

Oracle® Banking Corporate Lending

Development of Online Forms



Release 14.8.1.0.0
G43523-01
October 2025

ORACLE®

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

Preface

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

1 Overview of Online Form

2 Screen Development

2.1	Header Information	1
2.2	Preferences	3
2.3	Data Sources	4
2.4	Data Blocks	5
2.5	Screens	8
2.6	Field Sets	10
2.7	Actions	11
2.8	Launch Forms	12
2.9	Call Forms	13
2.9.1	Sub System Pickup/Processing	14
2.10	Summary	15
2.11	Preview	16

3 Generated Units

3.1	Front End Units	1
3.1.1	Language xml	1
3.1.2	SYS JavaScript File	1

3.1.3	Release Type Specific JavaScript File	1
3.2	Data Base Units	2
3.2.1	Static Scripts	2
3.2.2	System Packages	2
3.2.3	Hook Packages	3
3.3	Other Units	3
3.3.1	XSD	3

4 Extensible Development

4.1	Extensibility in JavaScript Coding	1
4.2	Extensibility in Backend Coding	1

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 describes the features of Online Forms in Oracle Universal Banking and the process of designing an Online form screen using Oracle Universal Banking 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 [Critical Patches, Security Alerts and Bulletins](#). All critical patches should be applied in a timely manner to ensure effective security, as strongly recommended by [Oracle Software Security Assurance](#).

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.
<i>italic</i>	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 more information on any related features, refer to the following documents:

- Development Workbench - Screen Development I
- Development Workbench - Screen Development II

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.

1

Overview of Online Form

This topic provides an overview on Online Forms.

Online Forms are function Id's (screens) which is used for creating Contracts for respective modules. Same contracts can be processed further for Payments, Availments, Amendments, Reassignments and Authorizations also using Online forms.

All the transaction processing in FLEXCUBE is carried out through Online screens Online form screens should be launched independently.

On launching the Online form screen, user has to input the respective values to create the contract. Form may have the different user-defined actions like Product-Default, Enrich, and Subsystem-Pickup while creating contract. Once all the user-defined actions performed finally user has to save the contract.

Example Letter Of Credit (LC) contract

An LC contract is an instruction wherein a customer requests the bank to issue, advise, or confirm a credit letter for a trade transaction. An LC substitutes a bank's name and credit for the parties involved. The bank thus undertakes to pay the seller/beneficiary even if the remitter fails to pay.

Thus for each module, we should develop different function Id's for creating contracts and other online forms for other operations like Payments, Availments, Amendments, Reassignments, and Authorizations.

Below are the list of LC contract function ID's:

- LCDTRONL - Contract Input
- LCDAMEND - Amend Confirmation Input
- LCDAVMNT - Availment Input
- LCDTRPAY - Payment Input
- LCDTRANF - Transfer Input
- LCDEPMNT - Manual Liquidation Input
- LCDTREAS - Contract Reassign
- LCDTRAUT - Amend Confirmation Input

Note

The above function ID's are given as an example only.

2

Screen Development

The design and development of an Online Form function id are similar to any other function ids.

For more information, refer to the topic *Development Workbench - Screen Development I*.

This topic describes the following sub-topics:

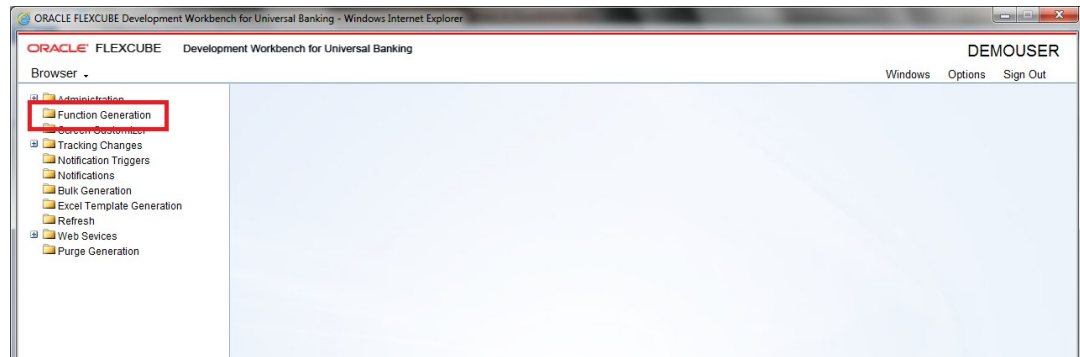
- [Header Information](#)
This topic describes about defining the header information for Online Forms.
- [Preferences](#)
This topic describes about defining the preferences for Online Forms.
- [Data Sources](#)
This topic describes about defining the data sources for Online Forms.
- [Data Blocks](#)
This topic describes about defining the data blocks for Online Forms.
- [Screens](#)
This topic describes about designing the screens for Call Forms.
- [Field Sets](#)
This topic describes about defining the field sets for Online Forms.
- [Actions](#)
This topic describes about the actions screen for Online Forms.
- [Launch Forms](#)
This topic describes about the launch forms.
- [Call Forms](#)
This topic describes about the call forms.
- [Summary](#)
This topic describes about the summary screen.
- [Preview](#)
This topic describes about the preview.

2.1 Header Information

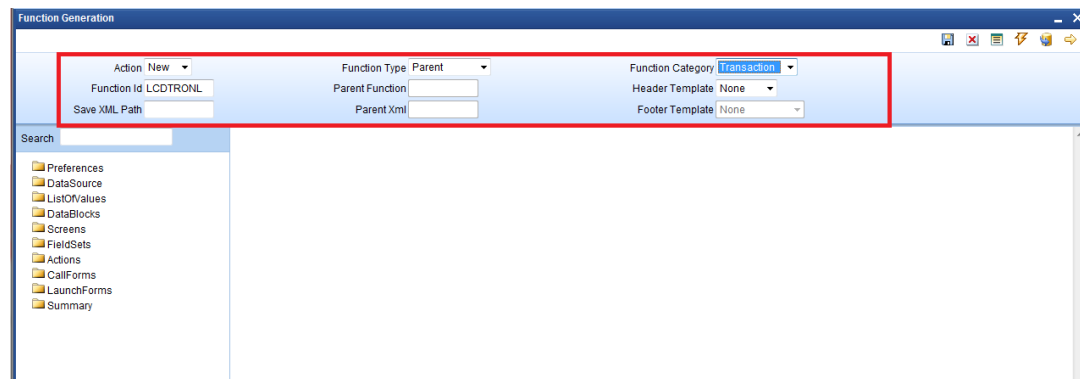
This topic describes about defining the header information for Online Forms.

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

The **Function Generation** screen displays.

Figure 2-1 Function Generation

2. On the **Function Generation** screen, specify the following fields in the **Header** section for **Online Forms**.

Figure 2-2 Online Form header Information

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 Online Form. Online Form name has to have the third character as D . Ideally, the length of the name should be 8 characters Example: LCDTRONL, BCDTRONL, and so on are valid online form names.
Function Category	It is the Online Form Category. It has to be Transaction .

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

Field	Description
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. System does not provide any default template for transaction screens; hence developer has to design the footer portion of the screen manually. Developer has to make sure that footer designed has generic fields like transaction status (TXNSTAT), authorization status (AUTHSTAT) etc., For Online Process Flow Screens footer template should be selected as Process.
Function Type	Parent and child functionality is supported for online forms.

2.2 Preferences

This topic describes about defining the preferences for Online Forms.

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

Figure 2-3 Online Form Preferences

The screenshot displays the 'Function Generation' window with the 'Preferences' tab selected. The 'Header' section contains the following fields:

- Module: LC
- Module Description: Letters Of Credit
- Branch Program Id: (empty)
- Process Code: (empty)
- SVN Repository URL: (empty)
- Transaction Block Name: BLK_CONTRACT_DETAILS
- Transaction Field Name: BRANCH

The 'Function Id' table at the bottom lists the following functions:

Function Id	Module *	Module Description
LCDTRONL	LC	Letters Of Credit
LCSTRONL	LC	Letters Of Credit

2. On the **Preferences** screen, specify the following fields in the **Header** section for **Online 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.

3. Script for the following tables will be generated by Workbench (menu details) which are essential for launching of an Online screen.

- SMTB_MENU
- SMTB_FCC_FCJ_MAPPING
- SMTB_FUNCTION_DESCRIPTION
- SMTB_ROLE_DETAILS

Type string of the Online screens will be generated as **O** in smtb_menu table.

4. Transaction specific action codes has to checked in the control string whichever applicable.

Example: LIQUIDATE, ROLLOVER, REVERSAL etc.

2.3 Data Sources

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

On the **Function Generation** screen menu, click **DataSource**.

Identify the tables/views for the Online form. Define data sources and add data source fields as required.

Figure 2-4 Add data sources and properties

The screenshot shows the 'Function Generation' application window. The 'Data Source Details' tab is active. On the left, a tree view shows the 'DataSource' folder expanded, listing various tables like 'CSTBS_CONTRACT', 'CSTBS_CONTRACT_MASTER', etc. The main area displays the details for the 'CSTBS_CONTRACT' data source. The 'Master' checkbox is checked, and the 'Relation Type' is set to 'One To One'. The 'Multi Record' checkbox is unchecked. The 'PK Cols' field contains 'CONTRACT_REF_NO', and the 'PK Types' field contains 'VARCHAR2'. The 'Parent' field is set to 'CSTBS_CONTRACT'. The 'Where Clause' is 'SUBSTR(CONTRACT_REF_NO, 1, 3) =', and the 'Default Order By' is 'Type'. The 'Type' is set to 'Normal', and the 'Mandatory' checkbox is unchecked.

Note the following while creating data sources:

- Master Data Source has to be a single entry data source.
- Logical Relationships has to be maintained for all data sources except the parent.
- Provide **PK Cols** and **PK Types** for all data sources. If the data source is a multi-record block, then make sure it has at least one more pk than its parent which helps to identify each record of multi-record block uniquely.
- Minimize the use of views in the data sources. For transaction screens, system generated upload logic (fn_sys_upload_db) is not called within the system package. It is up to the developer to decide whether the system generated code can be used or not. If views are used in data sources, then this function should not be used by the developer.
- Usually for Online forms, a separate view can be used for summary purpose. This view will have all the fields required to be displayed in the summary. Example:
LCVWS_FCJ_CONTRACT_SUMMARY.

Figure 2-5 Add Data Sources Fields and Properties

The screenshot shows the 'Function Generation' window. The 'Data Source Field Details' section is active. On the left, a tree view shows the hierarchy of data sources, with 'AUTH_STATUS' selected under 'CSTBS_CONTRACT'. The right pane displays the details for the selected field:

Column Name	AUTH_STATUS	Data Type	CHAR
Block Name		Max.Length	1
Field Name		Upload Table Column	☐ Not Required in Upload Tables

Note

Max length of the data source field can be modified as per requirement.

2.4 Data Blocks

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

1. 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 and its properties

The screenshot shows the 'Function Generation' window with the 'Block Properties' tab active. The 'Block Name' is 'BLK_CONTRACT_DETAILS' and the 'Block Title' is 'LBL_CONTRACT_DETAILS'. The 'XSD Node' is 'Contract-Details'. The 'Relation Type' is 'One To One' and the 'Block PK Fields' is 'CALLINGFNID'. The 'Datasource Available' list includes 'LCTBS_SHIPMENT', 'LCTBS_GOODS', and 'LCWVS_FCI_CONTRACT_SUMMARY'. The 'Datasource Added' list includes 'CSTBS_CONTRACT', 'LCTBS_CONTRACT_MASTER', 'LCTBS_AVALIMENTS', 'CSTBS_CONTRACT_EVENT_LOG__LOG', and 'CSTBS_UL_COLUMNS'. The left sidebar shows a tree of data blocks, with 'BLK_CONTRACT_DETAILS' selected.

2. Master Data Block has to be a single entry data block.
3. Provide **XSD Node** name if the block is normal and is required in gateway request.
4. Block order and block field order can be changed by rearranging blocks and block fields in the browser tree (drag and drop).

Note

All units will have to be regenerated if block or block field order is changed (including xsd's).

5. Related currency fields should be placed above the amount field in the tree.
Add block fields to the data block as required.

Figure 2-7 Add Block Fields to Data Block

The screenshot shows the 'Function Generation' window with the 'Block Field Properties' dialog open. The dialog is used to configure a field named 'PRTYTYP' within the 'BLK_PARTY_DETAILS' block. The 'Field Name' is 'PRTYTYP', 'Field Label' is 'LBL_PRITYTYP', and 'Data Source' is 'LCTBS_PARTIES'. The 'Column Name' is 'PARTY_TYPE'. The 'Data Type' is 'Varchar2'. The 'Display Type' is 'Low'. The 'Item Type' is 'Database Item'. The 'Parent Field' is empty. The 'Related Block' is 'BLK_PARTY_DETAILS'. The 'Related Field' is 'LOV_PART_TYPE'. The 'Off Line LOV Name' is 'FST_CONTRACT_PARTIES'. The 'Fieldset Name' is 'FST_CONTRACT_PARTIES'. The 'XSD Tag' is 'PRITYTYP'. The 'XSD Annotation' is empty. The 'Field Size' is '3'. The 'Maximum Length' is '3'. The 'Minimum Value' is empty. The 'Maximum Value' is empty. The 'Maximum Decimals' is empty. The 'TextArea Rows' is empty. The 'TextArea Columns' is empty. The 'Default Value' is empty. The 'Preview Value' is empty. The 'Mask Id' is empty. The 'Required' checkbox is checked. The 'Visible' checkbox is checked. The 'Read Only' checkbox is unchecked. The 'Calendar Text' checkbox is unchecked. The 'PopUp Edit Required' checkbox is unchecked. The 'Uppercase Only' checkbox is checked. The 'LOV Validation Required' checkbox is unchecked. The 'Input by LOV Only' checkbox is unchecked. The 'Not Required In Xsd' checkbox is unchecked. The 'Report Parameter' checkbox is unchecked. The 'Return Fields Mapping' table shows the mapping of 'PARTY_TYPE' to 'PRITYTYP' and 'ITEM_VAL_DESC' to 'PARTYDESC'.

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

Note

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

9. Master block should contain reserved field names like TXNSTAT, AUTHSTAT and SUBSYSSTAT(this is not shown) in the node section. These are reserved field names which are essential for an online form. These will be used by FLEXCUBE Infra while processing. Normally TXNSTAT and AUTHSTAT are added as part of the footer of the screen.

Table 2-3 Master Block names

Column Name	Block Field Name
CONTRACT_STATUS	TXNSTAT
AUTH_STATUS	AUTHSTAT
SUBSYSTEM_STAT	SUBSYSSTAT

Figure 2-8 Master Block

Function Generation

Action: Load | Function Type: Parent | Function Category: Transaction

Function Id: LCDTRONL | Parent Function: | Header Template: None

Save XML Path: LCDTRONL_F | Parent Xml: | Footer Template: None

Search: []

Block Field Properties

Field Name: CONSTAT | XSD Tag: CONSTAT

Field Label: LBL_CONSTAT | XSD Annotation: []

DataSource: CSTBS_CONTRACT | Field Size: 1

Column Name: CONTRACT_STATUS | Maximum Length: []

Data Type: Char | Minimum Value: []

Display Type: Text | Maximum Value: []

Item Type: Database Item | Maximum Decimals: []

Parent Field: [] | TextArea Rows: []

Related Block: [] | TextArea Columns: []

Related Field: [] | Default Value: []

LOV Name: [] | Preview Value: []

Off Line LOV Name: [] | Mask Id: []

Fieldset Name: FST_PRODDT

Custom Attributes | Events | Related Field

Attribute Name	Attribute Value	Active	Position

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 2-9 Design Screens and its Properties

Function Generation

Action: Load | Function Type: Parent | Function Category: Transaction

Function Id: LCDTRONL | Parent Function: | Header Template: None

Save XML Path: LCDTRONL_F | Parent Xml: | Footer Template: None

Search: []

Screen Details

Screen Name: CVS_MAIN | Main Screen: ☒

Screen Title: LBL_CONTRACT_DETAILS | Visible: ☒

Screen Size: Large

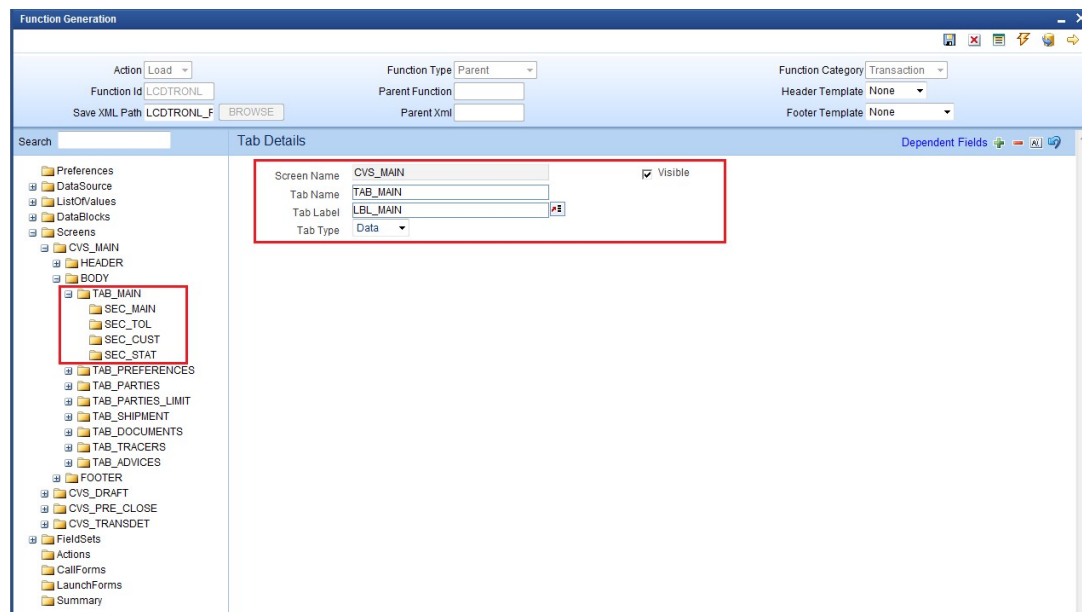
Exit Button Type: Default Cancel

Argument Name	Source Block	Source Field	Argument Value	Target Block	Target Field	Active
CONTREF				BLK_CONTRACT_DETAILS	CONREFNO	Yes
ESN				BLK_CONTRACT_DETAILS	LATEVINSEQNO	Yes

2. Identify one screen as the main screen; if multiple screens are present.

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

Figure 2-10 Create Tabs and its Properties



4. When creating tabs and sections for 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.
 5. Use all the tabs for Online forms. Since online forms are large screens with multiple tabs. TAB_HEADER should contain the header information. TAB_MAIN should be the first tab in the body. Other tabs have to be added in the body portion as required.
 6. Provide sections in TAB_FOOTER as required.
- The developer often designs footers for Online forms.

Note

In large screens, footer supports four partitions while other portions support three partitions.

Figure 2-11 Section Properties

Function Generation

Action: Load Function Type: Parent Function Category: Transaction

Function Id: LCDTRONL Parent Function: Save XML Path: LCDTRONL_F BROWSE Parent.Xml: Header Template: None Footer Template: None

Search: Section Details

Section Name: SEC_TOL Section Label: Visible: ☒ Collapse: ☐

Partition Details

Partition SI No	Partition Name	Width	Sub-partitions
1	PART_TOL1	66	2
2	PART_TOL2	33	

Left Sidebar Tree View:

- Preferences
- DataSource
- ListOfValues
- DataBlocks
- Screens
 - CUS_MAIN
 - HEADER
 - BODY
 - TAB_MAIN
 - SEC_MAIN
 - SEC_TOL
 - SEC_CUST
 - SEC_STAT
 - TAB_PREFERENCES
 - TAB_PARTIES
 - TAB_PARTIES_LIMIT
 - TAB_SHIPMENT
 - TAB_DOCUMENTS
 - TAB_TRACERS
 - TAB_ADVICES
 - FOOTER
 - CUS_DRAFT
 - CUS_PRE_CLOSE
 - CUS_TRANSDET
- FieldSets
- Actions
- CallForms
- LaunchForms
- Summary

Multiple Screens can be designed if required.

2.6 Field Sets

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

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

Figure 2-12 Field Sets

Function Generation

Action

Load

Function Type

Parent

Function Category

Transaction

Function Id

LCDTRONL

Parent Function

Header Template

None

Save XML Path

LCDTRONL_F

BROWSE

Parent Xml

Footer Template

None

Search

Fieldset Properties

Screens

FieldSets

FST_PROD

FST_PRODDET

FST_REF

FST_USER_REF

FST_AMEND

FST_CHARGES_FROM_JS

FST_CREDIT

FST_OTHER

FST_PREF

FST_REV_DET

FST_TERMS

FST_PREADVDESC

FST_BUTTONS

FST_DRAFT_DETAILS

FST_CUSTOMER

FST_DRAWEE_DETAILS

FST_INSURANCE_DETAILS

FST_GOODS

FST_PORT

FST_SHIPMENT

FST_FOOTER_1

FST_CONTRACT_PARTIES

FST_CONTRACT_ADVICES

FST_CONTRACT_DOCUMENT

FST_CONTRACT_TRACERS

FST_CONTRACT_OTHER_AD

FST_CONTRACT_FTS

FST_CONTRACT_CLAUSES

FST_CONTRACT_DRAFTS_DET

FST_VER

FST_CONTROL

FST_TRANS

FST_GAURENTEE

FST_GUAR

FST_REIMUNDERTKNG

Fieldset Name

FST_PROD

Screen Name

CVS_MAIN

Horizontal Fieldset

☒

Fieldset Label

Screen Portion

Header

ReadOnly

☐

Data Block

BLK_CONTRACT_DETAILS

Tab Name

TAB_HEADER

Navigation Button

☐

Multi Record

No

Section Name

SEC_HEADER2

Visible

☒

View Type

Single

Partition Name

PART1

Fieldset Height

Number Of Rows

Data Block Fields

BTN_DRAFTS

BTN_COMMISSION

PRTYTYP

CRDLIN

LINECID

INCOMANDNO

EVENTCD

BTN_CHARGES

BTN_SETT

BTN_TAX

BTN_COLLATERAL

BTN_EVENTS

BTN_LINKAGES

FieldSet Fields

Subpartition Name

☐

PRDCD

☐

BTN_P

☒

CALLINGFID

Note the following when attaching field to a field set:

If a field is not required in the screen, but kept as hidden and value defaulted; then **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 won't contain the field and may result in script error while accessing the field.

2.7 Actions

This topic describes about the actions screen for Online Forms.

Mention the web service and amendable information in the **Form Actions** screen.

Figure 2-13 Form Actions

The screenshot displays the 'Form Actions' configuration window in Oracle. The left sidebar shows a tree view with 'Actions' highlighted. The main area contains a table of actions for the web service 'FCUBSLService'. The table has the following data:

Web Service	Action Code	Operation Code	Action Stage Type	Amendables
☒	QUERY	QueryContract	☒	Amendables
☒	NEW	CreateContract	☒	Amendables
☒	MODIFY	ModifyContract	☒	Amendables
☒	AUTHORIZE	AuthorizeContract	☐	Amendables
☒	DELETE	DeleteContract	☐	Amendables
☒	CLOSE	CloseContract	☐	Amendables
☒	REOPEN	ReopenContract	☒	Amendables
☒	REVERSE	ReverseContract	☐	Amendables
☒	ROLLOVER	RolloverContract	☒	Amendables
☐	CONFIRM		☐	Amendables
☐	LIQUIDATE		☐	Amendables
☐	SUMMARYQUERY		☒	

Create Fieldsets and attach the fields to the field sets as required.

Mention the web service and amendable information in Actions Screen.

While maintaining web services and amendable information, note the following:

- Online forms will generate Type XSD and Message XSD. Operation-specific message xsd's will be generated. For example, name of the xsd generated will be:
 - LC-Contract-Types.xsd (Type XSD for LC Contract)
 - LC-CreateContract-Req-Full-MSG.xsd (Create Message XSD for LC Contract)
 - LC-CreateContract-Req-IO-MSG.xsd (Create Message XSD for LC Contract)
 - LC-CreateContract-Res-Full-MSG.xsd (Create Message XSD for LC Contract)
 - LC-CreateContract-Res-PK-MSG.xsd (Create Message XSD for LC Contract)
- Operation Id and Operation Code need to be maintained for the above reasons.
- Amendable information has to be maintained similar to any other function ids.

2.8 Launch Forms

This topic describes about the launch forms.

Launch Forms can be attached to Online form screen.

Figure 2-14 Launch Forms Details

Function Generation

Action: Load | Function Type: Parent | Function Category: Transaction

Function Id: LCDTRONL | Parent Function: | Header Template: None

Save XML Path: LCDTRONL_F | Parent Xml: | Footer Template: None

Search: | Launch Form Details

Tree View:

- Preferences
- DataSource
- ListOfValues
- DataBlocks
- Screens
- FieldSets
- Actions
- CallForms
- LaunchForms**
- Summary

Function ID	Active
CSDEVENT	Yes
MSDALMSG	Yes
☒ MSDMSPRV	Yes

Screen Arguments should be maintained for the launch form to query the proper contract record from the main online functions.

Figure 2-15 Screen Arguments

Function Generation

Action: Load | Function Type: Parent | Function Category: Transaction

Function Id: LCDTRONL | Parent Function: | Header Template: None

Save XML Path: LCDTRONL_F | Parent Xml: | Footer Template: None

Search: | Launch Form Details

Tree View:

- Preferences
- DataSource
- ListOfValues
- DataBlocks
- Screens
- FieldSets
- Actions
- CallForms
- LaunchForms**
- Summary

Function ID	Active
☒ CSDEVENT	Yes
☒ MSDALMSG	Yes
☒ MSDMSPRV	Yes

Call Form Arguments

Populate | Reset

Argument Name	Source Block	Source Field	Argument Value
☒ CONTRF	BLK_CONTRACT_DETAILS	CONREFNO	
☒ ACTION_CODE			EXECUTEQUERY

Ok Cancel

2.9 Call Forms

This topic describes about the call forms.

Call forms can be attached to Online form. Each call form should be mapped to Parent Data Block, Parent Data Source and proper relations should be maintained with parent data source of main online form.

Figure 2-16 Call Forms

Function ID	Parent Data Block	Parent DataSource	Relation	Relation Type
CFCTRCOM	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To One
CFCTRCHG	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To One
ISCTRSTL	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To One
LCCTRCLT	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To One
TACTRTAX	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To One
CSCTRLNK	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To One
CSCTRUDF	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To Many
MICTRMIS	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To One
LCCBCLNK	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To One
CSCTRSPF	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To One
BCCTRPRF	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To One
CSCOFACF	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To One
BCCBRDET	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To One
CSCDOCTR	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To One
LCCILUTL	BLK_CONTRACT_DETAILS	LCTBS_CONTRACT_MASTER	LCTBS_CONTRACT_MASTER.CONTRACT	One To One

Screen Arguments should be given to each call form. So that the call form will display the respective data of calling main function.

Dependent Fields are required to re default the call form values when the user changes input data in the main form.

Each of the sub-system pickup logic will have to be coded by the developer in release specific packages. Processing logic (sub system pickup) for the attached call forms has to be called from the main form package.

- [Sub System Pickup/Processing](#)
This topic describes about the sub system pickup/processing.

2.9.1 Sub System Pickup/Processing

This topic describes about the sub system pickup/processing.

Subsystem pickup refers to the process of picking up the values in sub systems. Normally values in sub systems will be defaulted based on the data given in the main screen of the online form.

1. **Defaulting of sub system:** After providing values in the main screen, user may click on any sub system to view or change the value. On clicking the sub system for the first time, sub system values will be defaulted based on the values provided in the main screen. Action code passed will be SUBSYSPKP. The code for defaulting will have to be written by the developer in corresponding hook packages in function.

Fn_Post_Subsys_Pickup

In this case SUBSYSSTAT for all subsystems will go as 'D' and processing done based on this flag for each sub system (call form). Note that SUBSYSPKP action will default values for all subsystems and not only the sub system being launched

Example: MICTRMIS:D;ISCTRSTL:D;TACTRTAX:D;CSCTRUDF:D;CFCTROCH:D;CSCTRADV:D;FTCCGCLM:D;

If user saves the contract without visiting any call forms, then all the subs systems will be defaulted before saving

2. **Uploading of sub system:** If after launching the subsystem with defaulted values, user changes the value in subsystem and the new user input values has to be uploaded to the system. Hence while saving, the subsystems which has been modified by user will be uploaded while others will be defaulted. In this case SUBSYSSTAT for the subsystem which has been modified will go as **U** . Developer has to write code for processing based on the flag.
 - *Example: if user changes MIS details (MICTRMIS) from what was defaulted; then SUBSYSSTAT will go as*
 - *MICTRMIS:U;ISCTRSTL:D;TACTRTAX:D;CSCTRUDF:D;CFCTROCH:D;CSCTRADV:D;FTCCGCLM:D;*
3. **Re-defaulting of sub system:** After launching and changing subsystem values; if user changes any values in main screen which are dependent field for the subsystem: subsystem values will have to be defaulted again based on the new main screen values. Hence the sub system will be re defaulted. In this case value entered by the user in subs system will be lost. In this case SUBSYSSTAT for the subsystem whose dependent fields has been modified will go as **R**. Developer has to write code for processing based on the flag.
 - *Example: In a Funds Transfer Contract Input Screen, assume that charge subsystem (CFCTROCH) is dependent on the values entered for debit and credit account. After launching the sub system and changing the charges manually; if user changes the account again the charges will have to re defaulted. The manually entered charges will not be considered. SUBSYSSTAT will go as*
 - *MICTRMIS:U;ISCTRSTL:D;TACTRTAX:D;CSCTRUDF:D;CFCTROCH:R;CSCTRADV:D;FTCCGCLM:D;*

Values for other subsystems will depend on each of their dependencies

2.10 Summary

This topic describes about the summary screen.

Summary screens can be designed for Online Form if required.

Figure 2-17 Summary

The screenshot displays the 'Function Generation' window with the 'Summary Details' tab selected. The 'Data Block Fields' list on the left includes: CLOSDT, SETLMTH, EFFDT, CIFID, MAXCONTAMT, MAXLIABAMT, CURRAVAIL, and OSUAB. The 'Fields Selected' table on the right lists the following fields and their LOV names:

Fields Selected	Query	LOV Name
☐ AUTHSTAT	☒	
☐ CONSTAT	☒	
☐ CONREFNO	☒	
☐ PRDCD	☒	
☐ CONTCCY	☒	
☐ CONTAMT	☒	
☐ USEREFNO	☐	
☐ EXTREFNO	☐	

2.11 Preview

This topic describes about the preview.

The figure shows the preview of the Online form Input screen developed.

Figure 2-18 Online Form Input screen preview

Letters Of Credit Contract Detailed

New Enter Query

Acknowledgement Reference Number

Product Code Product Description Product Type

Contract Reference User Reference Source Reference

Operation Code * Operation Description Source Code FLEXCUBE

Version Number

Previous Of Next

Main Preferences Parties Assignee Details Parties Limits Shipment Goods Documents Tracers Advices

LC Details

Currency * Language * Contract Amount * Amount In Local Currency Positive Tolerance Negative Tolerance Max Amount Liability Tolerance Liability Amount Tolerance Text

Customer * Customer Name Party Type * Dated MM/DD/YYYY Customer Reference License Expiry Date Outstanding Amount Outstanding Liability

Issue Date MM/DD/YYYY Effective Date MM/DD/YYYY Tenor Expiry Date MM/DD/YYYY Expiry Place Auto Closure Closure Date MM/DD/YYYY Stop Date MM/DD/YYYY Pre-Advice Date MM/DD/YYYY

Reference to Pre advice

Credit

Type Mode Credit Available With Details

Reimbursement Undertaking

Undertaking Expiry Date MM/DD/YYYY Undertaking Amount Availed Undertaking Amount

Revolving Detail

Revolves In Units Frequency Automatic Reinstatement Cumulative Next Reinstatement Date Remarks Default

Loan for Collateral External Loan Request Status Partial Closure

Contract Status

User Defined Status Derived Status Sanction Check Status Last Sanction Check Date

Settlement Details

Debit Account Branch Debit Account Currency Debit Account Components of Current Event

Charges Debit Account Branch Charges Debit Account Currency Charges Debit Account

Drafts Commission Charges Settlement Tax Collateral Events Linkage Details Fields MIS Transfer Details BC Linkages Audit Exit

The figure shows the preview of the Online Form Summary Screen developed.

Figure 2-19 Online Form Summary Screen Preview

Letters Of Credit Contract Summary

Search Advanced Search Reset Clear All Records per page 15

Recommended Fields (Atleast input one field with minimum character(s) as mentioned in bracket)

Contract Reference(3) Currency(3)

Optional Fields

Authorization Status Contract Status Product Code
Contract Amount User Reference Source Reference
Branch 000 Operation Code Product Type

Search Results Lock Columns 0

☐	Authorization Status	Contract Status	Contract Reference	Product Code	Currency	Contract Amount	Amount In Local Currency	User Reference
No data to display.								

Page 1 Of 1 < 1 >

Exit

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

3

Generated Units

This topics describes about the generated units.

This topic contains the following sub-topics:

- [Front End Units](#)
This topic consists of 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.

3.1 Front End Units

This topic consists of 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.

3.1.1 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.

Example – **LCDTRONL.xml** (UIXML for UT Screen).

3.1.2 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.

Example – **LCDTRONL_SYS.js** (JS for UT Screen).

3.1.3 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.

Example – LCDTRONL_KERNEL.js (JS for KERNEL Release).

Example – LCDTRONL_CLUSTER.js (JS for CLUSTER Release).

Example – LCDTRONL_CUSTOM.js (JS for CUSTOM Release).

3.2 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.

3.2.1 Static Scripts

This topic describes about the static scripts.

The following static scripts generated are required for the proper functioning of an Online Form screen. Refer to the Generated units topics for detailed explanation.

3.2.2 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.

Example –

- Lcpks_Lcdtronl_Main.spc
- Lcpks_Lcdtronl_Main.sql (Main Package for LC Contract)

Main package contains functions for :

- Converting Ts to PL/SQL Composite Type
- Calling fn_main
- Resolve Ref Numbers (fn_resolve_ref_numbers)
- Mandatory checks (fn_check_mandatory)
- Product Default (fn_product_default)
- Subsystem Pickup (fn_subsys_pickup)

- Enriching (fn_enrich)
- Default and validation (fn_default_and_validate)
- Uploading into DB tables (fn_upload_db)
- Processing the contract input values (fn_process)
- 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

3.2.3 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.

Example

- Lcpks_Lcdtronl_Kernel.spc, Lcpks_Lcdtronl_Kernel.sql (Kernel Package)
- Lcpks_Lcdtronl_Cluster.spc, Lcpks_Lcdtronl_Cluster.sql (Cluster Package)
- Lcpks_Lcdtronl_Custom.spc, Lcpks_Lcdtronl_Custom.sql (Custom Package)

3.3 Other Units

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

This topic consists of sub-topic:

- [XSD](#)
This topic describes about the XSD.

3.3.1 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.

Examples –

- LC-Contract-Types.xsd (Type XSD for LC Contract)
- LC-CreateContract-Req-Full-MSG.xsd (Create Message XSD for LC Contract)
- LC-CreateContract-Req-IO-MSG.xsd (Create Message XSD for LC Contract)
- LC-CreateContract-Res-Full-MSG.xsd (Create Message XSD for LC Contract)
- LC-CreateContract-Res-PK-MSG.xsd (Create Message XSD for LC Contract)

4

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.

4.1 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 **LCDTRONL_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 ()**

4.2 Extensibility in Backend Coding

This topic describes about the extensibility in backend coding.

For online forms, generated code does not provide any business logic. Insert statements won't be present as part of generated code in online packages. Developer has to write the business logic in release specific packages (or make call to server functions from release specific packages).

Hooks will be provided in the following stages Resolving reference numbers:

- Checking mandatory fields
- Defaulting and validating
- Uploading to db
- Process
- Subsystem pickup
- Enrich

- Product Default
- Query

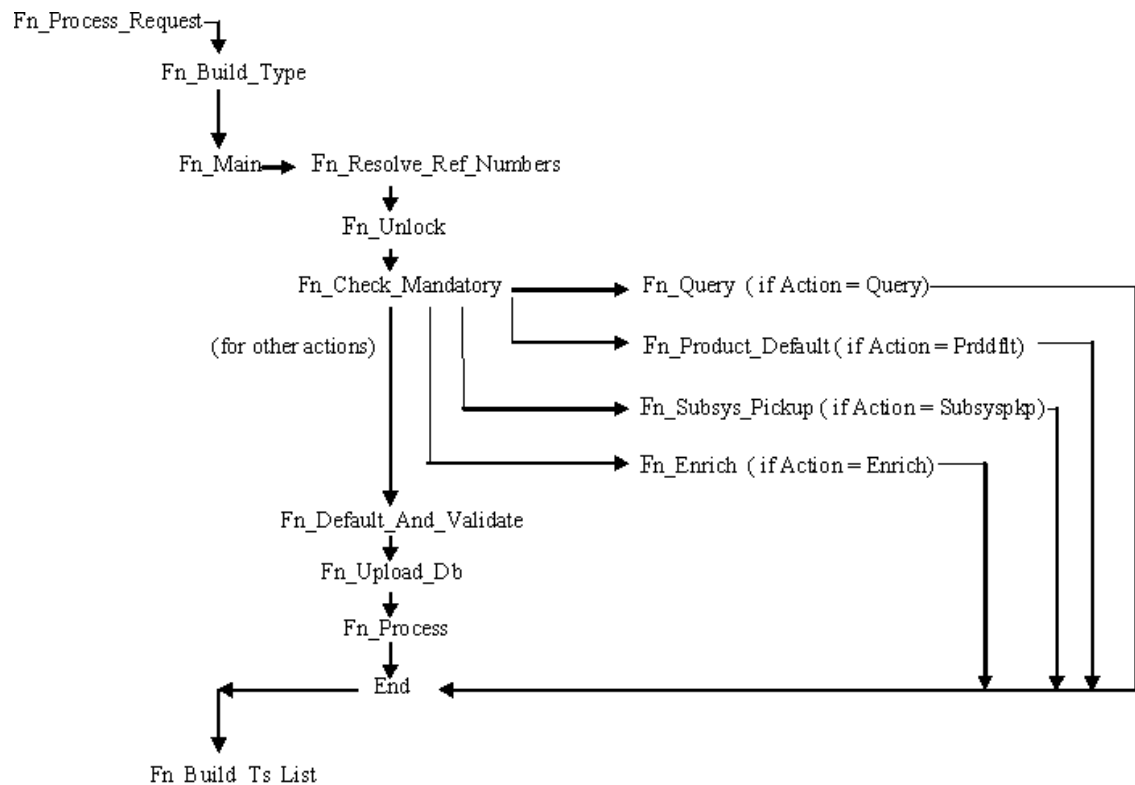
① Note

The system generated code for uploading; defaulting etc. (*fn_sys_default_and_validate*, *fn_sys_upload_db* etc.) won't be called by the main package in online flow. If it is required, developer has to call it explicitly from release specific packages.

In online flow, upload to base tables happens first and processing is done on the inserted data after uploading. After processing, the response type will be build.

Note that in online flow, upload to base tables happens first and processing is done on the inserted data after uploading. After processing, the response type will be build.

Figure 4-1 Flow of control in an Online main package



Release specific code has to be written in the Hook Packages generated. The different functions available in the Hook Package of an Online 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 from the *fn_main* in main package.

3. **Fn_pre_resolve_ref_numbers**
4. **Fn_post_resolve_ref_numbers**
This function validates the reference number. It is called from `fn_resolve_ref_numbers` of the main package.
5. **Fn_pre_unlock**
6. **Fn_post_unlock**
This function holds the contract level validations and modification logic for existing contract. It is called from `fn_unlock` of main package.
7. **Fn_pre_check_mandatory**
8. **Fn_post_check_mandatory**
Any mandatory checks can be validated here. It is called from `fn_chchk_mandatory` of main package.
9. **Fn_pre_query**
10. **Fn_post_query**
Any specific logic while querying can be written in these functions. It is called from `fn_query` of the main package.
11. **Fn_pre_product_default**
12. **Fn_post_product_default**
This function has the logic to default the values for the contract based on the product maintenance. It is called from `fn_product_default` of main package.
13. **Fn_pre_subsys_pickup**
14. **Fn_post_subsys_pickup**
This function does the subsystem pickup for the subsystem's (call form's) as per product maintenance for the contract. It is called from `fn_subsys_pickup` of main package.
15. **Fn_pre_enrich**
16. **Fn_post_enrich**
After product default, user can default others values. That logic can be put here. it is called from `fn_enrich` of main package.
17. **Fn_pre_default_and_validate**
18. **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.
19. **Fn_pre_upload_db**
20. **Fn_post_upload_db**
Any logic while uploading data to tables can be written here. It is called from `fn_upload_db` of main package.
21. **Fn_pre_process**
22. **Fn_post_process**
These hook functions are specific to transaction online form screens. This function should have the call to all the server functions which process the input data for the contract as per the functionality. These are called from **fn_process** of the main package.