

Doing Oracle Analytics **THIS** Way?

STOP IT




Who am I?

« Christian, you're either boring or shocking...there is no middle way with you! »»

**--- Francesco Tisiot
Literally 2 hours ago**

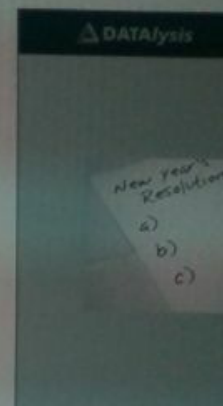
Who am I?

- Owner of Dimensionality GmbH in Switzerland
- Hacking OBI since 2001 (nQuire + Peregrin acquisitions by Siebel)
- Oracle ACE Business Analytic The Oracle ACE logo consists of a black spade symbol with a white 'A' inside, followed by a vertical line and the word 'ORACLE' in red, with 'ACE' in smaller black text below it.
- Speaker at OpenWorld, KScope, regional Oracle User Groups...
- Part-time blogger on Analytics, BI, DWH (<http://dimensionality.ch>)
- Full-time IRC (freenode | #obihackers) and OTN addict
- Oracle Analytics trainer for Oracle University since 2006
- Proud geek and gamer...but NOT a developer!
- Responding to any and all questions 24 / 7 – especially on IRC

By the way...thief :-P

Gianni Ceresa

- Managing Director of DATAlysis GmbH (Switzerland)
- Working with BI and EPM tools for about 10 years
- Part-time blogger on gianniceresa.com
- Full-time IRC (freenode | #obihackers) resident
 - Same group on Telegram <http://telegram.me/obihackers>
- OTN forums addict
- Technology geek (or just geek in general)



Why this presentation?

- Oracle Analytics has matured and is quite wide-spread
- Is seen as / considered as having become a commodity know-how
- As a result it's often done worse than ever...
- ...especially compared to when it was a niche skill
- Hence: Back to basics presentation series
- And: Worst Practices means someone else ran into the wall!

Disclaimer

- All real use cases from clients and integrators
- All from production systems – no abandoned try-outs
- Justifications and explanations may sound sarcastic but they're not
- I like ranting about fails but I don't like PowerPoint or Keynote
- Memes + text >>> fancy graphics
- Don't bother reading all the text; my stories are a lot funnier

Oracle Analytics

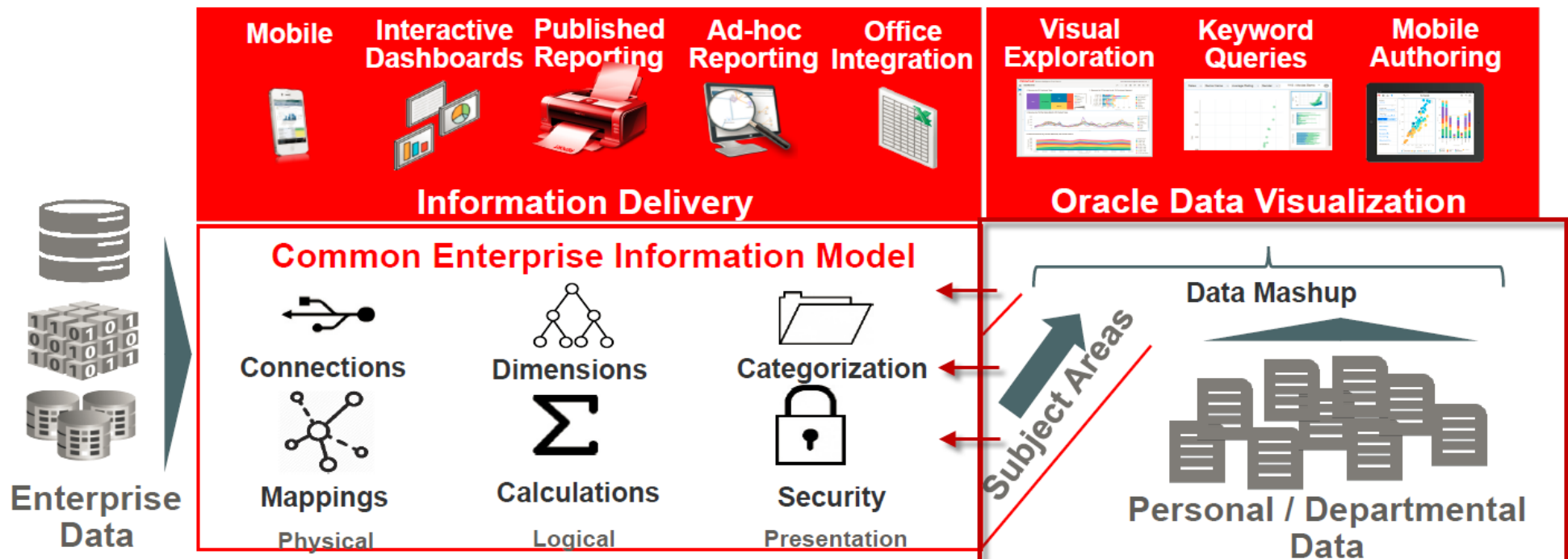
IT friendly

Governance, Singular semantic,
Enterprise ready

AND

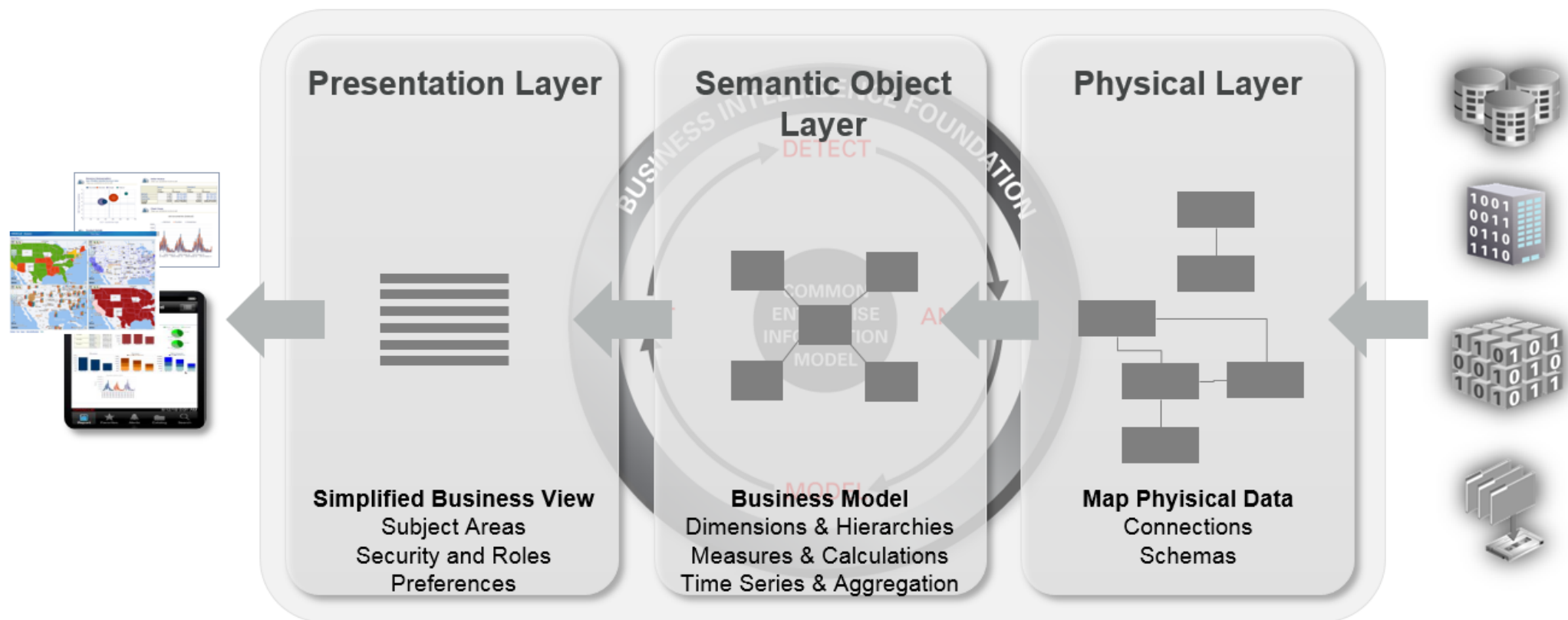
Business user friendly

Ease of Use, Agile, Self-service



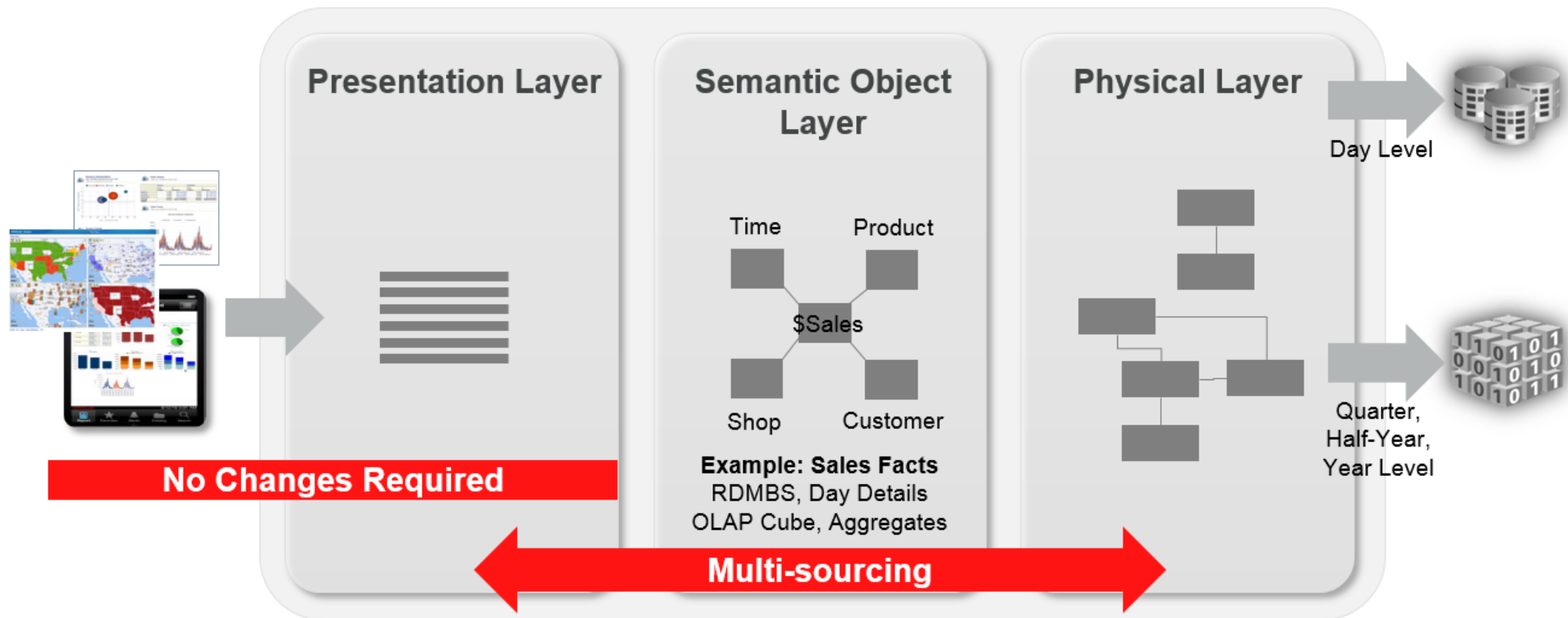
Common Enterprise Information Model

Connecting Data with Self Service Analytic Applications



Common Enterprise Information Model

Multi-Sourcing and Aggregates



Oracle Analytics Cloud



...a bit more tomorrow, Tuesday 16th – 14¹⁵ – Room 10

#Fail categories


- The 3 RPD layers
- System, DevOps and security
- Multidimensional
- Front-end
- Analyses + dashboard
- Going just too far


#Fail categories

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A close-up photograph of George W. Bush holding a black telephone receiver to his ear. He has a concerned or skeptical expression on his face. A white rectangular box is overlaid on the bottom left of the image, containing the text 'V' on the top line and '-2140163397' on the bottom line. The word 'WRONG' is written in large, bold, white capital letters with a black outline across the bottom right of the image, partially overlapping the phone and the white box.

PSY - GANGNAM STYLE (강남스타일) M/V

officialpsy ✓

7,606,950

-2140163397

+ Add 11,143,318

Data source definition				
Database type:				
<input type="checkbox"/> CRM metadata	Access97	Essbase 7	Oracle 12c	SQL Anywhere 8
	Analysis Services 2000	Essbase 9	Oracle 12c In-Memory	SQL Anywhere 9
	Analysis Services 2005	Hyperion Financial Management 9	Oracle 12c In-Memory on Exadata	SQL Server 2005
	Analysis Services 2008	Hyperion Planning	Oracle 12c on Exadata	SQL Server 2008
	Analysis Services 2012	Informix IDS 9.4/10.0	Oracle 8i	SQL Server 2012
<input type="checkbox"/> Persist connection	Apache Hive	Interlace	Oracle 9i	SQL Server 7.0/2000
	Apache Spark SQL	MongoDB	Oracle Exadata	Sybase ASE 15.0
<input type="checkbox"/> not assigned	Cloudera Impala	MySQL	Oracle OLAP 10g	Sybase IQ 12.7
	DB2 AS/400	Neoview	Oracle OLAP 11g	Teradata V12
<input type="checkbox"/> Allow populate query	DB2 OS/390 V7	NetezzaSQL R3.1/R4.0	Oracle OLAP 12c	Teradata V13/V14
	DB2 OS/390 V8	ODBC Advanced	Oracle RPAS	Teradata V2R4
<input type="checkbox"/> Allow direct data	DB2 UDB V7	ODBC Basic	OracleADF	Teradata V2R5
	DB2 UDB V8	Oracle 10g R1	OracleADF11g	Teradata V2R6
	DB2 UDB V9.1	Oracle 10g R2	Postgres	TimesTen V11
	DB2 UDB V9.5	Oracle 10g XE	Redshift	TimesTen V7
Description:	Essbase 11	Oracle 11g	SAP BW Native	XML
	Essbase 11.1.2.3.500	Oracle 11g on Exadata	SAP/BW 3.5/7.0	XML ODBC
				XML Server

www.d

Physical layer #2

Data to
the ph

W

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Re

Physical Foreign Key - PAYMENT_HISTORY_Foreign Key

Name: PAYMENT_HISTORY_Foreign Key

Table: D01 Time Day Grain

Column:

Name	Type
Cal_Week	INT
Cal_Year	INT
Calendar_Date	DATE

Operator: =

Table: PAYMENT_HISTORY

Column:

Name
DATE_KEY
AMOUNT

Driving table: None

Type: Inner

Cardinality: ☐ N ☐ 0,1 ☒ 1 ☐ Unknown

Hint:

Expression:

```
"01 - Sample App Data (ORCL)"."".BISAMPLE".D01 Time Day Grain".Calendar_Date"  
=  
To_DateTime(cast("01 - Sample App Data (ORCL)"."".BIFOD".PAYMENT_HISTORY".DATE_KEY as varchar(8)), 'yyyymmdd')
```

s in

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tion

Physical layer #3

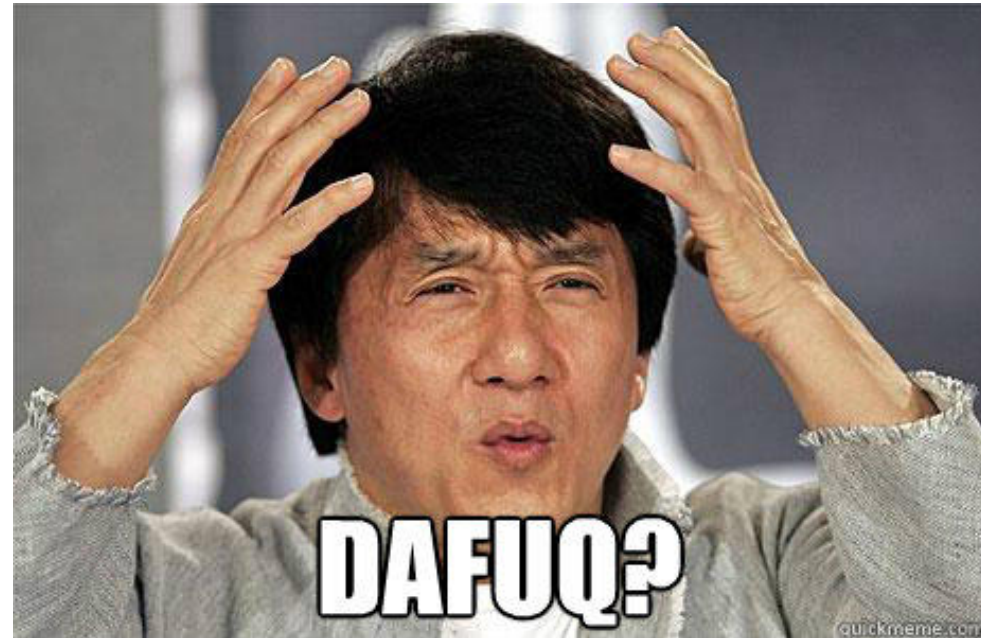
Using ODBC instead of native drivers (like OCI)

Why? • Too much hassle to install required drivers

- Corporate IT security does not allow post-setup changes to installed OS/software or “their” servers

Result? • All native communication disabled (optimization, function shipping etc.)

- Huge performance impact potential



Bu

Cost Ratio Comparison

Effects of pre-aggregate ratios vs. post-aggregate

er

BizTech

T05 Per Name Year	10- Variable Costs	11- Fixed Costs	0001 - Cost Ratio (Pre-Agg)	0002 - Cost Ratio (Post-Agg)
2013	4,892,811.00	3,601,683.49	80.55%	73.61%
2014	4,723,461.00	3,432,411.16	79.89%	72.67%
2015	4,861,801.00	3,618,327.36	80.59%	74.42%

FunPod

T05 Per Name Year	10- Variable Costs	11- Fixed Costs	0001 - Cost Ratio (Post-Agg)
2013	3,382.15		74.30%
2014	462.95		72.32%
2015	5,596.91		74.00%

Row-by-row /
lowest level of
granularity

Dynamically
aggregated point-of-
view result set

HomeView

T05 Per Name Year	10- Variable Costs	11- Fixed Costs	0001 - Cost Ratio (Pre-Agg)	0002 - Cost Ratio (Post-Agg)
2013	3,623,176.00	2,687,528.17	80.76%	74.18%
2014	3,452,179.00	2,513,663.54	79.70%	72.81%
2015	3,534,005.00	2,620,944.27	80.58%	74.16%

Expression Builder

Category:

Physical Tables
Operators
Expressions
Functions
Constants
Types

Physical Tables:

F10 Billed Rev

Find:

Columns:

Cost_Fixed
Paid_Day_Dt
Ship_Day_Dt
Order_Type
Cust_Key

www.dim

freenode

BMM #2

Creating multi-fact models with **non-conformed dimensionality** without properly configuring **LTS content and levels**

Why? • THE most misunderstood facts about the BMM layer!

- Non-conformed dimensional modeling specifically and LTS content levels in general

Result? • Missing results from cross-star queries

- Analyses simply won't run
- Wrong results when queries implicitly hit wrong facts



BMM #2

ORACLE Business Intelligence

			BizTech		FunPod		HomeView	
T05 Per Name Year	1- Revenue	T62 # of Days	1- Revenue	T62 # of Days	1- Revenue	T62 # of Days	1- Revenue	T62 # of Days
2008		366.00						
2009		365.00						
2010		365.00						
2011		365.00						
2012		366.00						
2013			8,277,442	365.00	7,235,999	365.00	7,986,559	365.00
2014			8,463,172	365.00	7,300,894	365.00	7,235,934	365.00
2015			8,759,386	365.00	7,963,107	365.00	6,777,507	365.00
2016		366.00						
2017		365.00						

THERES THE DOOR



NOW GET OUT

BMM #4

Neither this

Movie Hier	Rating	Count of Customers
▲ Total Movie	3	1,838
▶ Action	3	962
▲ Adventure	3	864
10,000 BC	5	15
127 Hours	3	22
2001: A Space Odyssey	2	12
2010		2
300	3	26
A Knight's Tale	4	8
A View to a Kill		2
Aguirre, der Zorn Gottes		16
Aladdin		18
Alien: Resurrection		4

Nor this

P4 Brand	P3 LOB	P2 Product Type	15 - Gross Margin	16 - Net Revenue
BizTech	Communication	Cell Phones	-651,372	5,749,967
		Smart Phones	31,778	6,218,605
	Electronics	Accessories	-1,301,542	4,636,203
		Audio	42,736	6,647,320
FunPod	Digital	Camera	-619,232	6,017,115
	Games	Portable	280,499	6,516,413
		Fixed	2,202,824	8,268,568
HomeView	TV	Plasma	-282,057	6,093,544
		LCD	173,118	6,437,356
	Services	Maintenance	967,081	3,863,365
		Install	1,058,260	3,953,634

BMM #5

Time toFail!

Not modeling time dimensions as proper time dimensions

Why? Too much effort and needs correctly configured (or ETL'd) chronological keys

Result? Bye-bye time series calculations

Using non-unique (time) level keys which will implicitly roll up data

Example? Using “January” rather than “January 2015”

Why? Expectation that “time works automatically”

Result? Data aggregated across all members of different time hierarchy branches

BN

Create
to-dir
Worst
things

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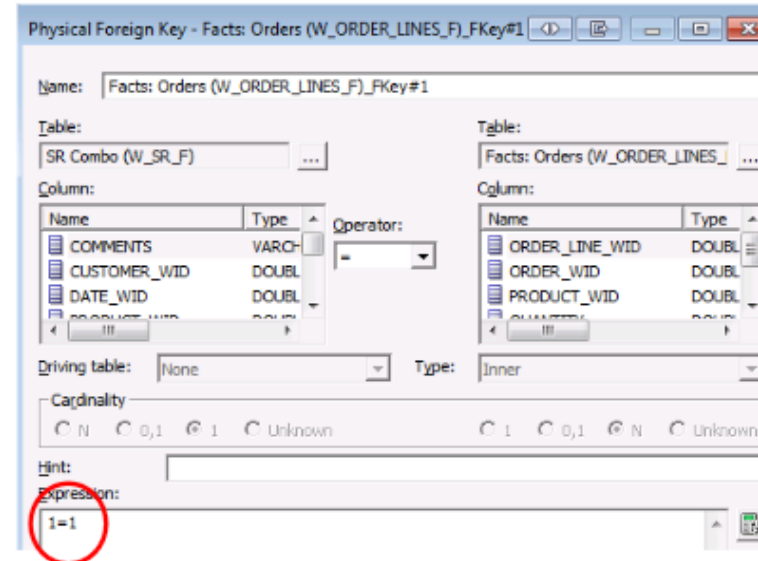
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Non-Conformed Dimensions

- Solution #1: Fake a join between the two tables
 - Cartesian Product
 - No filtering
 - “Tricking OBI”
- Add to Business Model
 - Joins
 - Content Tab



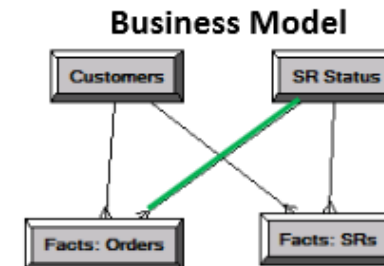
Logical Table Source - Facts: Orders (W_ORDER_LINES_F)

General | Column Mapping | Content | Parent-Child Settings

Aggregation content, group by: Logical Level

☒ Show mapped ☒ Show unmapped

Logical Dimension	Logical Level	
CustomersDim	Customers (W_CUSTOM)	X
Order StatusDim	Order Status Detail	X
Sales PersonDim	Sales Person Detail	X
SR StatusDim	SR Status Detail	X



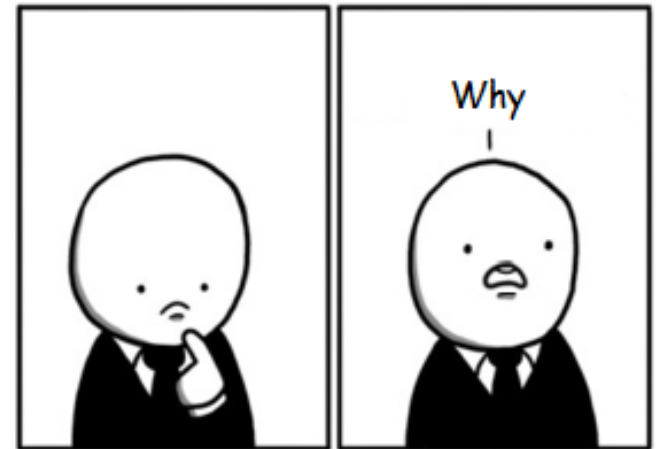
Presentation Layer

UNIONs, UNIONs, UNIONs all over the place
...even for single Subject Area analyses

Why?

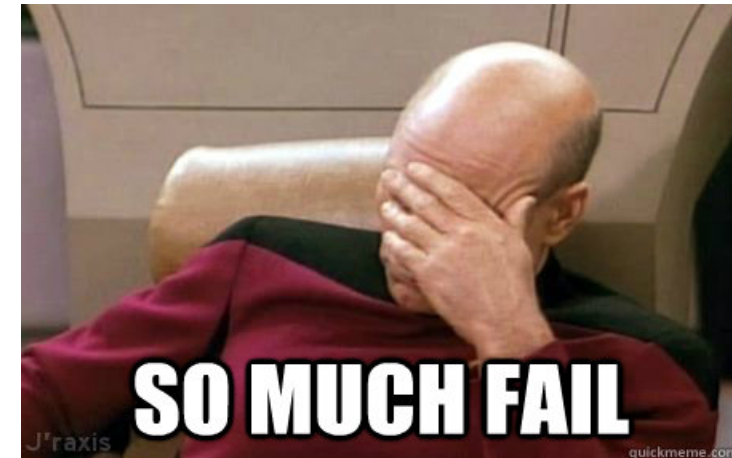
- “Really? We can do this in the RPD?”
- Typical “We used reporting tool XYZ before and there it went like this.”

Result? WHY did you buy this new tool again?



Presentation Layer

Renaming happens only in the presentation layer.



Keeping a lot of technical UPPER_CASE_NAMES and SURROGATE_KEYS unless someone complains and then only change in the presentation layer rather than the business layer

Why? Techie developers don't necessarily think about business language and end user needs

Result? • All names must be changed N times for N presentation layer representations of each object in each Subject Area etc.

- Life-cycle management and maintenance of catalog objects becomes a nightmare

Presentation Layer – Alias handling

- Changes never properly propagated to and reflected in the presentation catalogue
 - Catalog Manager with command line interface underused
- Tens of aliases for each presentation layer object with most of them being referenced N times in the presentation catalogue
- Worst case: Presentation layer object names get reassigned and existing presentation catalogue objects effectively reference different columns than originally intended



Alias handling #2

Why? • Impact is underestimated –
“It’s just an alias so what?”

- Different developers for RPD and presentation catalogue

Result?

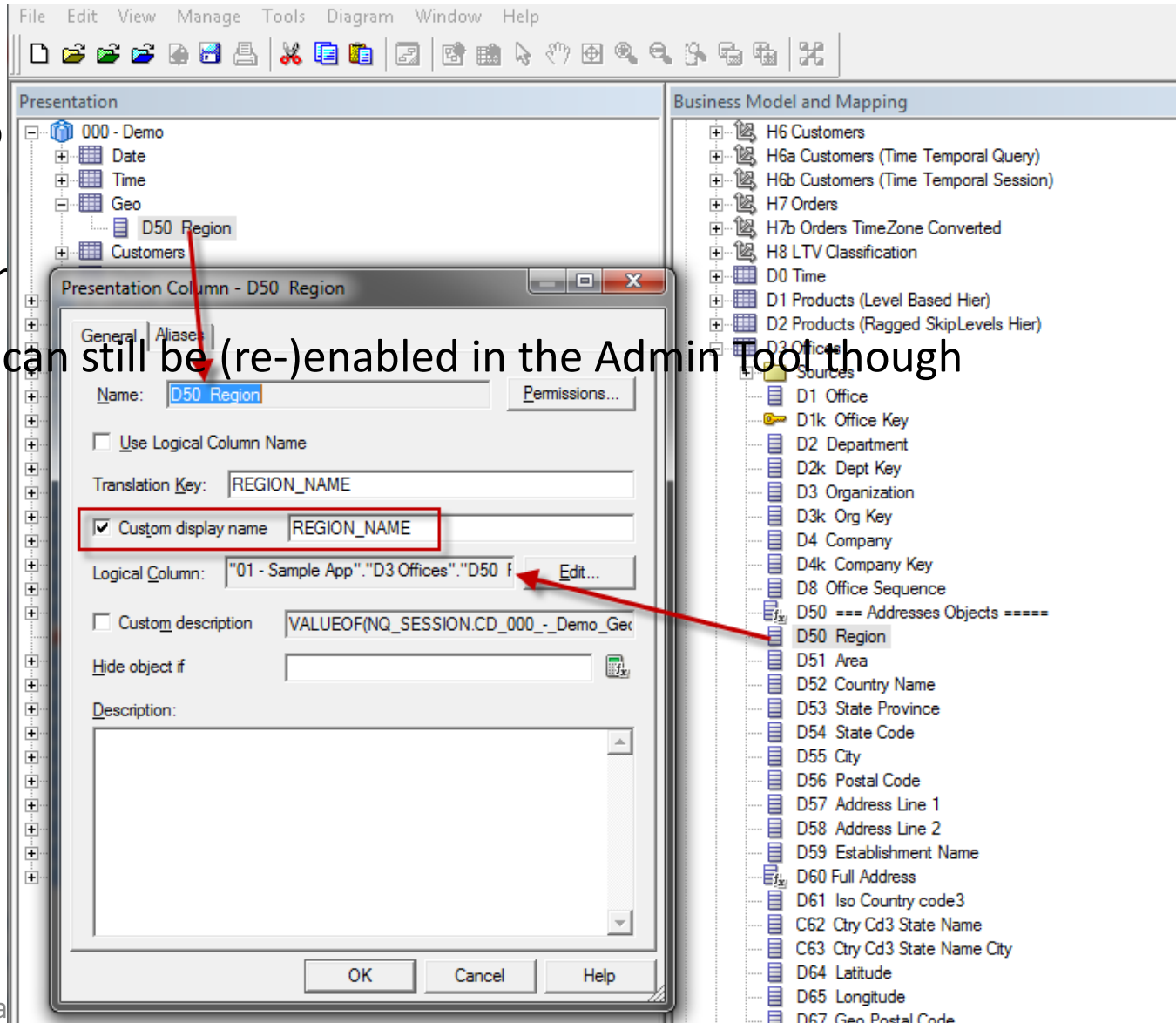
- XML points to both aliases and actual names
- Name conflicts & invalidate XML references
- Presentation catalogue objects keep working implicitly until someone touches the aliases
- Lineage solutions never take aliases into account
- Impact analysis becomes difficult / meaningless



Alias

12c version

Renaming can still be (re-)enabled in the Admin Tool though



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- **System, DevOps and security**
- Multidimensional
- Front-end
- Analyses + dashboard
- Going just too far

System, DevOps and Security

Not turning on Usage Tracking

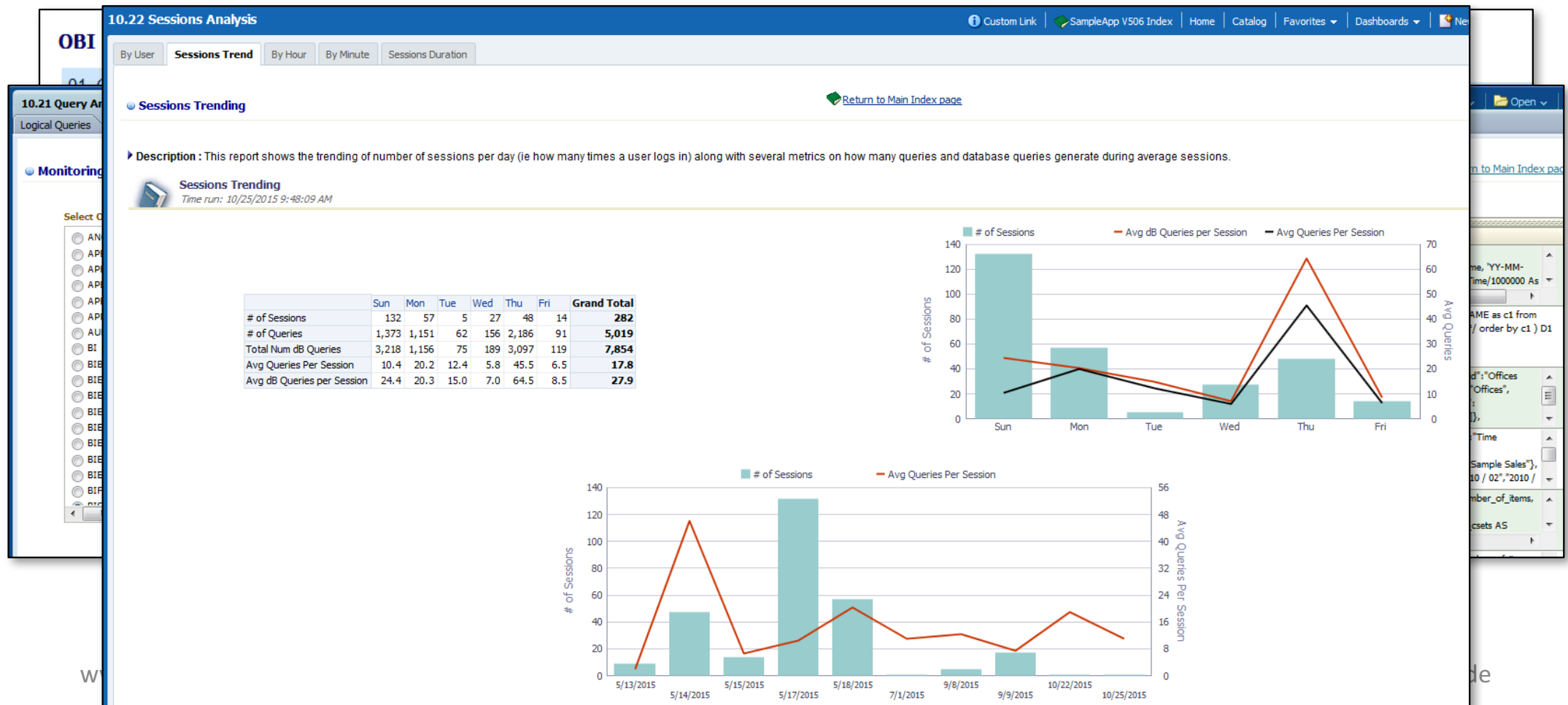
Why?

- Tables used not to the liking of corporate DBAs and their own “best practices”
- “What for?”
- Legal constraints in certain countries

Result? No UT statistics, no Summary Advisor and generally no way of knowing what's happening without log file analysis:

- Monitoring performance, system usage, bottlenecks and peaks
- Usage patterns and general usage (or non-usage!) of the catalog objects
- Impact analysis for upgrade planning
- etc.

System, DevOps and Security #2



Please find below some of the steps which can comparatively reduce the execution timing, hence improving the dashboard performance.

- Turn off query logging in OBIEE

OBIEE Performance Tuning Tip – Turn off Query Logging

Though query logging has immeasurable development value, do not use this for regular production users as the runtime logging cost is extremely high. Every log item is flushed to the disk, which in turn hurts query response.

Also, note
OBIEE serv

OBIEE Performance Tuning

Following are the few points which can improve the performance of Oracle Business Intelligence Enterprise:

- 1) Using Cache
- 2) Connection Pool
- 3) Aggregation navigation
- 4) Turning off log level
- 5) where Clause

System, DevOps and Security #4

Using OBI to solve data quality issues

Example? CAST, CASE WHEN, FILTER as smoke screens in the RPD or analyses

Why? As above plus: OBI makes data quality issues visible and is held responsible

Result? • Performance degradation

- Data quality issues are hidden rather than solved
- Additional errors when source data changes
- Disappearing data when new source data outside the hardcoded cases
- ELSE statement becomes the only possible savior (“Invalid conversion”)

oracle > bi > server > base >		
Name	Date modified	Type
AnalyticWorkspace	14.03.2017 18:19	File folder
AWCube	14.03.2017 18:19	File folder
AWDimension	14.03.2017 18:19	File folder
AWHierarchy	14.03.2017 18:19	File folder
BusinessModel		File folder
ComplexJoin		File folder
ConnectionPool		File folder
CubeTable		File folder
Database		File folder
Dimension		File folder
Group		File folder
InitBlock		File folder
LogicalComplex		File folder
LogicalTable		File folder
LogicalTableSource	14.03.2017 18:19	File folder
ObjectPrivilege	14.03.2017 18:19	File folder
PhysicalCatalog	14.03.2017 18:19	File folder
PhysicalDimension	14.03.2017 18:19	File folder
PhysicalHierarchy	14.03.2017 18:19	File folder
PhysicalTable	14.03.2017 18:19	File folder
PresentationCatalog	14.03.2017 18:19	File folder
PresentationHierarchy	14.03.2017 18:19	File folder
PresentationTable	14.03.2017 18:19	File folder
PrivilegePackage	14.03.2017 18:19	File folder
Project	14.03.2017 18:19	File folder
QueryPrivilege	14.03.2017 18:19	File folder
Schema	14.03.2017 18:19	File folder
User	14.03.2017 18:19	File folder
Variable	14.03.2017 18:19	File folder

/app/oracle/bi/ee/user_projects/domains/bi/bidata/service_instances/ssi/metadata/content/catalog/root/shared			
Name	Size	Type	Date Modified
00%2e+va+projects	12 items	folder	Fri 22 Jul 2016 09:58:18 AM EST
01%2e+quickstart	14 items	folder	Wed 20 Jul 2016 05:33:28 AM EST
02%2e+visualizations	22 items	folder	Tue 12 Jul 2016 03:58:20 AM EST
03%2e+mobile	12 items	folder	Wed 27 Jul 2016 11:52:08 AM EST
04%2e+maps+and+spatial	8 items	folder	Tue 12 Jul 2016 03:58:20 AM EST
05%2e+published+reporting	12 items	folder	Tue 12 Jul 2016 03:58:19 AM EST
06%2e+dashboard+design	26 items	folder	Tue 12 Jul 2016 03:58:19 AM EST
07%2e+semantic+layer+design	28 items	folder	Tue 12 Jul 2016 03:58:19 AM EST
08%2e+advanced+analytics	18 items	folder	Tue 12 Jul 2016 03:58:19 AM EST
09%2e+integrations+and+customizations	22 items	folder	Wed 03 Aug 2016 12:14:51 PM EST
10%2e+lifecycle+and+admin	22 items	folder	Tue 12 Jul 2016 03:58:18 AM EST
11%2e+demos	10 items	folder	Thu 21 Jul 2016 05:29:13 AM EST
co%6dponents	2 items	folder	Tue 12 Jul 2016 03:58:19 AM EST
custom	2 items	folder	Wed 20 Jul 2016 08:57:53 AM EST
demos+business+story	22 items	folder	Tue 12 Jul 2016 03:58:18 AM EST
mobile+app+designer	86 items	folder	Tue 12 Jul 2016 03:58:20 AM EST
workshops	6 items	folder	Tue 12 Jul 2016 03:58:18 AM EST
your+custom+public+content	4 items	folder	Fri 22 Jul 2016 12:50:42 AM EST
00%2e+va+projects.atr	308 bytes	unknown	Thu 21 Jul 2016 11:38:31 AM EST
01%2e+quickstart.atr	416 bytes	unknown	Thu 21 Jul 2016 11:38:57 AM EST

Application Stripe

obi

Role Name

Starts With



View

Create...

Create Like...

Edit...

Delete...

Application Stripe

obi

Principal Type

Application Role

Principal Name

Starts With

View

Create...

Create Like...

Edit...

Delete...



Principal

Display Name

Description

BIContentAuthor

BI Content Author

BIConsumer

BI Consumer

BIServiceAdministrator

BI Service Administrator

▲ Policies for BIContentAuthor

Permissions

Resource Name	Resource Type	Permission Actions
oracle.bi.tech.visualanalyzer.generalAccess	oracle.bi.tech.visualanaly...	*
oracle.bi.publisher.developReport	oracle.bi.publisher.permi...	_all_
oracle.bi.publisher.developDataModel	oracle.bi.publisher.permi...	_all_

weblogic

weblogic

User

This user is the default administrator.

www.dimensionality.ch

@Nephentur

#obihackers | freenode

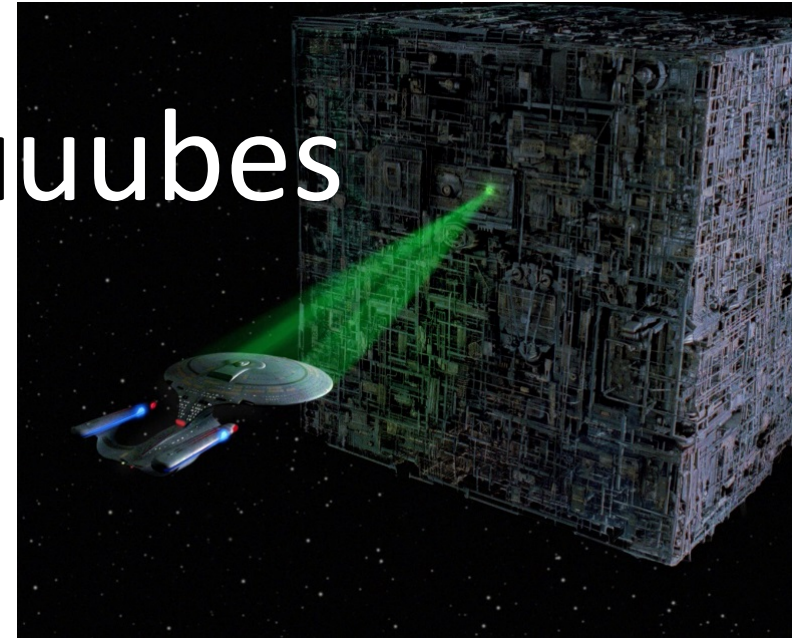
#Fail categories

- The 3 RPD layers
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- **Multidimensional**
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Multidimensional / Cuuuubes

Why?

- Multidimensional sources are thought to behave exactly like all others
- “We’re already doing BI with cubes so why should there be any issue?”
- Pull in “everything Hyperion because it’s another analytical Oracle product and it must work”
 - Guess what? Many Hyperion products aren’t analytical in nature...



Multidimensional #2

Result?

- Huge performance impacts up to taking down Hyperion servers
- Irresponsive and unusable front-end
- Cubes aren't necessarily suited for dynamic analytical access:
 - Sparse cubes
 - Extremely specific stored members which require N obligatory dimensions+level+member references in each query
 - Dynamic calculations
- Analyses must be built like reports with N fixed axis plus fixed member selection on levels
- Loss of habitual dynamic navigation possibilities of OBI



Multidimensional #3

- Measure hierarchy vs flattened measures

Dim

Dim

M1 Measures Hier	Generic measure
Measures	1,902,092
Gross Margin	1,902,092
Net Revenue	64,402,092
Gross Revenue	70,000,000
Discount Amount	5,597,908
Units	5,657,221
Net Costs	62,500,000
Fixed Costs	26,500,000
Variable Costs	36,000,000

Fact

Dim

Fact

Year	Profit	Margin	Sales
Year	2,948,371	6,182,619	11,182,894
Qtr1	694,963	1,482,355	2,677,859
Qtr2	755,802	1,570,240	2,835,030
Qtr3	778,247	1,613,597	2,933,622
Qtr4	719,360	1,516,427	2,736,383

Discount Rate

Discount Value

Fixed Costs

Gross Margin

Gross Revenue

Net Costs

Net Revenue

Revenue

Units

Variable Costs

Measure columns

NO measure hierarchy!

Multidimensional #4

- Directly accessing cubes purpose-built for Hyperion applications for analytical analyses (pivot, drill, slice/dice, member selection)...
- Accessing hugely sparse cubes (Essbase or MSAS) with massive amounts of extremely complex dynamic calculations for analytical analyses
- Expecting that OBIEE is a perfectly native MDX generator to smooth out EPM/reporting outline builds



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***Export to Excel
and I will kill you***



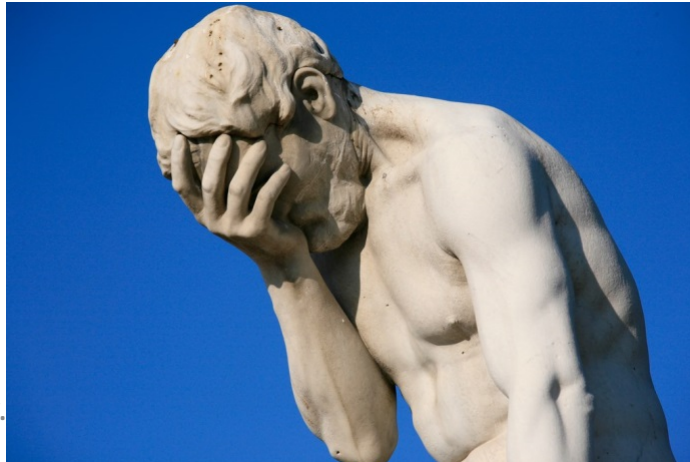
Front-end usage #2

Use OBI as a data entry tool (instead of APEX et al)

Why? • “OBI is a web application and must support this”.

- “But Oracle provides write-back functionality! Now make it work with field validation and pick-lists.”
- “We don’t want to buy another tool.”
- “We don’t want to use another tool.”

Result?



Front-end usage #3

Permissions

ORACLE Business Intelligence

Catalog

User View ▾ | [Icons] | Location: /Shared Folders/01. QuickStart

Folders

- My Folders
- Shared Folders
 - 00. VA Projects
 - 01. QuickStart
 - Subject Area Contents
 - Dashboards
 - 1.00 General Index**
 - 1.10 Whats New
 - 1.30 Quickstart
 - 1.90 Configuration
 - Data Volumes
 - New Features
 - Simple Demo Dashboard

Type: All | Sort: Name A-Z | Show: []

	dashboard layout	Last Modified 7/20/2016 5:34:37 AM	Over
	Properties More ▾		
	How catalog content is organized	Last Modified 6/23/20	
	Open Edit More ▾		
	Main Index	Last Modified 8/3/2016 12:24:17 PM	Owner pro
	Open Edit More ▾		
	SampleApp 607 LaunchPad	Last Modified 7/22/2016 2:05	
	Open Edit More ▾		
	URLs & Login Credentials	Last Modified 5/24/2016 12:00	
	Open Edit More ▾		
	Visual Analyzer	Last Modified 7/29/2016 1:52:55 AM	Owne
	Open Edit More ▾		



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- Going just too far

```
WITH
SAWITH0 AS (select sum(T418.Cost_Variable) as c1,
sum(T418.Cost_Fixed) as c2,
avg(T418.Cost_Fixed / nullif( T418.Cost_Variable, 0) * 100.0) as c3,
T762.Name as c4,
T666.Office_Dsc as c5,
T418.Order_Status as c6,
T451.Brand as c7,
T437.Empl_Name as c8,
T795.PER_NAME_YEAR as c9,
T666.Office_Key as c10,
T437.Employee_Key as c11,
T762.Cust_Key as c12
from
BISAMPLE.SAMP_PRODUCTS_D T451 /* D10 Product (Dynamic Table) */ ,
BISAMPLE.SAMP_TIME_QTR_D T795 /* D03 Time Quarter Grain */ ,
BISAMPLE.SAMP_CUSTOMERS_D T762 /* D60 Customers */ ,
BISAMPLE.SAMP_OFFICES_D T666 /* D30 Offices */ ,
BISAMPLE.SAMP_EMPL_D_VH T437 /* D50 Sales Rep (Parent Child Hierarchy) */ ,
BISAMPLE.SAMP_EMPL_PARENT_CHILD_MAP T490 /* D51 Closure Table Sales Rep Parent Child */ ,
BISAMPLE.SAMP_REVENUE_F T418 /* F10 Billed Rev */
where ( T418.Cust_Key = T762.Cust_Key and T418.Prod_Key = T451.Prod_Key and T418.Office_Key = T666.Office_Key and T418.Empl_Key = T490.Member_K
group by T418.Order_Status, T437.Employee_Key, T437.Empl_Name, T451.Brand, T666.Office_Dsc, T666.Office_Key, T762.Name, T762.Cust_Key, T795.PER
SAWITH1 AS (select 0 as c1,
D1.c4 as c2,
D1.c5 as c3,
D1.c6 as c4,
D1.c7 as c5,
D1.c8 as c6,
D1.c9 as c7,
D1.c1 as c8,
D1.c2 as c9,
D1.c3 as c10,
D1.c2 / nullif( D1.c1, 0) * 100.0 as c11,
D1.c10 as c16,
D1.c11 as c17,
D1.c12 as c18
from
SAWITH0 D1)
select D1.c1 as c1, D1.c2 as c2, D1.c3 as c3, D1.c4 as c4, D1.c5 as c5, D1.c6 as c6, D1.c7 as c7, D1.c8 as c8, D1.c9 as c9, D1.c10 as c10, D1.c1
D1.c2 as c2,
D1.c3 as c3,
D1.c4 as c4,
D1.c5 as c5,
D1.c6 as c6,
D1.c7 as c7,
D1.c8 as c8,
D1.c9 as c9,
D1.c10 as c10,
D1.c11 as c11,
sum(D1.c9) over (partition by D1.c7, D1.c5) / nullif( sum(D1.c8) over (partition by D1.c7, D1.c5) , 0) * 100.0 as c12,
avg(D1.c10) over (partition by D1.c7, D1.c5) as c13,
sum(D1.c8) over (partition by D1.c7, D1.c5) as c14,
sum(D1.c9) over (partition by D1.c7, D1.c5) as c15
from
SAWITH1 D1
order by c5, c7 ) D1 where rownum <= 5000001
```



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www.dime	2015	3,534,005.00	2,620,944.27	80.58%	74.16%	freenode
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Analyses and dashboards #2

Setting all analyses to "Include Null Values" = TRUE by default

ORACLE Business Intelligence

Cost Ratio Comparison

Effects of pre-aggregate ratios vs. post-aggregate

BizTech

T05 Per Name Year	10- Variable Costs	11- Fixed Costs	0001 - Cost Ratio (Pre-Agg)	0002 - Cost Ratio (Post-Agg)
2008				
2009				
2010				
2011				
2012				
2013	4,892,811.00	3,601,683.49	80.55%	73.61%
2014	4,723,461.00	3,432,411.16	79.89%	72.67%
2015	4,861,801.00	3,618,327.36	80.59%	74.42%
2016				
2017				

www.

#obihackers | freenode

Analyses and dashboards #3

Complex post-calculations and analysis based aggregations on huge data streams handed to the OBI Presentation Server

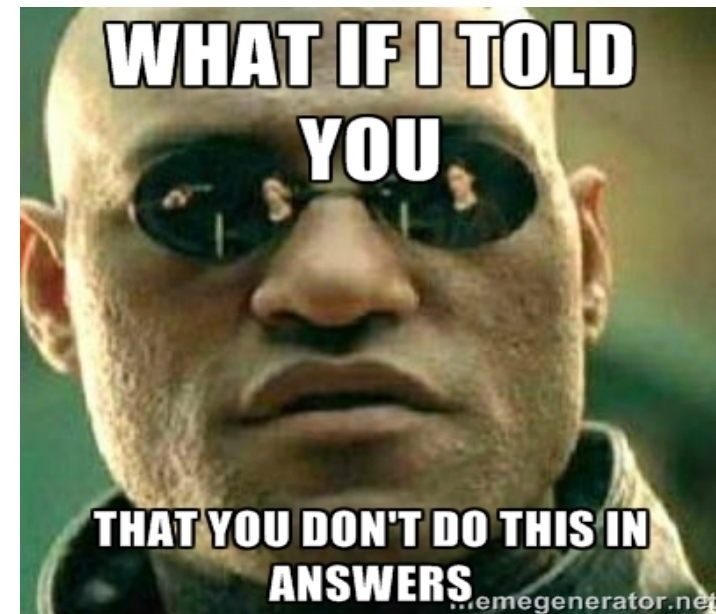
Example? Millions of rows handed to the OBIPS to create a 15 row table view

Why? • No access to RPD

- Separated teams/roles for “back-end” and “front-end”
- Silo mentalities and poor communication
- Hesitation to change the RPD for fear of damaging existing solutions
- Out-of-synch development cycles

Result? • Again: performance, maintenance

- All the cleverness of the OBI server’s syntax and query tuning is eliminated



Analyses and dashboards #4

- Clutter the dashboards with 30 prompts without defaults
- Putting all dashboard objects in separate condition-driven sections
- Over-use (nested) view selectors, column selectors on every page
 - Pseudo liberty instead of thought-out content telling a specific story
 - End-user confusion “Which of my problems does this solve again?”
- Constantly reshuffling the presentation catalog folder structure and objects without properly adjusting the XML references
- Agent notification spam

#Fail categories

- The 3 RPD layers
- System, DevOps and security
- Multidimensional
- Front-end
- Analyses + dashboard
- **Going just too far**

Going just too far

- Giving Direct Database Request capability to users and providing them with the connection pool names
- Showing and giving users the access to &IssueRawSQL
- Using hacks to interact with the desktop PC from a browser
- Using JS hacks to make OBIEE react like an ERP / data entry system (masks, required fields, field dependencies and validations)





**KEEP
CALM**

**AND THANK YOU FOR
YOUR ATTENTION!
ANY QUESTIONS?**