

# Web Intelligence 4.2 – Overview and Roadmap



**Paul Grill,  
InfoSol Inc.**

# Web Intelligence : Rising to a new prominence



# SAP BusinessObjects Web Intelligence 4.2

for ad-hoc query and interactive reporting

## Access to heterogeneous data sources

- Leverage semantic layer and common business terms
- Combine multiple data sources within a report

## Flexibility and control

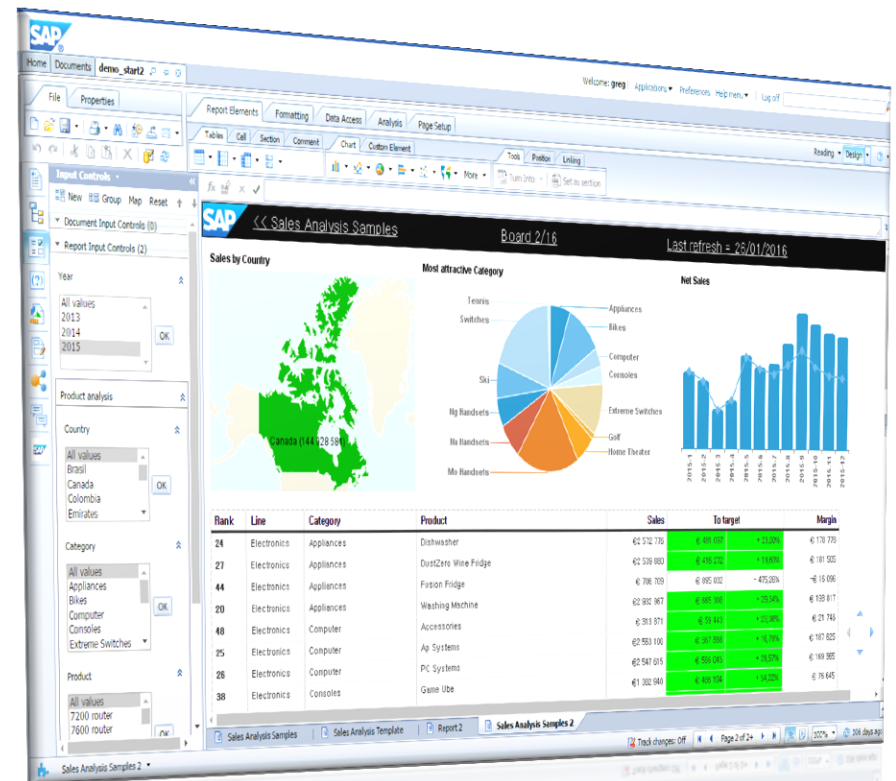
- Create new reports or modify existing reports
- Re-use shared report elements

## Interactive and intuitive interface

- Use the organized toolbar, drag-and-drop features, and charting options
- Collaborate within the reports

## Online and offline reporting

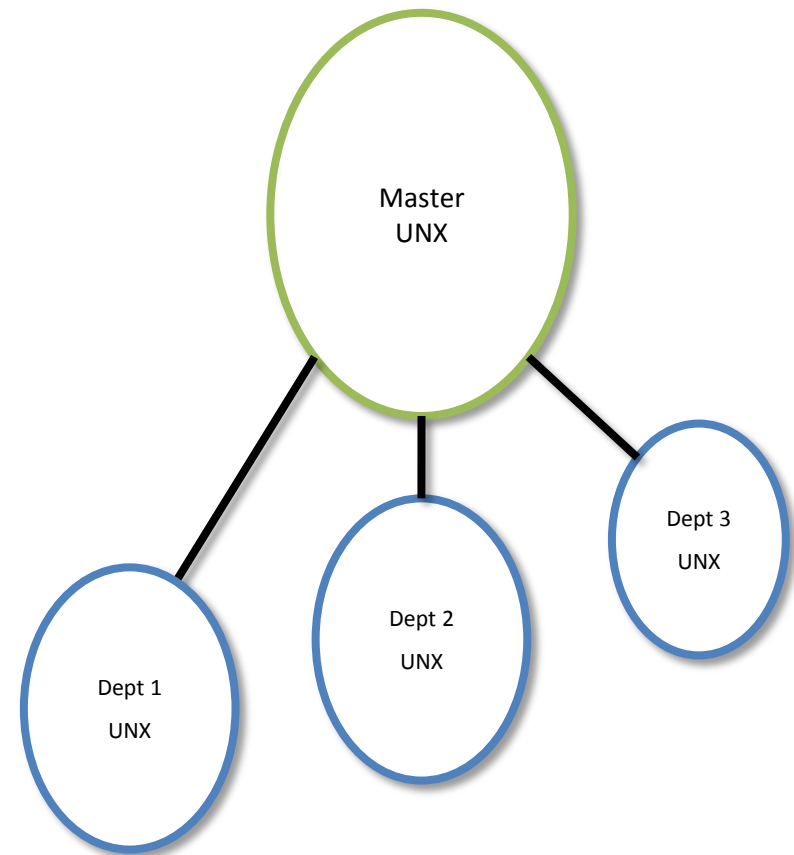
- Ask questions, analyze data, and identify trends no matter where you are (mobile, web, desktop)
- Share insights via Reports publication



# Linked Universes

## Linked UNX universes:

- Done with Information Designer Tool (IDT)
- Same principle as universe linking with UDT and UNV
- Changes to a core UNX are propagated to all derived UNX universes
- Derived UNX universes are independent universes and can be amended

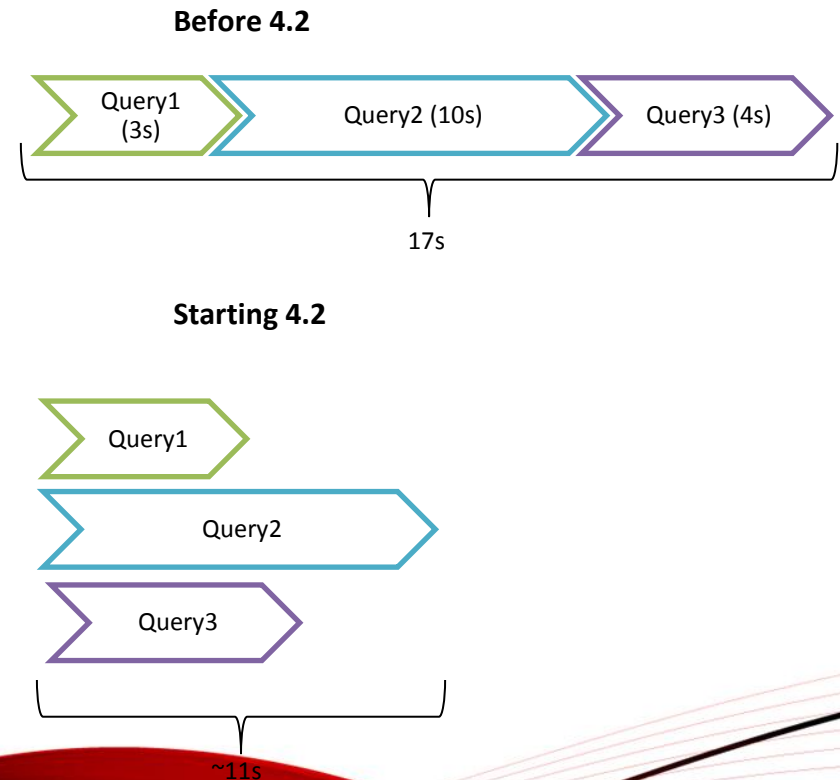


# Parallel queries

Boost refresh performance of your WebI documents

## Parallel queries (fetch) execution

- Parallel activities on database at the execution and data fetch
- Supported on
  - UNV, UNX
  - SAP HANA Direct Access
  - FHSQL
  - Text files
- Only Fetch Time can be parallelized (not the prepare and indexing)
- Activated by default
- Control the number of parallel queries in configuration files

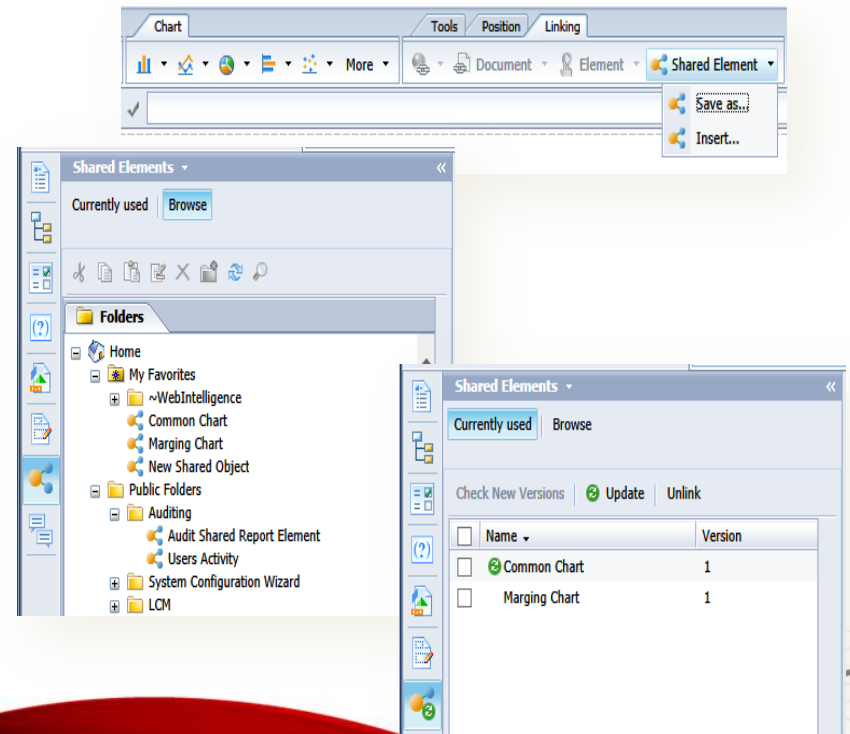


# Shared Elements

Simplify WebI document creation and user experience

Shared Elements :

- Share Web Intelligence content (report part) with other users, as shared objects
- Browse and reuse Web Intelligence content created by other users
- Factorize Web Intelligence content to ease the update process with reference persistence

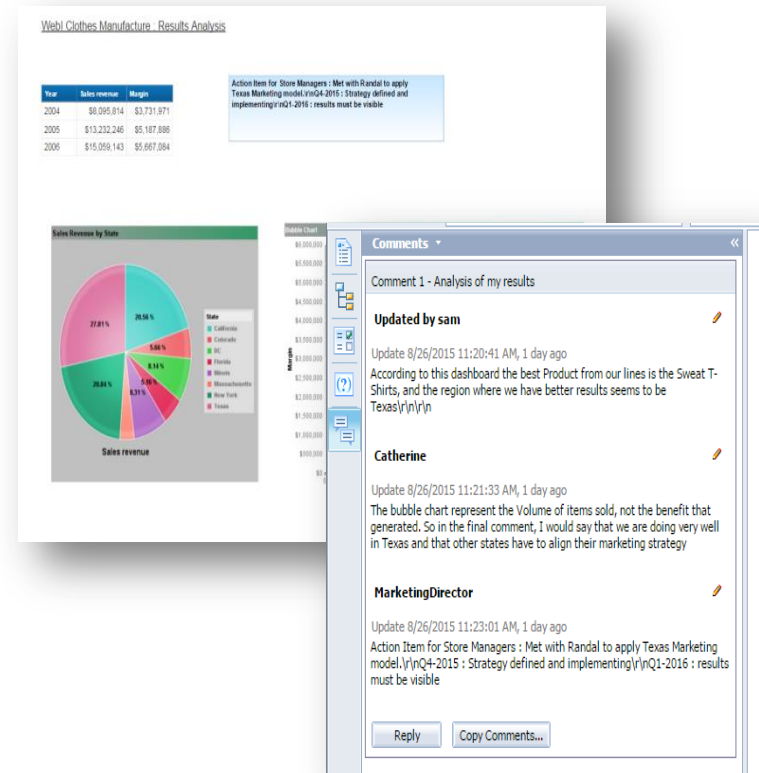


# Commentary

Comment a Web Intelligence document

Commentary:

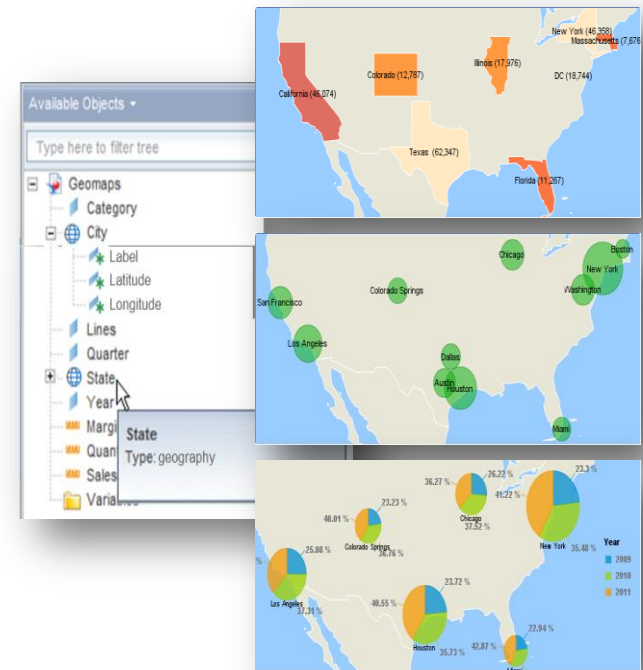
- Service provided by BI Platform : Comments are stored in the Audit DB (by default but can be changed in CMC)
- Add a comment in your document
- For collaboration: Side panel for interacting all entire Comment Thread (edit, reply, copy)
- If used for validation process: new security commands to enable/disable actions



# GeoMaps

Create geomaps using your Web Intelligence data

- Integration of a geographical database into WebI: worldwide coverage with countries, regions, sub-regions and cities over 100K inhabitants
- Integration of CVOM Java geomaps into WebI charts (choropleth, geopie, geobubble)
- Dialog box to search and match the data with the geo database
- Ability to persist the matched geo data in the WebI documents



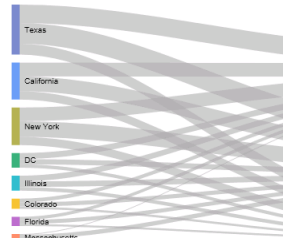


# Visualization Extensions (Linked or Custom Elements)

Enhance Web Intelligence with new element types (table, visualization, others)

## Visualization Extensions:

- New framework for developers to build custom elements to render in WebI
- Fully integrated into the WebI UX
- Visualization Extensions can be filtered, sorted, ranked...
- Managed at CMC level



Three screenshots of the SAP Web Intelligence interface demonstrating different visualization extensions:

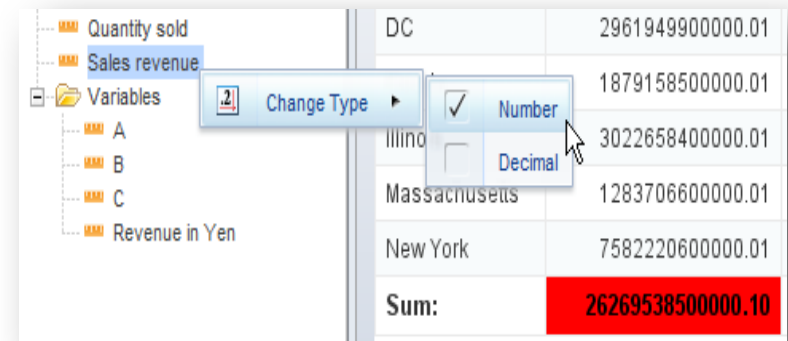
- Top Screenshot:** Shows a 'Calendar' visualization for the year 2015. The calendar grid is overlaid with a heatmap where blue squares indicate data points for specific dates. A table on the left shows 'Login Day' and '#of login' for dates from 29/09/15 to 06/10/15.
- Middle Screenshot:** Shows a 'Clutch' visualization, which is a 3D-style gauge or meter.
- Bottom Screenshot:** Shows a 'Visual Enterprise 3D Demo' featuring a 3D model of a red and black gear mechanism.

The interface includes standard SAP Web Intelligence toolbars for 'Report Elements', 'Formatting', 'Data Access', 'Analysis', and 'Page Setup'. The bottom screenshot also shows a 'Data Providers' pane with 'Data Objects' and a 'Data Objects' pane with a grid of 15 circular gauges for various countries like Argentina, Brazil, Canada, France, Germany, Italy, Japan, Korea, Mexico, Russia, Singapore, Spain, Taiwan, UK, and USA.

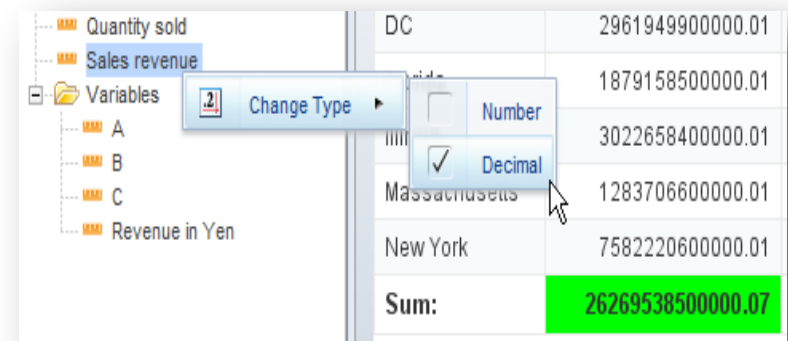
# Big Numbers

Use Big Numbers to improve the calculation precision

- Integration of the IEEE “Decimal Floating Point” format
- Increased precision from 15 to 40 digits!
- New WebI calculator function to convert to Decimal format
- Contextual menu to convert any measure into Decimal format

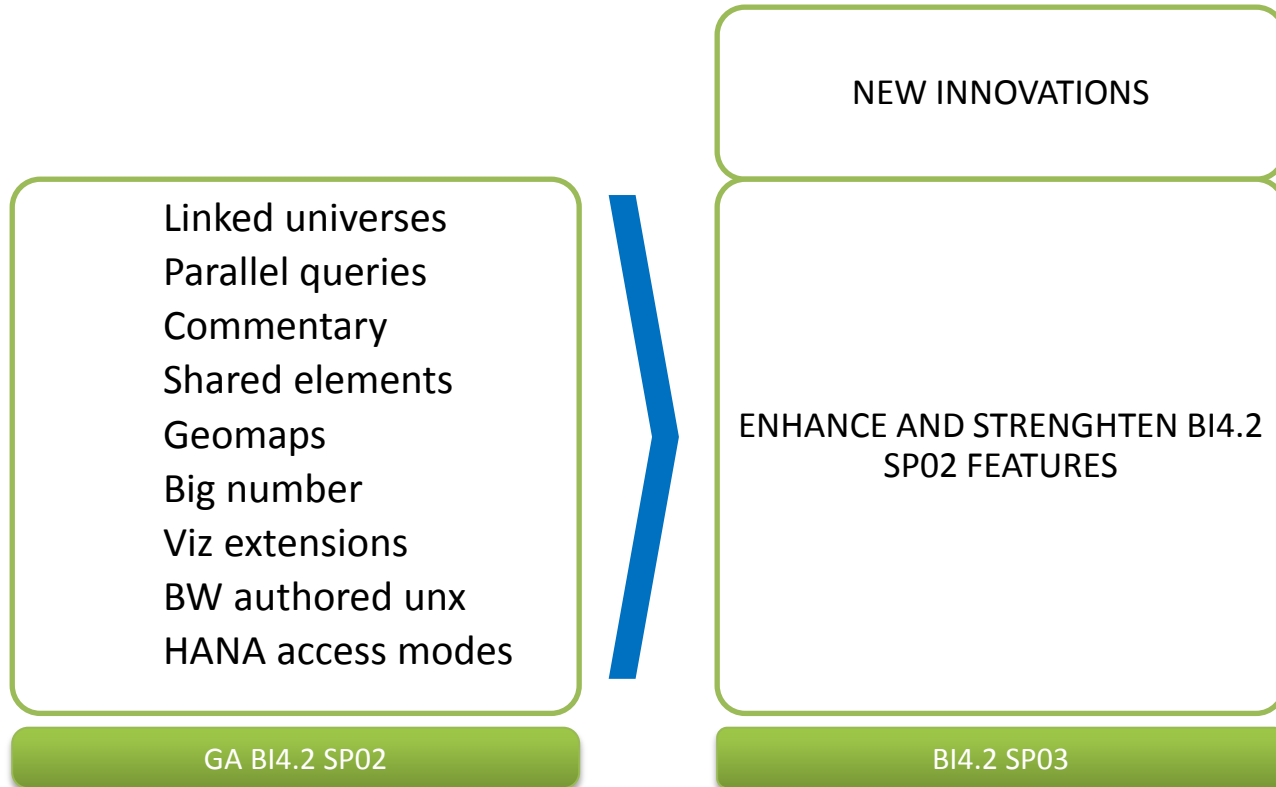


Quantity sold	DC	2961949900000.01
Sales revenue		1879158500000.01
Variables		
A	Illinois	3022658400000.01
B	Massachusetts	1283706600000.01
C	New York	7582220600000.01
Revenue in Yen		
<b>Sum:</b>		<b>26269538500000.10</b>



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# What has been delivered in Webi for BI4.2 SP03?



# DHTML Catchup

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## **Achieve parity with Web Intelligence Java Applet**

- **Save As**
  - **Format Number**
  - **Conditional Formatting**
  - **Support of XLS data provider**
  - **Query Panel for SAP BEx, UNX on SAP Bex data providers**
  - **Complex filters in Query Panel**
- 

# Dynamic Input Controls

## Dynamic Input Control

- Groups Management
- LOV dynamic filtering
- Display selected values (Filter Path)

Group of Input Controls

Name: Business

Input Controls  Document  Report

	Input Control	Group
<input type="checkbox"/>	Year	
<input checked="" type="checkbox"/>	Country	
<input checked="" type="checkbox"/>	City	
<input checked="" type="checkbox"/>	Product	
<input type="checkbox"/>	Sales Revenue	

OK Cancel

Input Controls

New Group Map Reset

Document Input Controls (0)

Report Input Controls (5)

Year

2014  
 2015

Business

Country

All values  
France  
Greenland  
Italy  
Jamaica

City

All values  
Bordeaux  
Kingston  
Montego Bay  
Nuuk

Product

All values  
Anorak  
Swimming suit

Input Controls

New Group Map Reset

Document Input Controls (0)

Report Input Controls (5)

Year

2014  
 2015

Business

Product: Swimming suit

Country: Jamaica

City

All values  
Kingston  
Montego Bay

Sales Revenue

0 45,000 50,000

# Sets

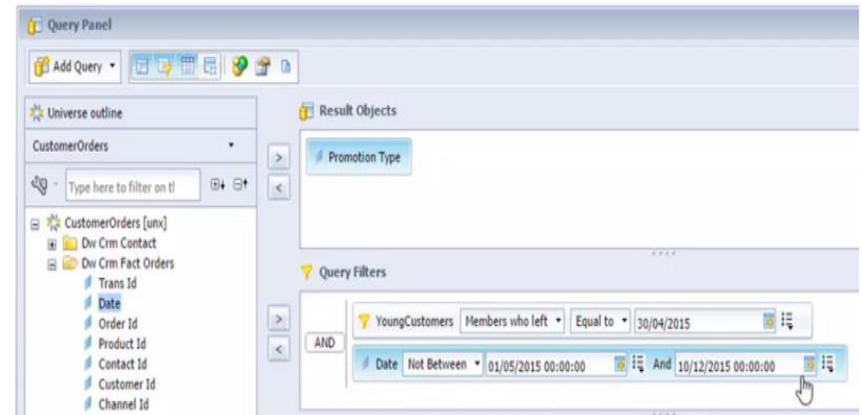
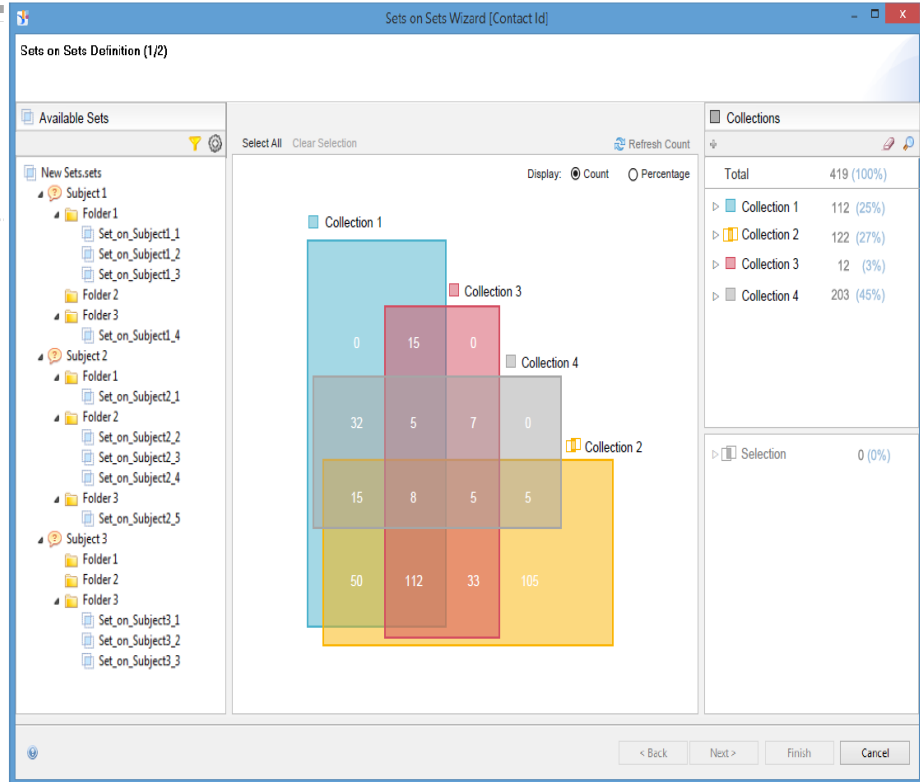
## Use Sets to query data

## Author Sets in Information Design Tool

- Smooth integration in Semantic Layer and BI Platform
- New InfoObject in CMS repository: Set-container
- Define sets on top of universe objects, based on data distribution or formula
- Define sets on top of sets

## Consume Sets Through Universe

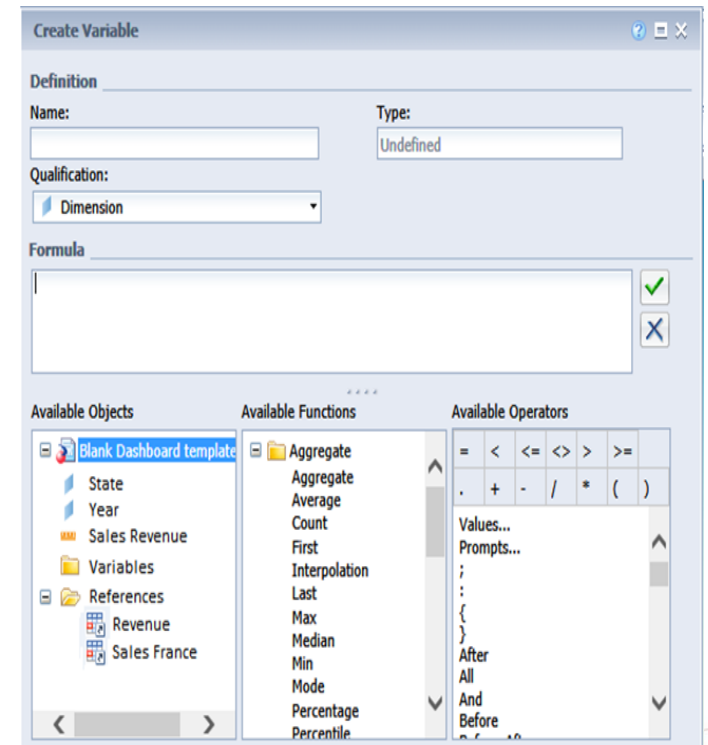
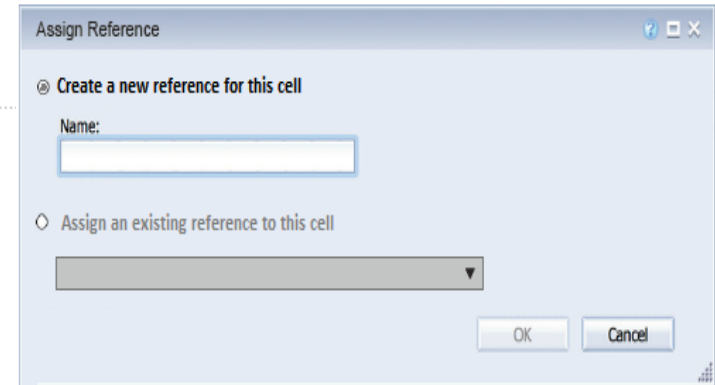
- Sets are exposed as universe filter
- Temporal filter
- Available to Semantic Layer clients: Web Intelligence, but also Lumira, Crystal Reports,...



# Referenced cell

## Define Reference values

- A reference is a variable that returns the value of a specified cell in the document
- The reference value keeps its own context. Get a specific figure in a table, for specific dimension value, for example:
  - Year = 2016, Product = TV
- All reference values are listed as AVAILABLE OBJECTS
- A reference can be used in any formula and/or for Conditional Formatting



# Commentary

## Comment anything

- Table, chart or table's cell
- Possible both in Reading and Design modes
- Comments displayed when hovering the mouse

## Usability

- Enhanced Comments side panel
- Delete comments in Comments side panel

## Improved Lifecycle

- "Save As" for documents with comments.
- Commentary available for Scheduling. Instances will use parents comments

## Performance Optimization

Commentaires

copy all

**Mike Hollister**  
Nov 10, 2016. 5:20 PM

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pulvinar phasellus eget auctor quam elementum cursus. Cursus.

**Frank Antoine**  
Nov 12, 2016. 7:00 PM

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus pulvinar posuere metus, eget auctor quam elementum cursus.

**Paul Smith**  
Nov 14, 2016. 7:30 AM

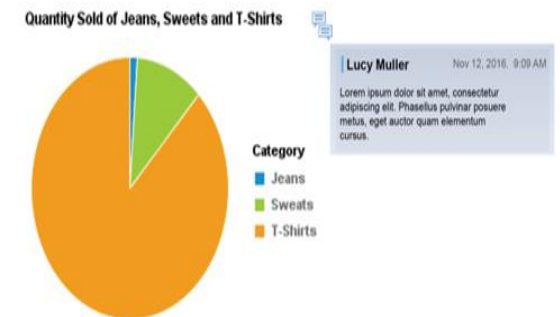
Lorem ipsum Phasellus pulvinar posuere metus, eget auctor quam elementum cursus.

**Mike Hollister**  
Oct 20, 2016. 9:20 PM

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus pulvinar posuere metus, eget auctor quam elementum cursus.

Add comment

Ok Cancel





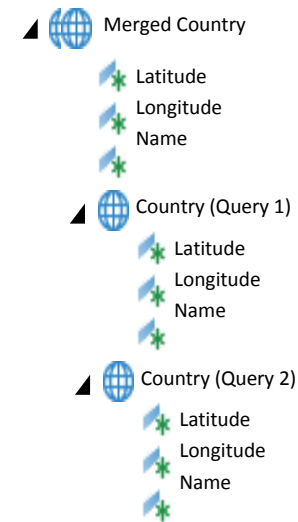
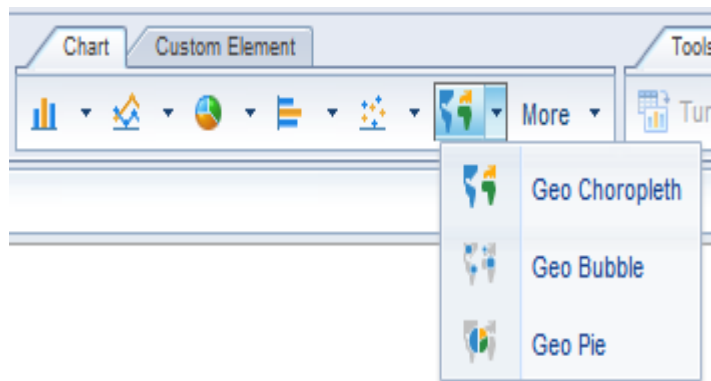
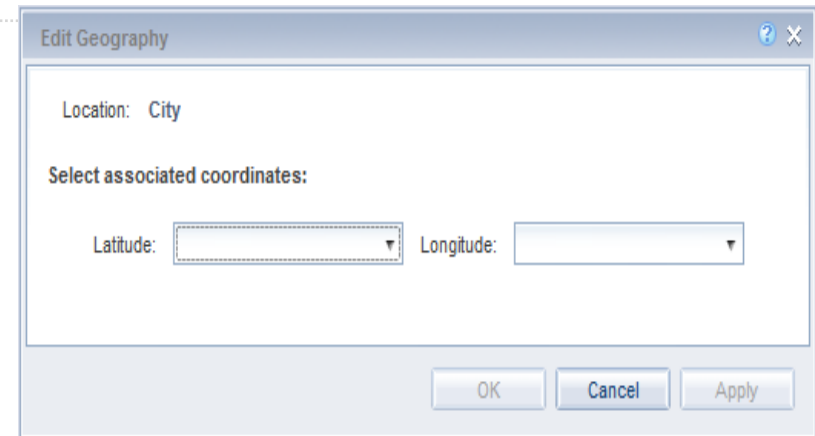
# Geo Map

## Improve geo map support

- Use latitude/longitude as data points:
  - Edit as a Geography > By Longitude/Latitude
- Geo-qualify merged objects and variables

## UX improvement

- Show geo maps in the toolbar



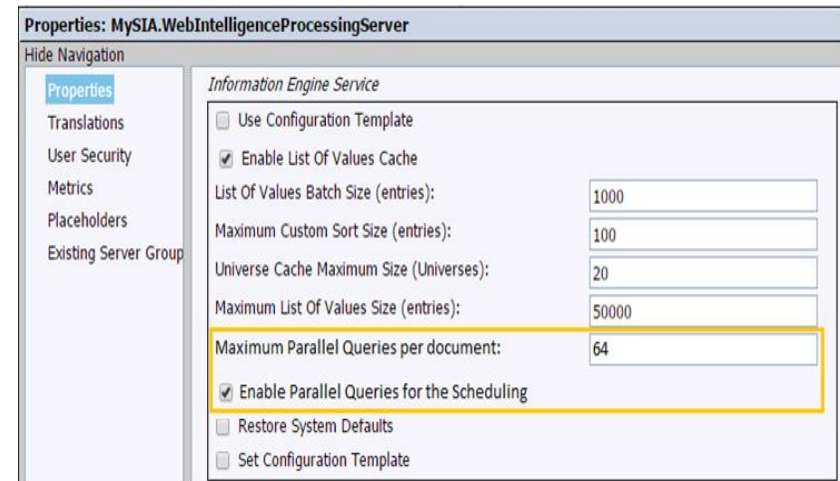
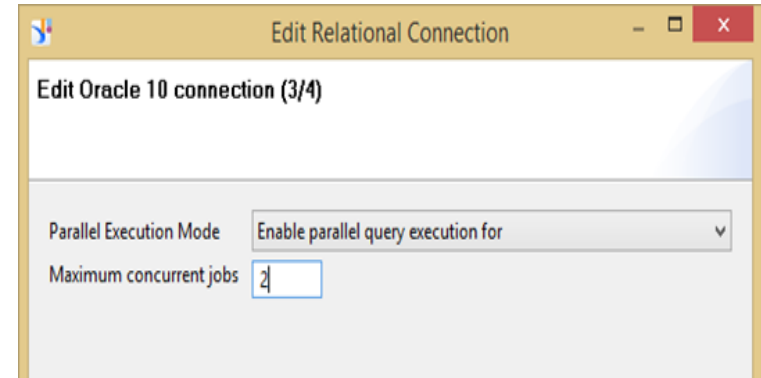
# Parallel Data Provider

## New Data Provider Supported for Parallel Query:

- Parallel Query support on BEx Queries

## Parallel Query Settings:

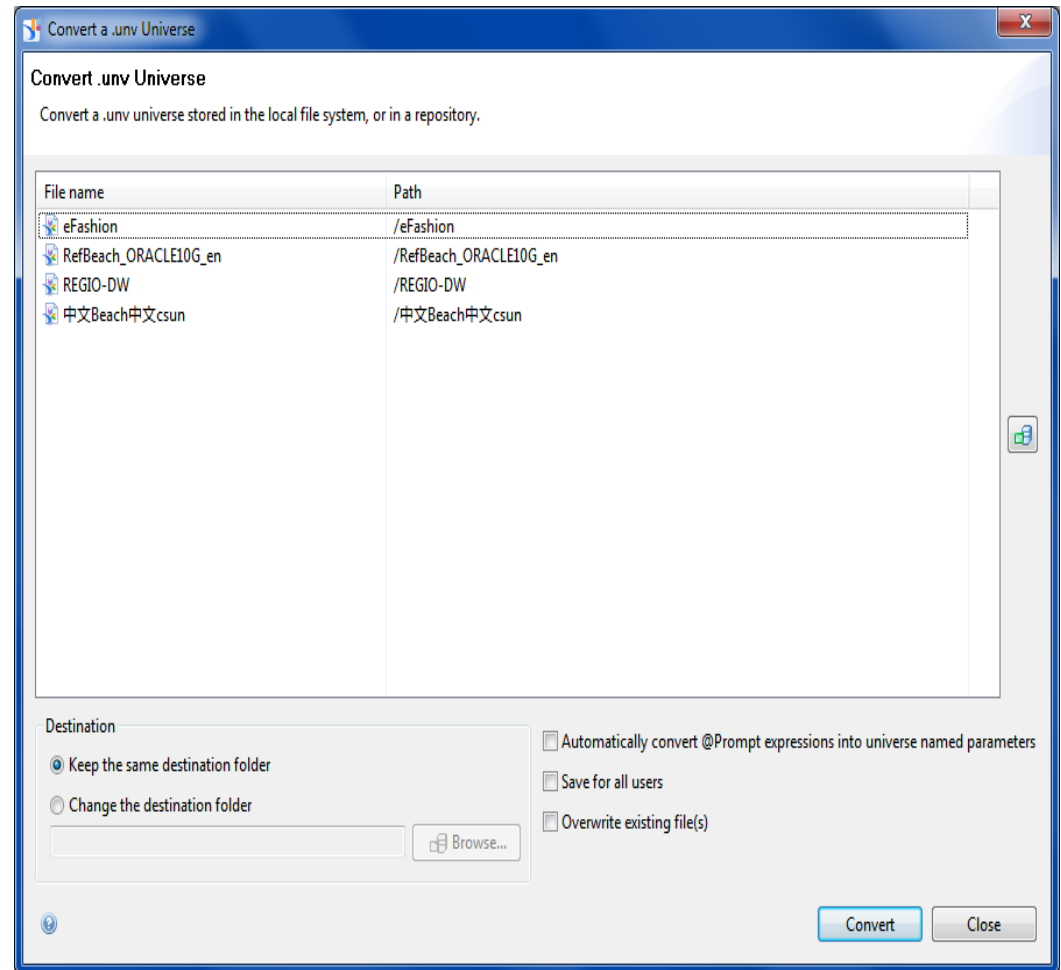
- IDT/UDT: relational cnx disable parallel queries, max concurrent jobs
- CMC/IDT: OLAP cnx disable parallel queries, max concurrent jobs
- CMC: Disable parallel queries for scheduling
- CMC: Max number of parallel jobs per documents



# Universe Conversion

## Universe Conversion

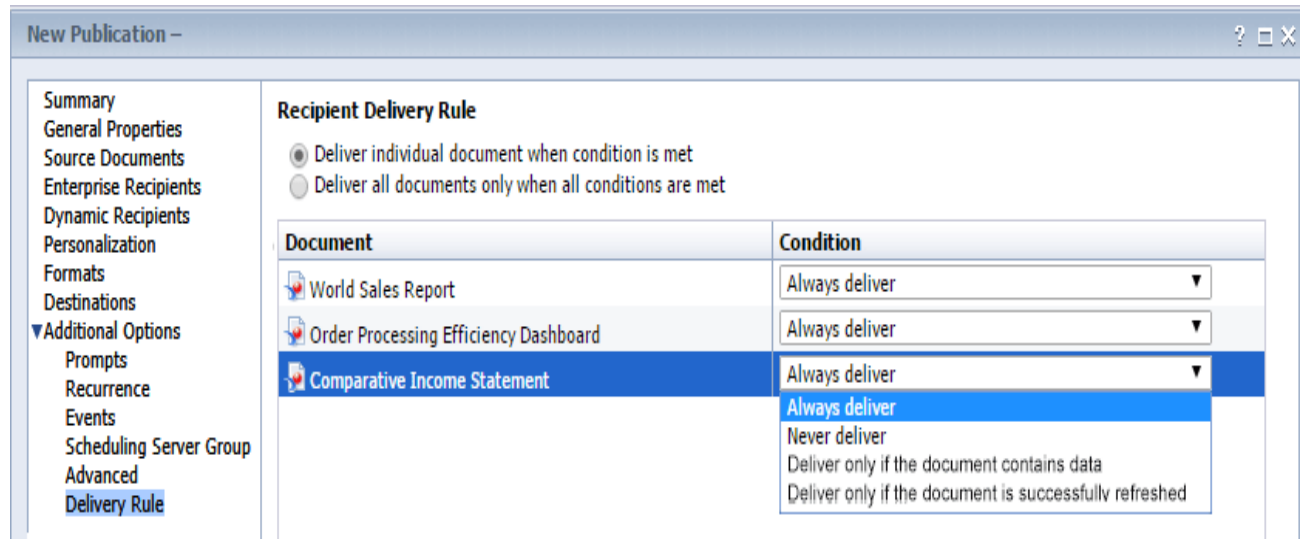
- Convert linked UNV to linked UNX
- Convert several universes at once
- Improved UI



# Publishing

## Recipient Delivery Rule

- Do not send publication if document has no data
- Do not send publication if document has not been successfully refreshed



The screenshot shows the 'New Publication' dialog box with the 'Delivery Rule' tab selected in the left-hand navigation pane. The main area is titled 'Recipient Delivery Rule' and contains two radio buttons: 'Deliver individual document when condition is met' (selected) and 'Deliver all documents only when all conditions are met'. Below this is a table with two columns: 'Document' and 'Condition'. The table lists three documents: 'World Sales Report', 'Order Processing Efficiency Dashboard', and 'Comparative Income Statement'. The 'Comparative Income Statement' row is selected, and its 'Condition' dropdown menu is open, showing options: 'Always deliver', 'Never deliver', 'Deliver only if the document contains data', and 'Deliver only if the document is successfully refreshed'.

Document	Condition
World Sales Report	Always deliver
Order Processing Efficiency Dashboard	Always deliver
Comparative Income Statement	Always deliver

Condition options for 'Comparative Income Statement':

- Always deliver
- Never deliver
- Deliver only if the document contains data
- Deliver only if the document is successfully refreshed

# And many other improvements...

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## **Web Intelligence Calculation Engine:**

- New function to flatten a hierarchy (like in XI 3)
- Merge variables


## **Web Intelligence Chart Engine:**

- Display both value and percentage in Pie charts
- Customize borders of each data series in Bar/Column charts
- Inverse legend order in stacked Bar/Column charts
- Customize Total value label in Waterfall charts

## **Web Intelligence User Interface:**

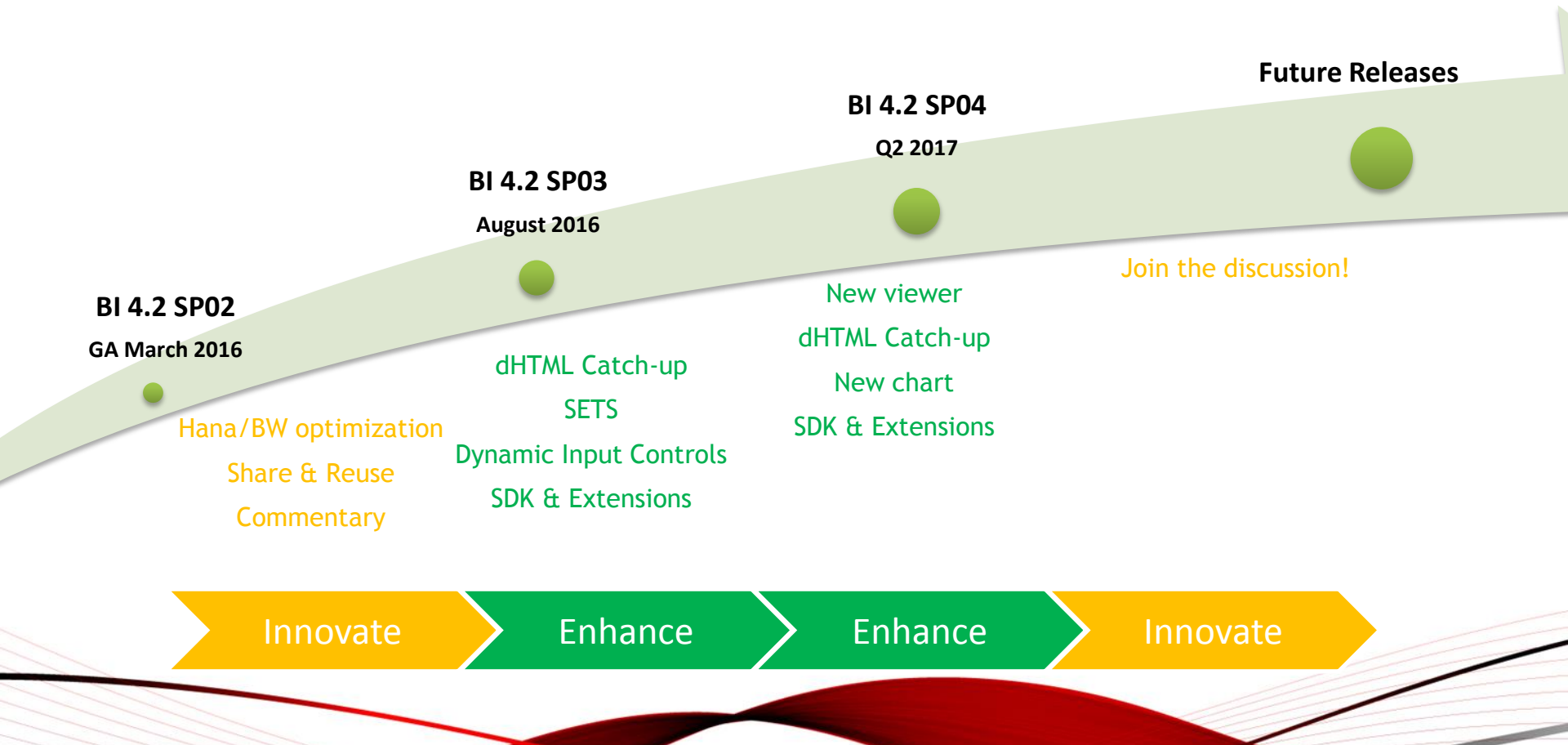
- Choose the image DPI when exporting a document to PDF or Excel
- Sort Data Provider objects by Universe folders (Available Objects side panel)

## **Web Intelligence Server Group**

- Support server at User Group level
  - Support Server Group at Report level (Processing)
- 

# Innovation Roadmap

Expand Business leadership on stable core



# What is planned in WebI for BI4.2 SP04?

dHTML catch up > Java parity – **Step 2 : Free Hand SQL, RTL support for document**

CVOM Enhancements – **Gauges, Tiles, and additional enhancements**

Customer Connection Program – **New functions for variables**

DeskI Client parity – **variable description**

BI Variants – **Include or exclude prompts from the BI Variant**

Sets – **Cumulative improvements**

Cumulative enhancements – **Security right for FHSQL, Hierarchy flattening, new APIs for Custom Elements, new DB support**

SDK – **Expose BI 4.2 features in REST web services**

***Web Intelligence new consumption experience (Unified Viewer)***



# BI4.2 SPx and beyond !

**PROPOSALS, IDEAS!  
SUBJECT TO CHANGE !**

- **Modern experience for Readers and Designers**
  - Modern look and feel (HTML5, FIORI UI)
  - Support modern devices (Different screen sizes and interaction paradigms, touch friendly)
  - App-like experience
- **Simplified Consumption experience**
  - Action in place : key actions are one click away, attached to the block (sort, rank, comment, filter ...)
  - Smart analysis : Interact with your report and discover new question, smart analysis on viz, data point decomposition and comparison ...
  - Alerting : create and follow metrics
  - Notifications : be notified when alerts is triggered or a comment is sent to
- **Simplified Designer experience**
  - New report layout : placement and layout snaps into place cleanly
  - Templates of reports and visualization : beautiful visual content by default
  - Create calculations via visual action
  - Trusted BI : simplified report creation based on shared elements(trusted and shared query/data/viz)
- **Adapt to ecosystem**
  - Fully leverage new data sources (unstructured, big data, cloud data, social data)
  - Extend WebI capabilities via new Cloud services
  - Generalize “OnLine” mode for “.unx” and other data sources
  - Suggestions : suggest new Bi artefact or new query/data/viz based on the usage of WebI reports by users



# Key links for more information

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## Key links

- Web Intelligence on SCN <http://scn.sap.com/community/businessobjects-web-intelligence>
- Web Intelligence 4.1, where to start (official tutorials/videos) ? <http://scn.sap.com/docs/DOC-7819>
- *Advanced Tips&Tricks to create great Web Intelligence documents* <http://scn.sap.com/docs/DOC-50171>
- *Best Practices to Design a Web Intelligence document :* <http://scn.sap.com/docs/DOC-58571>  
<http://scn.sap.com/docs/DOC-58532>
- What's new in BI 4.2? [What's New 4.2 L0, L1, L2, Web Intelligence, Semantic Layer](#)
- *What's new in Web Intelligence 4.2 SP03* [What's New in WebI 4.2 SP03](#)
- Roadmaps on SAP Service Marketplace <http://service.sap.com/saproadmaps>
- Official tutorials for SAP BI <http://sap.com/learnbi>
- Product Documentation <http://help.sap.com/>
- Product Availability Matrix <https://support.sap.com/release-upgrade-maintenance/pam.html>
- *BI4.2 pattern books* [how to adopt BI4.2 from previous version?](#)
- *Upgrading/Updating/Migrating to BI 4.2 Virtual Technical Workshop* [BI 4.2 Upgrade Virtual Technical Workshop](#)

## Where to go to provide product feedback and ideas

- SAP Idea Place <https://ideas.sap.com>
  - Influence programs <http://service.sap.com/influence>
- 