

Challenges, Solutions, Workarounds: Making Analytics Systems Work

<https://analyticsanddatasummit.org/techcastdays/>

July 9, 2020

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Lessons Learned from Analytics Projects

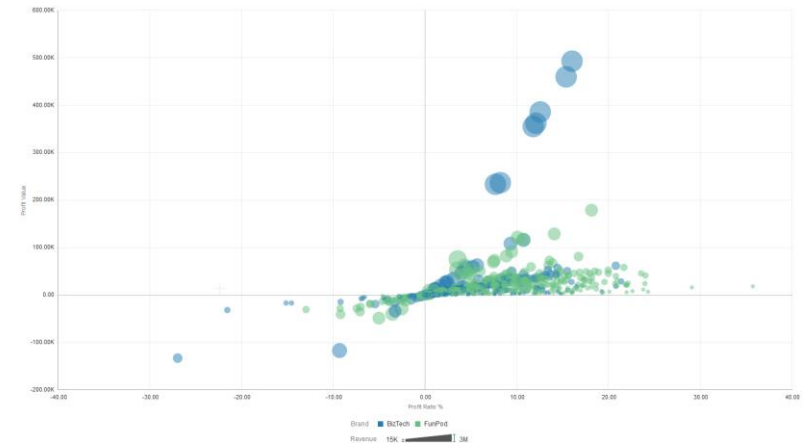
- Begin with the end in mind – don't start with data
- Involve users early on
- Listen to stakeholders, not IT
- Deliver value iteratively. It's a garden, not a building
- Focus on data quality at right phase of project
- ETL takes longer to do right than you think
- Standardize data model. Use RPD file.
- Avoiding putting all the business logic in the reporting layer.
- Train users. It's not intuitive.
- Don't just reproduce what you had before.

Best Practice Focus for Dashboards

- Best practices are objective guides for effectiveness
- Visualizations should be guided by:
 - Human cognition
 - Accurate representations of data
 - Preferred message (consciously designed)
- Visualizations should NOT be guided by:
 - Taste or what looks “good” to one person
 - Entertain users
 - A desire to “fill the white space”

Dimensional Analysis

- Order of importance for Scatter Plots
 1. Y Axis typically has the “response variable”, i.e. highest interest
 2. X axis has the “independent variable”.
 3. Color (can be categorical or numeric)
 4. Size
 5. Trellis by category
 6. Shape
 7. Filters
- Use logarithmic scale for “long tail” distributions or break into two or more graphs.



BI Standards Drive Value

- Best Practice Driven
- Work best when documented and reinforced with examples
- Dashboard layout and style
 - Prompt placement
 - Prompt styles
 - Navigation
- Naming and Titles
- Graph design
- Table design
- Color palettes and assignments

About Data Sets

- Consider how you want to work with data
 - Subject area
 - Accessible to both Classic OBIEE Answers and Data Visualization
 - Repository can handle complex modeling issues
 - Most repository data additions require full Dev → Test → Prod cycle
 - No data stored, only metadata
 - High quality, high cost, high lead time
 - Data set
 - External Subject Area
 - Fast and flexible
 - Can lead to “spreadmarts”
 - Can be created from data connections, data flows, uploads, or projects

Data Set Strategies

- Similar to power users creating analyses and dashboards
- Explicit grants to other users help limit contamination
- Explicit grants can create administrative overhead
- Set reasonable limits on data set storage
- Create a “promotion” strategy

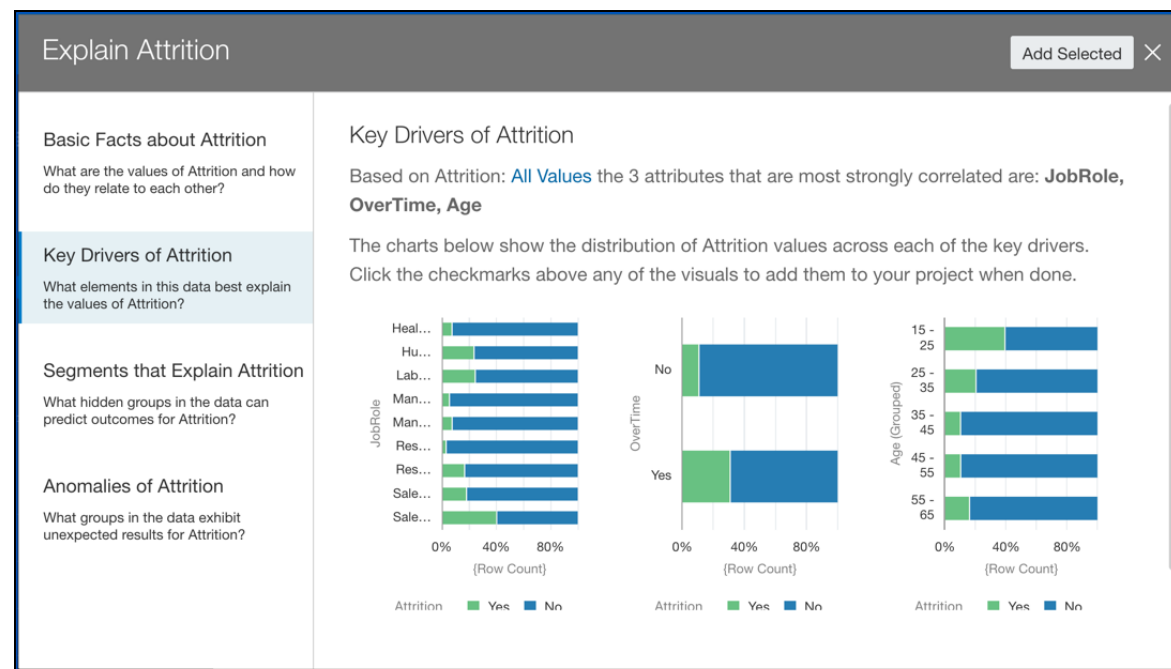
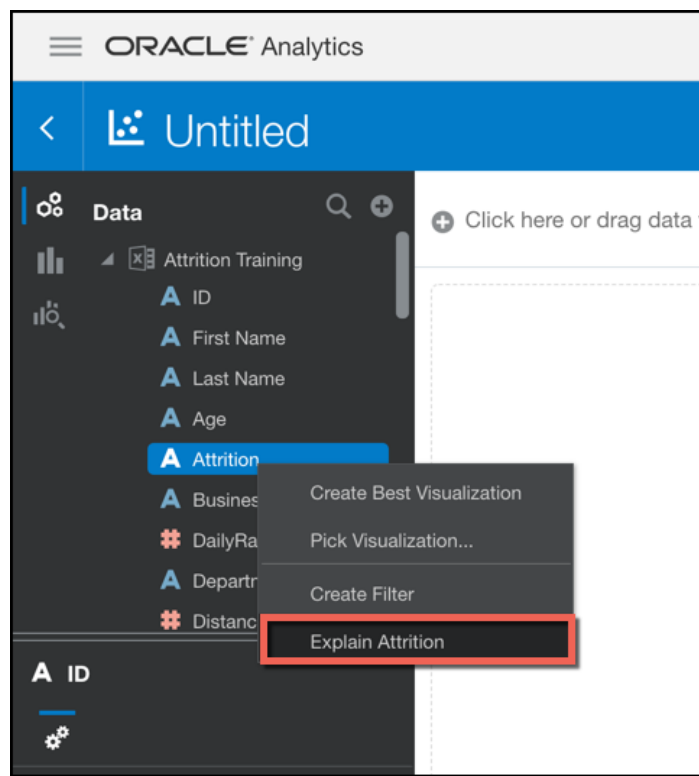
Webcasts on OAC New Features

- What's New in Oracle Analytics 5.6 and 5.7 (July 29, 2020)
 - <http://www.vlamis.com/presentations-2020#jul29>
- Autonomous Machine Learning in Oracle Analytics: Enterprise Predictive Analytics for Everyone (August 5, 2020)
 - <http://www.vlamis.com/presentations-2020#aug5>

How to Get Started

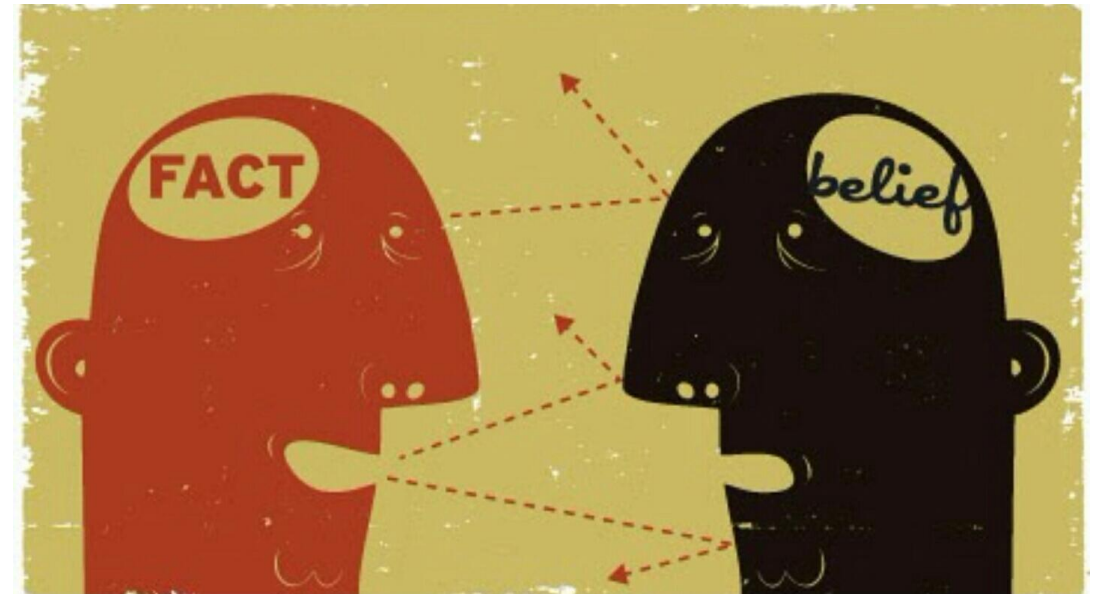
- Can experiment with OAC (r/o) at www.oracle.com/OACLive
- Udemy courses give good intro
<https://www.udemy.com/course/augmented-analytics/>
- View videos at <http://bit.ly/OACtube>
- 30-day Trial account for Oracle Cloud

Why I should use the Explain Feature?



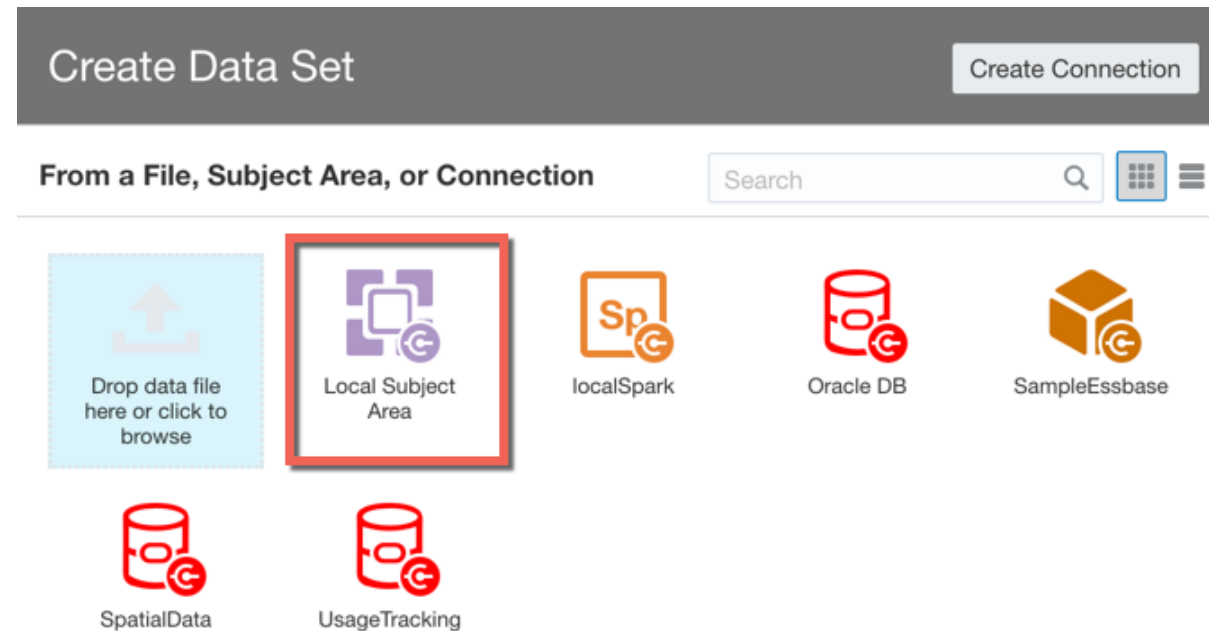
Why I should use the Explain Feature?

- Overcome the “blank canvas syndrome”
- To avoid cognitive bias
 - Who does the analysis has his/her own ideas and preconceptions about the result



How can I use the Explain Feature with Subject Areas?

- Using a Local Subject Area Connection
 - Create a Data Set based in a SA
 - Can be used into a Data Flow as a regular Data Set



Some OAC Access and Governance Questions

- Sharing content as 'view only' mode?
- User-Level visibility on data without a semantic layer?
- Monitoring & Governance of OAC Projects, Datasets and Dataflow?
- Monitor Usage of OAC?



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Useful Information

Oracle Analytics Library

<https://www.oracle.com/business-analytics/data-visualization/library-overview.html>

Run OAC Live (no signup required) and Idea Lab – OAC and OAS

<https://www.oracle.com/business-analytics/data-visualization/demos.html>

Udemy DV/OAC Free Training

<https://www.udemy.com/course/augmented-analytics/>

<https://www.udemy.com/course/machinelearning-analytics/>

Oracle Analytics Summit Online

<https://go.oracle.com/LP=91263?elqCampaignId=243450>

OAC Youtube Channel

<http://bit.ly/OACtube> Playlist on 5.7 features due soon: <http://bit.ly/OAC57Features>

Oracle Analytics Desktop

<https://www.oracle.com/solutions/business-analytics/analytics-desktop/oracle-analytics-desktop.html>

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3. Monitoring & Governance of OAC Projects, Datasets and Dataflow ?
4. Monitor Usage of OAC ?
5. ...



<http://oracledataviz.blogspot.com/>

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Sharing Projects with Share and Access tabs

Share = Consumption Options

General | **Share** | Access

All | **Users** | Roles | Add | Search By Name

Name	Edit	View
Admin	<input checked="" type="radio"/>	<input type="radio"/>
dv_author	<input type="radio"/>	<input checked="" type="radio"/>

Access = File Access Permissions

General | **Access** | Share

All | **Users** | Roles | Add | Search By Name

Name	Read-Write	Read-Only
Admin	<input checked="" type="radio"/>	<input type="radio"/>
BI Consumer	<input type="radio"/>	<input checked="" type="radio"/>

		Access	
		Read Only	Read Write
Share	View	No Save, No Save As	
	Edit	No Save Save As Enabled	Save Enabled Save As Enabled

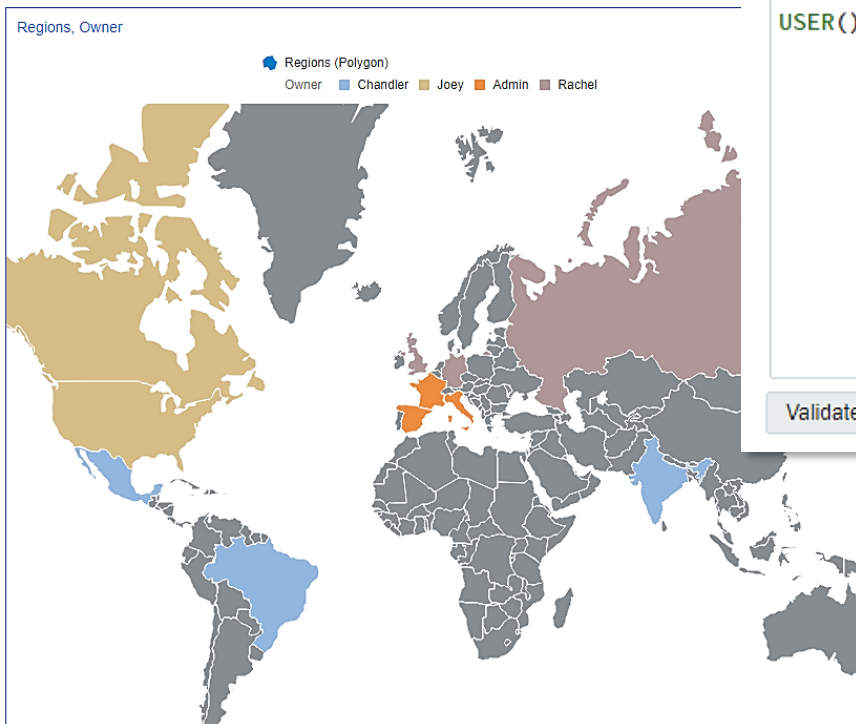
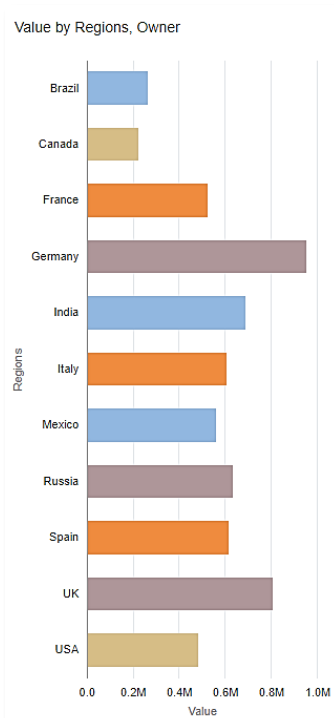
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Simple Row Level Security



New Calculation

Name USER NAME

f(x)

Search

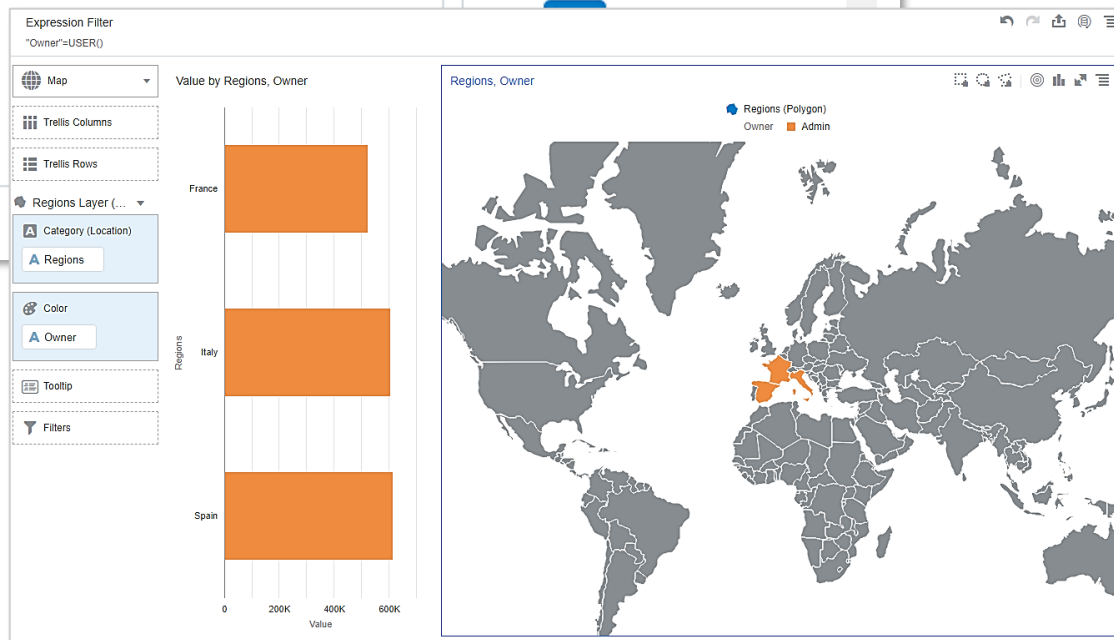
USER()

► Calendar/Date

► Conversion

▴ System

Database



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Oracle Analytics Library

Expand and enhance your DV deployment with custom extensions to further your visualization capabilities.

Download Oracle Data Visualization Desktop



Overview

Examples

Tutorials

Extensions

Geo Layers

Live Demos

Videos

Extensions

Search

sort by Last Updated

Org Chart
Oracle
July 08, 2020
Org Chart Plugin visualizes the reporting hierarchy of an organization, relationship between the entities and categorization based on color.

Download

Image Gallery Plug-in
Oracle
June 16, 2020
An interactive gallery viewer for exposing images as DV view.

Download

"Elbow" Dendrogram
G.Adashek & D.Flores
June 16, 2020
The "Elbow" Dendrogram creates a hierarchy based Parent-Child like structure with 'links-arms' that are bent at a 90° angle. This plugin can render a #measure element and is zoomable.

Download

DV Governance
Oracle
Nov 21, 2019
get an indepth analysis of your DV deployment, identity # of projects, datasources, data flows and much more. Includes DV sample

Download

www.oracle.com/business-analytics/data-visualization/extensions.html

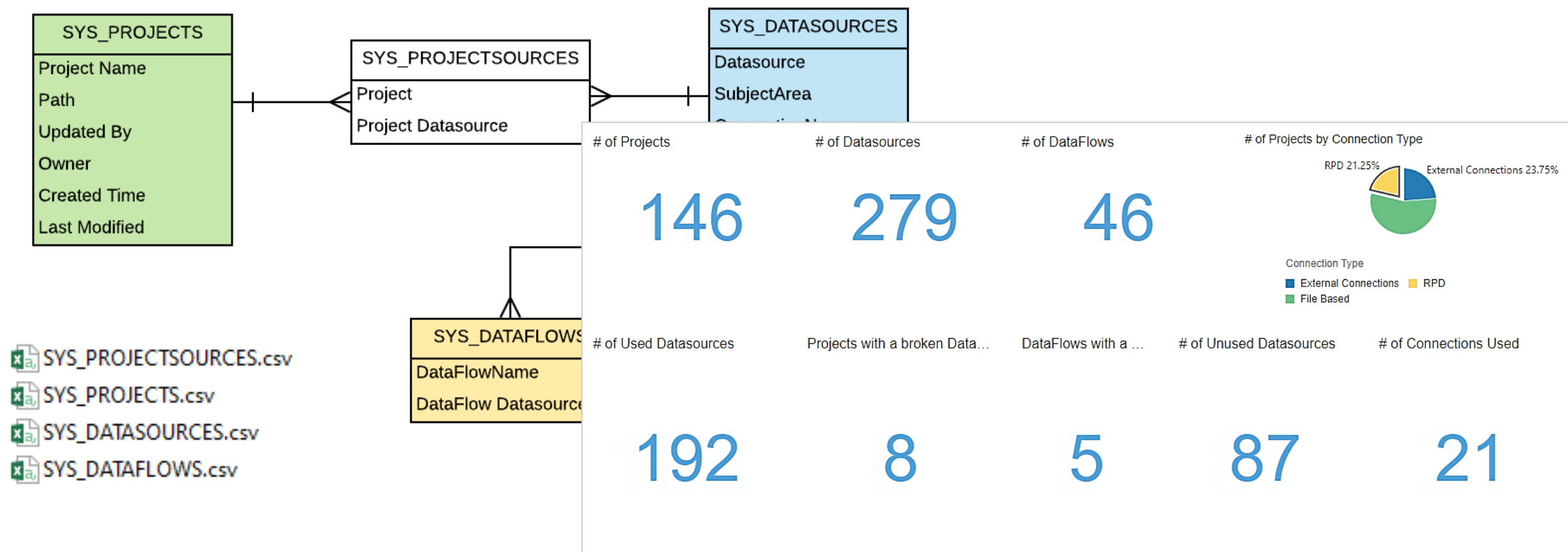
OAC Governance Plugin

The screenshot displays the Oracle Analytics Cloud (OAC) Governance Plugin interface. On the left, a dark sidebar contains a 'Visualizations' menu with icons for bar charts, text boxes, and images. Below this, 'Custom Visualizations' are listed, including Force Directed, ParetoChart Plugin, MotionChar Plugin, Variable Prompt, Butterfly Viz, and the selected Governance Plugin. At the bottom of the sidebar, the 'Governance Plugin' is highlighted with a gear icon, and fields for 'Title' (set to 'Auto') and 'Title Font' (set to 'Auto') are visible.

The main content area features a header with a search icon and a menu icon, followed by a button that says '+ Click here or drag data to add a filter'. Below this, a dropdown menu shows 'Governance Plugin' selected. The main panel displays the title 'Governance Plugin' in blue. A red note states: 'Note: If you get an unresponsive page or a browser warning, it is likely that the script is still working on gathering stats. So give it some time to process.' Below the note is a button labeled 'Gather Objects Stats'. A section titled 'Status Messages :' contains a scrollable list of messages: '-Stats gathering - Started', '-Gathering Project & Project Data Sources details - Started', '-Scanning /Users folder.', '-Completed scanning Users folder.', '-Scanning /Shared folder.', '-Completed scanning the Shared folder.', and '-Gathering Datasets & SubjectArea details - Started'.

At the bottom of the interface, a canvas bar shows 'Canvas 1' and 'Canvas 2' (the active canvas). Below the canvas bar, a file explorer shows several CSV files: 'SYS_DATAFLOWS (1).csv', 'SYS_DATASOURCE....csv', 'SYS_PROJECTSOUR....csv', and 'SYS_PROJECTS (1).csv'. A 'Show all' button and a close icon are also present.

OAC Governance Plugin



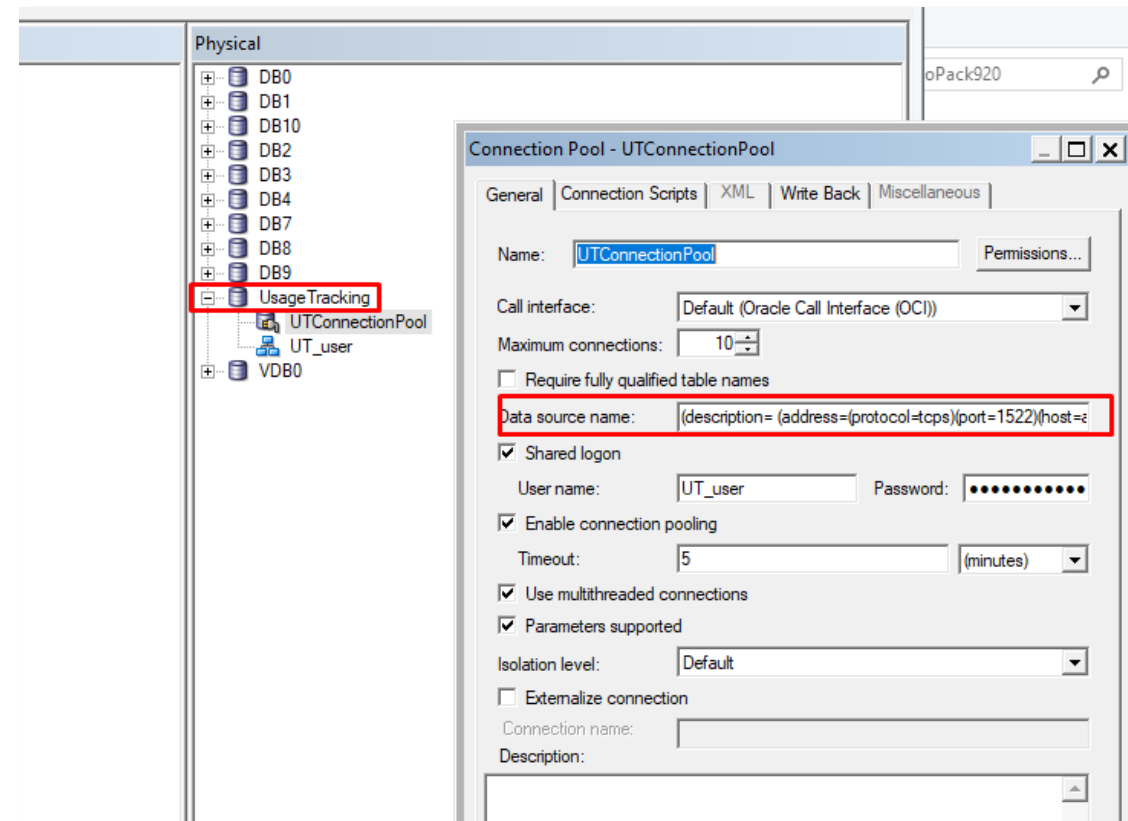
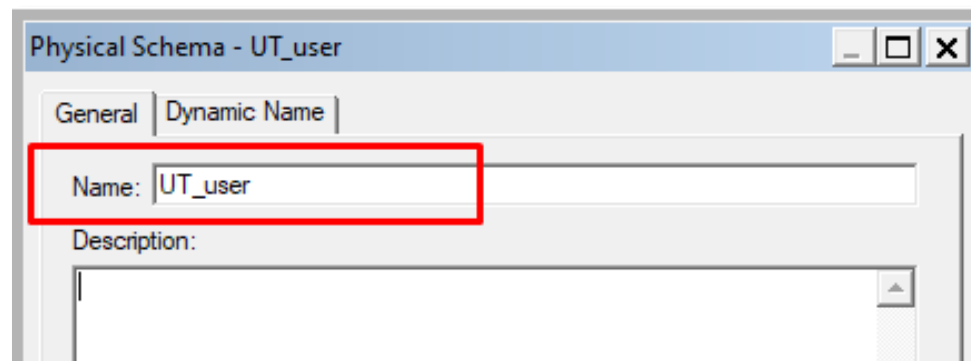
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Monitor Usage Tracking : RPD Config



Monitor Usage Tracking : System Settings entries

ORACLE System Settings

Analytic Content

Connection

Format

Other

Performance and Compatibility

Prompt

Security

Usage Tracking

View

Usage Tracking

Usage Tracking Init Block Table

<Database>.<Catalog>.<Schema>.<Table> or <Database>.<Schema>.<Table>

Usage Tracking Max Rows

0

▼ ▲

Max Number of rows in the UT table, 0 means unlimited

Usage Tracking Connection Pool

UsageTracking.UTConnectionPool

Specifies the connection pool to use for inserting records into the usage tracking table. Use <Database>.<Connection Pool> for logical and physical table.

Usage Tracking Physical Query Logging Table

UsageTracking.UT_user.PhysicalQueries

Specifies the database table to store physical query details. Format: <Database>.<Catalog>.<Schema>.<Table> or <Database>.<Schema>.<Table>

Usage Tracking Logical Query Logging Table

UsageTracking.UT_user.LogicalQueries

Specifies the database table to store logical query details. Format: <Database>.<Catalog>.<Schema>.<Table> or <Database>.<Schema>.<Table>



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Monitor Usage Tracking : Analyze

of Logical Queries

353

of Physical Queries

353

of Sessions

38

Avg Resp Time (Sec)

0.89

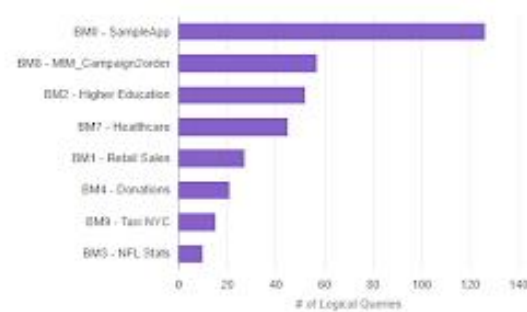
Avg DB Row Count

166

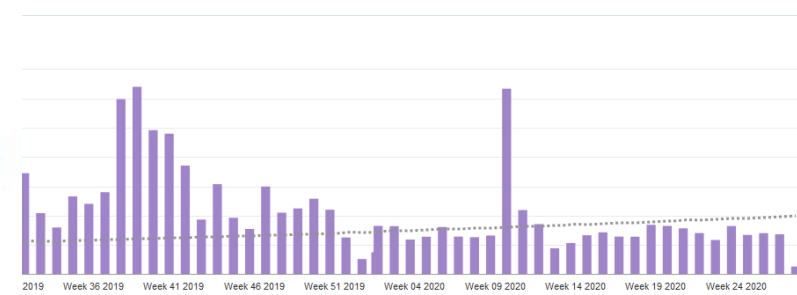
of Sessions, # of Logical Queries by START_DT



of Logical Queries by SUBJECT_AREA_NAME



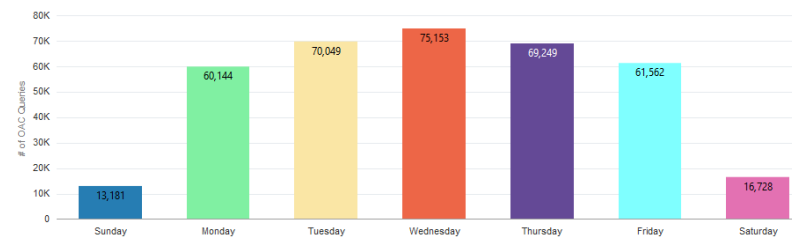
of Logical Queries by SAW_DASHBOARD



of OAC Queries

366.

weekly seasonality



Hour of Day Seasonality

