
Oracle Analytics Update

Oracle Global Leaders Meeting 2020

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Jun 24th 2020

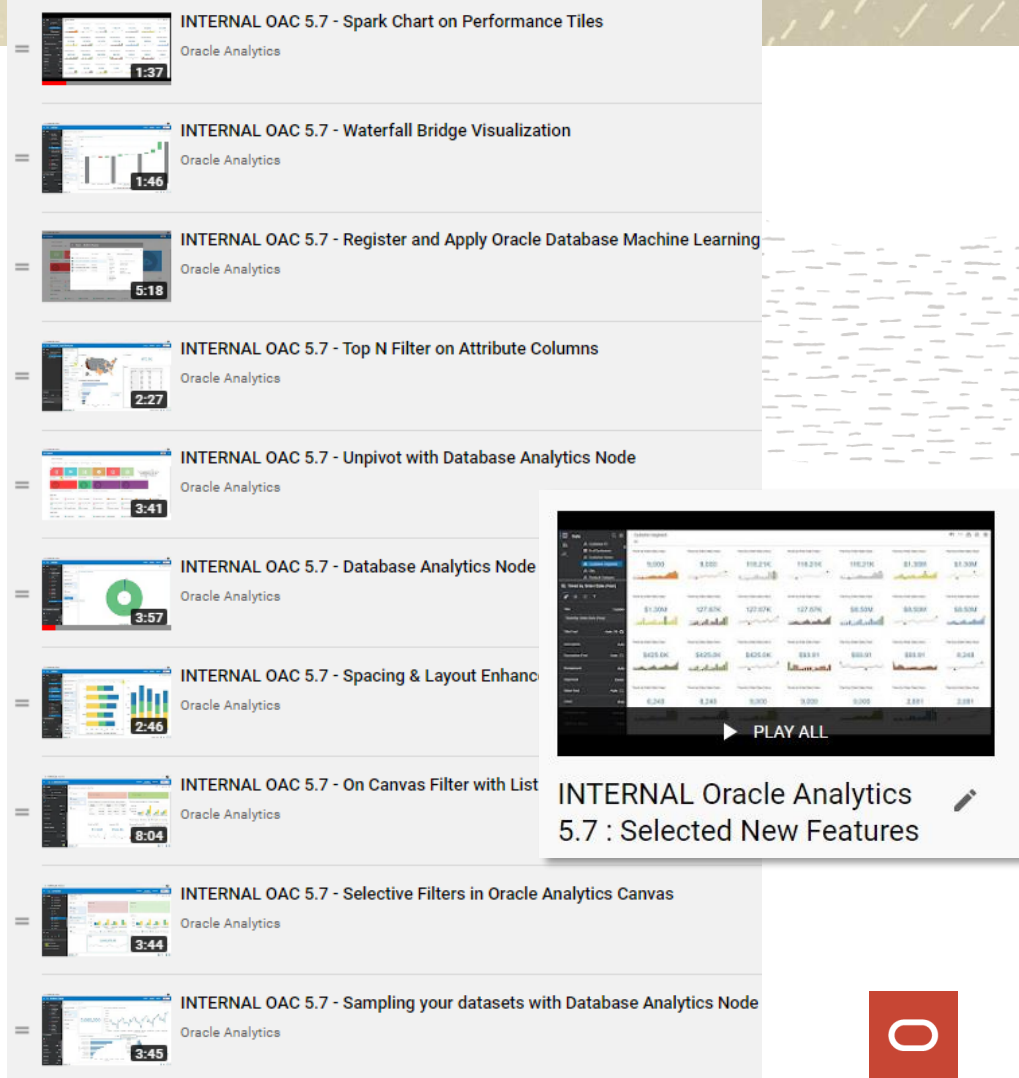


@philippe_lions



YT Playlists with main features

- bit.ly/OAC40Features
- bit.ly/OAC50Features
- bit.ly/OAC51Features
- bit.ly/OAC52Features
- bit.ly/OAC53Features
- bit.ly/OAC54Features
- bit.ly/OAC55Features
- bit.ly/OAC56Features
- bit.ly/OAC57Features



The image shows a YouTube playlist interface with the following video titles and durations:

- INTERNAL OAC 5.7 - Spark Chart on Performance Tiles (1:37)
- INTERNAL OAC 5.7 - Waterfall Bridge Visualization (1:46)
- INTERNAL OAC 5.7 - Register and Apply Oracle Database Machine Learning (5:18)
- INTERNAL OAC 5.7 - Top N Filter on Attribute Columns (2:27)
- INTERNAL OAC 5.7 - Unpivot with Database Analytics Node (3:41)
- INTERNAL OAC 5.7 - Database Analytics Node (3:57)
- INTERNAL OAC 5.7 - Spacing & Layout Enhanc (2:46)
- INTERNAL OAC 5.7 - On Canvas Filter with List (8:04)
- INTERNAL OAC 5.7 - Selective Filters in Oracle Analytics Canvas (3:44)
- INTERNAL OAC 5.7 - Sampling your datasets with Database Analytics Node (3:45)

A larger video thumbnail is overlaid on the right side of the playlist, showing a dashboard with various charts and a table. The table contains numerical data, and the video title below it is "INTERNAL Oracle Analytics 5.7 : Selected New Features". A "PLAY ALL" button is visible on the video player interface.

Category	Value 1	Value 2	Value 3	Value 4	Value 5	Value 6	Value 7
Category 1	5,000	8,000	110,21K	118,21K	110,21K	81,30K	81,30K
Category 2	1,300K	127,63K	127,63K	127,63K	88,55K	88,55K	88,55K
Category 3	8425.0K	8425.0K	8425.0K	883.91	888.91	888.91	8,248
Category 4	6,200	8,210	10,100	9,000	9,000	3,891	3,891



OAC 5.6 Selected New Features Overview

Data Sources & D. Editor

1. Enhanced Data Set Editor :
Single page data set editor,
Increased data density,
Remove columns in preview...
2. Regex in Data prep
3. EPM Connector
4. RDG to MySQL

Dataviz Enhancements

5. Viz Controls Enhancements
Control column-width in PT,
Transparency background for
image/color, Waterfall colors
6. Canvas bar enhancements
density/visibility
Duplicate canvas near original
7. Custom Calcs Copy/Duplicate
8. Data Action to Publisher Report
9. Additional outputs for ML Models

Maps

10. Custom background images &
Map Layer creation tool
11. Improved Maps performance
12. Zoom Controls & Data truncation
warning

System

14. System settings UI Improvement
15. Access tab for all catalog artefacts

Internal Playlist bit.ly/OAC56Features

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6. **Canvas bar enhancements**
density/visibility
Duplicate canvas near original
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8. **Data Action to Publisher Report**
9. **Additional outputs for ML Models**

Maps

10. **Custom background images & Map Layer creation tool**
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14. **System settings UI Improvement**
15. **Access tab for all catalog artefacts**

Internal Playlist bit.ly/OAC56Features



Data Prep : Support for Reg-Exp

Replace • Cancel Add Step

String to replace

New string

Match partial values

Match entire values only

Use regular expression

Use Regular Expressions replace in Data Preparation for

- Literal Matches: matches exact text for partial or entire values.
- Re-Inserting Matched Text: Allows the insert of text before and after regex matches.
- Back References: allows the replacement text to reuse parts of the text matched by the regular expression.
- Character Classes or Sets: used to match only one out of several characters
- ...

Background Images & Layer Creation Tool

The screenshot shows the Oracle Maps interface. The 'Backgrounds' tab is selected, and the 'Image Backgrounds' section is highlighted with a red box. A table lists available backgrounds:

Include	Name	Description
<input checked="" type="checkbox"/>	Motor Bike	
<input checked="" type="checkbox"/>	org chart	

Below the table, there is a '+ Add Image (click, or drag and drop image file)' button. A context menu is open over the 'Motor Bike' entry, with 'Create Map Layer' highlighted in a red box. Other menu items include 'Inspect', 'Reload...', 'Download', and 'Delete'.

Upload any image as an OAC Map Background

The screenshot shows the 'Motor Bike Layer' tool in Oracle Analytics. It features a central canvas with a motorcycle image. A sidebar on the left lists various drawing tools: Point, Polygon, Line, and Polyline. The 'Motor Bike Layer' is currently selected.

Draw Points, Lines and Polygon on top of it

The screenshot shows an Oracle Analytics dashboard. On the left, a motorcycle image is displayed with a data tooltip. The tooltip contains the following information:

PartName	Petrol Tank
Manufacturer Name	Michelin Steel Inc
Price	75
Weight	5

On the right, a bar chart titled 'Price by Manufacturer Name' shows the price for different manufacturers:

Manufacturer Name	Price
Cane	320
Michelin	200
Michelin Steel Inc	175
USA Leather	50

Use it as fully interactive Map viz in OAC !



Control column width in Pivot/Table

Customer Segment	Consumer	Corporate	Home Office	Small Business
Product Sub Category	Sales	Sales	Sales	Sales
Appliances	63,972.02	160,640.48	126,039.83	
Binders and Binder Accessories	103,781.37	195,937.93	151,321.12	
Bookcases	93,010.28	124,868.82	79,899.73	
Chairs & Chairmats	275,930.71	352,062.41	213,688.14	204,651.44
Computer Peripherals	81,312.63	200,876.19	112,425.62	
Copiers and Fax	101,207.03	187,356.95	125,965.41	
Envelopes	14,594.76	45,382.52	22,855.41	
Labels	3,648.48	7,803.89	5,345.41	
Office Furnishings	69,831.20	115,392.66	197,985.41	
Office Machines	220,180.04	452,784.67	210,675.41	
Paper	52,937.78	88,548.62	60,415.41	
Pens & Art Supplies	24,170.89	35,755.26	21,715.41	
Rubber Bands	1,679.13	2,097.27	2,215.41	
Scissors, Rulers and Trimmers	14,452.16	9,615.24	12,785.41	
Storage & Organization	121,820.08	155,027.25	153,005.41	
Table	210,764.47	370,433.75	263,765.41	

Resize rows/columns in
Pivots and Tables

- Keep Selected
- Remove Selected
- Drill to Attribute/Hierarchy...
- Use as Filter
- Add Statistics
- Color
- Shape
- Edit
- Hide Value Labels
- Reset Row/Column Sizes
- Delete Visualization



Background, Transparency, & Colors...

Background Custom

Fill Color

Color Transparency 36%

Image Source File

oracle.gif

Image Align

Image Transparency 17%

Image Aspect Ratio Locked

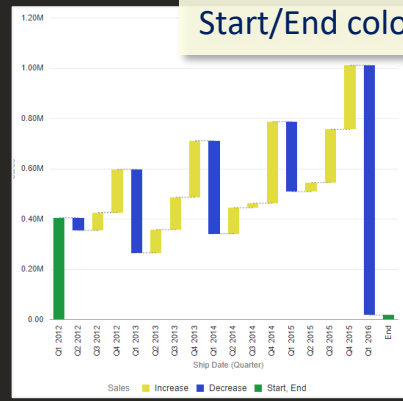
Image Width Original

Image Height Original

Transparency setting for background color and image in any Viz



Waterfall : Custom Increase/Decrease and Start/End colors



Increase Color

Decrease Color

Start, End Color



Data Actions to Drill in Publisher Report

Data Actions

Actions

▾ Navigate to BIP Report

Name

Type

Anchor To +

Target

Canvas Link


Pass Values

Navigate from any Dataviz into to Publisher report using Data Action

Select a project

All > Shared Folders

Search Sort by Type



Sales BIP Report.xdo

BI Publisher Parameter Map

Map attribute columns to BI Publisher parameters.

Column	Parameter
Product Category	Product_Category

Pass parameters from your Dataviz into Publisher report



OAC ML Outputs Enhancements

Sample O... Apply Model Save Data

Apply Model

Model Cluster

Outputs

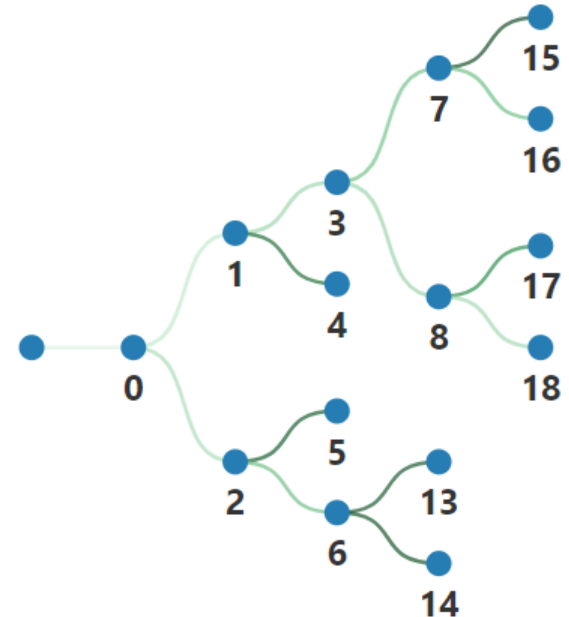
Create	Output	Column Name
<input checked="" type="checkbox"/>	ClusterID	ClusterID
<input checked="" type="checkbox"/>	ClusterName	ClusterName
<input checked="" type="checkbox"/>	ClusterDescription	ClusterDescription
<input checked="" type="checkbox"/>	ClusterSize	ClusterSize
<input checked="" type="checkbox"/>	DistanceFromCenter	DistanceFromCenter
<input checked="" type="checkbox"/>	Centers	Centers

Additional outputs for Clusters definitions when applying Clustering models in Data Flows

CART.CARTree

A	id
A	parent_id
A	prediction
#	confidence
#	total
A	condition
A	parent_condition
A	Target
A	Model Name

Recursive Parent ID in Decision Tree Model results (Related tables) to allow direct visualization of Decision Trees



OAC 5.7 Selected New Features Overview

Visualizations, Layout & Filters

1. Waterfall Bridge Report
2. Spark Chart on Performance Tiles
3. Top/Bottom N for attributes
4. List Box Filter Viz
5. Filter Options in Properties
6. Layout Container & Viz spacing Enhancements

Machine Learning & Advanced Analytics

7. Register & Apply OML Models
8. Database Analytics Operation
 - Un-pivot, Sampling
 - Dynamic Clustering, Dynamic Prediction

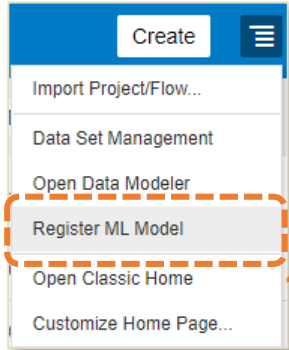
Data Sources

9. Improved LIVE Data sets

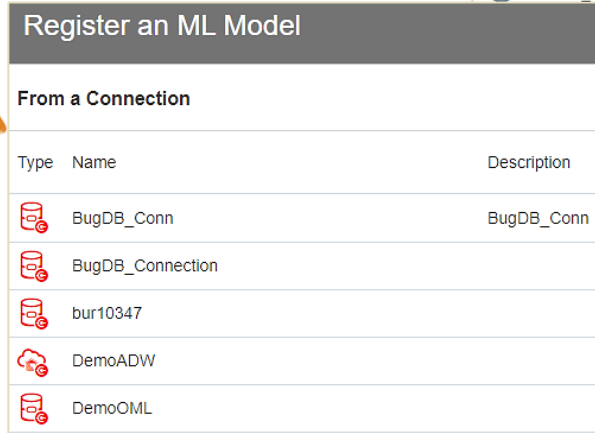


OML Integration – Register ML Model from Oracle ADW/Oracle DB

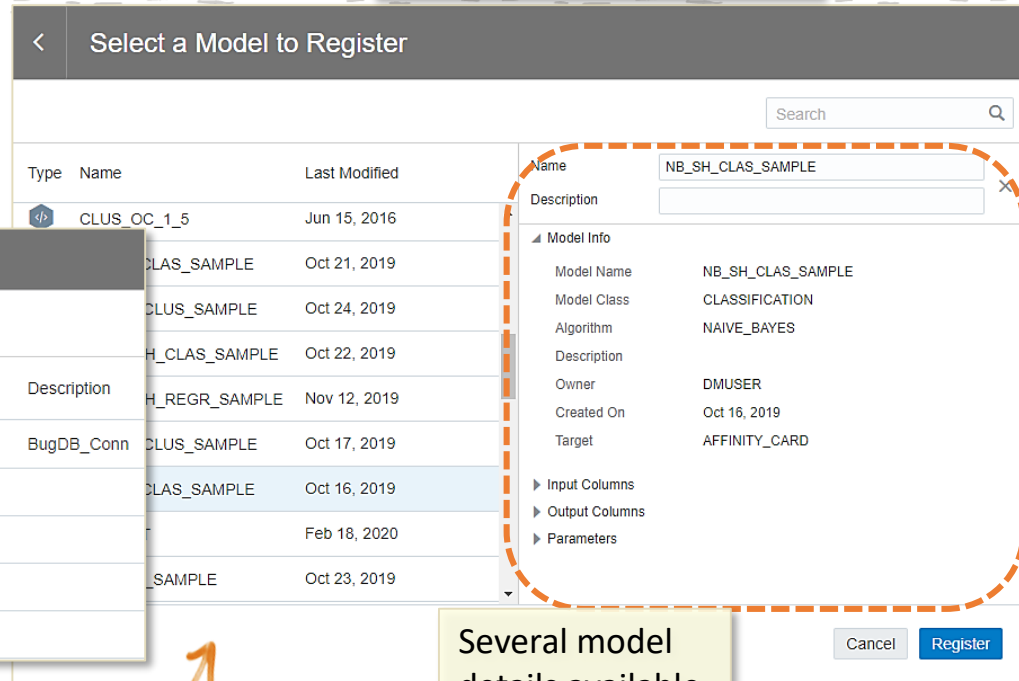
Register external ML Model



Select ADW/Oracle DB Connection



Register ML model to score OAC datasets



Several model details available

OML Integration – Apply OML model

Score OAC dataset using ML model

Apply Model lists OAC built and External Models

Apply Model

Model **NB_SH_CLAS_SAMPLE**

Outputs

Create	Output	Column Name
<input checked="" type="checkbox"/>	Prediction	Prediction
<input checked="" type="checkbox"/>	PredictionProbability	PredictionProbability
<input checked="" type="checkbox"/>	PredictionCost	PredictionCost
<input checked="" type="checkbox"/>	PredictionDetails	PredictionDetails

Parameters

Inputs

Model	Input
AGE	AGE
HOME_THEATER_PACKAGE	HOME_THEATER_PACKAGE
CUST_GENDER	CUST_GENDER

Type and Source differentiate OAC built vs External Model

Select Model				
Type	Name	Target	Author	Source
	Predict Age using CART	AGE	admin	Oracle Analytics Model
	NB_SH_CLAS_SAMPLE	AFFINITY_CARD	admin	Oracle Database
	ODM_LTV_BIN	M_LTV_BIN	admin	Oracle Database

Advanced Analytics : Database Analytics

Database Analytics Node available in Data Flows only for Oracle ADW/Oracle DB Datasets

The screenshot shows the Data Flow Designer interface. At the top, a blue button labeled 'MINING...' is highlighted with a dashed orange border. Below it, a grid of nodes is displayed. The 'Database Analytics' node, represented by a cylinder icon with a play button, is highlighted with a dashed orange border. An orange arrow points from the 'Aggregate' node to the 'Database Analytics' node. Other nodes include 'Add Data', 'Join', 'Union Rows', 'Filter', 'Aggregate', 'Save Data', 'Create Essbase Cube', 'Add Columns', 'Select Columns', 'Rename Columns', 'Transform Column', 'Merge Columns', 'Split Columns', 'Bin', 'Group', 'Branch', 'Cumulative Value', 'Time Series Forecast', 'Analyze Sentiment', 'Train Numeric Prediction', 'Train Multi-Classifer', 'Train Binary Classifier', 'Train Clustering', and 'Apply Model'.

Select Database Analytics

Four Database Analytics Operations available

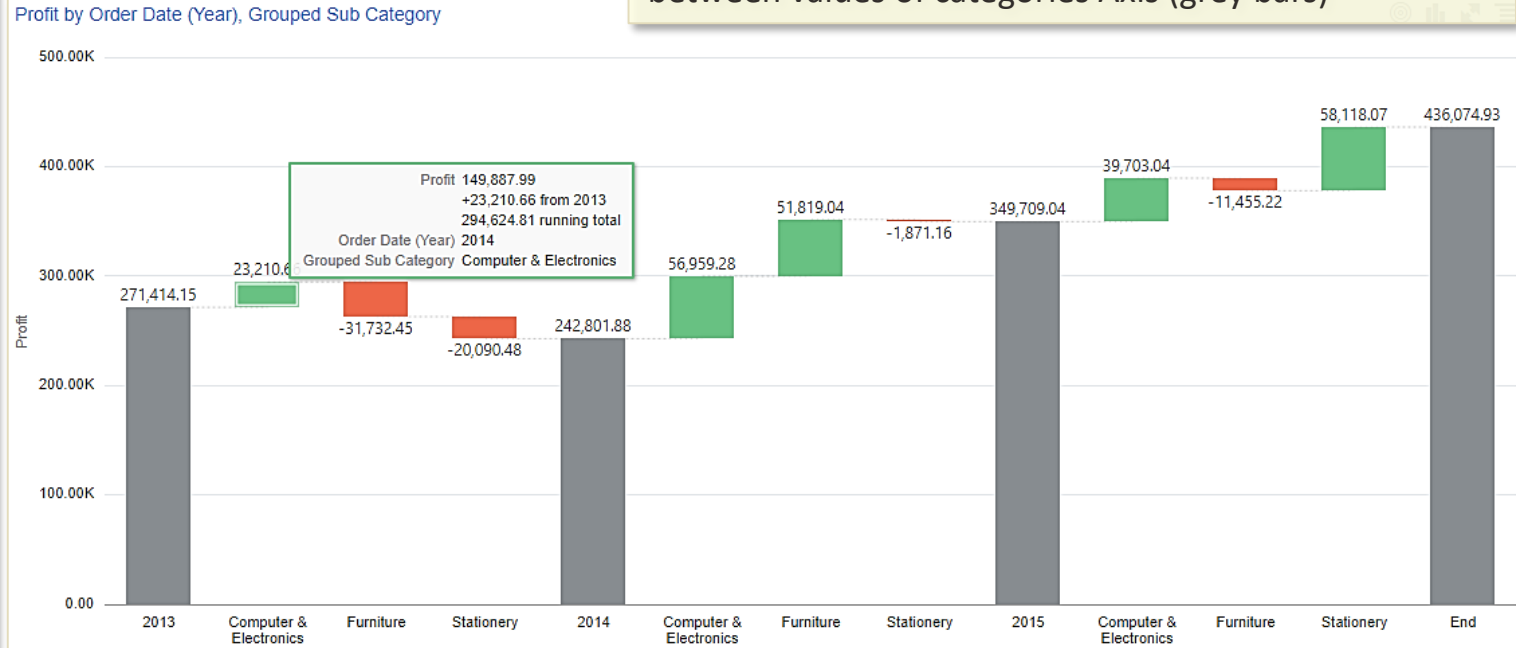
Analytics Operation	Description
Dynamic Anomaly Detection	This script performs dynamic anomaly detection on the input data without a pre-defined model.
Dynamic Clustering	This script performs dynamic clustering on the input data without a pre-defined model.
Sampling Data	The Oracle database ora_hash clause instructs the database to select a random sample of rows from the input data.
Un-pivoting Data	The DB Unpivot clause allows to transpose data that is stored in columns, into rows.

Saves results and executes directly in underlying database



Waterfall Bridge Report

Bridge Report : respective contributions of each member from Detail field, to the overall variation between values of categories Axis (grey bars)



Values (Y-Axis)

Profit

A Category (X-Axis)

Order Date (Y...)

Color

Leverages Detail Grammar Field

Tooltip

Detail

A Grouped S...



Spark Chart in Performance Tiles

Take Category to plot a Spark Chart

50 Tile

Values

- Sales

Category (Chart)

- City
- Area
- Bar
- Line

Drill to Attribute Hierarchy...

Create Filter

Delete

Trend by Order Date (Year)

Title Custom

Trend by Order Date (Year)

Title Font Auto, 10

Description Auto

Description Font Auto

Background Auto

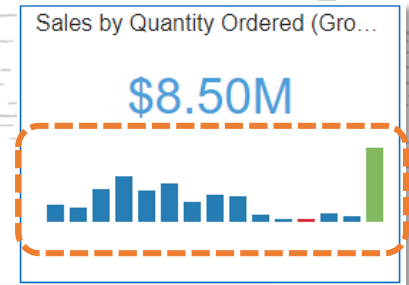
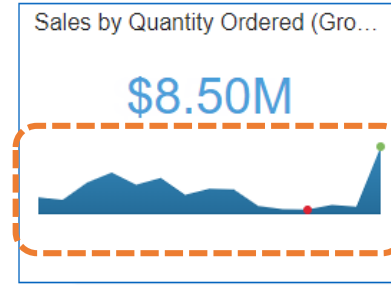
Alignment Center

Value Font Auto

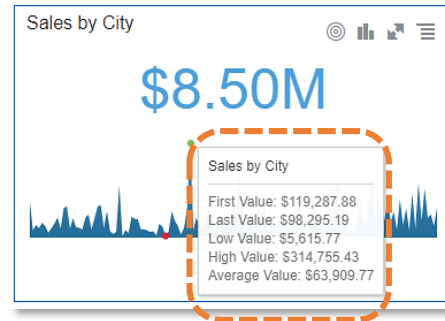
Chart Area

Reference Line Average

High/Low Marks Show



Low/High values displayed on the Spark chart



Value details on mouseover



Spark Chart in Performance Tiles

Dense Canvas made easy

Data

- Customer ID
- # of Customers
- Customer Name
- Customer Segment
- City
- Product Category

50 Trend by Order Date (Year)

Title **Custom**

Title Font **Auto, 10**

Description **Auto**

Description Font **Auto**

Background **Auto**

Alignment **Center**

Value Font **Auto**

Chart **Area**

Reference Line **Average**

High/Low Marks **Show**



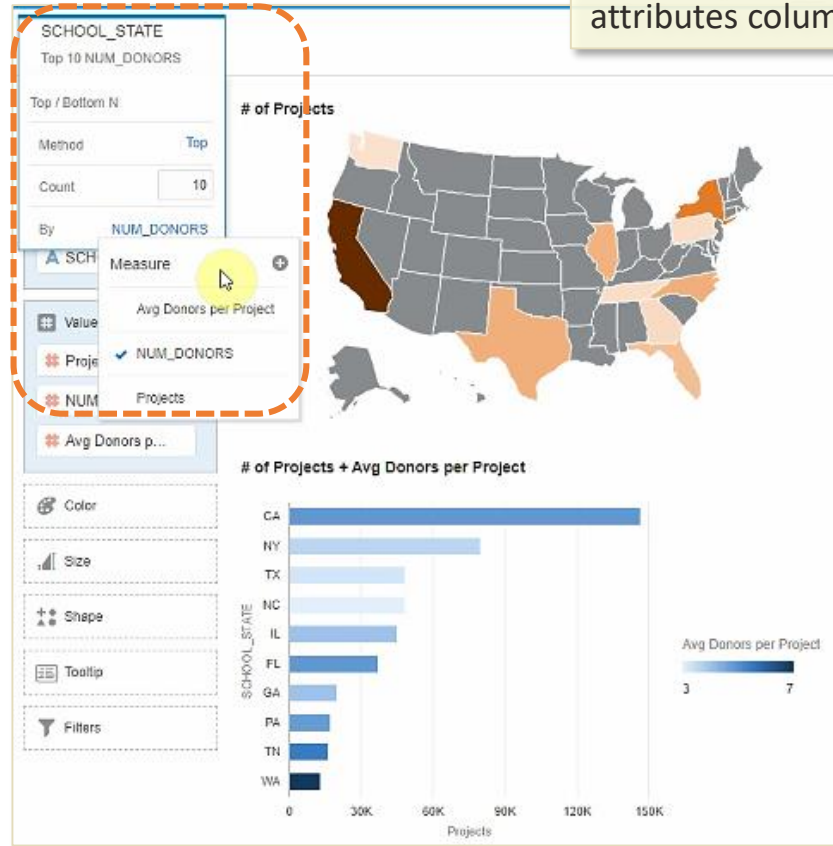
Top/Bottom N for Attribute Columns

Top/Bottom N filter on attributes columns

Select metric to Top with for this attribute.

Also works with

- metrics that are not on the canvas
- Aggregates according to the metric agg rule
- Custom calculations once on the canvas



Options to Selectively Apply Filters

Filters selectively applied to specific Vizs

Filters pinned to all canvas is applied by default across canvases

Data

- Sample Order Lines
 - Order Line ID
 - Order ID
 - Order Priority
- Customer Segment
- City
- Product Category**
- Product Sub Catego...
- Product Container

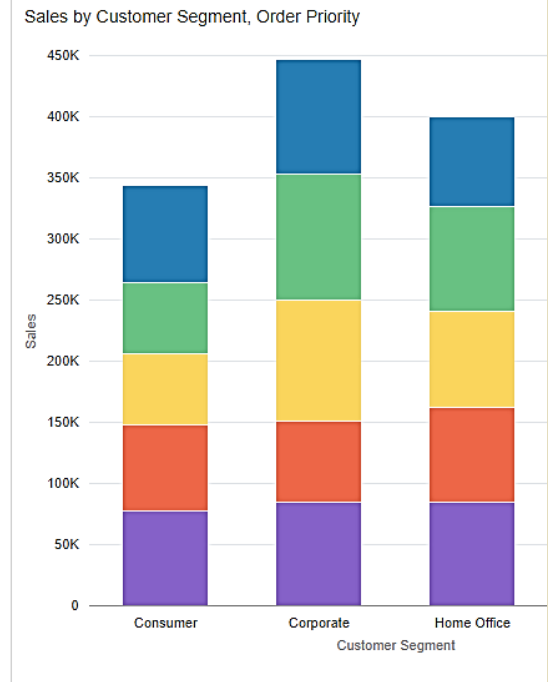
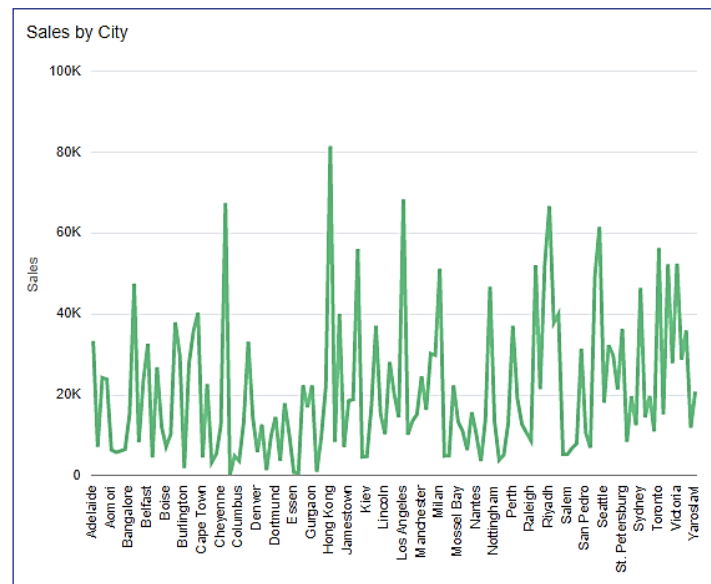
Sales by City

Filter This Viz By

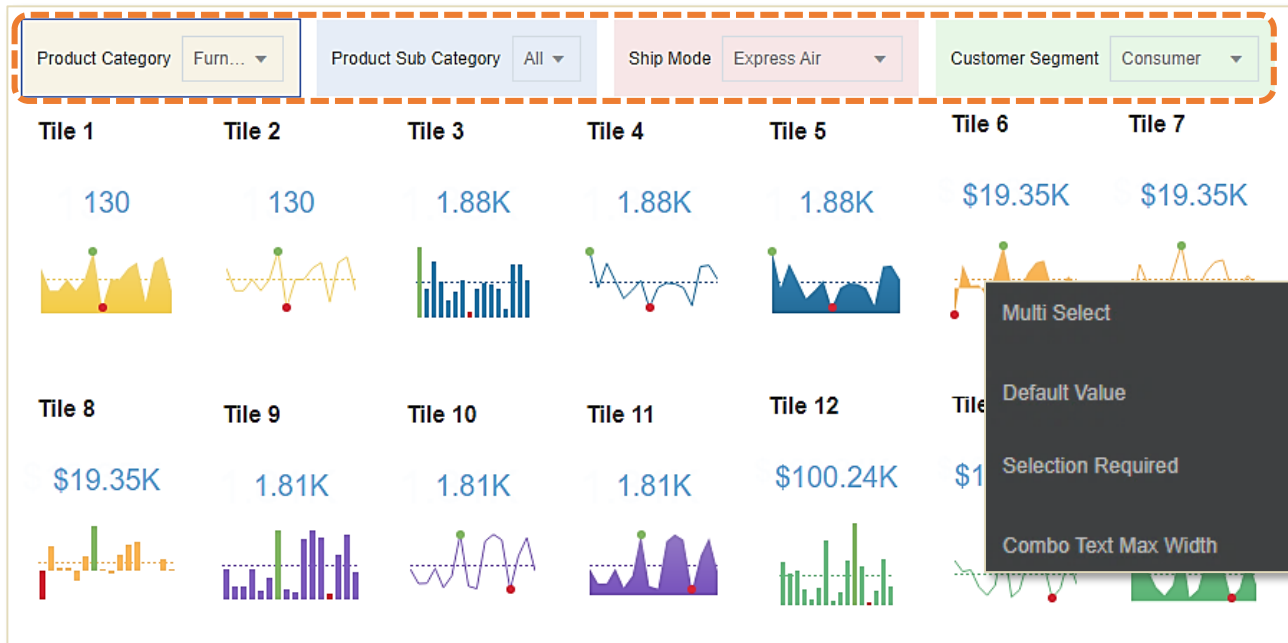
- Order Date (Year) (Project)
- City (Canvas)
- Sales (Canvas)
- Product Category (Visualization)

Order Date (Year) (2)	City	Sales
2014, 2015	All	≤ 5,220

Product Category: Furniture, Office Supplies



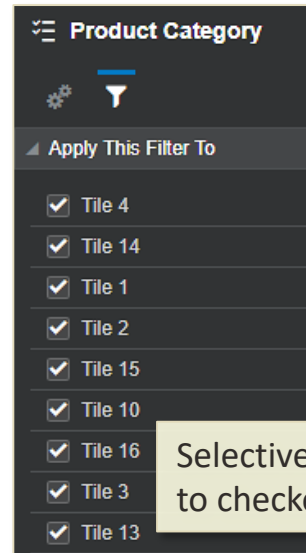
List Box Filter Viz : on Canvas Filters



Extended user-
interaction properties

Locates anywhere on Canvas
Works in Narrate mode

Cumulates with Canvas Filters ⚠



Selectively apply
to checked Vizs

Layout Container Enhancements

Canvas Properties

Name: Canvas 1

Layout: Auto Fit

Width: Screen

Height: Grow

Brushing: Grow

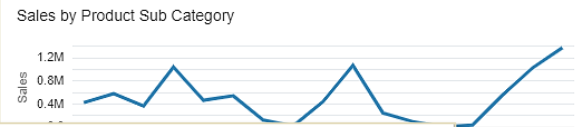
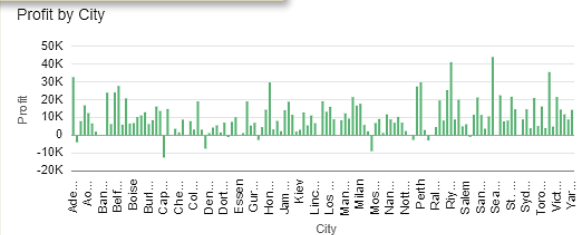
Synchronize Visualizations: Fixed

Show "Use as filter" filters

Background

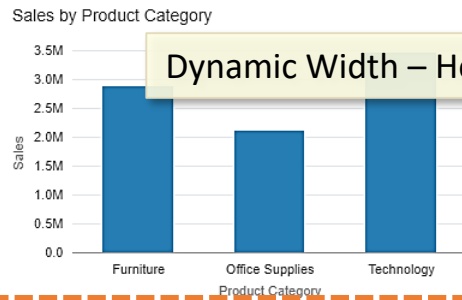
Screen size options

Dynamic Height – Vertical scrollbar



Sales
\$8.50M

Profit
\$1.30M



Dynamic Width – Horizontal scrollbar

