

Tips for Using Oracle Transactional Business Intelligence Reporting with Project Portfolio Management (PPM) Cloud

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Purpose

The purpose of this White Paper is to share tips and techniques by answering frequently asked questions and make OTBI report authoring more efficient. The document is aimed at any role in a customer or partner organization chartered to develop OTBI reports in Oracle Project Portfolio Management (PPM) Cloud.

Introduction

Oracle Transactional Business Intelligence (OTBI) is an easy to use analysis tool that helps you to gain real time insight into transactional data, understand data pattern and to be alerted of key events and data anomalies.

The following FAQ's have been compiled based on commonly encountered issues reported by Oracle PPM Cloud customers to the Oracle OTBI Product Development teams. They should not be seen by any means as exhaustive nor do they serve as alternative to product documentation. This is a living document and is expected to be updated with even more tips as more such feedback is received.

Frequently Asked Questions & Troubleshooting Tips

1. I see all amounts appearing as Nulls in my report, what could be the reason?

This happens when the currency preference has not been changed to Project or Ledger. Change the currency preference to Project or Ledger under currency preferences in 'My Accounts'.

2. I see that rows get filtered from reports when I add some attributes of the Task Hierarchy levels, why is that?

This is probably related to the Task Hierarchy refresh issue. It occurs when the column flattened table (pjf_proj_elements_cf) is not in sync with the base task table (pjf_proj_elements_b). There is an ESS process called 'Denormalize Task Structure Hierarchies for Business Intelligence' in the Fusion Applications that populates the data in this table. This process needs to be run for those projects that have this issue.

3. How can I report on all the tasks for a Project?

- To create a report that includes multiple subject areas, ensure common (conformed) dimension (for example: Time, Project and Task) attributes are included in the report.
- When a report has only attributes from multiple dimensions (for example Project and Task), then the report server uses a default metric to resolve that query. Hence it will only return rows with dimension combinations which exists in the table which has the metrics with its corresponding dimensions. For example, if a report is created with Project Name and Task Name from the 'Project Costing – Actual Costs Real time' Subject area, then only the rows with the distinct project and task combinations in the Cost Distributions table will be returned.

4. Why is the Employee name appearing null in my reports?

This issue manifests when the correct roles have not been granted to the user. The Fusion PPM Administrator can follow these steps to grant the correct roles –

- Log on to Fusion App as a user with the IT Security Manager role
- From FSM, launch the "Manage Data Role and Security Profiles" task
- Search for the user role (For example Project Accountant, Project Manager)
- Select the role in search results and press the "Edit" button
- Select "View All People" or "View All Workers" when prompted for a Public Person security profile
- Press the "Review" button and then the "Submit" button
- This will generate the required data for the role that should allow the user to report on employee names.

5. How do I query across multiple Subject Areas?

- Reports can be created that span multiple subject areas provided that the dimension attributes that are selected are common in all the subject areas (e.g., time, project, and task).
- For more information, refer to the white paper on Oracle Support : [Guidelines for creating cross subject area reports in Oracle Transactional BI \(OTBI\)](#) [ID 1567672.1]

6. How do I examine the report SQL?

Follow these instructions to view the contents of the query log file (Nquery.log) and the generated SQL.

- Click Settings > Administration > Manage Sessions > View Log to view the query log and examine the Physical SQL generated by the request.

Note: To be able to access this functionality, the user must have these privileges - Access to Administration and Manage Session

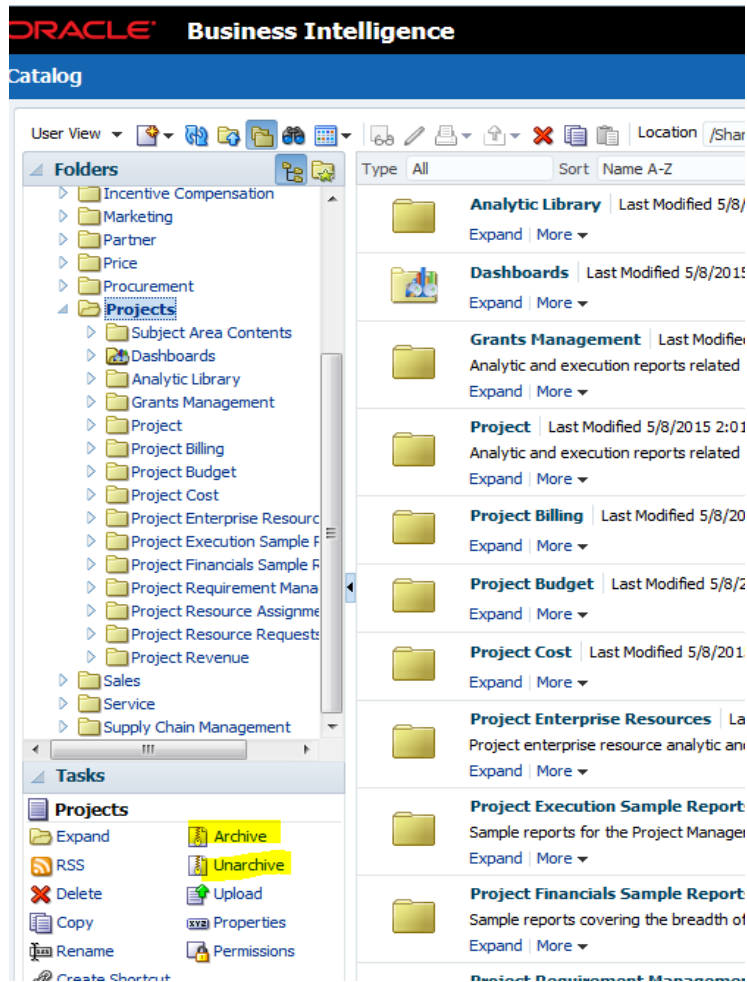
7. Why am I seeing different dates in Answers versus data in database?

- OBIEE supports different timezone settings in Answers. It is called a *timezone* offset.
- Time Zone can be viewed as follows - OBI Presentation Services > Settings > My Account > Time Zone Preferences, then edit the Report Time Zone.
- Users can find the application database timezone from their Admin and if they want they can change to that timezone via the user settings. That way they have flexibility to see data in local timezone or the central database's timezone.
- For more information refer to [Chapter 14: Configuring Time Zones](#).

8. How do I archive Custom Reports before an Upgrade?


- Custom reports that are saved in the My Folders or Shared Folders -> Custom folders in your reports catalog will **not** be overwritten during an upgrade. Any of the reports in the Shared folders, except those saved in the Shared > Custom folder, may be overwritten during an upgrade. To preserve custom reports that you did not save in the Custom folder you can do the following:

- Create an archive file for an individual report or for all of the reports in a folder in your BI catalog, save the archived file to a location on your local system, upload the file to your Oracle PPM Cloud environment after the upgrade.
 - Sample screenshot -



To create an archive file:

1. Go to Navigator > Reports and Analytics.
2. Click the Browse Catalog icon in the Contents area on the left. This opens the Oracle BI Catalog.
3. Select the folder or report that you want to archive in the Folder section.
4. Select Archive in the Tasks section below the folders.
5. Specify if you want to keep permissions or timestamps for the folder or report. For more information about these options, click the question mark on the Archive dialog box.
6. Click OK.
7. Save the archived file to your local machine.



To upload an archive file:

1. Go to Navigator > Reports and Analytics.
2. Click the Browse Catalog icon in the Contents area on the left. This opens the Oracle BI Catalog.
3. Select the folder (location) where you want to upload the archive.
4. Select Unarchive in the Tasks section below the folders.
5. Enter the name of the archive file or browse for the archive file. Select the archive file.
6. Specify your Replace and Access Control Lists (ACL) options for the archived folder or report. For more information about these options, click the question mark on the Unarchive dialog box. Click OK.

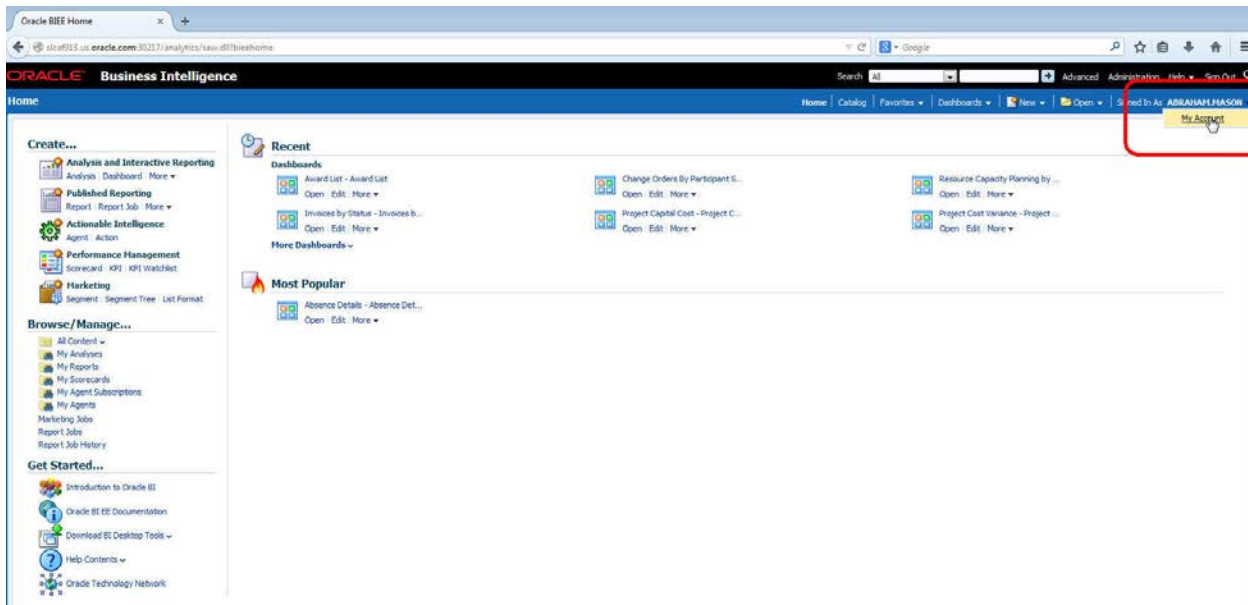
9. Can I get a technical overview of OTBI Rpd and Webcat?

There is an OBIEE repository file called the .RPD file that stores all the information including the metadata associated with Oracle Cloud OTBI. It contains the connectivity information between the BI server and various data sources, details of Physical Data, Business Models & Mappings and Presentation structures that are available for users to build their analyses (answers as it is called in OBIEE). For more info, refer to [Fusion BI RPD and Webcat Overview](#).

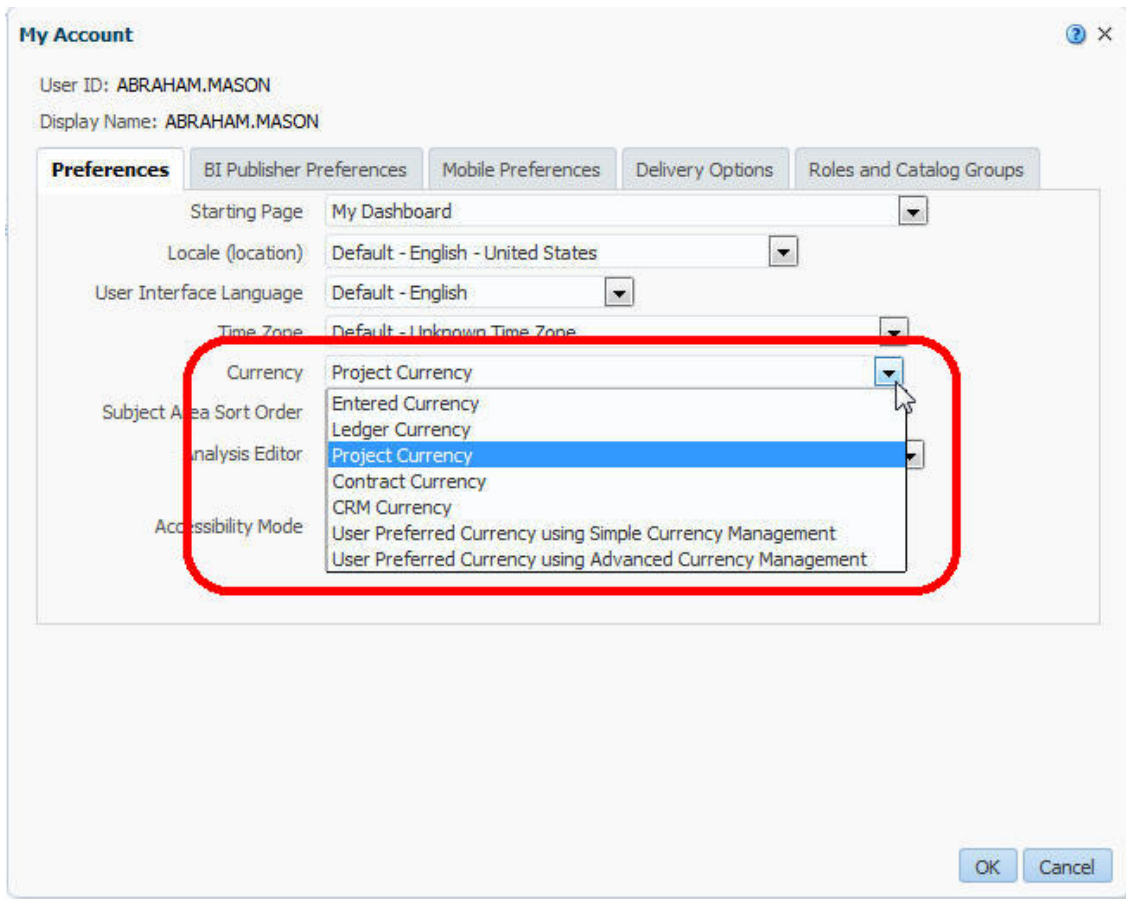
Currency Support

Oracle Transactional Business Intelligence (OTBI), allows you to view Amount metrics in multiple currencies. PPM OTBI supports Project/Ledger/Entered/Contract currency. To choose the preferred currency you have to follow following steps:

1. Connect to OBIEE analytics page.
2. Click on the down arrow besides the user name to go to My Accounts.



3. Click on drop down arrow to select the preferred Currency.



4. Click on ok to save the settings. Now when you create reports, the amounts would be in the chosen preferred currency which can be changed as required. If for some reason you see project reports showing null amounts for all the rows then check the preferred currency setting.

Performance Tips

It has been observed by Oracle Performance team that the performance issues are often caused by the following three main reasons:

1. Report query resulted in large complicated backend query which causes processing time to increase
2. Inefficient backend execution plan due to complicated join and filtering predicate
3. Large amount of data being processed

In general, the following guideline should be followed to avoid unexpected performance problem.

- Specify filters that customer should have for every report created from this subject area. Filters will be based on indexed columns which should significantly reduce the size of the data being processed –For example filter on a Project Name/Number or a Date range or a BU.

For example, good report performance is observed when there is a filter on Project Name or Project Number.

- Reports generally should be detail transaction list type of reports. Avoid summary type of reports which requires processing large data set.
- Try to build OTBI report with a few columns and appropriate filters to begin with to ensure the report performs, and then gradually add additional columns from facts or dimensions.

Descriptive Flex Field Support

Descriptive Flex Field (DFF) provides a way mechanism to add custom attributes to entities, define validation and display the attribute's properties. A descriptive flexfield is a logical grouping of attributes (segments) that are mapped to a set of extension columns which are shipped as part of Oracle Fusion Application tables. Out of the box OTBI PPM ships with many flexfields.

To enable DFFs extensions in Fusion Applications SaaS environment, refer to the following documents on Oracle Support.

Note: You do not need to run BI Extender again.

- [How To Expose Descriptive Flexfields In Relevant OTBI Subject Areas After They Have Been Configured In Fusion Applications \(Doc ID 1478273.1\)](#)
- [Fusion Applications Business Intelligence - List of Descriptive Flex Field Mappings \(Doc ID 1509316.1\)](#)

The DFF columns are exposed in various subject areas. The following table shows the folder and subject areas where the DFF attributes can be found:

- PER_ORGANIZATION_UNIT_DFF
- PJF_PROJECTS_DESC_FLEX
- PJC_EXP_ITEMS_DESC_FLEX
- PJF_EXP_TYPES_DESC_FLEX ,PJB
- BILLING_EVENTS_FLEX

DFF	Subject Area	Folder
PJF_PROJECTS_DESC_FLEX	Project Billing - Funding Real Time Project Billing - Invoices Real Time Project Billing - Revenue Real Time Project Control - Budgets Real Time Project Control - Forecasts Real Time Project Costing - Actual Costs Real Time Project Costing - Commitments Real Time Project Costing - Expenditure Item Performance - Real Time Project Costing - Unprocessed Transactions Real Time Project Management - Planning Real Time Project - Resource Management Real Time Projects - Cross Subject Area Analysis - Real Time Projects - Grants Management - Award Funding Real Time Project Management - Opportunity Integration Real Time	Project

	Project Management - Project Hierarchy Real Time Project Resource Management - Resource Management Real Time Project Management - Project Resources Real Time Project Management - Project Work Items Real Time Project Management - Task Management Real Time Project Costing - Assets Real Time Projects - Grants Management - Award Analysis Real Time Project Management - Change Management Real Time Project Management - Requirements Real Time Project Control - Progress Real Time	
PJC_EXP_ITEMS_DESC_FLEX	Project Costing - Actual Costs Real Time	Expenditure Item and Cost Distribution Details
	Project Costing - Expenditure Item Performance - Real Time	Expenditure Item Details
PJF_EXP_TYPES_DESC_FLEX	Project Billing - Invoices Real Time Project Costing - Actual Costs Real Time Project Costing - Commitments Real Time Project Costing - Expenditure Item Performance - Real Time Project Costing - Unprocessed Transactions Real Time Project Costing - Assets Real Time	Expenditure Type
PJB_BILLING_EVENTS_FLEX	Not supported in R11, supported from R12 Onwards	
PER_ORGANIZATION_UNIT_DFF	Not supported in Project Subject areas.	

Security Overview

PPM OTBI reporting metadata is organized into functional subject areas. The subject areas consist of folders that contain metrics/attributes, and each of the metrics/attributes are secured by OTBI Application Roles. Fusion Application Job Roles are mapped to OTBI Application Duty Roles. The roles ensure that a Fusion Application user logging into the application has access to the subject areas based on their business function. For example, a Project Billing Specialist will only see the subject area Project Billing – Invoices Real Time.

The data that the user sees is dependent on the Fusion Application Job roles that they have been assigned. The Fusion Application Job roles also inherit roles for data level security which defines what data the user sees in the OTBI report. For example, a Project Accountant will be able to see the cost data for the expenditure organization he/she is responsible for.

The table below lists the subject area and the corresponding Business Intelligence Role that is used to secure the subject area:

Subject Area	Business Intelligence Application Role	Additional Information
Project Billing – Funding Real Time	Project Contract Invoice Transaction Analysis Duty Project Contract Revenue Transaction Analysis Duty	
Project Billing – Invoices Real Time	Project Contract Invoice Transaction Analysis Duty Grants Management Transaction Analysis Duty	
Project Billing – Revenue Real Time	Project Contract Revenue Transaction Analysis Duty Grants Management Transaction Analysis Duty	The folders Award, Primary Sponsor, Institution within this subject area are only visible if the user has the Grants Management Transaction Analysis Duty role.
Project Control – Budgets Real Time	Project Budget Transaction Analysis Duty Grants Management Transaction Analysis Duty	The folders Award, Primary Sponsor, Institution within this subject area are only visible if the user has the Grants Management Transaction Analysis Duty role.
Project Control – Forecasts Real Time	Project Budget Transaction Analysis Duty	
Project Control - Progress Real Time	Project Progress Transaction Analysis Duty	
Project Costing – Actual Costs Real Time	Project Costing Transaction Analysis Duty Project Journals Transaction Analysis Duty Grants Management Transaction Analysis Duty	The folders Award, Primary Sponsor, Institution within this subject area are only visible if the user has the Grants Management Transaction Analysis Duty role.
Project Costing – Assets Real Time	Project Costing Transaction Analysis Duty	

	Project Journals Transaction Analysis Duty	
Project Costing – Commitments Real Time	Project Costing Transaction Analysis Duty Grants Management Transaction Analysis Duty	The folders Award, Primary Sponsor, Institution within this subject area are only visible if the user has the Grants Management Transaction Analysis Duty role.
Project Costing – Expenditure Item Performance – Real Time	Project Costing Transaction Analysis Duty Project Journals Transaction Analysis Duty	
Project Management - Change Management Real Time	Project Change Management Transaction Analysis Duty	
Project Management – Opportunity Integration Real Time	Project Planning Transaction Analysis Duty	Data shown is for projects for which the logged in user is the project manager.
Project Management – Project Hierarchy Real Time	Project Hierarchy Transaction Analysis Duty	No Data Security. If the user has access to subject area, all data would be visible by the user.
Project Management – Project Resources Real Time	Project Planning Transaction Analysis Duty	Data shown is for projects for which the logged in user is the project manager.
Project Management – Project Work Items Real Time	Project Work Items Transaction Analysis Duty	Data shown is for projects for which the logged in user is the project manager.
Project Management - Requirements Real Time	Project Requirements Transaction Analysis Duty	
Project Management – Task Management Real Time	Task Management Transaction Analysis Duty	
Project Resource Management - Resource Management Real Time	Project Resource Management Transaction Analysis Duty	No Data Security. If the user has access to subject area, all data would be visible by the user.
Projects - Cross Subject Area Analysis - Real Time	Project Budget Transaction Analysis Duty	



	Project Contract Invoice Transaction Analysis Duty Project Contract Revenue Transaction Analysis Duty Project Costing Transaction Analysis Duty Project Foundation Transaction Analysis Duty Grants Management Transaction Analysis Duty	
Projects - Grants Management - Award Analysis Real Time	Grants Management Transaction Analysis Duty	
Projects - Grants Management - Award Funding Real Time	Grants Management Funding Analysis Duty	

The table below lists the mapping of Business Intelligence Application Role to Fusion Applications Job Role:

BI Application Role	Fusion Application Job Roles
Grants Management Funding Analysis Duty	Principal Investigator Grants Accountant
Grants Management Transaction Analysis Duty	Principal Investigator Grants Administrator Grants Accountant
Project Budget Transaction Analysis Duty	Project Manager Project Administrator Project Accountant Principal Investigator Grants Administrator Grants Accountant

Project Change Management Transaction Analysis Duty	Project Execution Team Collaborator
Project Contract Invoice Transaction Analysis Duty	Project Manager Project Billing Specialist Project Accountant Principal Investigator Grants Administrator Grants Accountant
Project Contract Revenue Transaction Analysis Duty	Project Manager Project Administrator Project Accountant Principal Investigator Grants Administrator Grants Accountant
Project Costing Transaction Analysis Duty	Project Manager Project Administrator Project Accountant Principal Investigator Grants Administrator Grants Accountant
Project Foundation Transaction Analysis Duty	Project Manager Project Administrator Project Accountant Principal Investigator Grants Administrator Grants Accountant
Project Hierarchy Transaction Analysis Duty	Project Executive
Project Journals Transaction Analysis Duty	Project Accountant Grants Accountant
Project Planning Transaction Analysis Duty	Project Execution
Project Progress Transaction Analysis Duty	Project Manager

	Project Administrator Principal Investigator Grants Administrator Team Collaborator
Project Requirements Transaction Analysis Duty	Project Manager
Project Resource Management Transaction Analysis Duty	Resource Manager
Project Work Items Transaction Analysis Duty	Project Execution
Task Management Transaction Analysis Duty	Team Collaborator

Reference Links

- [Getting Started With BI in Fusion Applications](#)
- [Fusion BI RPD and Webcat Overview](#)
- [Creating Cross-Subject Area Reports using BI Answers](#)
- White paper on [Customer Connect](#): OTBI Reporting: How to Leverage OBIEE Action Framework (Drill) as an alternative to Cross Subject Area Queries
- [Controlling Business Intelligence \(BI\) Authoring and Folder Permissions](#)
- Oracle Transactional Business Intelligence Administrator Guide.
- Oracle Project Portfolio Management Cloud Reporting Guide







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