

# Lifecycle Manager and Upgrade Manager for SAP BusinessObjects 4.0

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# 4.0 Availability



- On, **September 16<sup>th</sup>**, we announced the general availability of **SAP® BusinessObjects™ Business Intelligence 4.0** and **SAP® BusinessObjects™ Enterprise Information Management 4.0**. This includes the latest versions for Web Intelligence, Dashboards, Crystal Reports, Explorer, the Business Intelligence Platform, Edge BI and Information Steward.
- Version 4.0 SP2 Fixpack 5

## 1. Basic Concepts

2. What's new LCM?
3. Overrides
4. Visual Difference
5. Command Line Tool
6. CTS+ integration
7. Services
8. LCM logs
9. What's even newer?

## 1. Basic Concepts

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# What is the right tool?

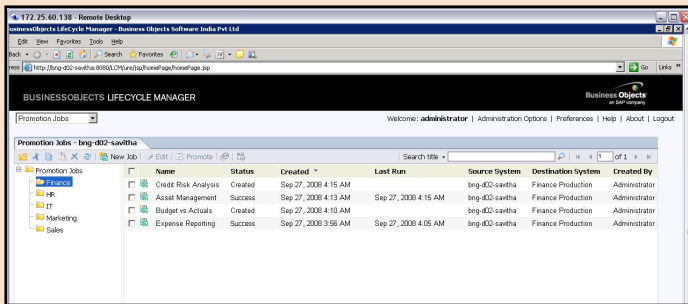


## Promotion

### LifeCycle Management Console (LCM)

**Promotion:** “Transport content from like system to like system”

Systems are the same version E.g. Dev to Test to Production. Content is primarily document templates, metadata and schedules. Not document instances.

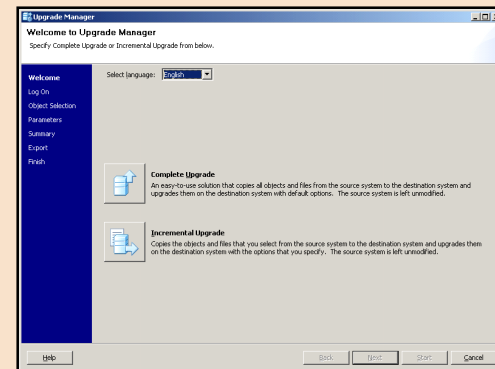


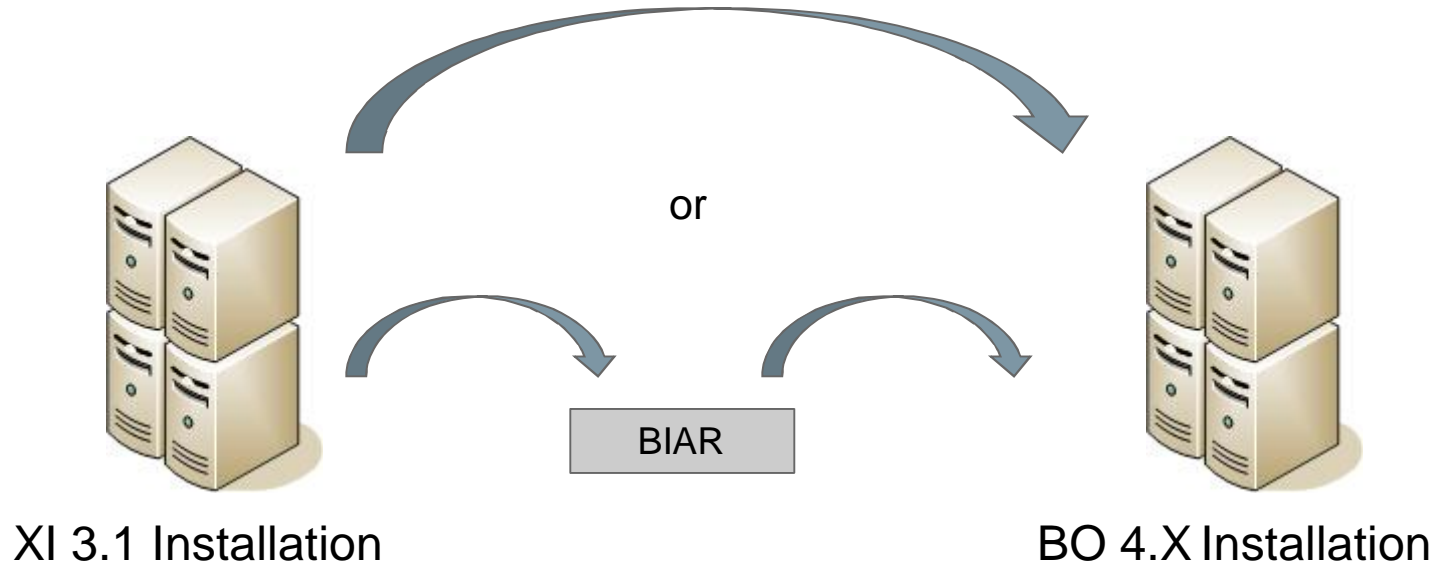
## Upgrade / Migration

### Upgrade Manager

**Upgrade:** “Transport and transform content from previous version to newer version”  
Content includes all objects.

**Migrate:** “Transport and transform content from a previous platform to a new platform or architecture”

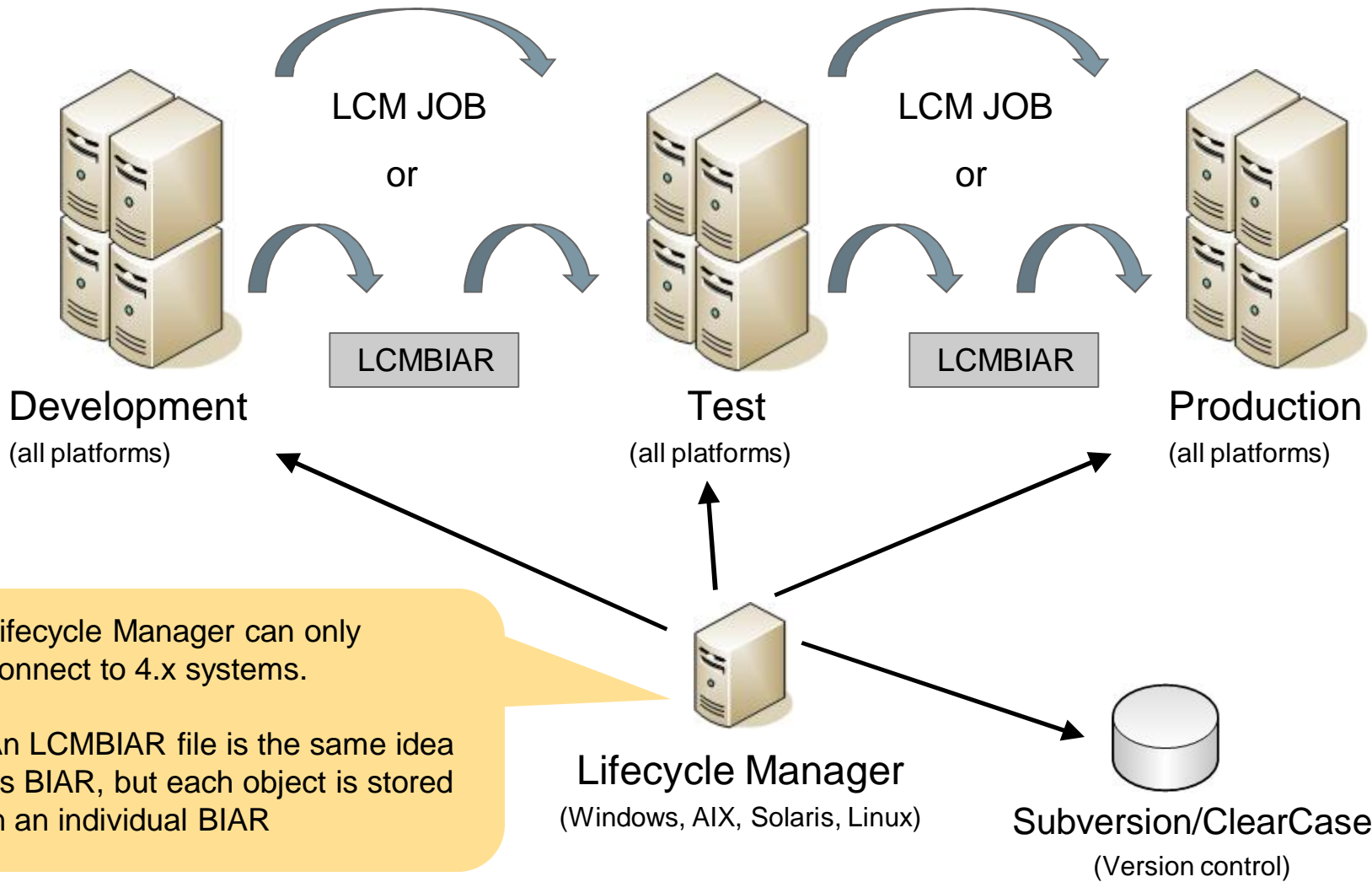




Cannot connect to 4.x system as a source. Only XI 3.x, XI R2 SP2 (or higher) or BIAR file.

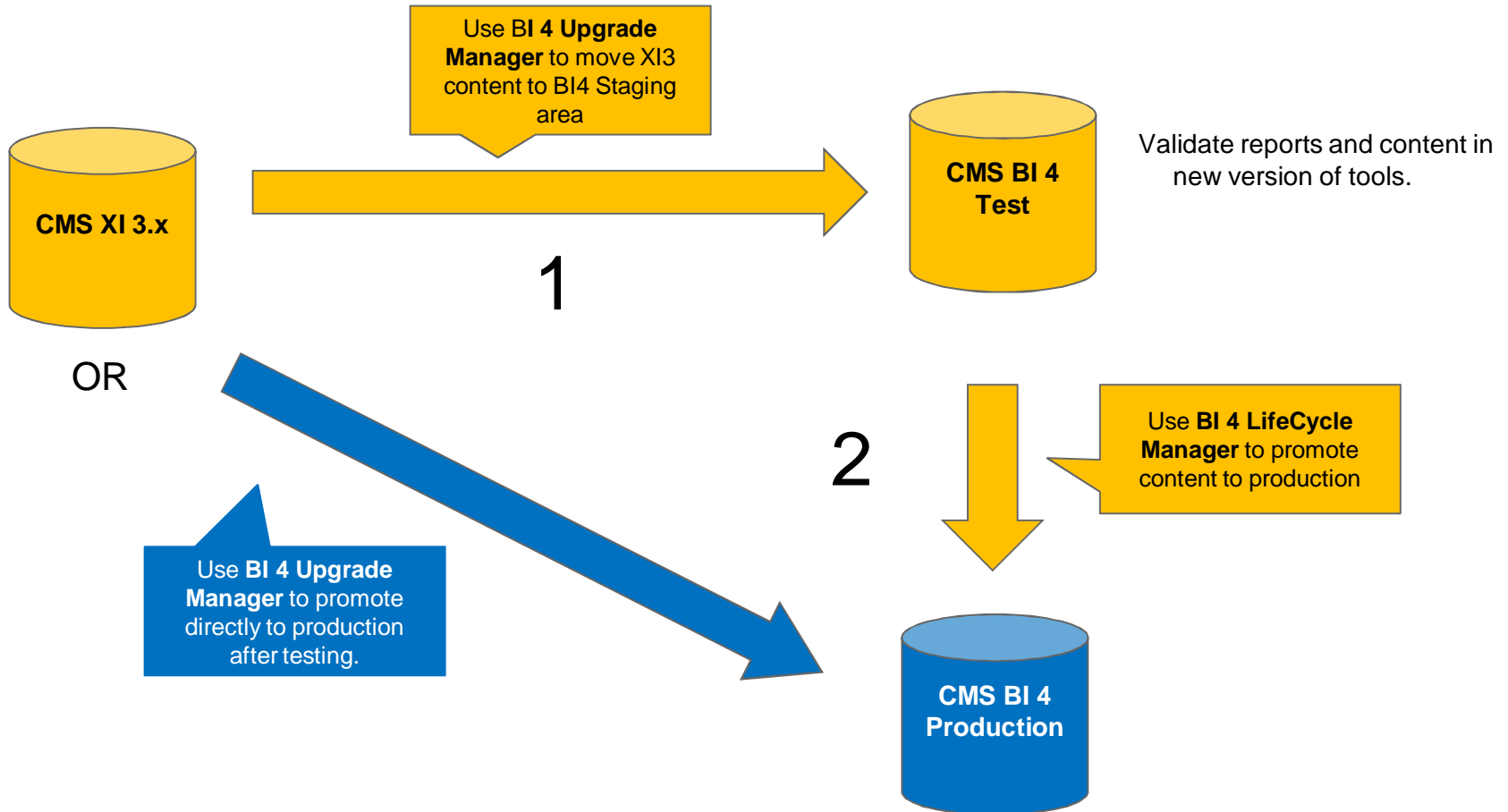
BIAR:(BI Archive) is a collection of any binaries associated with a BI object and its associated metadata, all materialized in a zip file.







# Upgrade from XI3 to BI4



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## Installation

- Lifecycle management console is now included in SAP BusinessObjects Business Intelligence servers install package.

New Visual Difference capabilities allow easy identification of changes.

Scriptable promotions supported via a command line interface.

Lifecycle management is now in CMC:

- Central Management Console– Visual Difference, Promotion and Version Mgmt.

New Objects supported

Categories based promotion is now supported.

Server group promotion is supported however the servers are not promoted.

LCM is now localized.

Update Source system of job when

- Job is copied
- Job is migrated

Overrides no longer job specific

Supports new improved BI platform Audit infrastructure

There are 2 new features specifically for integrated deployments with BW:

- SAP Authentication is now supported.
- Integration with the SAP standard change transport system (CTS)

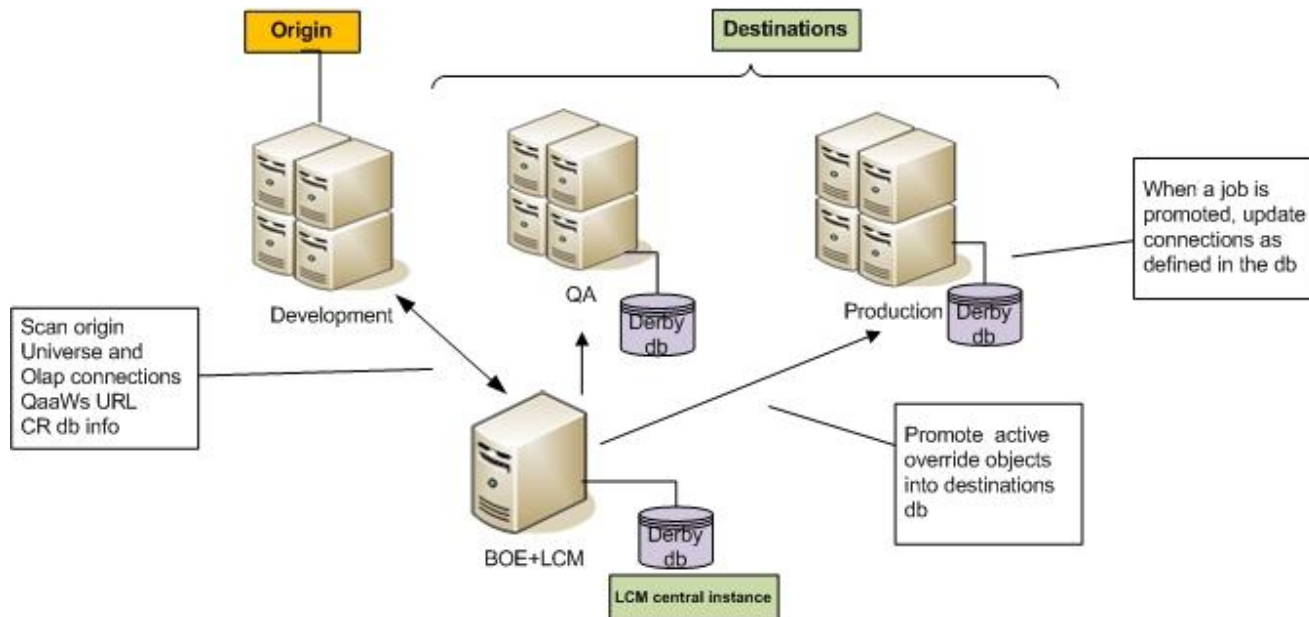
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- Updating database connections (overrides) in XI 3.1 are job specific, in BI 4.0 are global.
  - In 4.0, Lifecycle management scans for all Crystal Reports, OLAP and Universe Connections and QaaWS URLs in the origin system.
  - Scan information can be updated with values for destination.
  - When a report connection is promoted, database connection information is automatically promoted.
  - Overrides can be from one or many origins to one or many destinations.

# Overrides – How to configure overrides?

1. Specify Origin system (**Administration Options > Manage Systems**)
2. Scan the Origin system (**Administration Options > Override Settings**)
3. Mark desired objects as active.
4. Promote the overrides to one or multiple destinations.
5. In destination, mark desired objects as active and edit database connections.

When a promotion job is executed, overrides of objects in the job are applied automatically.

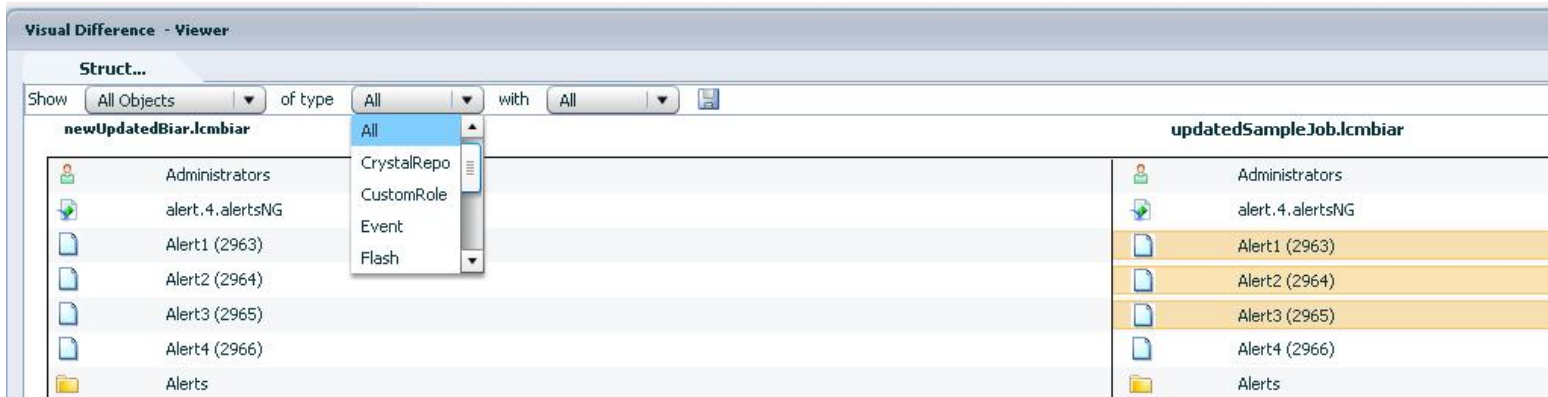


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- Visual Difference framework allows you to easily identify changes.
  - It provides comparison plug-in and viewers for BI content
  - In SAP BusinessObjects BI 4.0 only LCM Jobs and LCMBIAR comparisons are possible.
    - LCMBIAR to LCMBIAR
    - LCM Job to LCMBIAR
    - LCM Job to LCM Job
- LCMBIAR comparison includes:
  - Metadata
  - Primary Objects.
  - Dependent Objects.
- The differences process results in 3 types of differences
  - Removed
  - Modified
  - Inserted

- Visual Difference framework allows easy identification of changes
  - Comparison plug ins and viewers for each BI content type. (Eventually...)
  - LCMBIAR viewer answers: *“How is this version of the BI application different from a previous version?”*
  - Future service packs will provide comparison viewers for universes and other content types
  - For example, will answer: *“What is different between these two versions of a universe? Can I easily merge changes?”*
- Impact Analysis
  - Understanding which objects in a universe have changed allows tester to focus only on reports which use changed objects



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### LCMBIAR file packages BI Applications:

- Promote content between Development, Test, and Production SAP BusinessObjects BI 4.0 environments.
- Allows you to use scripting to automate the import of objects.

### BIAR and LCMBIAR:

- BIAR:(BI Archive) is a collection of any binaries associated with a BI object and its associated metadata, all materialized in a zip file.
- An LCMBIAR file is the same idea, but each object is stored in an individual BIAR.

### Considerations:

- Lifecycle management tool is to promote objects from BI platform 4.x to BI platform 4.X version only.
- Upgrades must be done using the Upgrade management tool.
- To rollback a job you need to use the UI, not command line
- LCM Command Line tool is not used when CTS+ is available.

# LCM Command Line Tool

## What can you do?



### Export an existing Lifecycle Management job:

- Report developer creates LCM Job with content to promote
- LCM Administrator uses Command Line Tool (CLI) to create LCMBIAR

### Promote existing job:

- Report developer creates LCM job with content to promote
- LCM Administrator uses CLI to promote LCM job content to destination

### Promote an existing LCMBIAR file:

- LCM Administrator uses CLI to promote LCMBIAR content to destination

### Export single or multiple platform queries:

- LCM Administrator or developer writes one or more queries to specify the content selection and LCMBIAR file is created.

### Promote multiple platform queries:

- LCM Administrator or developer writes multiple queries to specify content selection, the BOE content selected by the queries is promoted to the destination

# LCM Command Line Tool

## How to use?



- Prerequisites:
  - Set the java path if using lcm.jar
  - Parameters are specified in a properties file.
  - Properties file name should be: <FileName>.properties.
    - Example: Myparameters.properties
- LCM Command Line tool can be launched via BAT file or JAR file:
  - lcm\_cli.bat
    - lcm\_cli.bat -lcmproperty <property file>
    - Example: c:\Program Files(x86)\SAP Business Objects\SAP BusinessObjects Enterprise XI4.0\win64\_x64\scripts\lcm\_cli.bat -lcmproperty Myparameters.properties
  - lcm.jar
    - java -cp "lcm.jar" com.businessobjects.lcm.cli.LCMCLI <property file>
    - Example: c:\Program Files(x86)\SAP Business Objects\SAP BusinessObjects Enterprise XI4.0\win64\_x64\java\lib\ java -cp "lcm.jar" com.businessobjkects.lcm.cli.LCMCLI Myparameters.properties

# LCM Command Line Tool Properties File example



## **Promote:**

```
#this file imports a l cmbiar, note this line is a comment
importLocation=C:/Backup/CR.l cmbiar
action=promote
LCM_CMS=10.193.6.45:6400
LCM_userName=qa01
LCM_password=password
LCM_authentication=secSAPR3
LCM_systemID=R37
LCM_clientID=800
Destination_CMS=10.193.6.30:6400
Destination_userName=qa01
Destination_password=password
Destination_authentication=secSAPR3
Destination_systemID=R39
Destination_clientID=800
```

## **Export:**

```
#this file exports an existing report
exportLocation=C:/Backup/NewBIAR.l cmbiar
JOB_CUID=AVknMLl2Hn5JspDAGnYPr8Y
action=export
LCM_CMS=10.193.6.48:6400
LCM_userName=administrator
LCM_password=password
LCM_authentication=secEnterprise
Source_userName=Administrator
Source_password=
Source_CMS=testcms:6400
Source_authentication=secEnterprise
```

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SAP NetWeaver

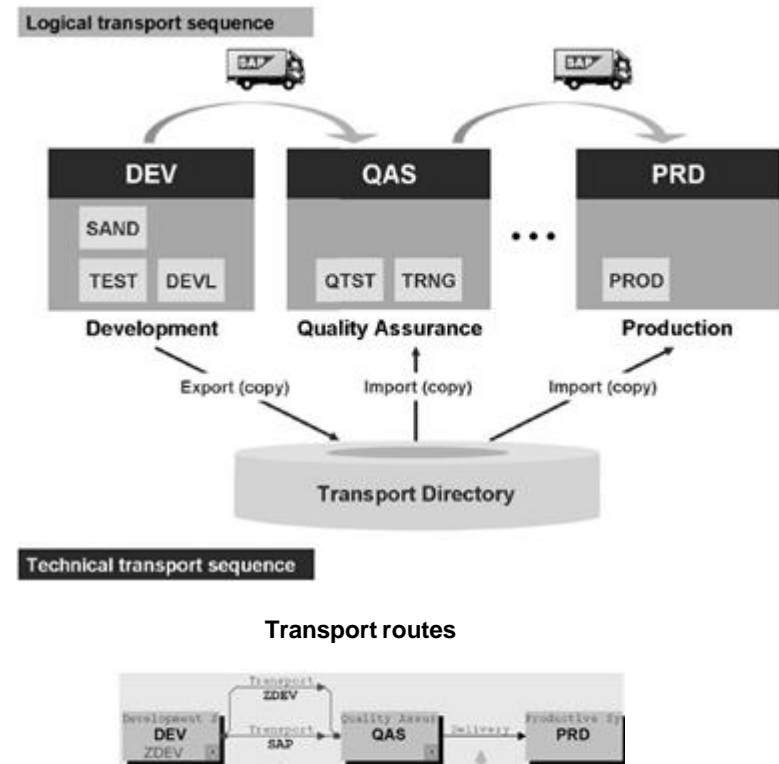
Change and Transport  
System (CTS)

Embedded

Business Objects

Lifecycle Management  
(LCM)

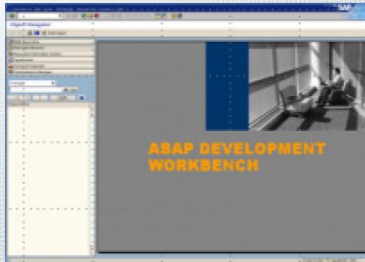
- CTS: Change and Transport System
  - To synchronize content in SAP ABAP deployments
- CTS+: Enhanced Change and Transport System
  - To transport non-ABAP objects
- TMS: Transport and Management System
  - Transaction STMS
  - To define transport domains and transport routes
  - To transport all changed objects from one system to another
  - Transport organizer



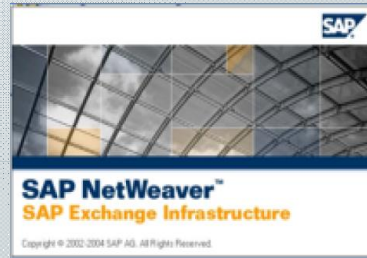
# Solution: One Common Transport Tool For Multiple Development Types



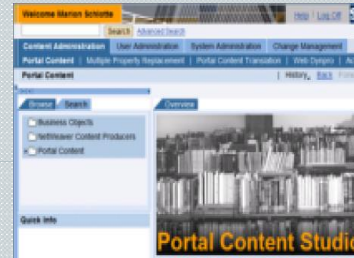
## Multiple Development Workbenches



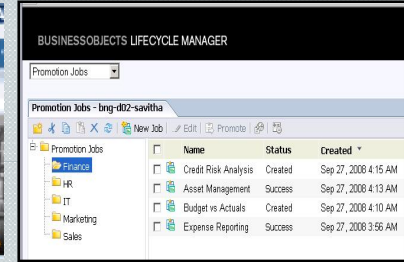
**ABAP Workbench**



**XI Workbench**



**Portal Content Studio**



**Lifecycle Management Console**



## Multiple Backend System Types

**SAP Netweaver**  
AS ABAP

**ESR/XI/PI**  
on SAP Netweaver  
Dual Stack

**Portal System**  
on SAP Netweaver  
AS Java

**SAP BusinessObjects Enterprise**



## One central transport tool

**CTS+**  
(Enhanced Change & Transport System)

## Promotion with CTS+

LCM – Step 1 - Log onto Lifecycle management console using SAP Authentication

LCM – Step 2 – Create a promotion job. For destination select Promote via CTS+

LCM – Step 3 - Add Objects to the Job

LCM – Step 4 – Manage Dependencies (external BW dependencies can be managed)

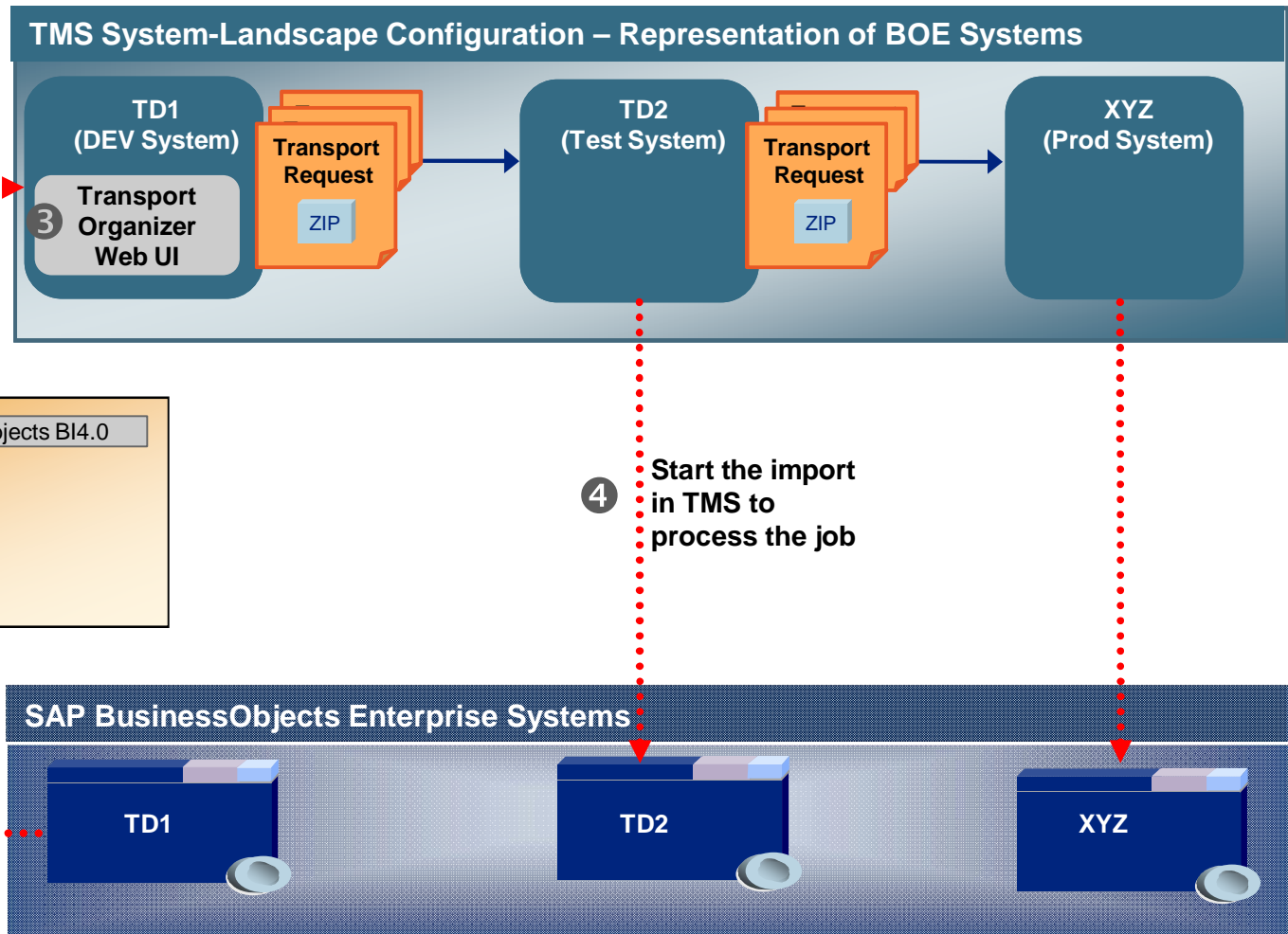
LCM – Step 5 – Promote: transport request is created (Test Promote neither Scheduling job are possible with CTS+)

LCM – Step 6 – Transport Organizer (to change/create transport request if needed)

LCM – Step 7 – Transport request is released

TMS – Step 8 – In SAP system run transaction STMS to see destination import queue and import the request.

# Transporting BI content with the help of LifeCycle management Console and CTS+



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Lifecycle management Services are contained in the Adaptive Processing Server and Adaptive Job Server.

## **Services in Adaptive Job Server:**

- LifeCycleManagement Scheduling Service
  - Scheduling promotion jobs
  - Scheduling promotion overrides
  - Origin scan
- Visual Difference scheduling service
  - Scheduling visual difference

## **Services in Adaptive Processing Server:**

- LifeCycleManagement ClearCase service
  - VMS : ClearCase
  - VMS: Subversion (distributed deployment)
- LifeCycleManagement Service
  - VMS
  - Origin scan
  - To apply overrides on destination system
- Visual Difference Service
  - All Visual Difference operations

# Other SAP BusinessObjects BI 4.0 services required for LCM



- Central Management Server:
  - Scanning repositories
  - Promoting jobs
    - Lifecycle management jobs are in CMS database
- Input File Repository Server:
  - Lifecycle management jobs are also stored in the input FRS
- Output File Repository Server:
  - Scheduled instances of Lifecycle management jobs are stored in output FRS
- Report Application Server :
  - To override connections of Crystal Reports 2011
- Connection Server:
  - For connection overrides



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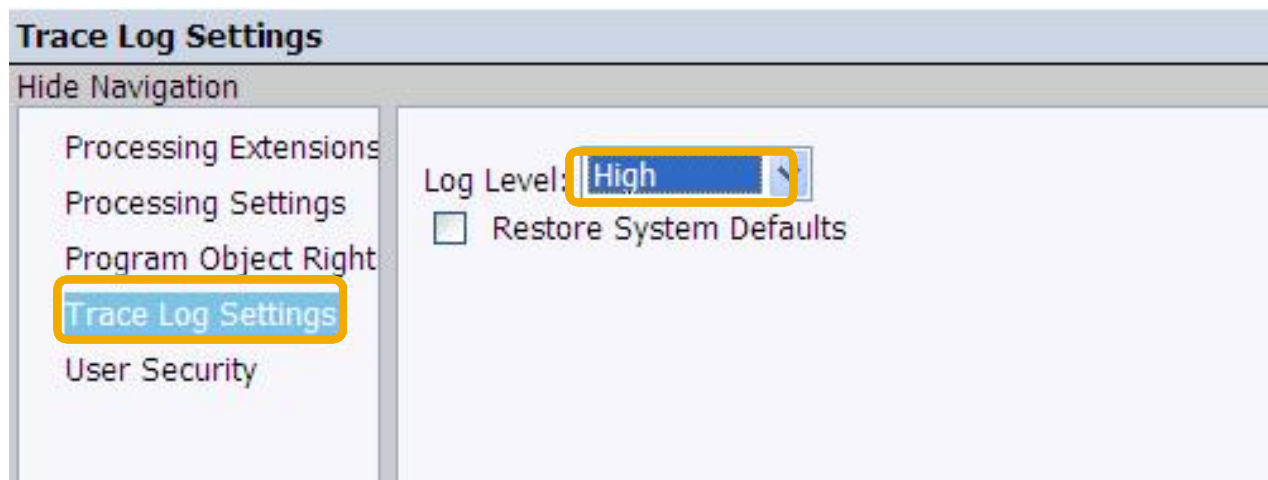


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## Enabling Traces – Web Tier logs



- Go to **CMC > Applications** and right-click the LifeCycle Management. Then click **Trace Log Settings**. Set the **Log Level** to **High**.

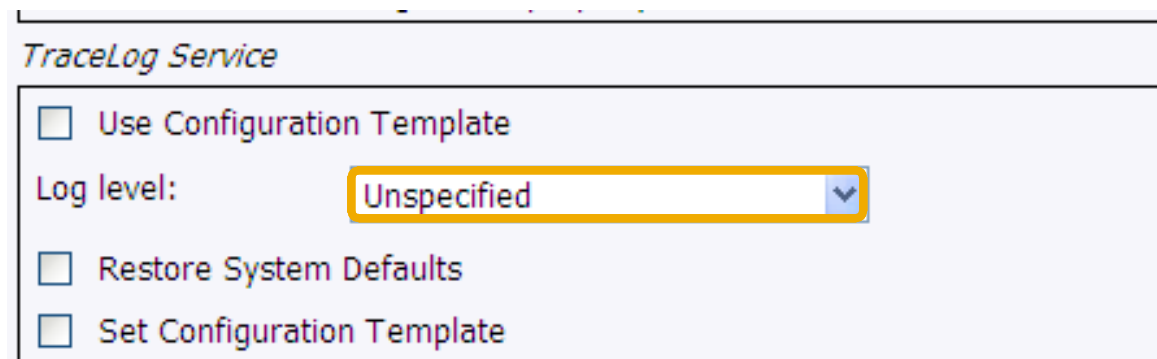


- Restart Web application server. Logs will be in the default BusinessObjects BI 4.0 logging directory.

# Enabling Traces LCM Services



- Go to **CMC > Servers** and in the Properties for the **Adaptive Job Server** and **Adaptive Processing Server** set the **Log Levels** to **High**.



- In the **CCM**, restart the **Adaptive Job Server** and **Adaptive Processing Server**. Logs will be generated in default logging folder.
  - \SAP Business Objects\SAP BusinessObjects Enterprise XI 4.0\logging\  
\*.AdaptiveProcessingServer\_trace.0xxxx.glf
  - \SAP Business Objects\SAP BusinessObjects Enterprise XI 4.0\logging\  
\*.AdaptiveJobServer\_LCMSchedulingService\_CHILD0\_trace.0xxxxx.glf

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