From Data to Intelligence in 17 Clicks

Business Intelligence for the Open Source Development Community

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Business Intelligence is Different

Most information technology

enables defined tasks

Business Intelligence

enables decisions

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Business Intelligence

Information

drives business decision making

Process

events → data → intelligence → decision

Software

tools to transform data into intelligence

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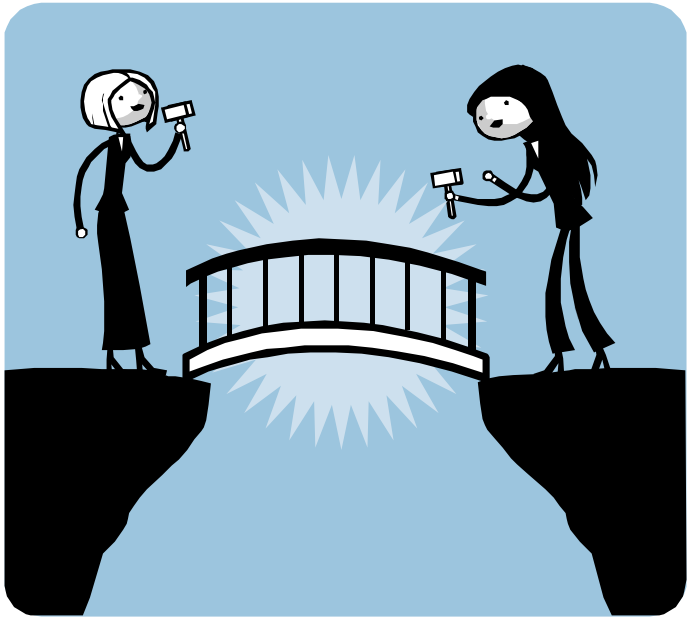
Bridging the Gap



Data BI Decisions

Make your data tell a story!

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A BI Story…

A trade association had questions:

- Which members at Top 500 firms fail to license the Association's SW?
  - goal = sales
- How is Continuing Education course enrollment affected by changes to state CE requirements?
  - goal = planning, lobbying
- What are the characteristics of members who *Cancel* or *Expire*?
  - goal = retention

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A BI Story…

Our BI approach:

- Gather data from source systems; assess quality; join.
- Create data structures & analytical interfaces.
  - Web OLAP interface.
  - Query/data retrieval hooks into Excel & Access.
- Prototype queries.
- Knowledge transfer.

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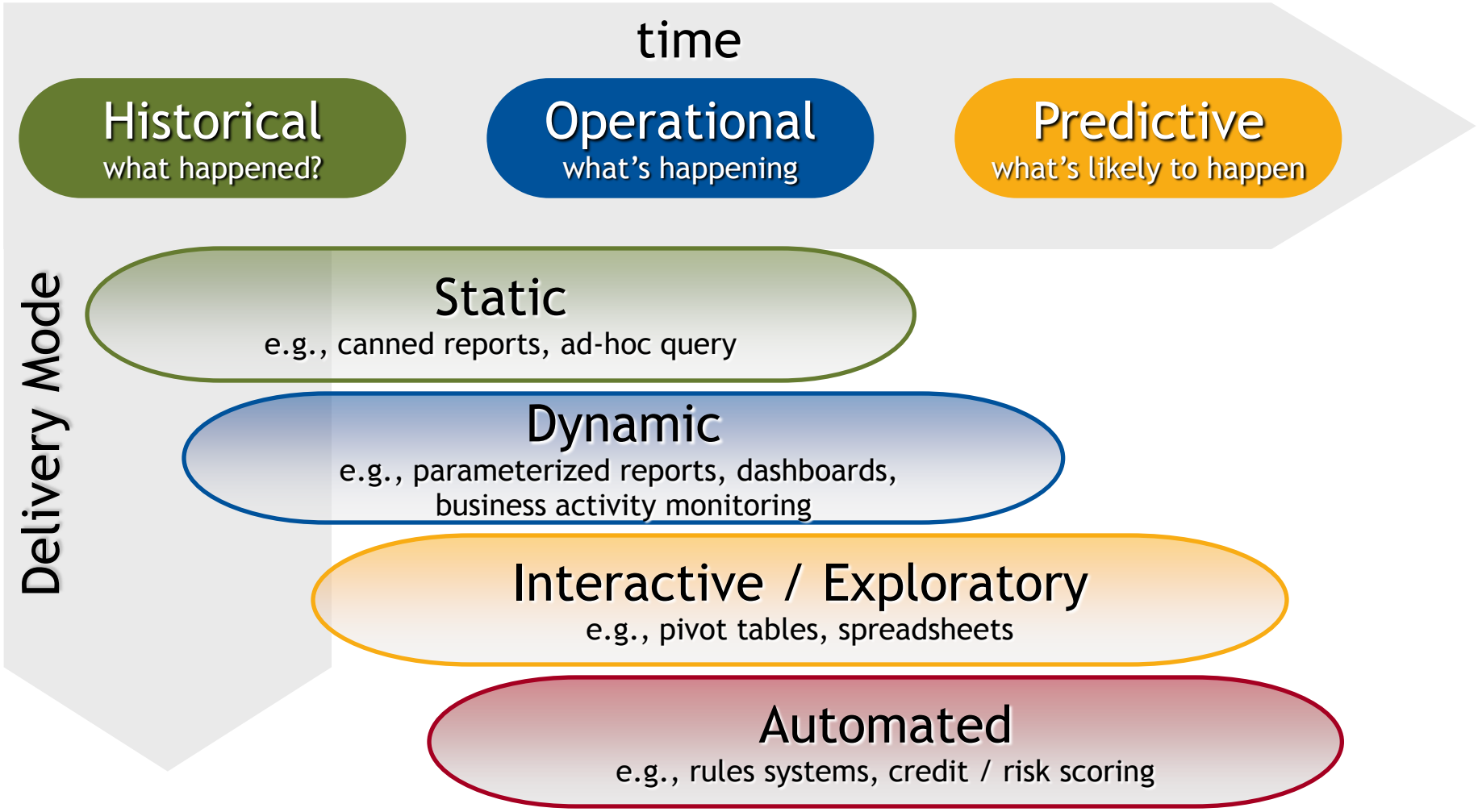
BI Modes



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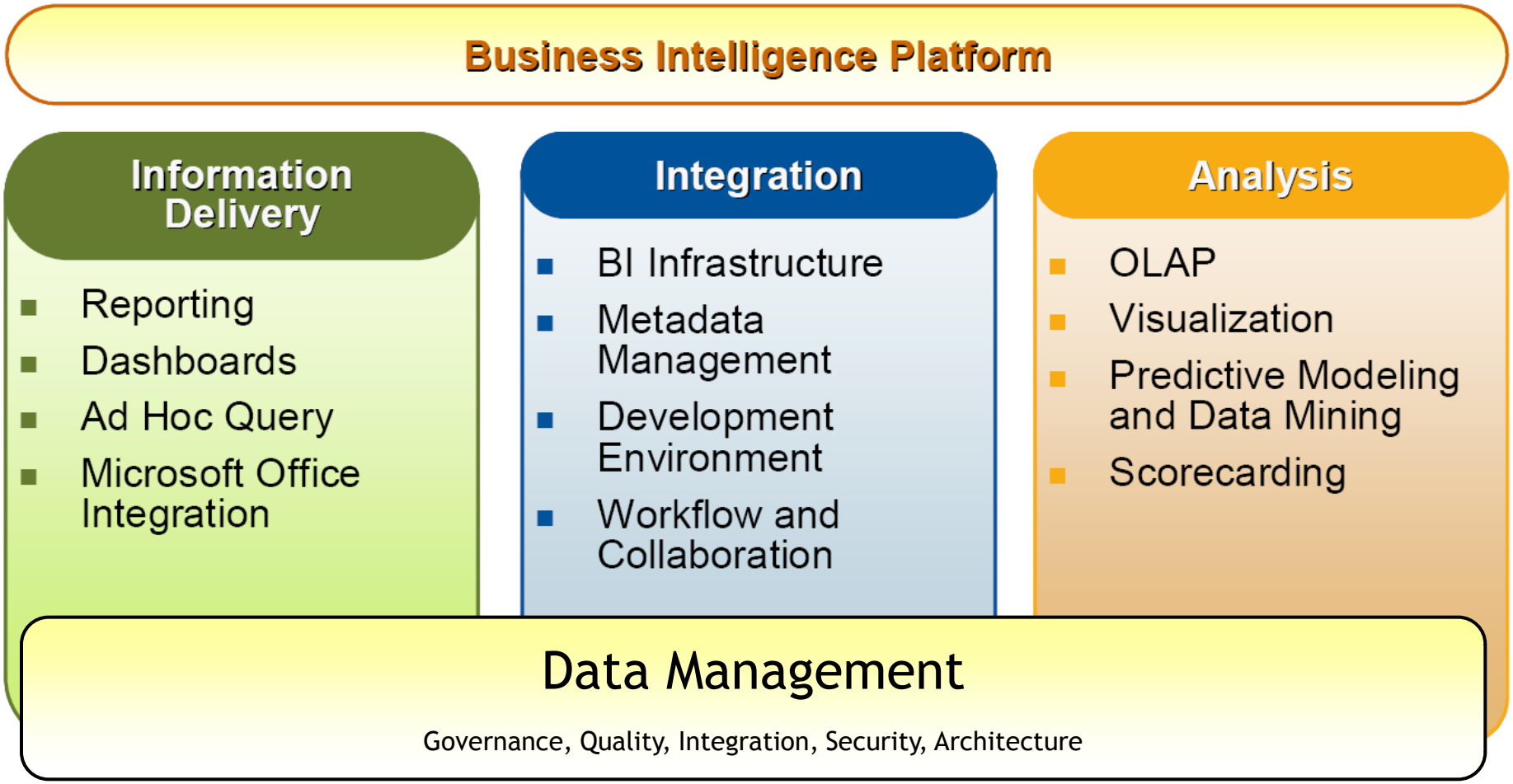
Software Platform Elements



Source: Gartner (April 2007)

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pentaho
open source business intelligence

Pentaho Business Intelligence Platform
Portal Demo

Home | Getting Started | Reporting | Business Rules | Printing | Bursting | Widgets | DataSource | Secure | Advanced

Filters

Select filters to apply to other controls on this page

REGION Central

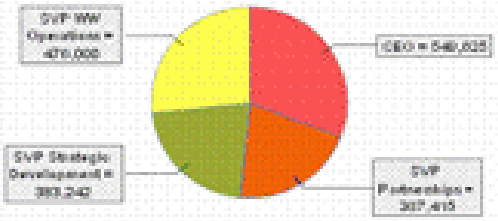
DEPARTMENT Executive Management

Update...

Headcount Data

Position	Actual	Budget	Variance
SVP Strategic Development	$383,242	$403,405	$20,163
SVP Partnerships	$367,415	$392,100	$24,685
CEO	$549,625	$522,250	-$27,375
SVP WW Operations	$476,000	$725,887	$249,887
Total	$1,776,282	$2,043,642	$267,360

Headcount Costs

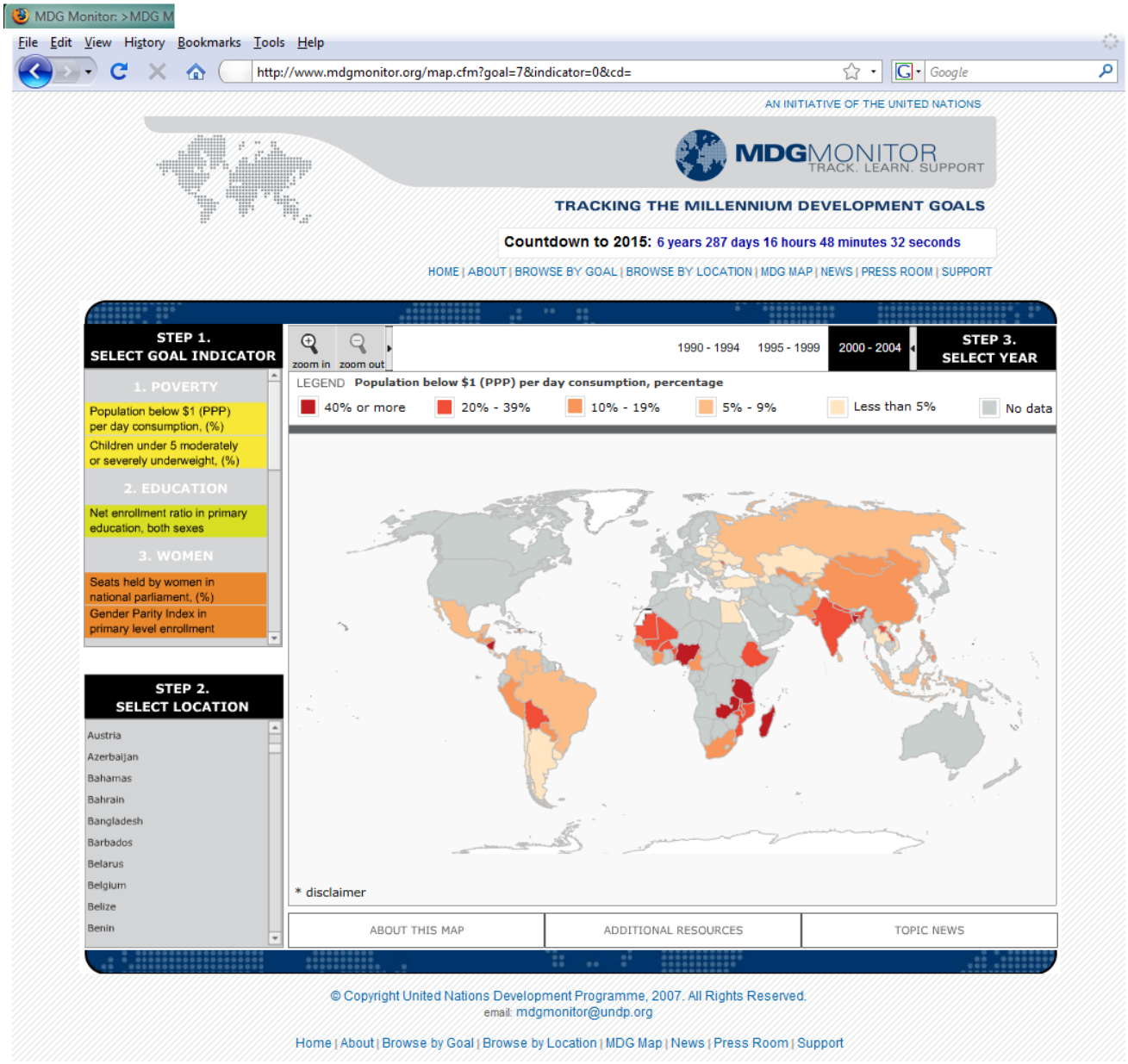


Actual Headcount - % Variance from Budget

Actual Headcount - % Variance from Budget

			Measures			
Region	Department	Positions	Actual	Budget	Variance	Variance Percent
-All Regions	-All Departments	+All Positions	143,639,982.00	143,199,389.00	-440,593.00	-.31%
	Executive Management	+All Positions	6,299,022.00	6,494,166.00	195,144.00	3.00%
	Finance	+All Positions	12,224,220.00	12,087,406.00	-136,814.00	-1.13%
	Human Resource	+All Positions	13,075,463.00	12,989,341.00	-86,122.00	-.66%
	Marketing & Communication	+All Positions	13,910,753.00	13,770,267.00	-140,486.00	-1.02%
	Product Development	+All Positions	10,644,102.00	10,786,611.00	142,509.00	1.32%
	Professional Services	+All Positions	76,317,649.00	76,098,206.00	-219,443.00	-.29%
	Sales	+All Positions	11,168,773.00	10,973,392.00	-195,381.00	-1.78%
Central	+All Departments	+All Positions	37,893,162.00	38,397,600.00	504,438.00	1.31%
Eastern	+All Departments	+All Positions	35,248,940.00	35,487,861.00	238,921.00	.67%
Southern	+All Departments	+All Positions	35,248,940.00	34,803,861.00	-445,079.00	-1.28%
Western	+All Departments	+All Positions	35,248,940.00	34,510,067.00	-738,873.00	-2.14%

http://www.pentaho.com/products/dashboards/


MDG Monitor: >MDG M
File Edit View History Bookmarks Tools Help
http://www.mdgmonitor.org/map.cfm?goal=7&indicator=0&cd=
AN INITIATIVE OF THE UNITED NATIONS
MDGMONITOR
TRACK. LEARN. SUPPORT
TRACKING THE MILLENNIUM DEVELOPMENT GOALS
Countdown to 2015: 6 years 287 days 16 hours 48 minutes 32 seconds
HOME | ABOUT | BROWSE BY GOAL | BROWSE BY LOCATION | MDG MAP | NEWS | PRESS ROOM | SUPPORT
STEP 1. SELECT GOAL INDICATOR
1. POVERTY
Population below $1 (PPP) per day consumption, (%)
Children under 5 moderately or severely underweight, (%)
2. EDUCATION
Net enrollment ratio in primary education, both sexes
3. WOMEN
Seats held by women in national parliament, (%)
Gender Parity Index in primary level enrollment
STEP 2. SELECT LOCATION
Austria
Azerbaijan
Bahamas
Bahrain
Bangladesh
Barbados
Belarus
Belgium
Belize
Benin
zoom in
zoom out
1990 - 1994
1995 - 1999
2000 - 2004
STEP 3. SELECT YEAR
LEGEND Population below $1 (PPP) per day consumption, percentage
40% or more
20% - 39%
10% - 19%
5% - 9%
Less than 5%
No data
* disclaimer
ABOUT THIS MAP
ADDITIONAL RESOURCES
TOPIC NEWS
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email: mdgmonitor@undp.org
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BI Flow

Gather – BI Sources

evaluate and marshal data assets

Grind – BI Process

manipulate raw data into information

Deliver – BI Delivery

provide (secure) access to the information in readily usable formats

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BI Sources

Sources are operational systems -

- Transactional databases.
- Stream and messaging sources.

Data from these sources is loaded to:

- Data warehouses.
- Data marts, i.e., local data stores.

And we have operational BI.

- Operational reporting isn't new.
- Operational BI – data analysis – is.

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BI Processing

- Apply Domain Knowledge
  - hierarchy, time, product line
  - measures
- Manipulate The Data
  - Multi-dimensional cubes
  - KPI
  - charts
- Communicate Findings
  - tell a story

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BI Delivery

BI is delivered:

- Via workbenches, dashboards, reports, maps, and other analytical UIs.
- Embedded in the UIs of line-of-business (LOB) applications.
- Behind the scenes, supporting automated decision making for LOB applications.
  - Credit and risk scoring and Web-experience personalization are examples.
- As a Service.

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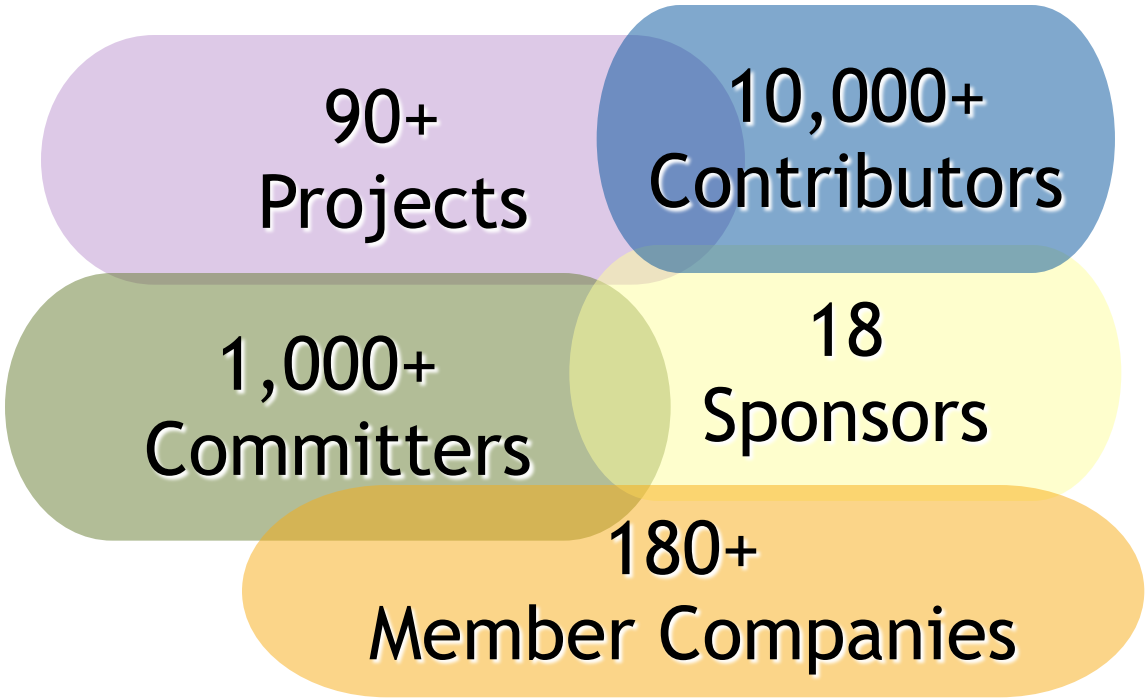
Building the EclipseCon Program



600+ hours of submissions

Monday
Tuesday
Wednesday
Thursday

254 Hours available

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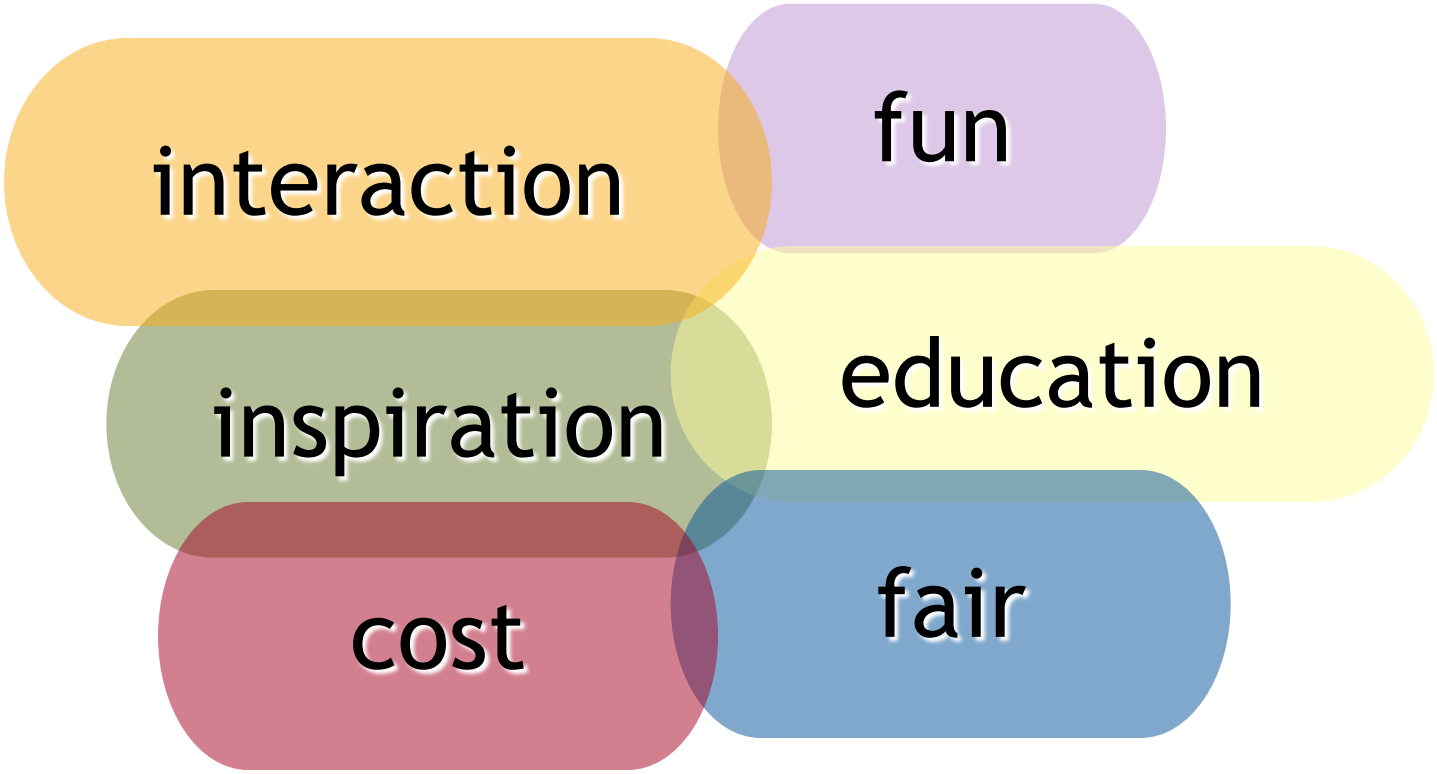
Other Factors



Quality is Expected

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Data Assets

- Historical
  - registrations
  - evaluations
  - allocation history
- Current
  - talk proposals
  - rfid attendance data
  - evaluations
  - twitter?

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Can BI Help?

Speaker Quality

best speakers

worst speakers

Target Audience

what was proposed

what did people attend

Program Balance

project coverage

company diversity

Difficulty

talk type

tutorial, long, short

talk difficulty

green, blue, black

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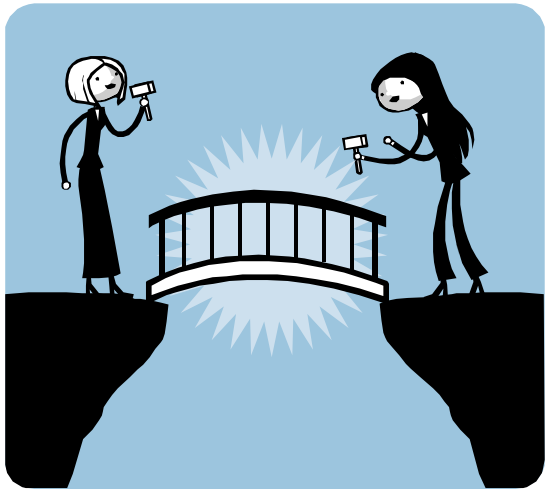
17 clicks

registrations
evaluations
allocation history
talk proposals
rfid data
evaluations
twitter



speaker quality
target audience
program balance
difficulty

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BI Scene

BIRT is only one piece of the puzzle

Mainstream Leaders

Specialists

Open Source

Upstarts

Hosted

Data Mining

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Mainstream Leaders

- The Big Four + One
  - SAP: Business Objects
  - IBM: Cognos
  - Oracle: Siebel Analytics, Hyperion
  - Microsoft
  - SAS
- Others
  - Information Builders
  - MicroStrategy

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Specialists

Visualization, performance management, reporting, dashboards...

- Actuate
- QlikTech
- Tableau
- TIBCO Spotfire

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OSBI Players

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Data Mining

Angoss
KXEN
Megaputer
Salford Systems
SPSS
R *
WEKA *

** Open Source*

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Others

- Hosted
  - PivotLink
  - LucidEra
- Upstarts
  - many

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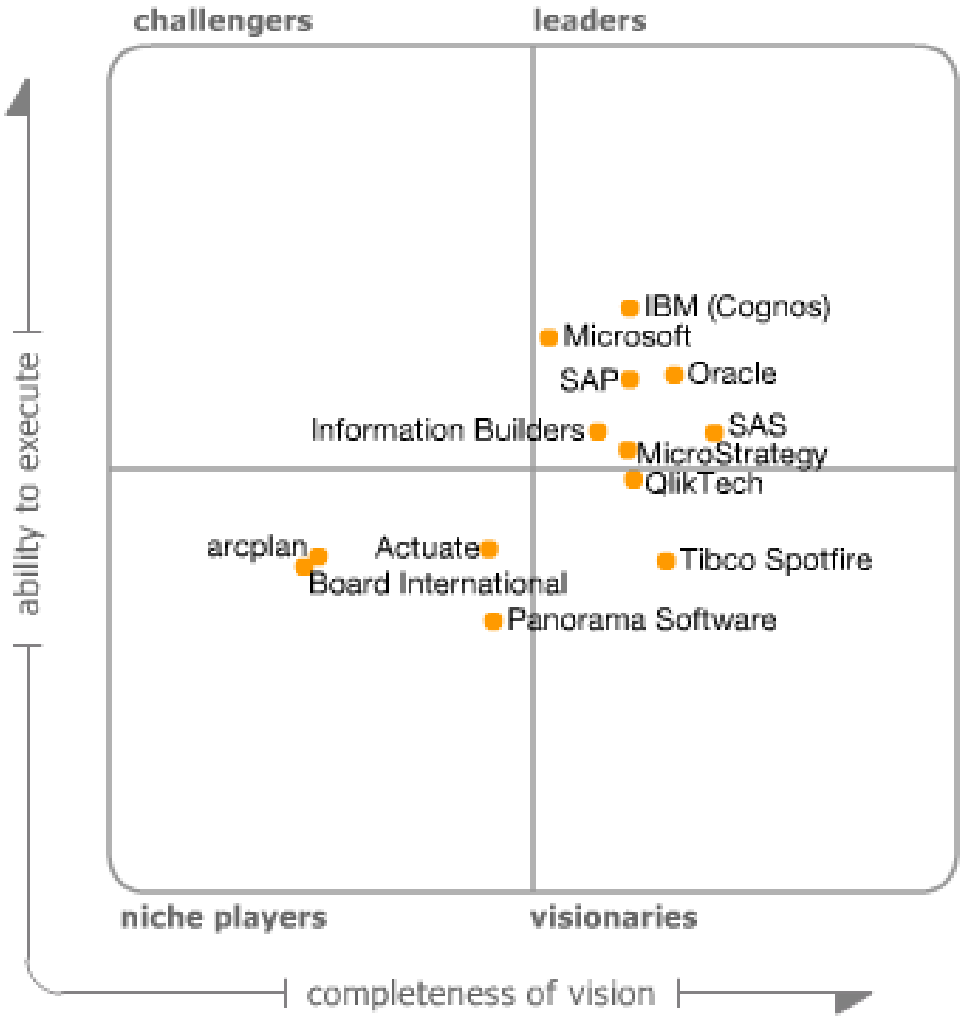
The BI World According to Gartner



http://mediaproducts.gartner.com/reprints/sas/vol5/article8/article8.html

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Where's Open Source BI?

Nigel Pendse is author of the BI Report – in '07:

Actually, I've been quite surprised at how little impact open source BI solutions seem to be having. I was expecting much more.

I guess there are two parallel universes: customers in OSW (open-source world) have decided for idealistic, economic or technical reasons that they must have an open-source solution, and don't even consider any proprietary options, while most other people ignore open-source solutions.

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OSBI Category Error

My guru friend made a *category error*.

My Opinion:

- Open source does not succeed (best) by merely replicating commercial, proprietary, closed source software and processes.
- The most successful open source projects are not imitative, they are innovative.
- OSBI is a preferred option for ISVs & developers.
- OSBI is innovating in areas such as analytical workflows and streaming data.
- OSBI has NOT (until recently) aimed to replace closed-source, commercial solutions.

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OSBI Players

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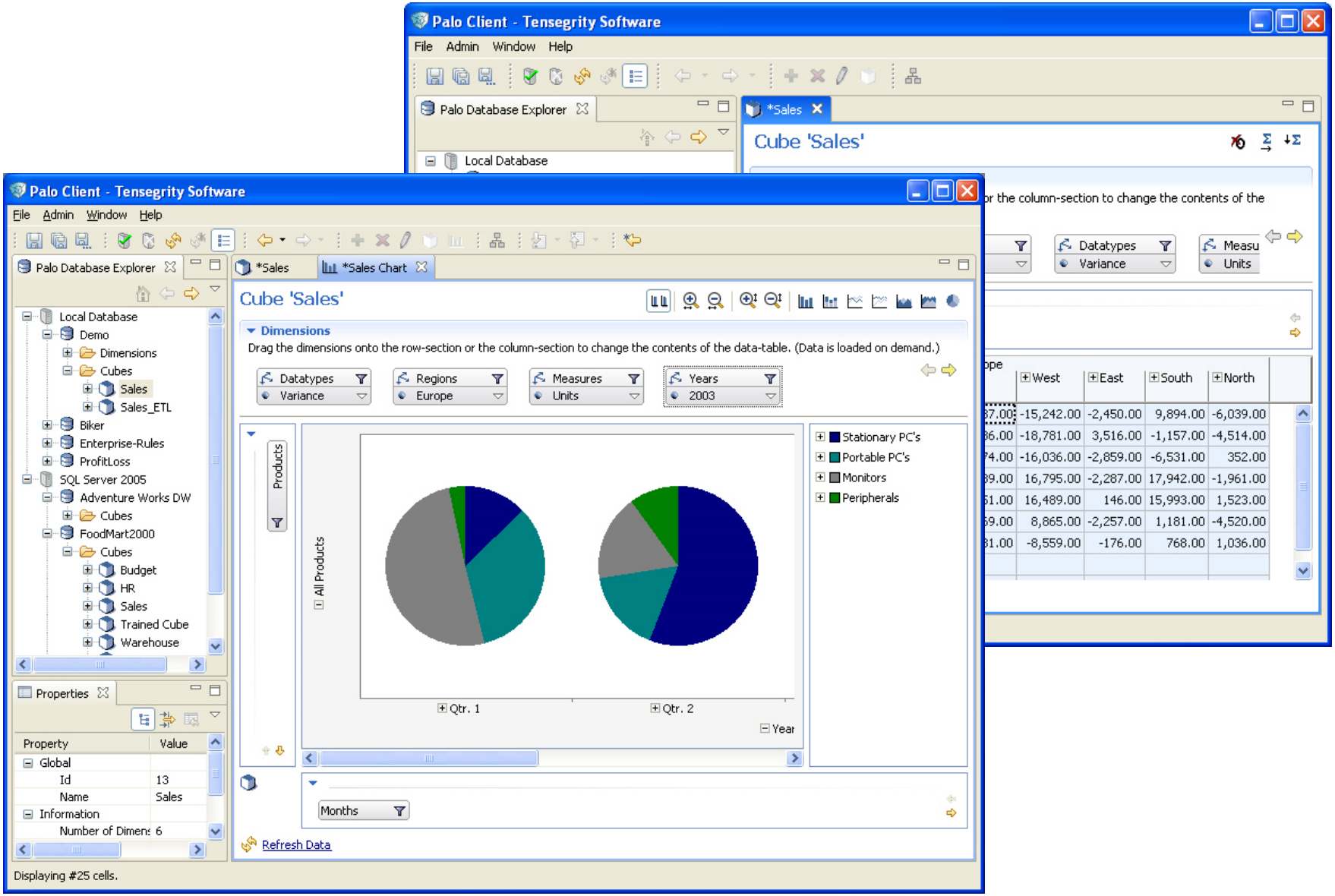

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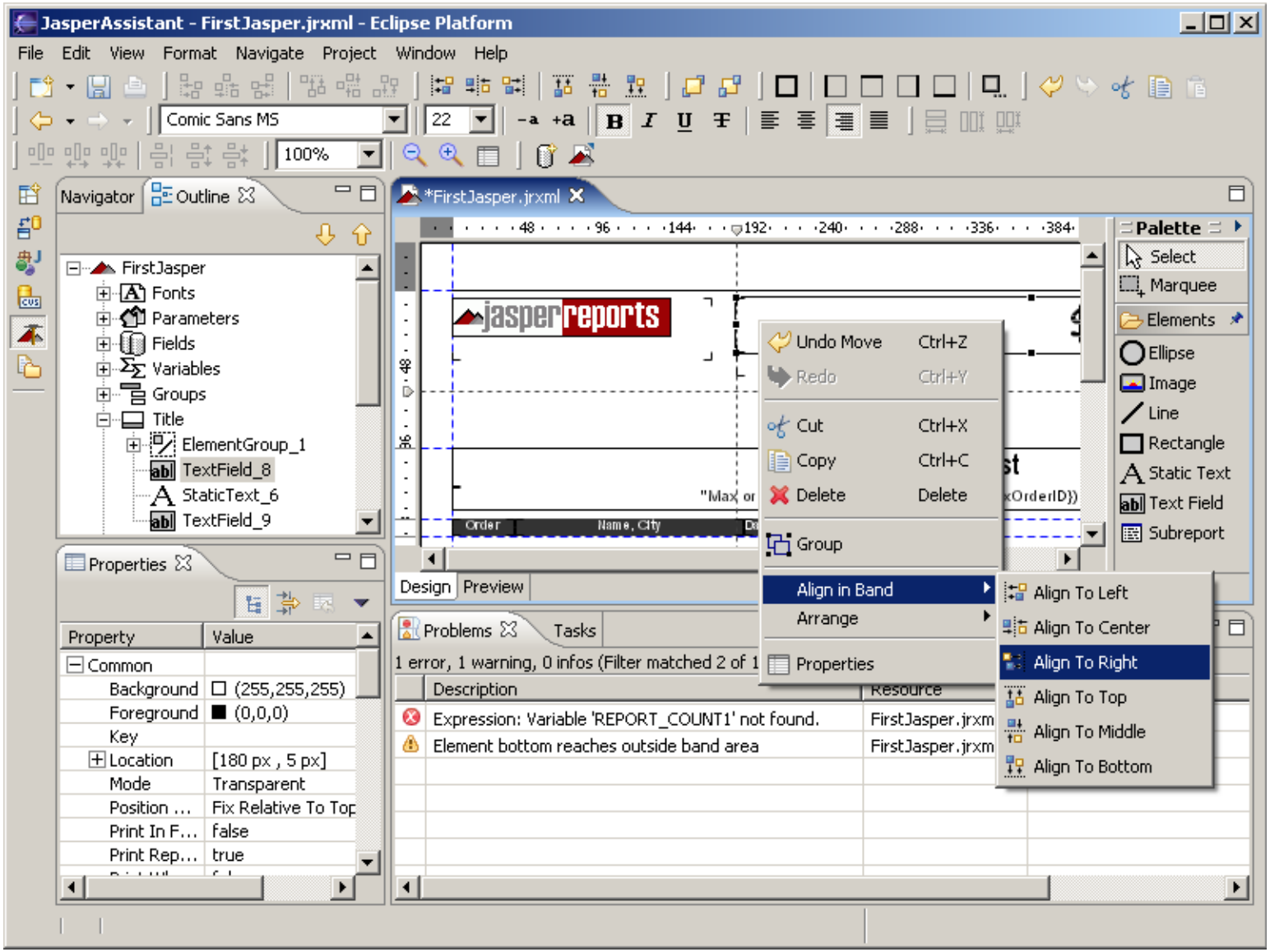

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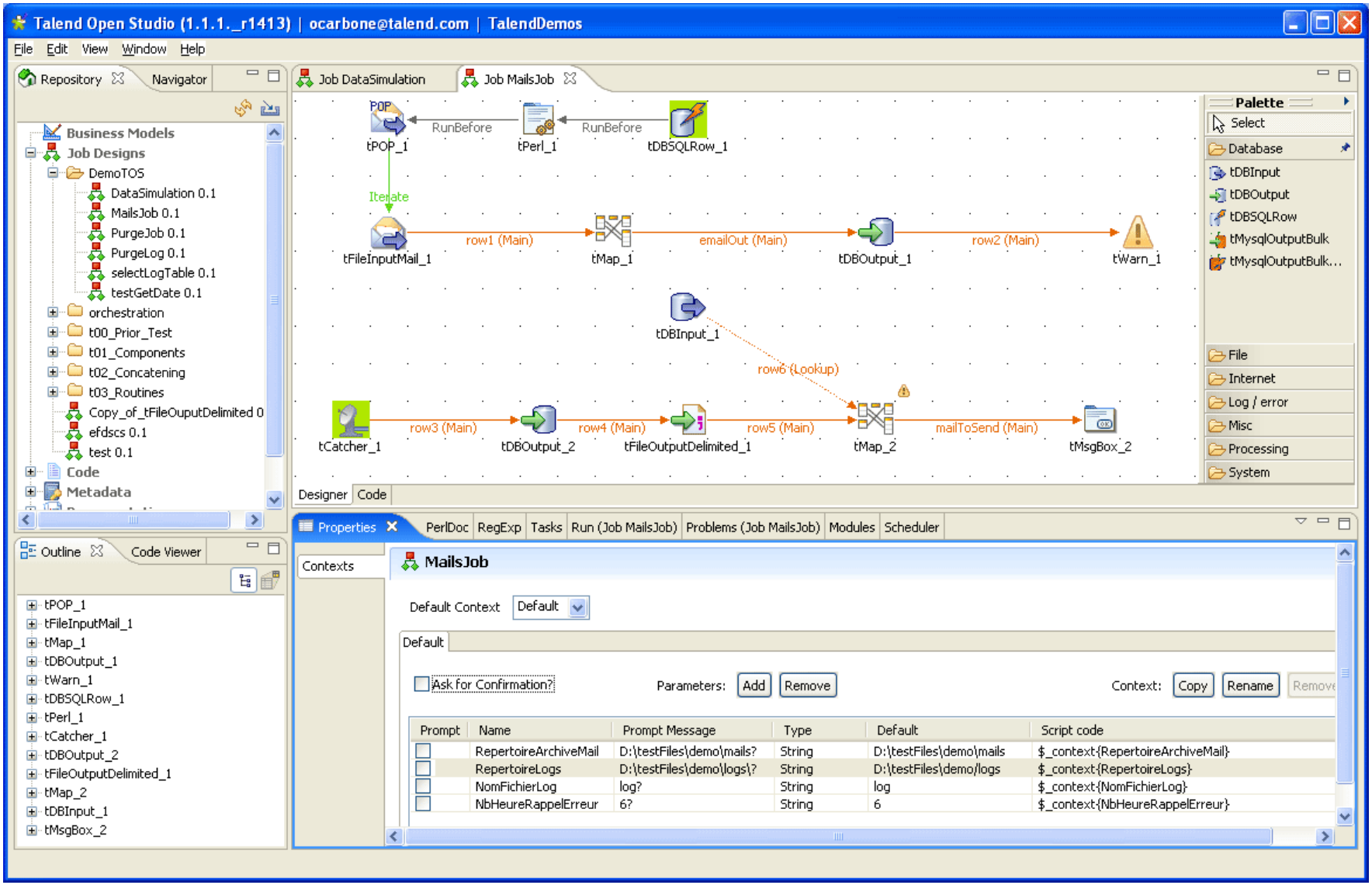

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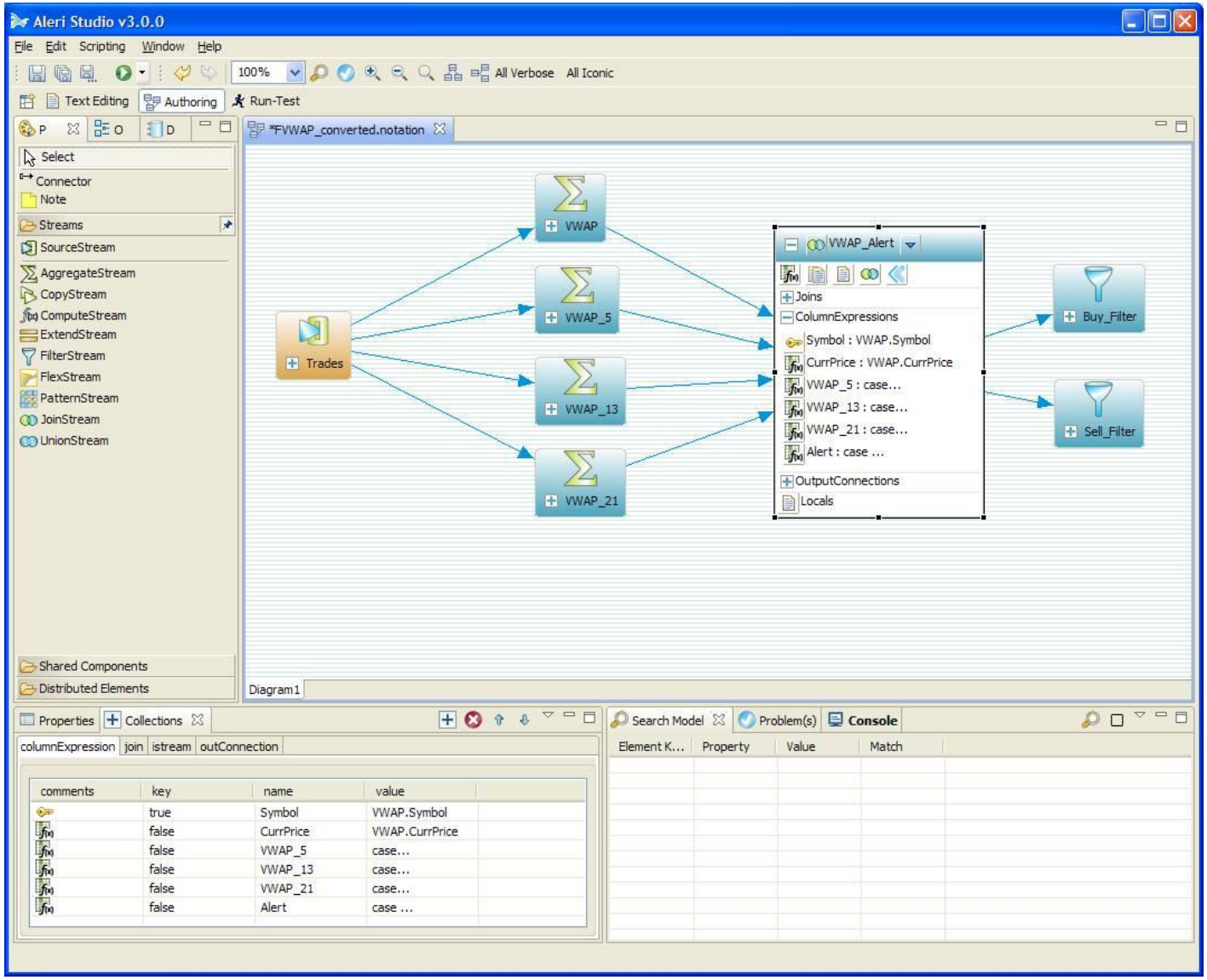

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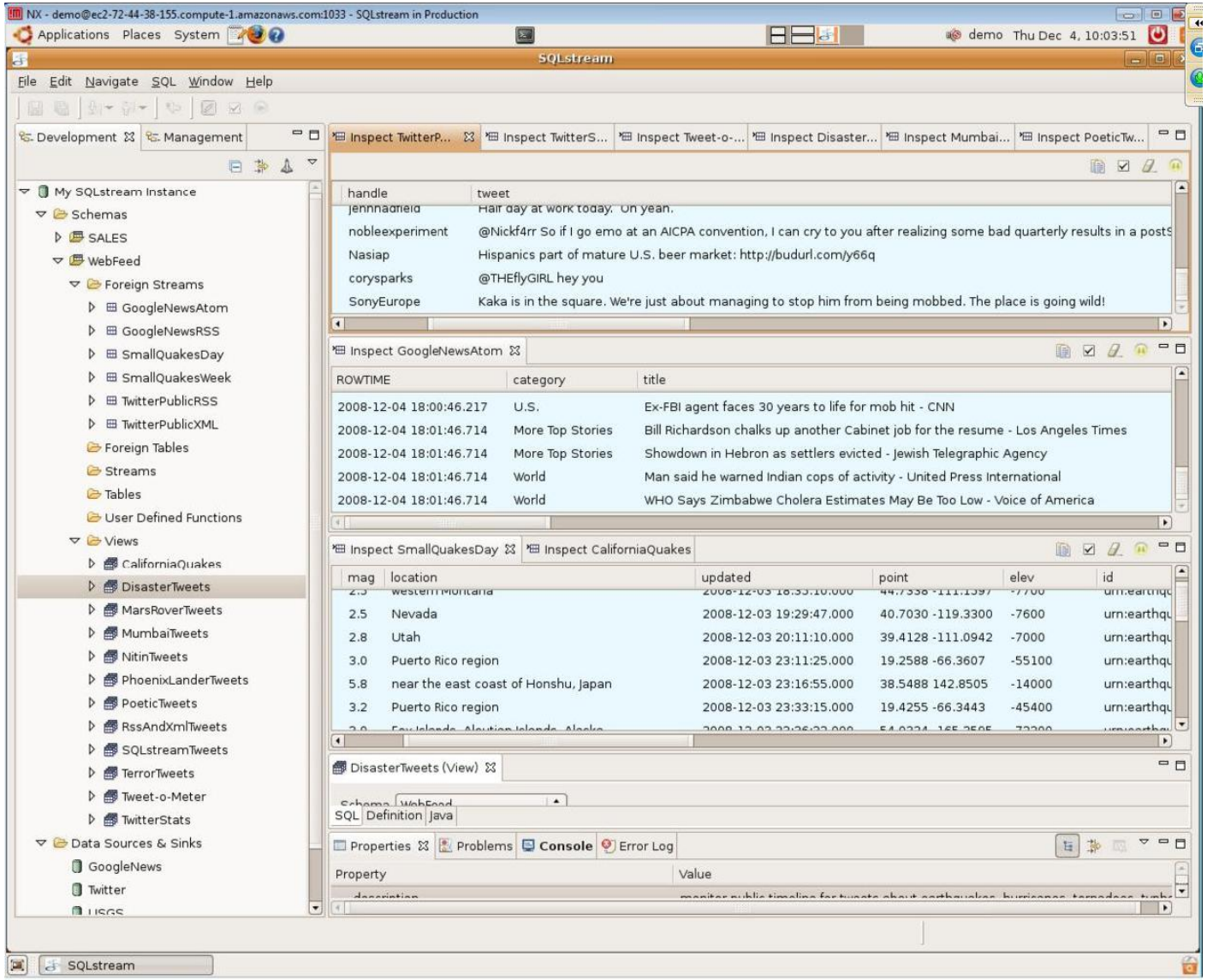

http://www.sqlstream.com/

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Market Analysis

OSBI projects/vendors are providing both tools and solutions.

OSBI is gaining end-user visibility.

There are now credible user stories showing robustness, scalability, reliability.

Alliances are breaking out of the open-source/small-shop world.

OSBI – and OS for BI – are happening!

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Questions?

Thanks!

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