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Configuring Key Flexfield Segments in Oracle Financials Cloud to leverage OTBI for ad-hoc analyses

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Purpose

Oracle Financials Cloud users wanting to leverage Key Flexfield Segments such as Chart of Account (COA) segments and Budgeting key flexfield segments for real time ad-hoc reporting will need to configure and enable those segments to be available in Reporting and Analytics. This document provides a walkthrough of the various configuration steps to accomplish this. It also provides troubleshooting tips and addresses frequently asked questions.

Introduction

Oracle Fusion Transactional Business Intelligence (OTBI) is a real time, self service reporting solution for Oracle ERP/HCM/CX Cloud users to create operational reports to support daily decision making. Oracle Financials Cloud customers leverage OTBI for real-time reporting of financial transactions, with the help of Subject Areas covering various applications like General Ledger, Budgetary Control, Fixed Assets, Payables and Receivables. To report on Key Flexfield Segments in GL, Budgetary Control, and other areas in OTBI, customers need to complete a few configuration steps in Fusion Financials Cloud before they become available in the corresponding OTBI subject areas.

Solution

Follow the sequence of steps below to configure and enable the key flexfield segments for reporting in OTBI

Step 1: Create Segment Labels for desired segments and map them to BI Object Names

Step 2: Assign Segment Labels to Key Flexfield Segments in Manage Structures

Step 3: Designate the flexfield segments as BI enabled in Manage Structure Instances

Step 4: Deploy Flexfields

Step 5: Run column flattening for any of the tree based segments

Step 6: Publish the accounting segment hierarchies into Essbase cube*

(* Applicable for GL Segments only)

Step 7: Run scheduled processes

Depending on the functional area (GL, Budgetary Control or Fixed Assets), the configuration tasks within some of the steps below vary slightly from each other. Follow the pointers in the Table below to navigate to the relevant step/task for that area:

Configuration Step	General Ledger	Budgetary Control	Fixed Assets
Step 1: Create Segment Labels for desired segments and map them to BI Object Names	Go to Step 1 I. GL Segments	Go to Step 1 II. Budgetary Control Segments	Go to Step 1 III. Fixed Assets Segments
Step 2: Assign Segment Labels to Key Flexfield segments in Manage Structures	Go to Step 2 I. GL Segments	Go to Step 2 II. Budgetary Control Segments	Go to Step 2 III. Fixed Assets Segments
Step 3: Designate the flexfield segments as BI enabled in Manage Structure Instances	Go to Step 3 I. GL Segments	Go to Step 3 II. Budgetary Control Segments	Go to Step 3 III. Fixed Assets Segments
Step 4: Deploy Flexfields	Go to Step 4	Go to Step 4	Go to Step 4
Step 5: Run column flattening for any of the tree based segments	Go to Step 5	Go to Step 5	Skip this step
Step 6: Publish the accounting segment hierarchies into Essbase cube	Go to Step 6	Skip this step	Skip this step
Step 7: Run scheduled processes	Go to Step 7	Go to Step 7	Go to Step 7

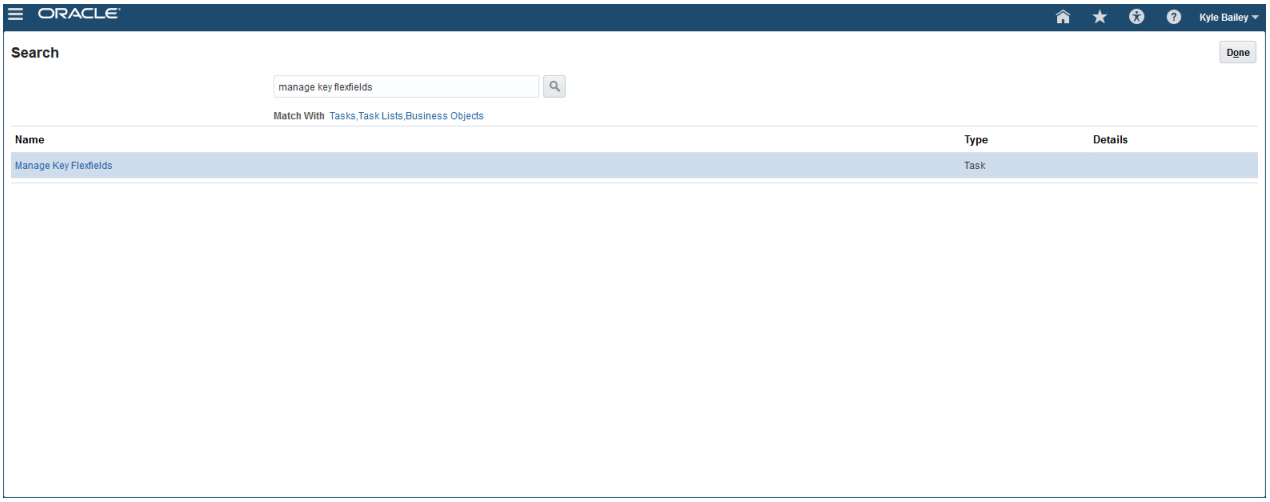
Step 1: Create Segment Labels for desired segments and map them to BI Object Names

Populate the BI Object Name for each of the Segment Labels that you plan to leverage with OTBI for reporting and analysis.

I. GL Segments

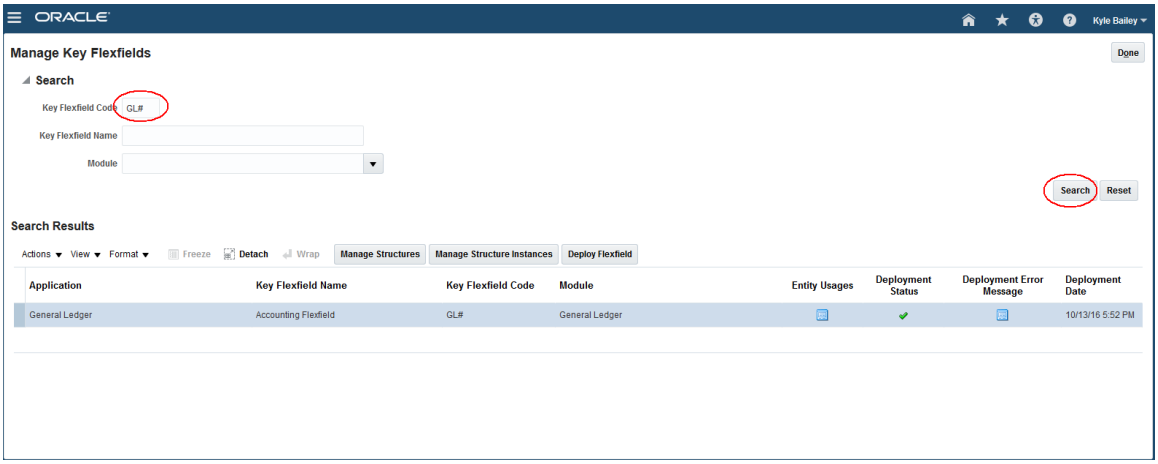
i. Search for GL Key flexfield segments

a. From your implementation project or the Setup and Maintenance page (Navigator → Set Up and Maintenance), search for 'Manage Key Flexfields' and click on the Task that shows up as search result.



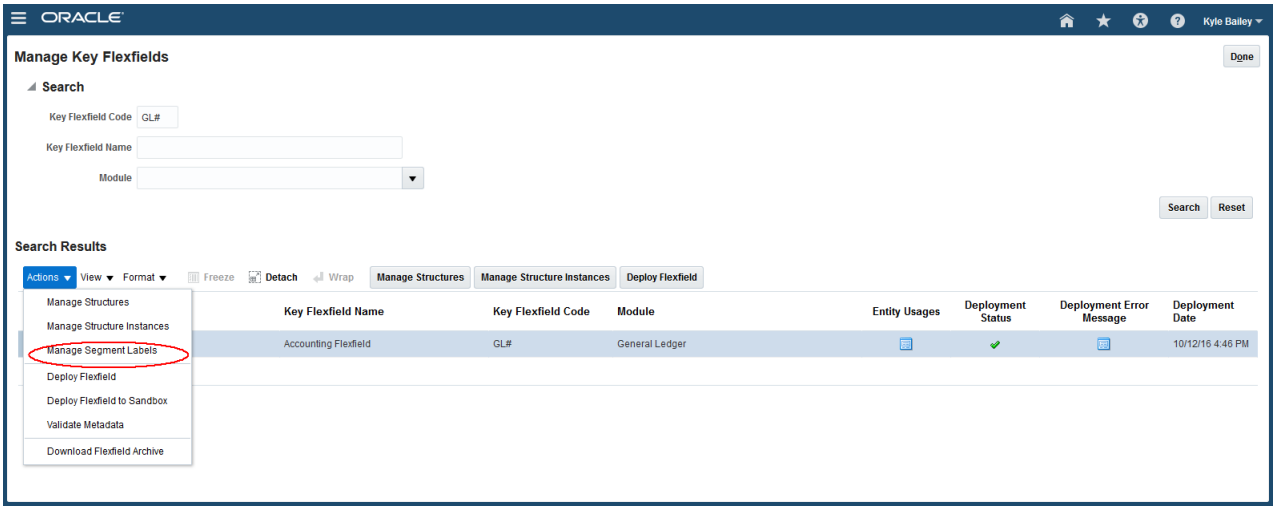
b. Enter 'GL#' for General Ledger in the 'Key Flexfield Code' field

c. Click Search button (see screen shot)

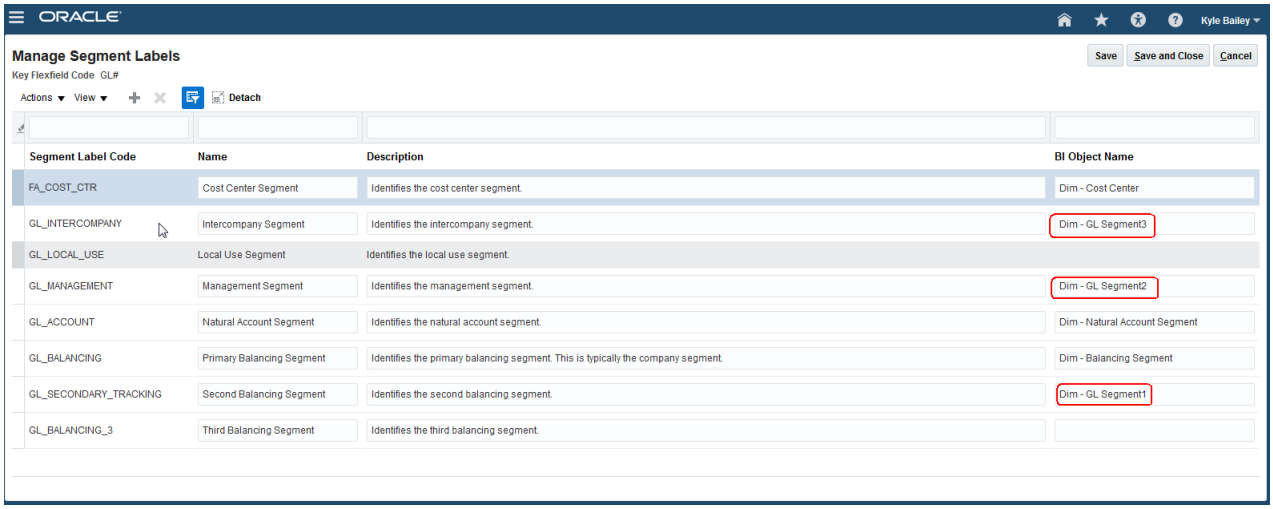


ii. Map the different segments to the pre-defined BI objects

a. Click on Actions drop down menu and select 'Manage Segment Labels' (refer screen shot)



b. Populate the BI Object Name for all the segment labels that need to be mapped (refer screen shot)



For the following three 'mandatory' GL segments, the BI Object names are already mapped and should not be altered

Segment Label Code	BI Object Name
FA_COST_CTR	Dim - Cost Center
GL_BALANCING	Dim - Balancing Segment
GL_ACCOUNT	Dim - Natural Account Segment

For all other non qualified segment labels that you want to leverage within OTBI, the BI Object name should be populated with one of the following

- Dim - GL Segment1
- Dim - GL Segment2
- Dim - GL Segment3
- Dim - GL Segment4
- Dim - GL Segment5
- Dim - GL Segment6
- Dim - GL Segment7
- Dim - GL Segment8
- Dim - GL Segment9
- Dim – GL Segment10

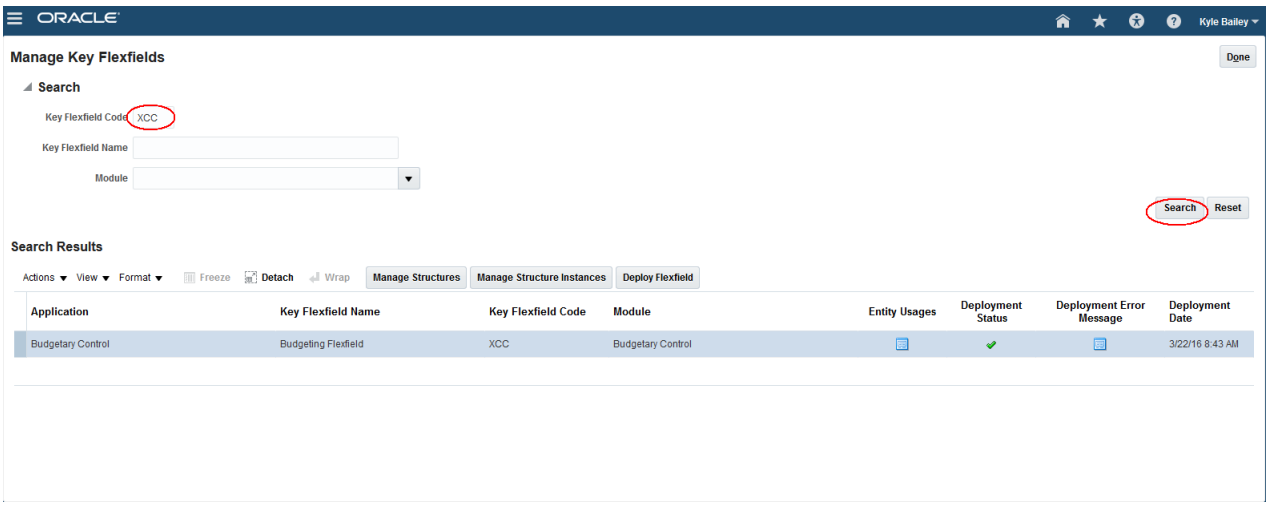
These BI Objects will be used as dimensions under the **General Ledger – Transactional Balances Real Time** and other applicable subject areas in OTBI for the selected GL segments. To find the list of subject areas where the configured segments are exposed, please refer to the FAQ question, 'What OTBI subject areas will have these newly configured segments?' which can be found later in this document.

Note: It is critical to ensure that the BI object name 'Dim – GL SegmentX' is entered correctly

II. Budgetary Control Segments

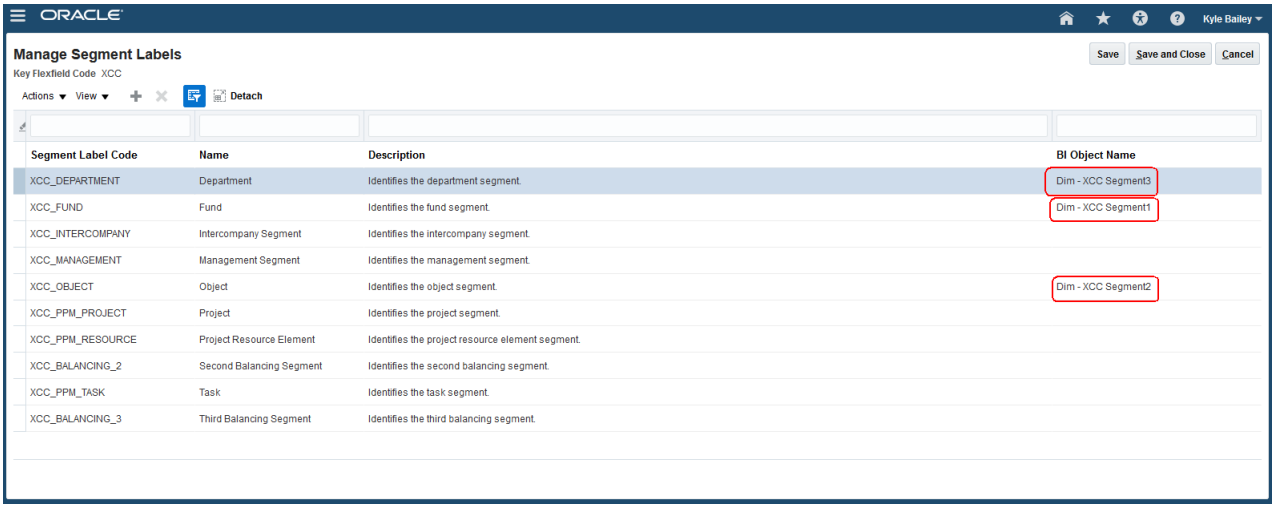
i. Search for Budgetary Key flexfield segments

Follow the same steps laid out in I (i), except that in step I (i) (b), search for 'XCC' (see screen shot below)



ii. Map the different segments to the pre-defined BI objects

Follow the same steps laid out in I (ii), except that in step I (ii) (b), refer the screen shot below. Note that the 'Department', 'Fund' and 'Object' segment labels have been pre configured out of the box.



In addition, the BI metadata has 10 pre-defined BI Objects for the different Budgetary Control segments as shown below .

- Dim - XCC Segment1
- Dim - XCC Segment2
- Dim - XCC Segment3
- Dim - XCC Segment4
- Dim - XCC Segment5
- Dim - XCC Segment6
- Dim - XCC Segment7
- Dim - XCC Segment8
- Dim - XCC Segment9
- Dim - XCC Segment10

These BI Objects will be used as dimensions under the **Budgetary Control – Transactions Real Time** Subject Area in OTBI for the selected Budgetary Control segments.

Note: It is critical to ensure that the BI object names** Dim – XCC SegmentX **is entered correctly

III. Fixed Asset Segments

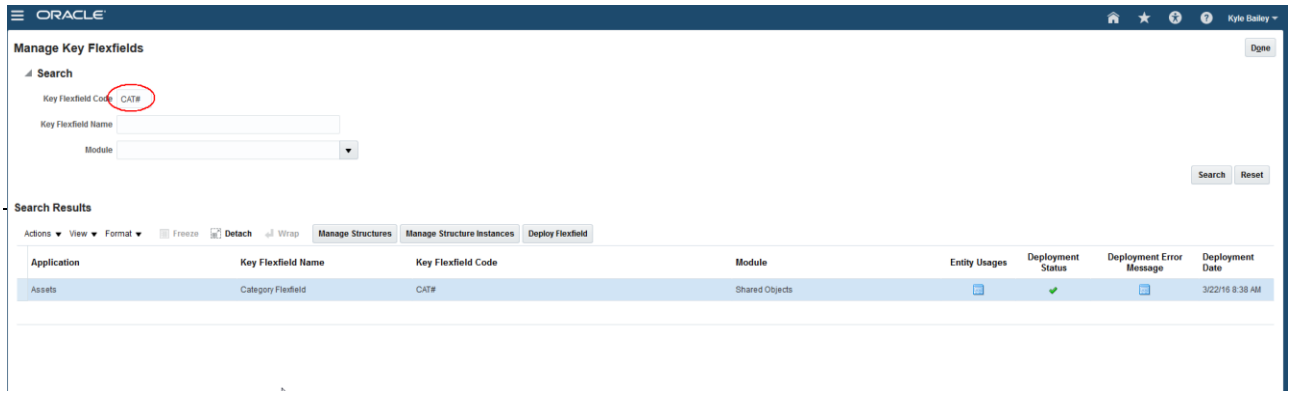
i. Search for Fixed Assets Key flexfield segments

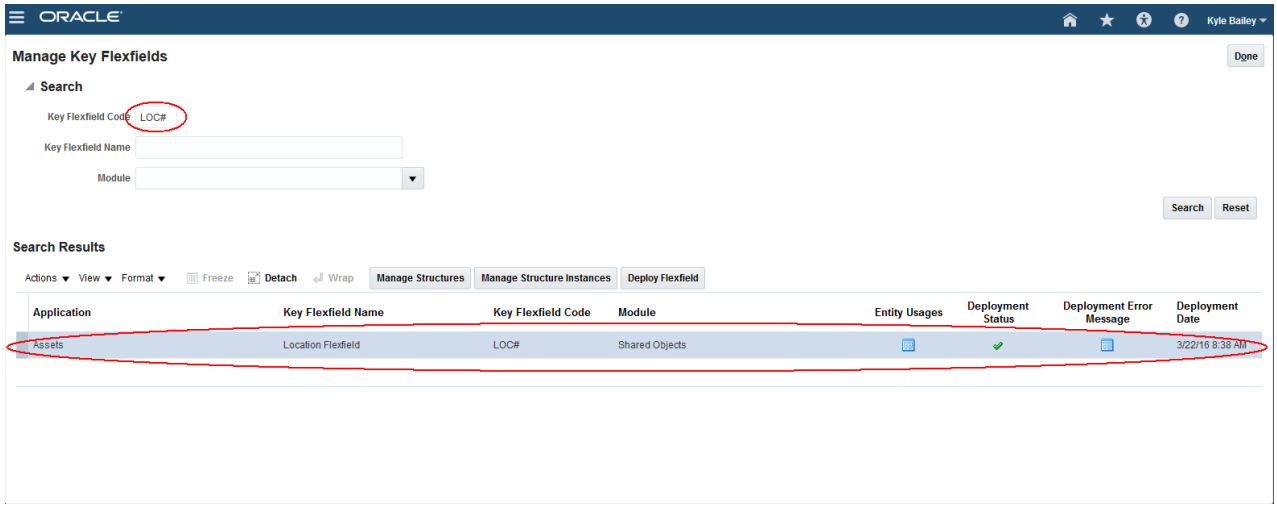
Follow the same steps laid out in I (i), except that in step I (i) (b), enter the following search terms in the Key Flexfield Code field (see screen shots below):

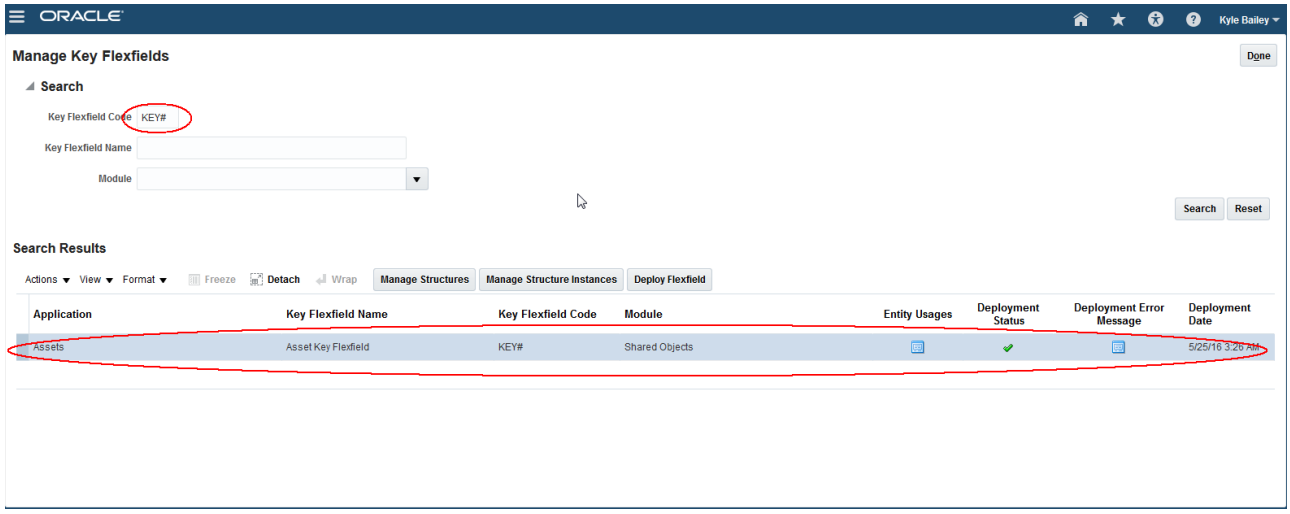
CAT# - for Asset Category flexfield

LOC# - for Asset Location flexfield

KEY# - for Asset Key flexfield



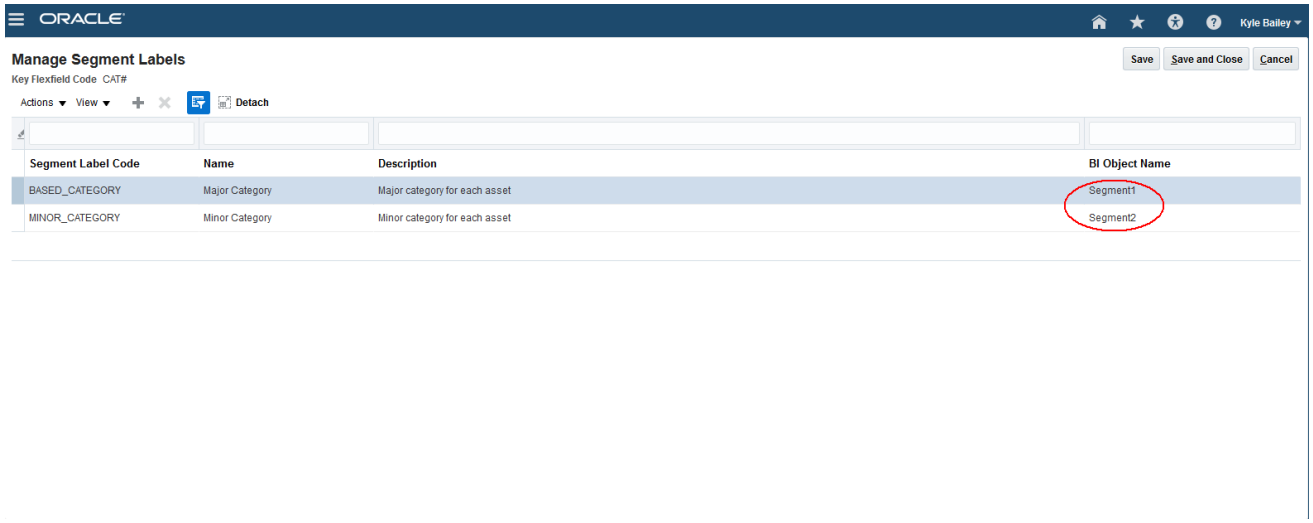




ii. Map the different segments to the pre-defined BI objects

Follow the same steps laid out in I (ii), except that in step I (ii) (b), refer to the screen shot below. Note that unlike GL, there are no mandatory segments in Fixed Assets and there are no pre configured dimensions out of the box.

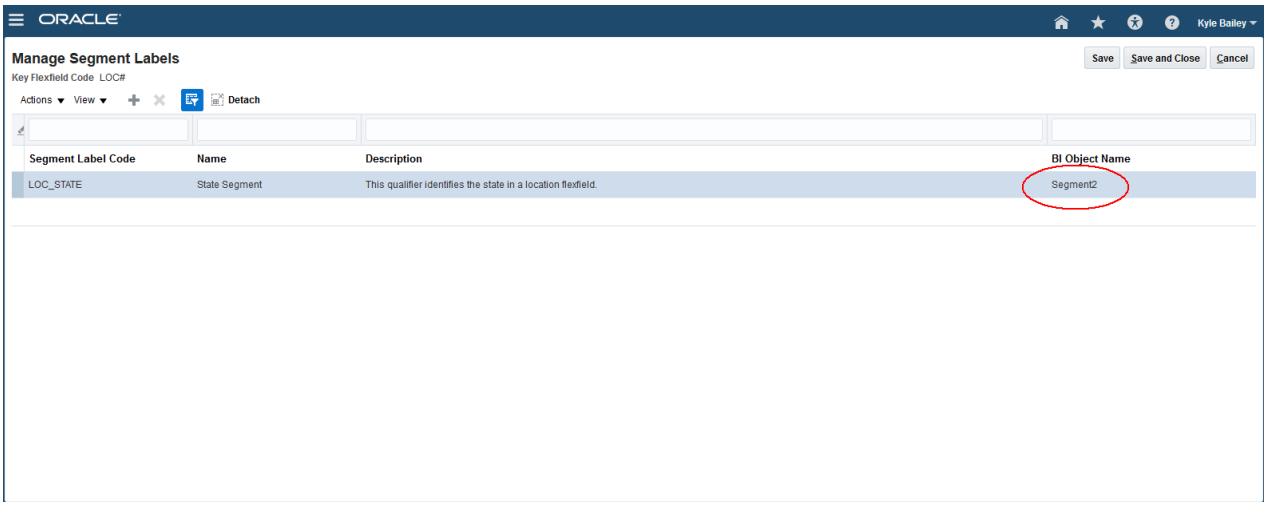
Note that the 'Major Category' and 'Minor Category' labels for the Category Segment are available out of box, being already mapped to 'Segment1' and 'Segment2' respectively. (screen shot below)



Hence out of the 7 segments (Segments 1 through 7) present, the BI metadata has 5 pre-defined BI Objects available for on-site configuration as shown below. .

- Segment3
- Segment4
- Segment5
- Segment6
- Segment7

Note that the ‘State Segment’ label for the Location Segment is available out of box, being already mapped to ‘Segment2’. (screen shot below)



Hence out of the 7 segments (Segments 1 through 7) present, the BI metadata has 6 pre-defined BI Objects available for on-site configuration as shown below. .

- Segment1
- Segment3
- Segment4
- Segment5
- Segment6
- Segment7

These BI Objects will be used as dimensional columns under the 'Asset Location' folder in Fixed Assets subject areas. To find the list of subject areas where the configured segments are exposed, please refer to the FAQ question, 'What OTBI subject areas will have these newly configured segments?' which can be found later in this document.

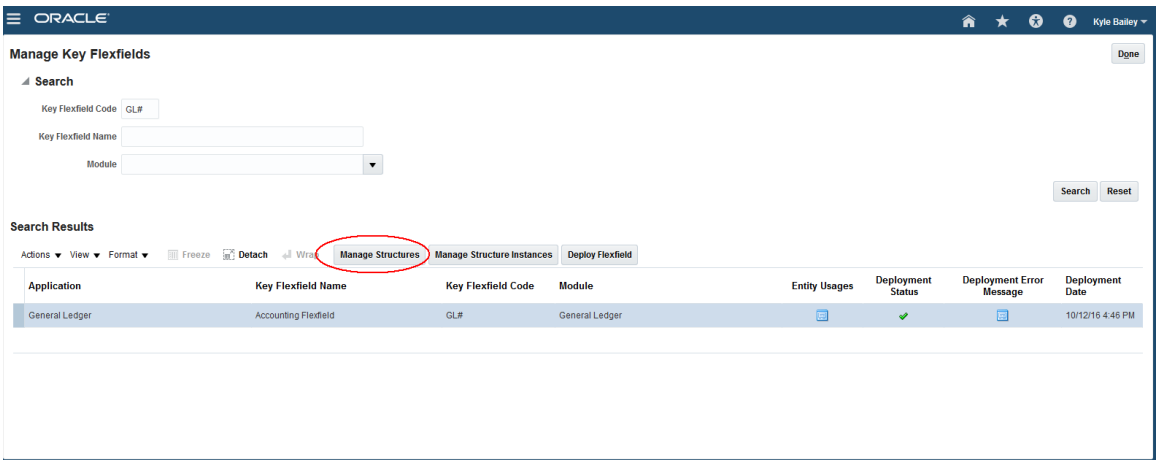
Note: It is critical to ensure that the BI object name is entered correctly in the format 'SegmentX'

Step 2: Assign Segment Labels to Key Flexfield Segments in Manage Structures

I. GL Segments

i. Assign Segment Labels

a. Click on **Manage Structures** button(refer screen shot)

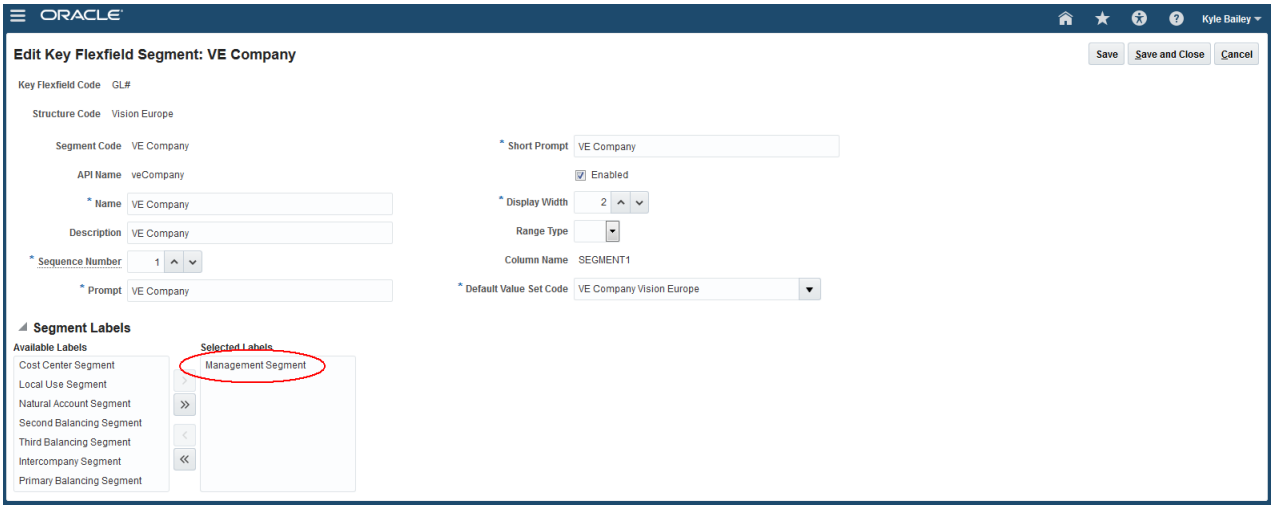


b. Click the Search button.

c. Select the Chart of Accounts and click Edit icon.

d. Select the desired segment and the click Edit icon.

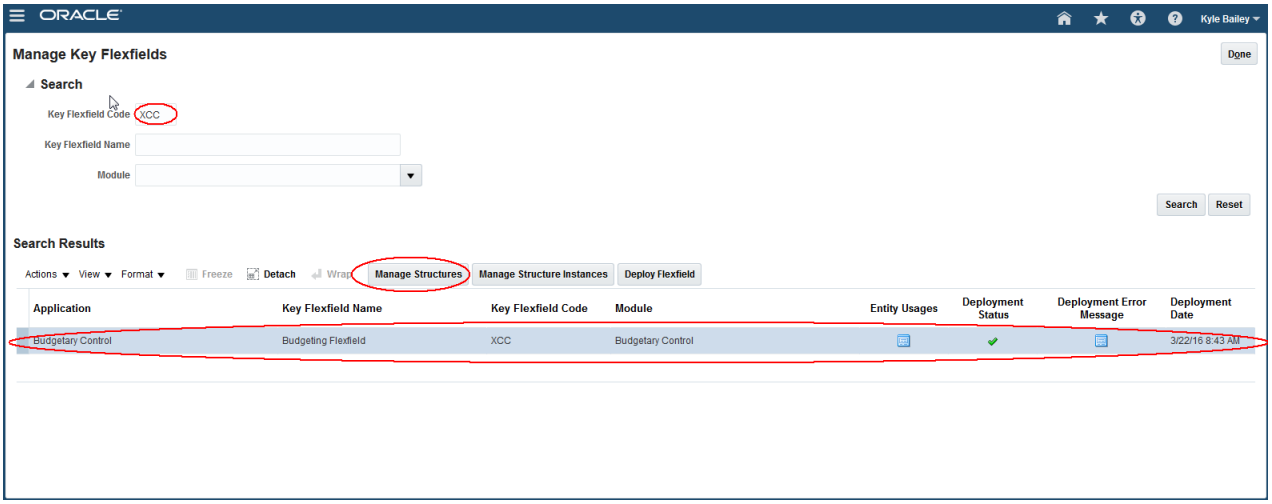
e. Assign a Segment Label for Each Segment (refer screen shot below)

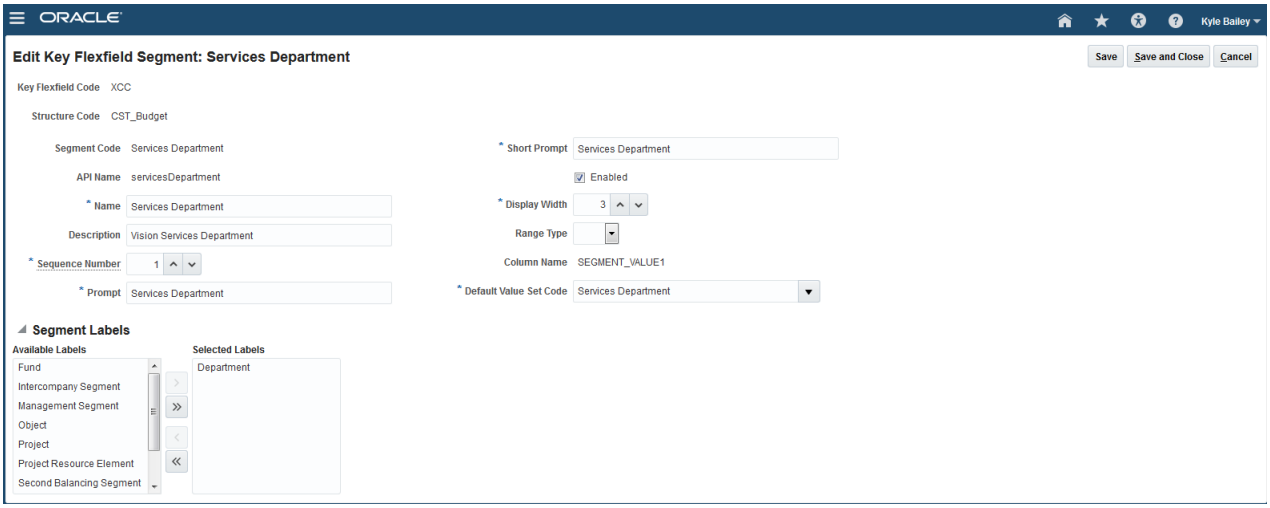


II. Budgetary Control Segments

i. Assign Segment Labels

Follow the same steps as for GL Segments mentioned under I (i) in Step 2 above. Refer screen shots below

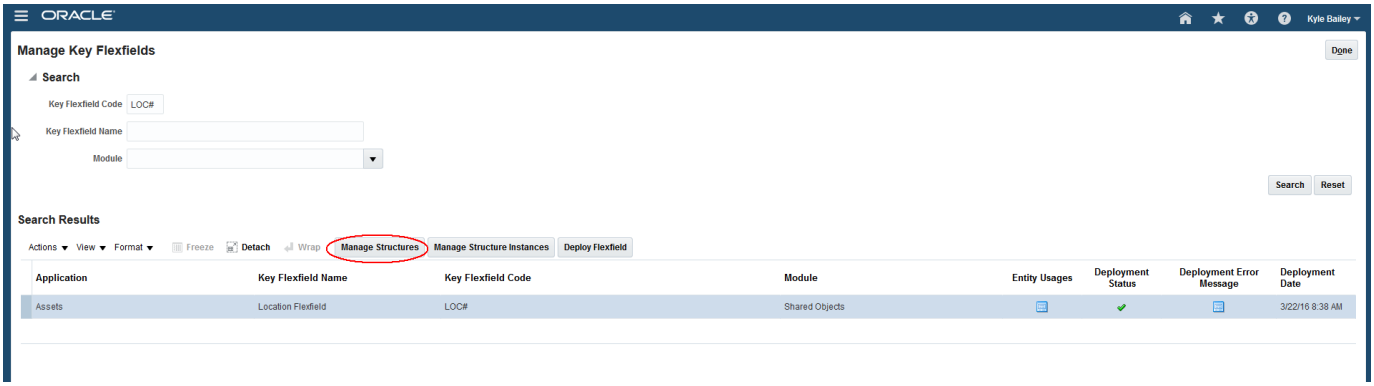


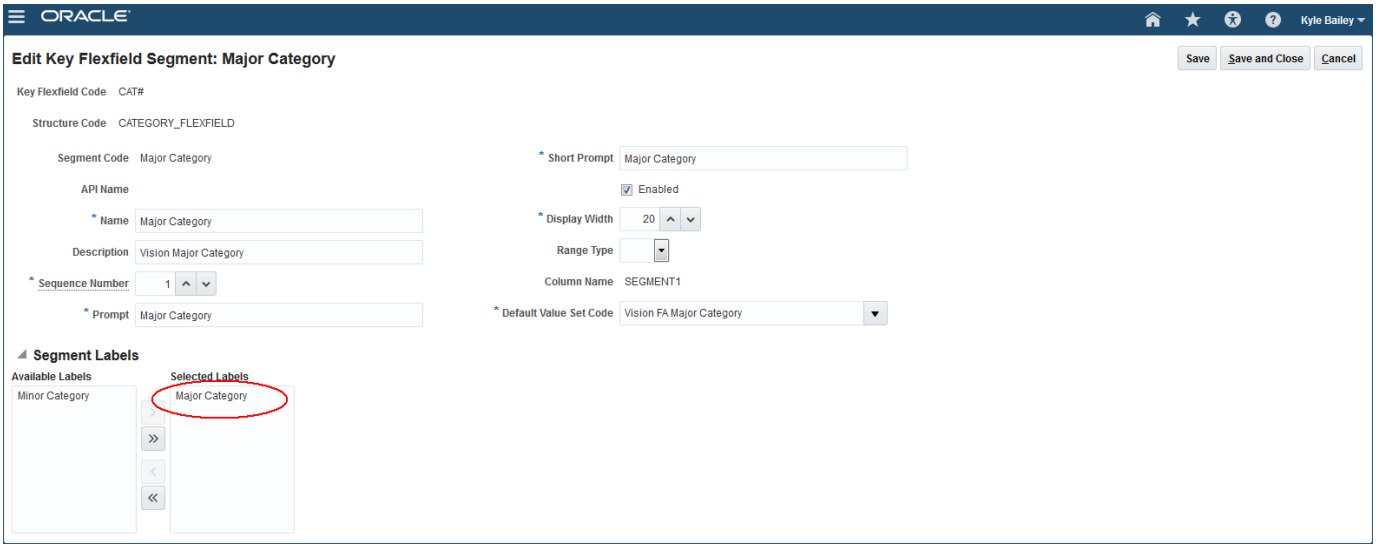


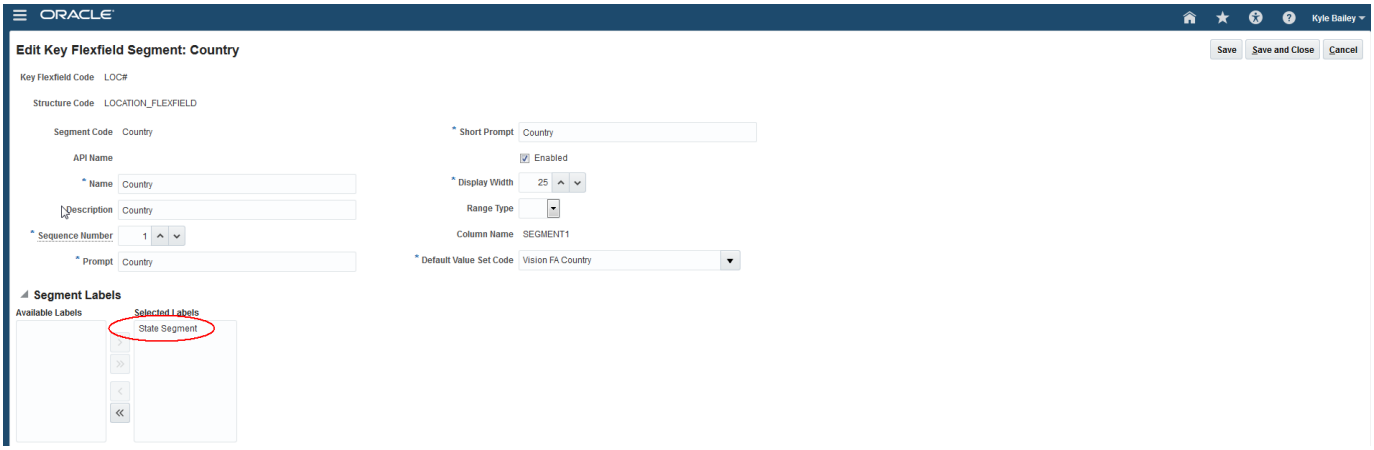
III. Fixed Assets Segments

ii. Assign Segment Labels

Follow the same steps as for GL Segments mentioned under I (i) in Step 2 above. Refer screen shots below







Step 3: Designate the segments as BI enabled in Manage Structure Instances

I. GL Segments

i. Check the 'BI Enabled' check box on all accounting segments that you want to leverage in OTBI for reporting

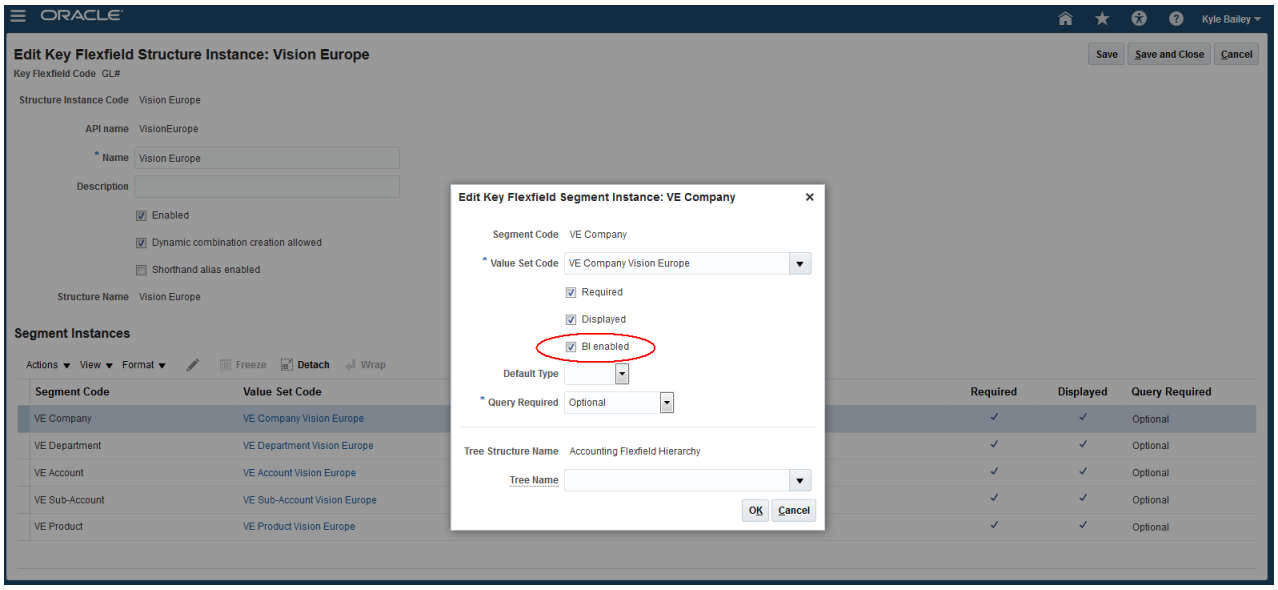
a. Click on **Manage Structure Instances** button.

b. Click the Search button.

c. Select the desired COA segment and click Edit icon.

d. Select the desired segment and the click Edit icon.

e. Edit each of the segments by checking the BI enabled check box (see screen shot below)



f. Click on save button. This should be done for all segments in every Chart of Accounts Structure Instance that you plan to leverage in OTBI

II. Budgetary Control Segments

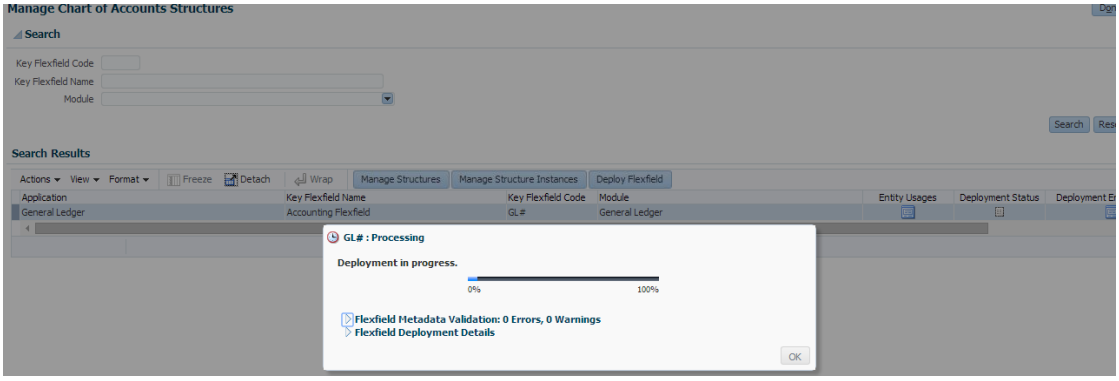
Follow the same steps as in I (i) above but perform the configuration tasks for the desired Budgetary Control segments

III. Fixed Assets Segments

Follow the same steps as in I (i) above but perform the configuration tasks for the desired Fixed Assets segments

Step 4: Deploy Flexfields

Deploy the flexfield using the Deploy Flexfield button from Manage Key Flexfields page

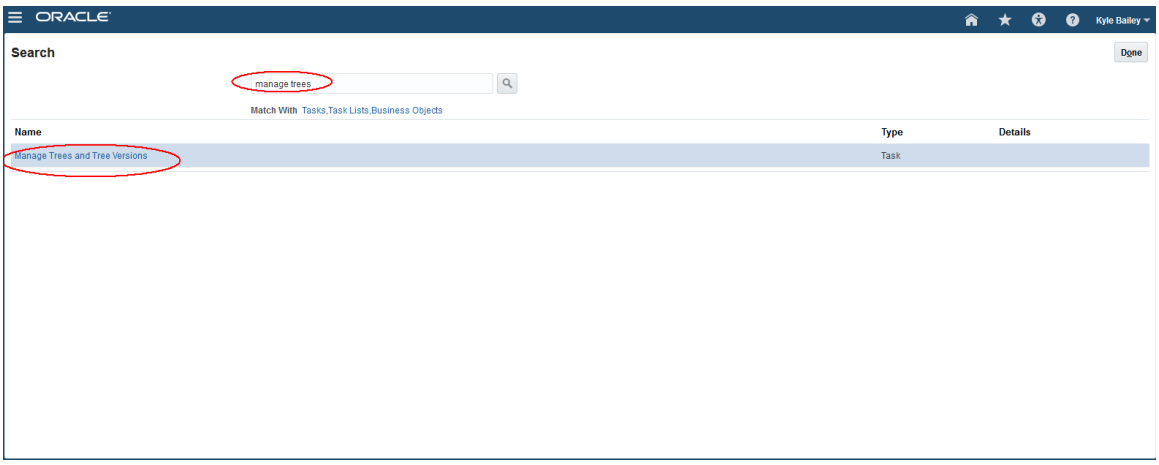


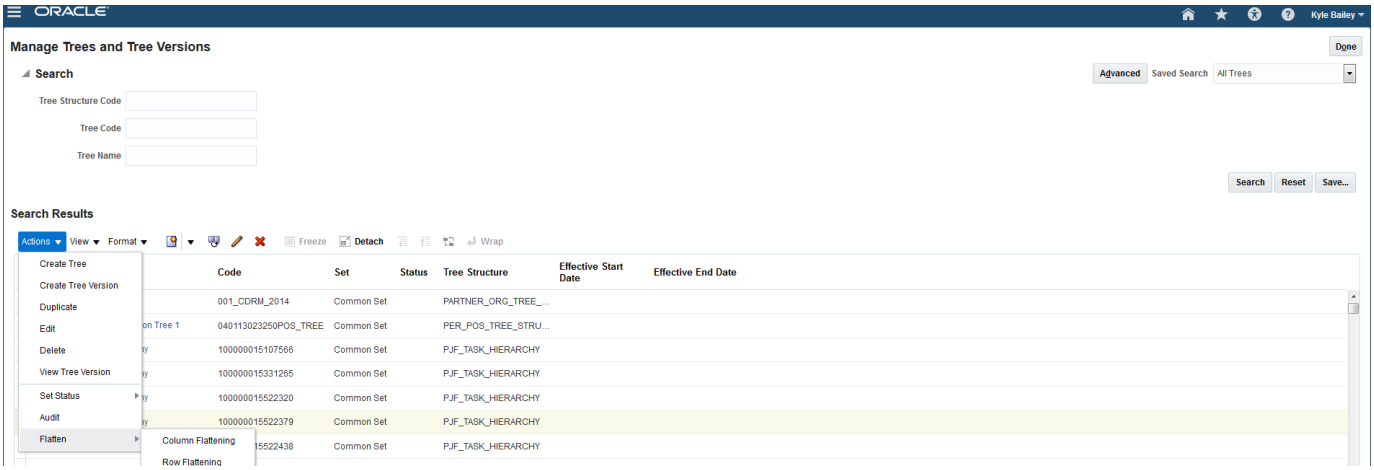
Step 5: Run the column flattening for any of the tree based segments*

(* This step is not necessary for Fixed Asset segments)

This step is needed to ensure that each value set for an accounting segment that you plan to leverage for OTBI reporting is configured with a data hierarchy using tree structures.

i. For the tree version, execute the column flattening process in 'Force' mode to make sure the values are populated in the individual segments. To do this,
   a. On the 'Set Up and Maintenance' page enter 'Manage Trees' in the Search field
   b. Click on 'Manage Trees and Tree Versions' task link (see screen shot below)
   c. Select the tree version for flattening. Click on Action drop down and select 'Flatten' (see screen shot)
   d. In the next screen , select 'Force Flattening' from drop down menu. (see screen shot)





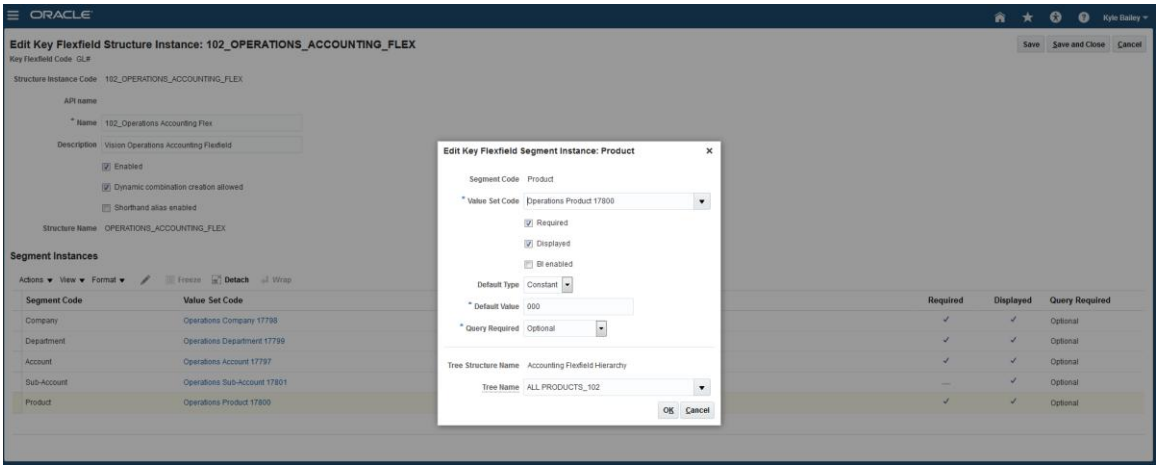
IV. Ensure that the tree structure is assigned to the Key flexfield segment

a. To do this, from the '**Manage Key Flexfields'** page, click on 'Manage Structure Instances' as done before.

b. Click Search on the **Manage Key Flexfield Structure Instances** page.

c. Select desired Structure Name and click Edit to show the Segment Codes

d. Select desired Segment Code and click Edit (screen shot below)



In the case of GL Segments, if there is more than one COA instance with the same segments that you want to bring into OTBI, we recommend creating a tree structure and assigning it to the GL segment so that the value sets for that accounting segment are consolidated under the same BI Object Name (OTBI dimension)

Note: If you have value set values which do not participate in a tree and those values are associated with transactions, then you have to create a dummy tree to include those nodes; otherwise these particular value set values will not appear in OTBI.

Step 6: Publish the accounting segment hierarchies into Essbase cube*

(* Applicable for GL Segments only)

From your implementation project or the Setup and Maintenance page, query for Publish Account Hierarchies and select the Go to Task.

Search account hierarchies and select or deselect the **Publish** check box. This is indicator of what to include in balances cube by selecting the check box.

Select the **Publish** button to update the balances cubes.

Navigator → Scheduled Processes to monitor the process.

Step 7: Run scheduled processes

Run the following scheduled processes by navigating to Navigator → Schedule Processes

- Create Rules XML File for BI Extender Automation
- Import Oracle Fusion Data Extensions for Transactional Business Intelligence

A user should be granted the following role/privilege in order to access the BI Extender programs in the Schedule Processes window:

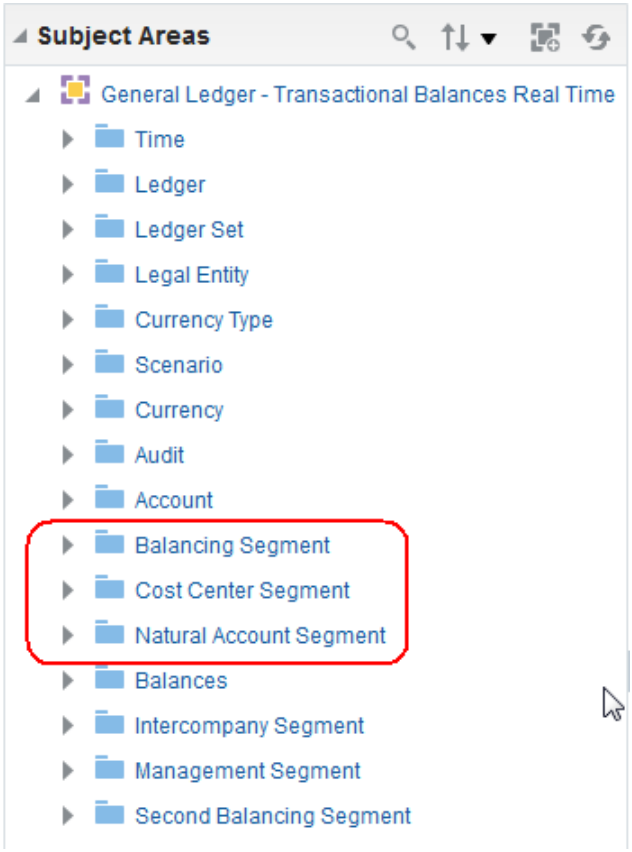
1. BI Duty Role - Oracle Fusion Transactional Business Intelligence Data Extensions Processing Duty*
2. Privilege - Process Oracle Fusion Data Extensions for Transactional Business Intelligence

*The above duty role is inherited from job role 'Application Implementation Consultant'. User should have this job role assigned to run the ESS job.

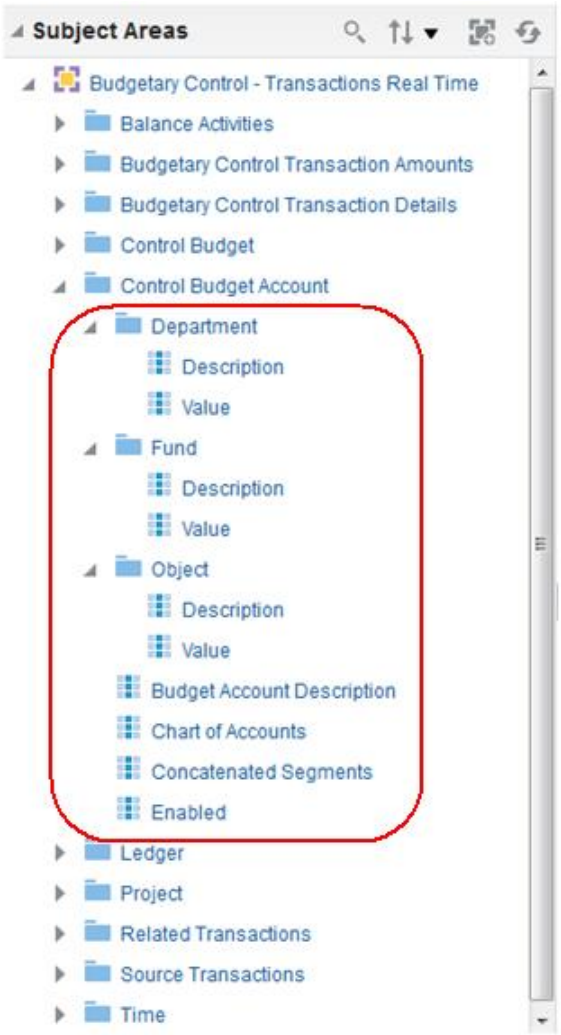
Conclusion

Once all the steps outlined above have been performed, the accounting segments that are BI enabled will be available in the OTBI subject areas for ad-hoc analyses.

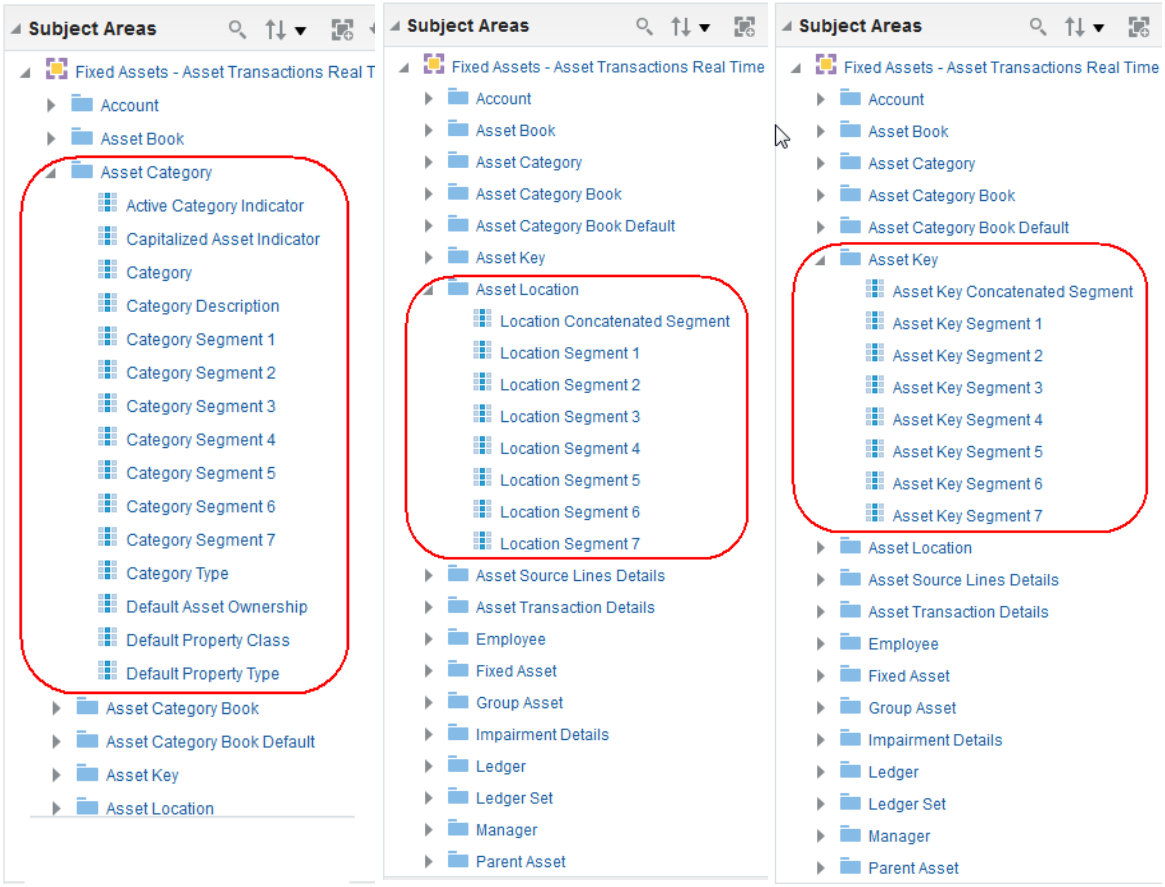
The General Ledger – Transactional Balances Real Time subject area has the three ‘mandatory’ GL segments of GL_BALANCING, FA_COST_CTR and GL_ACCOUNT mapped respectively to the accounting segments Balancing Segment , Cost Center Segment and Natural Account Segment. These appear as pre-configured dimensions in the subject area and are available out of box for reporting as shown below. The other segments that you configure using the steps delineated in this documented should similarly appear in the Subject Area.



Unlike General Ledger, the Budgetary Control area has no mandatory segments; hence there are no pre-configured dimensions out of the box under the Budgetary Control – Transactions Real Time subject area. The following screen shot shows an example of three Budgetary Control accounting segments – XCC_DEPARTMENT, XCC_FUND and XCC_OBJECT enabled for reporting in the subject area by following the mapping exercise and other configuration steps mentioned in this document. Onsite configuration of other segments should show up likewise, with meaningful folder names following the BI labels used during configuration.



Fixed Assets segments under Asset Category, Asset Location and Asset Key when configured as flexfields appear as dimension columns under the respective dimension folders, as shown in the screen shot below



Frequently Asked Questions

1. What OTBI subject areas will have these newly configured segments?

GL Segments will be available in the following Applications and Subject Areas:

Application	OTBI Subject Areas
Financials	General Ledger - Journals Real Time General Ledger - Transactional Balances Real Time Payables Invoices - Prepayment Applications Real Time Payables Invoices - Transactions Real Time Payables Invoices - Trial Balance Real Time Payables Payments - Disbursements Real Time Receivables - Adjustments Real Time Receivables - Bills Receivable Real Time Receivables - Credit Memo Applications Real Time Receivables - Miscellaneous Receipts Real Time Receivables - Receipts Details Real Time Receivables - Revenue Adjustments Real Time Receivables - Standard Receipts Application Details Real Time Receivables - Transactions Real Time
Procurement	Procurement - Purchasing Real Time Procurement - Spend Real Time
Projects	Project Costing - Actual Costs Real Time Project Billing - Revenue Real Time

Budgetary Control segments will be available in the following subject area:

Application	OTBI Subject Areas
Financials	Budgetary Control - Transactions Real Time

Fixed Assets segments will be available in the following subject areas:

Application	OTBI Subject Areas	
Financials	Asset Category segments	Fixed Assets – Asset Depreciation Real Time.Asset Category Fixed Assets – Asset Transactions Real Time. Asset Category
	Asset Location segments	Fixed Assets – Asset Depreciation Real Time. Asset Location Fixed Assets – Asset Transactions Real Time. Asset Location
	Asset Key segments	Fixed Assets – Asset Depreciation Real Time.Asset Key Fixed Assets – Asset Transactions Real Time. Asset Key

2. When does one use GL Balances Real Time subject area and when does one use GL Transaction Balances Real Time subject area?

   If Essbase cube is setup and configured and the scheduled process to map to Essbase cube has been run, GL Balances Real Time is the better option.

   - GL Balances Real Time subject area is mapped to Essbase cube, which contains the GL balance leaf level + pre-aggregated rollup of balances along all the segment hierarchies. If Essbase is setup and the necessary configuration steps are complete, this subject area is preferable for GL balances because of better aggregate performance and support for hierarchical drilldown.
   - GL Balances Transactions Real Time subject area is based on relational tables showing leaf level balance. So it will show data even if the configuration and mapping to Essbase cube is not done. Also, while creating cross subject area reports between GL Balance and GL Journals, this subject area might be better suited since it is based on RDBMS tables.

3. How does OTBI support single COA structure and multiple structure instances? i.e. Consider a scenario where you have two or more ledgers with separate chart of account segments. What to do if a segment from COA1 and another segment from COA2 need to be mapped to the same BI Object name?

   - The mapping is always between a segment label and BI object. One BI Object (Dim - GL SegmentX) can be mapped to one and only one segment label
   - The solution for the above scenario is to ensure the same segment label is assigned to both COA1 and COA2 segments
   - Next, assign the BI Object name to this single segment label

4. When I create an ad-hoc report using a configured segment, I see that the metric amounts are multiplied, i.e., either double counted, triple counted etc

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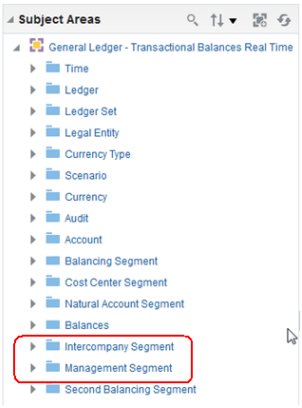
   - Ensure that tree filters for all the segments being pulled in the query are added as filters in the report

Troubleshooting Tips

1. How do I know if the configuration of GL/ Budgetary Control segments for OTBI was successful?

   Navigate to Reports and Analytics and create a new ad-hoc report using one of the subject areas mentioned in the Frequently Asked Questions



Ensure the desired GL segments are available. Select the desired dimension attributes and generate a report. If the report query returns the desired values, then the configuration of accounting segments was successful.

2. I see the desired accounting segments when I create a new OTBI subject area in Answers. However, I get an error message while generating an Answers query

   - If there is only a single chart of account structure instance, check to ensure the tree structure is assigned to the GL segment as outlined above
   - If there is more than one chart of account instance, ensure that there is at least one data hierarchy set up using the tree structure. In addition, ensure that the segment label is assigned to the different COA segments, as outlined above in the FAQ. Next, deploy the flex field and run the scheduled processes outlined in Steps 5 and 6

3. I see an error message when I run the schedule processes. What could be the reason?

   - Create Rules XML File for BI Extender Automation
   - Import Oracle Fusion Data Extensions for Transactional Business Intelligence

   Ensure that you run the schedule process ‘Publish Account Hierarchies’. This needs to be run before running the two processes ‘Create Rules XML File for BI Extender Automation’ and ‘Import Oracle Fusion Data Extensions for Transactional Business Intelligence’

4. I added a new value to a value set associated with a GL segment. However, I don’t see this value in the ad-hoc reports generated with OTBI. What could be the problem?

   The problem could be because this node is not tied to the tree structure. Re-run the hierarchy flattening process
   - Go to Navigator-> Setup and maintenance
   - Search for "Manage%Account%Hierarchies%
   - Pick the desired hierarchy and then click on Action -> Flattening -> Column Flattening (Note: column flattening needs to be run in ‘Force’ mode)
   - Re-run the report after completing the above steps

Additional References

- Oracle® Fusion Applications Financials Implementation Guide
  - https://docs.oracle.com/cd/E38454_01/fusionapps.1117/e20375.pdf
- Oracle® Fusion Transactional Business Intelligence - Administrator's Guide
  - https://docs.oracle.com/cloud/latest/common/OATBI/toc.htm
- Reporting Tools in Oracle Fusion Financials
  - http://www.oracle.com/us/products/applications/fusion/financials/oracle-fusion-financials-1939055.pdf

Oracle Corporation, World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065, USA

Worldwide Inquiries
Phone: +1.650.506.7000
Fax: +1.650.506.7200

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