

# New Features in Oracle Analytics Cloud 17.4.5

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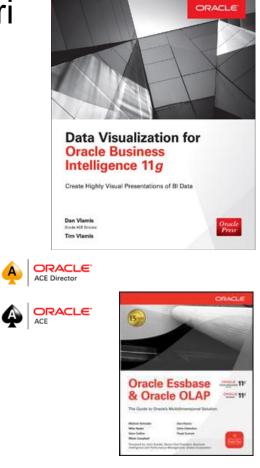
# Vlamis Software Solutions

- Vlamis Software founded in 1992 in Kansas City, Missouri
- Developed 200+ Oracle BI and analytics systems
- Specializes in Oracle-based:
  - Enterprise Business Intelligence & Analytics
  - Analytic Warehousing
  - Data Mining and Predictive Analytics
  - Data Visualization
- Multiple Oracle ACEs, consultants average 15+ years
- www.vlamis.com (blog, papers, newsletters, services)
- Co-authors of book "Data Visualization for OBI"
- Co-author of book "Oracle Essbase & Oracle OLAP"
- Oracle University Partner
- Oracle Gold Partner





Specialized Oracle Business Intelligence Foundation Suite 11g





## **OBIEE, BICS, DVD, OAC New Features Webcasts**

- 11.1.1.3 (August 2010)
  - Huge release with major new functionality
- 11.1.1.5 (May 2011)
  - BIWA TechCast May 25: <u>Oracle BI 11.1.1.5 New Features</u>
- 11.1.1.6 (February 2012)
  - BIWA TechCast Feb 29: Oracle BI 11.1.1.6 New Features
  - New features mostly for Exalytics
- 11.1.1.6.2 and 11.1.1.6.2 BP1 (May 2012 and June 2012)
  - BIWA TechCast Aug 1: Oracle BI 11.1.1.6.2 BP1 New Features
  - Trellis Views
- 11.1.1.7 (April 2013)
  - BIWA TechCast Apr 5 Oracle BI 11.1.1.7 New Features
  - Freeze headers/scroll bars for tables and pivot tables
  - View content in SmartView in Excel and enhanced export
  - New Oracle R Enterprise (ORE) integration and capabilities
- 11.1.1.9 (May 2015)
  - BIWA TechCast Jun 4, 2015 Oracle BI 11.1.1.9 New Features
  - Search in Subject Areas pane
  - Global variables and Save Column As choice in Criteria tab

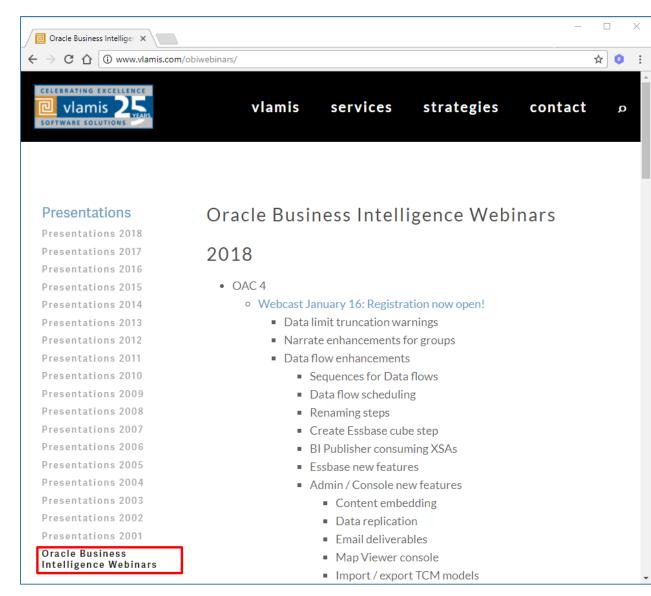
### All listed on website at <a href="http://www.vlamis.com/obiwebinars/">http://www.vlamis.com/obiwebinars/</a>

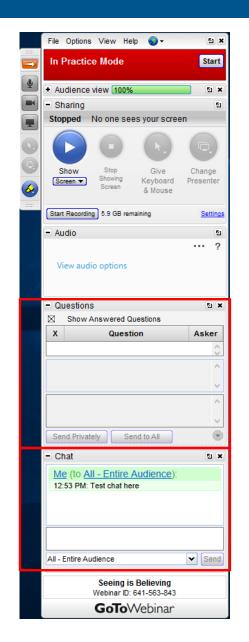
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- 12.2.1 (October 2015)
  - BIWA TechCast Nov 19, 2015 Oracle BI 12.2.1 New Features
- BICS March 2016 (March 2016)
  - Webcast Apr 5, 2016 BICS <u>BICS March 2016 New Features</u>
- 12.2.1.1 (June 2016)
  - BIWA TechCast Jul 19, 2016 Oracle BI 12.2.1.1 New Features
- 12.2.1.2 and DVD 2.0 (October 2016)
  - Webcast Nov 22, 2016 <u>DVD 12.2.2 and OBIEE 12.2.1.2. New Features</u>
- DVD 3.0 (June 2017)
  - Webcast Aug 29, 2017 <u>DVD 3.0 New Features</u>
  - New visualizations
  - Additional data sources and Enhanced data prep and updated data flows
- DVD 4 (October 2017)
  - Webcast Nov 9, 2017 <u>DVD 4 New Features</u>
  - New Home Page and New Visualization control experience
  - New column controls for date/time, auto-binning
  - New narrate experience
  - New data flow steps, including create Essbase cube step
  - Machine learning
- OAC 4 (December 2017)
  - Webcast Dec 19, 2017 OAC 4 New Features



## **Use Questions or Chat or Questions to communicate**







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## **OAC V4 Functional New Features Overview**

#### **Data Visualizations** Α.

#### New Home Page + UI Refresh

- \*Drag spreadsheet to home page, canvas a)
- New Viz control experience
  - \*Properties Pane, a)
  - \*Copy/Paste/Duplicate, b)
  - \*Pin Filter to all Canvases c)
  - d) \*Data Actions
- New Column Controls 3.
  - \*Date/Time level set & switch a)
  - Show metric as a percentage b)
  - \*Auto-Binning metrics used as Categories c)
  - d) Automatic Number Type
- New Project control Features 4.
  - Rename Connection or Data Source a)
  - Unrelated data sources in a project b)
- c) OAC

**Data Limit Truncation Warnings Simplified Project Permissions** 

\*New Narrate experience

### Improved Sharing

#### Data-flows Β.

- 7. New Steps
  - Merge Rows Step (Set Operator) a)
  - Create Essbase Cube Step b)
  - \*Binning Step c)
  - \*Grouping Step new UI d)
  - Cumulative Aggregate Step e)
  - \*Filter Step
- Sequences for Data-flows 8.
- Customize Name/Description of a step 9.
- OAC 10. **Data-flows Scheduling**

### **New Data Sources**

- 11. Oracle Talent Management Cloud
- Oracle Autonomous DWCS 12.
- Oracle BDCS-CE 13.

#### OAC D **BI Publisher in OAC**

14. BIP Ability to consume XSAs

#### OAC Έ. **Essbase Specific new features**

#### F. Machine Learning

- \*ML Attributes Explain Feature 15.
- 16. ML Train & Apply OOB Models
  - Sentiment a)
  - Numeric prediction b)
  - Multi Classifier c)
  - Clustering d)
  - **Binary Classifier** e)



- 17. ML Custom Scripts upload & Apply
  - ML Model Scenarios 18.

#### Admin / Console G.

- Content Embedding 19. OAC
- Data Replication OAC
- OAC **Emails Deliveries**
- Map-viewer Console OAC
  - Import / export TCM models 23.
  - Public API Support 24.

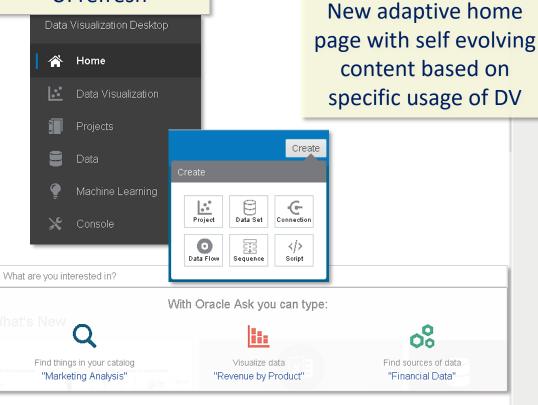


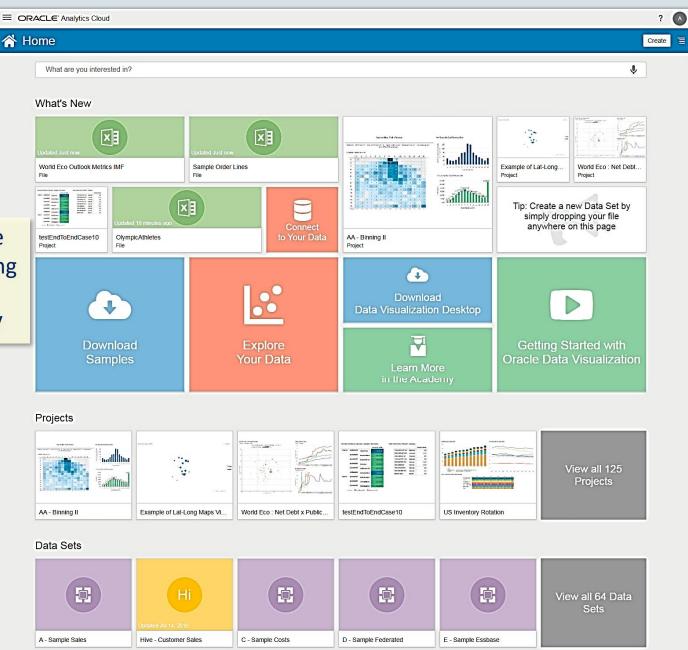
OAC only feature DVD only feature

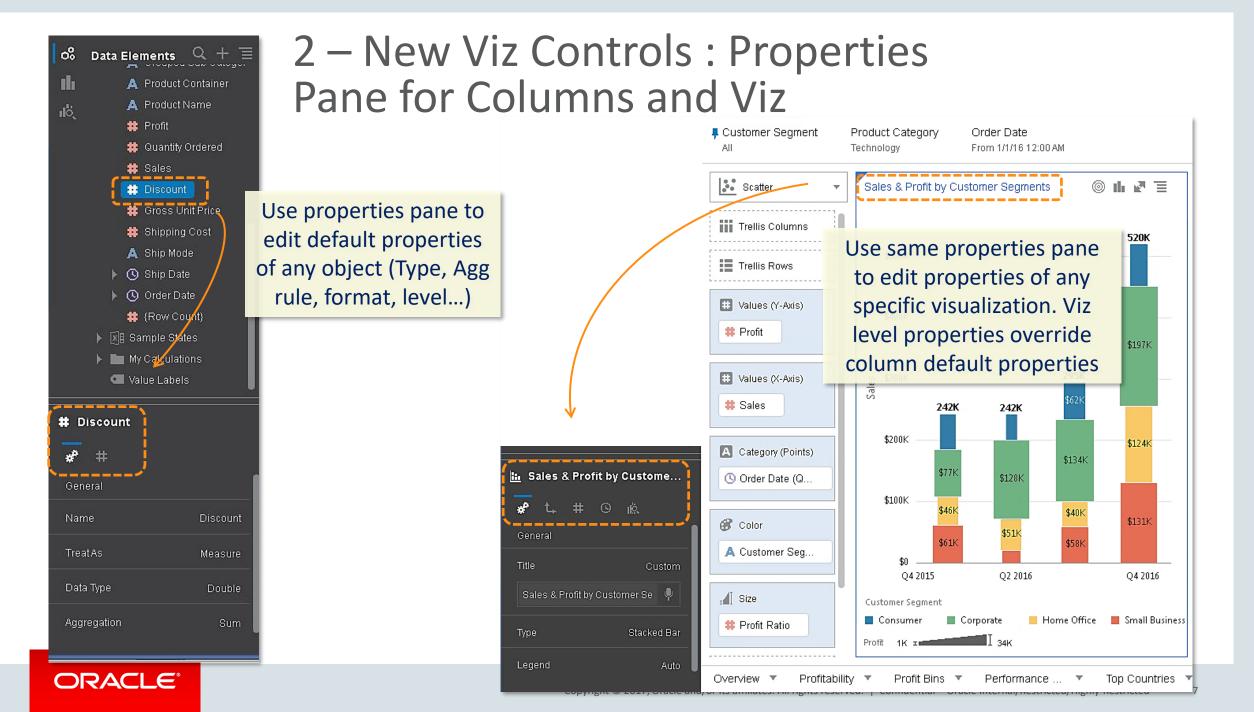
\* Shown as part of DVD4 What's New Webcast To be demoed in OAC 4 What's New Webcast

## 1 - New Home Page + UI Refresh

Full, more end-user intuitive Alta-based UI refresh

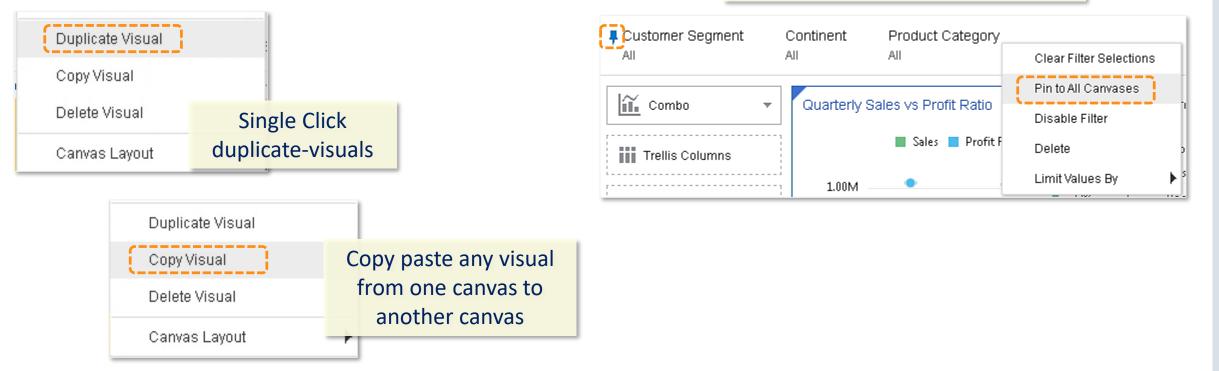






## 2 – Cross Canvas Copy/Paste, Viz Duplication Pin/Un-pin filter to all Canvases

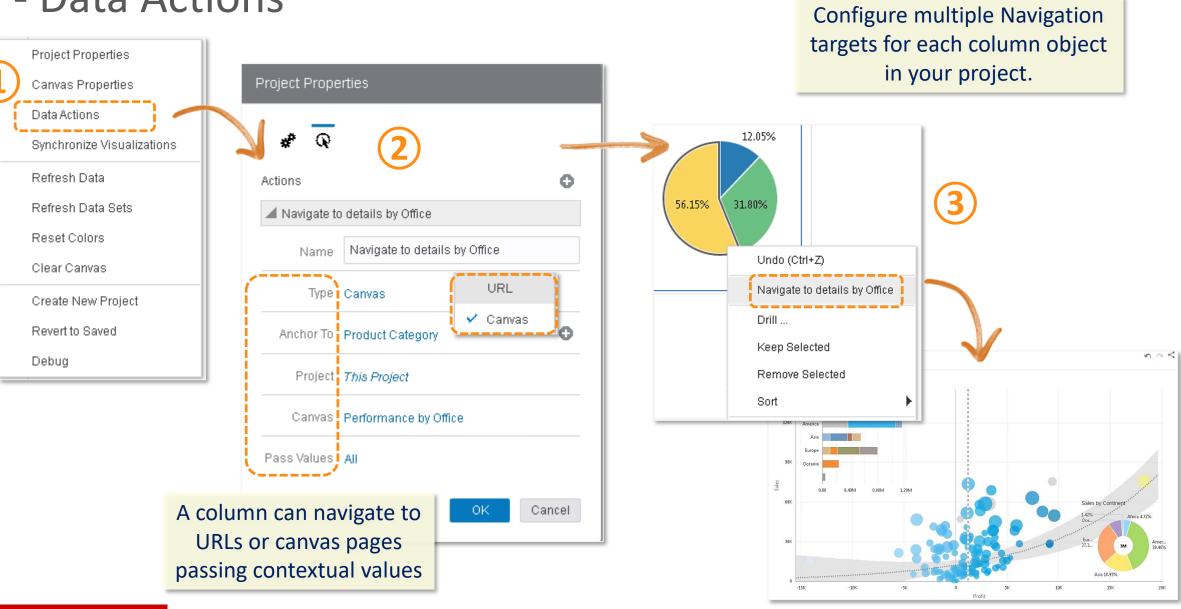
## Pin or un-pin single filter for whole project or for a single canvas



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## 2 - Data Actions



## 3 – New Columns Control : Date/Time level set & switch

0% Data Elements 🔍 🕂 🗱 Sales Шı 🗰 Discount цЫ 🗱 Gross Unit Price 🗱 Shipping Cost 🔺 Shin Mode 🔄 🔺 🕓 Ship Date 🕓 Year 🕓 Quarter 🕓 Quarter of Year 🕓 Month (I) Month of Year 🕓 Week 🕓 Week of Year 🕓 Weekday 🕓 Day 🕓 Day of Year 🕓 Day of Month Norder Date

Time level options show by default for any single time object in your data-set.

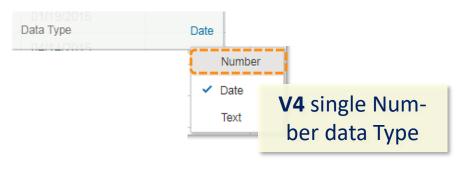
2 Modify default time level	
	-
<ul> <li>Data Elements</li> <li>and format using the properties tab, for any date</li> <li>and format using the properties tab, for any date</li> <li>bit at Sales</li> <li>bit at Discount</li> </ul>	
🗱 Gross Unit Price 🗸 Auto	
# Shipping Cost Year 2017	
A Ship Mode Quarter Q1 2017	
▶	
Row Count} Week Week 04 2017	
▶ 📲 Sample States Day 01/23/2017	
My Calculations Quarter of Year Q1 ISO Date (2)	201
Value Labels     Month of Year January     17/01/23	
Ship Date     Week of Year Week 04     01/23/17	
Day of Year 23 1/23/2017	
# O Day of Month 23 23-Jan-17	
Date/Time Format January 23,	, 20
Show By Auto	20
Monday, 23	Ja
Format Auto Monday, Jar	nu:
Custom	

					Auto
					Year
				4	Quarter
					Month
level		Stacked Bar	▼ S	a -	Week
					Day
e pro-		Trellis Columns			Hour
date		Trellis Rows			Minute
set					Second
	1	😟 Values (Y-Axis)			Millisecond
		# Sales			Quarter of Yea
					Month of Year
		A Category (X-Axis)	of the second	á	Week of Year
		🕓 Order Date (Q	Ŭ	Ì	Day of Year
		Drill			Day of Month
		Sort	×		Weekday
ISO Date (2017-	-01-23)	Show By	Quarter 🕨		Hour of Day
17/01/23		Create Filter		\$10	Quarri
01/23/17		Delete			Overri
1/23/2017				de	fault t
23-Jan-17				e	each v
January 23, 201	7		_		
23 January, 201	7				
Monday, 23 Jan	uary, 2017				
Monday, Januar	y 23, 2017				

1.1					
		Auto			
		Year	2017		
	4	Quarter	Q1 2017		
_		Month	January 2017		
S		Week	Week 04 2017		
		Day	01/23/2017		
		Hour	01/23/2017 12 PM		
		Minute	01/23/2017 12:00 PM		
		Second	01/23/2017 12:00:00 PM		
		Millisecond	01/23/2017 12:00:00:000 PM		
		Quarter of Year	Q1		
		Month of Year	January		
vale		Week of Year	Week 04		
ĉ		Day of Year	23		
		Day of Month	23		
•		Weekday	Monday		
•		Hour of Day	12 PM		
	Override column default time levels in				

*v*isualization

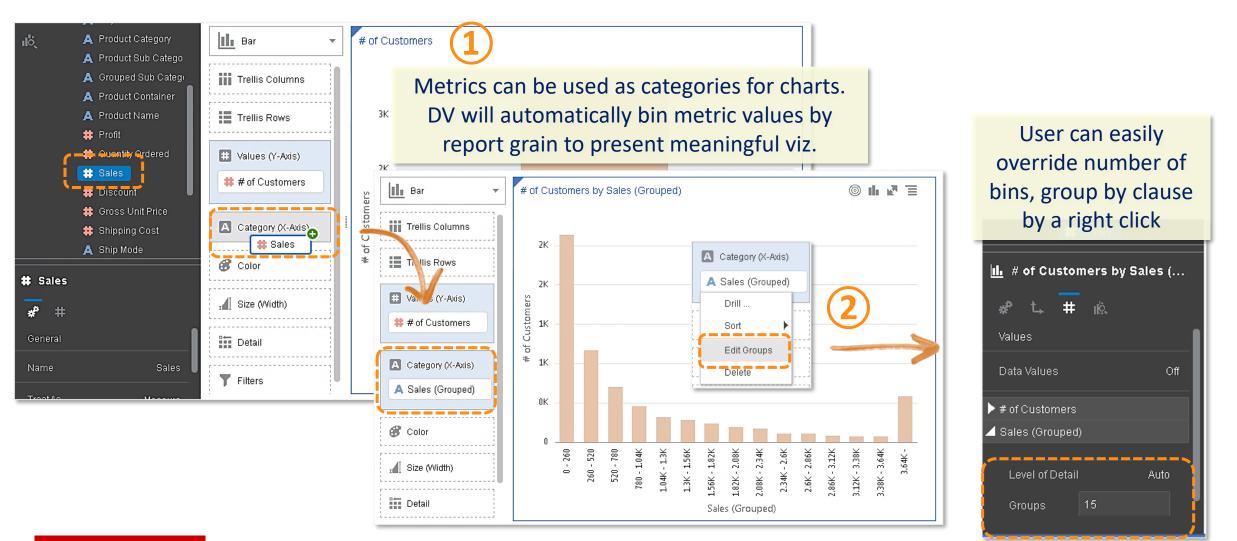
## 3 – New Columns Control : Show as percent of column, Automatic Number Type



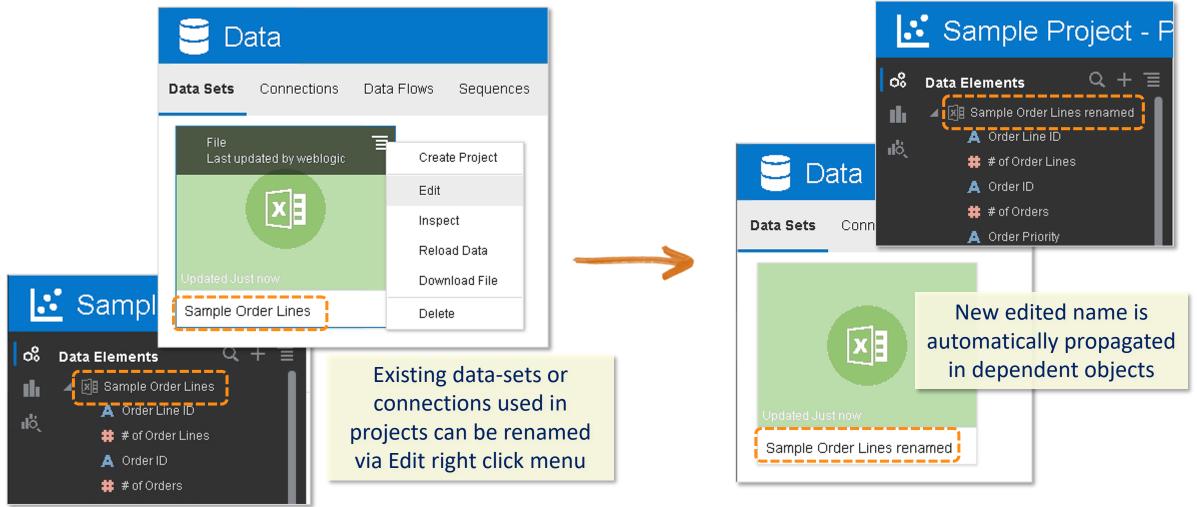
Data Type	Date 1
01/12/2013	Double
V3 (Old) multiple	Integer
number types	🗸 Date
01/01/2013	Text

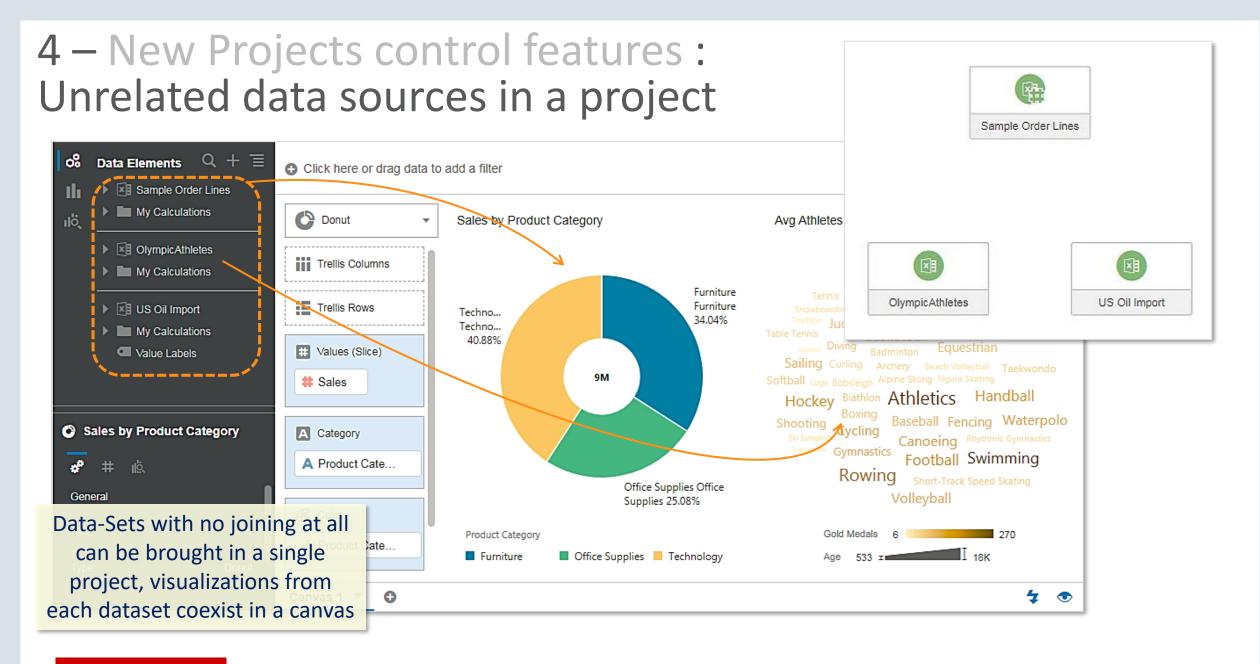
	Pivot	-	Sales, # of Order Lines by Prod	uct Sub C	ategory, s
				January	2013
	Columns			Sales	# of Order
	🕓 Ship Dat			30163	Lines
			Appliances	0.06%	11
	Rows		Binders and Binder Accessories	0.09%	13
	A Product	Sin	gle click show values	0.19%	5
Sales, # of Order Lines b	A Product	2111	Chairs & Chairmats	0.35%	15
<u>ــــــــــــــــــــــــــــــــــــ</u>			as percent of	0.03%	12
	# Values	Rov	vs/Columns/Subtotals	0.07%	3
Values	# Sales		in Pivot Tables	0.01%	5
Sales			Labels	0.01%	6
	# # of Ord		Office Furnishings	0.10%	19
Aggregation Method Auto			Office Machines	0.37%	12
Display As Percent Of	🛞 Color 🗸 🧹	All Value	s In	0.03%	25
(		Column	Values	0.02%	20
Percent Of Value	Size	Row Val	ues	0.00%	4
Number Format			rimmers	0.00%	1
Number Format			Sub Category	0.10%	11
		Ship Dat	e (Month)		

# 3 – New Columns Control : Auto-Binning of metrics when used as Categories

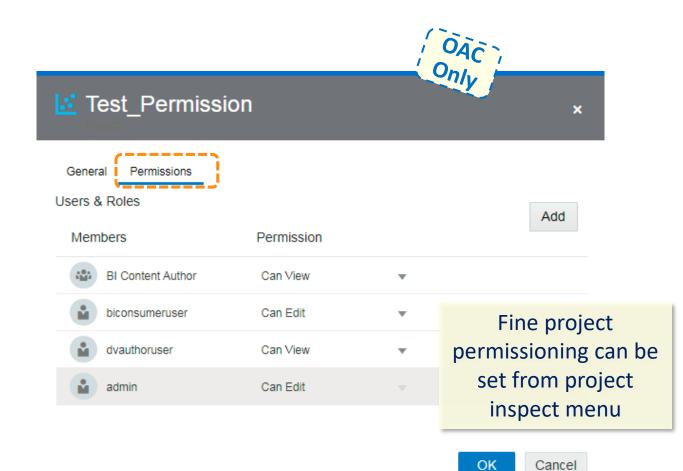


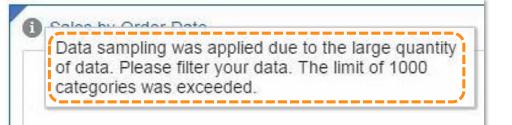
## 4 – New Projects control features : Data Set / Connections renaming





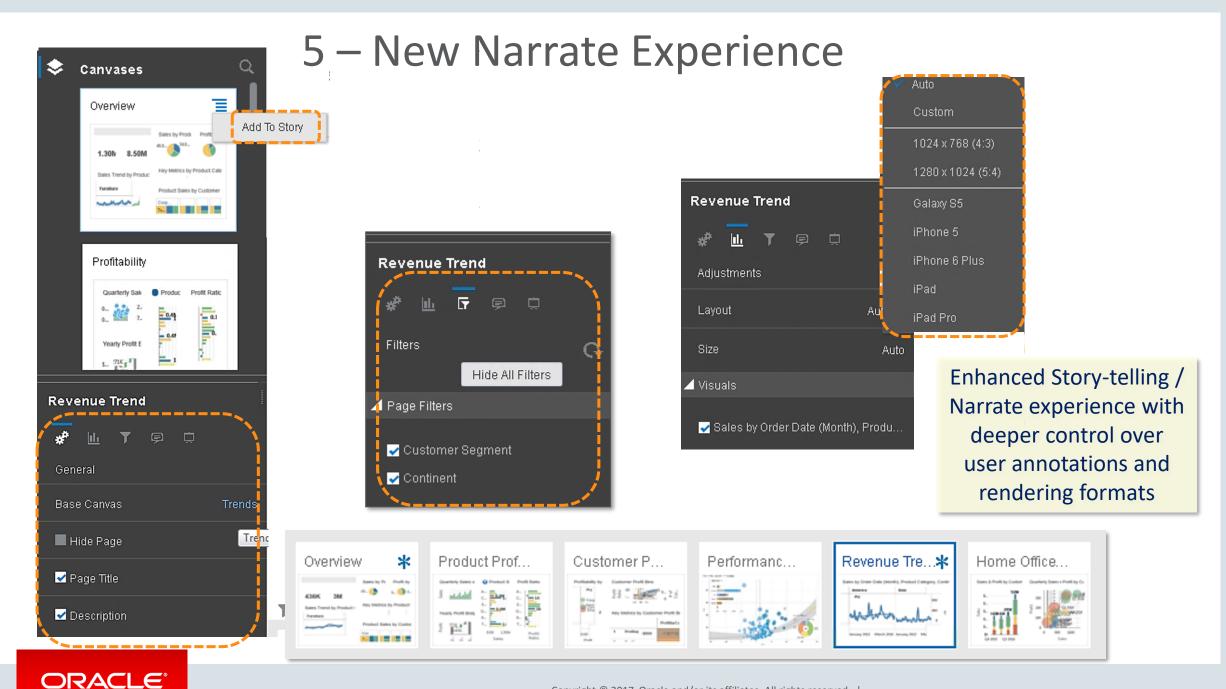
## 4 – New Projects control features : Simplified Project Permissions, Data Limit Truncation Warnings





Automatic warning of data sampling when member values are over specific views limit

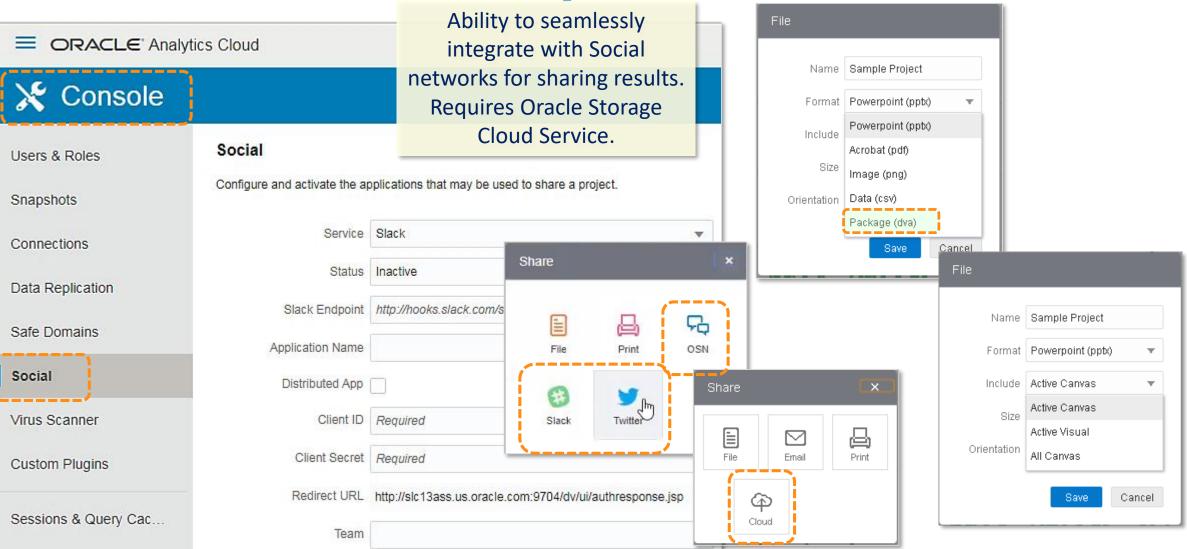


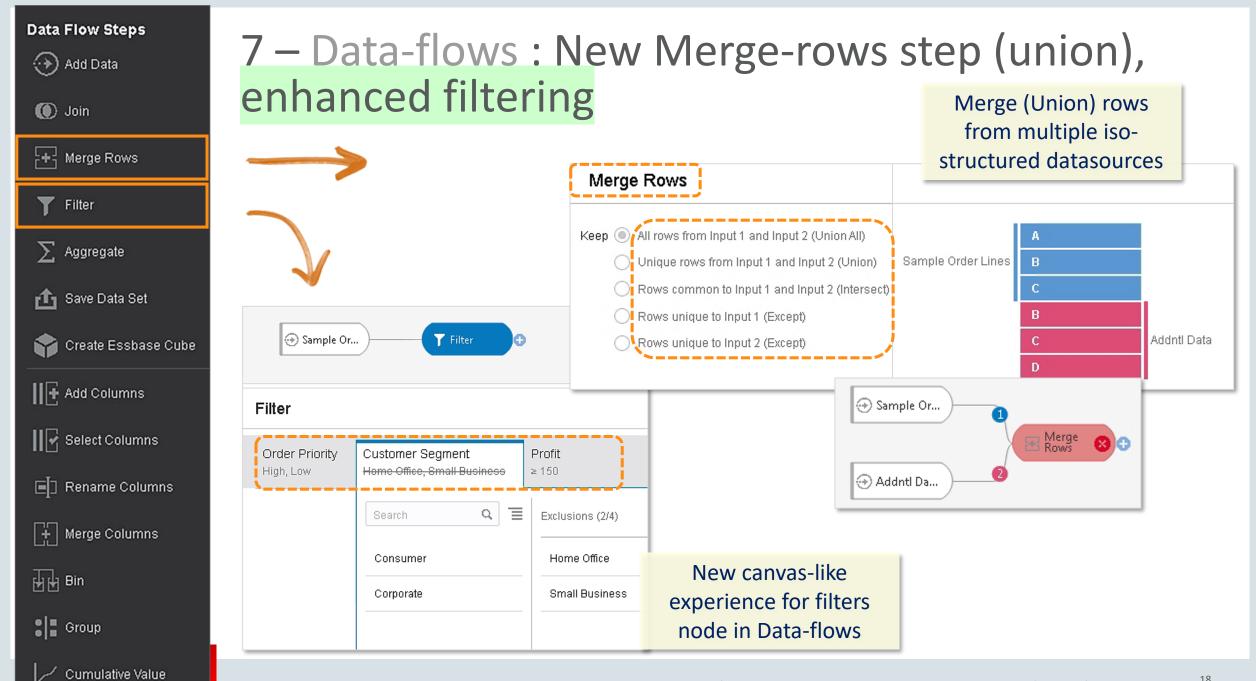


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## 6 – Improved Sharing







Data Flow Steps	7 – Data-flows : New Create Essbase Cube Step						
🔘 Join							
+ Merge Rows	🕣 Sample Or	Create Ess	Data-fl	ow creating			
<b>T</b> Filter		()		regations in Essbase			
∑ Aggregate	Create Essbase	Cube	cubes	III ESSDASE			Î
🏠 Save Data Set		Select Essbase Connection			Au	utomatic detec	t of
😭 Create Essbase Cube	Application Name Cube Name				n	netrics, attribut and hierarchie	
H 🛃 Add Columns	Description			Essbas	e will identify columns as	,	
📕 🛃 Select Columns				dimensi	ons, or attributes and cr	eate a cube.	
■] Rename Columns							
+ Merge Columns							-
H H Bin	Order Line ID	[∎]# of Order Lines	🛄 Order ID		Order Priority	Customer ID	# of Customers
	6023	6023	88028	88028	Not Specified	2211	2211
Group	179	179	87946	87946	Low	67	67

Cumulative Value

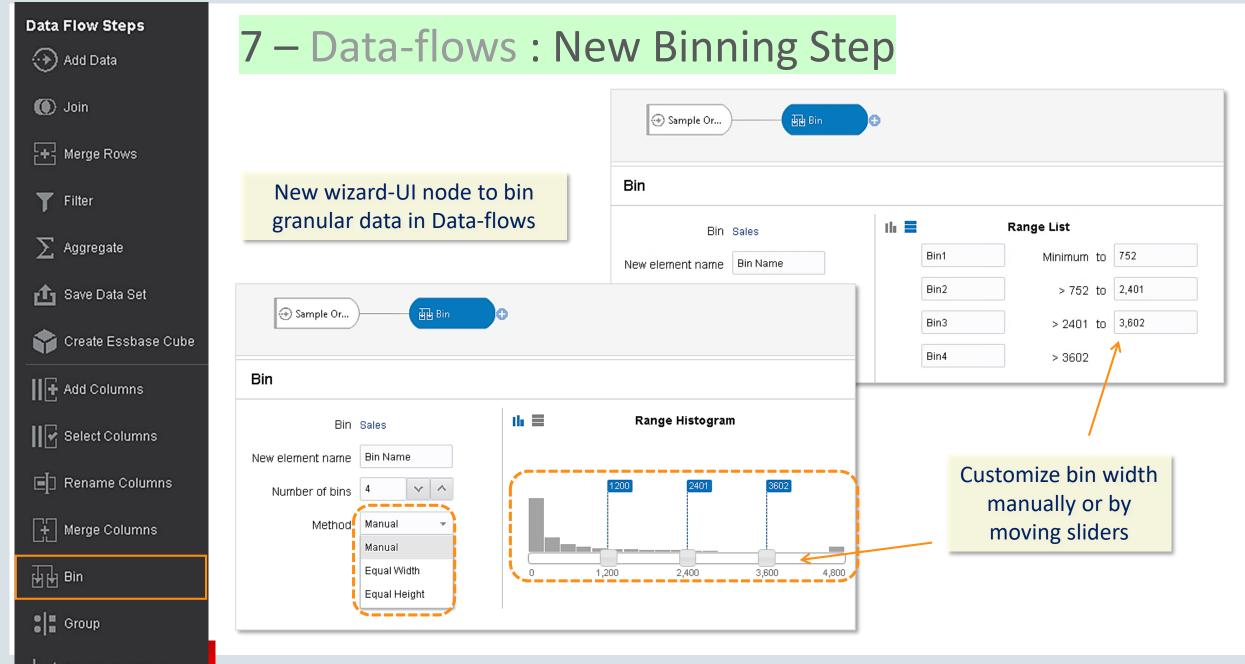
19

Data Flow Steps	<b>7 –</b> Dat	ta-flows : N	lev	v Cumu	Ilativ	ve Value Step	)
O Join Herge Rows		Sample Or	۲¢	umulativ 🕀 alue			
▼ Filter ∑ Aggregate		Aggregate		Function	Rows	New column name	
ሰ Save Data Set		Sales		Moving Sum 👻	5	Sales Moving Sum	
Create Essbase Cube		Aggregate Sort By		م Moving Average			
III Select Columns		Customer ID	A-Z	Moving Sum Running Sum Running Count		A new node to create rolling or	
🗐 Rename Columns		🚯 Sort Column		Running Min		moving aggregates in Data-flows	
+ Merge Columns		Restart for each		Running Max	]		
H H Bin		Customer Segment		=			
Croup		Restart Column					
Cumulative Value							

-

Data Flow Steps       Add Data	7 – Data-flows : New Create Group Step				
🔘 Join					
+ Merge Rows					
<b>T</b> Filter	Sample Or Sample				
∑ Aggregate	Group Values in Data-flows				
🚹 Save Data Set	Group Customer Segment Name New Group Include Others				
😭 Create Essbase Cube	Group 1 Consumer Search Q Selections (1/4) Group 1 (1/4)				
Add Columns	Consumer Consumer Corporate				
🛛 🗹 Select Columns	Corporate  Home Office				
E Rename Columns	Small Business Home Office				
Herge Columns	Small Business				
မြှုမြှ Bin	Add all Remove all				
Croup					
Cumulative Value	Copyright © 2017. Oracle and/or its affiliates. All rights reserved.				

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Data Flow Steps	7 – Data-flows : New For Analysis Steps	ecast and Sentiment
Group		⊕ Sample Or ⊕
Cumulative Value	Extract Sentiment from text based columns	Time Series Forecast
Analyze Sentiment	⊕ Sample Or ← Analyze Sentiment €	⊿ Outputs
Apply Custom Script		Create Output Column Name
Train Numeric Prediction	Analyze Sentiment	forecasted forecasted
💦 + Train Multi-Classifier	⊿ Outputs	▲ Parameters
🐉 Train Clustering	Create Output Column Name	* Target Select a column * Time Order Date
o Train Binary Classifier	emotion emotion	* Periods 14
ନ୍ତୁ <sup>+</sup> Train Custom Model	⊿ Parameters	Forecast date-based
${old S}^{eta}$ Apply Model	* Text To Analyze Customer Name	metric values

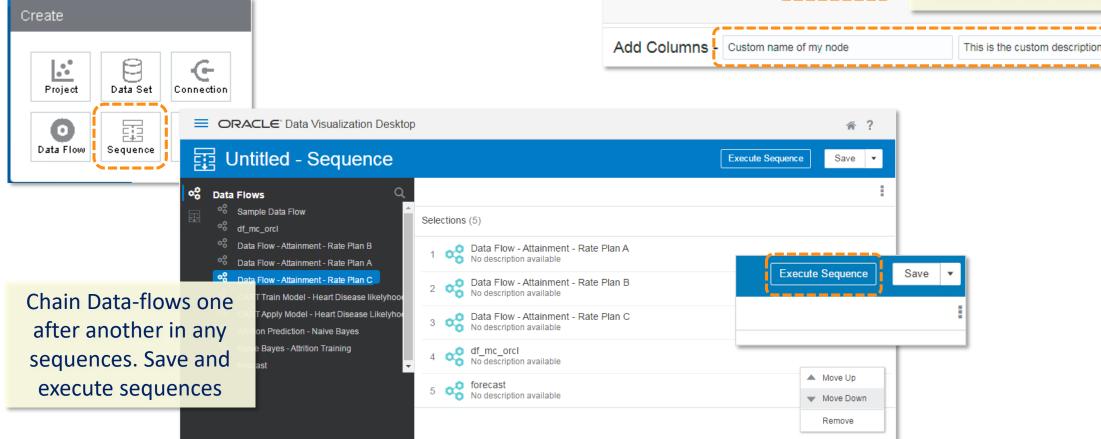
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## 8 & 9 – Data-flows Sequences Data-flows step custom renaming

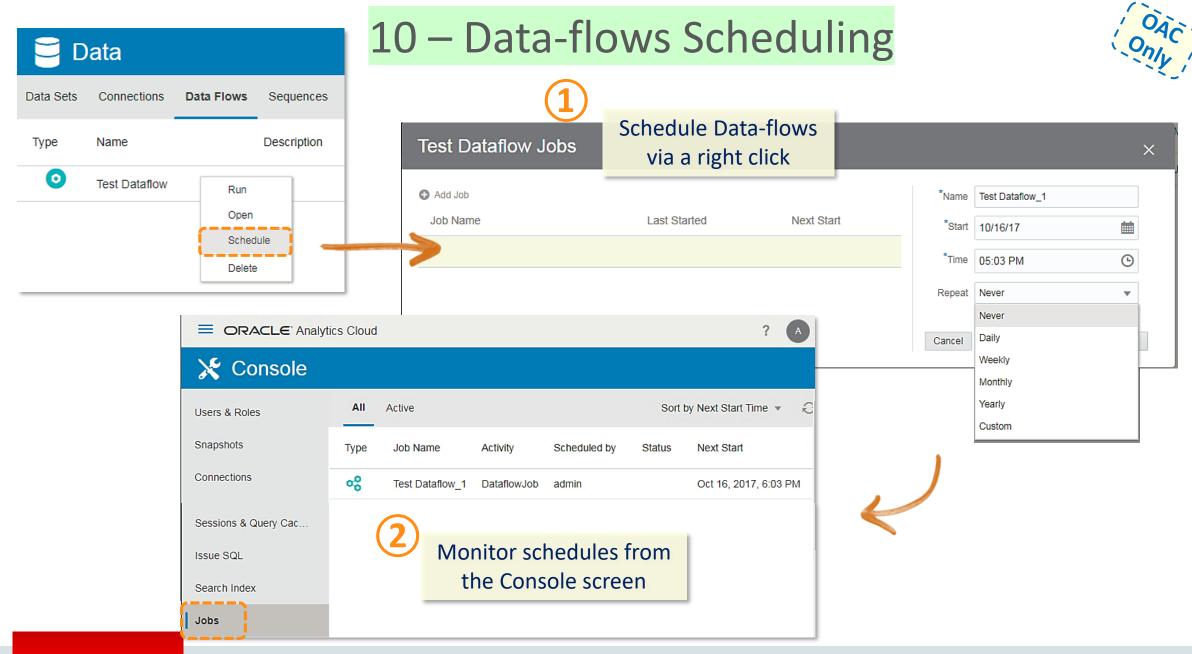


Customize name and description of Data Flow nodes to be more explicit



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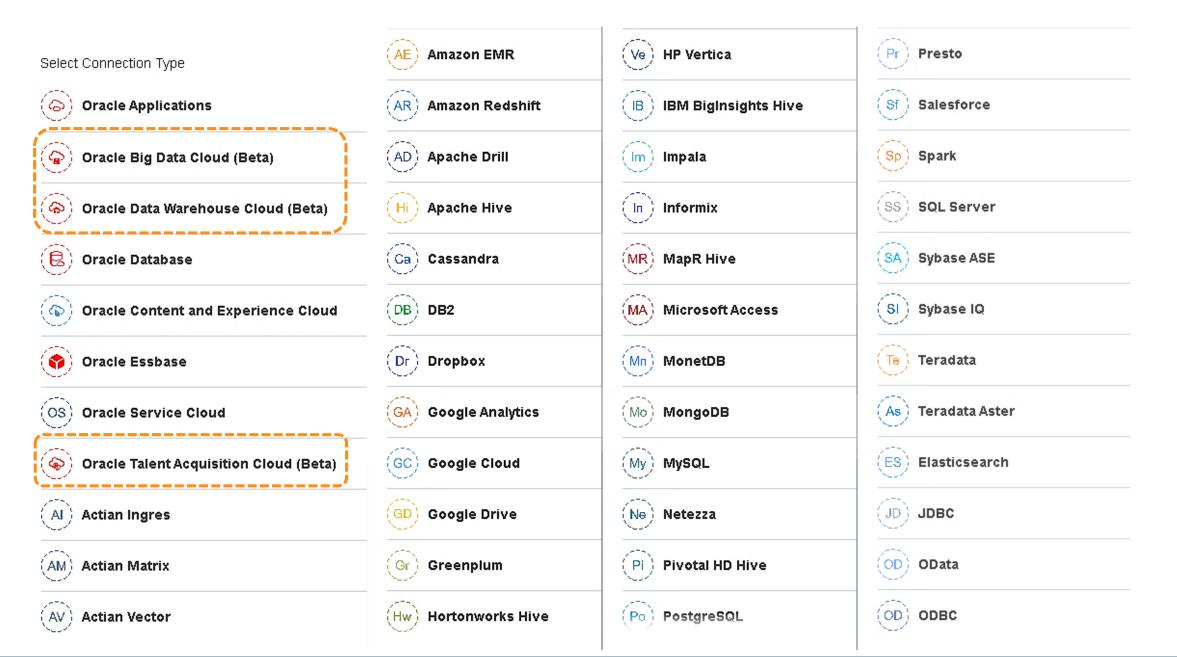
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## 11,12,13,14 – New Data-source Types



## Essbase Specific New Features Overview

### • Server Enhancements

- Calc Trace Support both via Calc Scripts & SmartView
- Data Audit Trail
- Support for Replicated Partitions
- Hybrid Dynamic Solve Order based on member formula

## • Web UI

- New Connections, Data Sources Interface (Drill Thru, Location Aliases)
- Logs at Application Level
- Drill Through Support
- MAXL Execution from Jobs interface
- UI for App Configurations (Drop Down for parameters)

### Smart View

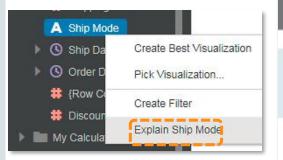
Ability to Change Solve Order

## Cube Designer

- Improvements to the Transform Wizard
- Generation Names Support
- Text Lists Support in CD Wizard
- Support for Member Formula in unstructured import
- Support for Accounts Dimension hierarchy in unstructured import



## 15 - ML : **Attribute Explain**



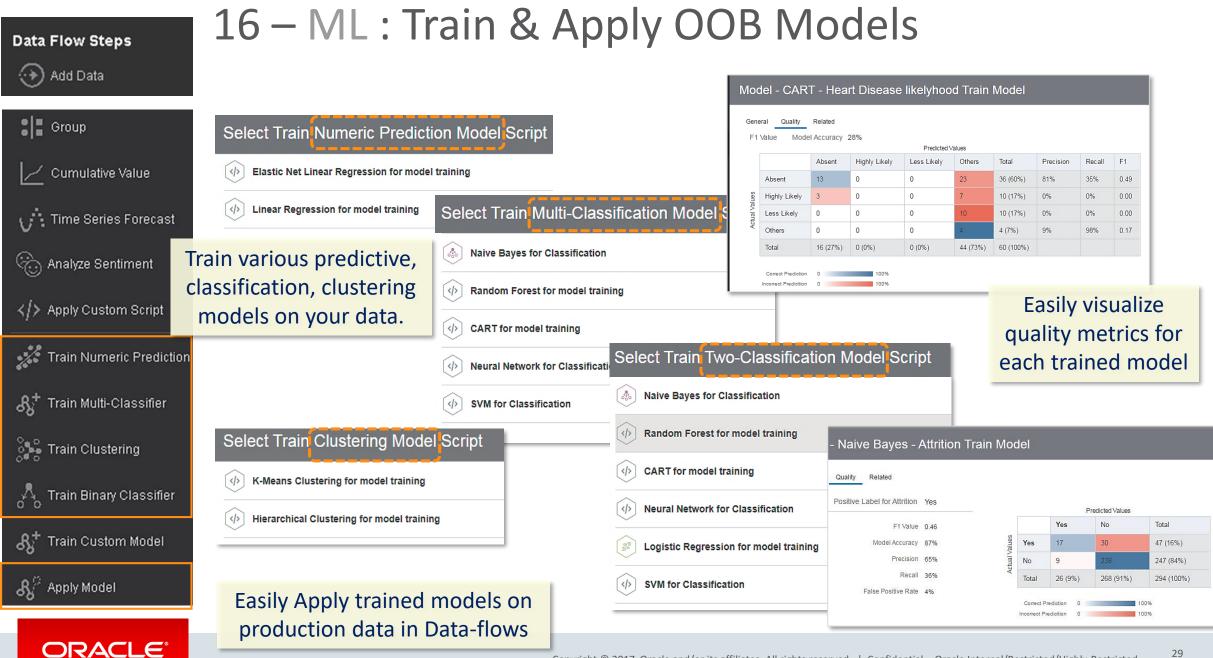
Use Explain right click option on any attribute column to Uncover insights and patterns about this column within the whole data set

Mode



### ORACLE

Product Sub Category Row Count: Grouped Sub Category=Stationery



## 17 – ML : Custom Script upload and Apply



Add S	cript	×			
Ma	Me Geo Location To Address (Python) Change f				
Na	Geo Location To Address (Python) Change f	ile			
Descript	tion This script translate longitude and latitude to address.				
Previe	w of Geo Location To Address (Python)	)			
name		A			
house_n	number	_			
street		- 11			
settleme	nt				
Upload	any custom scripts				
(R, Pyth	non) to the system	•			
	and train/apply them just like any OOB Models				

Add Script			×	
Description Scrip textu: Preview o	mFrequency t Version: V1 Description: This script term frequency analysis or al data as input, filters out stop words a <b>TermFrequency</b>		•	
Parameters In 	puts Outputs		-	
RecTxt	Data Visualization De	esktop	CRACLE Data Visu	ualization Desktop
TermFrequency	A Home		Machine Lea	arning
	Data Visualiza	ation	ipts <b>Models</b>	
	Projects			
	Data Data		000	<b>%</b>
	Machine Lea	rning	Updated Just now	Updated Just now
	🔀 Console	N	Naive Bayes - Attrition Train M	

## 18 – ML : Model Scenarios

Attrition Possibility Data

Add Calculation...

Add Data Set...

Add Scenario...

Data Diagram...

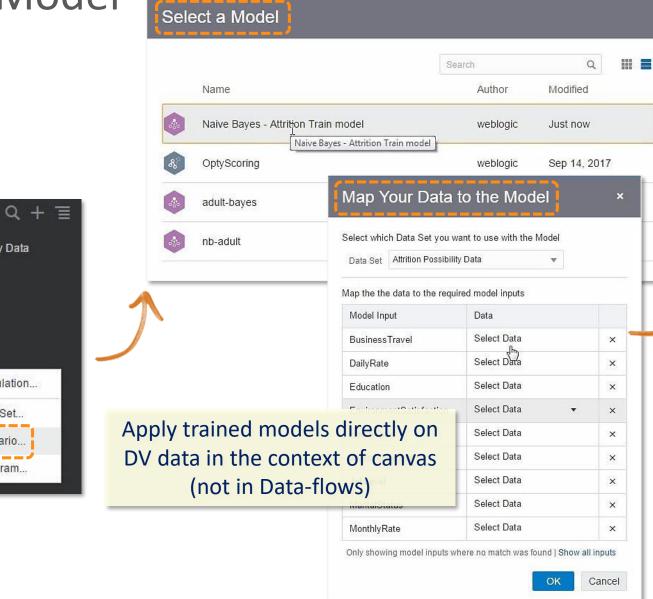
My Calculations

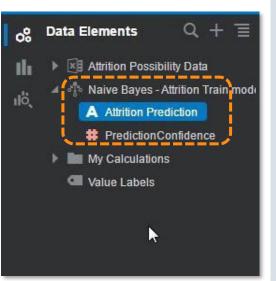
Value Labels

Data Elements

0%

ılö





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)ebug			
JSON XML (JSON Recommended) Embed Embedding Script To Include	Easily Embed DV content in operational applications		
Include following <script> tag once per page. Based on the JavaScript framework used, replace <embed</td><td>ddingMode≻ with either "jet" or "standalone"</td><th></th><td></td></tr><tr><td><script src="http://sl c.us.oracle.com:9704/dv/ui/api/v1/plug </script>	gins/embedding/ <embeddingmode>/embedd</embeddingmode>	ing.js" type="javascript">	Сору
Default			
To embed this project showing the default view, use the following HTML inside an appropriately sized ele	lement:		
<pre><oracle-dv project-path="&lt;projectPath&gt;"> </oracle-dv>"&gt;</pre>			Сору
⊿Canvas "Canvas 1"			
To embed this project showing the "Canvas 1" canvas, use the following HTML inside an appropriately s	sized element:		
<pre><oracle-dv <="" acti="" active-page="canvas" oracle-dv="" project-path="&lt;projectPath&gt;"></oracle-dv></pre>	ive-tab-id="1">		Сору

## 19 – Embedding DV Content

Debug

ORACLE

OK

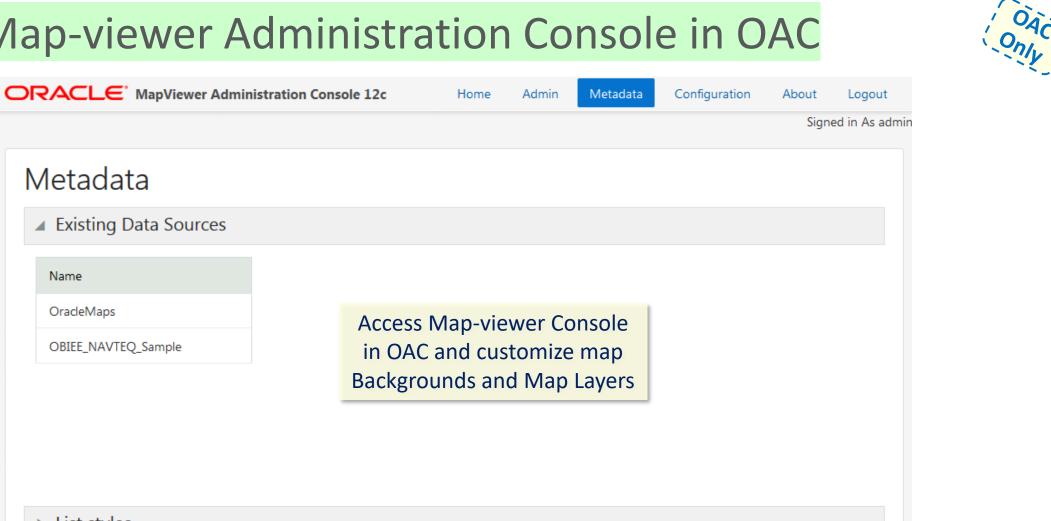
Unformat

Apply

Format

20, 21 – D Email Deli	-	ication,		ORACLE' Data Vis		ication	OAC Only
	automat	and schedule ic replication of		E Source		C Target	
		rvice Cloud data- ces into OAC		Source Connection $\odot$ S	elect Connection		
	cs Cloud				?		
🔀 Console							
Users & Roles	Deliveries 👩						
Snapshots	Search	Today Refresh	Restore Jobs				
Connections	Name No data to display	Date	Repeats	Status	Actions		
Data Replication							
Safe Domains							

## 22 – Map-viewer Administration Console in OAC



List styles

Metadata

Name

OracleMaps

OBIEE\_NAVTEQ\_Sample

Existing Data Sources

List predefined themes



## 23 - Import / export TCM models

	Models		All conne	ctions	Create model	Import Model
	Name	Connect	is to	Last publi	shed	Actions
	SampleApp Default connection Description: Database included with Oracle					C Oper
						Dele
nport Model	SON file	×		nd Export sin Thin Client N		
Browse.	No file selected.					

#### ORACLE

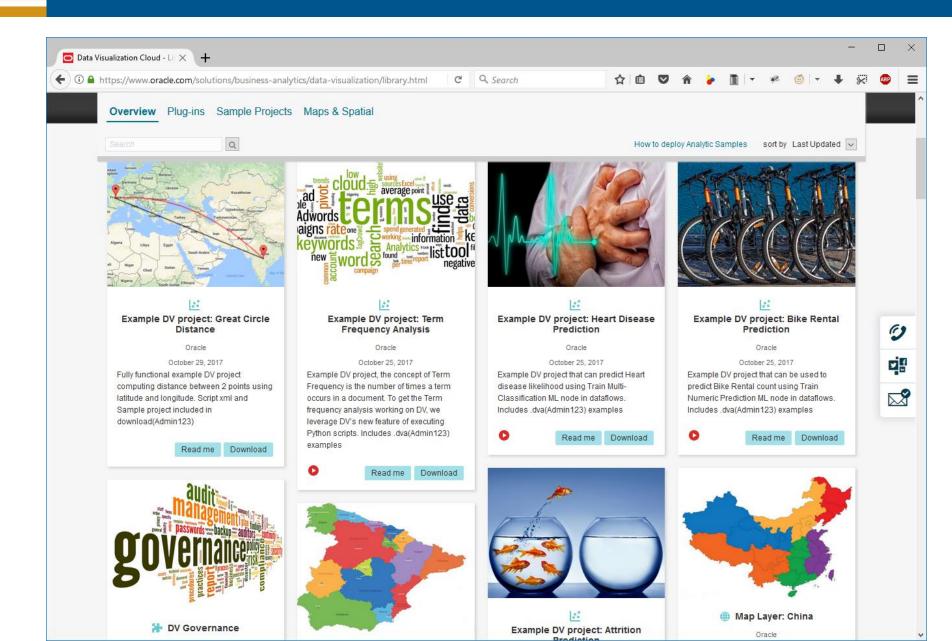






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# **Oracle Analytics Library**



celebrating excellence **Vlamis** 25 software solutions



# Analytics and Data Summit All Analytics. All Data. No Nonsense. March 20 – 22, 2018



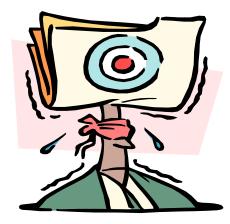
Formerly called the BIWA Summit with the Spatial and Graph Summit Same great technical content...new name!



www.AnalyticsandDataSummit.org

Call for speakers is now open with rolling acceptances until December 22, 2017

# **Resources and Questions?**



Dan Vlamis Email: <u>dvlamis@vlamis.com</u> Twitter: <u>@dvlamis</u> Phone (816) 781-2880

Vlamis Software Solutions Twitter: <u>@vlamissoftware</u>

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Help on new features https://docs.oracle.com/en/cloud/paas/analytics-cloud/acswn/index.html

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