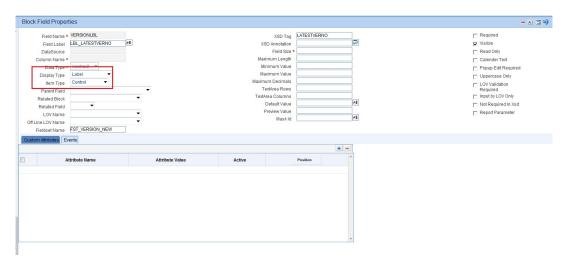
Figure 5-12 Define Field as Date



- Date Time: If the field displays both date and time, it can be selected as Date Time.
- **File**: If browser option is required for the field, then field has to be selected as file type. Example: If an excel sheet from the local machine needs to be selected, browser button has to be provided, so that user can browse the folders and select the file required.
- **Label**: If the field is required only for displaying image or Label, it can be selected as Label. Normally UI fields are used for label display purpose.

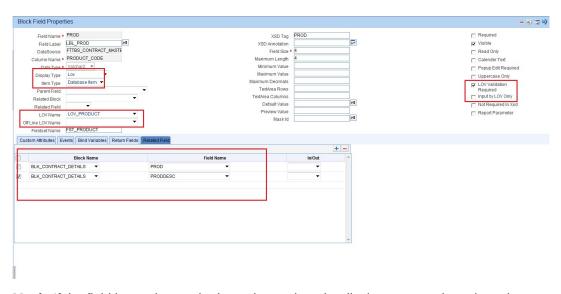


Figure 5-13 Define Field as Label



• LOV: If field value has to be selected through a LOV, display type has to be selected as LOV. LOV's have to be defined as explained in respective section. LOV which has to be linked to the field has to be selected from the LOV Name select list. Return Fields and Bind Variables has to be mapped as shown in the figure below If input to field has to be done only through LOV, Input By LOV Only fields can be checked. If validation for the value entered by the user is required in server, (validating whether the value selected is part of the values fetched by LOV); LOV validation Reqd can be checked. For branch screens, Offline LOV Name can also be attached.

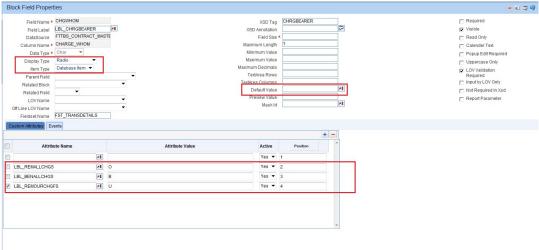
Figure 5-14 Define Field as LOV



- Mask: If the field has to be masked on tab out, then the display type can be selected as Mask Mask ID has to be selected which identifies the pattern of the mask applied.
- Password: If the display type has to be in Password form, display type can be selected as Password.
- Radio If the display type has to be radio button, it can be selected as Radio. All the options
 for the Radio button have to be provided in the Custom Attributes. Label which should be
 displayed in the screen should be provided in attribute name and its corresponding storage
 value to attribute value. **Default Value** can also be provided.

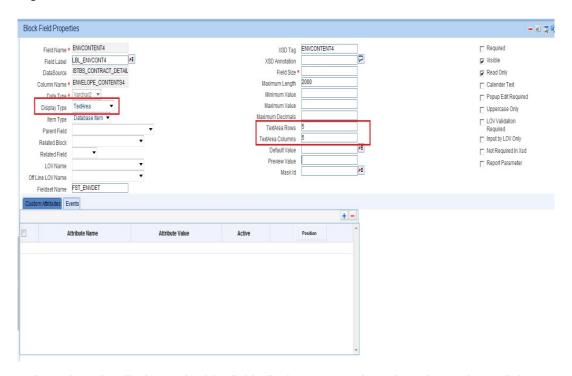


Figure 5-15 Define Field as Radio button



- Read Only Select: This is similar to Select Field; but the field will be non-editable to the
 user. Select options will be defaulted based on the developer's code.
- Restricted Text: This is similar to normal Text field but special characters (non-alpha numeric) won't be allowed to be input in a restricted Text field.
- Text: For a normal text field, display type can be selected as Text. This is the default display type.
- Text Area: If data to be entered for the field is large (>100 characters); It can be defined as
 Text Area type. Number of rows and columns required for the text area can be specified in
 Text Area Rows and Text Area Cols.

Figure 5-16 Define Field as Text Area

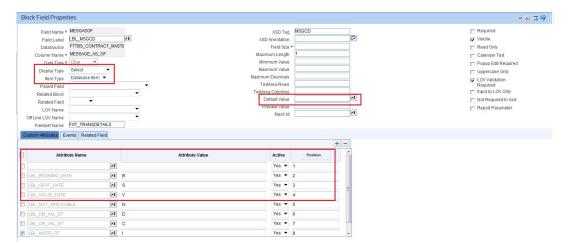


Select: If a select list is required for field, display type can be selected as Select. All the options for the Select List have to be provided in the Custom Attributes. Label which



should be displayed in the screen should be provided in attribute name and its corresponding storage value to attribute value.

Figure 5-17 Define Field as Select List



5.1.1.6 Item Type

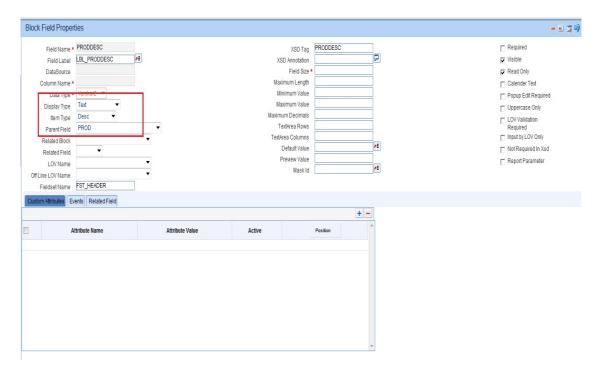
This topic describes the item type.

The value of this field will be defaulted to DATABASE item, if the field has taken from the data source. If the field is a UI field, item type can be either CONTROL or DESC. Item type can be provided as CONTROL for non-data fields like buttons, labels etc.

Item Type can be provided as DESC for control fields used for display of data. **Example**: description of another data source column field If the type is DESC parent field should be attached and the selected parent field should have a LOV attached to it. And the current field should be one of the return fields of the attached LOV.



Figure 5-18 Define Field as Text



The field will be generated in the package and front end (SYS.js) only if the item type is Database item. CONTROL and DESC types are UI fields; hence won't be present in the generated packages.

For more information, refer to the fields description table below.

Table 5-2 Item type - Field Description

Field	Description
Text Area Rows	This field is applicable only if display type is Text Area . Number of rows required in the Text area can be provided here. This field allows the developer to increase the height of the Text Area in the screen.
Text Area Columns	This field is also applicable only for Text Area fields. Number of columns required in the Text area. This field allows the developer to increase the width of the Text Area in the screen.
Related Block	This field is applicable if display type is Amount . An amount field can be related to a particular currency field, and this field captures the block name where the currency field is present.
Related Field	This field is also applicable only if display type is Amount . Subsequent to the above field (Related Block), a field can be selected as a related field for an amount field. Selected Block's (Related Block) fields will be available in the select box.



Table 5-2 (Cont.) Item type - Field Description

=:	S
Field	Description
Parent Field	If the Item Type of the selected field is Desc, a parent field should be attached and the selected parent field should have a LOV attached to it. And the current field should be one of the return fields of the attached LOV Note: This feature is provided to avoid Query data sources and should be used for all description Fields. If a particular field is selected as Description Field in ODT, the LOV for the Parent field should not have any Control Item as a bind variable.
Min Value	Minimum value for a number field can be mentioned. ODT will generate validation for the minimum value of the field in the generated package as well as the front end units.
Max Value	Maximum value for a number field can be mentioned. ODT will generate validation for the maximum value of the field in the generated package as well as the front end units.
Max Decimals	Max Decimals for a number or amount field
LOV Name	This is applicable only if the display type is LOV. LOV to be attached has to be selected from the select list. Select List will contain all the LOVs defined by the developer for the particular screen plus GLOBAL LOVs . Global LOV can be maintained across function id and same can be attached to a field. This will reduce development time. LOV can be selected from list of values attached to the field. These LOV are handled by the FLEXCUBE Infra.
	Global LOVs are stored in CSTB_LOV_INFO with function id as COMMON .
Offline LOV Name	These LOV will be used by the Branch function id if the branch is in offline mode, offline LOV will be used. All the LOV will be populated which are defined in the LOV definition screen. Both offline and online LOV can be maintained for the same field.
	Offline Global LOV : Define these LOV remains same as Global LOV, and functionality is same as offline LOV.
Field set Name	This is a non-editable field and is defaulted based on the field set to which the particular field is mapped.
Data Type	This is non editable field. This will be defaulted from the data type of the column to which the field is mapped. This has to be mandatory provided.
Data Source	This is a non-editable field. This will default the table name of whose column is mapped to the particular field.
Column Name	This is a non-editable field. This will default the column name to which the particular field is mapped.
Max Length	The max length of column will be defaulted while adding a field and it can't be overwritten. This value will be considered for the field max length of the designed screen. It means, at the run time system will not allow the user to enter the text more than this length. The value of the field can be changed from data source column properties which will reflect in block field level as well.
Field Size	Value will be defaulted while adding the field and same can be modified. This is the size which will reflect in the screen for the field.
Default Value	A default value can be given to the selected field, system will use the default value at the run time and default value will be stored in the generated front end unit, it will not available in the generated packages.



Table 5-2 (Cont.) Item type - Field Description

Field	Description
Preview Value	In the Screen Preview, if developer wishes to see the preview with some data; a preview value can be provided.
Mask ID	This is used for enforcing some restrictions on the values that can be entered in some fields. The ids are present in sttb_field_mask. This is applicable only if the display type is Mask .
Popup Edit Required	This can be checked for long text entries. A pop up edit screen would come along with the field. Popup edit will be provided for all fields whose field size is larger than 20 by FLEXCUBE Infra.
Required	If the field is mandatory, this checkbox can be checked .This will force the user to enter value in this field. Asterisk (*) character would come along with the field in the screen.
Visible	Screens can be made invisible if it not intended to be used. The screens created in any previous release cannot be deleted. Hence visible flag has to be unchecked to achieve the same.
Input by LOV Only	This is applicable only for LOV fields. This will force the user to use the LOV button to input the value instead of key in the value.
Calendar Text	This is applicable if the fields has to be placed close to each other as in a calendar.
Upper Case Only	If the field value has to be in Uppercase only, this option can be checked. This will convert the field value to Uppercase on tab out of that field in FLEXCUBE.
LOV Validation Reqd	This is applicable only for LOV fields. If validation for the value input in LOV field is required, this option can be checked.
Not Reqd in XSD	If the field is not to be included in XSD, then this option can be checked.
Report Parameter	This is applicable only for Report Screens. If the field is a report Parameter, this option needs to be checked.
Read Only	This will restrict the user from entering value to the field. Filed can be made non editable by checking this option.
Custom Attributes	 Specify the Attribute Name and values for SELECT, RADIO, CHECKBOX and READ ONLY SELECT fields. Attribute name: It corresponds to the Label Code whose description will appear in the screen. Attribute Value: The corresponding value which will be stored in the backend for the corresponding attribute. Active: ODT does not allow the deletion of attribute elements if created in an earlier release. Hence if an attribute is no longer required, the attribute can be made inactive. Position: Ordering of the attributes in the list can be manipulated using Position field. Position numbers can be modified. After changing the position values, position button has to be clicked; which will arrange all attributes in the new order Refer to the Define Custom Attributes for a Select Field image below.
Exact Fetch	If a field is Lov field, we can check the option of exact fetch required as shown below. If a particular field is attached with an enabled exact fetch value, while searching using this field, user has to provide the exact value of that field as it is present in the database otherwise the system will show a message of invalid value. Refer to the <i>Exact fetch</i> image below.



Table 5-2 (Cont.) Item type - Field Description

Field	Description
Hot Key Required	If user wants to provide hotkey functionality to a field then Hotkey required checkbox need to be checked corresponding to that field. Refer to the Focus Required image below.
Focus Required	If a field is read only field then the focus does not come on this field once it is launched in FLEXCUBE. Focus required will bring the focus to the corresponding read only fields. If User wants to provide focus required functionality to a field then focus required checkbox need to be checked corresponding to that field.
Events	Events tab needs to be input if the field type is BUTTON. For more information, refer to the <i>Events tab</i> table below.
Bind Variables	Bind Variables and return fields are required for LOV fields. Refer to the <i>LOVs</i> topic for detailed explanation.
Return Fields	Bind Variables and return fields are required for LOV fields. Refer to the LOVs topic for detailed explanation.

Table 5-3 Events Tab

Field	Description
Event Name	A pre-defined java script event can be attached to the field and same can be selected. Usually, onclick event is selected.
Function Name	A function name should be mentioned for event, same function should be maintained in the function id java script or in the infra java script files. This function will be invoked on the event mentioned earlier on the field. Note: Function Name needs to be mentioned only if event type is either NORMAL or SUBFUNCTION.
Event Type	 Event Type can be Call form: If on click of the button a call form has to be launched. Launch form: If on click of the button a launch form has to be launched. Sub screen: If on click of the button a Sub Screen has to be launched. OBIEE: If on click of the button the OBIEE screen has to be launched. Normal: if on click of the button, a JavaScript function has to be invoked which is mentioned in Function Name field. Normal buttons have to be placed in a field set for them to appear in the screen. Sub Function: This is used in Process Flow screens to invoke sub functions.
Button Screen	It specifies in which screen button is to be placed. This is not required for Normal buttons.
Call Form Name	If the button is of Call form/Launch form type, the name of the call form/launch form which has to be launched should be mentioned here. All the attached call forms. Launch forms which are active will appear in the Select List.
Screen Name	For Sub Screen, call form, Launch Form type buttons; this field specified the name of the screen which will be launched.



Figure 5-19 Define Custom Attributes for a Select Field

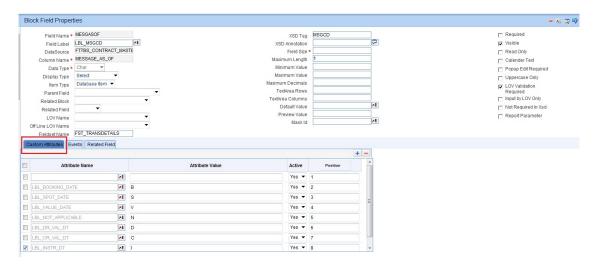


Figure 5-20 Exact fetch

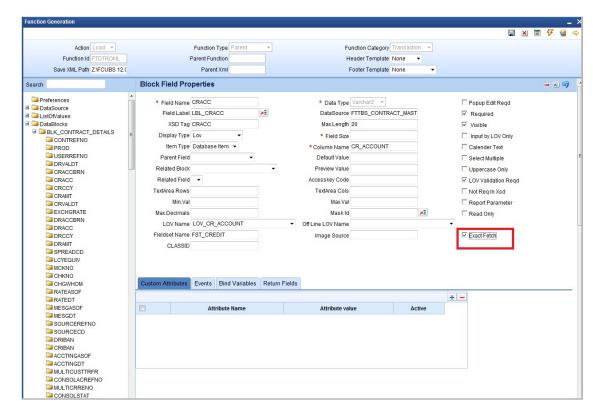
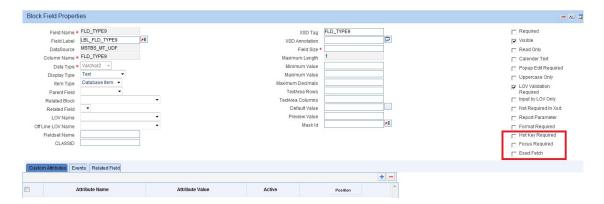




Figure 5-21 Focus Required



This topic describes the following sub-topic:

5.2 Data block – Guidelines and Best Practices

This topic provides a list of guidelines and best practices for creating data blocks.

Below are points to be noted while creating data blocks:

- All Block Names Should start with BLK_ and the remaining portion of the block name should be the same as the XSD node of the Block Name in Upper case and _ replaced with -. Avoid naming the block name the same as that of the table name.
- Blocks also would have a hierarchy and has to be chosen correctly.
- 3. Block Types are similar to data source types with an additional type **Control**.
- After adding a block, ODT defaults the XSD node. Node name would be Block name without BLK_ and in Sentence case. Also, _ will be replaced with -.
- 5. Parent block should be chosen from the list based on the hierarchy.
- 6. Similar to data sources, block also can be either Multi-Record or single record type.
- 7. Block Title has to be selected from the LOV.
- 8. Relation type has to be mentioned as **One to One** or **One to Many**.
- One and only one block should be selected as Master Block.

Keypoints for attaching Data Sources to Data Block

Below are some of the important points to be noted while attaching data sources to a data block:

- The same data source can be selected in multiple blocks. However, in the case of Multi record data sources, ODT allows the developer to attach the data source to only one block.
- One Multi Record block can have multiple data sources provided all of these data sources have strict one-to-one relation.
- 3. In case of multiple data sources in a single data block, it is important to ensure that the data in the attached data sources is functionally related and more importantly, a row in one table would definitely have a row in other attached data sources as well. Otherwise the generated code inserts records in all the tables always and this would result in lot of dummy records in the database.

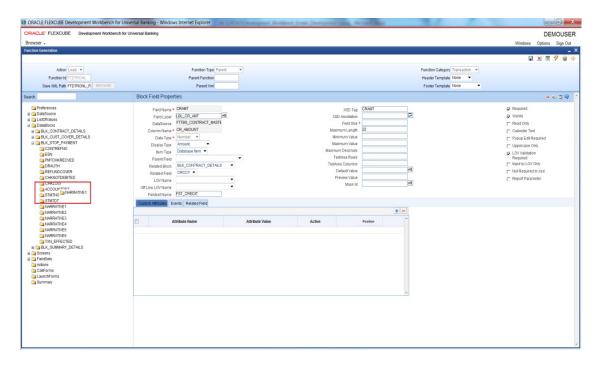


4. Parent data block has to be above its child data block in the browser tree. Developer has the option to rearrange the order of the blocks in the tree (by drag and drop).

① Note

If block or block fields are rearranged, all units will have to be regenerated.

Figure 5-22 Rearrange Block Field Order



Keypoints for specifying Field Properties

Below are some of the important points to be noted while specifying field properties:

- 1. Avoid using UI fields as LOV bind variables.
- 2. Avoid using separate Query data sources for single description fields. Use Description type UI fields for Description fields.
- 3. Ensure that Related Block and Field are given for Amount Fields. Ensure that related currency fields are placed above the amount fields in the browser tree.
- 4. In case the field is not required in XSD, check not Required XSD. There are cases where the field is a primary key field in a child block and does not need to be repeated in Child block. For example, the field PRODUCT_CODE in Product forms is not required in any Block other than once in the master block.

5.3 Delete Data Block

This topic describes about the deletion of a data block.

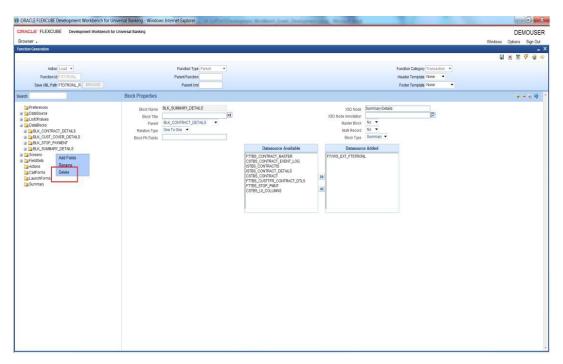
Data Block can be deleted either by:

1. Selecting the delete option from the right click menu of the data block



2. By clicking on the delete icon in top right of the particular data block screen.

Figure 5-23 Delete a Data Block



Deletion of data block will also delete all the references to any of its block fields. that means it may remove any of its fields attached to a field set or the block fields used in the summary screen.

Note

ODT will allow deleting the data block only if it is created in the same release. Data blocks created in any previous release cannot be deleted.

Delete Block Field

This topic describes about the deletion of a data block.

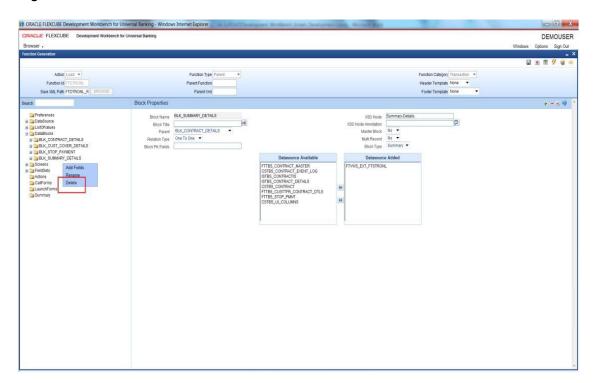
5.3.1 Delete Block Field

This topic describes about the deletion of a data block.

Block field can also be deleted provided it satisfied the condition above. The process is similar to the deletion of data source columns. All the references to the deleted block field will also be deleted.



Figure 5-24 Delete a Data Block Field



Since deletion of data block or block fields is not allowed in later releases, it is advised to take proper care while designing data blocks for the screen All the units needs to be regenerated after deletion of a data block or a block field.

5.4 Rename Data Block

This topic provides systematic instructions to rename the Data Block and Block field.

 Right-click on the data block to be renamed and select the Rename option from the rightclick menu.

OR

2. Click on the **Rename** icon on the top right portion of the data block screen to rename the Data Block.

Renaming of data block will also rename all the references to the data block. For Example: Summary data block if renamed will reflect in the summary node also

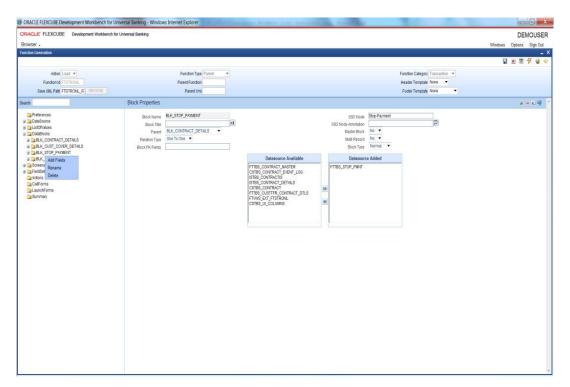


ODT will allow renaming the data block only if it is created in the same release. Data blocks created in any previous release cannot be renamed.

The **Block Properties** screen displays to enter new clock name.



Figure 5-25 Rename Data Block



This topic contains the following sub-topic:

Rename Block Field

This topic describes about the renaming of Block Field.

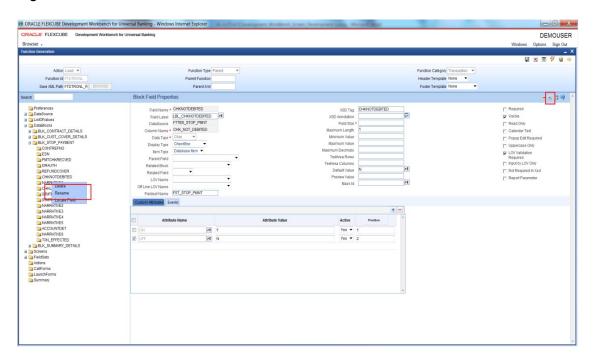
5.4.1 Rename Block Field

This topic describes about the renaming of Block Field.

The Block field can also be renamed provided it satisfied the condition above. The process is similar to the renaming of data source columns. All the references to the renamed block field will also be renamed. Since the renaming of data block or block fields is not allowed in later releases, it is advised to take proper care while designing data blocks for the screen.



Figure 5-26 Rename Block Field



(i) Note

All the units need to be regenerated after renaming a data block or a block field.

Screens

After designing Data sources and Blocks, design the screen layout based on the requirement.

This topic consists of the following sub-topics:

- Create New Screen
 - This topic provides systematic instructions to create a new screen.
- Screens- Guidelines and Best Practices

This topic provides a list of guidelines and best practices for creating Screens and Tabs.

- Delete Screen
 - This topic provides systematic instructions to delete the screens.
- Rename Screens

This topic provides systematic instructions to rename the screens.

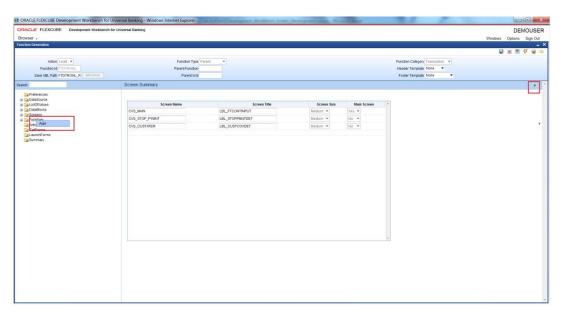
6.1 Create New Screen

This topic provides systematic instructions to create a new screen.

After designing Data sources and Blocks, Design the screen layout based on the requirement. A new screen can be created either by:

- 1. Right-click on the **Screen** node and select **Add** option from the right-click menu.
- 2. Or click on the Add (+) icon in the top right of the Screen Node screen.

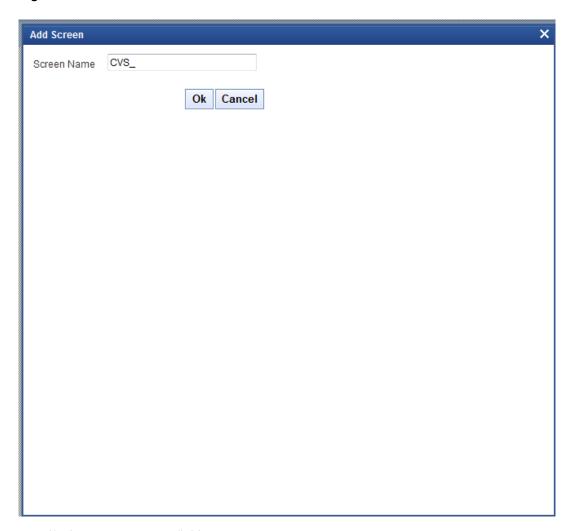
Figure 6-1 Add a New Screen



The Add Screen window displays.



Figure 6-2 Add Screen



3. Specify the Screen Name field.

The **Screen Name** should be started with **CVS**_.

For Example: CVS_PREFERENCES

The Screen Details screen displays.

Figure 6-3 Screen Details

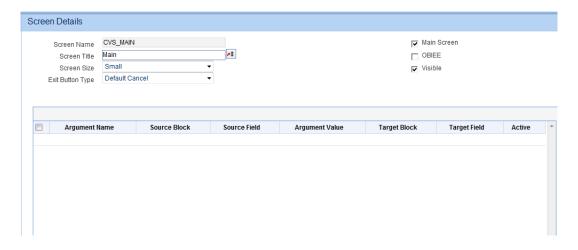




Figure 6-4 Screen Details

4. Specify the properties of the **Screen Details**.

Table 6-1 Screen Details

Field	Description
Screen Name	This field value will have defaulted when the screen is added and it is a non-editable field.
Screen Title	This field will have a label code for the screen title to be displayed. Label code can be selected from a list of values button. The label specified will appear in the Title bar of the Screen.
Main Screen	This field identifies whether the screen created is the main screen for the particular function id. FLEXCUBE function id should have one Main Screen. Only the main screen will be launched from the FLEXCUBE when the function id is launched. Other screens have to be launched from the main screen by placing buttons on the main screen.
Visible	Screens can be made invisible if it not intended to be used. The screens created in any previous release cannot be deleted. Hence visible flag has to be unchecked to achieve the same.
OBIEE	If a screen is an OBIEE screen then this checkbox needs to be checked. After selecting the screen as OBIEE this screen needs to be attached to some event of a button. It is mandatory to provide the Screen Title and the corresponding button label, as both details are required in the UIXML generation.
Screen Size	Depending on the number of fields on the screen, a developer can choose the size of the screen. Options provided are small, medium, and large.
Exit Button Type	This field describes the EXIT and OK buttons for the screen. These buttons are found in the bottom right corner of the screen. If only the CANCEL button is required, select Default Cancel. If both OK and CANCEL buttons are required, select Default OK Cancel. If OK, REJECT, and CANCEL buttons are required, select Default OK REJECT CANCEL. Example: contract authorization screens

Screen Arguments: Screen Arguments are parameters that can be passed to the screen on launching the screen. If on the launch of the screen, some of the fields need to be populated based on the screen from which it is launched, screen arguments can be used.

Figure 6-5 Define Screen arguments for a Screen

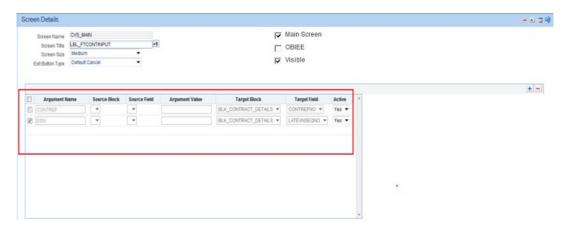




Table 6-2 Screen Arguments

Field	Description
Argument Name	This field identifies the name of the argument. This is a mandatory field for a screen argument.
Source Block	This is optional. This is used if the developer wants to pass arguments between two screens in the same function id. The value from one block field (usually present as part of the parent screen) can be passed as a screen argument to another block field (usually present as part of the current screen). Here the parent block field is identified using source block and source field. Source Block identifies the block name in which the source field is present. Select List provides the list of all data blocks added in the function id.
Source Field	Source Field identifies the field name whose value will be passed as the screen argument to the screen. Select List provides a list of all fields in the source block selected.
Argument Value	If the argument value is hardcoded, then this can be specified in this field. If the argument value is specified, then the source block and source field are not required. For example: action codes can be passed as screen arguments which will be hardcoded like EXECUTEQUERY.
Target Block	The target block represents the block containing the field to which the argument value is assigned. This block should be part of the screen. The select list provides the list of all data blocks defined in the function Id.
Target Field	Target Filed identifies the field to which the argument will be passed. Select List provides the list of all fields in the target block.
Active	Screen Arguments defined in an earlier release cannot be deleted. Instead, the developer can make it inactive which serves the same purpose.

Tabs

This topic provides an overview of tabs.

Sections and Partitions

This topic provides systematic instructions to create sections and partitions in the screen tab.

• Multiple Screens in Same Function ID

This topic describes about the multiple screens in same function ID.

6.1.1 Tabs

This topic provides an overview of tabs.

When a developer creates a screen in the ODT, tool will create three default portions in the screen:

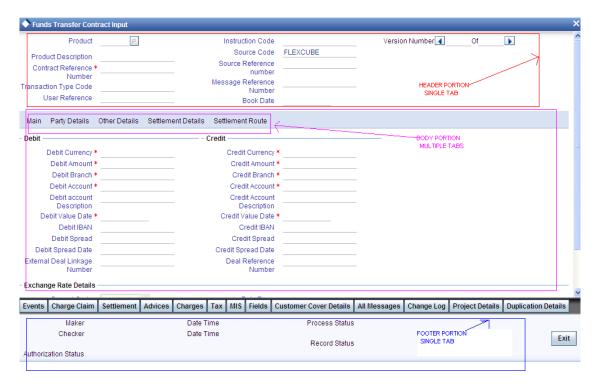
- Header
- Body
- Footer



Figure 6-6 Fund Transfer Contract Input

FLEXCUBE screens are divided into three portions, Header, Body, and Footer and all portions can have tabs. Each portion will have default tabs. Along with these default tabs, the developer can create more tabs as required.

Figure 6-7 Preview of a Sample Screen



Following default tabs are provided:

For Header portion: TAB_HEADER

For Body Portion: TAB_MAIN

For Footer Portion: TAB_FOOTER

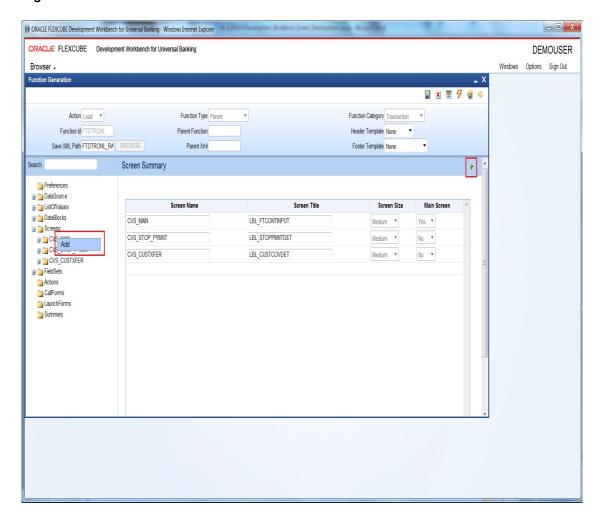
These tabs should not be deleted by the developer.

For creating new tabs, developer can either:

- Select Add tab option from the right click menu of the screen portion (header/body)/footer) node.
- Click the Add tab icon on the top right portion of screen portion screen.



Figure 6-8 Add Tabs to a Screen



Specify the properties for the tab as required.



Figure 6-9 Tab Properties

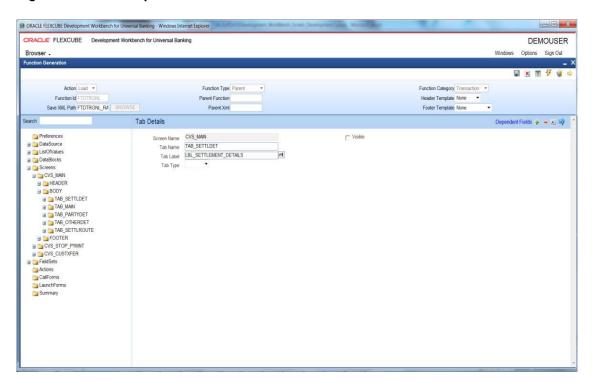


Table 6-3 Tab properties

Field Name	Description
Screen Name	This is a non-editable and will be defaulted from the screen name of which the tab is included
Tab Name	This is non editable and it shows the name of the tab provided during creation of the screen.
Tab Label	Label Code for the tab can be maintained here. Description of the Label will appear as Tab Title in the screen.
Tab Type	Tab type as data or service. Tab Type is Data for Normal case. If any call form has to be embedded in the tab (Example: Branch Screens), this can be selected as Service.
Visible	Tabs can be made invisible if it is not intended to be used. Note : The tabs created in any previous release cannot be deleted, so visible flag has to be unchecked to achieve the same.
Dependent Fields	If the tab type is service, this comes into picture. This is used to map the fields in the main screen to which this field is dependent.

6.1.2 Sections and Partitions

This topic provides systematic instructions to create sections and partitions in the screen tab.

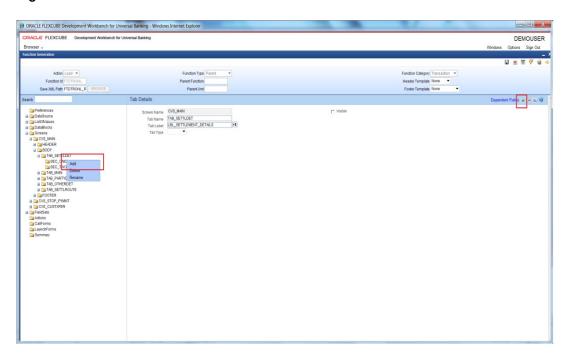
Sections has to be created for each tab. Number of sections can vary depending upon the design requirement. All tabs should have at least one section Partitions should be added to each section. Number of partitions that can be added to a screen depends on the screen size. When partitions are again divided, we get sub partitions sections.

Create Sections either by:



- Right-click on the **Screen** and select the **Add Section** option from the right-click menu.
- Click on the Add Section icon at the top right corner of the Tab screen to add the section.

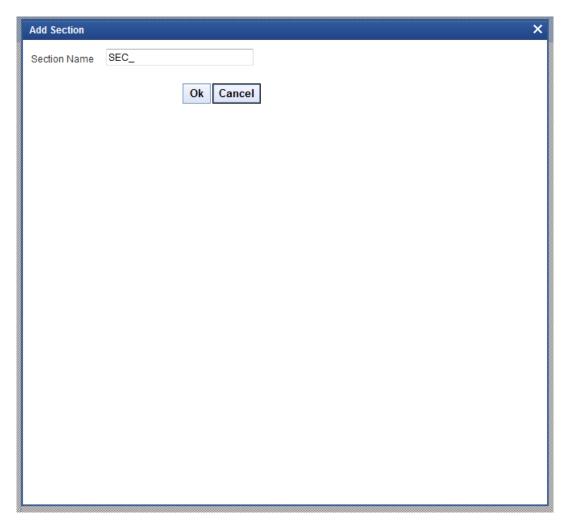
Figure 6-10 Add Section to a Tab



The **Add Section** screen displays.



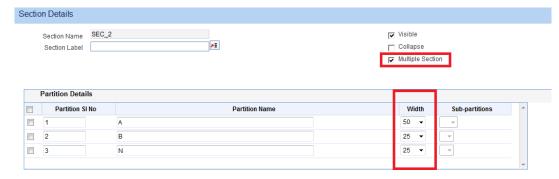
Figure 6-11 Add Section window



2. Specify the section name and click Ok.

The Screen Details screen displays.

Figure 6-12 Section Properties



3. Specify the following details in the table below. For more information, refer to the fields description table below.



Table 6-4 Section Properties

Field	Description
Section Name	This field will be defaulted based on the section name provided while creation. It is a non-editable field.
Section Label	Select Section Label from the LOV.
Collapse	If the section has to be made collapsible, this option can be checked.
Visible	If the sections are not required in the screen, it can be made invisible. Note: sections created in previous releases cannot be deleted. Hence it can be made invisible to achieve the same.
Multiple Section	Fieldset attached to this section will allow only multi entry block fields to be mapped to this fieldset. Mapping for single entry block will not be allowed if multiple section option is selected. If multiple section features is to be provided for a section then this option can be selected.

This topic contains the following sub-topic:

Partition Details

This topic describes about the partition details.

6.1.2.1 Partition Details

This topic describes about the partition details.

Partitions can be added to the section. The number of partitions allowed on a section depends on screen type and screen portion.

- 1. For Large screen, a section in the body or header can have a maximum of 3 partitions.
- 2. For Large Screens, a section in the footer can have a maximum of 4 partitions.
- 3. For all medium and small screens, a maximum of 2 partitions is allowed.

Number of partitions mentioned above is including any sub partitions if defined; i.e. if partition is divided into 2 sub partitions; it will be treated as 2 partitions by the system.

Table 6-5 Partition Details

Field	Description
Partition SI No	This will used to identify the partition by the system. It will be defaulted by the tool. Numerical value which increments by one.
Partition Name	This can be provided by the developer.
Width	Width of the partition will be defaulted by the Tool depending on the number of partitions. Example: If 2 partitions, width of each will be defaulted to 50.
Sub Partitions	Each partition can be subdivided into sub partition provided it does not breach the maximum partitions allowed.

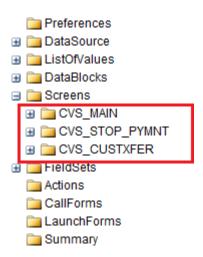
6.1.3 Multiple Screens in Same Function ID

This topic describes about the multiple screens in same function ID.

Multiple Screens can be designed within a single function ID.

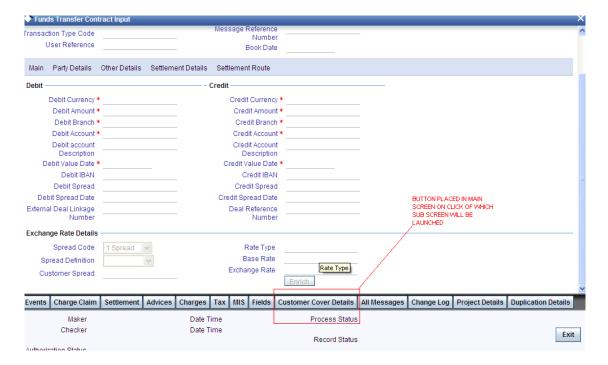


Figure 6-13 Multiple Screens in a Function ID



While launching the function Id from FLEXCUBE; the main screen will be launched.

Figure 6-14 Preview of a Sample Screen illustrating Multiple Screens linked by Buttons





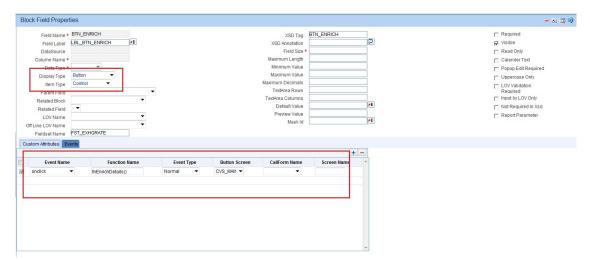


Figure 6-15 Button Events for Launching Sub Screen

Buttons has to be placed in the main screen. Button Events to be maintained such that on clicking the button, sub screens will be launched. The button events maintained for the button can be seen in the below figure. Screen name is mentioned as the screen to be launched and the button screen is the screen where button is placed.

6.2 Screens- Guidelines and Best Practices

This topic provides a list of guidelines and best practices for creating Screens and Tabs.

Below are the practices to be followed while designing screens:

- A function Id should have one main screen.
- Screen Name should start with CVS .
- Every screen will have three portions called Header, Body, and Footer. The developer should not delete these portions.

Keypoints for creating Tabs

Below are the key points to be noted while creating tabs:

- FLEXCUBE architecture does not support multiple tabs in the footer portion of the screen.
- If the screen does not have multiple tabs, then only the TAB_MAIN needs to be used.
 TAB_HEADER should not contain any sections in this scenario.
- If the screen is multi-tabbed, TAB_HEADER and TAB_MAIN should be used while
 designing. TAB_HEADER denotes the header portion of the screen and TAB_MAIN
 should contain the main tab fields.
- TAB HEADER, TAB FOOTER, and TAB MAIN should not be deleted by the developer.
- If any templates are chosen for the footer, TAB FOOTER need not be manually designed.
- Order of Tabs/Sections in the screen can be rearranged by rearranging them in the tree by drag and drop.

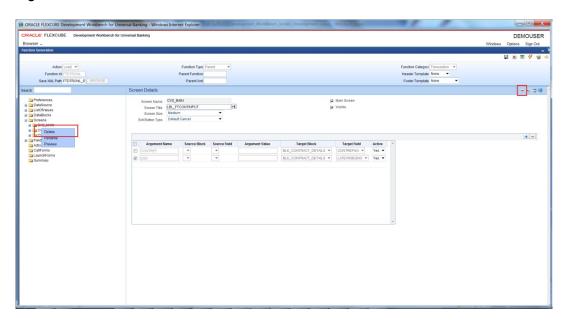


6.3 Delete Screen

This topic provides systematic instructions to delete the screens.

- 1. Right-click on the **Screen** and select the **Delete** option from the right-click menu.
- 2. Or click on the **Delete** icon in the top right of the particular Screen.

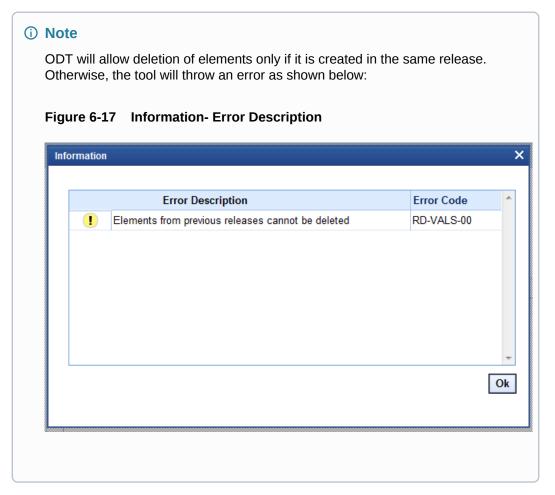
Figure 6-16 Delete a Screen



Any reference to the particular screen in any field set will also be reset to null. Tabs and Sections can also be deleted similarly.

The selected screen gets deleted.





Visible Flag

This topic provides an overview of Visible flag.

6.3.1 Visible Flag

This topic provides an overview of Visible flag.

If in a future release, if the screen/tab/section needs to be removed, it can be made invisible by unchecking the **Visible** flag. The **Visible** flag is available at Screen, Tab, and Section levels.

Note the following when making a screen invisible:

- If a screen is made invisible, all its tabs and sections will also be made invisible. Any fieldset which is placed on the particular screen will also be made invisible.
- If the same screen is again made visible, tabs and sections still remain invisible. The developer has to manually change the tabs and sections to be visible. Fieldsets also have to be made visible manually. This is done so that if the fields attached to invisible fieldsets were attached to some other fieldset, then the particular fieldset should not be made visible as it will result in more than one fieldset containing the same field.

Note the following when making the tab invisible:

- If a tab is made invisible, all the sections under that tab will also be made invisible. Also, any field set placed in the particular tab will also be made invisible.
- If the tab is again made visible, all the sections under that tab still remain invisible.
 Fieldsets also remain invisible. The developer has to manually make the section and fieldsets visible as per requirement.



• Tab can be made visible only if its screen is visible. Otherwise, it throws an error.

Similarly, when a section is made invisible, all the fieldsets placed in the section will also become invisible. But when it is again made visible, the fieldsets remain invisible. The section can be made visible only if the corresponding screen and tab are visible.

6.4 Rename Screens

This topic provides systematic instructions to rename the screens.

- Right-click on the Screen to be renamed and select the Rename option from the right-click menu.
- 2. Or click on the **Rename** icon in the top right of the particular Screen to rename the screen. Renaming of the screen will also be reflected in any reference to the particular screen in the Radxml.

The **Screen Details** screen displays.

Figure 6-18 Rename Screen

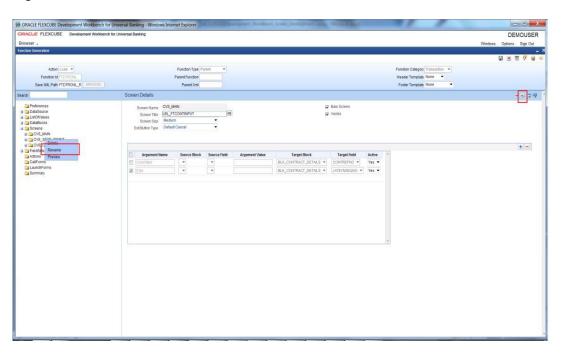


Figure 6-19 Screen Details



Renaming of screens would be allowed only if they were created in the same release.

3. Specify the new screen name and click Save.

The **Screen Name** get renamed. Tabs and sections can be renamed similarly.

Field Sets

This topic describes the field sets.

Field set is a logical set of fields which would appear together in one partition of the screen layout. The blocks in a Field should be grouped as Field sets to make them appear on specific locations on the screen.

This topic has the following sub-topics:

Create New Field Set

This topic provides systematic instructions to create a new Field Set.

Field Sets- Guidelines and Best Practices

This topic provides a list of guidelines and best practices for designing Field Sets.

Delete Field Set

This topic describes about the deletion of field set.

Rename Field Set

This topic describes the renaming of field set.

7.1 Create New Field Set

This topic provides systematic instructions to create a new Field Set.

A field set is a logical set of fields that would appear together in one partition of the screen layout. The blocks in a Field should be grouped as Fieldsets to make them appear in specific locations on the screen.

- 1. Right-click the Fieldset Node and select Add Field Set option from the right-click menu.
- 2. Or click the Add Fieldset (+) icon in the top right corner of the Field Set Screen.



Figure 7-1 Add a New Field Set

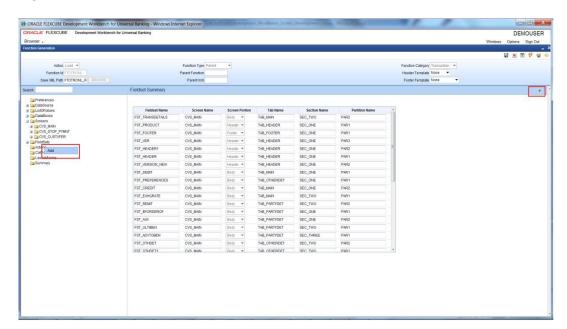
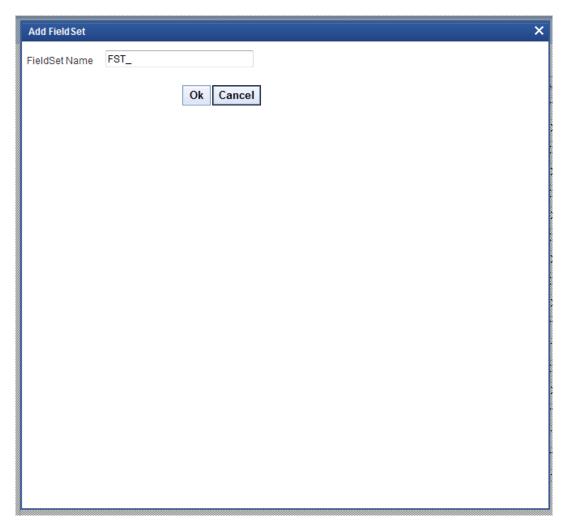




Figure 7-2 Add FieldSet



3. Specify the **FieldSet Name** field and click on the **OK** button.

The standard naming convention for fieldsets is FST_< Descriptive Code of the Field Set>.

For Example: **FST_VERSION**

The FieldSet Properties screen displays.



Figure 7-3 FieldSet Properties

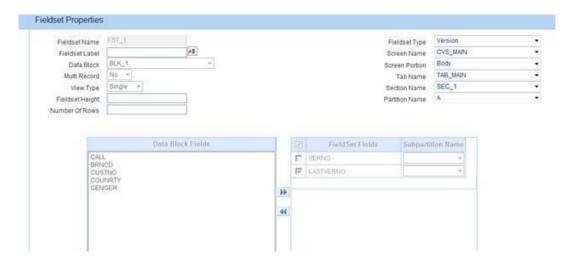


Figure 7-4 FieldSet Properties

4. Specify the details in the FieldSet Properties screen as follow:

Table 7-1 FieldSet Properties

Field	Description
FieldSet Name	This is a non-editable field. Value has defaulted from the fieldset name provided during creation.
FieldSet Label	All fieldsets can have a title to them, and the same can be mentioned in this field as label code. Label code can be selected using the list of values attached to the field. On the Field Set screen, the Title will appear as the title for a field set.
Data Block	Data block has to be selected from the select list. The select list provides the list of all data blocks in the radxml. The developer can attach fields of the data block selected to the fieldset. Note: The data block Name cannot be modified in a future release.
Multi Record	This is a non-editable field. This will be defaulted based on the type of data block selected. If the data block is of type multi-record, the field will be set to Yes ; otherwise to No .
View Type	View Type option will be enabled only if the Multi Record is Yes. If the Multi Record is No, View Type has defaulted to Single. If Multi Record is Yes, the developer can choose the view type as either Single or Multiple View. In the Multiple View type, multi records are displayed in a table grid format. In the Single View type, only one record will be displayed at the time. Navigation buttons will be provided for viewing the next record.
FieldSet Height	The developer can provide the height of the fieldset. This is an optional field. FLEXCUBE will calculate the standard height of the fieldset depending on the number of fields and size of the screen etc. Here ODT provides the developer a provision to override the standard settings.
Number Of Rows	If the View Type is Multiple , then the number of rows in the multiple tables can be decided using the No of rows field. This is an optional field, Tool will default to 15 rows if the field value is null.



Table 7-1 (Cont.) FieldSet Properties

Field	Description
FieldSet Type	Three options are there:
	a. Normal: This option will be for the normal fieldsets.
	b. Image Set: If a field set is an Image field set then this option needs to be chosen.
	c. Version: If a fieldset represents the version control fieldset then the fieldset type should be version. If Fieldset Type is Version then the Selected Block must have below mentioned fields:
	i. VERNO
	ii. LASTVERNO
	Note: Option for Manual selection of fields will not be provided.
Screen Name	This field captures the name of the screen where the particular fieldset is to be added. Select List provides the list of all Screens created in the Radxml.
Screen Portion	Select the Screen Portion where the fieldset has to be placed.
Tab Name	Select the tab name where the fieldset has to be placed. Select List will contain all the tabs defined on the screen mentioned above.
Section Name	Select the section in the tab provided earlier to which the fieldset has to be placed. Select List provides all the sections defined in the Tab mentioned above.
Partition Name	Select the partition in the section mentioned above where the fieldset will be placed.
Horizontal FieldSet	A fieldset can be horizontal if this flag is selected. A horizontal fieldset will have fields horizontally arranged, whereas in normal fieldsets all the fields will be arranged vertically by default.
Read Only	This is applicable only fieldset is attached to the multi-record data block. The entire block can be made read-only by selecting this checkbox.
Navigation Button	This is applicable only if Multi record is Yes and the selected View Type is Single . If this check box is selected, the tool will add Previous and Next buttons to the screen. This can be used for navigating multiple records in a single view type.
Visible	If a fieldset is no longer required, it can be made invisible. Note: ODT does not allow the developer to delete a fieldset if it is created in a previous release. Instead, the same functionality can be achieved by making it invisible.

• Attach Field to a Field Set

This topic provides an overview of the process of attaching Field to a Field Set.

7.1.1 Attach Field to a Field Set

This topic provides an overview of the process of attaching Field to a Field Set.

Once the data block and the screen details (up to partition) in which fieldset has to be placed are identified, fields can be attached to the fieldset.

Data Block Fields

This List Select box provides all the block fields of the data block mentioned which is not yet attached to any visible fieldset. Any of the fields available in the data block fields can



be moved to the fieldset fields by selecting and clicking on the move arrows. Similarly, any attached field can be removed from the fieldset by moving it back to data block fields.

Field Set Fields

This contains the list of all fields which is attached to the fieldset. The order of the fields in this grid signifies the order in which it will be displayed on the screen. Fields can be rearranged as per requirement. If the partition mentioned in the fieldset properties is divided into sub-partitions, then the subpartition in which the particular field has to come has to be selected from the subpartition list.

7.2 Field Sets- Guidelines and Best Practices

This topic provides a list of guidelines and best practices for designing Field Sets.

Below are the guidelines to be followed while designing Field Sets:

- 1. Ensure that proper Label Code is given a title and make sure that the same is available in CSTB LABELS.
- Select the Screen, Section, and partition and the Block from which the fieldset is to be created.
- Select the fields into the fieldset from the left text area (data block fields) to right and give the appropriate Sub partition number wherever applicable.
- In case the fieldset has to be horizontal, check the **Horizontal Fieldset** check box.
- For multi-record fieldsets (either single view or multiple entry view), check the **Read-only** check box to avoid +/- buttons.



(i) Note

Checking **Read-only** check box would only stop the user from adding and deleting records. The system would still allow modifying the fields of a row based on whether or not they are read-only.

7.3 Delete Field Set

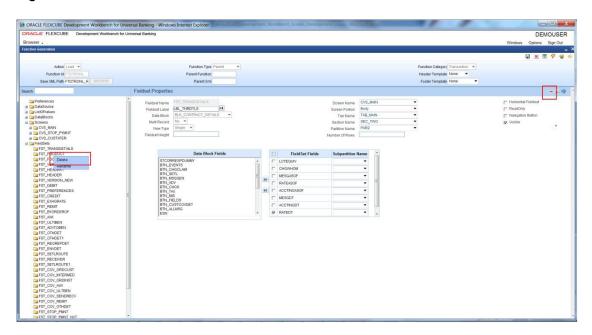
This topic describes about the deletion of field set.

Field Set can be deleted either by:

- Right click on a node and select the **Delete** option from right click of menu.
- Click on the **Delete field set** icon at the top right corner of the **FieldSet Properties** screen.



Figure 7-5 Delete of Field set



(i) Note

Deletion of field set is allowed only if the field set is created in the same release.

<u>Visible Flag for FieldSet</u>
 This topic provides an overview of Visible flag.

7.3.1 Visible Flag for FieldSet

This topic provides an overview of Visible flag.

If the fieldset is no longer required in any future release, then the fieldset can be made invisible. This serves the same purpose as deleting the fieldset.

(i) Note

The following while making field set as invisible:

- When a fieldset is made invisible, all the fieldset properties will be disabled. The
 developer won't be able to add any new field to an invisible field set, but he will be
 allowed to remove the field from the fieldset fields.
- If he makes the fieldset visible again, System validates whether the Screen, Tab, and section in which the fieldset is placed is visible. If any of them is not, the system throws an error.
- When the fieldset is made visible, the system checks whether any of the fields attached to this fieldset has been re-used in any other fieldset. If any fields are found to be attached to any other visible fieldset, it won't allow making the fieldset visible.



7.4 Rename Field Set

This topic describes the renaming of field set.

Field Set can be renamed by either:

- 1. Select the **Rename** option from the right click menu of the particular Field Set.
- 2. Click the Rename Field Set icon in the top right corner of the Field Set screen.

Figure 7-6 Rename of Field Set

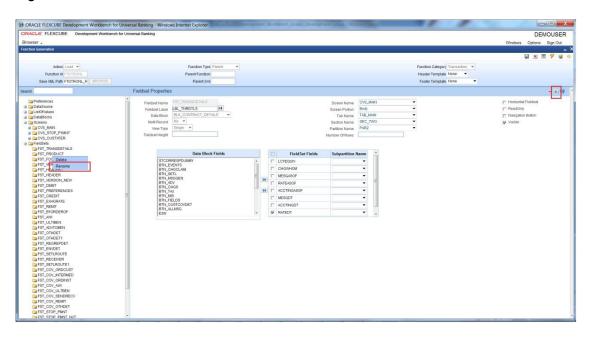


Figure 7-7 Rename of Field Set





Renaming of field set is allowed only if the field set is created in the current release.

LOVs

This topic provides an overview of the List of Values (LOVs).

FLEXCUBE supports two types of List of Values (LOVs):

- Global LOVs: These are LOVS defined in the system which can be used across all the functions. Global LOVs are stored in CSTB_LOV_INFO with function id as COMMON.
- 2. **Local LOVs**: These are defined in particular to the function Id. They are defined in the function Id and can be attached to any field in the function Id as per requirement.

This topic has the following sub-topics:

- Define LOVs
 - This topic provides systematic instructions to define LOVs.
- Attach LOV to Block Field

This topic provides systematic instructions to attach LOVs to block field.

- LOVs- Guidelines and Best Practices
 - This topic provides a list of guidelines for defining LOVs.
- Delete and Rename LOVs

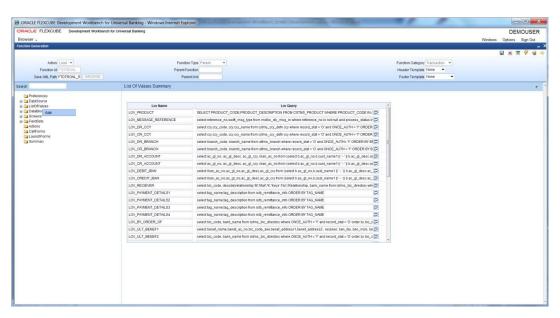
This topic describes the process of deletion and renaming LOVs.

8.1 Define LOVs

This topic provides systematic instructions to define LOVs.

- 1. Right-click on the List Of Values node and select Add option from the right-click menu.
- 2. Or click on the Add (+) icon in the top right portion of the LOV grid screen.

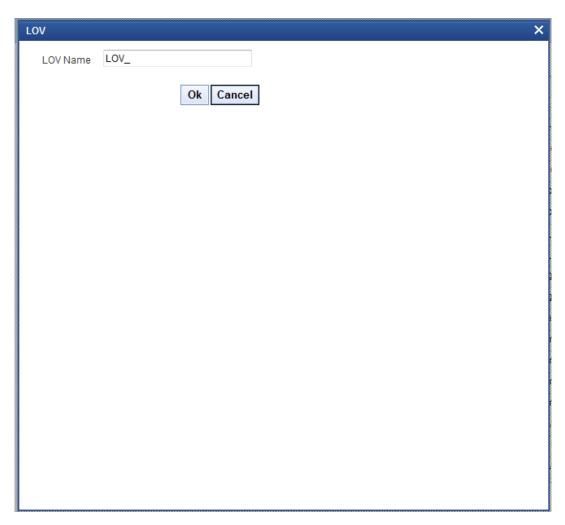
Figure 8-1 Add a new LOV





The **LOV** window displays.

Figure 8-2 Add LOV window



3. Specify the **LOV Name** field and then click on **OK** button.

LOV name should start with **LOV**_.

For Example: LOV_COUNTRY

4. Specify the fields in the **List Of Values Details** screen.

Table 8-1 List Of Values Details

Field	Description
LOV Name	This is a non-editable field. It will be defaulted based on the LOV name provided while creating LOV.
LOV Query	LOV query has to be provided in this field. Bind variables for the LOV have to be specified as ? . Bind variables are the parameters whose values are required as input for executing the query during run time. For Example: SELECT CUSTOMER_TYPE FROM STTM_CUSTOMER WHERE CUSTOMER_NO=? Here value for Customer No is to be passed as a parameter.



Table 8-1 (Cont.) List Of Values Details

Field	Description
LOV Column Details	Click on Populate button. This will default all the columns which will come in the output of the LOV query. For Example: for the above query, it will populate only one row with Query Cols value as CUSTOMER_TYPE. Refer below table for more information:

Figure 8-3 List of Values Column Details

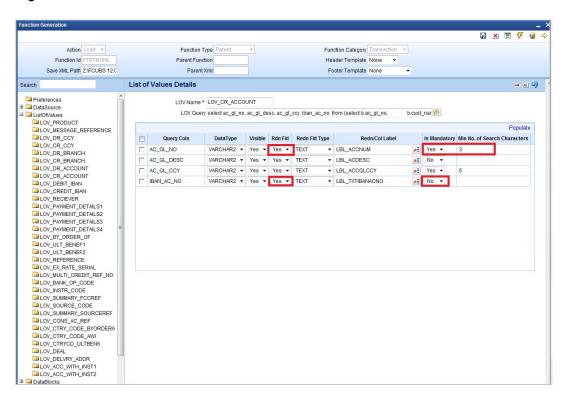


Table 8-2 LOV Column Details

LOV Column Details	Description
Query Cols	This is a non-editable field. This will be populated by the system on clicking of Populate button. All the columns from the query result will be populated as query cols.
Data Type	This row will also be defaulted based on the LOV query. The data type of the query cols has to be provided here.
Visible	The Result Column of the LOV can be made invisible by specifying in this column.
Reduction Fld	A field can be made as a reduction of non-reduction by using this flag. If the field is a reduction field, then in the LOV screen in FLEXCUBE, the user will have to filter the list of values based on the reduction fields.



Table 8-2 (Cont.) LOV Column Details

LOV Column Details	Description
Reduction Fld Type	The display type of the reduction field can be specified here. Display type of the reduction field can be either of the below-given values: TEXT CHECK BOX RADIO SELECT
Redn/Col Label	The reduction fields should be provided with proper labels so that their description comes on the LOV screen. Label Codes have to be mandatorily maintained for the functioning of the LOV screen.
Is Mandatory	If the reduction field id is selected as YES , ODT will allow selecting the Is Mandatory option for a particular column. If Is Mandatory is selected as Yes , ODT will ask for minimum search character length. By default, the value is 3. If the field is mandatory and minimum search character length is given as n, then while searching, the user has to enter a minimum of n characters to search a particular value otherwise the system will show an error message.
Minimum Search Character length	If Is Mandatory is selected as YES , then only ODT will allow entering values for Min search character length. By default, the value is 3. Any value less than 3 will not be accepted. ODT will show an alert message in case of any rule violation. Once the value for the Minimum search character length field is provided, the user has to enter minimum character length to fetch a value corresponding to that return field. Refer below image for more information:



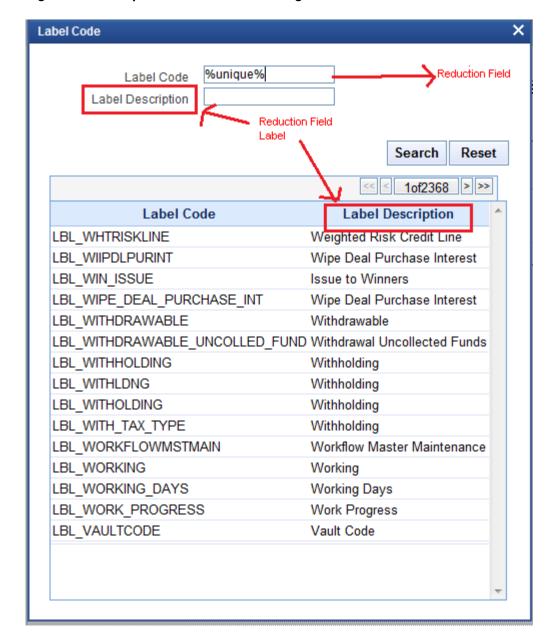


Figure 8-4 Sample LOV Screen illustrating Reduction Fields

8.2 Attach LOV to Block Field

This topic provides systematic instructions to attach LOVs to block field.

1. In the block field, select the **Display Type** as **LOV** to attach LOV to the Block Field.



| Field Name | CRIBAN | XSD Tag | CRIBAN | Pel CRIBAN | Pel | CRIBAN | Pel | CRIBAN | Pel | CRIBAN | Pel | CRIB

Figure 8-5 Block Field Properties - Bind Variables

2. Specify the fields in the **Block Field Properties** screen.

For more information, refer to the fields description table below.

Table 8-3 Block Field Properties

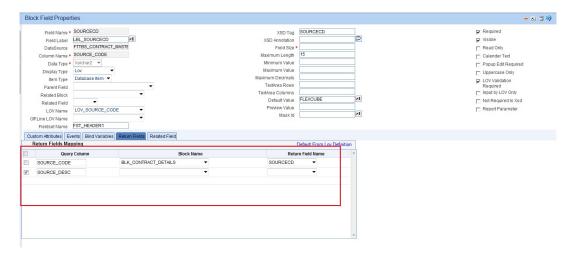
Field	Description
LOV name	Select List will contain both Local and Global LOVs. The developer has to select the LOV as required for the field.
Input By LOV Only	This field has to be checked if the field has to be input through LOV only.
LOV Validation Reqd	If validation for the entered value is required against the values fetched from the LOV query, this checkbox can be checked.
Bind Variables	Bind variables defined in the LOV query have to be mapped to the corresponding data block field. During LOV query execution, the value of these data blocks will be picked up in place of bind variables (?). Click on the button Default from LOV Definition. The number of rows corresponding to the number of bind variables in the query will be created. Below details has to be maintained in the bind variable tab: • Block Name: The block which contains the bind variable block field has to be selected from the list of all data blocks. • Bind Variable: The block field which is the bind variable has to be selected from a list of fields of the block selected. • Data Type: The data type of the bind variable has to be mentioned here. This can be STRING, DATE, NUMBER, etc. If more than one bind variable is present in the LOV query, bind variables have to be provided in the same order as it appears in the LOV query.



Table 8-3 (Cont.) Block Field Properties

Field	Description
Return Fields	Information regarding the return fields has to be provided in the Return Fields Tab. The developer has to map the block fields to which the selected values from LOV should be assigned. Click on the button Default from LOV Definition . All Query Cols will be defaulted based on the LOV definition.
	Query Column: This will be defaulted by the system based on the LOV definition on clicking default button.
	Block Name: Provide the Block Name which contains the field to which the particular coulmn value has to assigned.
	Return Fld Name: Select the data block field to which the result will be assigned.
	All the query Cols need not have a return field. In the figure below, AC_GL_NO is mapped to the CRACC field. Therefore the value of the result column AC_GL_NO from the selected record will have defaulted to the CRACC field.

Figure 8-6 Block Field Properties - Return Fields



LOV Details will be generated in the script for **CSTB_LOV_INFO** which needs to be compiled in the FLEXCUBE schema for the functioning of LOVs.

8.3 LOVs- Guidelines and Best Practices

This topic provides a list of guidelines for defining LOVs.

Note the following points while defining LOVs:

- Avoid using in-line views.
- Avoid order by clause, as the same can be chosen by the user at run time.
- Select proper Label Codes and ensure that the same are available in CSTB_LABELS.

8.4 Delete and Rename LOVs

This topic describes the process of deletion and renaming LOVs.



Deletion and Renaming of LOVs can be done provided they are created in the same release.

The procedure for deletion/renaming is similar to those of data blocks, refer below given topics:

- Delete Data Block
- Rename Data Block

Call Forms

This topic provides an overview of Call Forms.

Call forms are function IDs that do processing which is common across many screens. Call forms cannot be launched independently. They need to be launched from another function Id. The third letter of the function id will be C for a call form. Most of the subsystems of contract screens are designed as call forms.

For Example: Settlement Screen, tax details, etc.

This topic has the following sub-topics:

- Attach Call Forms
 - This topic provides systematic instructions to attach Call Forms.
- <u>Call Forms Guidelines and Best Practices</u>
 This topic provides a list of guidelines and best practices for attaching the Call Form to the Screen.

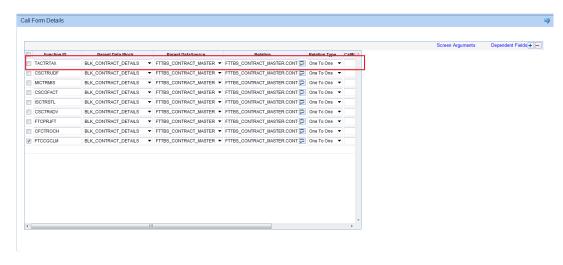
9.1 Attach Call Forms

This topic provides systematic instructions to attach Call Forms.

- 1. Click on the Add (+) icon in the Call Form Details screen to add Call form.
 - Call forms to be attached to a function Id has to be maintained in the Call form node.

The **Call Form Details** screen displays.

Figure 9-1 Attach Call Forms to the Function Id



2. Specify the details in the **Call Form Details** screen.



Table 9-1 Call Form Details

Field	Description
Function Id	Provide the call form name which has to be attached to the main screen here.
Parent Data Block	The parent data source has to be mentioned for the call form master data source. In most cases, this would be the master data source of the main function itself.
Relation Type	The relation type between the parent data source and call from master data source has to be provided here. Note: Relation Type has to be One to One as Multi Record Master Blocks are not supported for call forms.
Call Form Screen	The screen name of the call form that has to be launched has to be mentioned here. In most cases, this will be the main screen of the call form.
Display Type	Call form type has to be specified as either button or the tab name. In the case of a button, a button needs to be created and the Call form's name has to be mentioned in the Call form field for the button events. Tab type of call form is currently for Branch screens only and in which case, no button is required and Oracle FLEXCUBE infra would handle the same and embed the call form under the mentioned tab. Refer below image for more information.
Active	Call forms from previous releases cannot be deleted. So, if they are not required, the Active can be turned off.
Screen Arguments	Whenever a Sub-Screen or Call form is launched from the main screen, there would be a necessity to send a value from the calling function to the call form. This can be provided in the screen arguments window. Select the Call Form and click on the Screen Argument window. The window allows the user to enter Screen Argument Name, and select Source block and field from which the value has to be taken. The user also has an option to directly give the value for the Screen Argument in the Argument Value field. Click on the Populate button. This will default the screen arguments for the call form as maintained in the CSTB_CALL_FORM_NODES table for the particular call form. The Reset button takes the screen to the initial state. All the entries made will be deleted. Argument Name: This will be defaulted based on the screen arguments specified for call form main screen maintained in CSTB_CALL_FORM_NODES. Source Block & Source Field: Provide the block Name and source field of the function id whose value will be passed to the screen argument mentioned. Argument Value: If the screen argument value is to be hardcoded, then the value can be mentioned in this field. In this scenario, source block and source field need not be mentioned. Refer below image for more information.



Table 9-1 (Cont.) Call Form Details

Field	Description
Dependent Fields	Subsystems may depend on the value provided in fields in main function id or another subsystem. For Example: For the funds transfer contract input screen, account details are provided in the main function id. On clicking of the settlement subsystem, settlements will be defaulted based on the accounts mentioned on the main screen. So settlement subsystem is dependent on the account fields.
	It may also depend on the taxes applicable which are provided in another subsystem for the same .i.e. the Tax subsystem.
	Hence if dependent fields are changed, the subsystem needs to be defaulted based on the latest values yet again before saving. This can be achieved by maintaining the dependent fields and subsystems for a particular subsystem in the Dependent On screen. FLEXCUBE Infra will handle the subsystem to be picked up accordingly.
	As shown in the below figure, dependent fields in the main function id have to be mentioned in the Fields table. Block Name and Field Name has to be mentioned to identify the exact field. Any other subsystems (call forms) on which it is dependent can be mentioned in the Services table.

Figure 9-2 Maintain button events for launching Call form

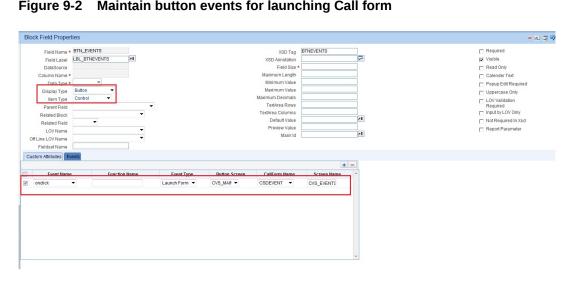
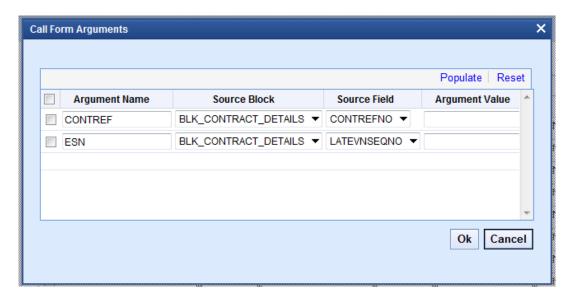




Figure 9-3 Pass Screen Arguments to Call Form





Dependends On Fields Populate + -**Block Name Field Name** CRACC ▼ BLK_CONTRACT_DETAILS ▼ BLK_CONTRACT_DETAILS ▼ DRACC ▼ BLK_CONTRACT_DETAILS ▼ CRAMT ▼ BLK_CONTRACT_DETAILS ▼ DRAMT ▼ BLK_CONTRACT_DETAILS ▼ DRACCBRN ▼ Services Populate Service TACTRTAX ▼ Cancel

Figure 9-4 Maintain Dependent Fields Information for a Call Form

9.2 Call Forms – Guidelines and Best Practices

This topic provides a list of guidelines and best practices for attaching the Call Form to the Screen.

Note the following points while attaching the call form to the screen:

- A maintenance Call form should be attached only to a maintenance function. Similarly, only transaction call forms can be attached to a transaction screen.
- Static Scripts for CSTB_CALL_FORM_NODES and SMTB_MENU generated by the Call Form RADXML has to be compiled in the FLEXCUBE schema before attaching that call form to any screen. Call form details are populated based on the maintenance in these tables. Therefore ensure that data is present in CSTB_CALL_FOR_NODES and SMTB MENU for all the attached call forms.

Launch Forms

This topic provides an overview of launch forms.

Launch Forms are function ids which can be launched from another screen for data view purpose. No processing can be done on Launch Form screen data as done in Call form. Launch Form is like any other normal function id and it can be launched independently.

For Example: Screen for viewing accounting entries for a transaction.

This topic has the following sub-topics:

- Attach Launch Forms
 This topic provides systematic instructions to attach launch forms.
- <u>Launch Forms- Guidelines and Best Practices</u>
 This topic provides a list of guidelines for attaching Launch Forms.

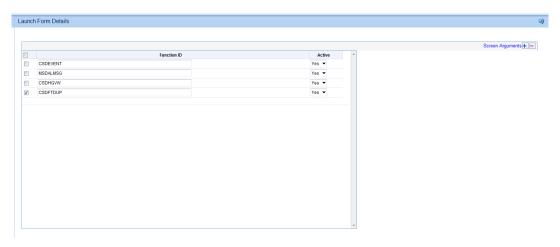
10.1 Attach Launch Forms

This topic provides systematic instructions to attach launch forms.

Click on the Add (+) icon in the Launch Form Details screen to add Launch form.
 Launch Forms to be attached to a function Id has to be maintained in the Launch Form node.

The **Launch Form Details** screen displays.

Figure 10-1 Attach Launch forms to a Function Id



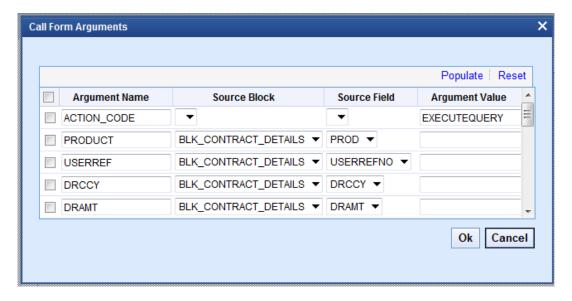
2. Specify the details in the **Launch Form Details** screen.



Table 10-1 Launch Form Details

Field	Description
Function ID	The name of the Launch Form function id to be attached has to be specified here.
Active	Launch Forms attached in one release cannot be removed in a future release. Instead, the active flag can be set as NO to achieve the same.
Screen Arguments	Launch Form is used for query purposes only. Thus primary key and the action code have to be passed on to the Launch form screen on launching Launch Form. Select the Launch Form and click on the Screen Arguments button. The following screen will be launched. Click Populate button to default the screen arguments. Note: The Screen arguments for the Launch Form have to be maintained in the CSTB_CALL_FORM_NODES table.
	 Argument Name: This will be defaulted based on the screen arguments specified for Launch Form main screen maintained in CSTB_CALL_FORM_NODES. Source Block & Source Field: Provide the block Name and source field of the function id whose value will be passed to the screen argument mentioned. Argument Value: If the screen argument value is to be hardcoded, then the value can be mentioned in this field. In this scenario, source block and source field need not be mentioned.
Attaching Launch form to Main Screen Using Button	Launch forms can be launched by clicking on the button placed on the main screen. Button events have to be maintained such that Launch Form will be launched on clicking it.

Figure 10-2 Pass Screen Arguments to Launch Form





Block Field Properties - N 🔾 🕏 Field Name * BTN_CHGS
Field Label LBL_BTN_CHARGES XSD Tag BTN_CHARGES Required XSD Annotation Field Size ▼ Visible Read Only Column Name * Calender Text Popup Edit Required
Uppercase Only Maximum Value mum Decimals TextArea Rows LOV Validation
Required
Input by LOV Only
Not Required In Xsd Related Block Report Parameter Maskid Off Line LOV Name Custom Attributes Events CSDEVENT ▼

Figure 10-3 Maintain Button Event for launching Launch Form screen

10.2 Launch Forms- Guidelines and Best Practices

This topic provides a list of guidelines for attaching Launch Forms.

Note the following points while attaching Launch Forms:

- Entry has to be made manually in CSTB_CALL_FORM_NODES for the launch form. The
 script won't be generated by the Tool while designing the Launch Form. Hence it has to be
 inserted manually providing the screen arguments as maintained for Launch Form main
 screen.
- Launch Forms are used only for querying data. Hence ACTION_CODE has to be passed
 as a screen argument with argument value as EXECUTEQUERY and the Primary Key
 values for querying in the launch Form screen should be passed as the other parameters.

Actions

This topic describes the actions.

Web Service related information and FLEXCUBE amendable fields details are captured in the actions screen.

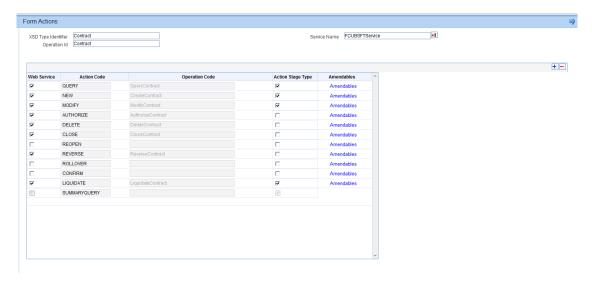
This topic has the following sub-topics:

- Web Service Information
 This topic describes about the web service information.
- Amendable Field Information
 This topic describes about the amendable field information.

11.1 Web Service Information

This topic describes about the web service information.

Figure 11-1 Maintain Web Services Information for a Function ID



For more information, refer to the fields description table below.

Table 11-1 Web Service Information - Field Description

Field	Description
XSD Type Identifier	Specify a unique descriptive code, which would describe the nature of the Function. For example, LCProd for LC Product Definition Form Screen Layout Design.



Table 11-1 (Cont.) Web Service Information - Field Description

Field	Description
Service Name	Select an appropriate Web service name from the LOV list. LOV fetches the service names that maintained in GWTM_OPERATIONS_MASTER.
Operation ID	This is the key using which the Web service operation code would be derived. For example of Operation Id is Product and Operation Code is QUERY and it would be QueryProduct .
	Note : This should be specify in sentence case and should be unique within the service.
	Ensure that correct operation id is given that means in case of LC Product Operation ID can be Product. It need not be LCProduct. In case of multiple products/contracts there under the same service, for example in Exchange traded derivates module , Operation Id for Deal product can DealProd and for Margin product MarginProd etc.
Action Code	Pre-defined actions will be available for the action code. These are the operations which are available in the FLEXCUBE. For maintenance, type of function system enables the below action codes only: QUERY NEW MODIFY AUTHORIZE DELETE CLOSE REOPEN SUMMARYQUERY For transaction Screens all the action would be enabled.
Operation Code	If the web service is selected, the operation code will be defaulted and operation code will be the combination of action code and Operation Id and same operation code will be used to perform operations for web service. If developer wants custom specific Operation Code names, specify it. For this double click on particular action code, operation code field for that action code will be enabled. Developer can modify the operation code now.
Action Stage Type	Select the Action Stage Type checkbox for multistage actions. If any field has to made amendable during the particular operation, action stage type has to be checked for the particular action.

11.2 Amendable Field Information

This topic describes about the amendable field information.

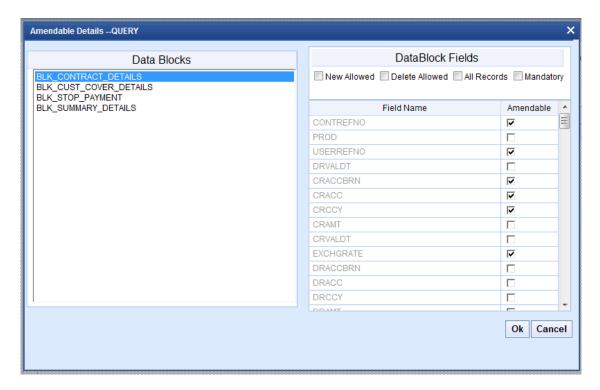
Button amendable against each action would capture the amendable information for each action. It is mandatory to give amendable information for applicable actions for web services to function normally.

Amendable information is not just for modification and for all the applicable actions. For example in a transaction screen, for QUERY action amendable information could be Reference number, User Reference Number, and External reference Number. It is not necessary to just have the Primary key in the XSD as external systems might query contracts based on any of these reference numbers.



At a block-level user has to specify All Records, Delete allowed, New allowed, and Mandatory. This information is used by the Tool to generate scripts and code accordingly. Generated code also would perform validations based on the above preferences.

Figure 11-2 Maintain Amendable Fields Information



For more information, refer to the fields description table below.

Table 11-2 Amendable Field Information

Field	Description
All Records	If All records is checked, the system expects the full data every time that means in case of a multi-record block if there are 10 records and 1 record has to be modified, external systems still should send the remaining 9 records with the old data.
New Allowed	This indicates whether a new record can be added or not, in this block as part of this action.
Delete Allowed	This indicates whether a record can be deleted or not, in this block as part of this action.
Mandatory	This flag indicates whether the node is mandatory to be sent from external systems. This flag would be used to set the Min Occurs Flag in XSDs for that operation.

Summary

This topic describes the process of designing summary screen.

Design Summary screen using Open Development Tool if applicable.

Figure 12-1 Summary Screen Properties

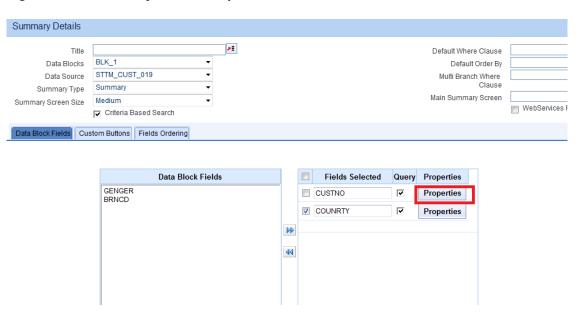


Table 12-1 Designing Summary Screen

Field Name	Description
Title	Summary screen title can be maintained here using a label code, and label code can be selected from the list of values attached to the field.
Data Block	A block has to be selected as Summary Block. This block can be either one of the Single record blocks of the function or a block of type Summary. In most cases Master Block itself can be used for Summary also and if the requirement is to show some other information a new summary type block can be created and can be used.
Data Source	Captures the data source name of the summary, on which query should happen for summary. This will also be the data source attached to the summary data block.



Table 12-1 (Cont.) Designing Summary Screen

Field Name	Description
Summary Type	 Summary Type can be of: Summary: This is the default option. For a normal summary screen to a function id, this option can be used. Query: This is default. Bulk Authorization: Checkbox option will be provided in the Summary screen. User will have the option to select multiple records in the summary screen at the same time and process it. Example: Bulk authorization screen. Upload
Summary Screen Size	Captures the size of the summary screen.
Default Where Clause	Captures the default where clause for summary query.
Default Order By	This field captures the default order by clause for summary query.
Multi Branch Where Clause	This screen is applicable only if multi branch access is checked for the screen in Preferences node. This field captures the summary where clause for multi branch screens.
Main Summary Screen	Specifies the main form to be launched on clicking on a record from Summary Result. This is applicable only for Dashboard screens.
Summary Web Services Required	Specifies whether a web service for summary screen is required. SUMMARYQUERY action in Actions screen has to be selected as well for enabling web services for summary screen
Data Block Fields	 All the block fields present in the summary data block will appear in the text area to the left. Developer can select the block fields required in the summary screen and move it to the right. Field name: The required fields in the summary grid result can be moved to the right from data block fields. Query Field: Check the Query for fields that need to appear in Query portion of the Summary screen. Note that maximum number of Query fields for any screen is 12. LOV Name: If the query option is checked, the properties button will be enabled, then on click of the button below screen will launch where LOV name and its corresponding return and bind variables can be defined, even min search char length details can also be mentioned here.
Fields Ordering	Order of the fields in the summary screen can be rearranged. Here all the query fields will be shown to the developer in one table while all the fields in result set will be shown in another table. Order of fields in both tables can be changed by the developer as per requirement.
Custom Buttons	 Buttons can be added to summary screen using "Custom Buttons" Tab of the summary screen of Oracle FLEXCUBE Enterprise Limits and Collateral Management Development Workbench, same is shown below: Number of Rows: Adding buttons to the summary screen can be of any number, and buttons can be arranged in more than one row. Max number of rows is 5. Number of Buttons/Row: Number of Buttons per row can be maintained. Field Name: This refers to the button name which is placed in the summary screen. Label: Label Code for the button. Function Name: JavaScript function which would be invoked on clicking the particular button is maintained here. Normally, this function would be written in the release specific JavaScript file.



Figure 12-2 LOV Name

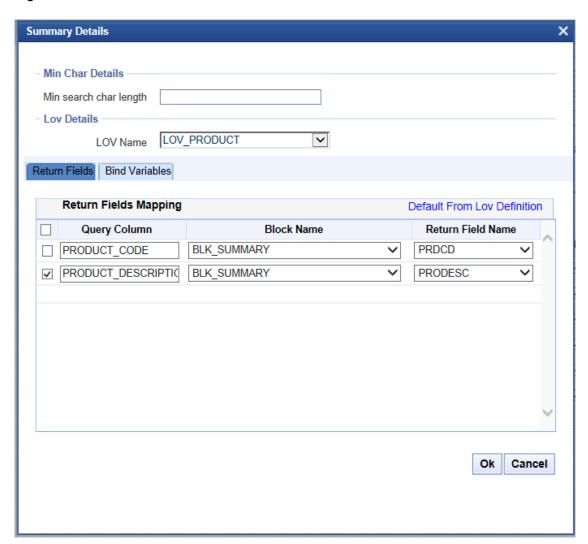




Figure 12-3 Fields Ordering

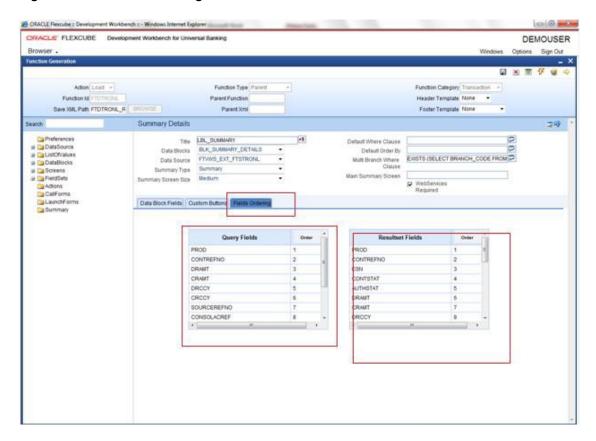


Figure 12-4 Preview of the Summary screen with different ordering

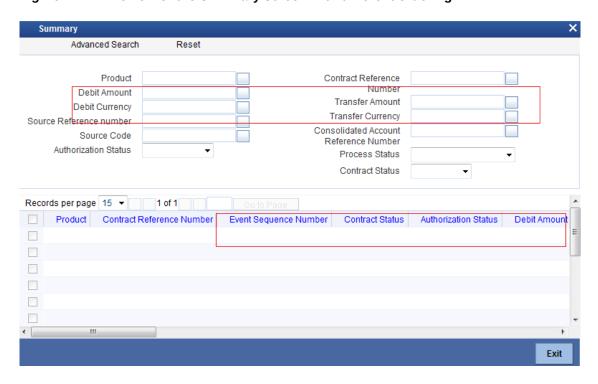




Figure 12-5 Add Custom buttons to a Screen



This topic has the following sub-topic:

<u>Summary – Guidelines and Best Practices</u>
 This topic provides a list of guidelines for designing the summary screen.

12.1 Summary – Guidelines and Best Practices

This topic provides a list of guidelines for designing the summary screen.

Note the following points while designing the summary screen:

- Maximum number of Query Fields allowed for a summary screen is 12.
- For the Maintenance screen, if the summary data block and master data block are not the same, care should be taken so that the names of the primary key fields of both the blocks should be the same.

Generation and Deployment of files

This topic provides an overview of the generation and deployment process of the files.

Once the screen development is over, files have to be generated. Use **Generate** icon to generate files. Once the files are generated, they have to be deployed in the FLEXCUBE environment for testing.

Refer to the *Development Workbench - Screen Development II* for the detailed explanation. After deployment of generated units, function id can be launched from the FLEXCUBE console. Unit testing of the function id can be carried out and any custom code can be added for additional functionality.



Appendix

This topic describes the appendix.

This topic consists of following sub-topics:

• Screen Preview

This topic describes about the screen preview.

Locate Field

This topic describes about the locate field.

Maintain Label Code

This topic provides systematic instructions to maintain label code.

Search and Undo Feature

This topic provides an overview of the Search and Undo feature.

A.1 Screen Preview

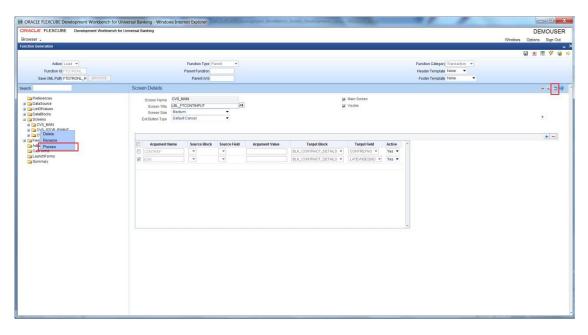
This topic describes about the screen preview.

Screen Preview gives the preview of the screen as it appears in the FLEXCUBE. It helps the developer to track the screen design changes much faster during development phase.

Preview of a screen can be viewed either by:

- 1. Clicking on the Preview icon present in the top right portion of the Screen
- 2. By selecting preview option from right click menu option of the particular screen.

Figure A-1 Screen Preview





The preview of the screen as shown by the Tool is shown below:

Figure A-2 Sample Preview of a Screen

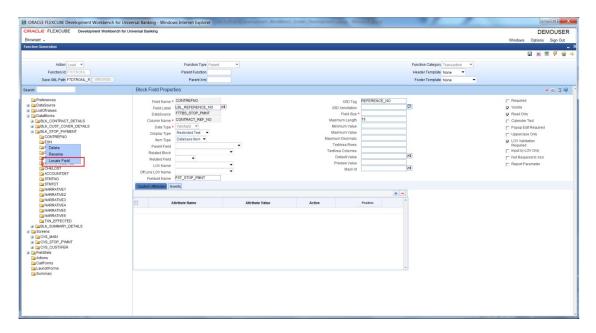
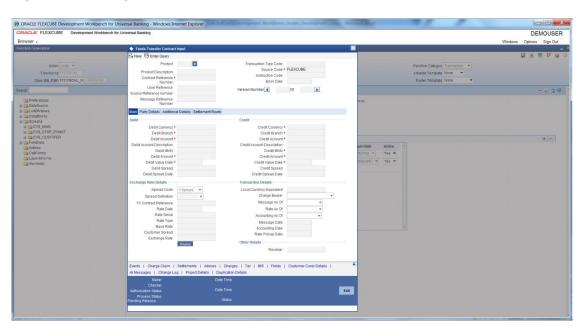


Figure A-3 Sample Preview of a Screen



By double clicking on any field in the Preview, developer can navigate directly to the particular data block field.

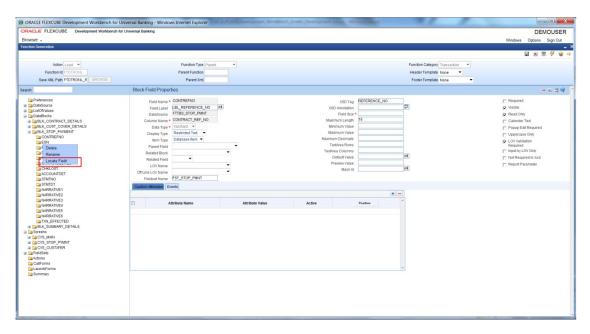
A.2 Locate Field

This topic describes about the locate field.



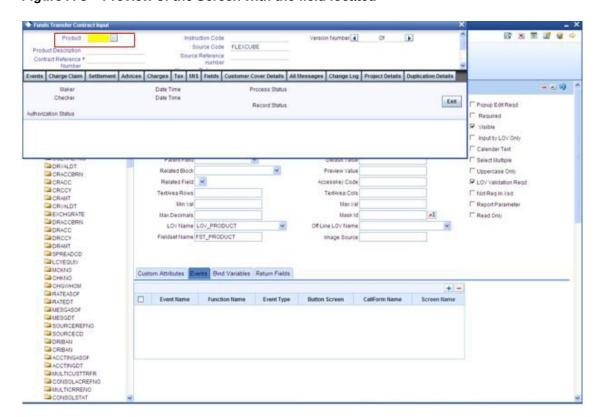
Locate Field Feature is helpful in determining the position of a field in a screen. For locating a block field in the screen, select locate field option from the right click menu of the data block field.

Figure A-4 Locate a Field



Preview of the screen containing the field will be launched and the position of the particular field will be highlighted in green background color.

Figure A-5 Preview of the Screen with the field located





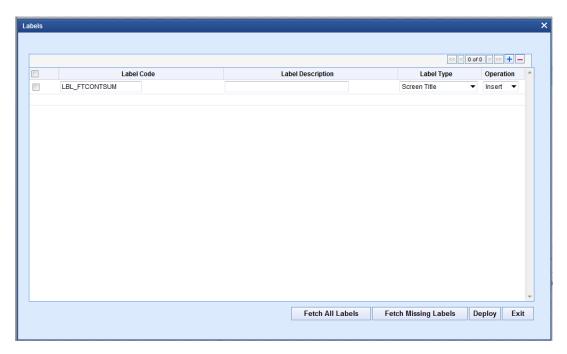
A.3 Maintain Label Code

This topic provides systematic instructions to maintain label code.

Label Codes needs to be maintained in **CSTB_LABELS** (in the current environment language) for proper generation of files by ODT. Label Codes can be maintained in the FLEXCUBE through ODT itself.

Click on the Label code icon found in the top right portion of the screen.
 The Labels screen displays.

Figure A-6 Labels



2. Label Codes can be maintained through this screen. The screen provides the option to deploy the label codes directly to FLEXCUBE schema.

Table A-1 Label Code Maintenance

Field Name	Description
Maintain a New Label Code	For maintaining a new label code, add a new label code as required in Label Code field. Label code should start with LBL Provide the description of the field in Label description field. Label Type can be selected based on the requirement. Select the Operation as Insert Click on Deploy button. ODT will insert the label code provided to CSTB_LABELS. Language code will be taken from the language code of the current environment code. More than one label code can be deployed at one time. Note the following while creating new label codes:
	a. Label Code should start with LBL_
	 b. Label Code should not contain any special characters except underscore(_)



Table A-1 (Cont.) Label Code Maintenance

Field Name	Description
Maintain Missing labels	Developer can fetch the missing labels for the screen by clicking on Fetch Missing Labels button. All the label codes present in the function id which is not maintained in CSTB_LABELS will be fetched and displayed in the table. Developer can provide proper description and deploy the label codes.
Fetch All Label Codes for the Screen	On clicking Fetch All Labels button, all the label codes used in the function Id will be displayed in the table. Developer can update the label description of any field he wishes.
Update an existing Label	Fetch all Labels used in the function Id. Change the Label Description of the label codes for which update has to be done. Change the Operation to Update. Check the checkbox and click on Deploy. The selected label codes will be updated.
Search Feature	Search Feature allows the developer to locate an element in tree easily. It is useful while browsing a function id with many nodes. Key In the string you want to find, ODT will search for the exact match of the string. If exact match is not found, then first n character search will be done. The first match will be highlighted in green and tree moves to the location.
	Next Occurrence of the same string can be found by pressing Enter or Down Arrow key. Figure shows an example for search feature:

A.4 Search and Undo Feature

This topic provides an overview of the Search and Undo feature.

Search Feature

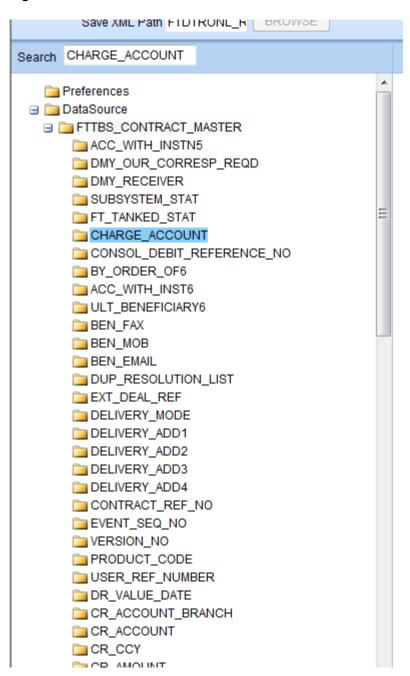
Search feature allows the developer to locate an element in the tree easily. It is useful while browsing a function id with many nodes.

Key In the string the user wants to find, ODT will search for the exact match of the string. If an exact match is not found, then the first character search will be done. The first match will be highlighted in green and the tree moves to the location. The next occurrence of the same string can be found by pressing Enter or Down Arrow key.

The figure shows an example of a **Search** feature.



Figure A-7 Search



Undo Feature

The **Undo** feature allows the developer to undo all the changes done in a particular screen of ODT. On clicking of **Undo** icon, the field values will be restored to the values before visiting the screen.