

# New Features in Oracle Analytics Cloud 19.1.1

Dan Vlamis & Cathye Pendley, Vlamis Software Solutions

@vlamissoftware, 816-781-2880

www.vlamis.com

dvlamis@vlamis.com, @dvlamis cpendley@vlamis.com, @Cathye\_Pendley

Copyright © 2019, Vlamis Software Solutions, Inc.

# **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 Reseller
- Oracle Gold Partner



ORACLE

Oracle Business Intelligence Foundation Suite 11g

specialized

Gold



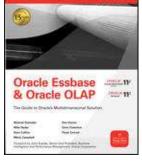
Specialized Oracle Business Analytics Cloud Platform













Copyright © 2019, Vlamis Software Solutions, Inc.

## **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: Oracle BI 11.1.1.5 New Features
- 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>

#### Copyright © 2019, Vlamis Software Solutions, Inc.

- 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)

### Introduction to OAC Running on ADW

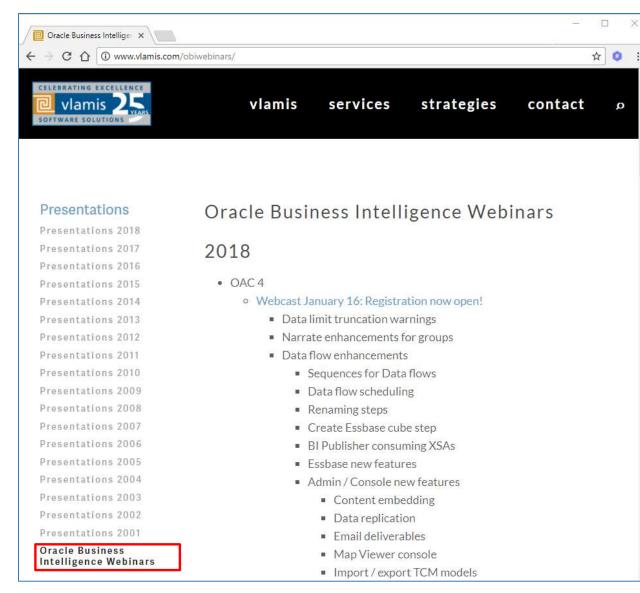
#### Webcast Mar 6, 2019

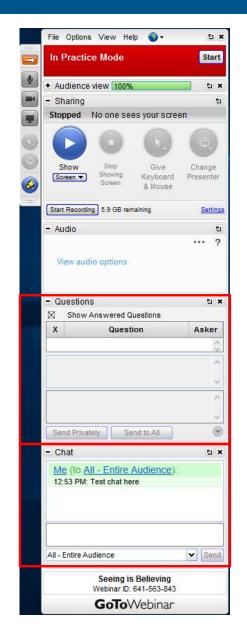
- OAC 4 (December 2017)
  - Webcast Dec 19, 2017 <u>OAC 4 New Features</u>
  - Webcast Apr 4, 2018 <u>Migration from OBIEE to OAC Webinar</u>
- 12.2.1.4 (June 2018)
  - Webcast Jun 19, 2018 Oracle BI 12.2.1.4 New Features
- OAC 18.3.3 (September 2018)
  - Webcast Sep 27, 2018 OAC 18.3.3 New Features
- OAC 19.1.1 (January 2019)
  - Webcast Feb 27, 2019 OAC 19.1.1 New Features



<u>itures</u>

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





CELEBRATING EXCELLENCE

#### Copyright © 2019, Vlamis Software Solutions, Inc.

### **OAC 19.1.1 Selected New Features Overview**

### A. Admin

- 1. Choose Objects to Migrate Between OAC Instances
- 2. Console Allows Config Changes & Restart Services
- 3. Catalog Manager
- 4. DSS/Data Prep Public Rest APIs
- 5. Quick Start Templates Easier to Create Instances

### **B.** Data Sources & Data Viz

- 6. Easier to Create ADW and ATP DB Connections
- 7. Suppress row on/off, show duplicates

### C. BI Publisher

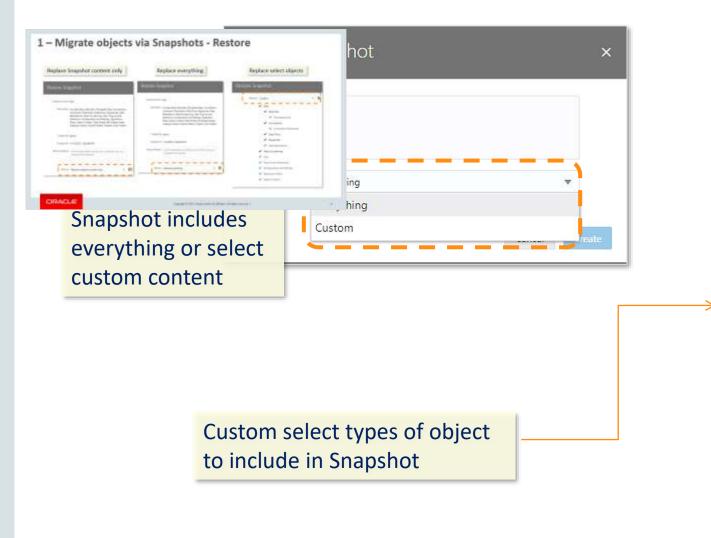
- 8. Bar File inclusion
- 9. Essbase POV Parameter Support

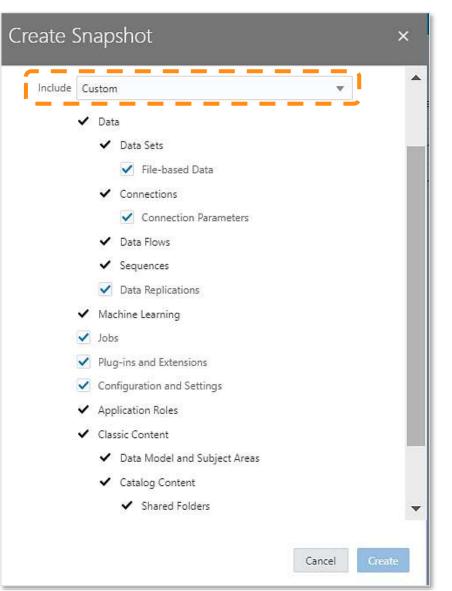
### **D.** Essbase

- 12. Oracle Autonomous Database support
- 13. Multi-cell Drill Through
- 14.Calc Tuple Support
- 15.Outline Support for Alias Tables in Web UI
- 16.Smart View support for Ancestor On Top
- 17. Auto Generation of Aggregate Views
- 18.Named Queries and Layouts
- 19. Other New Features
- 20.New Gallery Templates

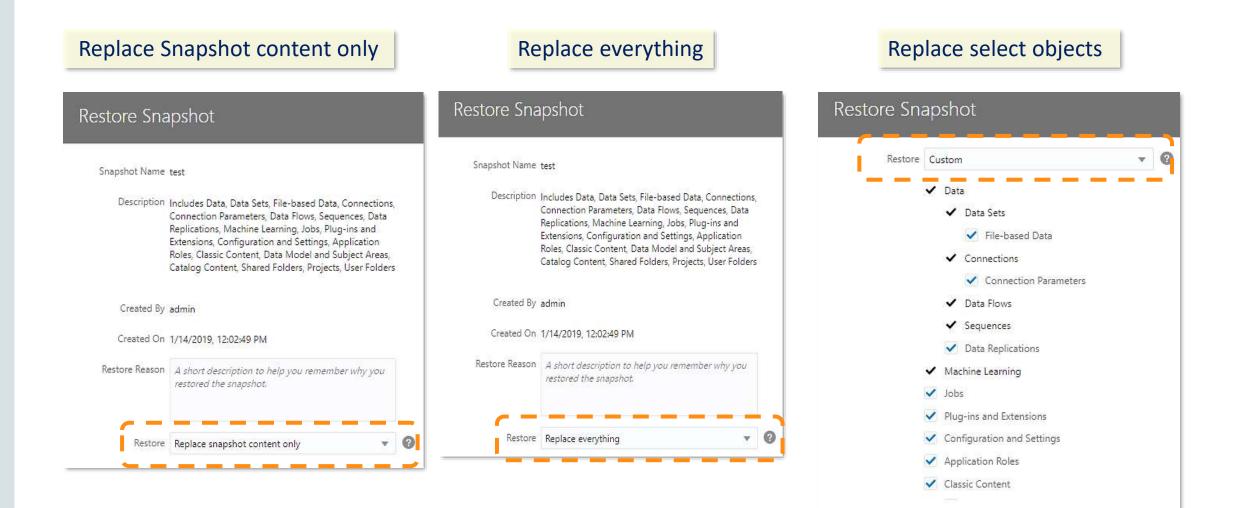
To be demoed in OAC 19.1.1 What's New Webcast

### 1 – Migrate objects between OAC instances-Create Snapshot

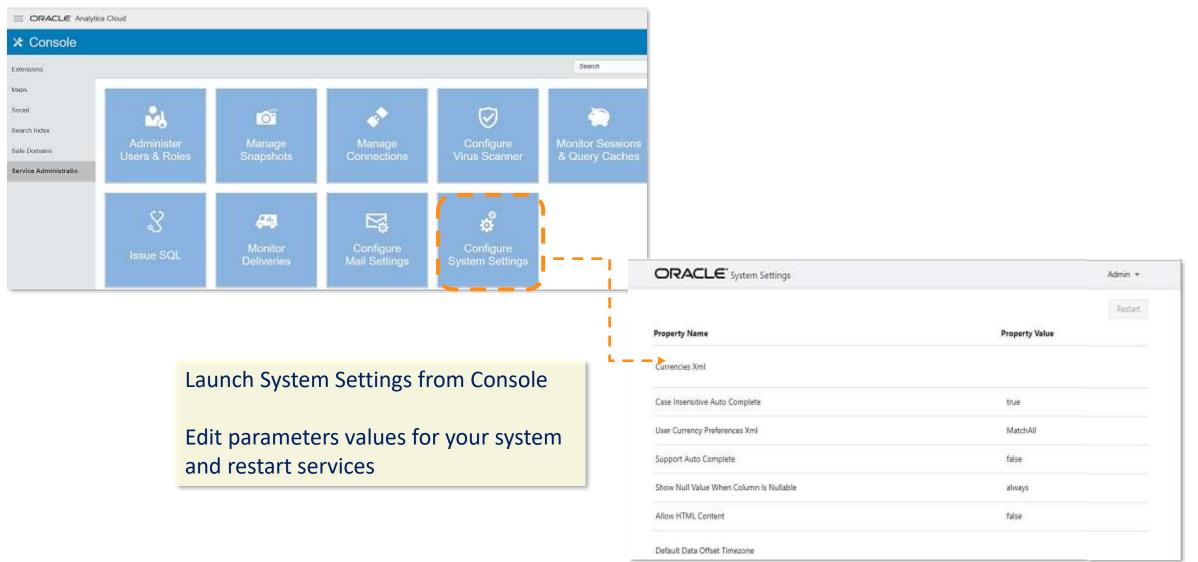




### 1 – Migrate objects via Snapshots - Restore



### 2 – Configure System Settings



### **3 – Catalog Manager Connecting to OAC**

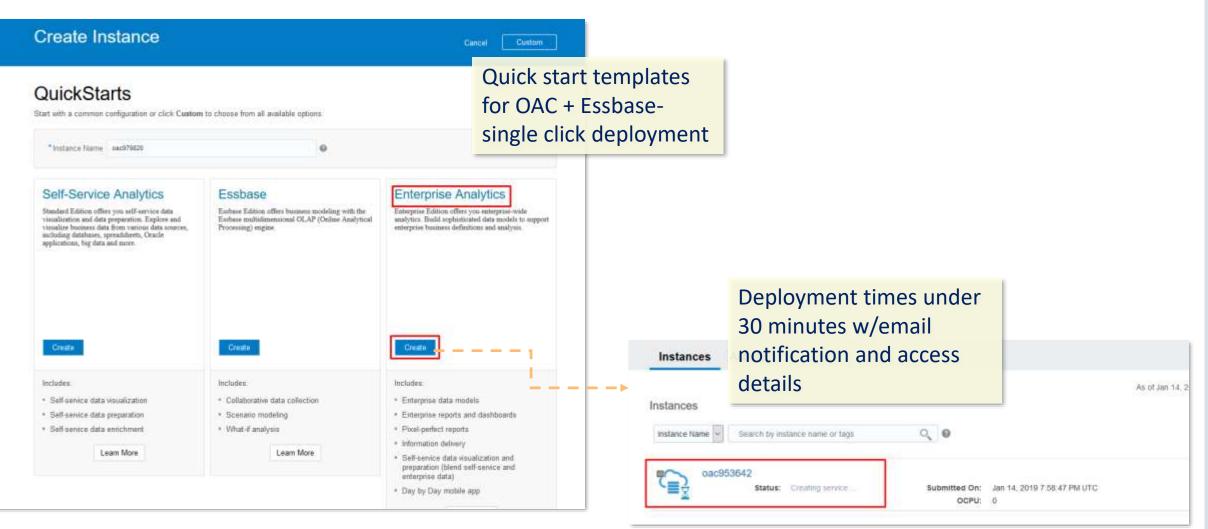
				Create Catalog Report		
				Select type to report on Analysis		★ Distinc
Oracle Business Intelligence Catalog Manager http://1	0.242.101.248:9704/analytics-ws	admin		Available Columns	Colu	mns in Report
ile Edit View Tools Help				ACL Account Display Name		
🔏 🖬 🛍 🚱 🔞 👘 😫				Account GUID Account Name		
දී Tree ස	- 8)	Table 🛛		Account Status Account Type	>	
Catalog Root     Discrete Folders		/users/admin/DV Demo/	DV Demo/Custom Plugins	Caption ID Column Content State Created		
<ul> <li>System Folders</li> <li>User Folders</li> </ul>		Name	Туре	Creator Description		
Geer Folders     My Folders		🗀 Viz Plugins	Folder	Description ID Folder	Selec	t Children Type to Report on
internals				Formula Internal Properties	Filte	(
recent_searchesDV Demo				Matching Accounts Missing Column IDs		
<ul> <li>DV Demo</li> <li>Custom Map Layers</li> <li>Custom Plugins</li> <li>Data Flow and ML</li> </ul>	client insta	anager as part Il allows to cor	nnect in	Modifier Must Have Permission Must NOT Have Permission Name Owner Path	Child	Iren Columns in Report
🚞 Samples Projects	online mod	de to OAC serv	ices and	Properties RPD Variables		
	generate re	eports		SAW Variables SQL Session Variables		
				Signature Size Subject Area	~	
The URL should be of the	following format			Table Tag Unused Column IDs		
for actual OCI pods:				Advanced Options		
https:// <hostname>:443/</hostname>	analytics-ws					OK Cancel

DCC/Data Draw I			PUT	/v4/dataflows/{dataflow-id}	Update a datafic
– DSS/Data Prep F	YUDIIC K	est APIS	POST	/v4/dataflows/{dataflow-id}/actions	Perform execute/stop action on a dataf
			GET	/v4/dataflows/{dataflow-id}/jobs	Get all jobs in a dataf
Http://sic07rmk.us.oracle.co	om:9704/datasetsvc/public/swagger,	Authorize Explore	GET	/v4/dataflows/{dataflow-id}/jobs/{job-id}	Get status of a particular job in a dataf
			GET	/v4/dataflows/{dataflow-id}/last-ingest-values	Get datasets last val
DSS/Data Prep Swagger Public Spec/d	atasetsvc/public	/swagger.json	GET	/v4/dataflows/{dataflow-id}/status	Get dataflow sta
DSS/Data Prep Swagger Public Spec			GET	/v4/dataflows/{dataflow-uri}/acl	Get the ACL for the datat
r /v4/connections	Returns a list of all conr	lections	PUT	/v4/dataflows/{dataflow-uri}/acl	Set the ACL for the data
st /v4/connections	Create a connection with parame	ter json	GET	/v4/datasets	Get metadata for data
re /√4/connections/{connection-uri}	Delete a con	nection	PUT	/v4/datasets	Finalize data
/v4/connections/{connection-uri}	List information of a single cor	nection	POST	/v4/datasets/{dataset-id}/actions	Invoke profile job on a particular dat
r /v4/connections/{connection-uri}	Update the metadata of a con	nection	DELETE	/v4/datasets/{dataset-uri}	Delete a dat
√ /v4/connections/{connection-uri}/acl	Get the ACL for a con	nection	GET	/v4/datasets/{dataset-uri}	Get attributes of a data
τ /√4/connections/{connection-uri}/acl	Set the ACL for a con	nection	POST	/v4/datasets/{dataset-uri}	Set attributes of a dat
	tables for a target cloud replication connection	n object	PUT	/v4/datasets/{dataset-uri}	Replace a dataset and metao
v4/connections/(connection-metadata-xml)	Get the metadata XML for a con		GET	/v4/datasets/{dataset-uri}/acl	Get the ACL for a dat
/v4/connections/{connection-uri}/connection-metadata-xml	Replace the metadata XML for a con		PUT	/v4/datasets/{dataset-uri}/acl	Set the ACL for a data
	•		GET	/v4/datasets/{dataset-uri}/biserver-metadata-xml	Get the BI Server metadata xml of a data
π / <del>v4/connections/[connection uri]/credential</del>	Update a connection cre	dentials	PUT	/v4/datasets/{dataset-uri}/biserver-metadata-xml	
rr /v4/connections/{connection-uri}/object-list{path-separator}{directory-uri}	Get object listing for a co	50 + available	GET	/v4/datasets/{dataset-uri}/canonical-data	Get the canonical data for a dat
/v4/connections/{connection-uri}/objects{path-separator}{object-id}		50 + avaliable	GET	/v4/datasets/{dataset-uri}/provider-options-xml	
Get replication runtime of /v4/connections/{connection-uri}/objects{path-separator}{object-id}	details for a target cloud replication connection	DSS REST API	PUT	/v4/datasets/{dataset-uri}/provider-options-xml	
	details for a target cloud replication connection	Calls in OAC	GET	/v4/datasets/{dataset-uri}/rawfile	Get the raw file of the dat
ut /v4/connections/{connection-uri}/objects{path-separator}{object-id}/filters			HEAD	/v4/datasets/{dataset-uri}/rawfile	
Validate filter c	query for a source cloud replication connection	n object	PUT	/v4/datasets/{dataset-uri}/rawfile	Replace the rawdata for a data
r /v4/dataflows	Get metadata for da	ataflows	GET	/v4/datasets/{dataset-uri}/schema	Get schema of a dat
st /v4/dataflows	Create a c	Istaflow	POST	/v4/datasets/{dataset-uri}/schema	Set schema of a dat
r /v4/dataflows/jobs			GET	/v4/datasets/{dataset-uri}/type-options-xml	Returns the type options xml of a dat
ETE /v4/dataflows/{dataflow-id}	Delete a c	lataflow	PUT	/v4/datasets/{dataset-uri}/type-options-xml	Replace the type options xml of a dat
r /v4/dataflows/{dataflow-id}	Get the metadata of a c	lataflow	PUT	/v4/providers/managed/upload	Upload a managed dat
			POST	/v4/providers/{provider-name}{path-separator}{version}/cert	Upload certificate for a provi

#### ORACLE

Copyright © 2017, Oracle and/or its affiliates. All rights reserved. |

### 5 – Quick Start Templates



### 6 – Easier to Create ADW and ATP DB Connections

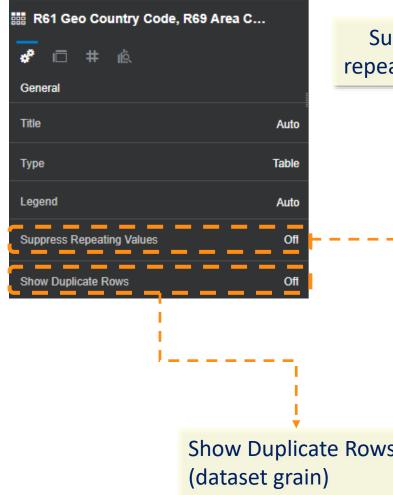
#### Upload wallet file

			Create Connection	I		Create Connectio	Create Connection				
Oracle	Autonomous Warehouse Cloud	Oracle Autonomous Transaction Processing	Oracle A * Connection Name	utonomous Data Wareh	ouse Cloud	Oracle * Connection Nam	e Autonomous Transaction Pro	ocessing			
	Ora	acle Autonomous	Description	>		Descriptio	in				
	Tran	saction Processir	* Client Credentia	Drop file here	Select	* Client Credentia	ls Drop file here	Select			
			* Username			* Usernam	le				
			* Password			* Passwoi	rd				
			* Service Name			* Service Nam	ie	, I			

#### No more need to open wallet file details manually :

- Host and port # are populated automatically
- Drop down on service name

### 7 – Suppress Repeating Values, Summarize Dunlicates



Suppresses	Pro
repeating values	Fur
1	Fur
	Fur
I. I.	Fur
I. I.	Offi
	Tec
	Tec
	Tec
	Tec
Rows	Tota

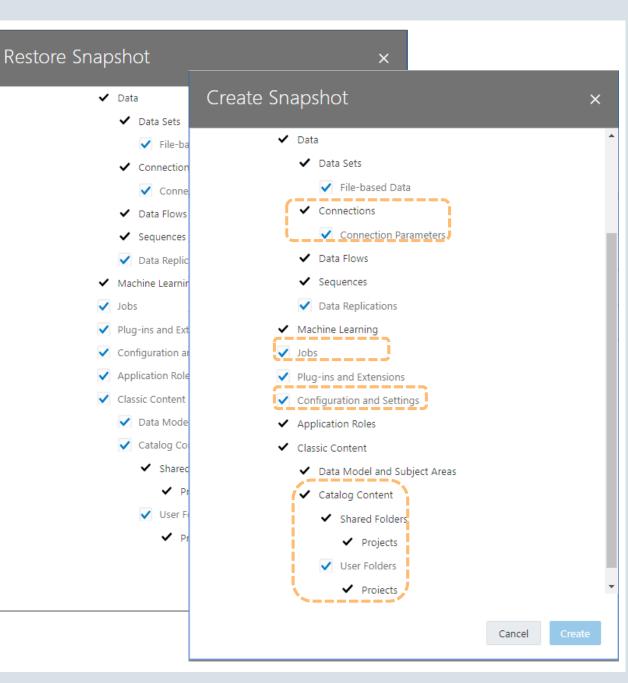
		Produ	ict Category	Product Sub Category	Sales
				Bookcases	370,475.59
		Furnit		Chairs & Chairmats	1,046,332.70
		Furm	ure	Office Furnishings	445,605.98
Product Category	Product Sub Category			Tables	1,030,879.05
Furniture	Bookcases			Appliances	431,437.26
Furniture	Chairs & Chairmats			Binders and Binder Accessories	585,361.54
Furniture	Office Furnishings			Envelopes	126,645.07
Furniture	Tables			Labels	23,220.91
Office Supplies	Appliances	Office	Supplies	Paper	251,643.77
Office Supplies	Supplies Binders and Binder Acces			Pens & Art Supplies	103,130.53
Office Supplies	Envelopes			Rubber Bands	8,412.39
Office Supplies	Labels			Scissors, Rulers and Trimmers	40,087.72
Office Supplies	Paper			Storage & Organization	561,919.82
Office Supplies	Pens & Art Supplies			Computer Peripherals	470,248.59
Office Supplies	Rubber Bands	Table		Copiers and Fax	547,260.50
Office Supplies	Scissors, Rulers and Trin	Techr	lology	Office Machines	1,077,394.46
Office Supplies	Storage & Organization			Telephones and Communication	1,379,944.12
Technology	Computer Peripherals	Total			8,500,000.00
Technology	Copiers and Fax		547,260.5	0	Ni ili
Technology	Office Machines		1,077,394.4	6	
Technology	Telephones and Communi	cation	1,379,944.1	2	
Total			8,500,000.0	0	

ORACLE

Copyright © 2017, Oracle and/or its affiliates. All rights reserved.

### 8-BIP : BAR Snapshot Support

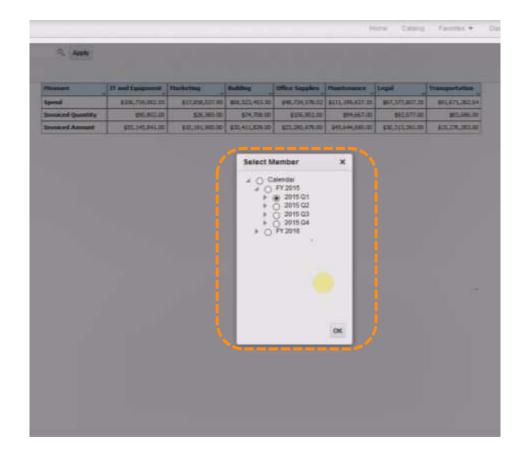
- BI Publisher artifacts are now included in BAR file and include:
  - BI Publisher Catalog Content
  - Data Source Connections
  - Runtime Properties
  - Scheduled Jobs
  - User Credentials
- Custom Selections for BI Publisher in a Snapshot:
  - Connection Parameters: For Data source Connections & User Credentials
  - Jobs: For Schedule Jobs
  - Configuration and Settings: For Runtime properties
  - Catalog Content



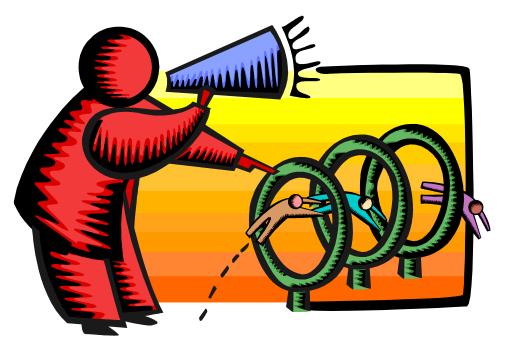
### 9-BIP : Essbase POV Parameter Support

 Now you can design your report against Essbase using POV as parameter. The POV parameter allows to select hierarchical member dimensions in the report

Earlier you could create a report against
 Essbase data source using MDX query with
 POV member dimension as static selection.



# **Demo OAC BI Features**





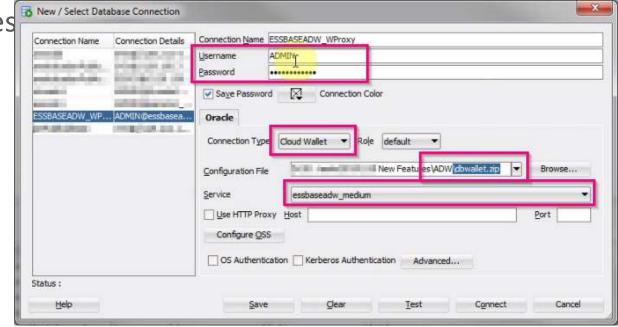
Copyright © 2019, Vlamis Software Solutions, Inc.

### OAC 5.1 – Essbase Features Overview

- Oracle Autonomous Database support
- Multi-cell Drill Through
- Outline Support for Alias Tables in Web UI
- Calc Tuple Support
- Smart View support for Ancestor On Top
- Auto Generation of Aggregate Views
- Named Queries and Layouts
- Other New Features
- New Gallery Templates

### Oracle Autonomous Database support

- Support OAC Essbase to connect to an Oracle Autonomous Data Warehouse (ADW) instance.
- Support uploading of wallet files for defining connection information to ADW
- Ability to connect to multiple ADW instances
- Defined using the Connections and Data source constructs
- Ability to
  - Create data load & dim build
  - Define Drill Thru to ADW for details
  - Define Variable Security filters
  - Create partitions for real time data source



### Test and Create Connection

Create Connection	ř	
🧭 File 'dbwallet.zip' uploa	ded successfully	×
	Oracle Database	
Autonomous(Beta)		
* Name	essbaseADW	
* Service Name	essbaseadw_medium	
Wallet File	/system/wallets/Sample/essbase	ADW
* User	ADMIN	
* Password		
Description	Connection to ADW instance	
	Test	Cancel

Create Connection	Ľ	
🥝 Success.		×
	Oracle Database	
Autonomous(Beta)		
* Name	essbaseADW	
* Service Name	essbaseadw_medium	
Wallet File	/system/wallets/essbaseADW	
* User	ADMIN	
* Password		
Description	Connection to ADW instance	
	Test Create Ca	ncel

#### **Create Data source** ORACLE Analytics Cloud - Essbase weblogic = **Create Datasource** -----× 2 (4)Jobs Files Academy C field: Next > Applications Scanarios Security Sources Console Columns Parameters General Frankes Datasources Sources \* Connection essbaseADW O Datasource created successfully Connections \* Name | salesWeeklyADW Description Connection to ADW for weekly sales Datasources Create Datasource data Name Connection Description \* Query select \* from sales, week Connection to ADW for weekly sales data 😫 salesWeeklyADW essbaseADW D **Create Datasource** < Back $\odot$ $\odot$ (4)Next > General Columna Parameters Preview **Create Datasource** Name Type Abat Index $\odot$ $\odot$ < Back $\langle \boldsymbol{\checkmark} \rangle$ Next 5 1 PRODUCT String ÷ General Columns Parameters Preview 2 MARKET String \* PRODUCT MARKET SCENARIO MONTH WEEK SALES 0065 3 SCENARIO String. -400-20 New York Actual Teb unak4 89.91 36.63 4 MONTH String: \* 400-20 New York: Actual Mar week1 44,73 18.27 400-20 57.510000000000005 25.4900000000000002 -5 WEEK New York Actual Mat week2 String -400-20 Mar 31.95 13.0499999999999999 New York Actual week3 SALES 6 Double . 78.81 32.19 400-20 New York Actual Mar: week4 400-20 Actual week1 45.83 29.11 New York. Apr 400-20 New York Actual Apt week2 60.21 24.57 Cruste Cancel 400-26 Apr which 7 33.449999999999999996 11.65 New York: Actual

#### ORACLE<sup>®</sup>

Create Cancel

×

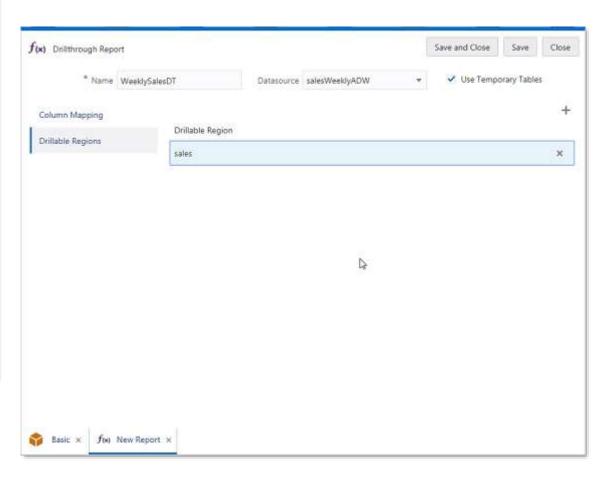
Actions

Ξ

=

### Define Drill Thru report

* Name Weekly	/SalesDT	Datasource sale	esWeeklyADW 👻	V Use	Temporary Tables	
S 100-54 March 20						
Column Mapping	Column	🖌 Report Columns	Dimension/Generation (F	ilter Condition	51	
Drillable Regions	PRODUCT	~	Product	* Produ	ct SKU [Generation	1 *
	MARKET	~	Market	▼ Level	(Levei)	24
	SCENARIO	~	Scenario	▼ Level	) [Level]	×
	MONTH	~	Year	* Mont	hs [Generation]	
	WEEK	*	None			
	SALES	*	None	÷		
	COGS	×	None	×		
					Da	
Basic × for New Re	port ×					



### Drill Thru into details from Smart View back to ADW

C3	}	• E	$\times \checkmark$	$f_x$	578						1					
	Α	В	С	D	E	F	G	н	I	J						
1			New York	Actual												
2			Sales	COGS	Margin	Total Exper	Profit	Inventory	Ratios	Measures						
3	Cola	Jan	<b>678</b>	271	407	145	262	2101	60.0295	262						
4	Cola	Feb	645	258	387	142	245	2067	60	245						
5	Cola	Mar	675	270	405	146	259	2041	60	259						
6	Cola	Qtr1	1998	799	1199	433	766	6209	60.01001	766						
7	Cola	Qtr2	2358	942	1416	488	928	6834	60.05089	928						
8	Cola	Qtr3	2612	1044	1568	518	1050	7851	60.03063	1050						
9	Cola	Qtr4	1972	788	1184	430	754	7770	60.04057	754						
10	Cola	Year	8940	3573	5367	1869	3498	28664	60.03356	3498						
11	Colas	Jan	678	271	407	145	262	2101	60.0295	262						
12	Colas	Feb	645	258	387	142	245	2067	60	245						
13	Colas	Mar	675	270	405	146	259	2041	60	259			<b>-</b> : 5	×	£	_
14	Colas	Qtr1	1998	799	1199	433	766	6209	60.01001	766	C	5	<u>_</u> = []	×	fx	
15	Colas	Qtr2	2358	942	1416	488	928	6834	60.05089	928		А	В	С	D	
16	Colas	Qtr3	2612	1044	1568	518	1050	7851	60.03063	1050	1	PRODUCT	MARKET	SCENARIO	молтн	١
17	Colas	Qtr4	1972	788	1184	430	754	7770	60.04057	754	2	100-10	New York		Jan	1
18	Colas	Year	8940	3573	5367	1869	3498	28664	60.03356	3498	3	100-10	New York		Jan	1
19												100-10	New York		Jan	1

C8	3	• : )	X 🗸	<i>f</i> x			
	А	В	С	D	E	F	G
1	PRODUCT	MARKET	SCENARIO	MONTH	WEEK	SALES	COGS
2	100-10	New York	Actual	Jan	week1	142.38	56.91
3	100-10	New York	Actual	Jan	week2	183.06	73.17
4	100-10	New York	Actual	Jan	week3	101.7	40.65
5	100-10	New York	Actual	Jan	week4	250.86	100.27
6							

### Multi Cell Drill Thru

- Ability to select multiple ranges to perform Drill Thru
- Drill thru cells can be:
  - Symmetric selection of cells same hierarchy (non-recursive)
  - Symmetric selection of cells same hierarchy (recursive)
  - Symmetric selection of cells same hierarchy (Level0)
  - Asymmetric selection of cells
- No limitation on number of data cells to be selected in Smart View for report execution.
- Performance enhancement for Oracle Database with the use of temporary tables



# Symmetric selection of cells – same hierarchy (non-recursive)

- "Jan" and "Feb" are from the same Generation of "Time" dimension
- Mapping to the data source is done for the same generation of the members selected for drill thru

```
Year IN ('Jan', 'Feb')
Product IN ('100-10')
Scenario = 'Actual'
Region IN ('East')
```

	\$ · c ·								38	mpresses	DSadax - Earce		
ile	Home	Insert P	age Layout	Formulas	Data Revie	w View	Smart Vi	ew Essbase	Cube Design	er 🖓	fell me what y	rou want to de	1_
	X Cut	Calibr	ni • 11	• A	. ===	ø- ∣₿	Wrap Text	General			1 1	Normal 2	N
	Copy -	100	CONTRACTOR OFFIC	The state		Sec. 1			S 2 12	7		and the second second second	
UP.	* Format P	hainter B J	r u • 🗄 •	🙆 - 🗛	· # # #	년 <u>1</u> 년 1	Merge & Co	enter • \$ • %	1 2 2		roal Formatia rog = Table =		N
	Clipboard	5	Ford		6	Alignment		5 N.	mber a		A tenne		Styles
	and the second second	ING .				62 m	_	-		_	_	_	
_	3	# 2000	Jr 1	1812									
	A	6	c	D	E	F	G	н		1	i k l		M
Γ	- 19/ - 1				Sales	COGS	Margin	Total Expenses	Profit 1	nventory	Ratios	Measures	
	Actual	East	100-10	Jan	1812	599	1713	376	837	4643	66.9426	837	
	Actual	East	100-10	Feb	1754	588	1166	374	792	4253	66.47662	792	
	Actual	East	100-10	Mar	1805	596	1209	377	832	3912	66.98061	832	
	Actual	East	100-10	Qtr1	5371	1783	3588	1127	2461	4643	66.8032	2461	
	Actual	East	100-10	Qtr2	6024	1903	4171	1181	2940	3747	68.40969	2940	
	Actual	East	100-10	Qtr3	6505	2001	4504	1206	3298	3598	69.23905	3298	
	Actual	East	100-10	Qtr4	5305	1756	3549	1119	2430	1898	66.89915	2430	
	Actual	East	100-10	Year	23205	7443	15762	4633	11129	4643	67.92502	11129	
	Actual	East	100-20	Jan	200	84	116	49	67	500	58	67	
	Actual	East	100-20	Feb	206	86	120	49	71	490	58.25243	71	
	Actual	East	100-20	Mar	214	89	125	51	74	481	58.41121	74	
	Actual	East	100-20	Qtr1	620	259	361	149	212	500	58.22581	212	
	Actual	East	100-20	Qtr2	822	344	478	175	303	502	58.15085	303	
	Actual	East	100-20	Qtr3	843	353	490	178	312	692	58.12574	312	
	Actual	East	100-20	Qtr4	783	327	456	169	287	656	58.23755	287	
	Actual	East	100-20	Year	3068	1283	1785	671	1114	500	58.18123	1114	

### Symmetric selection of cells – same hierarchy (recursive)

- Market Dim selection is for Central and Market
- Product Dim selection is for 100, hence recursive would get 100-10, 100-20 and 100-30

```
Year IN ('Jan', 'Feb')
Product IN ('100-10', '100-20', '100-30')
Scenario = 'Actual'
Region IN ('East', 'West', 'South', 'Central')
```

1	5.3.	Ŧ							SampleBasicDSxlsx
Fil	Home	Insert Pa	ge Layout	Formulas	Data Review	View	Smart View	Essbase Cul	be Designer 🛛 🛛 Tell me
Paste		Calibri	P • 11	· Á Á		2	IS rap Text erge & Cent	Y2 General	Y3 ◆ 10 → 0 Formatting *
	Clipboard	F2	Font	5		Alignment		rs Number	and the second
H13		: X	fx 8	327	_				
	А	B	C C	D	F	F	G	н	TIII
1	A	D		East	E West	South	Central	Market	1 1
2				Sales	Sales	Sales	Sales	Sales	
3	Actual	100-10	Jan	1812		757	1117	4860	
4	Actual	100-10	Feb	1754	1146	773	1148	4821	
5	Actual	100-10	Mar	1805	1173	766	1160	4904	
6	Actual	100-20	Jan	200	700	450	1022	2372	
7	Actual	100-20	Feb	206	726	487	1014	2433	
8	Actual	100-20	Mar	214	727	499	1031	2471	
9	Actual	100-30	Jan	93	465	#Missing	524	1082	
10	Actual	100-30	Feb	101	426	#Missing	546	1073	
11	Actual	100-30	Mar	107	413	#Missing	512	1032	
12	Actual	100	Jan	2105	2339	1207	2663	8314	
13	Actual	100	Feb	2061	2298	1260	2708	8327	
14	Actual	100	Mar	2126	2313	1265	2703	8407	
15	Actual	200	Jan	1853	2723	1770	2370	8716	
16	Actual	200	Feb	1966	2759	1803	2432	8960	
17	Actual	200	Mar	1907	2796	1781	2467	8951	
18	Actual	300	Jan	1609	2602	999	2664	7874	

### Asymmetric selection of cells

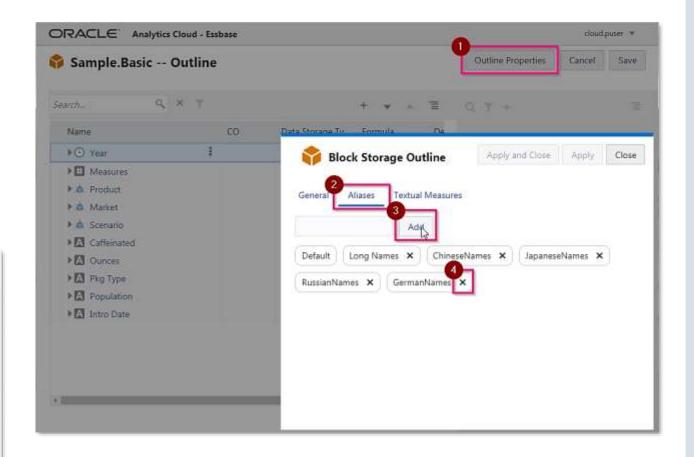
• Ability to select multiple cells which are not contiguous

	<b>ئ</b> . ن	÷							Sa
File	Home	Insert Pa	ge Layout 🛛 🖡	ormulas	Data Review	View	Smart View	Essbase	Cube Desigi
-	🔏 Cut	Calibri	• 11	· ĂĂ	= = *	-   <b>₽</b> w	rap Text	General	
Paste	Copy 👻 Format Pai	B I	<u>u</u> •   🔜 •	<u>⊘</u> - <u>A</u> -	= = = .		erge & Centi	er • \$ • %	• .0 .00 • 0. • 00.
*	Clipboard	niter Fa	Font	5		Alignment		s Num	bor r
-	Cipboard		POIL	12		Alighment	_	ia   Null	
E4	*	$  \times   \checkmark$	<i>fx</i> 11	L46					
	A	В	с	D	E	F	G	н	I
1				East	West	South	Central	Market	
2				Sales	Sales	Sales	Sales	Sales	
3	Actual	100-10	Jan	1812	1174	757	1117	486	D
4	Actual	100-10	Feb	1754	1146	773	1148	482	1
5	Actual	100-10	Mar	1805	1173	766	1160	490	4
6	Actual	100-20	Jan	200	700	450	1022	237	2
7	Actual	100-20	Feb	206	726	487	1014	243	3
8	Actual	100-20	Mar	214	727	499	1031	247	1
9	Actual	100-30	Jan	93	465	#Missing	524	108	2
10	Actual	100-30	Feb	101	426	#Missing	546	107	3
11	Actual	100-30	Mar	107	413	#Missing	512	103	2
12	Actual	100	Jan	2105	2339	1207	2663	831	4
13	Actual	100	Feb	2061	2298	1260	2708	832	7
14	Actual	100	Mar	2126	2313	1265	2703	840	7
15	Actual	200	Jan	1853	2723	1770	2370	871	6
16	Actual	200	Feb	1966	2759	1803	2432	896	0
4-1	1000		<b>1</b> 111				1000		

### Manage Alias Tables

- Ability to Manage Alias tables
  - Create Alias tables
  - Delete existing Alias tables
- Assign values to specific members for specific Alias tables

Aliases		
ChineseNames	商品	
Default		
GermanNames	Produkt	
JapaneseNames	商品	
Long Names		
RussianNames	Товары	



### Calc Tuple Support

#### Tuple

A calculation *tuple* is a way to represent a data slice of members, from two or more *sparse dimensions*, to be used in a calculation.

- By default, when multiple members from different dimension are in a calculation FIX statement, or are part of the grid POV in Smart View, the calculation scope is a Cartesian-product (all possible combinations) of all member combinations from different dimensions in the FIX.
- A Calculation Tuple is a way to represent a data slice of members, from two or more sparse dimensions, to be used in a calculation.



### Using Tuples

- Ability to focus calculations in a calculation script or the active Smart View Grid
- Tuple selection helps optimize asymmetric grid calculations across dimensions hence avoiding over-calculation
- Calculation tuples are specified only for sparse member combinations
- Multiple members from a single sparse dimension can be included in a calculation tuple specification
- Special syntax in FIX statements helps you specify which tuples to calculate.



### Specifying Tuples

### Using @GRIDTUPLES Statement (New)

- way to select tuples is contextually, based on whichever members are present in a Smart View grid POV at calculation run time by providing the @GRIDTUPLES function as an argument to FIX, in the calculation script.
- Using RTSV (Run Time Substitution Variables)
  - The Calculation Scope is declared variables and their values in the context of the runtime action or from the members of a dimension presented on a Smart View grid
- Using Smart View POV Grid

```
FIX ([{ tupleList | @GRIDTUPLES(dimensionList) },] fixMbrs)
COMMANDS ;
ENDFIX
```

### @GRIDTUPLE in action...

- To execute a calc script only on the members for combination of Product and Market Dimensions in the SV Grid shown on the right...
- Create a script using @GRIDTUPLE

```
FIX (
{@GridTuples(Product, Market)}
)
Marketing(
Marketing = Marketing + 1;
);
ENDFIX
```

E2	1	• = X v	f <sub>x</sub>		
	А	В	С	D	E
1			Jan	Actual	Marketing
2			Entity_1011	Entity_1012	
3			Pre-Flight	Sprint1	
4			Houston_Site	Chicago_Site	
5	Cola	New York	4	4	
6	Cola	Massachusetts	4	4	
7	Cola	Florida	4	4	
8	Cola	Connecticut	4	4	
9	Cola	New Hampshire	4	4	
10	Diet Cola	New York	4	4	
11	Diet Cola	Florida	4	4	
12					

### Ancestor on Top

 Provide users ability to view the parent members at the top while zoom-in into a dimension

- Set application level configuration parameter SSANCESTORONTOP to TRUE
- Also set the Smart View property Ancestor Position to Top

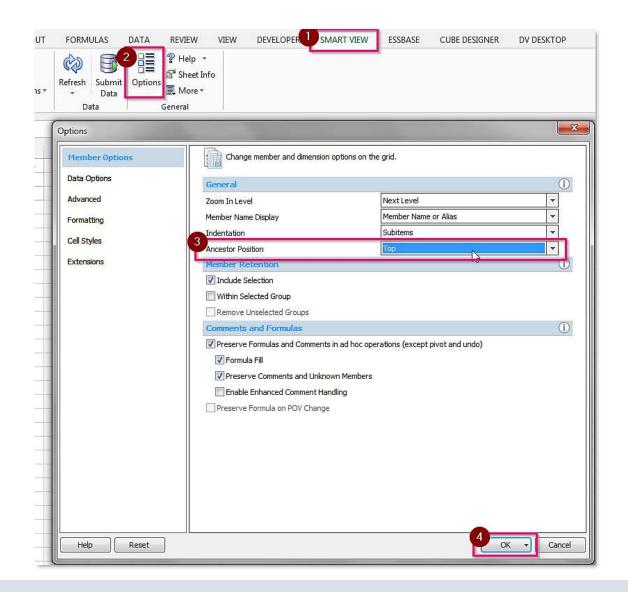
AB	3	• : )	X 🗸	fx Year
	Α	В	С	D
1		Product	Market	Scenario
2		Measures		
3	Year	105522		
4	Qtr1	24703		
5	Qtr2	27107		
6	Qtr3	27912		
7	Qtr4	25800		
0				

### Set the Application configuration parameter

Sample_Dynamic Block storage Application	n						c	Close
General Files Sources	Configuration	Permissions	Variables	Settings	Statistics	Logs		
Configuration							Reset Apply and Restart	+
Property							Value	_
ASODEFAULTCACHESIZE							32M	×
ASODYNAMICAGGINBSO							FULL	×
DATACACHESIZE							ЗM	×
HYBRIDBSOINCALCSCRIPT							FULL	×
INDEXCACHESIZE							1M	×
MAXFORMULACACHESIZE							1024	×
SSANCESTORONTOP							TRUE	×
					3			
🚴 Sample_Dynamic ×								



### Set the Smart View property



### Auto Generation of Aggregate Views

- New Editor allows Preview of Data while creating rules file
- Can use connections and data sources created in the Web UI
- Define Dim Build and Data Load Rules
- Preview can be done from either Data Source or File

eneral Dimensions	Files	Scripts	Filters	Variables	Locks	Settings	Statistics	Audit Trail	Partitions	Location Aliases			
Calculation Scripts											Refresh	Import	Create *
Drill Through Reports		Name				Size		Modifie	d Time	Status			Actions
MaxL Scripts		Dim_Popu	lation			934 8		07/03/2	018 7:15 pm				Ξ
MDX Scripts		LDSample				476 8		07/03/2	018 9:07 pm				H
Report Scripts		Markets				1 KB		07/03/2	018 8:46 pm				E
Rules		Measures				658 8		07/03/2	018 4:27 pm				E
		Products				I KB		07/03/2	018 4:53 pm				Ξ
Sample x						De							



### Layouts

- Provide ability for users to create own layouts and save them
- Capability to
  - Set a default layout for specific user
  - Set a default layout for database (Can be set by Application Manager)

Ad H	oc Analysis R	eports			
$\circ$	+ Zoom In	ة Kee	p O <mark>nl</mark> y	∂ Refresh	Ð
U	– Zoom Ou	t 🚫 Ren	nove On	ly 🗾 Pivot	
Layout	5			A	
Name		Actions	1		
Actual	Colas East Sal	Ξ	2		
811.10	2022-02	4	3		
Quarte	r 1 Sales	=	4	Cola	
West R	loot Beer Sales	Ξ	5	Cola	
Salas b	y Quarter	-	6	Cola	
Dales D	y Quarter		7	Cola	
				<b>2</b> -151	

Ad Hoc Analysis Repo	orts											
<ul> <li>Zoom In</li> <li>Zoom Out</li> </ul>	≶∃ Kee <mark>⊗</mark> Ren	· 650	⊘ Refresh y ♥ Pivot	🕤 Sub	mit		ve Layout uts Panel					
Layouts			A	В	С	D	E	F	G	Н	I	J
Name Actions		1				Scenario						
Quarter 1 Sales	Ξ	2			West	West	West					
		3			Sales	COGS	Margin					
West Root Beer Sales	Ξ	4	Old Fashioned	Jan	667	286	381					
		5	Old Fashioned	Feb	705	301	404					
		6	Old Fashioned	Mar	707	302	405					
		7	Old Fashioned	Qtr1	2079	889	1190					
		8	Old Fashioned	Qtr2	2187	931	1256					
		9	Old Fashioned	Qtr3	2467	1052	1415					
		10	Old Fashioned	Qtr4	2502	1071	1431					
		11	Old Fashioned	Year	9235	3943	5292					

### Create and Save Layouts

Save Layout												
* Name Colorado Cola Sales												
Descrip Sales for Colorado by Month												
Shared Layout		alytics Cloud	d - Essba	ase 🏫 Sa	mple_Dyn	amic/Ba	asic					
Default Set as default layout for the user	Ad Hoc Analysis Re	eports										
Database Default Set as default for all users, can be set by Database Manager role Save Cancel	- Zoom Dut	≸≣ Kee t <mark>⊗</mark> Rer	1999 - Santa S	🖸 Refr		₽ Sub	omit	🖞 Save	e Layout is Panel			
	Layout saved succe Layouts	essfully				1						
	Name	Actions	-1	A	В	C	D	E	F	G	H	_
			1 2	-		Cola	Scenario Cola	Cola				-
	Actual Colas East Sa	I	3			Sales	COGS	Margin				
	Quarter 1 Sales	Ξ	4	Colorado	Jan	190	83	107				
	West Root Beer Sales	Ξ	5	Colorado	Feb	190	a a state of the s	107				
	Colorado Cola Sales	Ξ	6	Colorado	Mar	193		109				
	Sales by Quarter	E	7	Colorado	Qtr1	573	-					$\vdash$
	Sales of Quarter	=	8	Colorado Colorado	Qtr2 Qtr3	558 451		314 254				-
			10	Colorado	Qtr3 Qtr4	281		159				
			11	Colorado	1 <del>.</del>	1863		1050				H
			12	and the state of the state of the	207540 H							

### Reports

- Ability for users to save MDX queries as reports
- Database Manager and above roles can create reports which can be used by other users
- Ability to Export reports
  - $-\operatorname{CSV}$
  - -EXCEL
  - -HTML
  - -JSON
- Ability to "Execute As"

ORACLE	Anal	ytics Cloud	l - Essba	ise 🌍	Sample_Dy	namic/	Basic		
Ad Hoc Analysis	Rep	ports							
		Create	Total	Expense	es Jan New Y	ork			
Name		Actions		А	В	С	D	E	F
Sales by all Dims		E	1					S1	
Sales by all billis			2	Jan	Marketing	100	New York	96.6666666666666	
Total Expenses Jan	N	Ξ	3	Jan	Marketing	200	New York	158.42105263157893	
			4	Jan	Payroll	100	New York	48.3333333333333333	
			5	Jan	Payroll	200	New York	56.57894736842105	
			6	Jan	Misc	100	New York	#Missing	
			7	Jan	Misc	200	New York	#Missing	
			8						
			-						

### Create/Edit, Export & Execute as Reports

Edit Re	port							cloud.user1 🔻
* Name	Total Expenses Jan New York							
Description	MDX Query for Actuals vs Budget Expenses				Refre	sh E	xecute As	Export 🔻
* Query	WITH			R	S	Т	U	CSV
	Member [Scenario].[S1] as '([Actual], [Total Expenses]) * ([Budget] / ([Total Expenses], [Budget]))' SELECT {[Scenario].[S1]} on columns,							EXECL
	Crossjoin(Crossjoin({[Jan]}, Crossjoin([Total Expenses].Children, {[100],[200]})), {[New York]}) on rows FROM [Sample_Dynamic].[Basic]							HTML
								JSON
							· · ·	
				E	xecu	te As		
				Us	ser *	Select Us	ser	راس
	Script is valid	N	×			cloud.us	er2	1
		Validate Save	Cancel			cloud.use	er1	

### New Gallery Applications

- Financial Analysis
  - Consolidations Restatements
- Technical
  - Solve Order Performance
  - Flip Sign
  - Calc Tuple
- Marketing Analysis
  - RFM Analysis
- Utilities
  - Currency Triangulation
- Demo Samples
  - Sample Dynamic

- New Analysis templates for Financial and Marketing Analysis
- Technical template for Calc Tuple
- Read Me for details

# Upcoming Features from Cube Designer

- Additional Admin Tools
  - Unlock Essbase Cube
  - Expert Mode
  - $-\operatorname{View}\operatorname{Logs}$ 
    - Platform
    - Application

FILE	HOME	INSERT	PAGE	LAYOUT	FORM	MULAS	DATA	REVI	EW V	/IEW	DEVELOPER	SMA	URT VIEW	CUBE DESIGNER
Connections	(Ê) Essbace			E	道/ Herarchy	Nº Int	1 Load	Calculate		0 Ver	Transform	8	? Help	tasks -
Competitions	File	Ψ.	Panel	Editor	Viewer	Cube	Data	dions	"	lobs	Data	Options	Delet	te Application le Cube
A1			٠	1 2	1	1 1	Definiți	ons					1.1.1	ck Esthase objects
Defini	A	_	1		с		D	E	¥		G	н	/r Expe E View	

- Create an MDX sheet (works similar to the calc script)
- Formula Editor





- Push button approach to building an optimized cube
  - Creates a baseline statistics
  - Run through optimization routines
  - Tell how the optimized cube should look like
  - Help to move and improve your cubes



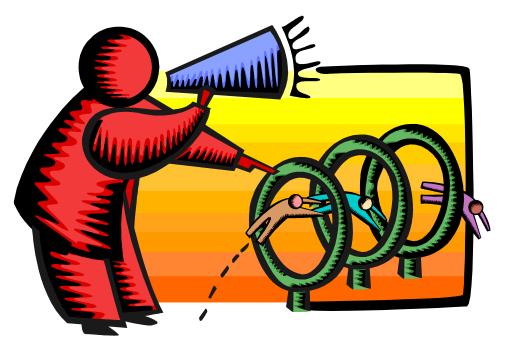
# Expert Mode - Sample

Cut Rit Copy + Copy + Format Pai	nter B Z U	• 🗄 • 🔷 • 🔺		🖅 🗒 Merge & Center		no Conditional Format as Formatting 7 Table 7		cent6	Accent2 Comma	Comma [0]	Accents Currency	+ Em E + Inset D				
Clipboard		Font 1 ( *		lignment	rs Number	ra-		Sh	les:				Cetts			
A.	8 1	C D	E	F	6	H I	1	K	L	M	N O	P	Q	R	S T	U
Dataload File(s)																
Dataload Cells	189,258,673															
				aseline		-	Load and	(Talk			Que	-			Export	
Block Size	1.4 MB	Dimension	Type		Total Members	Operation	Time (sec)	Concernant and the second s	Data (PAG)	Index (IND)	Operation	Time (sec)			Time (sec)	
Data Cache	100 MB	Time	Dense	252	1,996	Initial Dataload	1,408	10 10 - 10 / 10 / - C	3.6 GB	CONTRACTOR OF A DATA	Apex	0.10	-		3,293	
Index Cache	100 MB	LOB	Dense	30	31	calcall script	30,637	5,951,597	4.6 GB	and the second sec	L mprine	0.10			3,0.73	210110
Calc Cache	200 KB	BUDGET YEAR	Dense	23	23	Restructure (Defrag)	1,206	and the second data in some the	4.6 GB	and the second se						
		CURRENCY	Sparse	2	3	Construction of the second party										
		ANALYSIS GRP	Sparse	27	31											
		ASSET CAT	Sparse	292	296											
		Organization	Sparse	5,612	5,951											
		PROJECTS	Sparse	114,542	114,543											
		OAC				Load and Calc					Query				Export All	
Block Size	46 KB	Olmension	Туре	Introduction of the later of th	Total Members	Operation	Time (sec)	Blocks	Data (PAG)	The property summary states of the states of the	Operation	Time (sec)	Maximum Advantation (	Formulas	Time (sec)	A DATE OF STREET, SALES
Data Cache	100 MB	Time	Dense	252	1,996	Initial Dataload	1,629	98,559	17 MB	the second se	Apex	0.14	6,130	*	5	87 M
Index Cache	100 MB	BUDGET_YEAR	Dense	23	23	Aggregate PROJECTS	77	166,437	32 MB	and the second se					1	
Calc Cache	200 KB	PROJECTS	Sparse	114,542	114,543	Restructure (Defrag)	4	166,437	31 MB	8 M8						
		CURRENCY	Sparse	2	3											
		LOB	Sparse	30	31											
		ASSET_CAT	Sparse	292	296											
		Organization	Sparse	5,612	5,951											
		ANALYSIS_GRP	Sparte	27	31											



Copyright © 2019, Vlamis Software Solutions, Inc.

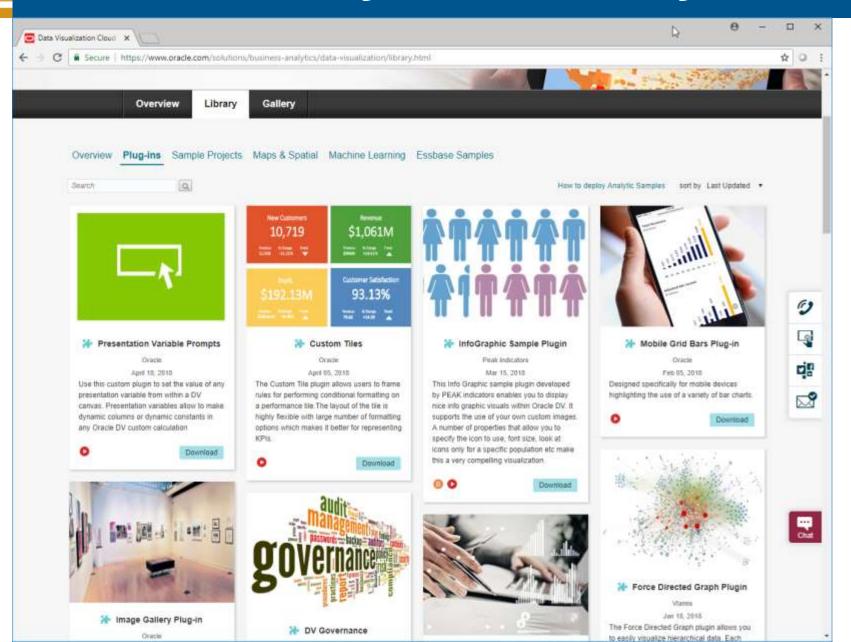
# Demo Essbase Features





Copyright © 2019, Vlamis Software Solutions, Inc.

# **Oracle Analytics Library**





# **Resources and Questions?**



Dan Vlamis Email: <u>dvlamis@vlamis.com</u>, <u>cpendley@vlamis.com</u> Twitter: <u>@dvlamis</u>, <u>@Cathye\_Pendley</u>

Phone (816) 781-2880

Introduction to OAC Running on ADW Webcast Mar 6, 2019

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

Vlamis Home <u>www.vlamis.com</u> Blog <u>www.vlamis.com/blog</u> Prior OBIEE releases <u>www.vlamis.com/obiwebinars</u>

OAC What's New Documentation <u>https://docs.oracle.com/en/cloud/paas/analytics-cloud/acswn/index.html#ACSWN-GUID-CFF90F44-BCEB-49EE-B40B-8D040F02D476</u>

Oracle Analytics Library with plugins and demos <u>https://www.oracle.com/solutions/business-analytics/data-visualization/library.html</u>

YouTube channel Oracle Analytics from SampleApp Team <a href="https://www.youtube.com/user/EvolvingBl/videos">https://www.youtube.com/user/EvolvingBl/videos</a>

YouTube video playlist on OAC 19.1.1 new features https://www.youtube.com/playlist?list=PL6gBNP-Fr8KWI76eF\_oDvHTAXy1qIO7S9



Copyright © 2019, Vlamis Software Solutions, Inc.