

Best Practices for Deployment Environments

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Business Objects™

INSIGHT

AMERICAS 2006

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Breakout Information (Hidden Slide)

► Best Practices for Deployment Environments

- Do you need to manage reports and universes between separate development, quality assurance, and production environments? Do you have to define deployment best practices or adhere to Sarbanes-Oxley provisions? In this session, you'll learn how to facilitate report and universe promotion between environments and lessen the amount of time spent on this activity. See how the Import Wizard and BIAR files can ease the migration of universes, documents, and/or users between various environments--without compromising control and security. This must-attend session will include a demonstration of how to use the Import Wizard and BIAR files, and you'll learn the pros and cons for both methods.

Topics

- ▶ Introduction
- ▶ Best Practices
- ▶ Import Wizard
- ▶ Business Intelligence Archive Resource (BIAR) Files
- ▶ Demonstration
- ▶ Q&A

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About Dunn Solutions Group

DunnSolutionsGroup

- ▶ Technology consulting firm specializing in business intelligence, transactional and knowledge solutions
- ▶ **BI Implementations**
 - Financial
 - Healthcare
 - Government
 - Consumer Packaged Goods
 - Hi Tech
- ▶ **Business Objects Partner**
 - Certified Training Partner
 - Reseller
 - Certified XIR2 Migration Specialists
- ▶ www.dunnsolutions.com

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About Me

- ▶ **Senior Consultant, Dunn Solutions Group**
- ▶ **Business Objects Certified Professional – Business Objects Enterprise (BOCP – BOE)**
- ▶ **Business Objects Instructor – 4.x, 5.x, 6.x, XI**

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Importance of Data

- ▶ **Long been realized**
 - Increasing revenue
 - Driving down costs
 - Improving customer service
- ▶ **Ever growing sensitivity**
 - Social Security Numbers
 - Patient information
 - Financial information

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Federal Regulations

- ▶ **Health Insurance Portability and Accountability Act of 1996**
 - HIPAA for short is a Federal Regulation impacting the distributing and sharing of individually identifiable health information (called PHI)
 - Only those with explicitly granted access are allowed to view PHI
 - Data that is not 'individually identifiable' can be more readily viewed and distributed
- ▶ **Gramm-Leach Bliley Act of 1999**
 - Financial Privacy
 - Financial Safeguards
- ▶ **Sarbanes-Oxley Act of 2002**
 - New Federal Regulations controlling financial reporting practices of publicly traded companies
 - Sections 302 and 404 mandate internal controls...

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Section 302 (Sarbanes-Oxley Act)

SEC. 302. CORPORATE RESPONSIBILITY FOR FINANCIAL REPORTS.

- (a) REGULATIONS REQUIRED.—The Commission shall, by rule, require, for each company filing periodic reports under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m, 78o(d)), that the principal executive officer or officers and the principal financial officer or officers, or persons performing similar functions, **certify in each annual or quarterly report** filed or submitted under either such section of such Act that—
1. The signing officer has reviewed the report;
 2. Based on the officer's knowledge, the report **does not contain any untrue statement of a material fact or omit to state a material fact** necessary in order to make the statements made, in light of the circumstances under which such statements were made, not misleading;
 3. Based on such officer's knowledge, the financial statements, and other financial information included in the report, fairly present in all material respects the financial condition and results of operations of the issuer as of, and for, the periods presented in the report;

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Section 302 Continued

- 4) The signing officers—
 - Are **responsible for establishing and maintaining internal controls**;
 - Have **designed such internal controls to ensure that material information** relating to the issuer and its consolidated subsidiaries is **made known to such officers** by others within those entities, particularly during the period in which the periodic reports are being prepared;
 - Have **evaluated the effectiveness of the issuer's internal controls** as of a date **within 90 days prior to the report**; and
 - Have presented in the report their **conclusions about the effectiveness of their internal controls** based on their evaluation as of that date;
- 5) The signing officers have disclosed to the issuer's auditors and the audit committee of the board of directors (or persons fulfilling the equivalent function)—
 - **All significant deficiencies in the design or operation of internal controls** which could **adversely affect the issuer's ability to record, process, summarize, and report financial data** and have identified for the issuer's auditors any **material weaknesses in internal controls**; and
 - **Any fraud**, whether or not material, **that involves management or other employees** who have a significant role in the issuer's internal controls; and

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Section 302 Continued

6. The signing officers have **indicated** in the report whether or not there were **significant changes in internal controls** or in other factors that could significantly affect internal controls subsequent to the date of their evaluation, **including any corrective actions** with regard to significant deficiencies and material weaknesses.

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Section 404 (Sarbanes-Oxley Act)

MANAGEMENT ASSESSMENT OF INTERNAL CONTROLS

- a) Rules Required. – The commission shall prescribe rules requiring each annual report required by section 13(a) or 15 (d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) to contain an internal control report, which shall—
- 1) State the **responsibility of management for establishing and maintaining an adequate control structure and procedures for financial reporting**; and
 - 2) Contain an **assessment**, as of the end of the most recent fiscal year of the issuer, **of the effectiveness of the internal control structure and procedures** of the issuer for financial reporting.
- b) Internal Control Evaluation And Reporting.—With respect to the internal control assessment required by subsection (a), **each registered public accounting firm that prepares or issues the audit report for the issuer shall attest to, and report on, the assessment made by the management of the issuer**. An attestation made under this subsection shall be made in accordance with standards for attestation engagements issued or adopted by the Board. Any such attestation shall not be the subject of a separate engagement.

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What does this mean?

- ▶ **Reporting systems are under enormous scrutiny**
- ▶ **Data must be safeguarded**
- ▶ **Internal controls are continually audited for weaknesses**
 - How changes are made to our financial systems
 - Who has access to our production environment
- ▶ **Financial reports are correct and delivered on time**
 - Minimal system downtime
 - Any changes to our system, data and processes must be thoroughly tested
- ▶ **Best practices are no longer a “nice to have”**

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Topics

- ▶ Introduction
- ▶ **Best Practices**
- ▶ Import Wizard
- ▶ Business Intelligence Archive Resource (BIAR) Files
- ▶ Demonstration
- ▶ Q&A

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Why the Need for Best Practices?

- ▶ **Reduce Costs**
 - Avoid errors
 - Avoid rework
 - Avoid system downtime
- ▶ **Maximize Investment**
 - Expedite information throughout the organization
 - Time spent on analysis as opposed to validation
- ▶ **Security**
 - Protect against errors and mistakes
 - Protect against malicious acts
 - Safeguard information

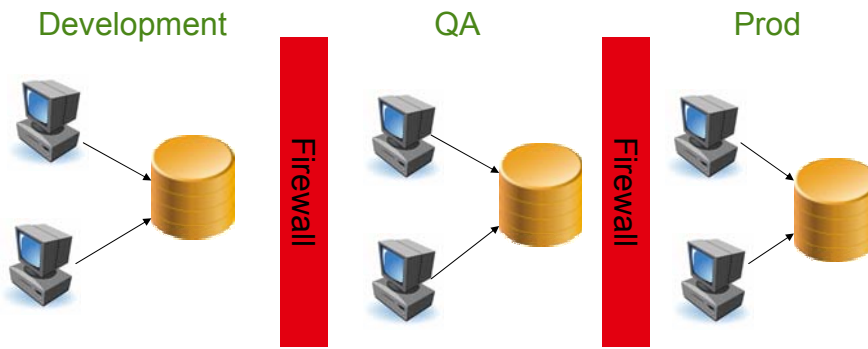
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Business Intelligence Best Practice

Separate Development, QA and Production Environments



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Deployment Process

- ▶ **Develop in Your Development Environment**
 - Move to QA
- ▶ **Test in Your QA Environment**
 - Test Security (Row level, group, object, etc.)
 - Test Software (Hot Fixes, Service Packs, etc.)
 - Validate Reports
 - Document Process to Move to Production
 - Move to Production
- ▶ **Verify Your Changes in Production**

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Why the Three Environment Approach?

- ▶ **A separate development environment allows developers to:**
 - Test new software releases
 - Apply patches
 - Test application of new business requirements
 - Test security
 - Develop during “freezes”
- ▶ **A separate QA environment allows the QA team to:**
 - Test changes
 - Ensure corporate standards are not violated
 - Not disrupt production if something goes wrong
 - Document steps required to move to production
 - Estimate the length of time production must be down
- ▶ **Minimize downtime in production**

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The Business Benefit

- ▶ **Increase users' confidence in the system and IT**
 - Minimal production downtime
 - Reports, universes, objects, business views are thoroughly tested before going into production
- ▶ **The BI system can change with the ever changing business requirements**
 - Planned
 - Controlled
 - Predictable

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Items to Make Sure of Across Environments...

- ▶ **Use Same Business Objects Deployment**
 - Same Patches
 - Same Hot Fixes
 - Same Security Model
 - Use Same Operating System
 - Etc.
- ▶ **Refer to the Platforms.txt for the Latest Supported Platforms**
 - Installation CD
 - <http://support.businessobjects.com>

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Potential Pitfalls

- ▶ **Not Using Same Business Objects Deployment**
 - Not knowing true impact until you go to production
 - Increased development time and rework
- ▶ **Different OSs in Your Three Environments**
 - QA can become second development environment and Production can become QA
 - Report linking in ASP in Dev and then reworking to use JSP
- ▶ **Not Using Latest Supported Platforms**
 - Extra administration time
 - Problematic for Tech Support

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How to Move Between Environments?

- ▶ **Business Objects Import Wizard**
 - Locally installed Windows application
 - Importing users, groups, reports, and folders from an existing Crystal Enterprise, BusinessObjects, or Crystal Info implementation to BusinessObjects Enterprise
 - Also used to move a test or development deployment of BusinessObjects XI to a production deployment
- ▶ **Business Intelligence Archive Resource (BIAR)**
 - Archiving tool
 - Enables movement to test or production systems that are on different networks
 - Store CMS objects in 3rd party source control (PVCS, Visual Source Safe, Subversion, etc)

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Topics

- ▶ **Introduction**
- ▶ **Best Practices**
- ▶ **Import Wizard**
- ▶ **Business Intelligence Archive Resource (BIAR) Files**
- ▶ **Demonstration**
- ▶ **Q&A**

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Import Wizard

Can move content across environments on the same network



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Import Wizard Offers Two Import Options

Merge vs Update

- ▶ **Merge adds objects**
 - Option to rename if there is a name clash
 - If not selected and there is a clash, new object is not created
 - If there is a clash and it is selected, new parent folder is created and object is created in the parent folder
- ▶ **Update adds and/or updates objects**
 - Compares Cluster Unique Identifiers (CUIDs)
 - If CUID exists, the object is updated
 - If CUID does not exist, a new object is created

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Update is Best Practice for Life Cycle Management

- ▶ **Promotes content from one environment to another**
- ▶ **Allows for name changes**
- ▶ **Only possible with three distinct repositories for Development, QA and Production**
- ▶ **Setup:**
 - Migrate users and content from your existing production to new development environment
 - Import from development to QA
 - Import from QA to Production
 - Now all objects have same CUID in all three environments

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Pros and Cons of this Approach

- ▶ **Pros**
 - Efficiently propagate from Development to QA to Production
 - Moving from Development to QA is good practice for Production Move
 - Everything is self contained
- ▶ **Cons**
 - Requires administrator rights in both environments
 - Does not work if firewalls separate environments

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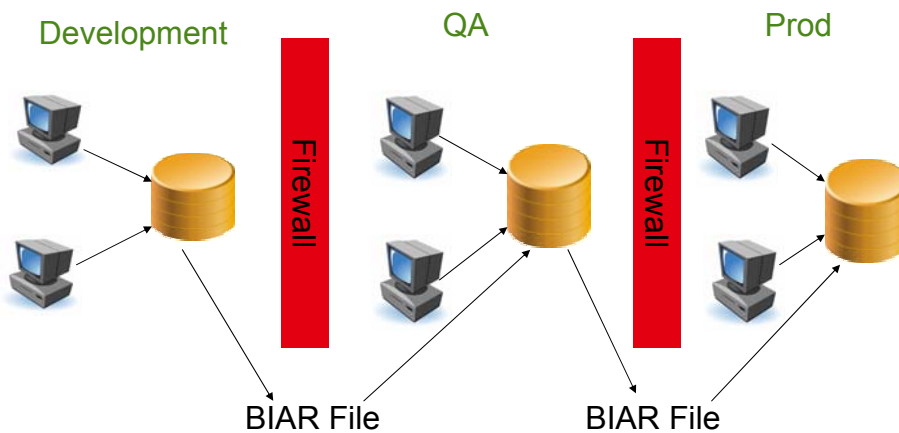
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Import Wizard and BIAR Files

Allows migration across different networks



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Pros and Cons of this Approach

▶ Pros

- Can be used to move objects across environments with firewalls
- Provides a file based archive which can be put in source control
- Efficiently propagate from Development to QA to Production
- Moving from Development to QA is good practice for Production move
- No direct contact from one environment to another

▶ Cons

- Additional steps to move between environments
- BIAR files can be large

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Demo



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Points to Keep in Mind

- ▶ **For large deployments, incrementally propagate separate BIAR files**
 - If a BIAR file is too large, you risk load issues
 - Long time to run the import
 - Network issues may disrupt the process
 - Etc.
 - No hard and fast rule on BIAR size limit
 - Business Objects recommends a 2 GB limit
 - I have successfully imported larger files
- ▶ **You still need to back up your system**

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Lessons Learned

- ▶ **Three Environment Approach is Right Approach**
 - Dev
 - QA
 - Prod
- ▶ **Use Same Business Objects Deployment**
- ▶ **Use Same Operating System in All Three Environments**
- ▶ **Refer to the Platforms.txt for the Latest Supported Platforms**
- ▶ **Use Import Wizard/BIAR Files to Move from Environment to Environment**
- ▶ **BIAR Files Can be Used for Source Control**

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Lessons Learned Continued

- ▶ **High Availability**
 - Three environment approach minimizes impact on production
 - Very important at quarter and year end
 - Development can continue during “freezes”
- ▶ **Accuracy**
 - Three environment approach minimizes testing in production
 - Test environment should constantly validate changes
 - Key reports should always be checked and rechecked
- ▶ **Security**
 - Three environment approach protects sanctity of production environment
 - Only authorized personnel can access data
 - Tested and retested
- ▶ **Constantly reevaluate the controls and processes**
 - What can we do better?
 - How can we be more efficient?

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Q&A

► Questions

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