

A large, stylized graphic of a gear or wheel, rendered in black and white. It features a central white circle, a thick black outer ring, and a smaller gear-like shape inside. A horizontal line extends from the right side of the gear, ending in a smaller gear-like shape. The graphic is positioned behind the text.

K4U

Knowledge @ SAP User Groups

SAP Analytics Portfolio Webinar Series

SAP Analytics – Overview Webinars

SAP Analytics – Overview



Jayne Landry

Mar 16

SAP BI – Overview & Roadmap



Olivier Duvelleroy /
Saurabh Abhyankar

Mar 23

SAP EPM – Overview & Roadmap



Kirk Anderson

Mar 24

SAP EIM – Overview & Roadmap



Paul Medaille

Mar 30

SAP Predictive Analytics – Overview &
Roadmap



Sven Bauszus

Mar 31









SAP GRC – Overview & Roadmap



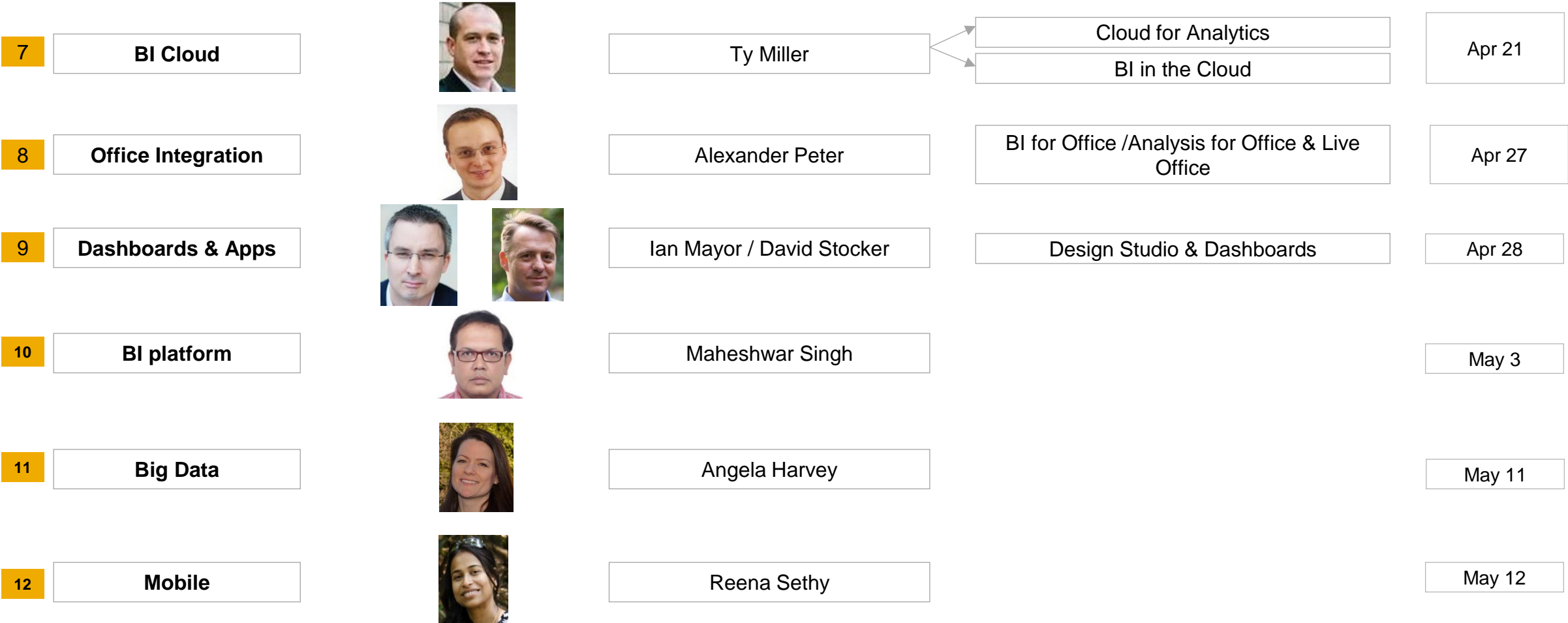
Kevin McCollom

Apr 13

SAP Analytics Portfolio - BI Solutions 1/2

1	Reporting		Intro by Merlijn Ekkel	<ul style="list-style-type: none"> Crystal Reports; Nina Bao / Donald Guo Web Intelligence Gregory Botticchio 	Mar 29
2	Adopting BI 4.1 /4.2		Merlijn Ekkel		Apr 5
3	What's new in BI 4.2		Merlijn Ekkel		Apr 7
4	Analytics Services Portfolio		Markus Schunter		Apr 12
5	Self Service BI		Ina Felsheim		Apr 14
6	Discovery & Analysis	  	Intro by Saurabh Abhyankar	<ul style="list-style-type: none"> Lumira; Francois Imberton Pred. Analytics, Pierpaolo Vezzosi 	Apr 20

SAP Analytics Portfolio - BI Solutions 2/2



SAP Analytics Portfolio – Predictive Analytics deep dives

SAP Predictive Analytics

An automated process, a technological breakthrough to produce predictive results in operational IT environments

Laurent Tessier

Date tbd

SAP Predictive Analytics

Why massive modeling is important?

Hervé Kauffmann

Date tbd

SAP Predictive Analytics - Roadmap session

What's new & what's next

Ashish Morzaria

Date tbd

Predictive Data Preparation

Abdel Dadouche

Date tbd

SAP Predictive Analytics

How to become a data scientist in no time

Ashish Morzaria

Date tbd

Webinars, Recordings & Presentations

available @

<http://sap.com/k4u>



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Simplify the landscape...



For both Enterprise BI and Trusted Data Discovery...

Enterprise BI



- Significant complexity to the BI content, often professionally authored.
- Standardized formats, sophisticated design, complex data mash-ups, or high levels of governance.
- Separates creation from consumption environment.

Trusted Data Discovery



- Often not a product, but a way of working with software in a self-service manner.
- Business user, analyst, or executive answering their own questions.
- Combines the creation and consumption environment into a single seamless experience.

SAP BusinessObjects BI 4.2 Theme



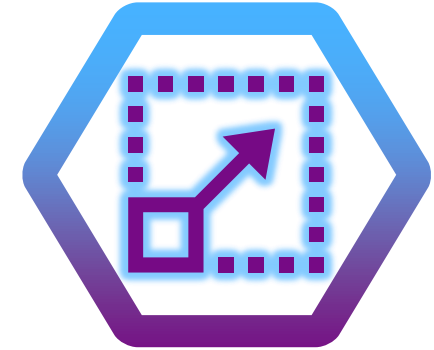
○ Simplify

- Reduced **downtime** for patch upgrade
- Improved **upgrade** process
- Remove **upgrade barriers**
- Improved **collaboration experience**



○ Enhance

- Platform & client **enhancements**
- SAP **BW** and SAP **HANA** enhancements



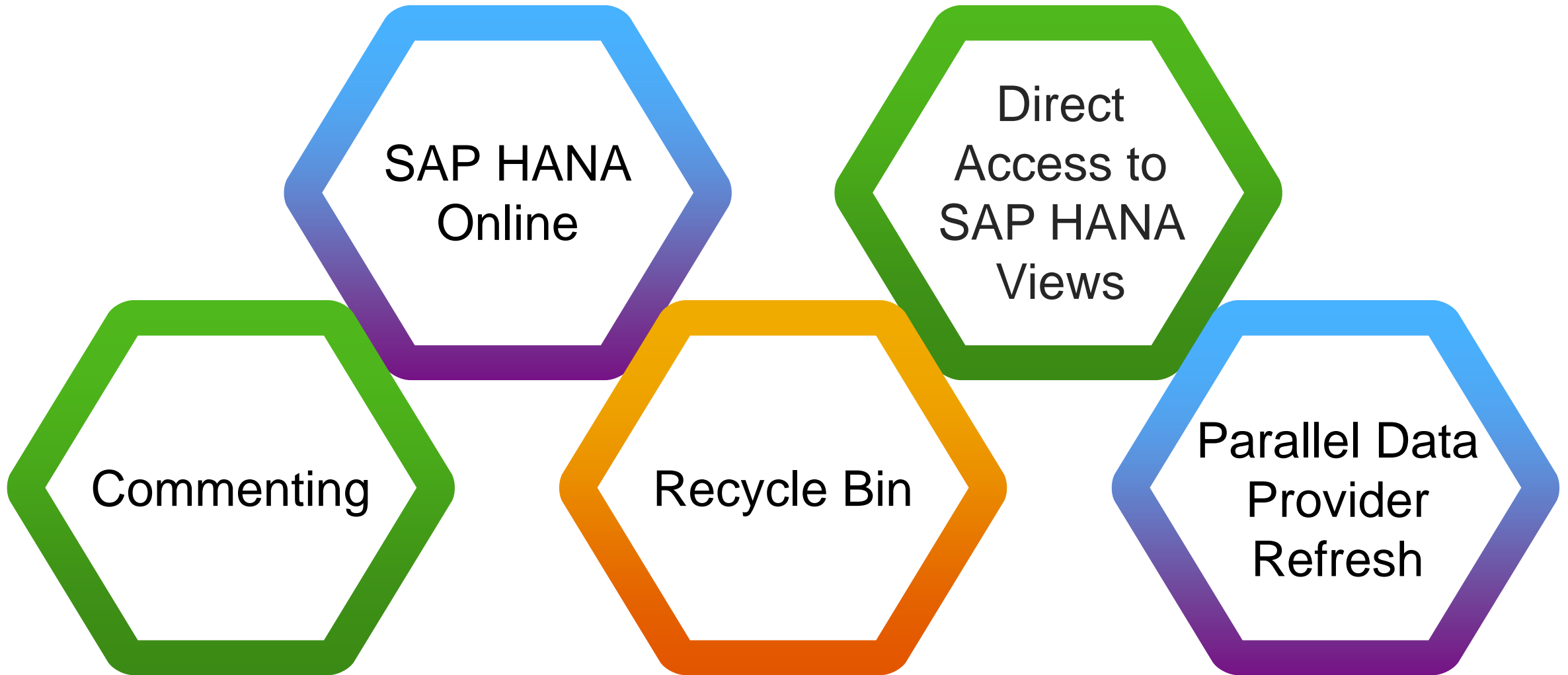
○ Innovate

- **Innovation** in platform and clients
- **New Platform** support
- Customization, developer experience



This is the current state of planning and may be changed by SAP at any time.

SAP BusinessObjects BI4.2 Top 5





Web Intelligence

By: Gregory Botticchio

SAP BusinessObjects Web Intelligence

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

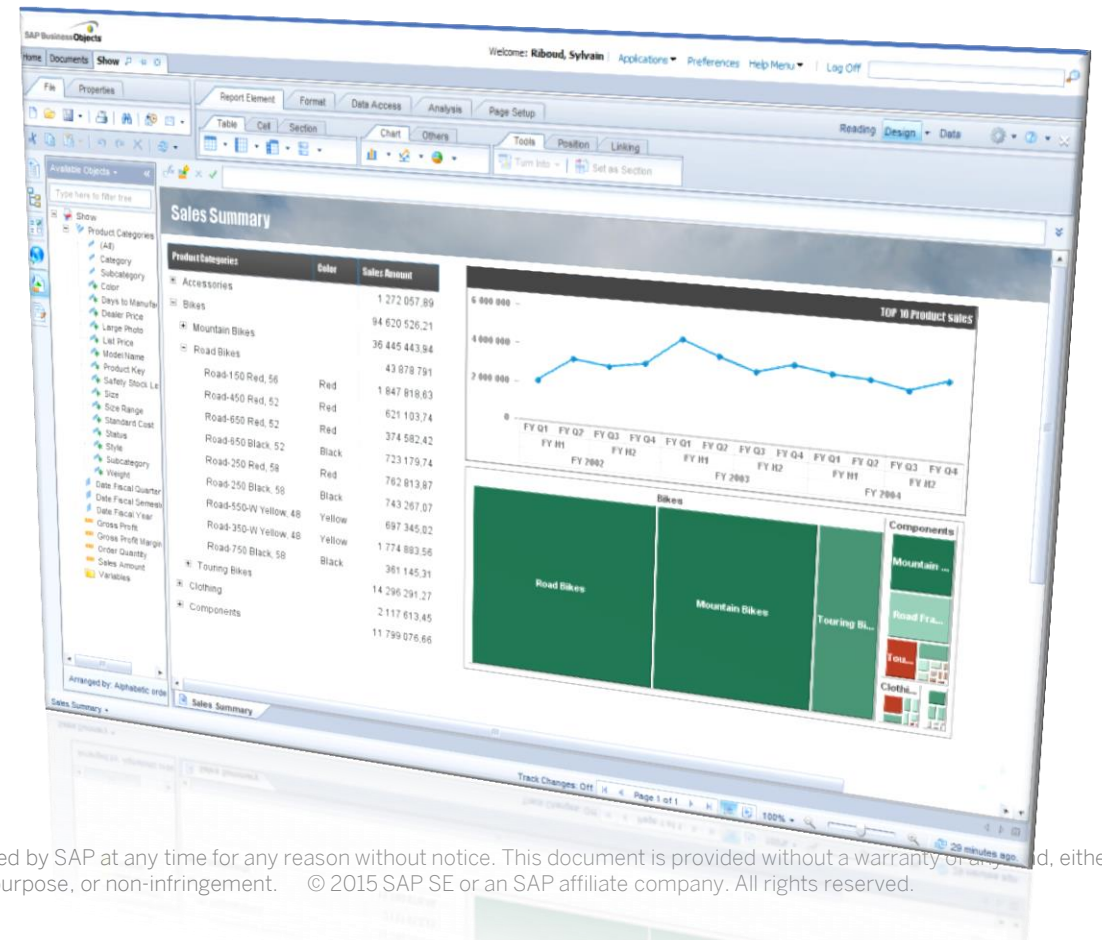
- Create new reports or modify existing reports

Interactive and intuitive interface

- Use the organized toolbar, menus, drag-and-drop features, and charting options

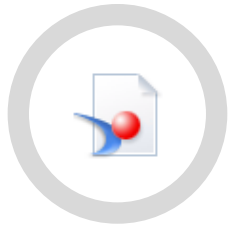
Online and offline reporting

- Ask questions, analyze data, and identify trends no matter where you are (mobile, web, desktop)

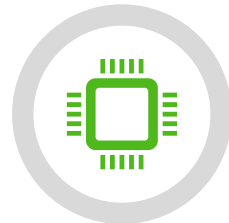


SAP Web Intelligence

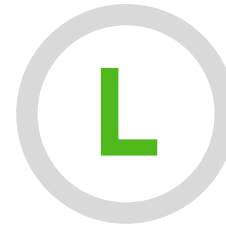
Some **key facts** about **Webi** today ...



25,000+ productive Customers and Partners:
Top BI tool in the market (76 of Global
FORTUNE 100)



Continuous incremental innovations:
#1 BI tool for the enhancement requests
asked on Idea Place



Company size :
50% Large
30% Medium
20% Small



30% use SAP ERP/BW/HANA
70% use agnostic DB



Use Case #1: Standard Reporting

Organize **information** your **way** with **free-form reporting**

Organized tool bar

Rich feature set

f(x): local calculations and variables

Drag and drop

Interact with a few clicks

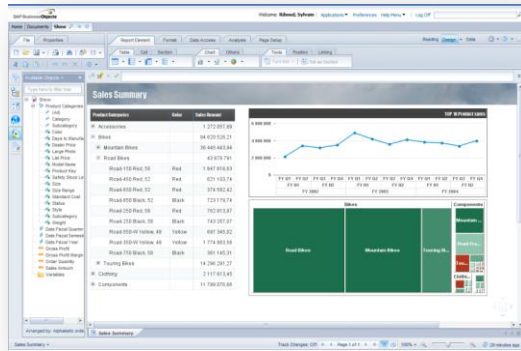
Context related right click menu



Use Case #3: Information Sharing

Share Web Intelligence reports with others

Web Intelligence



End users can:

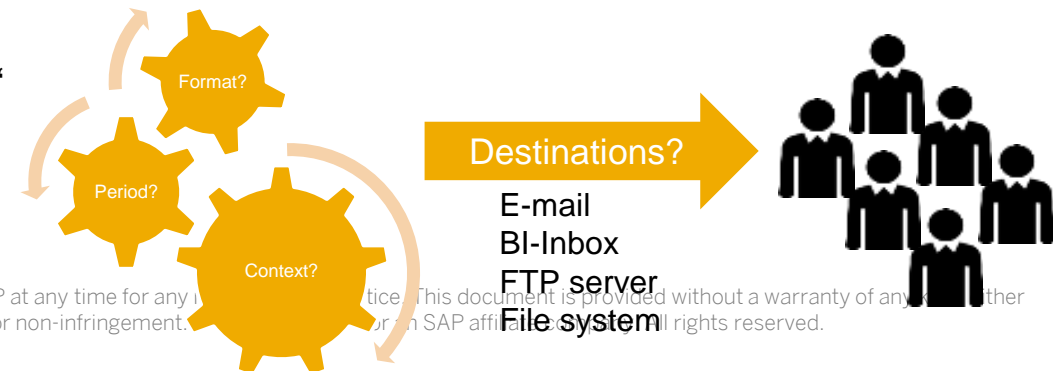
- Share Web Intelligence document in different format



- Send directly to other users via e-mail , or BI-Inboxes

End users and/or IT can:

- Create a secured Scheduling task or a Publication to automate the sharing process
- Define “Report-Bursting”



Use Case #4: Mobile Analytics

Consume Web Intelligence reports on your preferred mobile device

Consume Web Intelligence reports with the SAP BusinessObjects Mobile app

- Push Web Intelligence document directly in the mobile BI inbox
- Securely consume information while being connected and disconnected
- Interact with reports via input controls, element linking or geo-maps
- Take immediate action via “send to” actions (annotate and share)



Use Case #5: Custom Development

Customize and extend Web Intelligence, or integrate it into **your application**

REST Web Services APIs

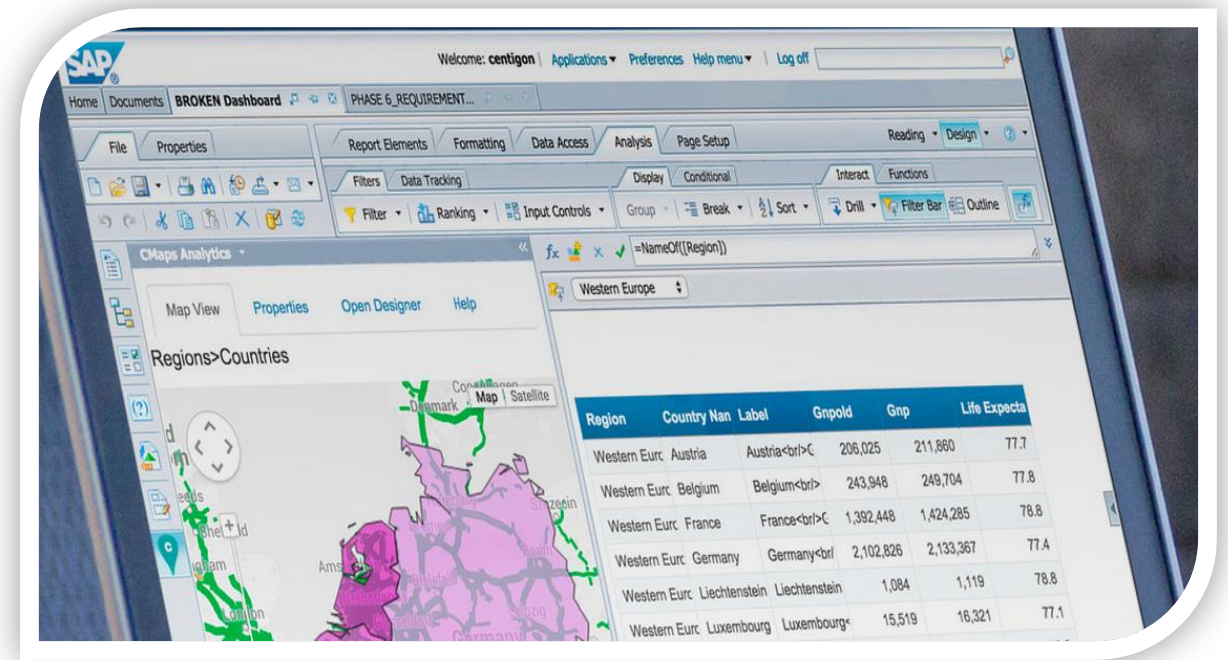
- Consumption workflows of Web Intelligence document
- Data providers and query specification creation
- Document authoring
- Scheduling workflows

UI customization

- Personalize Web Intelligence clients
- Customization per user group in CMC
- Customization of UI elements and actions

JavaScripts Extension Points

- Personalize Web Intelligence clients
- Add or customize features



*centigonsolutions.com



SAP Web Intelligence

Do **you** know the **WebI themes** in **BI4.2**?

① TRUSTED FOUNDATION

Remove upgrade barriers:

- Linked Universes

Client improvements:

- Parallel queries

② ENABLE THE BUSINESS

Collaboration:

- Commentary
- Shared Elements

Client improvements:

- GeoMaps
- Big Numbers

Unleash the ecosystem:

- Visualization Extensions

③ BEST ON SAP BACKEND

SAP BW improvements:

- BEx authored universe

SAP HANA enhancements:

- HANA Direct Access
- HANA Online

QUALITY



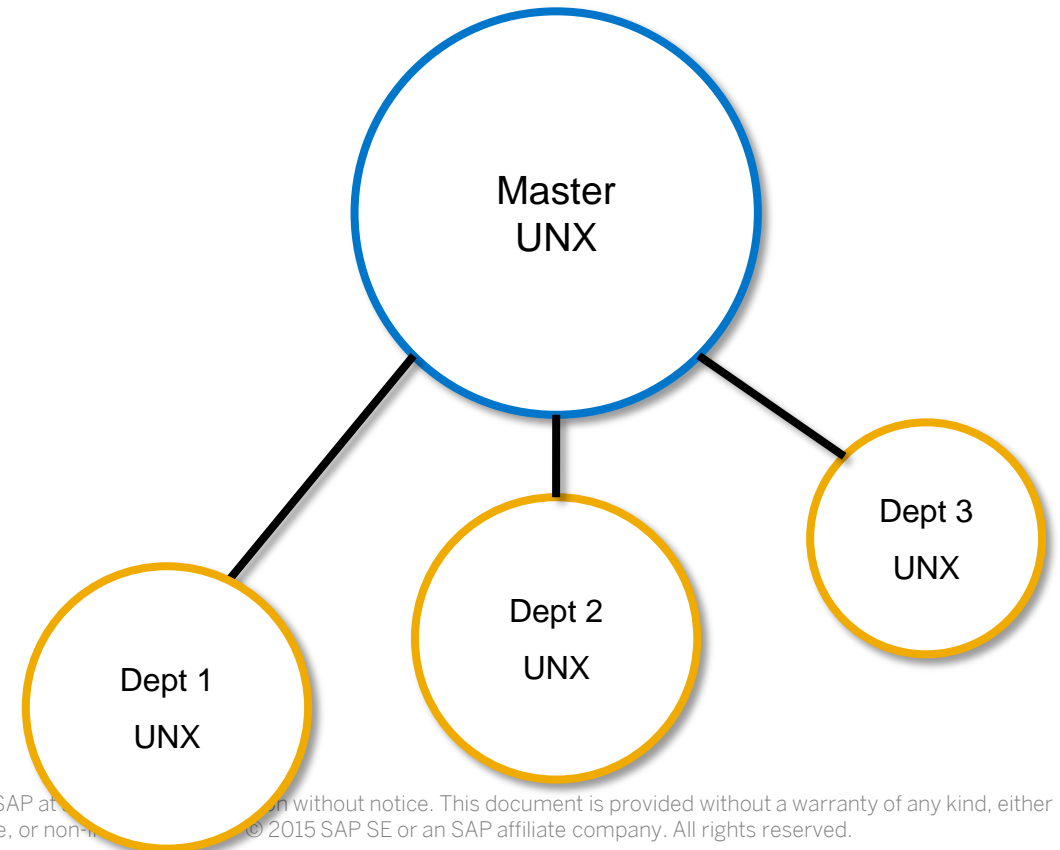
SAP Web Intelligence

1 Remove upgrade barriers > Linked Universes

Reduce TCO of your landscape

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



SAP Web Intelligence

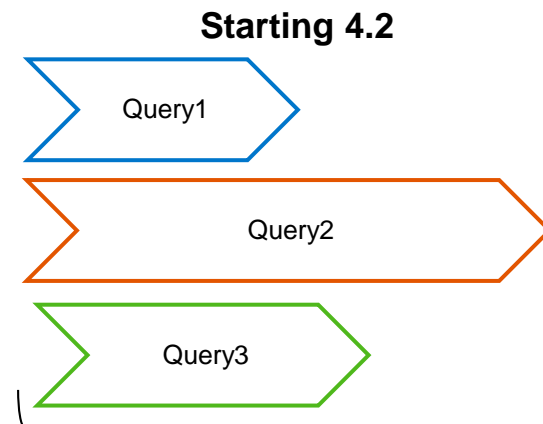
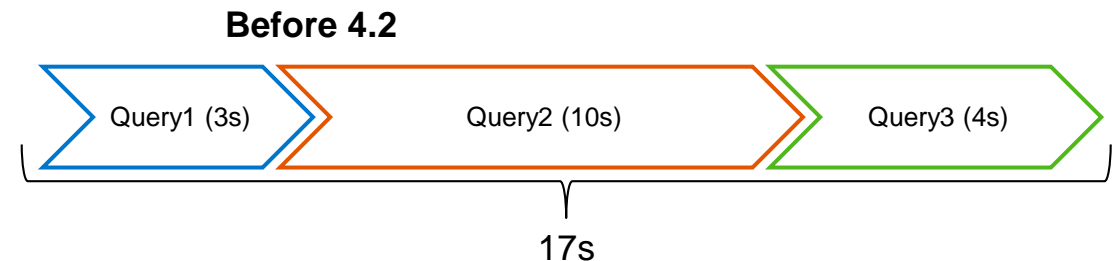
1 Client improvements > Parallel queries

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



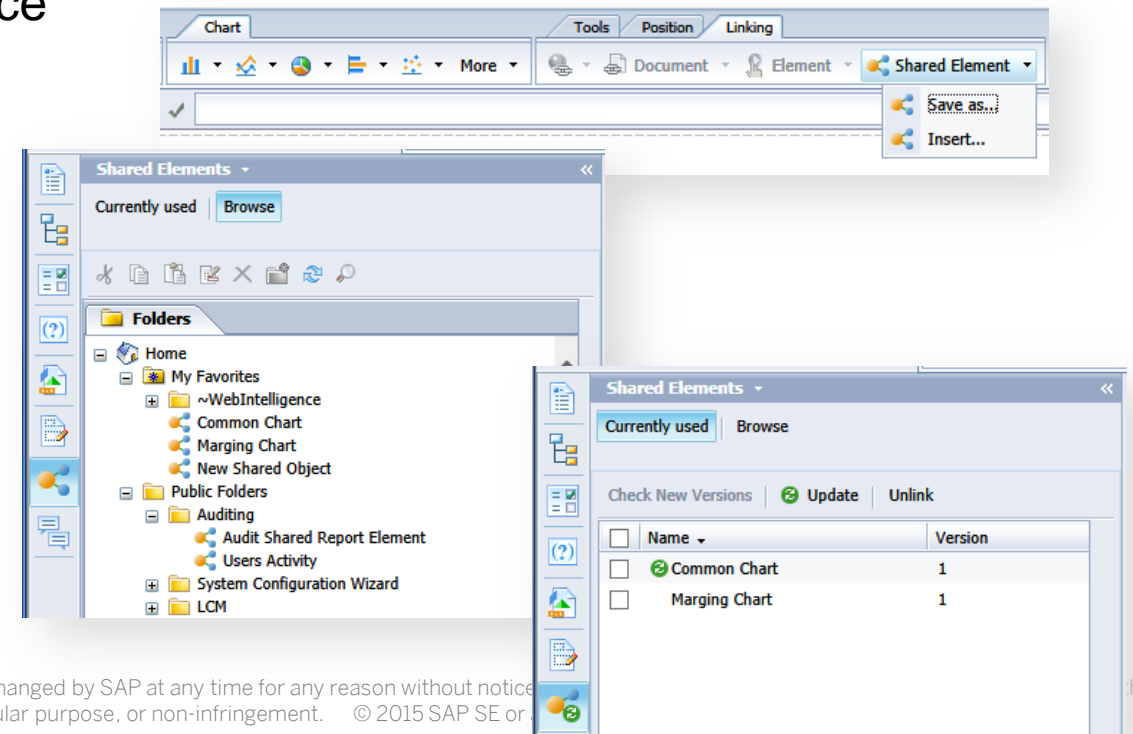
SAP Web Intelligence

② Collaboration > 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



SAP Web Intelligence

② Collaboration > 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

The screenshot displays a SAP Web Intelligence dashboard titled "Webi Clothes Manufacture - Results Analysis". It features a table of sales revenue and margin, a pie chart of sales revenue by state, and a comments panel on the right.

Year	Sales revenue	Margin
2004	\$8,095,814	\$3,731,971
2005	\$13,232,246	\$5,187,886
2006	\$15,059,143	\$5,667,084

Sales Revenue by State

State	Percentage
California	27.81%
Colorado	26.56%
NC	5.68%
Florida	8.14%
Missis	2.09%
Massachusetts	6.37%
New York	2.09%
Texas	2.09%

Comments Panel:

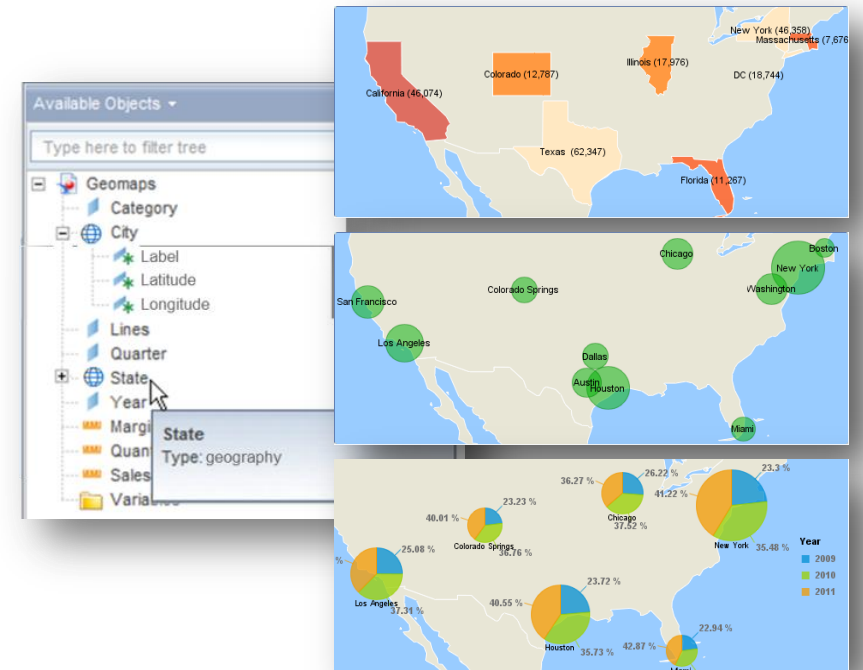
- Comment 1 - Analysis of my results**
 - Updated by sam**
Update 8/26/2015 11:20:41 AM, 1 day ago
According to this dashboard the best Product from our lines is the Sweat T-Shirts, and the region where we have better results seems to be Texas.
 - Catherine**
Update 8/26/2015 11:21:33 AM, 1 day ago
The bubble chart represent the Volume of items sold, not the benefit that generated. So in the final comment, I would say that we are doing very well in Texas and that other states have to align their marketing strategy
 - MarketingDirector**
Update 8/26/2015 11:23:01 AM, 1 day ago
Action Item for Store Managers : Met with Randal to apply Texas Marketing model. Q4-2015 : Strategy defined and implementing Q1-2016 : results must be visible

SAP Web Intelligence

② Client improvements > 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



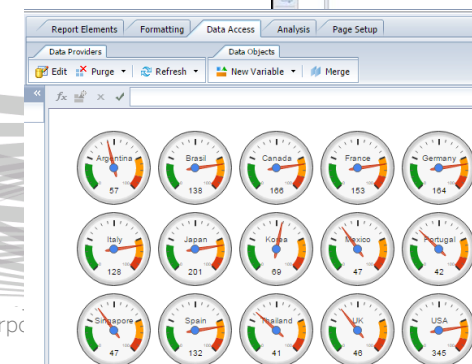
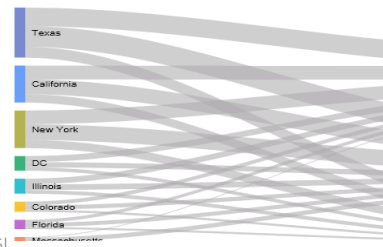
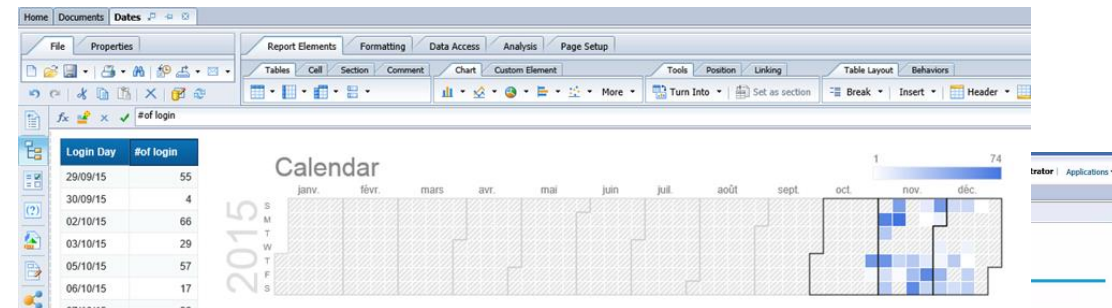
SAP Web Intelligence

② Unleash the ecosystem > Visualization Extensions

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



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SAP Web Intelligence

② Client improvements > 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	Illino	3022658400000.01
B	Massachusetts	1283706600000.01
C	New York	7582220600000.01
Revenue in Yen		
Sum:		26269538500000.10

Quantity sold	DC	2961949900000.01
Sales revenue		1879158500000.01
Variables		
A	Illino	3022658400000.01
B	Massachusetts	1283706600000.01
C	New York	7582220600000.01
Revenue in Yen		
Sum:		26269538500000.07

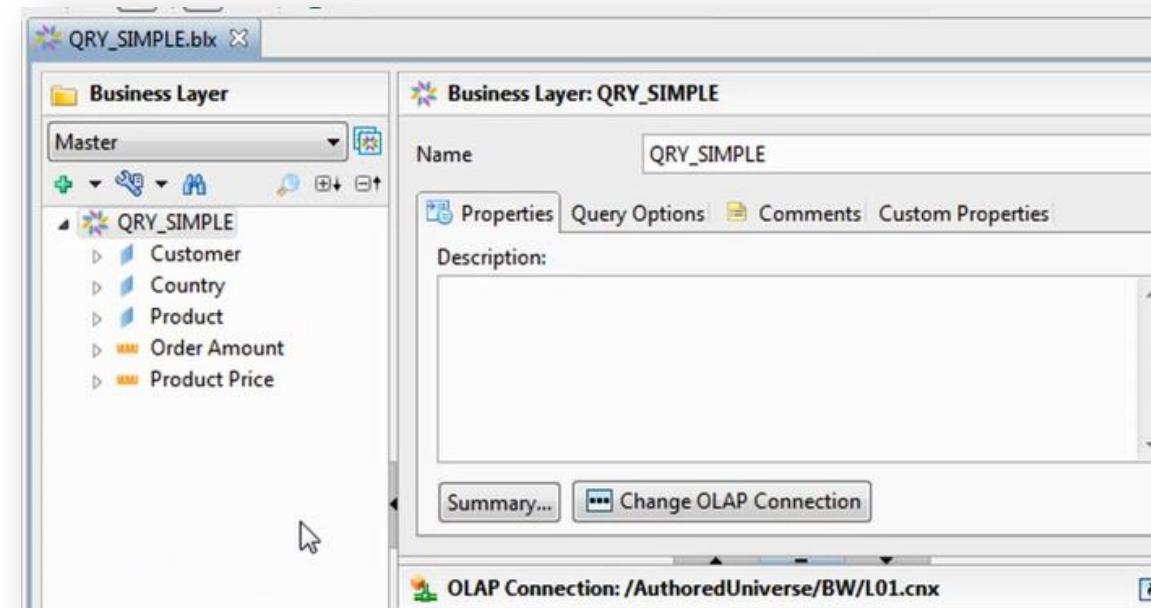
SAP Web Intelligence

③ SAP BW improvements > BEx authored universe

Author a UNX universe on BEx to improve user adoption

Universe on BEx query:

- Goal is to display BEx queries in more user-friendly way
- Create universe with Information Designer Tool (IDT)
- Select a BEx query and auto-generate a business layer
- Rename objects, regroup objects in meaningful folders, or delete unnecessary objects
- BEx authored universes use the BICS connector
- Only works as a single-source universe
- Need to refresh universe when underlying BEx query changes

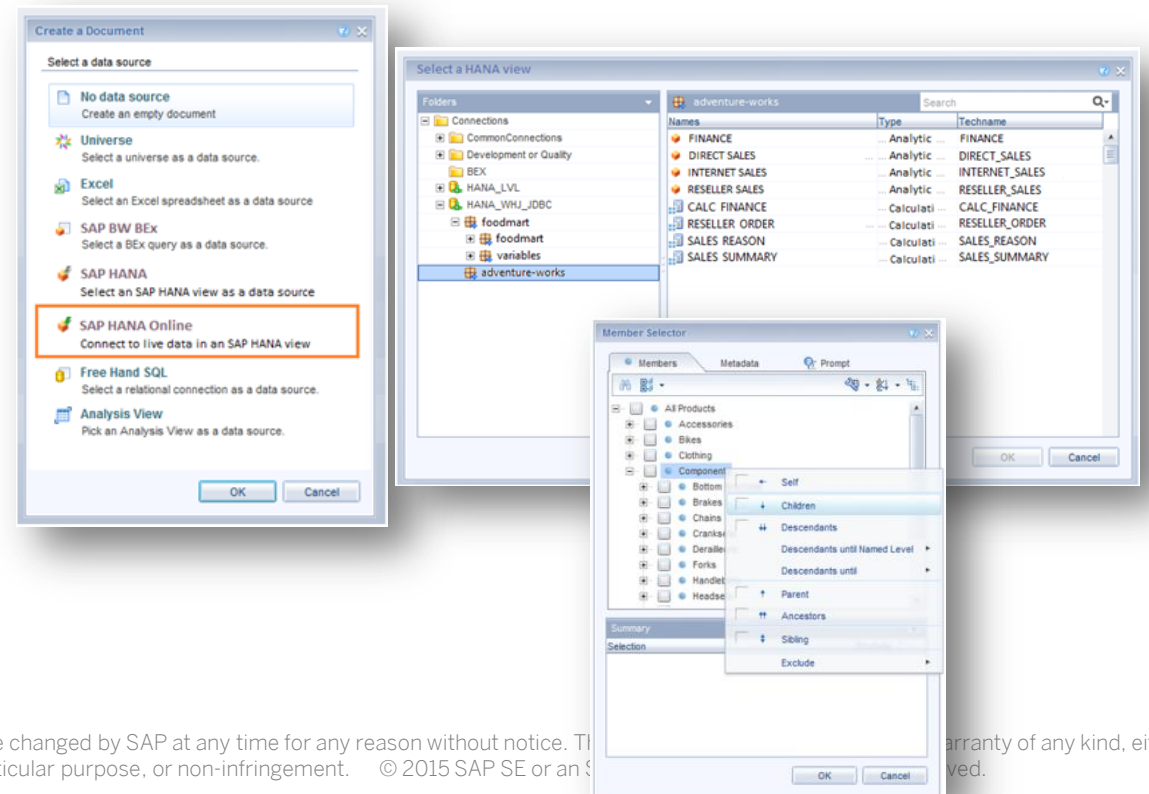


SAP Web Intelligence

③ SAP HANA enhancements > HANA Direct Access

HANA Direct Access:

- From Web Intelligence, connect directly to HANA Views
- No universe authoring in information design tool required
- Browse HANA views using a relational or OLAP connection
 - Relational: Hana JDBC
 - OLAP: MDX Access (HANA hierarchies are supported)
- Usual Web Intelligences workflow with query panel

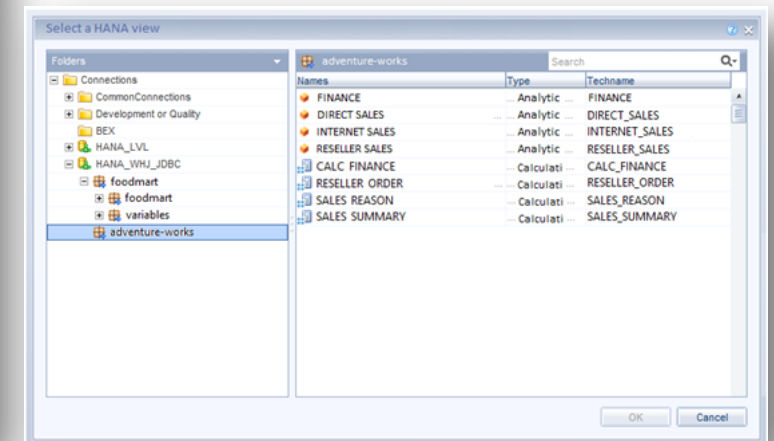
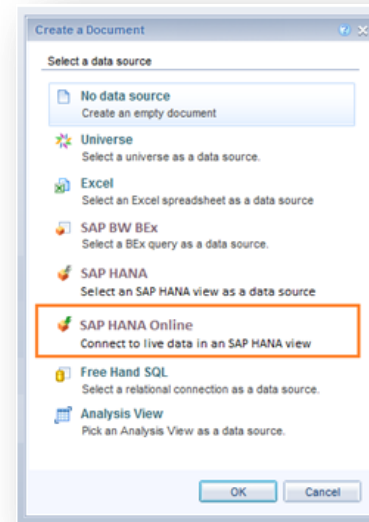


SAP Web Intelligence

③ SAP HANA enhancements > HANA Online

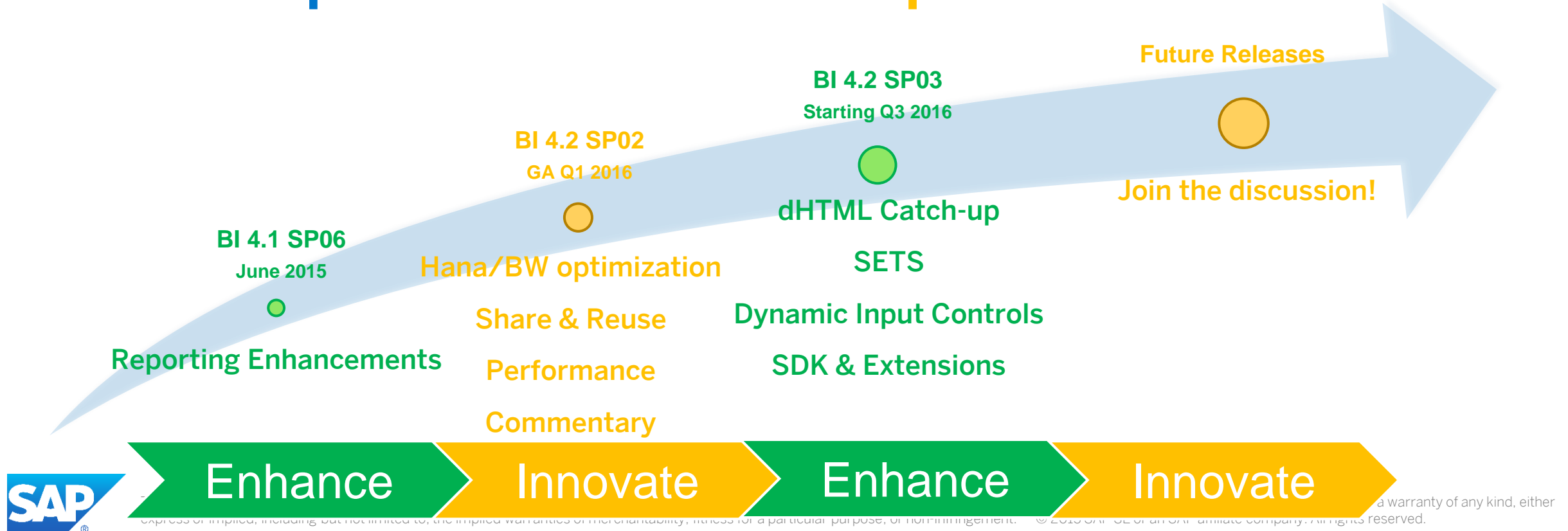
HANA Online:

- From Web Intelligence, connect directly to HANA Views
- No universe authoring in information design tool required
- No query panel to define queries, no microcube
- Only relational access : HANA JDBC
- Web Intelligence calculations are delegated to HANA whenever possible
- Optional: Go back to standard mode to get additional reporting features



Innovation Roadmap

Expand Business **leadership** on **stable core**



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WARNING: This is not a commitment! This is the current state of planning and may be changed by SAP at any time.

What is **planned** in 4.2 **SP03**

dHTML catch up > Java parity – Step 1 : will probably span multiple service pack release

Dynamic Input Controls

Sets – IDT authoring and WebI (incl. CR, LUMIRA desktop) consumption

Parallel Queries – Support for BEx queries, Connection server support to define number of parallel jobs

Linked Universes – convert linked UNV to linked UNX

Referenced cell – step 1 on 2 to enable Alerting and notification in WebI

Extend commentary – comment in table cell, block (chart or table), add query context, search & locate

Extend geomaps – Use lat/long as datapoints, Show geomaps in tool bar

Extend Shared Elements – for Geomap support + Support custom elements + Support Embedded picture + Optimize query merge

HANA access improvements

Java and REST SDK enhancements – Expose BI 4.2 WebI features

Support S4HANA and DS views

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Key links for more information

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](http://scn.sap.com/docs/DOC-58532)
- Roadmaps on SAP Service Marketplace <http://service.sap.com/saproadmaps>
- SAP Community Network <http://scn.sap.com/>
- 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>

Where to go to provide product feedback and ideas

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





Crystal Reports

By: Donald Guo, Nina Bao

SAP Crystal Reports

Proven world standard for pixel-perfect reports

STS Electric Company

Billing Date: Sep 07, 2007 Account Number: 479-101
 Please Pay: Oct 01, 2007 Amount Due: \$84.24

Invoice Number: 16473124001413

Meter Reading Information

Meter #	17232101
Jul 07	227495
Aug 07	228656
63 days	1071

Next meter reading on or about Nov 7

Customer Service

Phone: (604) 606-9276 Power Dept: 1-888-606-3736
 Mail: STS Electric, PO Box 9605 Ste Terminal, Vancouver BC, V6A 5N2

Previous Bill

Balance payable from your previous bill: \$99.42
 Thank you for your payment: \$99.42
 Balance from your previous bill: \$0.00

STS Electric Company Charges

Jul 07 to Aug 07 (Residential rate 6601)	
Basic charge: 62 days @ 0.12139/day	7.52
Usage charge: 1,071.00 kWh @ \$0.0625/kWh	65.87
Rate Rider at 2%	1.47
Green Fund Rate at 1%	0.73
Jul 07 to Aug 07 (Residential rate 6601)	
Transit levy: 62 days @ \$0.0620/day	3.88
Sales tax:	4.77
	\$84.24

Taxes

The following is a summary of taxes billed to your account since your last invoice:
 Sales tax at 6% on \$79.47

Balance Payable: \$84.24

This invoice includes a new Green Fund levy, in effect May 1, 2007. For details see the enclosed insert or go to www.stselectric.com/greenfund.

Thank you for keeping your account up to date.

Return this portion with your payment
ALL PAYMENTS SHOULD BE MADE PAYABLE TO STS Electric

Billing Date: Sep 07, 2007 Account Number: 479-101
 Please Pay: Oct 01, 2007 Amount Due: \$84.24

CPSI Canadian Plumbing Supply International
Excellence in wholesale distribution since 1971

May 15, 2011

Magazzini Plumbing
 2540 Commercial Drive
 Suite 25
 Vancouver, BC V6J 2L2
 Canada

ATTENTION: Mr. Giovanni Rovelli

***** FINAL NOTICE *****

The invoice amounts listed below are more than 90 days overdue.

We must now advise you that unless you inform us in writing of your reasons for non-payment, or make settlement in full within 30 days of the date of this letter, this account will be referred to our solicitors for collection, without further notice.

INVOICE #	PO #	INVOICE DATE	DUE DATE	OVERDUE DAYS	INVOICE AMOUNT	LATE FEE-INTEREST	OVERDUE AMOUNT
2949	771928	2010 Dec 19	2011 Jan 28	113	\$6,008.40	\$522.30	\$6,530.60
2930	771698	2010 Dec 25	2011 Feb 01	104	\$1,694.97	\$147.31	\$1,842.28
2970	771668	2010 Dec 27	2011 Feb 03	102	\$2,869.95	\$258.09	\$3,227.64
							\$11,600.52

CPSI Canadian Plumbing Supply International
 10644 Industrial Avenue
 Mississauga, ON M4W 1Y1

For questions related to your account, please call 1-866-955-1212 to reach our accounting department directly.
 Thank you for your prompt attention to this matter.

Sincerely,

 Norman Howitt, CA

10644 Industrial Ave Mississauga, ON M4W 1Y1
 phone: 905-550-1312 fax: 905-550-1313 www.cpsi.com

Fortify Financial
All-in-One Retirement Savings

STATEMENT PERIOD: April 2011
 STATEMENT DATE: May 2, 2011

Mr. Larry Campbell
 27 Mineral Point Rd
 Madison, WI 53717

YOUR ACCOUNT NUMBER: 1324967
 YOUR REPRESENTATIVE: Harold Blowerssey

The All-in-One account is provided by Fortify Financial America. If you have any questions about your statement, please call us or your Account Representative toll-free at 1-877-323-1212.

Your Fortify Financial All-in-One account is an integral part of your total financial program. That's why we're committed to working with you to help you retire sooner and with more security. Please give us a call at 1-877-323-1212 or visit the All-in-One website at fortifyfinancial.com to learn more about your account.

SNAPSHOT

VALUE - START OF PERIOD	255,240.09
DEPOSITS*	13,536.22
WITHDRAWALS*	22,536.22
INTEREST & DIVIDENDS	9,430.01
MARKET GAIN/LOSS	1,287.24
VALUE - CLOSE OF PERIOD	248,854.34

ACCOUNT NOTES

- Reduced bond position by **32% and increased holdings of top-rated International Index Fund to capitalise on emerging markets and reduce exposure to low returns while without loss of stability.
- Sold units of Global Macro Fund in response to your cash/capital requirements.

ALL-IN-ONE SAVINGS - GROWTH OVER 12 MONTHS

INDICES - LAST 12 MONTHS

SUMMARY BY HOLDING

	VALUE - START OF PERIOD	DEPOSITS*	WITHDRAWALS*	INTEREST & DIVIDENDS	MARKET GAIN/LOSS	VALUE - END OF PERIOD
Daily Interest Savings Account	6,037.32	8,937.95	9,000.00			5,975.27
Dynamic Bond Fund	43,088.79	4,636.22	13,297	1,329.7	195.17	38,750.11
Global Macro Fund	35,622.22		1,995.2	8,900.00	2,886.174	43,880.77
International Index Fund	38,721.16	4,598.27		277.38	283.96	56,029.85
Large Cap Index Fund	55,791.19				232.46	41,997.45
Market Neutral Fund	41,707.73				239.72	35,364.74
Tactical Fixed Income Fund	34,595.68			532.66	236.40	35,364.74
	255,240.09	13,536.22	22,536.22	9,430.01	1,287.24	248,854.34

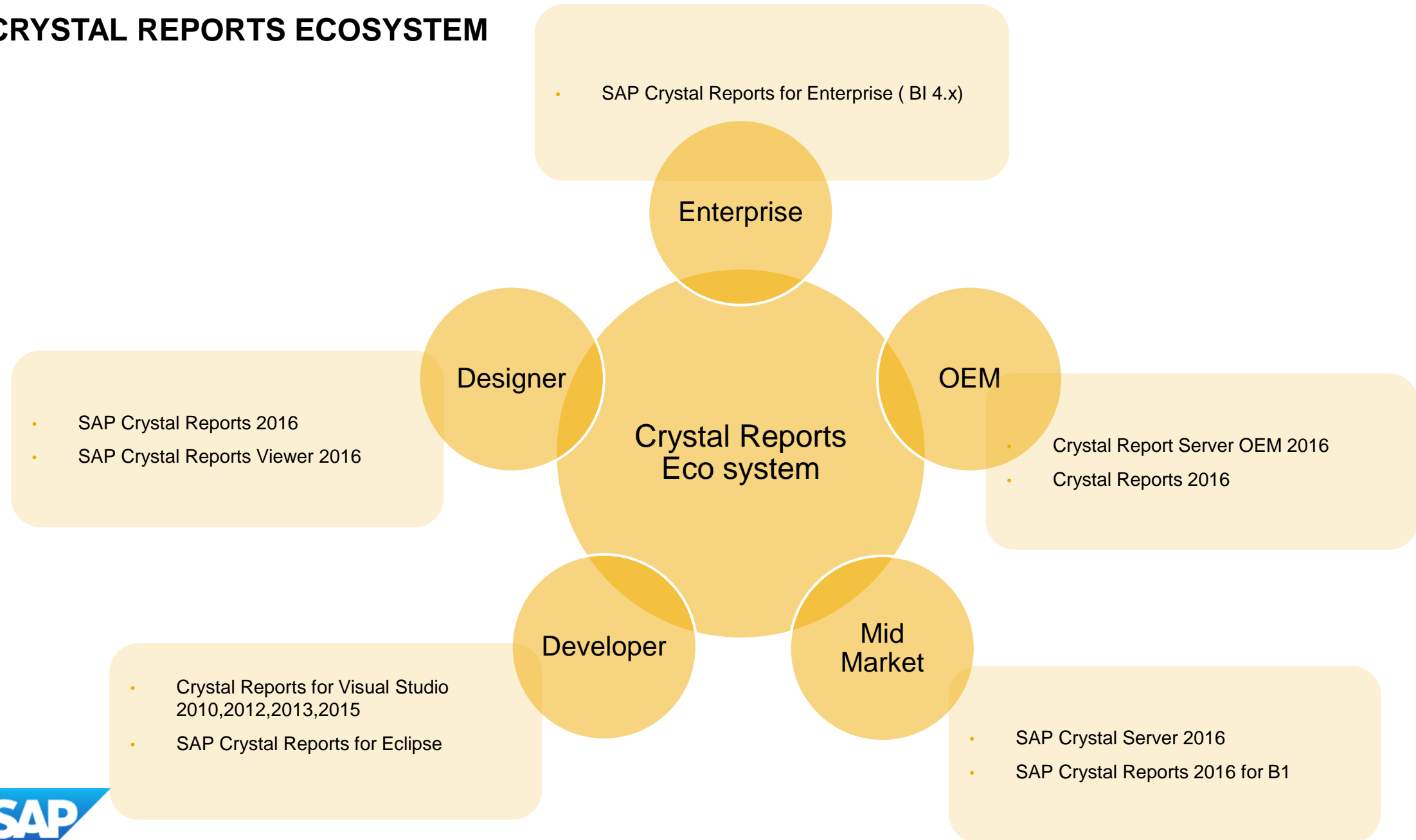
* - includes purchases; excludes dividends and interest
 ** - includes sales

1011 N State St. Chicago, IL 60611
 phone: 312-323-1212 fax: 312-323-1213 www.fortifyfinancial.com

For Internal Operational Reports and Customer Facing

- Easy to consume, highly formatted documents with guided interactivity
- Personalized, information rich documents communicate value quickly

CRYSTAL REPORTS ECOSYSTEM



SAP Crystal Reports in BI 4.x

With the release of SAP BusinessObjects Business Intelligence (BI) 4.x , there are two versions of Crystal Reports available for use with the BI Platform.

SAP Crystal Reports for Enterprise

- Major update & re-design of the Crystal Reports Designer and associated processing servers
- Provides the foundation for all future releases of Crystal Reports

SAP Crystal Reports 2013/2016

- Incremental update to CR 2008/2011 with a few new features
- Focused on serving the needs of standalone, CR for Visual Studio, and CR for Eclipse users
- Continue to deliver existing functionality with no regressions

Choosing between Crystal Reports 2016 and Crystal Reports for Enterprise

SAP BusinessObjects BI4.x relational universe (unx), OLAP universe (unx)	SAP Crystal Reports for Enterprise
SAP NetWeaver BW 7 (BICS)	SAP Crystal Reports for Enterprise
Analysis Views	SAP Crystal Reports for Enterprise
SAP NetWeaver BW 3.5	SAP Crystal Reports 2016
Business Views	SAP Crystal Reports 2016
Direct RDBMS access	SAP Crystal Reports 2016
Direct OLAP access	SAP Crystal Reports 2016
SAP ERP	SAP Crystal Reports 2016
Live Office	SAP Crystal Reports 2016

- More details can be found at:

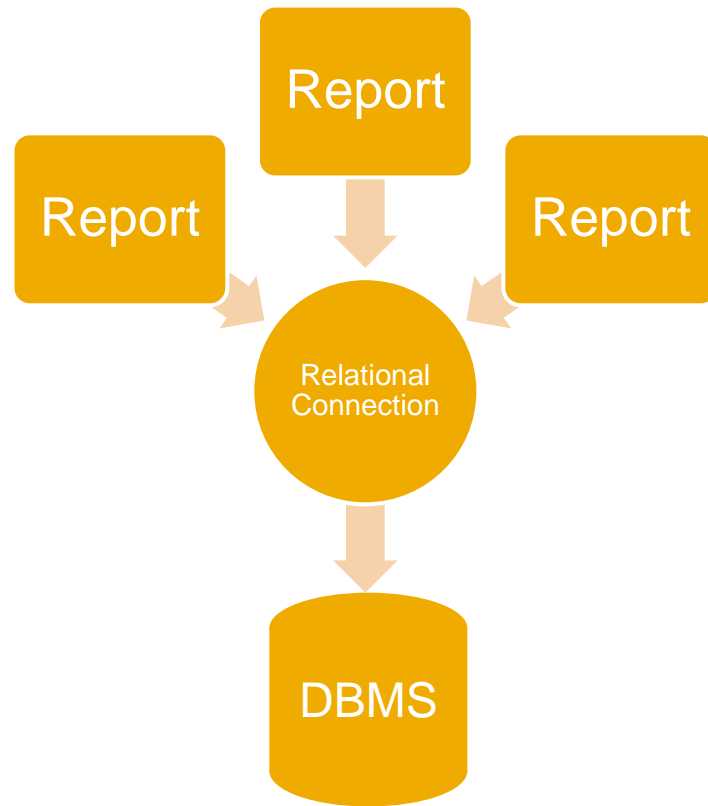
<https://wiki.scn.sap.com/wiki/display/BOBJ/From+Crystal+Reports+2008+to+SAP+Crystal+Reports+2013+or+SAP+Crystal+Reports+for+Enterprise>

This is the current state of planning and may be changed by SAP at any time.

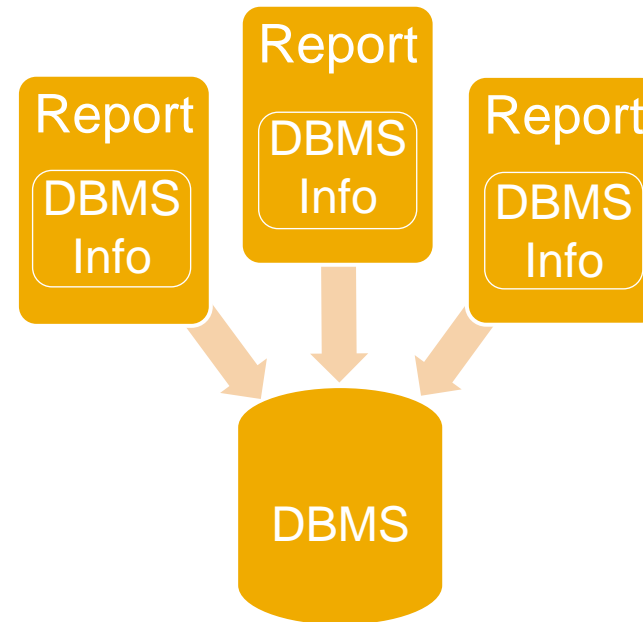
How it Works

Reports Managed by the BI Platform

Crystal Reports For Enterprise



Crystal Reports 2013/2016



CR for Enterprise reports saved to BI Platform **MUST** use Relational Connection objects to hold connection info. CR 2013/2016 reports continue to store connection info in each report.

FAQ

Can both CR 2013/2016 reports and CR for Enterprise reports reside or run on the same BI 4.x system at the same time?

- Yes

Can both the desktop CR 2013/2016 designer and the CR for Enterprise designer be installed on the same workstation?

- Yes

If I have many CR 2008/XI 3.1 reports, how should I upgrade to 4.x and what version of CR should I use?

- Upgrade to 4.x and utilize CR 2016. Consider using CR for Enterprise of new projects. Migrate CR 2016 reports to CR for Enterprise when time permits.

How do I migrate a report from CR 2013/2016 to CR for Enterprise?

- Open the CR 2013/2016 report with CR for Enterprise, change the data source and save to the new format.

I am a new customer with not current CR content, what version of CR should I use with the BI 4.x Platform?

- If you are a new CR customer, evaluate CR for Enterprise first. The feature set may suit your needs, and there is no need to consider migration if you start with the newest designer.

SAP Crystal Reports 2016

Product road map overview - key themes and capabilities

Today

Viewer interactivity

- Interactive parameters
- On-report sort and drill

Breadth of data access

- Direct connectivity, web technologies, semantic layer

Data visualization

- Over 40 charts
- Dashboard integration

Report delivery

- Scheduling and publishing
- Multiple export formats
- Localization
- Embedded into applications

New platform support

- Microsoft Visual Studio 2015, Microsoft Office 2013, SAP HANA, Hadoop

(Release 4.2)

Planned Innovations

New platform support

- Continued support of new data sources, applications, and operating systems

Continued improvement

- Minor updates to existing features including:
 - Export to docx / xlsx
 - Allow dynamic picture across proxy

Future Direction

New platform support

- Continued support of new data sources, applications, and operating systems

Continued improvement

- Minor updates to existing features

This is the current state of planning and may be changed by SAP at any time.

SAP Crystal Reports for Enterprise

Product road map overview - key themes and capabilities

Today

Streamlined report design

- Charting enhancement: waterfall chart
- QR code and Bar Code support
- Vertical Alignment of text
- Direct to data connectivity enhancement

OEM/developer

- Continued REST API enhancements

Planned Innovations

Streamlined report design

- Chart extension
- Richer chart formatting
- Improve user experience:
Crash logs collection, UI enhancement

Data sources

- Data connectivity enhancement

Crystal Reports for HANA / HANA Cloud Platform

- Support Crystal Reports for HANA Cloud Platform.
- Restful API for report viewing, refresh ,export workflow.
- SAPUI5 embeddable viewer.

Future Direction

Streamlined report design

- Enhance report formatting.
- CR 2016 to CR for Enterprise bulk transition tools

Data sources

- Data connectivity enhancement

Mobile, visualizations and viewers

- Crystal Reports content in custom built mobile applications

OEM/Developer

- Richer RESTful web services

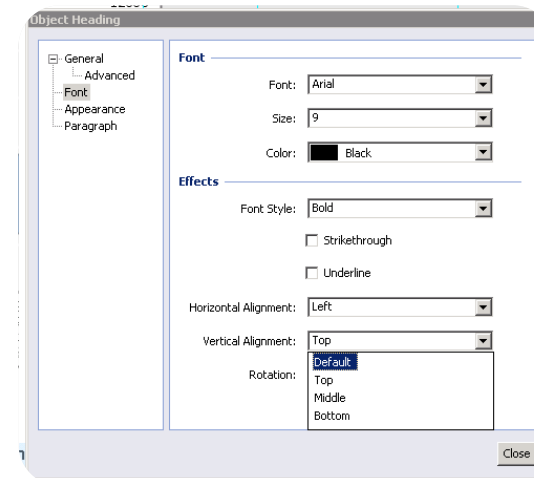
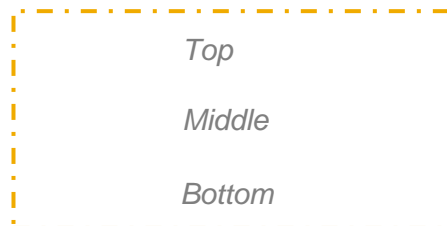
(Release 4.2)

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Demo - SAP BusinessObjects BI 4.2 – Crystal Reports for Enterprise

Vertical Alignment

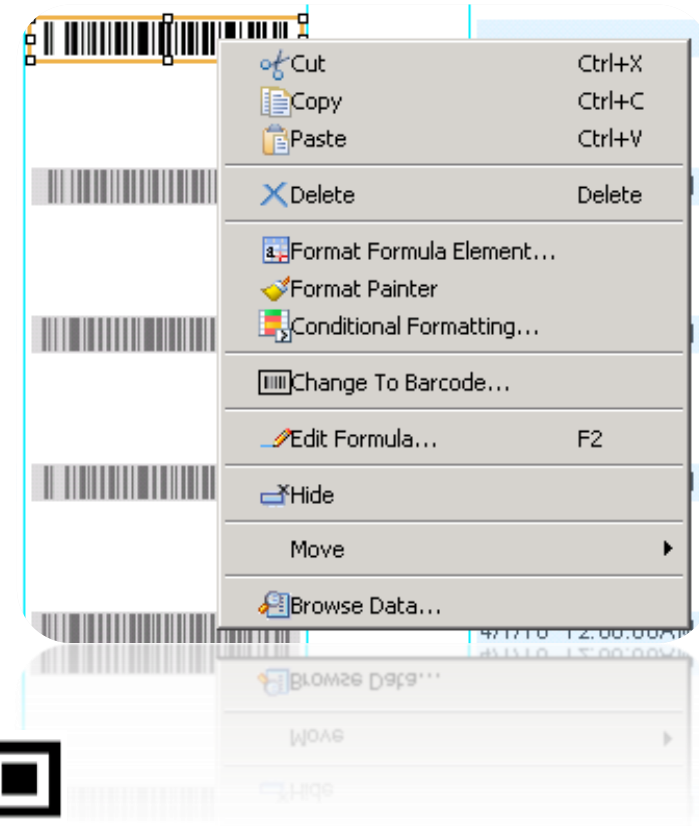
- Align Text vertically by Top, Middle or Bottom settings
- Vertical Alignment added as option in Text Formatting menu



Demo - SAP BusinessObjects BI 4.2 – Crystal Reports for Enterprise

QR Code and Bar Code

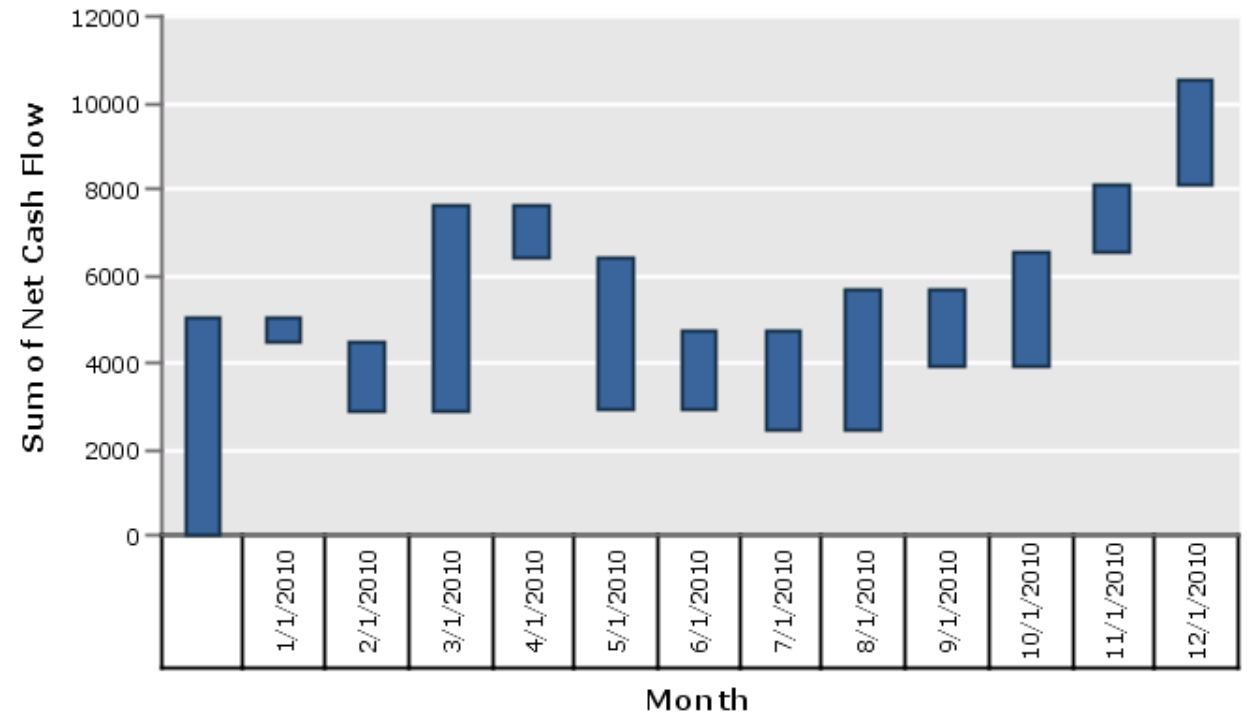
- Native support of QR and Bar Code
- Supported formats
 - Aztec
 - EAN 8
 - Code 128
 - ITF
 - Code 39
 - PDF 417
 - Data Matrix
 - QR Code
 - EAN 13



Demo - SAP BusinessObjects BI 4.2 – Crystal Reports for Enterprise

Waterfall Chart

- New Waterfall Chart
- Based on CVOM



SAP Crystal Reports developer resources

Embedded reporting for custom applications

SAP Crystal Reports integrations into Visual Studio and Eclipse along with our existing Application Programming Interfaces (APIs) and runtime engines allow developers to embed reporting into their solutions

Integrated Development Environments (IDE) integrations

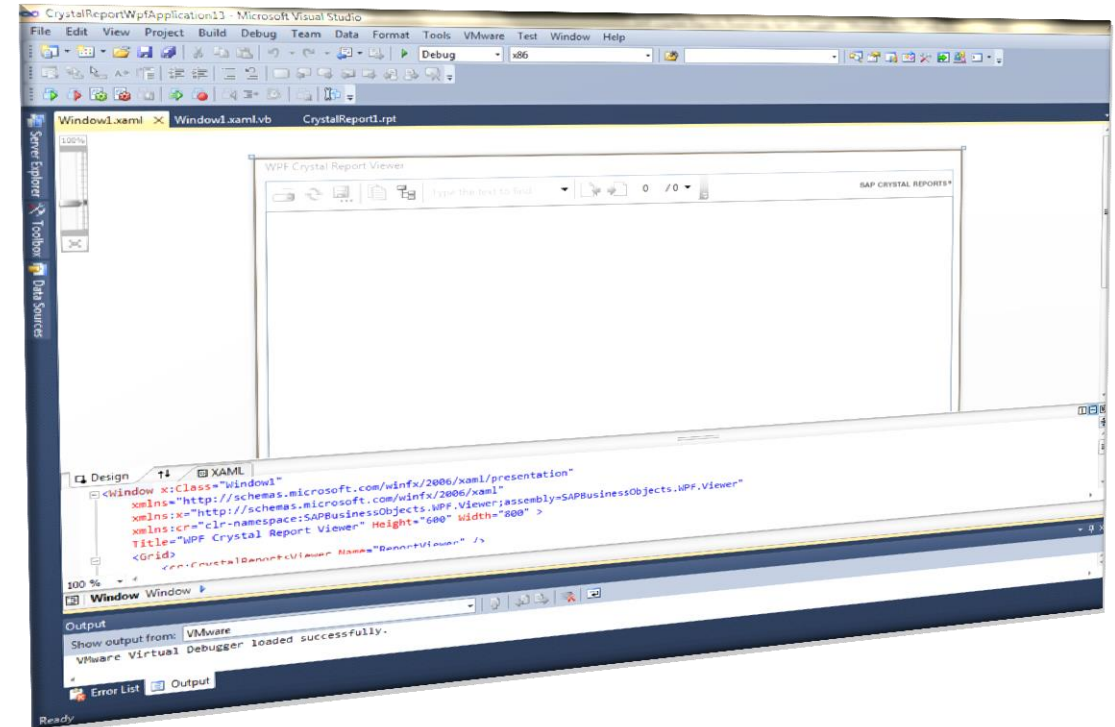
- Microsoft Visual Studio
- Eclipse

Available APIs

- Native .NET and Java
- RESTful Web services and AJAX
- SAP BusinessObjects Business Intelligence (BI) platform API
- OpenDocument API

Unmanaged reporting services

- SAP Crystal Reports Server Embedded



SAP Crystal Reports developer resources

Product road map overview - key themes and capabilities

Today

IDE integrations

- Microsoft Visual Studio 2010
- Microsoft Visual Studio 2012
- Microsoft Visual Studio 2013
- Microsoft Visual Studio 2015
- Eclipse 3.7

Available APIs

- Report Application Server (RAS) Java and .NET SDK
- Viewers Java SDK
- Crystal Reports .NET SDK
- SAP BusinessObjects BI platform API
- OpenDocument API
- RESTful Web services and AJAX API
- Support of OpenDocument POST method to handle large URLs

SAP Crystal Reports Server Embedded (standalone RAS)

* Up to 4.2 SP0 (Release 4.2)*

Planned Innovations

IDE integrations

- Eclipse 4.x support

Available APIs

- Customizable and embeddable SAPUI5 viewer
- Continued RESTful Web services enhancements

Future Direction

Chart Extension API

Richer RESTful web services

New embeddable reporting service

This is the current state of planning and may be changed by SAP at any time.



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