



*Specialist SAP Division*

## Business Objects 4.0 Upgrade Lessons Learned

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## Our Reasons to upgrade to BOBJ 4.0

### Lessons learned

Name changes

Configuration and setup

Upgrade and migration considerations

General lessons learned

Upgrade strategy considerations

Timeframes/ project plan

Final lesson learned

## Was the Wait for Service Pack 4 Worth it?

## SAP Integration

- SAP Integration Kit integrated into BO 4.0 installation
- BICS Connect to Bex queries
- SSO setup easier to setup than previous versions
- Crystal for Enterprise also allows BICS connector

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## Information Design Tool

- Multisource universes that federate multiple relational data sources
- Dimensional universes that support OLAP dimensions and hierarchies
- A design environment that facilitates designer teamwork and universe resource sharing
- A security editor for universe data and metadata
- Extended connection management
- Easier management of repository resources

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## Enhanced User interfaces

- BI Launchpad/Landing Pages
- New Webi Features
- Enhanced Charting mechanism
- Harmonised user interfaces across products

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# Lessons learned

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4.0 Current Name	Prior Release Name
<b>SAP BusinessObjects 4.0</b>	SAP BusinessObjects XI 3.x
<b>SAP BusinessObjects Business Intelligence platform 4.0</b>	SAP BusinessObjects Enterprise XI 3.x
<b>SAP BusinessObjects Web Intelligence</b>	SAP BusinessObjects Web Intelligence
<b>SAP BusinessObjects Dashboard Design</b>	SAP BusinessObjects Xcelsius Designer
<b>SAP BusinessObjects Analysis, edition for OLAP</b>	Pioneer/Voyager
<b>SAP BusinessObjects Analysis, edition for Microsoft Office</b>	n/a

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4.0 Current Name	Prior Release Name
SAP BusinessObjects BI launch pad	Infoview
SAP BusinessObjects BI workspaces	Dashboard Builder
SAP Crystal Reports 2011	Crystal Reports
SAP Crystal Reports for Enterprise	n/a
Information Design Tool	n/a
Universe Design Tool	Universe Designer
Upgrade Management Tool	Import Wizard

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- The installation process seems to have a few issues – the installer does not always install the CMS database on the first install; we found that a re-install is necessary to create it correctly
- Recommendation is to install the DBMS Environment first or connect to existing environment
- Lifecycle Manager and Mobile - Integrated in BI 4.0 – a separate install is not required



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- Follow pre-requisites and SAP Best Practices BUT – sizing mentioned by SAP is not sufficient
  - the default APS and parameters for APS is not sufficient for a production environment yet:  
BO 4.0 is resource intensive and an estimate load assessment should be done before hardware is allocated
- Ensure you have enough resources – production should have at least 24GB of RAM
- Development system at least 16GB of RAM
- A VM is not recommended for the production system – separate hardware recommended

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- SSO – SAP setup worked well – configuration was simple – Windows AD more challenging
- Consider authentication mechanisms prior to setup and plan for windows AD and SAP/LDAP integration prior to the installation
- Follow SAP's setup instructions EXACTLY, in the exact order and note – IT IS CASE SENSITIVE



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# Upgrade and migration considerations

## Upgrade Manager

Side by side installation is recommended 3.x and 4.x environments can co-exist – thus allowing a phased upgrade approach

## SAP Portal Integration

New templates to be used to display BO reports  
Old templates to be re-created

## CUID's

Very specific process needs to be followed to make sure that CUID's don't change

## Xcelsius vs Dashboard Design

Only one file created (dashboard design object) – no need to create a separate SWF file

## WEBI Settings

The Webi Viewing and Modify options have changed.  
In 4.x the Default Viewing Option is "Web" which allows some report editing like the old "Interactive Viewer", i.e. no editing of Query.  
They need to change it to the Rich Client (ie Java viewer)

Some 3.x Webi Visualizations are not supported in 4.x

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# Upgrade and migration considerations

XI R2 / 3.1	BI 4.0	Upgrade considerations
Binaries	<b>New Binaries</b>	Complete re-install required
Audit	<b>New Audit Schema</b>	No compatibility with Historic Data
Crystal Reports	<b>CR 2011 and CR Enterprise</b>	Existing reports are supported
Web Intelligence	<b>Web Intelligence</b>	Existing reports are supported Dashboards become BI Workspaces but some analytics must be recreated.
Dashboard Builder	<b>Now 'BI Launch Pad'</b>	No more Performance Manager
Xcelsius 2008	<b>Dashboard Design</b>	Existing visualisations are supported.
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# Upgrade and migration considerations

XI R2 / 3.1	BI 4.0	Upgrade considerations
Desktop Intelligence	<b>End of Life</b>	Report conversion tool can be used to convert WebI
Live Office	<b>Live Office – now supports Outlook</b>	Need to update client machines with new 4.0 version
Polestar/Explorer	<b>Explorer</b>	Excel based infospaces are supported: no UNV support until SP2 UNV must be converted to UNX
Pioneer/Advanced analysis web edition	<b>Analysis edition for OLAP</b>	Most of the workspaces are upgraded while more complex required to be recreated
N/A	<b>Information Design Tool</b>	Relation UNV can be manually converted to UNX; OLAP UNV have to be recreated in UNX

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## BOBJ Error messages

- Not much improved
- A number are still very generic.

## Tomcat 6.0

- Had trouble stopping – known issue
- Need to terminate the process in the operating system

## System Variables

- Setting up these variables are completely different than in BOBJ3.1 need to follow the SAP guides

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## Old System Setup/Passwords

- Recommendation – create new accounts (AD, SAP) for the new/upgraded BOBJ 4.0 system

## Architecture Setup

- It is recommended to split your production system over two separate servers. Split Web and back-end processing or cluster

## Adaptive Processing Server

- Some of the BOBJ 3.1 services has been bundled into a single APS in BOBJ 4.0
- It is recommended however to split these services in your production environment into separate servers
- Refer to the BOBJ sizing guide

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## Bex Queries and BICS Connector

- BEx Queries are recommended as data sources for all the SAP BusinessObjects BI Tools
- In some situations extremely large queries and universes can adversely affect performance
- SAP's best practice document states that the placement of characteristics / key figures have no direct impact on the BI tools – our experience differs – it does have an impact on performance eg
  - When free characteristics are used in a Webi –we found that moving these to the rows and/or columns section improved the Webi's performance
  - Leverage SAP Variables as part of the BW Query – variable type (single/multiple, selection option and interval selection) needs to be planned beforehand e.g. Selection option in BEx becomes a from – to variable in Webi, need to use multiple single selections in Bex.

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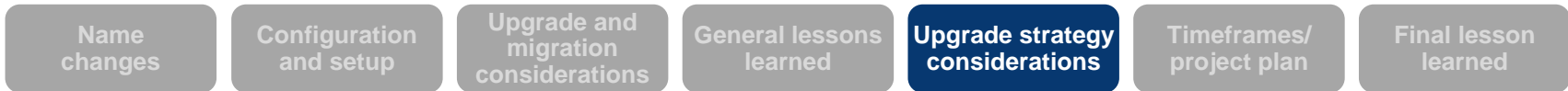
# Upgrade strategy considerations

Combining people and processes into the plan is just as important as the technology portion of the upgrade; therefore as with all upgrades is most important to

- Create a migration plan, based on best practices, for each way reporting is used in your organization (eg batch, on-demand, portals, etc)
  - Which reports to migrate? Opportunity to “clean-up”, more reports to migrate – greater risk
  - Do you want / need to rework your access management settings during the migration? Opportunity for redesign .
  - Should you plan for a “big bang” migration or better in smaller pieces? If yes, how do you deal with the parallel operation of two BO versions (eg regarding client tools?)
  - How can you check a migration was successful?
  - Do we have enough licenses?

• Create a test plan

- Set user and management expectations early on testing and training



## 'Budget' enough time for

### Overall

- Setup enough time with SAP Basis, infrastructure and authorisations project team members
- Copying software to the server is time consuming – arrange to have it available on the server before installation (eg copy overnight)
- Portal Integration – Allow enough time for the recreation of iViews

### Investigation of issues

- Setup of SSO for AD
- Setup of ODBC Connections
- Re-installation of BOBJ 4.0 (as previously discussed – CMS DB is not always created in the installation process)
- Some 3.x Webi Visualizations not supported in 4.x (Charting)

### Bugs

- There were still quite a number of bugs to be resolved in BO 4.0 – Will need to evaluate SP4
- Thus time needs to be budgeted for 'workarounds' to be developed eg SAP Integration
- Hierarchy selection screen does not always display the values for selection and thus only the entire hierarchy can be displayed

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## 'Budget' enough time for

### Clean-up of reports during migration

- Some rework and testing of existing reports – some components not compatible in the new version

### Changing of URLs

- Links in reports and dashboards after migrating them to the new system eg open document syntax changed

### Training

- New Webi Interface
- OLAP Analysis
- Crystal Enterprise vs Crystal 2011

### Business/User Testing

- Seem to always wait longer for feedback than expected
- Training before testing important – especially if it's a Greenfield project

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Try not to install a BOBJ Product with a .0 behind it - wait for .1

## FP3, BOBJ 4.1 – Worth the wait?.... Actually it is here!

Improved integration with SAP NetWeaver BW and the SAP Business Suite Dashboards (Xcelsius) will be able to access SAP NetWeaver BW directly via Business Intelligence Consumer Service (BICS)

Xcelsius / Dashboards waterfall charts (new visualisation)  
Xcelsius / Dashboards extensive hierarchy support improvements (incl hierarchical table component to visualise hierarchy)

Universe access to SAP ERP  
Support SAP ERP InfoSets, SAP queries, ABAP functions in single and multisource universes

Web Intelligence will receive improved SAP NetWeaver BW support and chart functionality (colour assignment and expand/collapse functionality)  
Also, users will be able to export reports as .TXT files

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**FP3, BOBJ 4.1 – Worth the wait?.... Actually it is here!**

**SAP BusinessObjects Dashboards will include improved tree views with visualizations of hierarchies and report-report interface (RRI) support to invoke SAP Business Suite applications**

**Capability of 'Data Binding' for SAP Business Objects Dashboard Design**

**Integration of the semantic layer - Direct Data binding of SAP BW data and components**

**Various Bug Fixes/Corrections made to all BOBJ 4.0 tools eg 'To Refresh' error resolved**

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## FP3, BOBJ 4.1 – Worth the wait?.... Actually it is here!

**Improved BI mobile solutions**  
**SAP BusinessObjects Mobile BI provides direct access to critical reports**  
**Integration with Sybase Unwired Platform and Sybase Afaria**

**High Performance Analytics on Petabyte Scale Data**  
**Hadoop Support**  
**Deeper SAP HANA Support**  
**Access Analytic and Calculation Views from SAP Crystal Reports and Analysis for OLAP**

**SAP BusinessObjects Explorer**  
**Casual users create their own compositions of multiple Explorer visualizations (Exploration Views)**  
**Time and geography awareness**  
**Improved Search**

**SAP StreamWork**  
**Send, Schedule or link BI documents to a SAP**  
**StreamWork activity for Collaboration**

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## Upgrade Best Practices

<http://www.sdn.sap.com/irj/scn/go/portal/prtroot/docs/library/uuid/c0d937fa-1261-2e10-6388-e71afb6b5ff6?QuickLink=index&overridelayout=true>

## BI 4.0 Upgrade Resources

<http://scn.sap.com/docs/DOC-25474>

## SAP BusinessObjects BI Platform Whats New in Feature Pack 3

<http://www.sdn.sap.com/irj/scn/go/portal/prtroot/docs/library/uuid/8012621a-8f55-2f10-acab-b386c3f7c654?QuickLink=index&overridelayout=true&54567559523496>

## SAP Road Map for the SAP BusinessObjects BI Solutions

<http://www.sdn.sap.com/irj/scn/go/portal/prtroot/docs/library/uuid/d027dcc9-76a2-2f10-5e9b-d18a3053a58c?QuickLink=index&overridelayout=true&55555402996111>

## Technical Docs, including Sizing Guide

<https://help.sap.com/bobip>





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Business Objects Upgrade  
Lessons Learned

**Thank you!**