Business Objects 4.0 Upgrade
Lessons Learned

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Agenda

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?
Reasons to upgrade to BOBJ 4.0

- 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
Reasons to upgrade to BOBJ 4.0

- 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
Reasons to upgrade to BOBJ 4.0

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

### Name changes

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

### Configuration and setup

- General lessons learned
- Upgrade strategy considerations
- Timeframes/project plan
- Final lesson learned
### Lessons Learned

#### Name changes, cont.

<table>
<thead>
<tr>
<th>4.0 Current Name</th>
<th>Prior Release Name</th>
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<tbody>
<tr>
<td>SAP BusinessObjects BI launch pad</td>
<td>Infoview</td>
</tr>
<tr>
<td>SAP BusinessObjects BI workspaces</td>
<td>Dashboard Builder</td>
</tr>
<tr>
<td>SAP Crystal Reports 2011</td>
<td>Crystal Reports</td>
</tr>
<tr>
<td>SAP Crystal Reports for Enterprise</td>
<td>n/a</td>
</tr>
<tr>
<td>Information Design Tool</td>
<td>n/a</td>
</tr>
<tr>
<td>Universe Design Tool</td>
<td>Universe Designer</td>
</tr>
<tr>
<td>Upgrade Management Tool</td>
<td>Import Wizard</td>
</tr>
</tbody>
</table>

**Name changes**

- **Configuration and setup**
- **Upgrade and migration considerations**
- **General lessons learned**
- **Upgrade strategy considerations**
- **Timeframes/project plan**
- **Final lesson learned**
• 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
• 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
• 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
Lessons Learned
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
## Lessons Learned

### Upgrade and migration considerations

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

### Name changes

- Changes
- Configuration and setup
- Upgrade and migration considerations
- General lessons learned
- Upgrade strategy considerations
- Timeframes/project plan
- Final lesson learned
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<tr>
<th>XI R2 / 3.1</th>
<th>BI 4.0</th>
<th>Upgrade considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop Intelligence</td>
<td>End of Life</td>
<td>Report conversion tool can be used to convert Webl</td>
</tr>
<tr>
<td>Live Office</td>
<td>Live Office – now supports Outlook</td>
<td>Report conversion tool can be used to convert Webl</td>
</tr>
<tr>
<td>Polestar/Explorer</td>
<td>Explorer</td>
<td>Need to update client machines with new 4.0 version</td>
</tr>
<tr>
<td>Pioneer/Advanced analysis web edition</td>
<td>Analysis edition for OLAP</td>
<td>Excel based infospaces are supported: no UNV support until SP2 UNV must be converted to UNX</td>
</tr>
<tr>
<td>N/A</td>
<td>Information Design Tool</td>
<td>Most of the workspaces are upgraded while more complex required to be recreated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Relation UNV can be manually converted to UNX; OLAP UNV have to be recreated in UNX</td>
</tr>
</tbody>
</table>
### General lessons learned

<table>
<thead>
<tr>
<th>BOBJ Error messages</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Not much improved</td>
</tr>
<tr>
<td>• A number are still very generic.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tomcat 6.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Had trouble stopping – known issue</td>
</tr>
<tr>
<td>• Need to terminate the process in the operating system</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>System Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Setting up these variables are completely different than in BOBJ3.1 need to follow the SAP guides</td>
</tr>
</tbody>
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**Name changes**

**Configuration and setup**

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**Upgrade strategy considerations**

**Timeframes/project plan**

**Final lesson learned**
<table>
<thead>
<tr>
<th>Old System Setup/Passwords</th>
<th>Architecture Setup</th>
<th>Adaptive Processing Server</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Recommendation – create new accounts (AD, SAP) for the new/upgraded BOBJ 4.0 system</td>
<td>• It is recommended to split your production system over two separate servers. Split Web and back-end processing or cluster</td>
<td>• Some of the BOBJ 3.1 services has been bundled into a single APS in BOBJ 4.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• It is recommended however to split these services in your production environment into separate servers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Refer to the BOBJ sizing guide</td>
</tr>
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**Final lesson learned**
**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.
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 (e.g. 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 (e.g. 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

Lessons Learned
Upgrade strategy considerations

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### Lessons Learned

**Timeframes/project plan**

<table>
<thead>
<tr>
<th>Overall</th>
<th>Investigation of issues</th>
<th>Bugs</th>
</tr>
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<tbody>
<tr>
<td>• Setup enough time with SAP Basis, infrastructure and authorisations project team members</td>
<td>• Setup of SSO for AD</td>
<td>• There were still quite a number of bugs to be resolved in BO 4.0 – Will need to evaluate SP4</td>
</tr>
<tr>
<td>• Copying software to the server is time consuming – arrange to have it available on the server before installation (eg copy overnight)</td>
<td>• Setup of ODBC Connections</td>
<td>• Thus time needs to be budgeted for ‘workarounds’ to be developed eg SAP Integration</td>
</tr>
<tr>
<td>• Portal Integration – Allow enough time for the recreation of iViews</td>
<td>• Re-installation of BOBJ 4.0 (as previously discussed – CMS DB is not always created in the installation process)</td>
<td>• Hierarchy selection screen does not always display the values for selection and thus only the entire hierarchy can be displayed</td>
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*‘Budget’ enough time for*

- 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
- 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)
- 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
### Lessons Learned

#### Timeframes/project plan

<table>
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<tr>
<th>'Budget' enough time for</th>
<th>Clean-up of reports during migration</th>
<th>Changing of URLs</th>
<th>Training</th>
<th>Business/User Testing</th>
</tr>
</thead>
</table>
|                          | • Some rework and testing of existing reports – some components not compatible in the new version | • Links in reports and dashboards after migrating them to the new system eg open document syntax changed | • New Webi Interface  
• OLAP Analysis  
• Crystal Enterprise vs Crystal 2011 | • Seem to always wait longer for feedback than expected  
• Training before testing important – especially if it’s a Greenfield project |

#### General lessons learned

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- Upgrade strategy considerations

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

<table>
<thead>
<tr>
<th>Improved integration with SAP NetWeaver BW and the SAP Business Suite</th>
<th>Xcelsius / Dashboards waterfall charts (new visualisation)</th>
<th>Universe access to SAP ERP InfoSets, SAP queries, ABAP functions in single and multisource universes</th>
<th>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</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dashboards (Xcelsius) will be able to access SAP NetWeaver BW directly via Business Intelligence Consumer Service (BICS)</td>
<td>Xcelsius / Dashboards extensive hierarchy support improvements (incl hierarchical table component to visualise hierarchy)</td>
<td></td>
<td></td>
</tr>
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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!

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<tr>
<td>SAP BusinessObjects Dashboards will include improved tree views with visualizations of hierarchies and report-report interface (RRI) support to invoke SAP Business Suite applications</td>
<td>Capability of ‘Data Binding’ for SAP Business Objects Dashboard Design</td>
<td>Integration of the semantic layer - Direct Data binding of SAP BW data and components</td>
<td>Various Bug Fixes/Corrections made to all BOBJ 4.0 tools eg ‘To Refresh’ error resolved</td>
<td>Try not to install a BOBJ Product with a .0 behind it - wait for .1</td>
<td></td>
<td></td>
<td></td>
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### Lessons Learned

#### Final lesson learned

**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!

<table>
<thead>
<tr>
<th>Improved BI mobile solutions</th>
<th>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</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP BusinessObjects Mobile BI provides direct access to critical reports Integration with Sybase Unwired Platform and Sybase Afaria</td>
<td></td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>SAP BusinessObjects Explorer Casual users create their own compositions of multiple Explorer visualizations (Exploration Views) Time and geography awareness Improved Search</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>SAP StreamWork Send, Schedule or link BI documents to a SAP StreamWork activity for Collaboration</th>
</tr>
</thead>
</table>

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Useful Resources

**Upgrade Best Practices**


**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
Business Objects Upgrade
Lessons Learned

Thank you!