

# Oracle® FLEXCUBE Investor Servicing Development Workbench - Tracking Changes



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# Preface

**Oracle FLEXCUBE Investor Servicing** is a comprehensive mutual funds automation software from Oracle® Financial Servicing Software Ltd.©.

You can use the system to achieve optimum automation of all your mutual fund investor servicing processes, as it provides guidelines for specific tasks, descriptions of various features and processes, and general information.

This topic contains the following sub-topics:

- [Purpose](#)
- [Audience](#)
- [Documentation Accessibility](#)
- [Critical Patches](#)
- [Diversity and Inclusion](#)
- [Conventions](#)
- [Screenshot Disclaimer](#)
- [Prerequisite](#)
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## Purpose

This manual is designed to help FLEXCUBE Application developers/users to familiarize with ORACLE FLEXCUBE Development Workbench for Investor Servicing.

## Audience

This document is intended for FLEXCUBE Application developers/users that use Development Workbench to develop various FLEXCUBE components.

To Use this manual, you need conceptual and working knowledge of the below:

**Table 1 Proficiency and Resources**

Proficiency	Resources
<b>FLEXCUBE Functional Architecture</b>	Training programs from Oracle Financial Software Services.
<b>FLEXCUBE Technical Architecture</b>	Training programs from Oracle Financial Software Services.
<b>FLEXCUBE Object Naming Conventions</b>	Development Overview Guide

Table 1 (Cont.) Proficiency and Resources

Proficiency	Resources
Working knowledge of Web based Applications	Self-Acquired
Working knowledge of Oracle Database	Oracle Documentations
Working knowledge of PLSQL developer	Respective vendor documents
Working knowledge of PLSQL and SQL Language	Self-Acquired
Working knowledge of XML files	Self-Acquired

## Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

### Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

## 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](#).

## 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.

## Conventions

The following text conventions are used in this document:

Convention	Meaning
<b>boldface</b>	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.

## 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.

## Prerequisite

Specify **User ID** and **Password**, and log in to **Home Screen**.

## Related Resources

The functions of ORACLE FLEXCUBE Development Workbench for Investor Servicing system is organized into various guides, each discussing a component.

For more information, see these Open Development Tool documents:

- *Open Development Tool Installation*
- *Development Workbench - Getting Started*
- *Development Workbench - Administration*
- *Development Workbench - Screen Development I*
- *Development Workbench - Screen Development II*
- *Development Workbench - Source Upgrade*
- *Development Workbench - Notifications*
- *Development Workbench - Bulk Generation*
- *Development Workbench - Screen Customizer*
- *Development of Maintenance Form*
- *Development of Online Form*
- *Development of Call Form*
- *Development of Launch Forms and Other Screens*
- *Development of Dashboard Form*
- *Development Workbench Service XML Development*
- *Development Workbench Performance Tuning Enhancements*
- *Development Workbench - Rest Services Development*
- *Child and Screen Childs - Concept and Design*

# 1

## View Changes

The **View Changes** page allows the developer to see what exact change has been done in the RADXML as part of the various nodes in the Workbench across different releases.

Track changes display various changes in each node in the RADXML through color. For example, the modified values are displayed in Blue and the new values in Green color.

The main page of **View Changes** looks like a function generation page. On the **View Changes** page, the user is allowed to load a RADXML. Then Workbench shows all the changes done in the RADXML across the release and release type accordingly with two different colors:

- **Blue** indicates Modified.
- **Green** indicates New.

So by using **View Changes** option in Development Workbench, the user can easily identify the changes done in the RADXML across releases and release types.

This topic contains the following sub-topics:

- [Process Steps - View Changes](#)  
This topic provides systematic instructions to perform View Changes.

### 1.1 Process Steps - View Changes

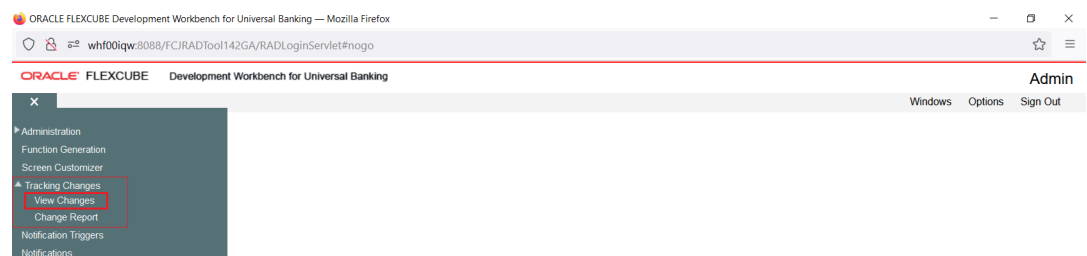
This topic provides systematic instructions to perform View Changes.

1. On **Home Screen**, under the **Browser** node, click **Tracking Changes**.

It has the following options:

- **View Changes**
- **Change Report**

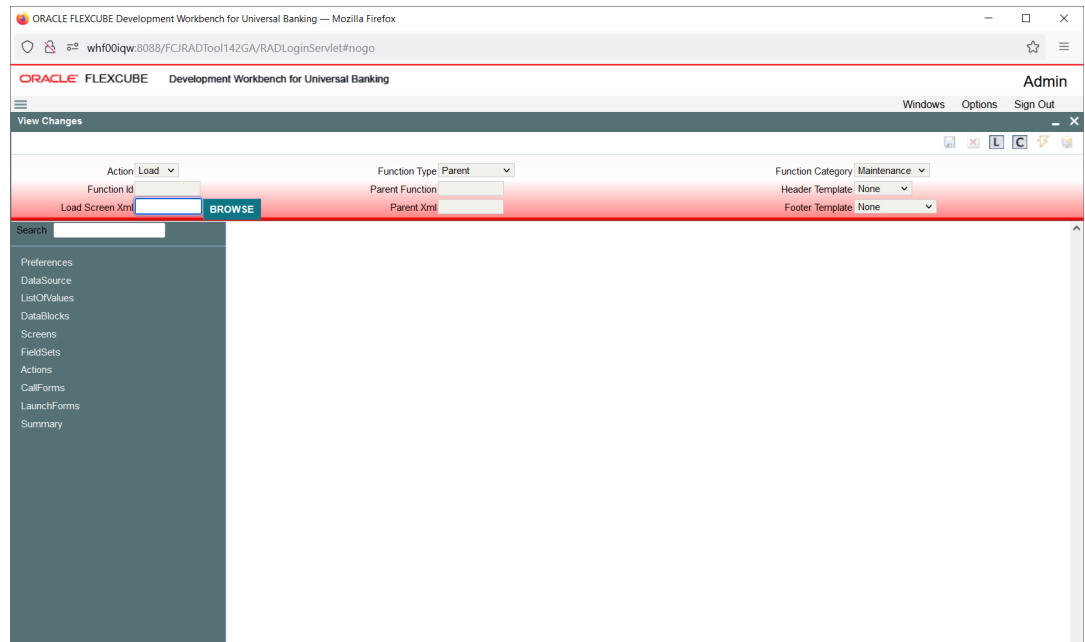
**Figure 1-1 Development Workbench of Universal Banking\_Tracking Changes**



2. Under **Tracking Changes**, click **View Changes**.

The **View Changes** screen displays.

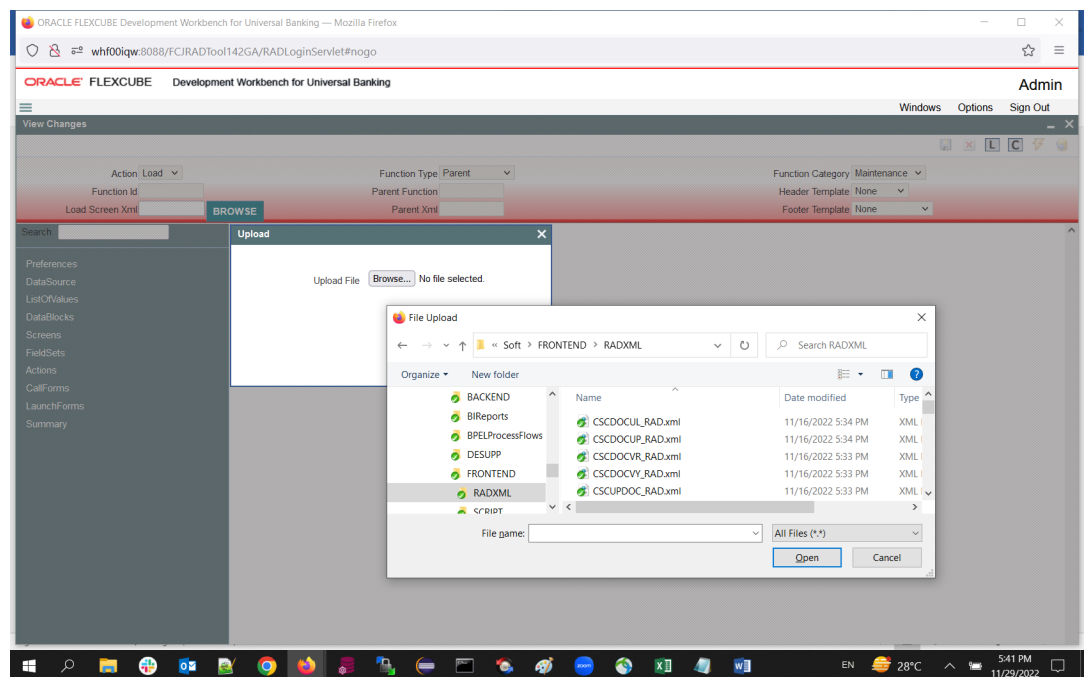
Figure 1-2 Tracking Changes\_View Changes



3. Click the **BROWSE** button in the **Load Screen Xml** field to load and view the changes in the radxml across releases and release types.

The **Upload** and **Choose File to Upload** windows displays.

Figure 1-3 View Changes\_Load Screen Xml\_Upload





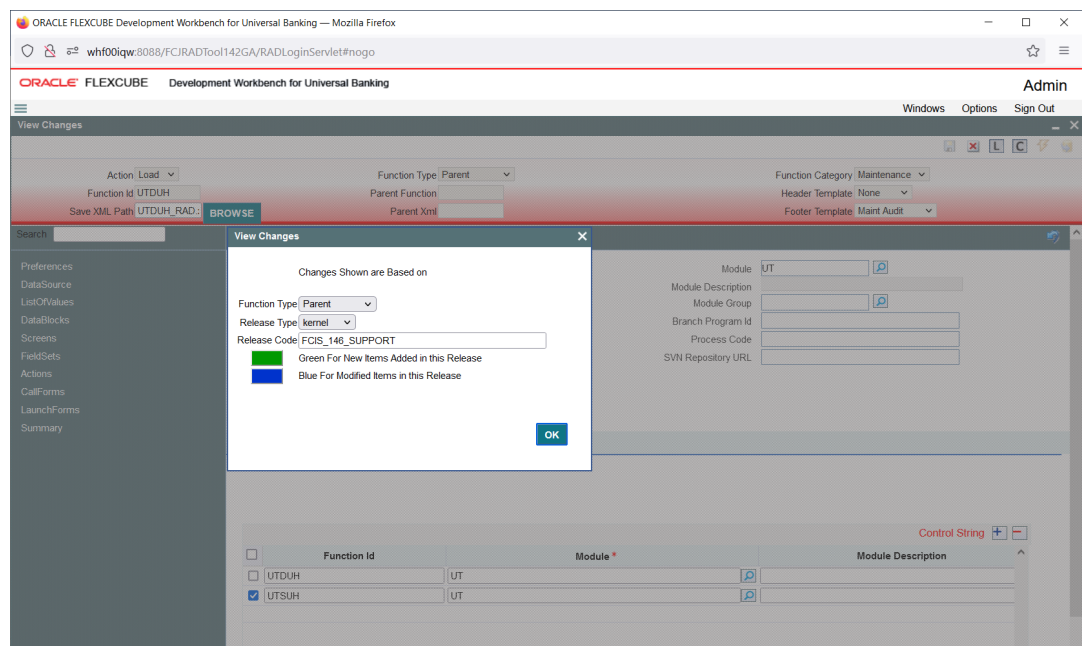
**Note**

Workbench allows to view the changes done as part of Child or Cluster or Custom Release. Upon loading the Cluster or Custom or Child RAD xml, it shows the modifications done as part of Cluster or Custom or Child.

4. Load the radxml from the folder at **Choose File to Upload** window and click the **Open** button.

**View Changes** window will pop up and will notify the details of the function id like **Function Type**, **Release Type** and **Release Code**. It also notifies that changes done in the radxml as part of Cluster Release will be highlighted.

**Figure 1-4 View Changes Pop-up Window**



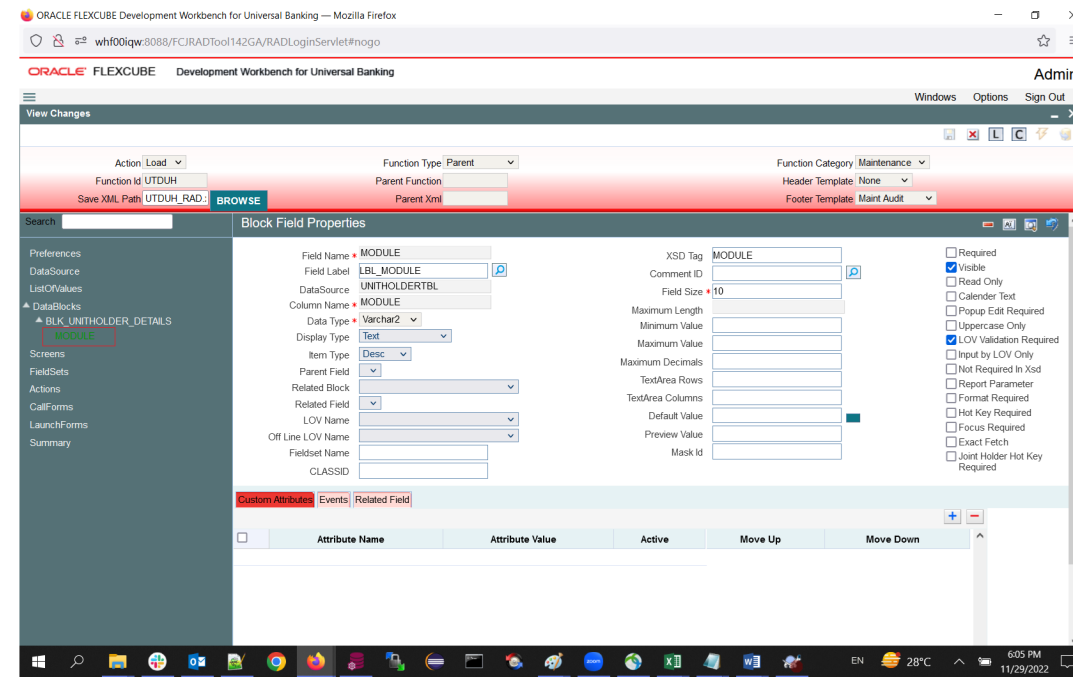
**View Changes** pop-up window displays.

5. Load the **Function Id**.

This will show the changes in the colors of blue and green. Blue indicates modified and green indicates new in this function id.

The Workbench will show the **View Changes** screen in the below format of blue and green accordingly.

Figure 1-5 View Changes\_Block Field Properties



# 2

## Change Report

The **Change Report** allows us to view the changes in the provided base and source list of RADXMLs and helps to get the changes done in the two RADXMLs across releases and release types.

The **View Changes** Report allows the developer to see what exact change is done in the RADXML's as part of the various nodes in the Development Workbench across two different releases or release types.

The reports are generated based on two formats:

- **Function Specific** - The **Function Specific** format compares RADXMLs based on the function name.
- **Parent-Child** - The **Parent-Child** format compares RADXMLs based on the parent-child relation.

The below nodes are compared and a report is generated based on the differences found in the two RADXMLs given in the list.

- **PREFERENCES**
- **MENU\_DETAILS**
- **DATASOURCES**
- **COLUMNS**
- **LOVS**
- **LOV\_DETAILS**
- **DATA\_BLOCKS**
- **BLOCK\_FIELDS**
- **DATASOURCES\_ATTACHED**
- **CUSTOM\_ATTRIBUTES**
- **LOV\_RETURN\_FIELDS**
- **LOV\_BIND\_VARS FIELD\_EVENTS**
- **LOV\_OFF\_LINE\_BIND\_VARS**
- **LOV\_OFF\_LINE\_RETURN\_FIELDS**
- **SCREENS SCREEN\_ARGUMENTS**
- **TABS**
- **SECTIONS**
- **PARTITIONS**
- **FIELDSETS**
- **FIELDSET\_FIELDS**
- **SUMMARY**

- **SUMMARY\_DETAILS**
- **LAUNCHFORMS**
- **CALLFORMS**
- **ACTIONS**
- **WEB\_SERVICES**

- [Process Steps - Change Report](#)

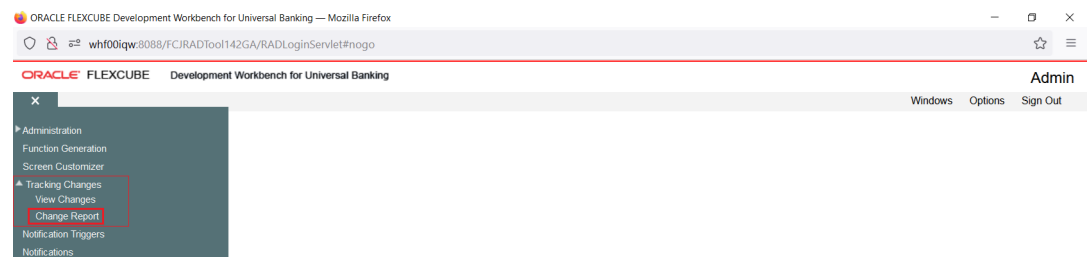
This topic explains the systematic instructions to view the changes report using the source file list and base file list in an excel format.

## 2.1 Process Steps - Change Report

This topic explains the systematic instructions to view the changes report using the source file list and base file list in an excel format.

1. On **Home Screen**, under the **Browser** node, click **Tracking Changes**.

**Figure 2-1 Tracking Changes\_Change Report**



2. Under **Tracking Changes**, click **Change Report**.

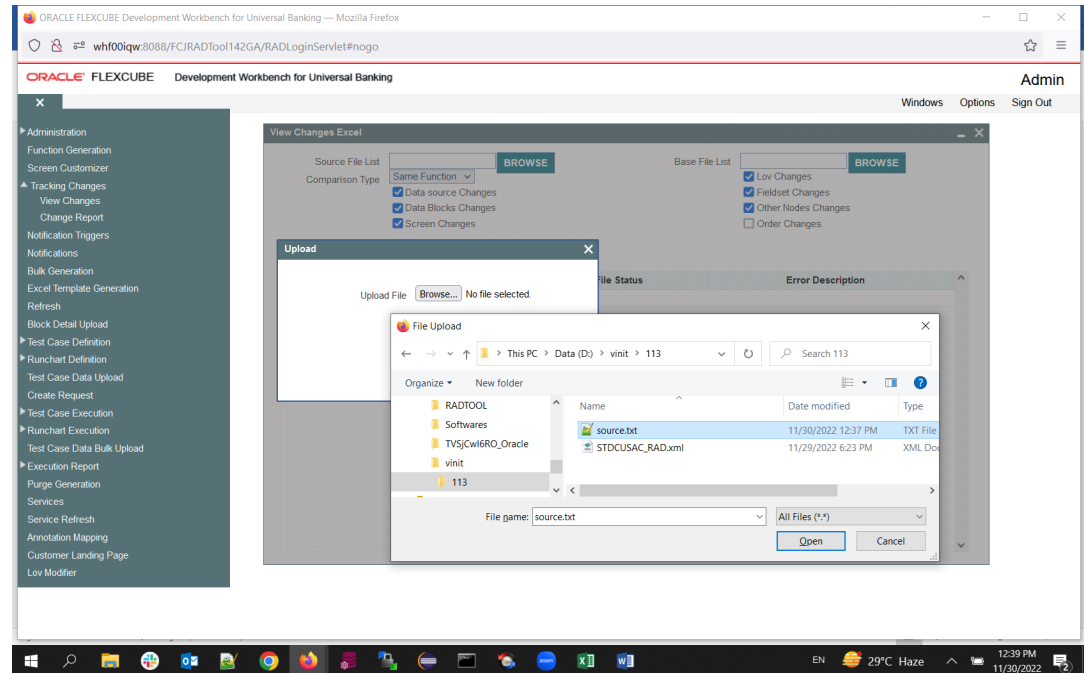
The **View Changes Excel** screen displays.

**Figure 2-2 View Changes Excel**

 The screenshot shows the 'View Changes Excel' screen. It has a top section with 'Source File List' and 'Base File List' fields, each with a 'BROWSE' button. Below these are 'Comparison Type' (set to 'Same Function') and checkboxes for 'Data source Changes', 'Data Blocks Changes', 'Screen Changes', 'Low Changes', 'Fieldset Changes', 'Other Nodes Changes', and 'Order Changes'. The bottom section is a table with columns: SI.No, File Name, File Status, and Error Description. The table is currently empty.

- On the **View Changes Excel** screen, in the **Source File List** field, click **Browse**.  
The **Upload** screen displays.

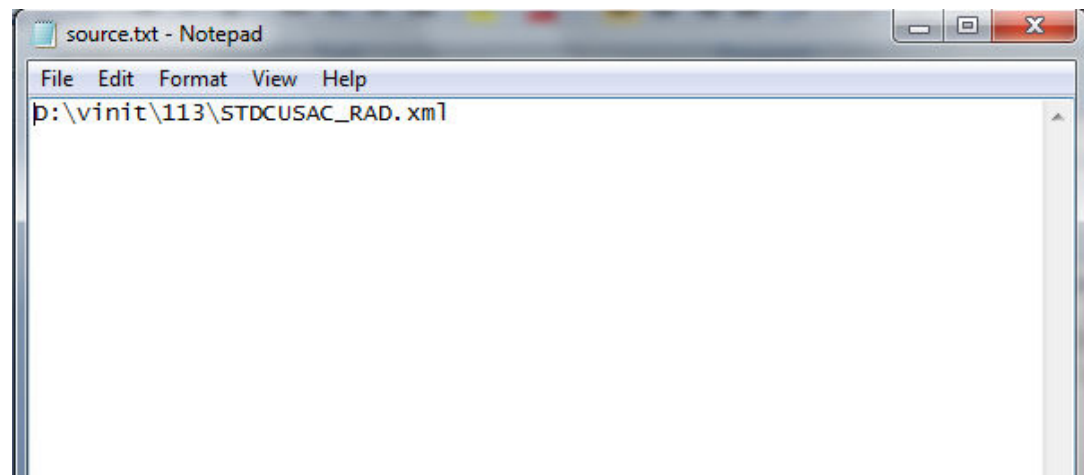
**Figure 2-3 View Changes Excel\_Source File List\_Upload**



- On the **Upload** screen, click **Browse**.  
The **Choose File to Upload** pop-up window displays.
- On the **Choose File to Upload** pop-up window, select the source file (source.txt) and click **Open**.

The source file list is a text file that contains the absolute path of all the RADXMLs to be compared.

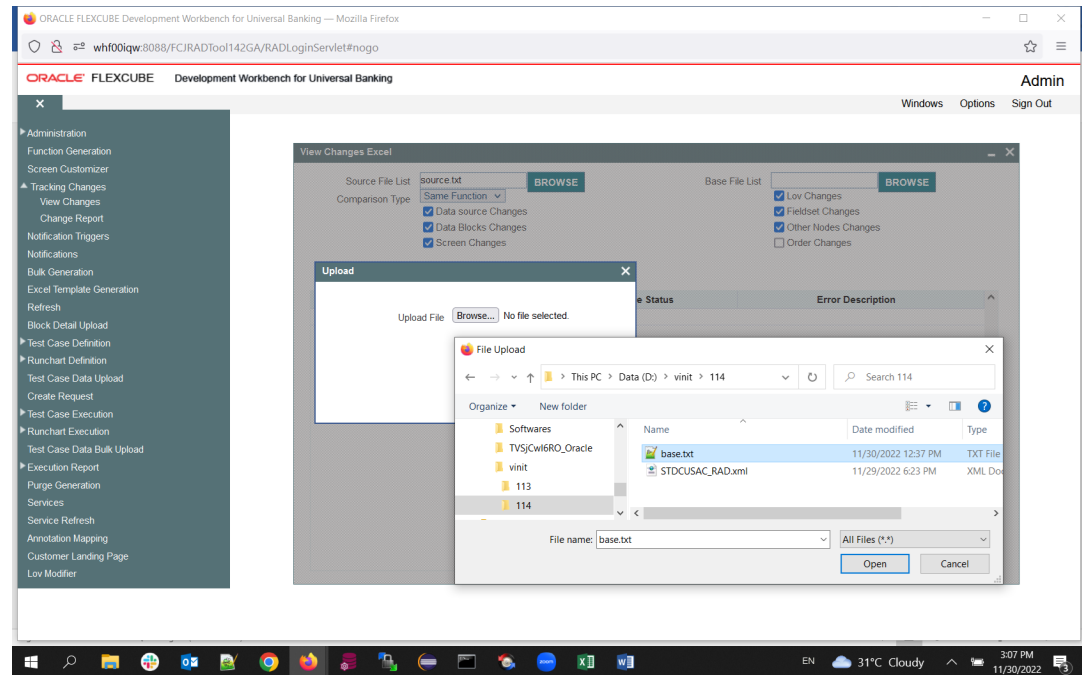
**Figure 2-4 Source text file**



In the above screen, here **STDCUSAC** is the source RADXML that has to be compared as an example. If a **View Changes** report of more than one Function ID is required, the absolute path of each RADXML has to be specified in a new line.

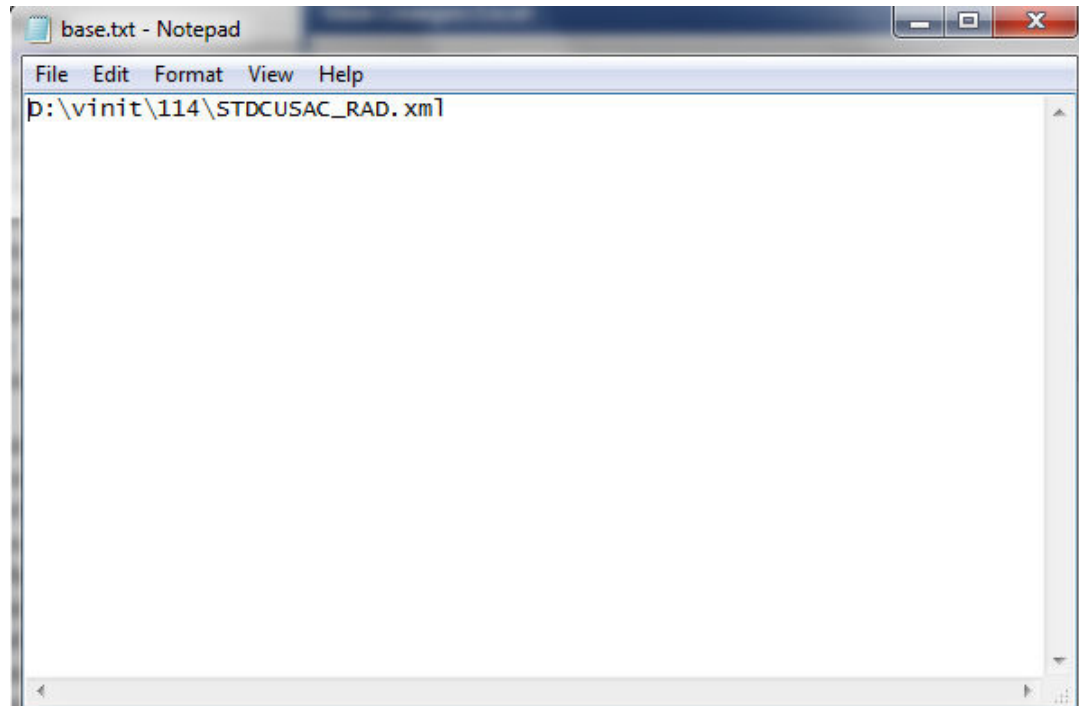
6. On the **View Changes Excel** screen, in the **Base File List** field, click **Browse**.  
The **Upload** screen displays.

**Figure 2-5 View Changes Excel\_Base File List\_Upload**



7. On the **Upload** screen, click **Browse**.
8. On the **Choose File to Upload** pop-up window, select the base file (base.txt) and click **Open**.

The base file list is a text file that contains the absolute path of all the base RADXMLs to be compared.

**Figure 2-6 Base File List**

In the above screen, here **STDCUSAC** is the base RADXML that has to be compared as an example. If a **View Changes** report of more than one Function ID is required, the absolute path of each base RADXML has to be specified in a new line.

9. On the **View Changes Excel** screen, specify the fields.

**Table 2-1 View Changes Excel - Field Description**

Field	Description
<b>Comparison Type</b>	Select the <b>Comparison Type</b> as <b>Function Specific</b> from the drop-down list.
<b>Changes</b>	Select the following checkboxes as required to compare the below nodes. <ul style="list-style-type: none"> <li>• <b>Data Source Changes</b></li> <li>• <b>Data Blocks Changes</b></li> <li>• <b>Screen Changes</b></li> <li>• <b>LOV Changes</b></li> <li>• <b>Fieldset Changes</b></li> <li>• <b>Other Nodes Changes</b></li> </ul>
<b>File Location</b>	Select the file location as a client if the path provided is in the client machine.

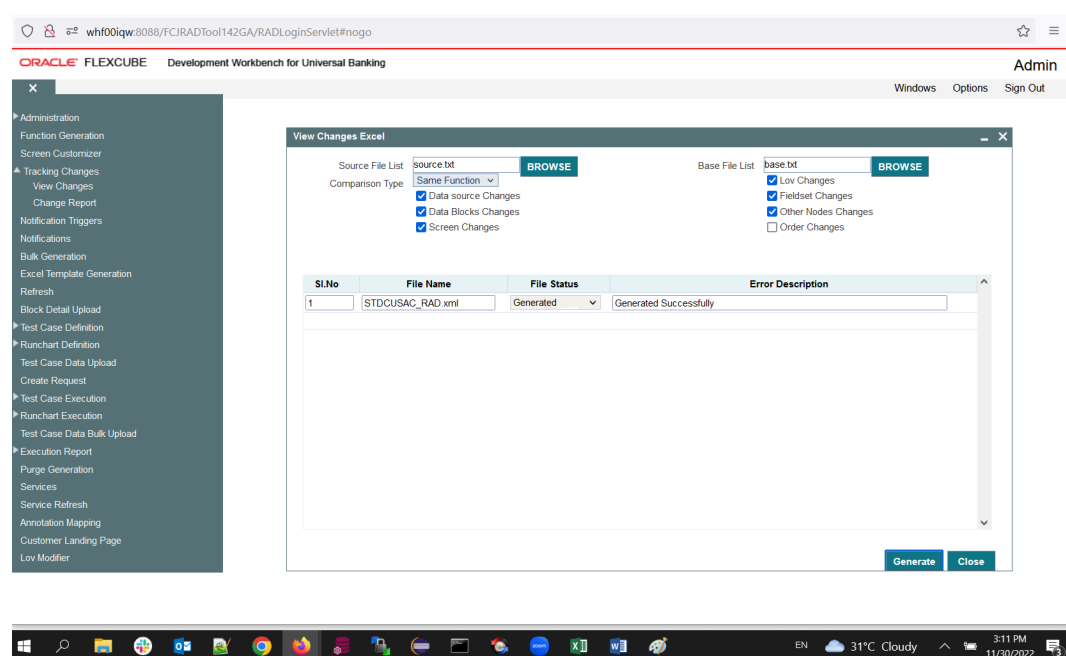
10. On the **View Changes Excel** screen, click **Generate**.

**Note**

The processing time varies depending on the number of files provided, the size of each file, etc.,

After Completion of the process, the system displays the status. File status is generated successfully if the comparison is successful.

**Figure 2-7 View Changes Excel\_File Status**



#### Generated Files -

- a. **Excel Report of Changes** - A war file named RAD is created and shown after a successful process of comparing, which will contain Excel files for the particular source RADXMLs. For example, PANDETIP\_FRONTEND\_LOG.txt
- b. **Log Files**
  - **View Comparison Log** - This contains the status of all the files compared.
  - **View Comparison Report** - This file is used for troubleshooting.

All the nodes will be compared and will be painted in the excel sheet based upon the values of the base and source list of RADXML's, the values will be having 3 statuses (**NEW, MODIFIED, DELETED**). Based on this status old and new values will be shown in the view changes report.



# 3

## Functionality Demonstration

This topic explains the functionality of the view changes report.

On the STDCUSAC.xls file, click the **Copyright Clause** tab to view the copyright details.

**Figure 3-1 Copyright Clause**

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The comparison of STDCUSAC (**FCUBS\_11.2.0**) and STDCUSAC (**FCUBS\_11.4.0**) is displayed in the Header tab.

**Figure 3-2 STDCUSAC screen Header changes**

		SOURCE		BASE	
	FUNCTION_ID	STDCUSAC		STDCUSAC	
	RELEASE_CODE	FCUBSV.UM 11.2.0.0.0.0.0		FCUBS_11.4.0	
	RELEASE_TYPE	KERNEL		KERNEL	
	FUNCTION_TYPE	P		P	
	FUNCTION_CATEGORY	MAINTENANCE		MAINTENANCE	

On the **PREFERENCES** tab, the change report compares two RADXML's and forms one Dom with the nodes and displays the difference between two RADXML's with old and new values.

Figure 3-3 STDCUSAC screen Preferences changes

STATUS	PREFERENCES	PROPERTIES	OLD VALUE	NEW VALUE
MODIFIED	MENU			
		TXN BLOCK NAME	BLK_CUST_ACCOUNT	
		TXN FIELD NAME	BRN	
		MULTI BRANCH ACCESS	Y	

STATUS	MENU DETAILS	PROPERTIES	OLD VALUE	NEW VALUE
MODIFIED	STDCUSAC			
		LBL FUNCTION DESC		LBL_STDCUSAC_FNDESC Customer Accounts Maintenance
		FUNCTION DESC		
		LBL FUNC MODULE DESC		LBL_STDCUSAC_MODULE -
MODIFIED	STSCUSAC			
		LBL FUNCTION DESC		LBL_STSCUSAC_FNDESC Customer Accounts Summary
		FUNCTION DESC		
		LBL FUNC MODULE DESC		LBL_STSCUSAC_MODULE -

The change report compares the two function id's and paints the excel sheet for the preferences node of the compared RADXML. Here in preferences, the status node is displayed as Modified and the modified node is Preferences. The property of the modified preferences node is **TXN BLOCK NAME**. The Old value is **BLK\_CUST\_ACCOUNT** and new value is null for the STDCUSAC (**FCUBS\_11.3.0**) and STDCUSAC (**FCUBS\_11.4.0**) has block\_cust\_account as **TXN BLOCK**.

Preferences will show the difference in both versions of the releases. The nodes representing here are:

- PREFERENCES
- MENU\_DETAILS

On the **DATASOURCES** tab, change report compares the two function ids and paints the excel sheet for the Data Sources node of the compared RADXML. Data Sources will show the difference in both versions of the releases.

Figure 3-4 DATASOURCES

1	STATUS	DATASOURCES	PROPERTIES	OLD VALUE	NEW VALUE
2	MODIFIED	ICTMS_ACC_PR		prod IN (SELECT product_code FROM ictms_product_definition WHERE product_type in ( T, P))	prod IN (SELECT product_code FROM ictms_product_definition WHERE product_type = T)
3			DEFAULT WHERE		
4	MODIFIED	ACVWS_CRTUR_LMT_BAL		LIMIT_PRD = (SELECT LIMIT_PRD FROM STTM_TURNVER_PERIO DS WHERE LIMIT_CODE = p_wrk_stdcusac_v_sttms_c ust_account.TRNOVER_L MT_CODE AND to_date(global application_ date) BETWEEN LIMIT_START_DATE AND LIMIT_END_DATE)	LIMIT_PRD = (SELECT LIMIT_PRD FROM STTM_TURNVER_PERIO DS WHERE LIMIT_CODE = p_stdcusac_v_sttms_cust_ account.TRNOVER_LMT_ CODE AND to_date(global application_ date) BETWEEN LIMIT_START_DATE AND LIMIT_END_DATE)
5			DEFAULT WHERE		
6			DATASRC TYPE	NORMAL	
7			CHILD DATASRC	N	
8					
9	DELETED	BRANCH_CODE	COLUMN NAME	BRANCH_CO	
10			DATATYPE	VARCHAR2	
11			MAX LENGTH	3	
12			BLOCK NAME	BLK_STTMS	
13				NKAGES	
14	DELETED	CUST_AC_NO	COLUMN NAME	CUST_AC_N	
15			DATATYPE	VARCHAR2	
16			MAX LENGTH	20	
17			BLOCK NAME	BLK_STTMS	
18				NKAGES	
19	DELETED	COLLATERAL_TYPE	COLUMN NAME	COLLATERA	
20			DATATYPE	VARCHAR2	
21			MAX LENGTH	1	
22			BLOCK NAME	BLK_STTMS	
23				NKAGES	
24	DELETED	COLLATERAL	COLUMN NAME	COLLATERA	
25			DATATYPE	VARCHAR2	
26			MAX LENGTH	50	
27					

The nodes representing on the DATASOURCES tab are:

- DATASOURCES
- COLUMNS

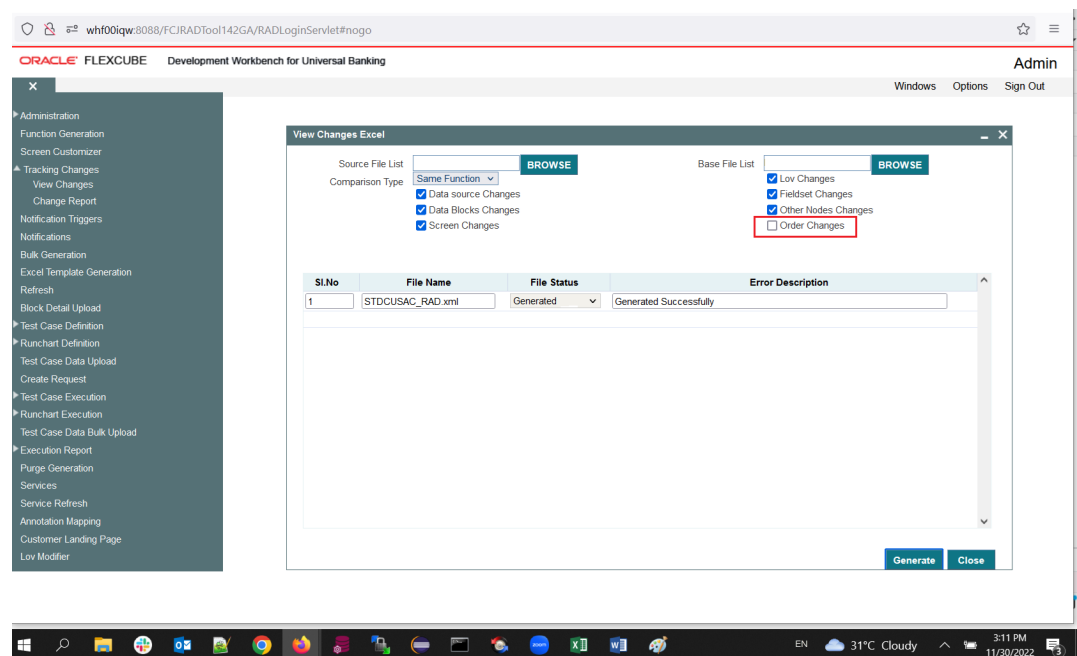
# 4

## Order Changes

This topic explains the systematic instructions for the Order Changes in the View Changes Excel screen.

1. On the Development Workbench, under **Tracking Changes**, click **Change Report**.  
The **View Changes Excel** screen displays.

**Figure 4-1 Order Changes**



2. On click of this order changes, the nodes are compared for the order maintained in the radxml of respective releases. The order changes will affect the following nodes:
  - a. **FIELD\_ORDER**
  - b. **FIELDSET\_ORDER**
  - c. **TAB\_ORDER**
  - d. **SEC\_ORDER**
  - e. **DATA\_BLK\_ORDER**
  - f. **BLK\_FIELD\_ORDER**
3. On the **View Changes Excel** screen, input the **Source File List**, **Base File List** and check the **Order Changes** checkbox.
4. Click **Generate**.  
(Assumption) On the Order Changes excel, the compared RADXML's changes are displayed.

All the orders are compared between sources and base RADXML's and View Changes Excel Report is generated.

5. Click the **Fieldsets** tab.

Order Changes for fieldsets is displayed.

### Figure 4-2 Order Changes\_Fieldsets

[illegible]