OBIEE

Oracle Business Intelligence

Enterprise Edition



Rensselaer Business Intelligence Finance Author Training

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INTRODUCTION

Oracle Business Intelligence Enterprise Edition (OBIEE) is a web-based Business Intelligence tool that provides a full range of reporting and analytics capabilities that allow you to:

- Collect up-to-date data from your organization
- Present the data in easy-to-understand formats
- Deliver data in a timely fashion

These capabilities enable better decisions, informed actions, and the ability to implement more-efficient business processes.

There are two different user roles:

- Consumer: Utilize published reports to view and analyze data. Select from predefined prompts (drop down lists) to specify timeframe and data required.
- Author: Utilize published reports to view and analyze data. Ability to create custom, ad-hoc reports and publish the reports for consumers and authors.

USER INTERFACE

- Web-based application
- Works from all browsers (IE, Chrome, Firefox, Safari)
- Allow pop-ups from rpi.edu

HOW TO LAUNCH OBIEE

- Web Application (no installation or special setup required)
- URL: https://obiee.server.rpi.edu/analytics/
- Sign In (RCS User ID and RCS password)

Sign	In
orgri	

Enter your user id and password.
User ID
Password
Sign In

TERMINOLOGY

- **Dashboard:** An object that provides personalized views of corporate and external information. A dashboard consists of one or more pages. Pages can display anything that you can access or open with a Web browser, such as results of analyses, images, alerts from agents, and so on.
- **Analysis:** A query that a user creates on the Criteria tab in Presentation Services. An analysis can optionally contain one or more filters or selection steps to restrict the results.
- **Prompt:** A type of filter that enables the content designer to build and specify data values or the end user to choose specific data values to provide a result sets for an individual analysis or multiple analyses included on a dashboard or dashboard page. A prompt expands or refines existing dashboard and analysis filters.
- **Subject Area:** In an Oracle BI repository, an object in the Presentation layer that organizes and presents data about a business model. It is the highest-level object in the Presentation layer and represents the view of the data that users see in Presentation Services. Oracle BI repository subject areas contain presentation tables, presentation columns, and presentation hierarchies.
- **Fact table:** In an Oracle BI repository, a logical table in the Business Model and Mapping layer that contains measures and has complex join relationships with dimension tables.
 - **Aggregated:** A table that stores precomputed results from measures that have been aggregated over a set of dimensional attributes. Each aggregate table column contains data at a given set of levels. For example, a monthly sales table might contain a precomputed sum of the revenue for each product in each store during each month. Using aggregate tables optimizes performance.
- **Dimension:** A hierarchical organization of logical columns (attributes). One or more logical dimension tables might be associated with at most one dimension.
- **Dimension table:** A logical table that contains columns used by a particular dimension. A dimension table cannot be a fact table.
- **Nightly refresh:** Process where data from source tables (i.e. Banner) is transformed and put into the Data Warehouse database. The data is refreshed every evening.

HOW TO NAVIGATE

• Will open to this Home page, select Catalog



• Will open a standard file explorer view

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TOOLS AND MENUS

Prompts (drop down lists)

- Select one or more values from the drop-down list or
- Type directly into the drop-down box or
- Search for something specific (at the bottom of the drop down list is a search box)
- Select Apply (this will process the report based on what you selected in the prompts)

Page Options



Print and Export

- Dashboard (will print or export entire dashboard, all pages)
- Page (will print or export the current page you are on)
- Report (will print or export only the report section you have selected)
- Print
 - o Printable PDF
 - Printable HTML (includes more options for resizing, headers and footers)
- Export
 - o PDF
 - Excel 2007+ (formatted data, totals are static)
 - PowerPoint 2007+
 - Web Archive (.mht)
 - o Data
 - CSV Format (raw, unformatted data, no totals)
 - Tab delimited Format
 - XML Format

Rows Visible (how to view all rows of data)

• By default, only a certain number of rows will be visible. If there are additional rows available, you will see the arrows below. Just select the double arrow to view all rows of data.



Drill to Detail

• If a field in a report is blue, there is additional detail available. Just click on the field and a new browser window will open.

Add Column

- Right click on a column name, select Include Column, then select from the available columns
- Or from compound layout view, drag column into table

Move Column

- Hover cursor over a column name until you see the double arrow cross icon <
- Then left click to select and drag column below the column name until you see a highlighted area where you want to insert it
- Or from compound layout view, drag column until you see the highlighted area where you want to insert it

Remove Column

- Right click on a column name, select Exclude Column
- Or from compound layout view, select the more options icon to the right of the column name, then select remove column

Hide/Unhide Sections

• Select the down arrow at the top left of the section to hide

Summary by Org & Fund

• Select the right arrow at the top left of the section to unhide

Summary by Org & Fund

Save Current Customization

• From the Page Options menu (upper right), select "Save Current Customizations..."



- Then add a meaningful name
- To apply this customization to this dashboard each time you open it, select "Make this my default for this page"



Clear Customization

• From the Page Options menu (upper right), select "Clear My Customization"



Open Custom report

- To view reports that have been saved as customizations
- The newly created customization, plus any others you have available to you, will now be accessible from the Page Options menu
- Select "Apply Saved Customization" and select customization from the list



Subtotal

• Right click on a column name, select "Show Subtotal", then select location



• Or – from the compound layout view, select the sum icon to the right of the field and select after

Grand Total

• Right click on a column name, select "Show Row level Grand Total", or "Show Column level Grand Total", then select location



• Or – from the compound layout view, select the sum icon to the right of the field and select after

Add Pivot Table Section

- Hover cursor over a column name until you see the double arrow cross icon
- Then left click to select and drag column above the column name until you see a highlighted area named "Sections"
 - This will move the column above the report



• Or – from the compound layout view, drag the field up to the "Sections"

Add Pivot Table Prompt

- Hover cursor over a column name until you see the double arrow cross icon
- Then left click to select and drag column above the column name until you see a highlighted area named "Pivot Table Prompts"
 - This will move the column above the report as a prompt (drop-down list)

Budget Detail			
			Pivot Table Prompts
	Org Fund A	ccount Account Description	Program Level 3 Activity Document Code Document Reference Number

• Or – from the compound layout view, drag the field up to the table prompts section

CREATING AN ANALYSIS, QUICK STEPS

- From main menu, select New
- Select Analysis
- Select your Subject Area
- Save (Shared Folders, "zz Your Name", add a useful name for the report, add a useful description for your report) (*Tip: save work often*)
- Will open to Criteria Tab
 - Double click or Drag fields from Dimension and Measure folders into Selected Columns section
 - Add Filter (i.e. Fiscal Year, Org, Fund, etc.)
- Select Results tab
 - Add Pivot Table (from the New View icon)
 - Drag fields into rows
 - Drag fields to excluded section if they do not need to be visible
 - Drag fields to prompt section if needed
 - Edit properties and format as needed

CREATING AN ANALYSIS

• From main menu, select New

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Home	Home	Catalog	Favorites 🗸	Dashboards 🗸	New 🗸	눰 Open 🗸	Signed In As 📶

Select Analysis

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Select your subject area (in this example, we will use Finance OL Summary)
 Select Subject Area



• This will open the Criteria tab for a blank Analysis:

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🖂 Subject Areas 🔍 👯 📲	🕎 4i 🛗			
V 🝈 Finance OL Summary	Selected Columns			🤹 🍇 🗋
Account Activity Fiscal Period	Double click on column names in the Subject Area column's properties, formula and filters, apply sort	s pane to add them to the analysis. ing, or delete by clicking or hoverin	Once added, drag-and-drop col g over the button next to its na	umns to reorder them. Edit a me.
		Drop Columns Here	<u>.</u>	
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 Program Sponsor 	Add filters to the analysis criteria by clicking on Filt the Filter pane header. Add a saved filter by clickin	er option for the specific column in t g on add button after selecting its n	the Selected Columns pane, or l ame in the catalog pane.	by clicking on the filter button in
Measures		Add Filters Here.		
🗹 Catalog 🛛 🗞 🏑 🕅				
List All				
Shared Folders				

• Save your Analysis now. Select Save icon top right of screen.



- Tip: save your work often
- This will open to allow you to navigate to where you want to save this within OBIEE.
 - Save in:
 - Shared Folders, there will be a folder towards the bottom beginning with "zz", then just open the one with your name, add a useful name for the report, add a useful description for your report Analysis
 - Best practice, save in folder named with report type, in this case, this is an Analysis so save this in the Analysis folder
 - Name: Use a name that makes it clear what the intent of the report is. This will help the folders to stay organized and clear.
 - Description: Clearly describe the report.
 - Note: Shared Folders (My Folders are only accessible to you)

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		OK Cancel

- Expand Dimension and Measures folders
- Double click or Drag fields from dimension folders to the "Selected Columns" section (these will be your columns)
 - Account: Account Line Category
 - Fiscal Period: Fiscal Year, Fiscal Period
 - Fund: Fund, Fund Description
 - *Organization*: Org, Org Description
- Double click or Drag fields from Measures folders to the "Selected Columns" section (these will be your facts or calculated fields)
 - *Measures*: Budget Amount Sum, Expenditure Amount Sum, Transfer Amount Sum, Encumbrance Amount Sum, Available Amount Sum



- Add a Filter
 - Select the Filter Icon in the Filter Section
 - Select Fiscal Year, then 2018 (select or type)
 - o Select OK
 - Note: if you want to filter on a field that is not in your Selected Columns, just select the "Add More Options" box and you may select a field from the Subject Areas

New Filter				2 🛛
Column	Fiscal Year	12		
Operator	is equal to / is in		~	
Value	2017		×	< 🕶 💏 💌 >
	Add More Options -	Clear All		
Protec	t Filter			
Conve	rt this filter to SQL			
			ОК	Cancel

- Add a Filter directly from a selected column
 - Select the drop down icon on the right of Org
 - Select the Filter icon
 - Then, select an org or type an org

	lumns					
Double click on co	olumn na	mes	in the	Subject	Areas	pane
Account	Organia	zatio	n			
Account 🗮	📄 Org	E,	Or	g Desc	ription	Ξ.
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Add filters to the a		×	Delete	Filter	1	opti
saved filter by click	ang on a		Save C	Column		s n

- Note: if a filter is not used, the results will be processed for all data the user has permission to view for the Subject Area of the Analysis
 - If you opened results and don't want to see the data, there will be dialog in the Compound Layout: searching...to cancel, click here



Open Results tab

FundOrgSummary		Home 🛛 Catalog 🔰 Favorites 🗸 📄 Dashboards 🗸 🛛 🎦 New 🗸 🚵 Open 🖌 🛛 Signed In As	
Criteria Results	Prompts Advanced		
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Title			
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		Account Org Description Fund Fund Description Fund Home Org Description Account Org Description Fund Home Org Description Description Description Description Category	

- Views contain the objects within the Analysis
 - So far, we have a Title and a Table (data results)
- \circ $\,$ To edit, you may use the toolbars next to Views, or you may use the toolbars in the Compound Layout

Tool Icons from the Compound Layout:

🔽 Format	View Properties	Edit	× Delete
Format Container Format Container Cel Hotschaft (System) Beckground Color Vertical Alignment: Default (System) Border Position Default (System) Border Style Default (System) Border Color Midth Border Color Vidth Bight Padding Top Padding Bight Padding CK Cancel	Table Properties Image: Content paging Style Write Back Data Viewing Fixed headers with scrolling content Content paging Maximum Width Poels Maximum Height Display Folder & Column Headings With Clubers Rull Values Enable alternate styling Row styling Enable alternate styling Master-Detail Listen to Master-Detail Events Event Channels OK	Levolt Table Prompts Table Tabl	To remove from compound Layout view

Views Icons (same as Tool Icons plus the following):

Add View	New View	Uplicate View	Rename View	X Delete
To add a view to the compound layout. Select view, then the icon to move the view.	 Best Visualization Recommended Visualization for Title Table Pivot Table Performance Tile Treemap Trellis Graph Gauge Funnel Map Filters Selection Steps Other Views 	To create a copy of an existing view.		To permanently delete view from analysis, not just removed from the compound layout.

Create Pivot Table

 $\circ~$ Select the New View icon from either the top bar of the compound layout or from the Views Pane

FundOrgSummary	Home Catalog Favorites 🗸 Dashboards 🗸 🎦 New 🗸 🔤 Open 🖌 Signed In A	s
Criteria Results Prompts Advanced		- 🖬 🕐
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1 Title	Table	
Table Table	iabe 🖓 🖬 🦉 🔺	
	Account Org Description Fund Description Org Description Org	

(Select Pivot Table fro 	m the list of options
	Best Visualization	
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• This will bring you to the Layout pane for the Pivot Table

ORACLE Business Intellige	nce	Search All	~	🛃 Advanced Help 🗸 Sign Out 🖸
FundOrgSummary		Home Catalog Favorites -	Dashboards 🗸 🛛 💁 🖓 New 🗸 🛛 🔤 🕻	Open - Signed In /
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- \circ This is where you can modify the presentation of the data and organize it.
- Under Rows, move the fields around in the order you'd like to see the report by simply dragging and dropping. There will be a line highlighted where the field will drop. (Order: Fiscal Year, Org, Fund, Account Category)
- To exclude fields from the table, just drag them to the excluded section (remove activity description)
- Save, then select Done



• This will open to the Compound Layout where you will see the Title, Table, and Pivot Table views (scroll down to see the Pivot Table)

• Turn off "Display Results" while editing in compound layout view (if there are many rows of data, it's helpful to turn off display results so it does not process reports continually)

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		Display Persults
Account Line Category Fiscal Year	Fiscal Period Fund Fu	d Description Org Org Description

o Remove the Table view from the Compound Layout

zie								9	6/	3	1
und Or	rg Summary							G 8			
Account	Org Description	Fund	Fund Description	Fund Home Org	Fund Home Org Description	Account Description	Account Line Category	Activity Description	Acts	1	Remove View from Compound Layout
001	Enterprise Information Services	130000	E&G - Departmental Non-salary		Enterprise Information Services	Office Operations Supplies	NonSalary	Emerging Priorities & Necessary Act	2002	^	

- Now you will just have a Title and Pivot Table view
- o Edit Title view

Compound Layout	
Title	· · · ·
Fund Org Summary	

• Change font size, bold, and center

- Edit Pivot Table properties
 - As you can see, in order to see all columns in the pivot table, you must scroll. Select Content paging (this will auto-fit columns on the page)

Pivot Table Properties	0 🛛
Data Viewing	Fixed headers with scrolling content Content paging
	Paging Controls Bottom
	Rows per Page
Display Folder & Column Headings	Only column headings \vee
Null Values	Include rows with only Null values
	Include columns with only Null values
Row styling	📃 Enable alternate styling 💹
	Alternate Innermost Column 🗸
Master-Detail	Listen to Master-Detail Events
	Event Channels
	OK Cancel

- Save
- Add Prompt to Pivot Table
 - Edit Pivot Table
 - Drag Fiscal Period up to the Pivot Table Prompts section
 Drag/drop measures, columns and hierarchies to determine pivot table layout.

Pivot Table Prompts	
Fiscal Period	
Eiscal Period	

- Save, select Done
- You will now see a drop down list at the top of the Pivot Table view for Fiscal Period

Pivot Table				
Fiscal I	Period	01	~	_
Fiscal		01		
Year	Fund	02		Des
2017	Auxilia Servic	03		8.
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		05		
		06		
		07		
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		09		
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		11		
		12		
	1			-

- Add subtotal for Fiscal Year
 - Right click on Fiscal Year Column, select Show Subtotal, then select After Values



- o Save
- OR:
 - From the compound layout view, Edit Pivot Table
 - Select the Sum icon to the right of the fiscal year field:



- Then select "After"
- To find your Analysis:
 - Catalog, Shared Folders, folder towards the bottom beginning with "zz" then your name
 - You will see your analysis with options to Open or Edit



BROWSER SETTINGS

Pop-Up Blocker





Mozilla Firefox: Adobe Flash (Shockwave Flash) must be enabled (to view graphics like charts)

Internet Explorer, Clear Cache

(If menu in isn't visible or there is no content, in IE, the cache may need to be cleared)



CONTACT INFORMATION

If you have any questions or comments, please E-mail the data warehouse group: Email: Data Warehouse Support <u>iacs-dw-sup@lists.rpi.edu</u>

NOTES