# Oracle® Banking Corporate Lending Development of Call Forms





Oracle Banking Corporate Lending Development of Call Forms, Release 14.8.1.0.0

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# **Preface**

This topic contains the following sub-topics:

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

# Purpose

This manual is designed to help acquaint you with the features of a Call Form screen in FLEXCUBE and the process of designing a Call form screen using Oracle FLEXCUBE Development Workbench for Universal Banking.

# 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.

# **Documentation Accessibility**

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Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

# **Related Resources**

For more information on any related features, refer to the following documents:

- Development Workbench Screen Development I
- Development Workbench Screen Development II
- Development of Online Forms

# **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 Call Form

This topic provides an overview on Call Form.

Call Forms are function Id's (screens) which can be used for processing of a feature which is common across multiple function Ids. Call Forms can be attached to the main function Id for processing the common functionality. Call form screens cannot be launched independently.

**Example**: Tax Processing for a Contract

Tax Processing depends on common tax rules attached for the product/contract. Same processing can be used for various contract screens like Funds Transfer Input Screen, Letters Of Credit etc. Thus a common function id can be developed which can be attached to all the contract screens requiring tax processing.

On launching the call form screen from the main screen, the values will be picked up based on the data input in main screen. User will have the option to change the data in call form screen if desires so.

There are two types of Call forms they are:

- Maintenance Call Forms
- 2. Transaction Call Forms

Maintenance Call forms can be attached to only maintenance function id's while transaction call forms can be attached to transaction screens only.

# Screen Development

This topic describes about the development of screen.

Design and development of a Call Form function ID is similar to any other function IDs. This topic briefs the steps in designing a Call Form screen.

Refer to the *Development Workbench - Screen Development I* guide for detailed explanation.

This topic contains the following sub-topics:

#### Header Information

This topic describes about defining the header information for Call Forms.

#### Preferences

This topic describes about defining the preferences for Call Forms.

#### Data Sources

This topic describes about defining the data sources for Call Forms.

#### Data Blocks

This topic describes about defining the data blocks for Call Forms.

#### Screens

This topic describes about designing the screens for Call Forms.

#### Field Sets

This topic describes about defining the field sets for Call Forms.

#### Actions

This topic describes about the actions screen for Call Forms.

#### Launch Forms

This topic describes about the launch forms.

#### Call Forms

This topic describes about the launch forms.

#### Summary

This topic describes about the summary.

#### Preview

This topic describes about the preview.

# 2.1 Header Information

This topic describes about defining the header information for Call Forms.

 On Expand Menu of the Development Workbench for Universal Banking, click Function Generation node.

The **Function Generation** screen displays.



Figure 2-1 Function Generation



On the Function Generation screen, specify the following fields in the Header section for Call Forms.

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

**Table 2-1** Function Generation - Field Description

Field	Description
Function ID	It is the name of the Call Form.
	Call Form name has to have the third character as <b>C</b> . This is how system differentiates a call form from other screens. Ideally, the length of the name should be 8 characters.
	Example: UTCCIFND, UTCAPPUH etc. are valid call form names.
Function Category	It is the Call Form Category.
	It has to be either <b>Maintenance</b> or <b>Transaction</b> depending on the functionality and the screens from which it will be invoked.
Footer Template	Select the footer template from the drop-down list.  None  Maint Audit  Maint Process  Process  Footer template can be provided as required.  Note for Transaction screens, footer template has to be selected as
	None unless it is a process screen.
Function Type	Parent and child functionality is supported for call forms.

Figure 2-2 Call Form header Information

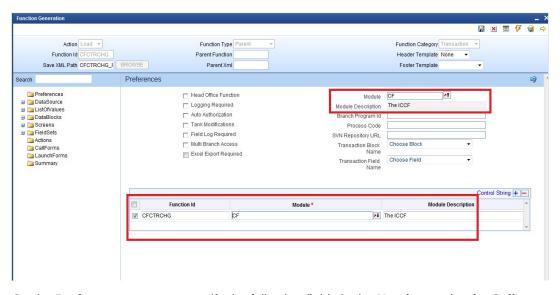


# 2.2 Preferences

This topic describes about defining the preferences for Call Forms.

1. Specify the menu details in the **Preferences** screen.

Figure 2-3 Call Form Preferences



On the Preferences screen, specify the following fields in the Header section for Call Forms.

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



Table 2-2 Preferences - Field Description

Field	Description
Module	Module name is a mandatory field and has to be provided. It is recommended that the first two letters of the function id is kept as same as the module name. Naming of the generated package will be derived from the module code maintained.

Of the menu details inc generated, only script for SMTB\_MENU and SMTB FCC FCJ MAPPING is required for Call Forms.

 Browser menu options: Call Forms cannot be launched independently .Hence browser menu labels need not be maintained. Script for smtb\_function\_description is not required for call forms

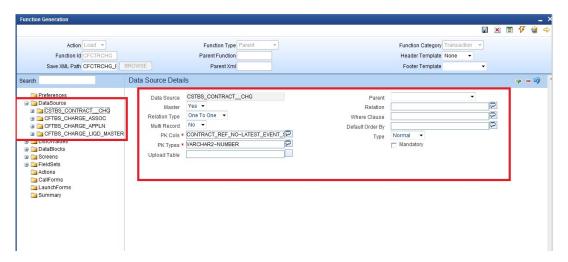
## 2.3 Data Sources

This topic describes about defining the data sources for Call Forms.

 Identify the tables/views for the call form. Define Data Sources and add data source fields as required in the **Data Source Details** screen.

**Master** Data Source has to be a single entry data source.

Figure 2-4 Data Sources and Maintainance Properties

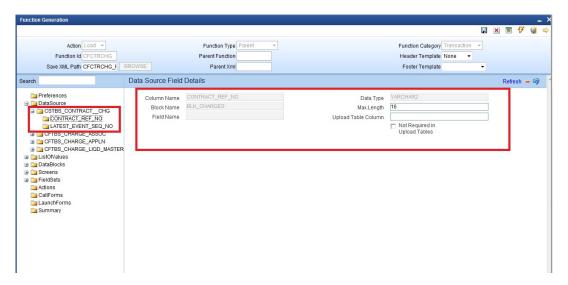


- Maintain logical relationships for all data sources except the Parent.
- 3. Provide PK Cols and PK Types for all data sources.

#### Note

If data source is a **Multi Record** block, then make sure it has at least one more pk than its parent which helps to uniquely identify each record of multi record block. Max length of the data source field can be modified as per requirement.

Figure 2-5 Data Sources Field Details

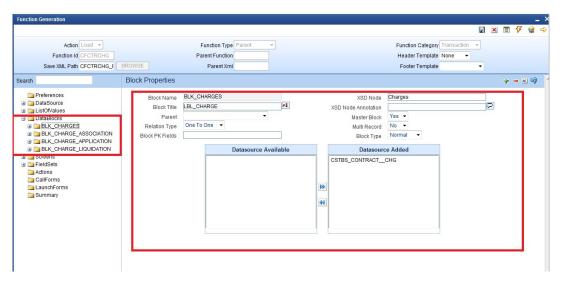


## 2.4 Data Blocks

This topic describes about defining the data blocks for Call Forms.

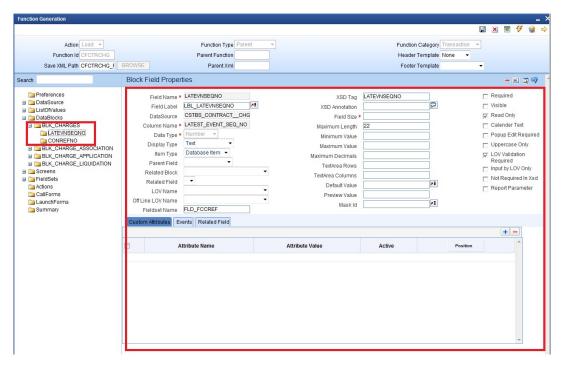
 Determine the block structure for the function id. Define Data Blocks as per the design in the Block Properties screen.

Figure 2-6 Define Data Blocks Properties



- 2. Master Data Block has to be a single entry data block.
- 3. Logical Relationships with the parent has to be maintained for all data blocks.
- 4. Provide XSD Node name if the block is normal and is required in gateway request.

Figure 2-7 Attach Block Field Properties



- 5. In case the block is not required in XSD, select the **Not Required in XSD** checkbox.
- 6. Ensure that **Related Block** and **Related Field** are given for Amount Fields.
- 7. Minimize the use of query data sources by using DESC fields wherever possible.



Query data sources is rarely required for a Call Form screen; as launch form can be used for query only screens.

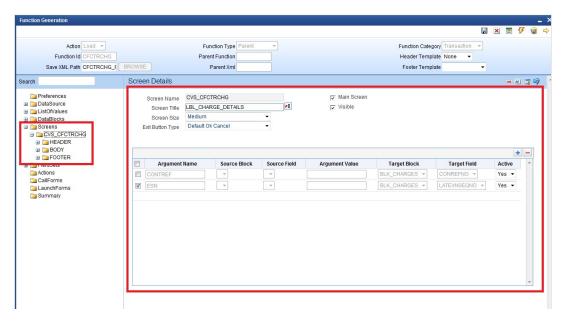
# 2.5 Screens

This topic describes about designing the screens for Call Forms.

1. Design the screen layout based on the requirement in the **Screen Details**.



Figure 2-8 Screen Details



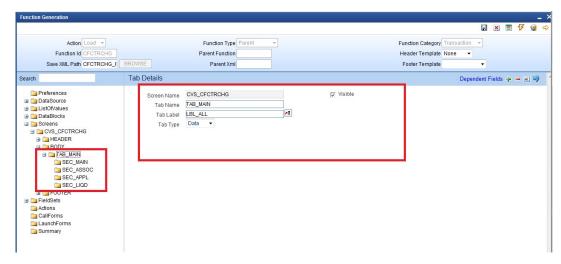
- Identify one screen as the main screen; if multiple screens are present.
- 3. In the function id ,where the call form is called is for the button (which launches call form) events, mention the main screen of the call form.
- 4. Provide **Screen Arguments** for the main screen.

Any field which has to be populated based on the data from the calling Function id can be provided as the target block and target field.

Normally values for the pk fields of the master data source can be retrieved from the screen arguments. Relationship between the calling function id and the call form will also be based on the pk columns of master data source.

5. Add Tabs, sections and partitions as per the screen design.

Figure 2-9 Tab Details

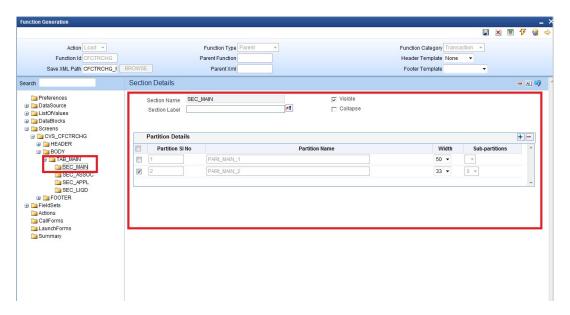


6. If the screen does not have multiple tabs, then only the TAB\_MAIN needs to be used. TAB\_HEADER should not contain any sections in this scenario.

Multiple Screens can be designed if required.



Figure 2-10 Section Details

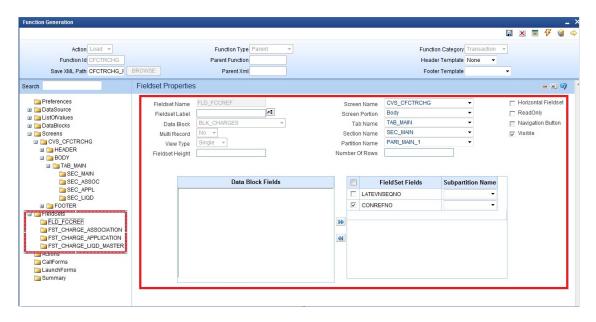


## 2.6 Field Sets

This topic describes about defining the field sets for Call Forms.

In the **Fieldset Properties** screen, create field sets and attach the fields to the field sets as required.

Figure 2-11 Fieldset Properties



Note the following when attaching field to a field set:

If a field value is passed as screen argument, but is not required to be shown in the screen. The field has to be made invisible and attached to a field set. If it is not attached to any fields set, the screen html will not contain the field and may result in script error while loading.

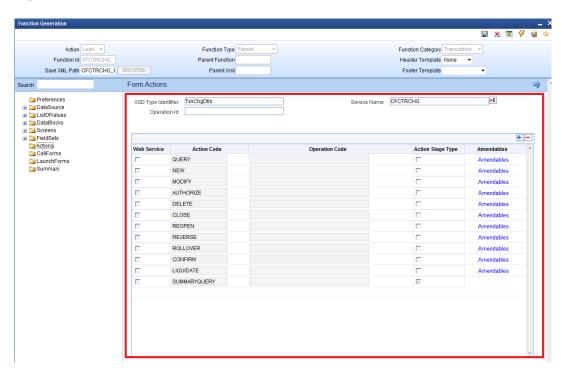


## 2.7 Actions

This topic describes about the actions screen for Call Forms.

Mention the web service and amendable information in the Form Actions Screen.





 Call forms will generate only Type XSD. Operation specific message xsd's will not be generated. Call form Type will be part of the main function Id xsd; hence separate message xsd is not required for call form Subsys will be added to the name of call form type xsd.

**Example**: The example given in the figure, name of the xsd generated will be SubSysTxnChgDtls-Types.xsd.

- You need not to maintain Operation Id and Operation Code for the above mentioned reason.
- 4. Maintain amendable information similar to any other function id's.

# 2.8 Launch Forms

This topic describes about the launch forms.

Launch Forms can be attached to a Call form screen. Though it is technically supported, practical scenarios where launch form is part of a call form is very rare. Process to attach launch forms is similar to any other function Id's.

## 2.9 Call Forms

This topic describes about the launch forms.



Call forms can themselves be attached to a call form. This scenario also is practically very rarely used. Processing logic (sub system pickup) for the attached cal forms has to be called from the main call form.

# 2.10 Summary

This topic describes about the summary.

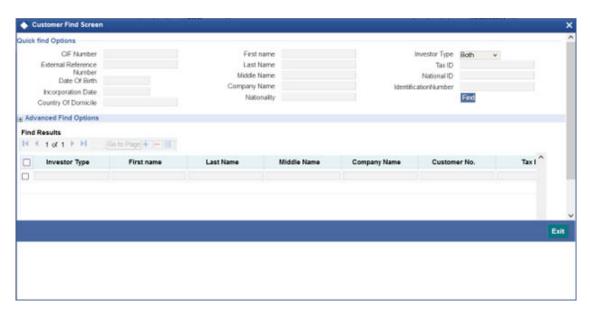
Summary screens are not required for Call Form screens. Since a Call Form screen cannot be launched independently in FLEXCUBE, it doesn't require a summary screen

## 2.11 Preview

This topic describes about the preview.

The figure shows the preview of the call form screen developed.

Figure 2-13 Call Form Screen Preview



Generate the units for call form and deploy them in the FLEXCUBE server for unit testing.

# Attach Call Form to Main Function ID

This topic describes about the attach call form to main Function Id.

Call Forms cannot be launched independently. It has to be called from a main function id. Refer Call Forms section in Oracle FLEXCUBE Enterprise Limits and Collateral Management ODT Screen Development for detailed explanation

#### (i) Note

Scripts for CSTB\_CALL\_FORM\_NODES and SMTB\_MENU tables generated by Call Form screen has to be deployed in FLEXCUBE schema before attaching Call form to the main function Id.

# **Generated Units**

This topic describes about the generated units.

The following units will be generated for a call form screen.

Front End Units

This topic describes about the front end units.

Data Base Units

This topic describes about the data base units.

Other Units

This topic describes about the other units used in the module.

## 4.1 Front End Units

This topic describes about the front end units.

This topic consists of sub-topics;

Language xml

This topic describes about the language xml.

SYS JavaScript File

This topic describes about the SYS javaScript file.

Release Type Specific JavaScript File

This topic describes about the release type specific javascript file.

## 4.1.1 Language xml

This topic describes about the language xml.

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

# 4.1.2 SYS JavaScript File

This topic describes about the SYS javaScript file.

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

## 4.1.3 Release Type Specific JavaScript File

This topic describes about the release type specific javascript file.

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



## 4.2 Data Base Units

This topic describes about the data base units.

This topic consists of sub-topics:

Static Scripts

This topic describes about the static scripts.

System Packages

This topic describes about the system packages.

Hook Packages

This topic describes about the hook packages.

## 4.2.1 Static Scripts

This topic describes about the static scripts.

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

- Menu Details:
  - Scripts for SMTB\_MENU and SMTB\_FCC\_FCJ\_MAPPING are required for the functioning of Call Form screen.
- Call Form details:

Script for CSTB\_CALL\_FORM\_NODES is required for attaching the call forms to the main function id. This has to be compiled in the schema before attaching the Call form to the main function Id.

- Lov Details
- Amendable Details
- Label details
- Screen Details
- Block details
- Data Source Details

## 4.2.2 System Packages

This topic describes about the system packages.

Main package would be generated by the Tool and should not be modified by the developer.

There is small change in the structure of the package depending on the type of the call form (Maintenance or Transaction).

Unlike normal maintenance function ids, call form packages does not have any call to the business logic within itself (similar to transaction function id). If developer wishes to uses any functions within the main package, call has to be made from the release specific package.

Main package contains functions for:

- Converting Ts to PL/SQL Composite Type
- Calling fn main.



- Mandatory checks (fn check mandatory).
- Default and validation(fn default and validate)
- Querying(fn\_query)
- Converting the Modified Composite Type again to TS

Except the functions for type conversions, others functions calls the respective hook functions in hook packages of the call forms. Thus no processing logic within the main package is used It is to be noted that each of these functions are called from the main package of the main function id (where this call form is used) during respective stages.

But the package contains many other system generated functions for operations like

- Mandatory checks(fn\_sys\_check\_mandatory)
- Default and validation(fn sys default and validate)
- Uploading to DB(fn\_sys\_upload\_db)
- · Query operation (fn sys query) etc

These functions are not called anywhere in the package. These functions if required can be called by the developer from the release specific package. Otherwise developer can write his own logic for the same in the Hook Packages

## 4.2.3 Hook Packages

This topic describes about the hook packages.

Release specific packages will be generated based on the release type (KERNEL.CLUSTER or CUSTOM). The structure of the package depends on the type of call form (Maintenance or Transaction). Developer can add his code in the release specific hook package.

## 4.3 Other Units

This topic describes about the other units used in the module.

This topic consists of sub-topics:

XSD

This topic describes about the XSD.

#### 4.3.1 XSD

This topic describes about the XSD.

Only Type XSD will be generated for a Call Form function Id. Subscript **Subys** will be added before XSD Type identifier in the name of the generated xsd.

This type xsd will be used in the type xsd of any function which uses the particular call form

# **Extensible Development**

This topic describes about the extensible development.

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

This topic contains the following sub-topics:

- Extensibility in JavaScript Coding
   This topic describes about the extensibility in javascript coding.
- Extensibility in Backend Coding
   This topic describes about the extensibility in backend coding.

# 5.1 Extensibility in JavaScript Coding

This topic describes about the extensibility in javascript coding.

For release specific JavaScript coding, code has to be written in release specific JavaScript file. It follows the naming convention as: (Function Id)\_(Release Type).js

Example: Code in CFCTRCHG\_CLUSTER.js is exclusive to cluster release

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

- Functions triggered by screen loading events
   Example: fnPreLoad\_CLUSTER(), fnPostLoad\_CLUSTER()
- Functions triggered by screen action events
   Example: fnPreNew\_CLUSTER (), fnPostNew\_CLUSTER ()

# 5.2 Extensibility in Backend Coding

This topic describes about the extensibility in backend coding.

Release specific code has to be written in the Hook Packages generated. Structure of a Maintenance and Transaction Call Form hook packages are almost the same.



though structure is almost the same ,arguments differ in transaction and maintenance call forms .Hence Transaction Call Form can be attached only with Transaction screen and similarly for Maintenance screens

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

1. Skip Handler: Pr\_Skip\_Handler
This can be used to skip the logic written in another release.

Example: logic written in KERNEL release can be skipped in CLUSTER release



2. Fn Main

This is called form the fn main in main package.

- Fn\_pre\_query
- Fn\_post\_query
   Any specific logic while querying can be written in these functions. It is called from fn query of the main package
- 5. Fn\_pre\_upload\_db
- Fn\_post\_upload\_dbAny logic while uploading data to tables can be written here.
- 7. Fn pre default and validate
- B. Fn\_post\_default\_and\_validate Any release specific logic for defaulting and validation can be written here. It is called from the fn\_default\_and\_validate in the main package
- 9. Fn pre check mandatory
- **10.** Fn\_post\_check\_mandatory
  Any mandatory checks can be validated here.
- 11. Fn\_pre\_process
- 12. Fn post process

These hook functions are specific to transaction call form screens. These are called from fn\_process of the main package which in turn is called from fn\_process of the calling function id

Refer maintenance and Transaction Screen development document for further explanation.