

# HP IT Executive Scorecard

For the Windows® operating system

Software Version: 9.41

## Administrator Guide

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# Getting Started with Administration Tasks

## Getting Started with administrative tasks:

- **Understand the logon, password and tab access issues.** For details, see ["Logon" on page 11](#).
- **Understand the LW-SSO, Identity management SSO, logs, Web server, cryptography, Supervisor, and working with Xcelsius.** For details, see ["General Information" on page 18](#).
- **Understand the Start menu.** For details, see ["Start Menu" on page 34](#).

**Manage Licenses.** For details, see ["Licenses" on page 39](#).

- **Manage users, roles, and resources.** For details, see ["Users, Roles, Resources, and Permissions" on page 52](#).
- **Configure Foundation, pages, Single Sign On, and Website settings.** For details, see ["Perform Administration Tasks for Foundation" on page 130](#).
- **Configure Dashboard Settings, Score thresholds, XS settings and engine settings.** For details, see ["Scorecard" on page 153](#)
- **Configure ITFM settings.** For details, see ["ITFM Settings" on page 163](#)
- **Connect servers in a distributed configuration.** For details, see ["Distributed Configuration - Server Connection" on page 261](#)
- **Add dimensions to the FinancialManagement context** For details, see ["Add Dimensions to FinancialManagement Context and Integrate with PPM" on page 267](#).
- **Manage the Semantic Layer (Business Contexts and Universes).** This includes information about SAP BusinessObjects universes, out-of-the-box Contexts, user-defined Contexts and explains how to Import Data from Static Files using Context Designer. For details, see ["Contexts and Universes - Semantic Layer" on page 165](#).
- **Manage Contexts and KPIs.** This section provides information about adding components to a page in Dashboard to provide reports about the KPI templates currently in the KPIs Library, Contexts currently in Executive Scorecard, the structure of Contexts, the list of KPIs included in a Context, and a list of the fields with names include a specific string that are part of a Context, or that are used in a specific KPI formula. For details, see ["Contexts and KPIs-Related Reports" on page 213](#).
- **View the Data Lineage of a KPI.** The data lineage of a KPI enables you to view, in graphical format, all the entities, fields, views, tables, contexts, and more, up to the data source fields that provide the data used to calculate the KPI. For details, see [KPIs, Metrics, Contexts, and Data Source Integrations](#).
- **Work with Telkom Management Forum KPIs.** For details, see ["Work with Enhanced](#)

[Telecom Operations Map KPIs](#) on page 271.

- **Localize and Globalize IT Executive Scorecard.** For details, see "[Localization and Globalization](#)" on page 281.
- **Manage Content Acceleration Packs.** Content Acceleration Packs are used for Proof of Concepts (POCs) sessions or to start creating your own application. For details, see "[Content Acceleration Pack](#)" on page 232. You can also create your own CAPs using existing Dashboard pages, Contexts, Scorecards, KPIs, Metrics, and Data (.CSV files). For details, see "[Create Content Acceleration Packs](#)" on page 246.
- **Configure Data Warehouse Settings.** Information about Data Warehouse configuration is provided in "[Data Warehouse Settings](#)" on page 140.
- **Integrate the Data Sources.** This section provides information about the Data Source Management User Interface and a sample data source integration. For details, see "[Data Source Management](#)" on page 95. The complete integration procedures are available in the relevant *IT Executive Scorecard Content Reference Guides*.
- **Manage the ETL.** Information about the ETL Management UI is provided in "[ETL Management](#)" on page 112.
- **Partitioning.** Activate partitioning. For details, see "[Partitioning](#)" on page 262.
- **Use Entity Relationship Tools.** For details, see "[Enterprise Readiness \(ER\) Tools](#)" on page 284
- **Perform Tasks for Data Source Management.** Information about the Data Source Management UI is provided in "[Data Source Management](#)" on page 95.
- **Perform Administration Tasks for the Back-end.** Information about administration tasks that need to be performed in IT Executive Scorecard and IT Financial Management is provided in "[General Information](#)" on page 18.
- **Migrate from a Development or Test Environment to Production.** For details, see "[Migrate from Development or Test Environment to Production](#)" on page 290.
- **Back up Data Warehouse.** For details, see "[Data Warehouse Back Up](#)" on page 313.
- **Back up Executive Scorecard.** For details, see "[Executive Scorecard Back Up](#)" on page 317.
- **Perform recovery tasks.** This includes the backup tasks (Executive Scorecard, and Data Warehouse back ups). For details, see "[Disaster and Recovery](#)" on page 319.
- **Legacy and Backward Compatibility Procedures.** For details, see "[Legacy and Backward Compatibility Procedures](#)" on page 331.

# Logon

You access the Dashboard, Studio, Explorer, Finance, and Admin tabs from the main logon page:

**Note:** Only users with the required permissions can view specific tabs.

When you have completed your session, it is recommended that you log out to prevent unauthorized entry.

You access the IT Executive Scorecard application using a supported Web browser, from any computer with a network connection (intranet or Internet) to the servers. It is recommended to restore your browser settings to default.

The level of access granted to a user depends on the user's permissions. For details, see "[User Management](#)" on page 78.

You can initially access the Admin tab through the IT Executive Scorecard logon page, using your administrator user name and password, created during installation.

## Tasks

This section includes:

["Access the logon page "](#) below

["Change the default session timeout of the automatic Log out" on the next page](#)

["Configure the default lockout on log on" on the next page](#)

["Access the logon page and all tabs" on the next page](#)

["User Authentication" on page 13](#)

["User Passwords" on page 13](#)

["Working with Secure Sockets Layer \(SSL\) in a Distributed Environment" on page 13](#)

["Log out" on page 16](#)

["Shared Secret Key" on page 16](#)

### Access the logon page

To access the logon page, enter:

- **http://<full resolution host>:<port>/xs**. If you are using a non-default port you must update it in the URL. For details, see "[Web Server](#)" on page 30.
- If you are using a default http port, the port can remain empty.

The Admin tab is configured by default with Lightweight Single Sign-On (LW-SSO). LW-SSO enables you to log on and automatically have access to LW HP applications, without needing to log on to those applications. For details, see "[LW-SSO](#)" on page 21.

### Change the default session timeout of the automatic Log out

Executive Scorecard automatically performs a security log out of the XS session. When the application is idle for a set amount of time the session times out, an automatic log out occurs, and the logon screen is displayed within the XS application. The timeout is set by default to 30 minutes and can be configured using:

#### <Installation

**directory>\agora\glassfish\glassfish\domains\BTOA\applications\fnwar\WEB-INF\web.xml**

```
<session-config>
  <session-timeout>
    30
  </session-timeout>
</session-config>
```

**Note:** The automatic log out works in conjunction with the Executive Scorecard ping interval, configured in ["Website Settings" on page 138](#). You must select the **Enable Keepalive Session** check box to enable the automatic session timeout. An automatic log out occurs only after the session timeout has been attained and only on a ping request. If the ping mechanism has been turned off, then no automatic log out occurs. If a user-initiated request comes in between the time of the timeout and the ping, then the session idle time will be reset and the timer will start over again.

### Configure the default lockout on log on

Executive Scorecard logon allows you, by default, 5 consecutive logon attempts before a 15 minute lockout. You can configure the lockout parameters using the following properties file.

To configure the lockout parameters:

1. Access the following file:  
**\<HPXS>\agora\glassfish\glassfish\domains\BTOA\config\conf\bsf.properties.**
2. Search for the following parameters:
  - **accountLockoutMaxAttempts=5**
  - **accountLockoutLockoutPeriod=15**
3. Change the default logon attempts and lockout period. **0** means that there is no lockout time configured.
4. Save and restart the Glassfish service.

### Access the logon page and all tabs

1. In a Web browser, enter the **http://<server\_name>.<domain\_name>/XS** URL for the fully qualified machine where XS is installed.

2. Enter the logon parameters (logon name and password) of a user, and click **Log In**. After a successful logon, the user name appears at the top right of the page of the application.
3. Close the original logon window once the application has loaded.
4. Click the Admin tab to navigate the admin pages. Only users with the required permissions can view the Admin tab.

**Note:** To log on for the first time, use your administrator password created during installation.

## User Authentication

User authentication depends on your configuration. For details, see ["User Management" on page 78](#).

### User Passwords

Passwords can be changed in the **User Details** pane of the User Management page. Click **Edit Details** to change a user's password. For details, see ["User Management" on page 78](#).

**Note:** Depending on your configuration (working with or without SAP BusinessObjects and with or without LDAP), the handling of the password can be different. For details, see ["User Management" on page 78](#).

A password must contain the following:

- At least 6 characters.
- Characters in upper and lower case or numbers.
- Must be different from username.

For example: the user name "Jhon" cannot have a "Jhon11" or "11Jhon" password.

### Note:

- Logon parameters are case-sensitive.
- If a password does not follow the correct conventions then the user is still created in SAP BusinessObjects Enterprise, however the password is not valid and must be changed.

## Working with Secure Sockets Layer (SSL) in a Distributed Environment

When you log on to the IT Executive Scorecard application using the **http** or **https** format in a distributed environment, the following scenarios can occur:

1. **http.**

- a. When you use the **http** format to access directly the Executive Scorecard application, the authentication transfers you to the Data Warehouse application. A message states that a security certificate is issued. Click the **Continue to this website** link. In the Data Warehouse page, click the Certificate Error button in the browser toolbar. In the Certificate dialog box that opens, click the **View Certificate** link. In the wizard that opens, select the **Place all certificates in the following store**, select the **Trusted Root Certification Authorities** location, and click **OK**. Once you have installed the certificate, and entered your user and password, the Data Warehouse application transfers you back to the Executive Scorecard application.
- b. When you use the **http** format to access directly the Data Warehouse application, a message states that a security certificate is issued. Click the **Continue to this website** link. In the Data Warehouse page, click the Certificate Error button in the browser toolbar. In the Certificate dialog box that opens, click the **View Certificate** link. In the wizard that opens, select the **Place all certificates in the following store**, select the **Trusted Root Certification Authorities** location, and click **OK**. Once you have installed the certificate, and entered your user and password, the Data Warehouse application opens.

2. **https.** When you use the **https** format:

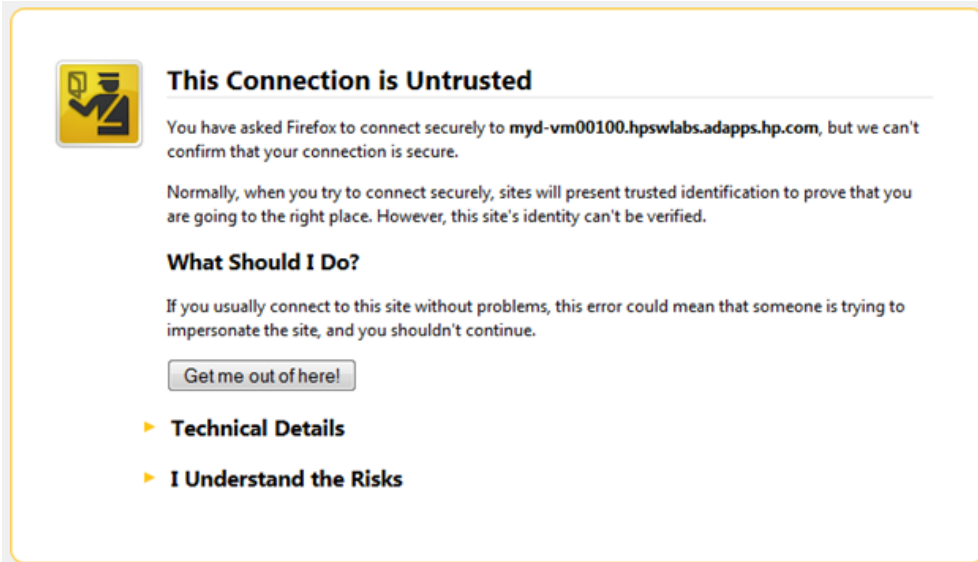
■ **IE and Chrome.**

- i. When you use the **https** format to access the Executive Scorecard application, the security certificate issue is displayed. Click the security certificate. In the Certificate dialog box that opens, click the **View Certificate** link. In the wizard that opens, select the **Place all certificates in the following store**, select the **Trusted Root Certification Authorities** location, and click **OK**. Continue running the wizard. This warning message is not displayed again. The Data Warehouse application opens in SSL mode. After performing the logon operation, you can add the Executive Scorecard certificate in the successfully launched Executive Scorecard application page, not in the application page itself. When the **Java security warning** contains the correct publisher (Hewlett-Packard Company) you should accept the **Java security warning** by marking the **Always trust content from this publisher** check box in order for this popup not to be displayed again.
- ii. When you use the **https** format to access directly the Data Warehouse application, a message states that a security certificate is issued. In the Certificate dialog box that opens, click the **View Certificate** link. In the wizard that opens, select the **Place all certificates in the following store**, select the **Trusted Root Certification Authorities** location, and click **OK**. This warning message is not displayed again. The Data Warehouse application opens in SSL mode. When the **Java security warning** contains the correct publisher (Hewlett-Packard Company) you should accept the **Java security warning** by marking the **Always trust content from this publisher** check box in order for this popup not to be displayed again.

■ **Firefox.**

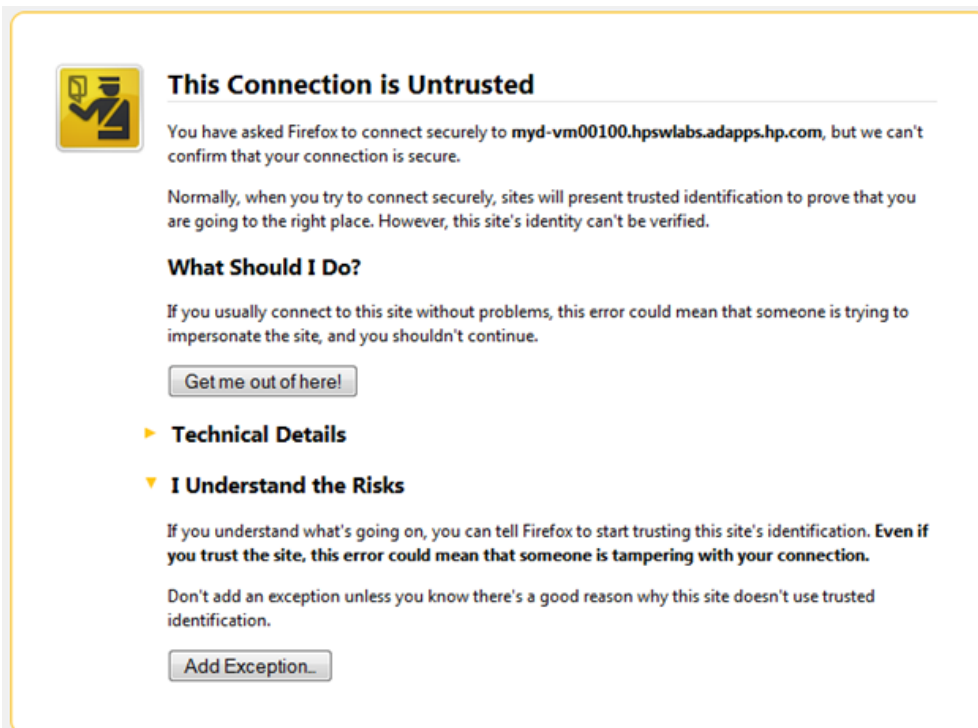
When you use the **https** format to access directly the Executive Scorecard application or the Data Warehouse application, and you work with Firefox, you must perform the following procedure:

- i. Open each of the servers using **https**. The following screen opens:



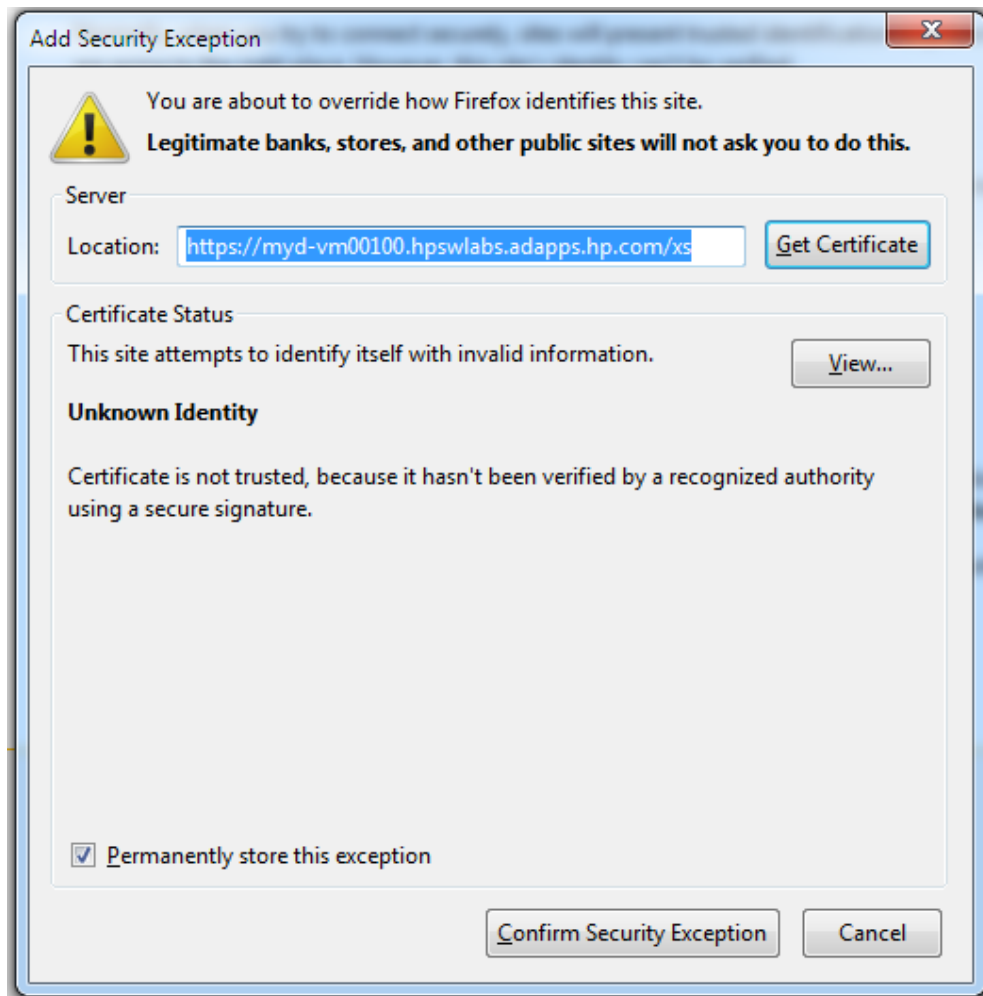
The screenshot shows a Firefox warning dialog box with a yellow border. On the left is a yellow icon of a person with a question mark. The main text reads: "This Connection is Untrusted". Below this, it says: "You have asked Firefox to connect securely to **myd-vm00100.hpswlab.adapps.hp.com**, but we can't confirm that your connection is secure." A paragraph follows: "Normally, when you try to connect securely, sites will present trusted identification to prove that you are going to the right place. However, this site's identity can't be verified." Underneath is the heading "What Should I Do?" and a paragraph: "If you usually connect to this site without problems, this error could mean that someone is trying to impersonate the site, and you shouldn't continue." There is a button labeled "Get me out of here!". At the bottom, there are two expandable sections: "▶ Technical Details" and "▶ I Understand the Risks".

- ii. Click **I Understand the Risks**. The following page opens:



This screenshot is identical to the previous one, but the "I Understand the Risks" section is expanded. It contains the following text: "If you understand what's going on, you can tell Firefox to start trusting this site's identification. **Even if you trust the site, this error could mean that someone is tampering with your connection.**" Below this is a paragraph: "Don't add an exception unless you know there's a good reason why this site doesn't use trusted identification." At the bottom, there is a button labeled "Add Exception...".

- iii. Click **Add Exception**. The following screen opens:



- iv. Click **Confirm Security Exception**.

**Note:** When you use the **https** format and you want to access SAP BusinessObjects Enterprise reports, the reports are displayed using the **http** format.

### Log out

To log out:

You can log out by clicking **Logout** (in the top right corner of the application). The session closes. To log on again, you must provide the user and password.

### Shared Secret Key

Executive Scorecard functionality requires a connection to SAP BusinessObjects Enterprise through a trusted authentication. In order to configure the trusted authentication policy you must define the shared secret key.



The shared secret key, created in the post-install process, is used by the client and the CMS to create the trusted authentication password. This password is used to establish trust.

**Note:** To change the shared secret key you must change the key in SAP BusinessObjects Enterprise, run the post-install wizard and enter the new shared secret key. For details, see the *IT Executive Scorecard Installation and Configuration Guide*.

# General Information

The following sections contain general information pertaining to the administration of Executive Scorecard , IT Financial Management, and the Data Warehouse.

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# Security Recommendations

Immediately following installation or upgrade procedures, perform the following steps.

## For MSSQL Database improved security:

- Disable `xs_cmdshell`. For details, see <http://technet.microsoft.com/en-us/library/ms175046.aspx>.
- Revoke the public permissions from `xp_instance_regread` and `xp_regread`. For details, see <http://technet.microsoft.com/en-us/library/ms187719.aspx>.

## For Database Stored Procedures:

The database contains extended stored procedures that allow read and write capabilities for sensitive data from the Windows registry.

In order to remove an extended stored procedure, use: `sp_dropextendedproc @funcname=' {name of extended stored procedure}`.

**Note:** Some applications may not work properly without these stored procedures. Make sure to verify that they are not in use by a production application before removal.

- `xp_instance_regaddmultistring`
- `xp_instance_regdeletekey`
- `xp_instance_regdeletevalue`
- `xp_instance_regenumkeys`
- `xp_instance_regenumvalues`
- `xp_instance_regread`
- `xp_instance_regremovemultistring`
- `xp_instance_regwrite`
- `xp_regaddmultistring`
- `xp_regdeletekey`
- `xp_regdeletevalue`
- `xp_regenumkeys`
- `xp_regenumvalues`
- `xp_regread`

- xp\_regremovemultistring
- xp\_regwrite

**For User Management:**

- To improve password policy, use LDAP. For details, see "[User Management](#)" on page 78.

# LW-SSO

HP Lightweight Single Sign-On is a method of access control that enables you to navigate to other HP products that implement LW-SSO without supplying credentials again. A user can log on once and gain access to the resources of HP software systems without being prompted to log on again. The applications inside the configured group of software systems trust the authentication, and there is no need for further authentication when moving from one application to another.

For details, see "[Single Sign-On Settings](#)" on page 133.

## Secure Socket Layer (SSL)

A Secure Socket Layer (SSL) connection give Executive Scorecard the ability to encrypt the network data transfer between two servers.

This section explains how to configure a Secure Socket Layer (SSL) connection between the application server and the database server or between the DWH) server and the database server.

## Tasks

### Create a Certificate

1. Pre-requisite:
  - a. Install SP3 for SQL server 2008.
  - b. Install SP2 for SQL server 2008 R2.
2. Generate a certificate and export it on your MS SQL server. You can get a certificate from a third-party CA or generate a self-certificate.

Example: You can generate a self-certificate by using the `selfssl` tool (either you can use `makecert` from .net SDK or `pvk2pfx`). You can download it from <http://www.microsoft.com/en-us/download/details.aspx?id=17275> and install it on your database server.

- a. To create a certificate using the `selfssl` tool, go to **C:\Program Files (x86)\IIS Resources\SelfSSL** and run:  
**`selfssl.exe /N:CN=<FQDN> /K:1024 /V:7 /S:1 /P:442 /T`**

where **<FQDN>** is the database server full qualified domain name and **/V:7** indicates the number of days after which the certificate expires.

Enter **y** to the **Do you want to replace the SSL settings for site 1?** question.

### Open the Certificate

Open the Certificate snap-in and proceed as follows:

1. Open the MMC console, click **Start**, and then click **Run**.
2. In the Run dialog box type: **MMC**.
3. In the Console menu, click **Add/Remove Snap-in....**
4. Click **Add**, and then click **Certificates**.
5. Click **Add** again.
6. You are prompted to open the snap-in for the current user account, the service account, or for the computer account. Select the **Computer Account**.
7. Select **Computer computer**, and then click **Finish**.
8. Click **Close** in the **Add Standalone Snap-in** dialog box.
9. Click **OK** in the **Add/Remove Snap-in** dialog box.

Your installed certificates are located in the **Certificates** folder in the **Personal** container.

#### **Export the certificate**

1. In the MMC console, expand the list tree to access **Certificates under Trusted root certification authorities**.
2. Right-click the name of the certificate you created.
3. Click **Export** in all **tasks**.
4. Click **Next**, **Next**, and **Next**.
5. Input the **path** and the **name** of the file you want to save.
6. Click **Save**, **Next**, and then **Finish**.

#### **Configure your MS SQL server**

1. Run the SQL server Configuration Manager.
2. Expand the **SQL server network Configuration**, right-click the **Protocols** of the MSSQLSERVER, and click **Properties**.
3. In the Certificate tab, select the certificate name that was created in ["Export the certificate" above](#), and click **OK**.
4. Restart the SQL server engine.

#### **Generate a trust store**

Generate a trust store using Java keytool in your application server and DWH server.

1. Copy the certificate you created in "[Create a Certificate](#)" on page 21 to the application server and the DWH server.
2. Go to **<HPXS>\agora\jdk\bin**.
3. Run **keytool -import -alias SGDLITVM0078.fpazsh.com -file C:\Users\Administrator\Desktop\test.cer -keystore c:\truststore**
4. Input the trust store password.

### **Configure JDBC connection pool in your application server and DWH server**

Perform the following in both the application server and the Data Warehouse (DWH) server:

1. In the application server and in the DWH server, open a Browser, and open **http://127.0.0.1:10001**.
2. Expand the list tree and click **Resources > JDBC > JDBC Connection Pools**:
  - a. Click **CentralDBConnectionPool**.

In the right frame, click **Additional Properties > Add Property**.

- Input Name "EncryptionMethod", Value "SSL"
- Input Name "TrustStore", Value "C:\\Mytruststore"
- Input Name "TrustStorePassword", Value "Mypassword"

- b. Click **Save**.

- a. Click **DataDbConnectionPool**.

In the right frame, click **Additional Properties > Add Property**.

- Input Name "EncryptionMethod", Value "SSL"
- Input Name "TrustStore", Value "C:\\Mytruststore"
- Input Name "TrustStorePassword", Value "Mypassword"

- b. Click **Save**.

- a. Click **ManagementDbConnectionPool**.

In the right frame, click **Additional Properties > Add Property**.

- Input Name "EncryptionMethod", Value "SSL"
  - Input Name "TrustStore", Value "C:\\Mytruststore"
  - Input Name "TrustStorePassword", Value "Mypassword"
- b. Click **Save**.
- a. Click **TargetDbConnectionPool**.
- In the right frame, click **Additional Properties > Add Property**.
- Input Name "EncryptionMethod", Value "SSL"
  - Input Name "TrustStore", Value "C:\\Mytruststore"
  - Input Name "TrustStorePassword", Value "Mypassword"
- b. Click **Save**.
3. Test the connection: click the **General** tab, and then click the **Ping** button.



# Logs

IT Executive Scorecard records the procedures and actions performed by the various components in log files. The log files are usually designed to serve HP Software Support when Executive Scorecard does not perform as expected. The default severity threshold level for log files differs per log, but is generally set to either Warning or Error.

You can view log files with any text editor.

## Log File Locations

The following tables list the log files created in an Executive Scorecard implementation by component.

### Common Component Log Files

Description	Log Filename	Location
Records all requests processed by the server.	<b>access.log</b>	<Installationdirectory> \agora\webserver\logs
The server error log is the most important log file.  This is the place where Apache httpd sends diagnostic information and records any errors that it encounters when processing requests. It is the first place to look when a problem occurs with starting or operating the Web Server.	<b>error.log</b>	<Installationdirectory> \agora\webserver\logs
	<b>install.log</b>	<Installationdirectory> \agora\webserver\logs

Description	Log Filename	Location
Contains information about communications between the Web Server and the application server (Glassfish).	<b>jk.log</b>	<Installationdirectory> \agora\webserver\logs
Log records of all secured requests processed by the Web Server.	<b>ssl_request.log</b>	<Installationdirectory> \agora\webserver\logs
Logs the post-install flow. Is useful when the post-install configuration wizard fails.	<b>ConfigWizard.log</b>	<Installationdirectory> \agora\confwizard\log
Logs file parsing tasks during post-install configuration wizard.	<b>FileParser.log</b>	<Installationdirectory> \agora\confwizard\log
Logs application loading and permission enforcement related to the application framework.	<b>applicationfw.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
Logs requests for authentication and population of user roles and permissions.	<b>athN.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
Logs user management user interface details.	<b>auil.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs

Description	Log Filename	Location
Logs the usage of SAP BusinessObjects services, including issues locating the SAP BusinessObjects CMS.	<b>bo-services.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
BTO Security Framework (BSF) server side logs authentication information about authn, LW-SSO, and user mng.	<b>bsf.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
Logs the usage of foundation services.	<b>btoe-services.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
Logs SAP BusinessObjects datalayer transactions such as problems with SAP BusinessObject Universes or queries.	<b>datalayer.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
Foundation core components log.	<b>foundation.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
Hibernate log .	<b>hibernate.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
JVM general log.	<b>jvm.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
Licensing logs.	<b>license-services.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
Properties table logs.	<b>properties.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
General GlassFish log.	<b>server .log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
Settings management logs	<b>settings.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs

Description	Log Filename	Location
Logs authentication details related to IDM and LW SSO.	<b>sso.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
User Interface mash-up logs.	<b>uim.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
User Management actions log, including problems with communication to SAP BusinessObjects.	<b>userMng.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
MQ Broker service log.	<b>log.txt</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\domain1\imq\instances\imqbroker_host1\log

### Executive Scorecard Log Files

Description	Log filename	Location
Logs all the dashboard's server side logs.	<b>dashboard.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
Logs general information for Executive Scorecard Studio, the client module used for tailoring Executive Scorecard.	<b>studio.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
Logs general information about the engine, and KPIs.	<b>engine.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs
Provides a summary of calculation cycles, and statistics about KPI engine performance.	<b>engine_statistics.log</b>	<Installationdirectory> \agora\glassfish\glassfish\domains\BTOA\logs

### Data Warehouse Log Files

Log files can be accessed under:

- **datawarehouse\logs**
- **C:\<Installationdirectory>\agora\glassfish\glassfish\domains\btoa\logs\server.log**

All information in the Data Warehouse log files is automatically sent to the Windows Event Viewer Application log.

**To access Data Warehouse log information:**

1. On the Windows taskbar, click **Start > Administrative Tasks > Event Viewer**.
2. Expand **Windows Logs**, right-click **Application**, and then click **Filter Current Log**.
3. Select the relevant **Event Levels**, select the relevant **Event Sources**, and then click **OK**.

All the Data Warehouse Event Sources begin with the DWH string.

# Web Server

IT Executive Scorecard uses the Apache web server for securing the application and caching static content in order to improve client performance. The web server is installed and configured in the deployment procedure and does not require any changes or maintenance.

The default ports are listed in the *IT Executive Scorecard Support Matrix*. If you use a non default port for the URL, you must enter the application using **http://<host>:<port number>/xs** or **http://<host>:<port number>/dwh**.

**Note:** These ports can be configured to any other ports in the deployment procedure.

# Cryptography

The encryption properties files are located in **<Installationdirectory>\agora\conf**. The path can be determined by setting the **crypt.conf.dir.path** system property to the relevant path. The management database credentials are encrypted locally on each server. You must also store all the relevant configuration for decrypting locally.

The following encryption keys are available:

- **Encryption Key:** Single shared key for all servers shared through the database. Stored on each machine locally in the encryption properties files as part of the post-install procedure.
- **Seed Key:** Key that is generated after each post-install procedure. The main encryption key is stored in the seed key.

# IT Executive Scorecard Supervisor

The HP IT Executive Scorecard Supervisor monitors whether the Executive Scorecard server processes are up and running.

The Supervisor consists of two elements:

- The management element manages (starts/stops/monitors) the Web Server, MQ Broker, and Glassfish components that are services. The Supervisor manages them in the following order:
  - a. Web Server
  - b. MQ Broker
  - c. Glassfish
- The watchdog element monitors processes. If a process is down, the Supervisor Watchdog tries to start it automatically.

The Supervisor is a service that works on Windows.

Contact [HP Software Support Online](http://www.hp.com/go/hpsoftwaresupport) web site (<http://www.hp.com/go/hpsoftwaresupport>) if the monitor cannot start the Supervisor process.



# Xcelsius

You can use Xcelsius to display Flash reports or dashboards over Executive Scorecard target schemas.

You can create Xcelsius reports based on SAP BusinessObjects Enterprise Webi reports. For details on the pre-defined Webi reports provided with Executive Scorecard, see [Xcelsius Reports](#) in the *IT Executive Scorecard Reports Reference Guide*.

You can then add these reports to Dashboard page using the Xcelsius components. For details, see [Add a SWF Report Viewer Component to a Page](#) or [Add Xcelsius Reports Viewer Component to a Page](#) in the *IT Executive Scorecard Business Analyst Guide*.

The Installation Media for Xcelsius as well as the Xcelsius Installation Guide are provided on a separate installation disc that you can download (TB812-15009.ISO). The disc also includes non-core utilities and 3rd party application that enhance Executive Scorecard.

# Start Menu

During the installation, a start menu is added to the settings of the machine on which Executive Scorecard was installed.

You can use the Start menu to perform the following tasks:


Launch Executive Scorecard Using the Start Menu .....	35
Start the Post-Install Wizard Using the Start Menu .....	35
Renew your License Using the Start Menu .....	35
Enable or Disable the Glassfish Web Server using the Start Menu .....	36
Uninstall HP IT Executive Scorecard Using the Start Menu .....	37
Access the Documentation Library and the Installation and Configuration documents using the Start Menu .....	38

# Launch Executive Scorecard Using the Start Menu

During the installation, a start menu is added to the settings of the machine on which Executive Scorecard was installed. You can launch Executive Scorecard using the Start menu.

## Tasks

### Launch Executive Scorecard

1. To access the IT Executive Scorecard start menu that is added to each machine, select **Start > Programs > HP Executive Scorecard**.
2. Select  **HP Executive Scorecard**.

This launches IT Executive Scorecard.

# Start the Post-Install Wizard Using the Start Menu

During the installation, a start menu is added to the settings of the machine on which Executive Scorecard was installed. You can start the post-install wizard using the Start menu.

## Tasks

### Start the Post-Install wizard

1. To access the IT Executive Scorecard start menu that is added to each machine, select **Start > Programs > HP Executive Scorecard**.
2. Select **Configuration Wizard**.

Follow the steps in the Configuration Wizard that opens.

# Renew your License Using the Start Menu

During the installation, a start menu is added to the settings of the machine on which Executive Scorecard was installed. You can renew your license using the Start menu. For details, see ["Licenses" on page 39](#).

# Enable or Disable the Glassfish Web Server using the Start Menu

During the installation, a start menu is added to the settings of the machine on which Executive Scorecard was installed. You can enable or disable the Glassfish Web Server using the Start menu.

## Tasks

["Enable the Glassfish Web Server Using the Start Menu " below](#)

["Disable the Glassfish Web Server Using the Start Menu " below](#)

### Enable the Glassfish Web Server Using the Start Menu

1. To access the IT Executive Scorecard start menu that is added to each machine, select **Start > Programs > HP Executive Scorecard**.
2. Select **Enable HP Executive Scorecard**.

This enables the Glassfish Web Server. Users can access IT Executive Scorecard.

### Disable the Glassfish Web Server Using the Start Menu

1. To access the IT Executive Scorecard start menu that is added to each machine, select **Start > Programs > HP Executive Scorecard**.
2. Select **Disable HP Executive Scorecard**.

This disables the Glassfish Web Server. Users cannot access IT Executive Scorecard.

# Uninstall HP IT Executive Scorecard Using the Start Menu

During the installation, a start menu is added to the settings of the machine on which Executive Scorecard was installed. You can use the Start menu to uninstall IT Executive Scorecard.

## Tasks

### Uninstall HP IT Executive Scorecard Using the Start Menu

1. To access the IT Executive Scorecard start menu that is added to each machine, select **Start > Programs > HP Executive Scorecard**.
2. Select **Uninstall HP Executive Scorecard**.

This uninstalls the IT Executive Scorecard on the server.

IT Executive Scorecard is first uninstalled in silent mode and then the uninstall wizard appears.

# Access the Documentation Library and the Installation and Configuration documents using the Start Menu

During the installation, a start menu is added to the settings of the machine on which Executive Scorecard was installed. You can use the Start menu to access the *IT Executive Scorecard Installation and Configuration Guide* and the Online Documentation Library Help Center.

## Tasks

### Access the HP Executive Scorecard Deployment Guide Using the Start Menu

1. To access the IT Executive Scorecard start menu that is added to each machine, select **Start > Programs > HP Executive Scorecard**.
2. Select **HP Executive Scorecard Deployment Guide**.

This opens the *IT Executive Scorecard Installation and Configuration Guide*.

### Access the Online Documentation Library Using the Start Menu

1. To access the IT Executive Scorecard start menu that is added to each machine, select **Start > Programs > HP Executive Scorecard**.
2. Select **HP Executive Scorecard Documentation Library**.

This opens the HP Executive Scorecard Documentation Library Help Center in your Web browser.

# Licenses

This section explains how to renew a license using the Start menu and how to check if all your user licenses are valid.

**To access:**

Click **Help > About** in the upper right corner of the application.

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" below](#)

## Learn More

Two types of licenses are available:

- **Power Named User License.** This license is for every type of user with no limitation on the permissions.
- **Casual Named User/Viewer License.** This license is for users with a very limited set of permissions.

You cannot purchase a standalone **Casual Named User/Viewer License**. With the **Casual Named User/Viewer License** you must also purchase at least one **Power Named User License** (you must apply 2 License Keys).

### Example

- If you want 50 Viewer users, you must purchase at least 1 **Power Named User License** (Advanced user) and 50 **Casual Named User/Viewer Licenses** (for the Viewer users).
- If you want 10 Advanced users and 15 Viewer users, you must purchase 10 **Power Named User Licenses** (for the Advanced users) and 15 **Casual Named User/Viewer Licenses** (for the Viewer users).

## Tasks

This section includes:

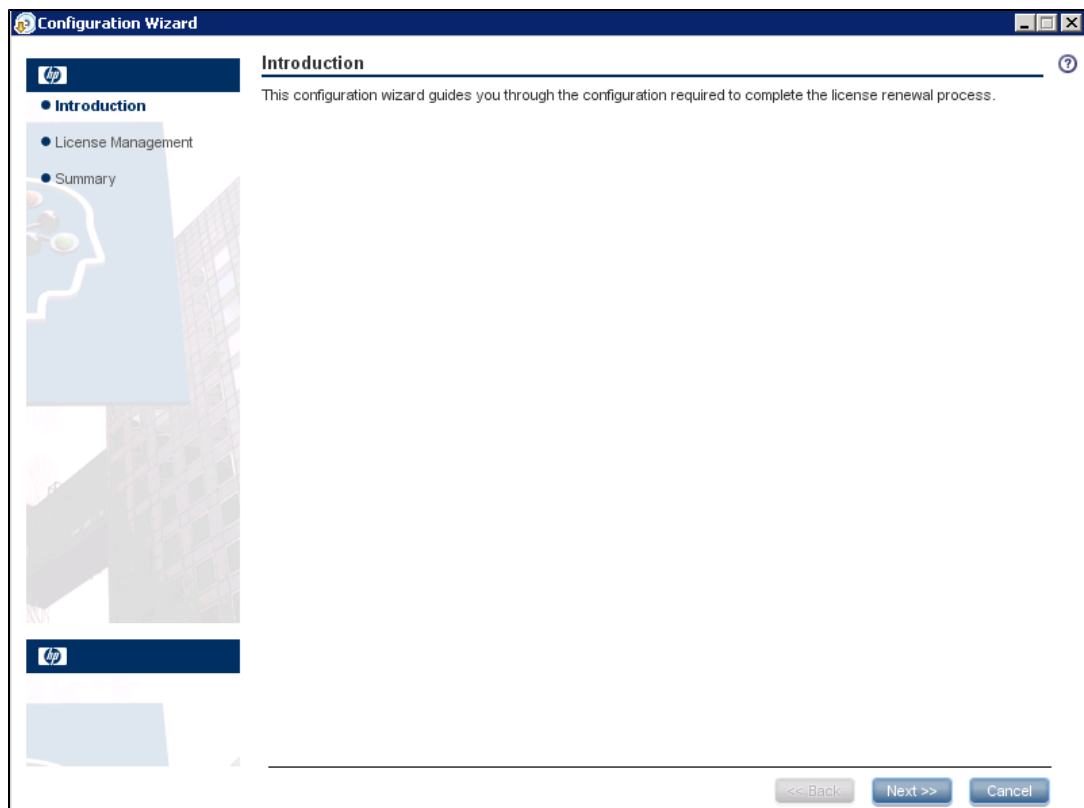
["Renew your license using the Start menu" below](#)

["Check users licenses" on page 43](#)

### Renew your license using the Start menu

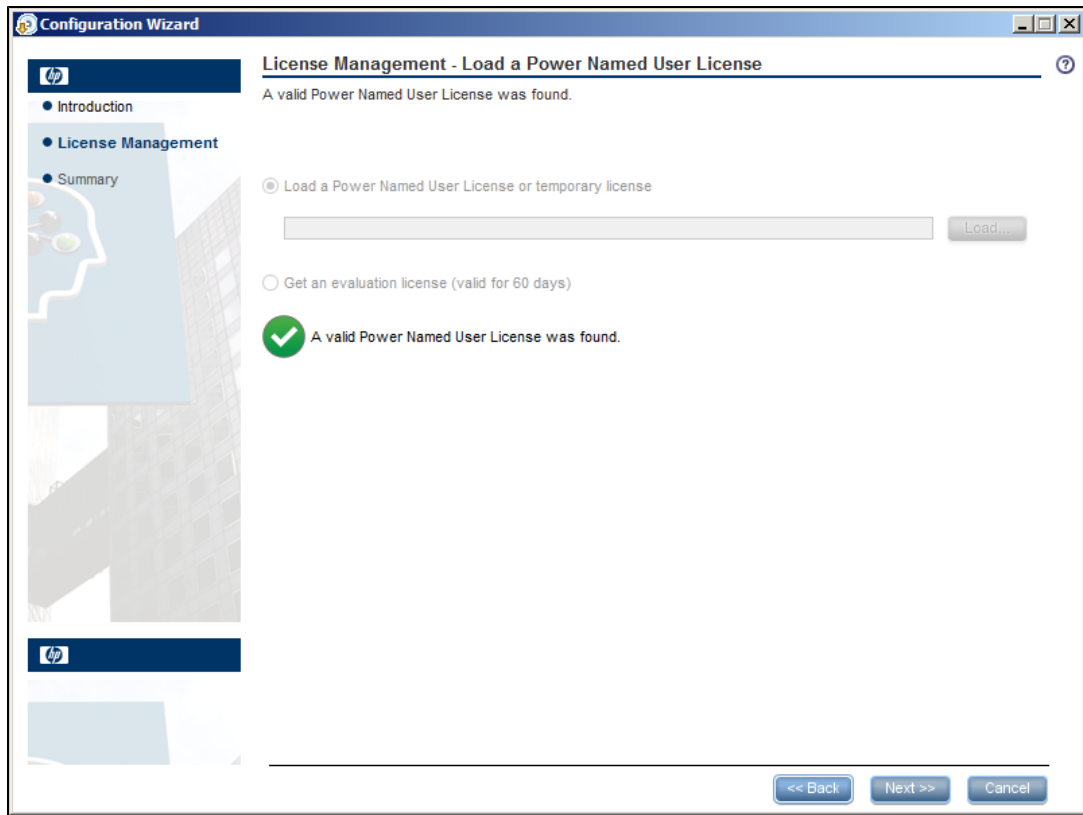
1. To access the IT Executive Scorecard start menu that is added to each machine, select **Start > Programs > HP Executive Scorecard**.
2. In the Administration folder, select **License Renewal**.

The Introduction page opens.

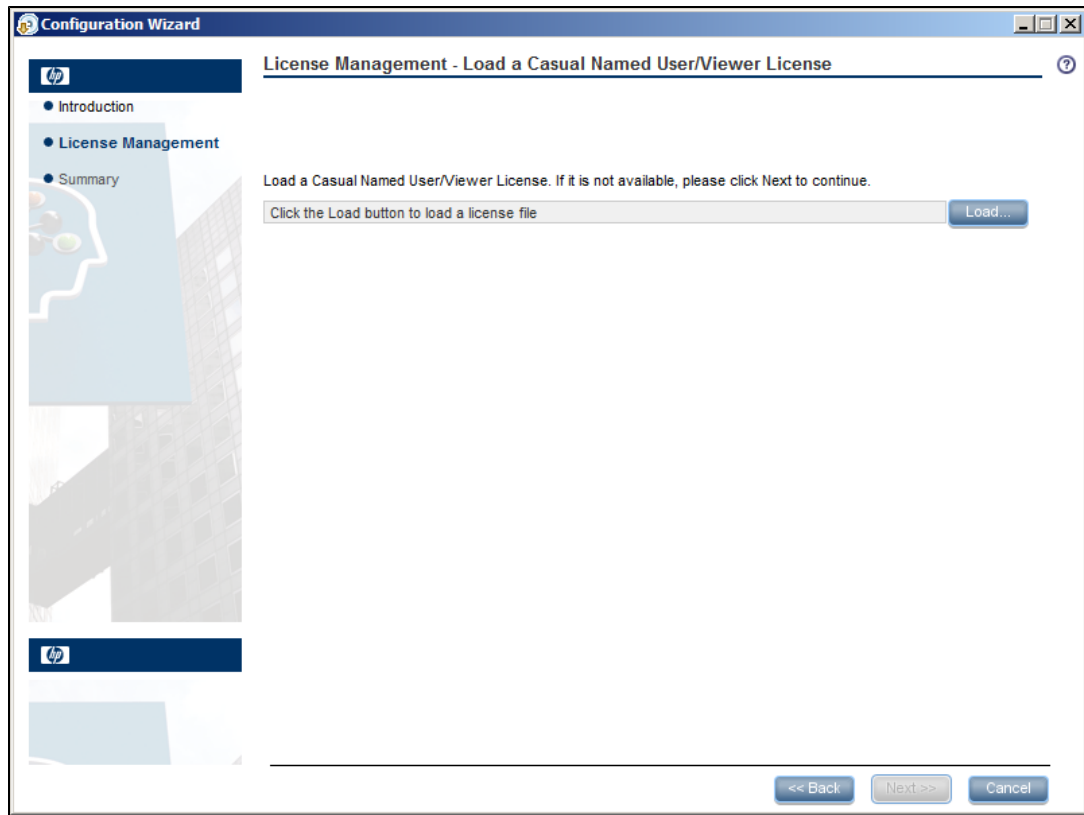


3. Click **Next**. The **License Management - Load a Power Named User License** page opens. If a valid Power Named User License was found, the message **A valid Power Named User License was found** is issued.

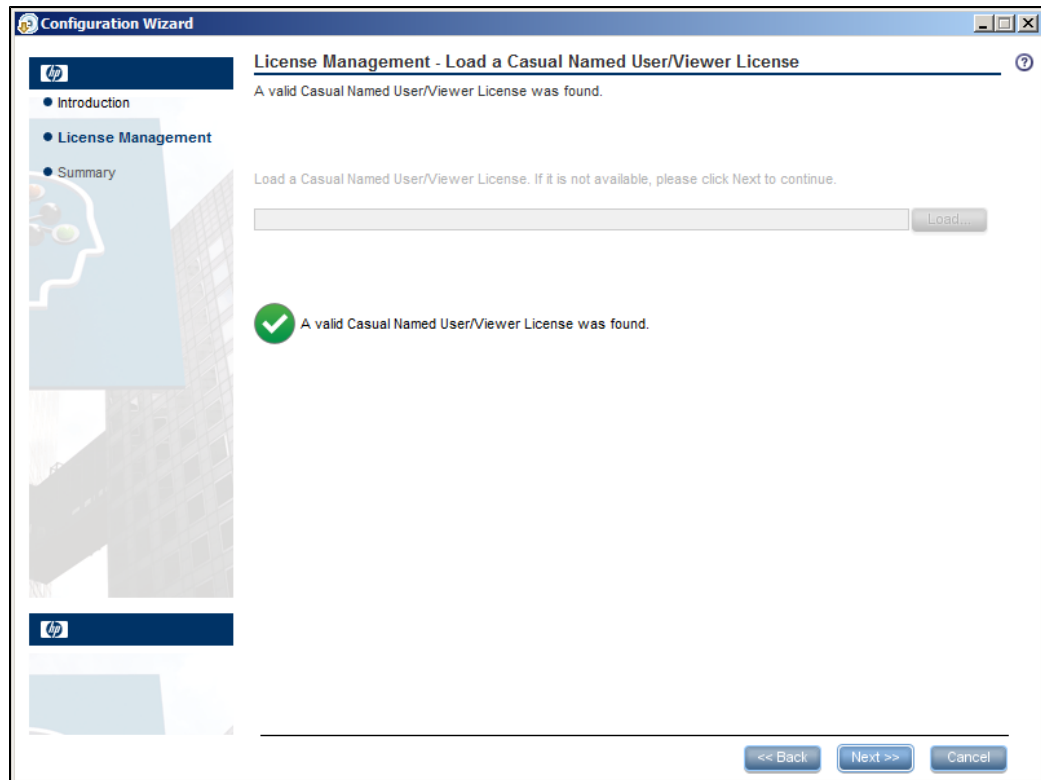




4. Click **Next**. The **License Management - Load a Viewer License** page opens.



- a. If you have a Casual Named User/Viewer License, click **Load** to load it. When the operation performs successfully, the message **A valid Casual Named User/Viewer License was found** is issued. Click **Next** to complete the renewal.



- b. If you do not want a Casual Named User/Viewer License, click **Next** to complete the renewal.

## Check users licenses

You can check if all the users of the application have valid licenses.

### 1. Prerequisites:

If you are working with LDAP users, make sure you have performed the appropriate procedures. For details, see ["User Management" on page 78](#).

### 2. Get the user license information:

- a. Use an authorized HP user to log on to the customer's Executive Scorecard installation.
- b. Click **Help > About** in the top right-hand corner of the application display.

The type of license (temporary or permanent), the number of registered users and the number of licensed seats (the number of purchased licenses) are displayed.

**hp** IT Executive Scorecard

Version Information:  
Executive Scorecard 9.41.00-SNAPSHOT, build 28725

Patch and Content Packs information:

Installed Patches:  
No installed patches

Installed Content Packs:  
No installed content packs

License Information:

Power Named User Licensed Seats:	100
Power Named Registered Users:	1
Casual Named User/Viewer Licensed Seats:	0
Casual Named Registered Users/Viewer:	0


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OK

- c. Click the number of users to view the details of the users. A list of the users is displayed.

When users do not have a valid license, a red icon is added to the right of the Registered users indication:

**Note:** An error image to the left of Registered Users and a tooltip indicate if there has been a breach of contract. User that are not part of the Viewer Users Group are considered Advanced Users and are counted accordingly.



## IT Executive Scorecard

Version Information:

Executive Scorecard 9.41.00-SNAPSHOT, build 28725

Patch and Content Packs information:

Installed Patches:

No installed patches

Installed Content Packs:

No installed content packs

License Information:

Power Named User Licensed Seats:	100
✖ Power Named Registered Users:	101
Casual Named User/Viewer Licensed Seats:	0
⚠ Casual Named Registered Users/Viewer:	2

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OK

# Chrome and BOE Reports

If you are using the Chrome browser and your Dashboard pages include SAP BusinessObjects Enterprise (BOE) reports, you are presented with a shield icon in the browser address bar each time you start the application. This creates an extra step to tell the browser to run the content.

## Tasks

You can decide to allow the running of insecure content per session or by default.

This section includes:

["Allow the running of insecure content per session" below](#)

["Allow the running of insecure content by default" below](#)

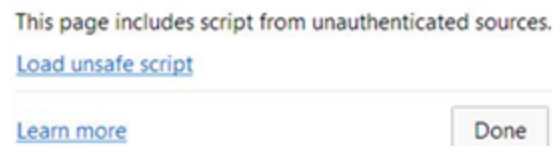
### Allow the running of insecure content per session

When you open Executive Scorecard in Chrome and the shield icon appears in the top right corner of your application:

1. Click the shield.



2. In the dialog box that opens, click **Load unsafe script**:

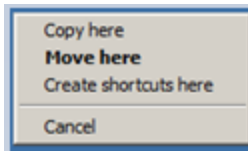


You can now view BOE reports in Dashboard pages.

### Allow the running of insecure content by default

To run BOE reports in Dashboard pages in Chrome, you must set Chrome to allow the running of insecure content by default by adding the **-allow-running-insecure-content** parameter to the start up of the shortcut.

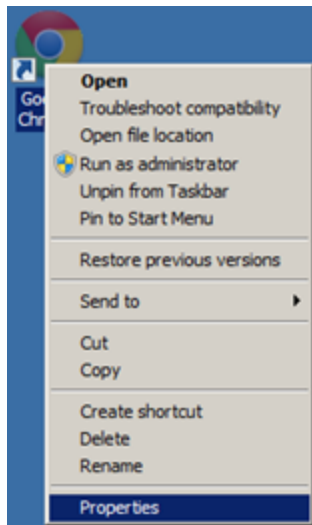
1. Create a Chrome shortcut on the desktop by right-clicking and dragging the Chrome browser from the **Windows> Start** menu to the desktop, and select **Create shortcuts here**.



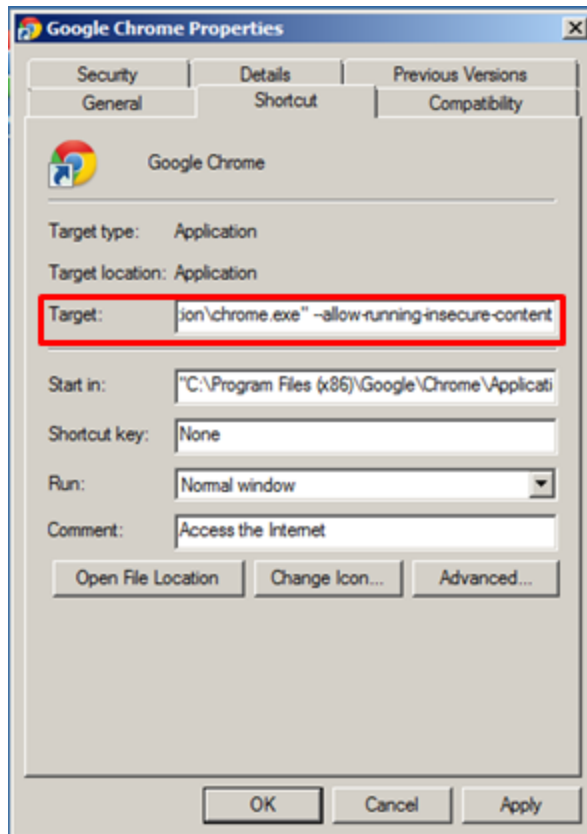
You now have a Chrome shortcut on the desktop.



2. Right-click the shortcut and select **Properties**.

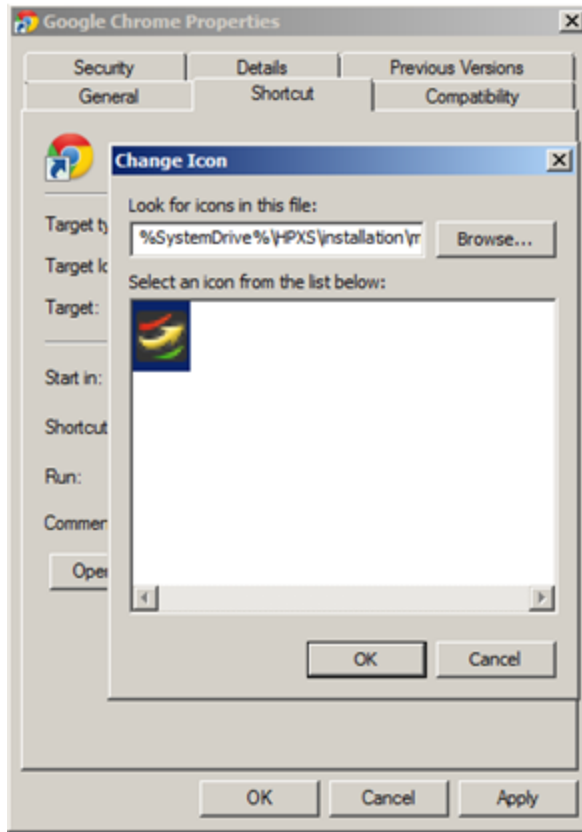



3. In the Target field, add **–allow-running-insecure-content** at the very end of the string that is already there.

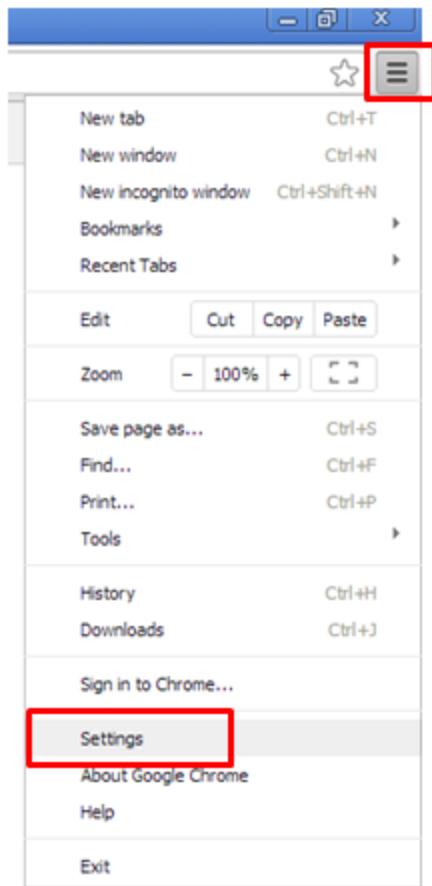


4. Click **Change Icon**.
5. In the Change Icon dialog box, in the **Look for icons in this file** field, replace the current directory string with: **%SystemDrive%\HPXS\installation\misc\launcher.ico**. Click **OK**. Click **OK** again to change the icon to the XS launcher icon. Then click **Apply** to apply all of the changes.





6. In the your desktop, double-click the shortcut icon to start the Chrome browser. Then click  and select **Settings**.

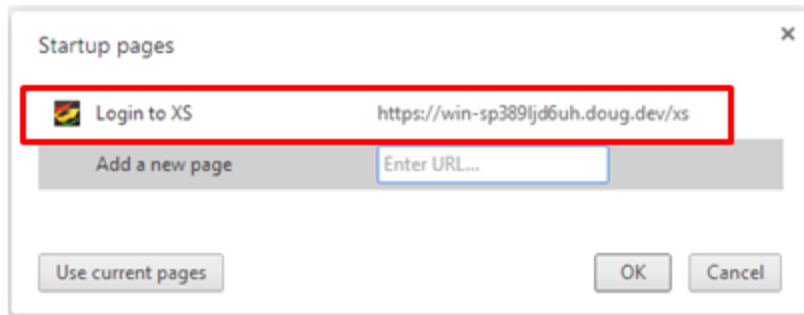


7. In the **On Startup** section, select **Open a specific page or set of pages** and click **Set pages**.

On startup

- Open the New Tab page
- Continue where I left off
- Open a specific page or set of pages. [Set pages](#)

8. In the URL box enter the URL for Executive Scorecard, for example: **https://systemFQDN/xs**. Then click **OK** to save the changes.



9. Close the Browser and then restart it to test the changes. You should be presented with an Executive Scorecard logon screen.
10. Log in and test to make sure that the BOE reports are displayed without the security icon.

# Users, Roles, Resources, and Permissions

You use users, roles, resources, and permissions to configure who can do what and who can see what data in XS.

## Learn More

### Resources

A resource is a logical group of one or more XS application data items (for example Dashboard pages, Scorecards, Budgets, or Budget Cost Centers). Once you define resources, you can attach the resource to a permission.

### Roles and Permissions

Each role is a set of permissions. Permissions define which actions the user can perform and on which resources. For example, you can create a role that enables its users to create Dashboard pages.

### Users and Groups

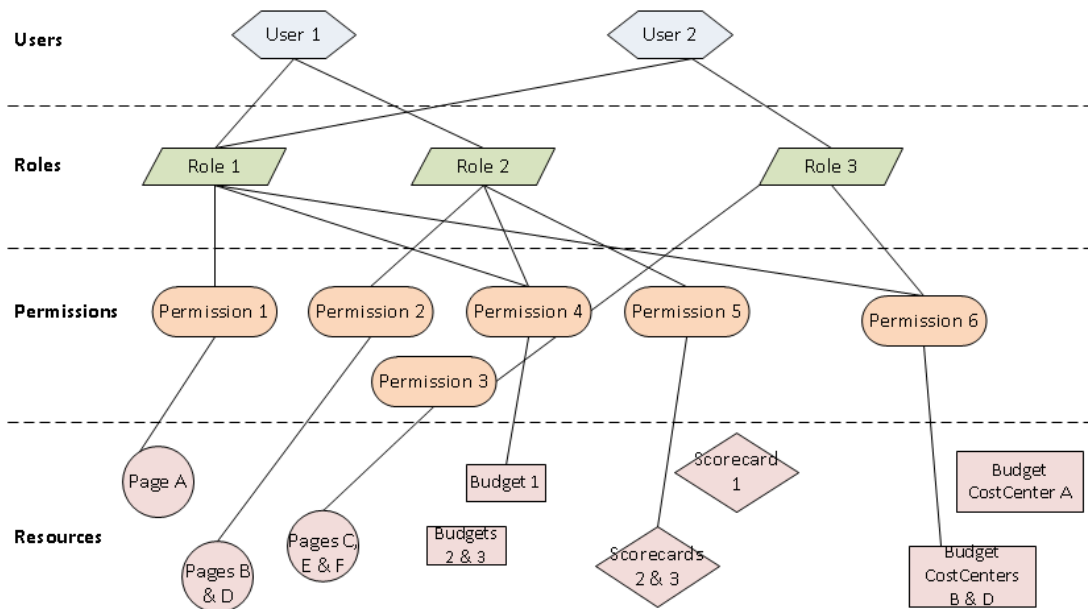
Each user has a list of roles that define their permissions. When you assign a role, that user only has access to specific portions of the application and specific resources that are relevant to their role. You can also define groups of users with the same roles or access rights. When you attach a user or group to a group, the user or group inherits all of the group's roles.

Typical users are:

Term	Description
<b>Viewer Users</b>	Users that have limited permissions and in most cases can only view content in the Dashboard and Explorer without any option to modify it. They will not have access to the Studio, Finance and Admin tabs. In some cases we refer to them as Viewer users
<b>Advanced Users</b>	All users that are not Viewer users (including users under the Administrator group, Scorecard Administrator Group and users that are not under any group).
<b>Scorecard Administrator</b>	Type of Advanced user with permissions to create Scorecards and Dashboard pages
<b>Super-Admin</b>	Super user, a subset of the Advanced User – normally this user deals with the installation, foundation and permission issues. This user is the Admin user that was created during installation.

### Diagram

The following diagram illustrates the relationship between users, groups, roles, permissions, and resources in the Admin tab.



## Tasks

The Administrator uses the Admin tab to define users that have roles, which contain a set of permissions that may contain resources. It is recommended to create resources and attach them to permissions first in the user management process.

1. ["Resource Management" on the next page](#)
2. ["Role Management" on page 60](#)
3. ["User Management" on page 78](#)

# Resource Management

The Resource Management page enables you to view resource and resource types, as well as create a resource. You can also select instances or application data or components that comprise a resource.

## To access:

Select **Admin > Users and Roles > Resource Management**.

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" below](#) ● ["UI Description" on the next page](#)

## Learn More

Actions users can perform depend on their roles and permissions. Resources are the basis for user and role management. For each user or group, you assign a set of permissions called 'Role' that allow to perform specific actions on specific resources.

- **Resources.** A resource is a logical group of one or more application data sets or components. Once you define resources, you attach the resource to a permission.
- **Instances.** An instance is an application data or components that can be managed by a user according to the user's permissions.

Instances are the available application data or components defined in the system.

**Note:** Users that are created in the Admin tab and require permissions to view reports pages must be assigned those permissions in SAP BusinessObjects Enterprise.

- **Scorecard Resources.** XS enables you assign specific Scorecard resources to a user. Additionally, you can restrict user permissions and only allow them to view Scorecards, Dashboard pages and data that they have been assigned by the Administrator.

## Tasks

This section includes:

["Create a resource:" below](#)


["Manage instances:" on the next page](#)

### Create a resource:

1. Select **Admin > Users and Roles > Resource Management**.
2. In the **Resources** area, select the type of resource (**Budget Cost Centers, Budgets, Pages, or Scorecards**) in the tree, and click **Create resource** ✦ to create a new resource.

3. Enter the name of the resource in **Resource** and a description in **Details**.
4. Click **OK** to save your new resource.

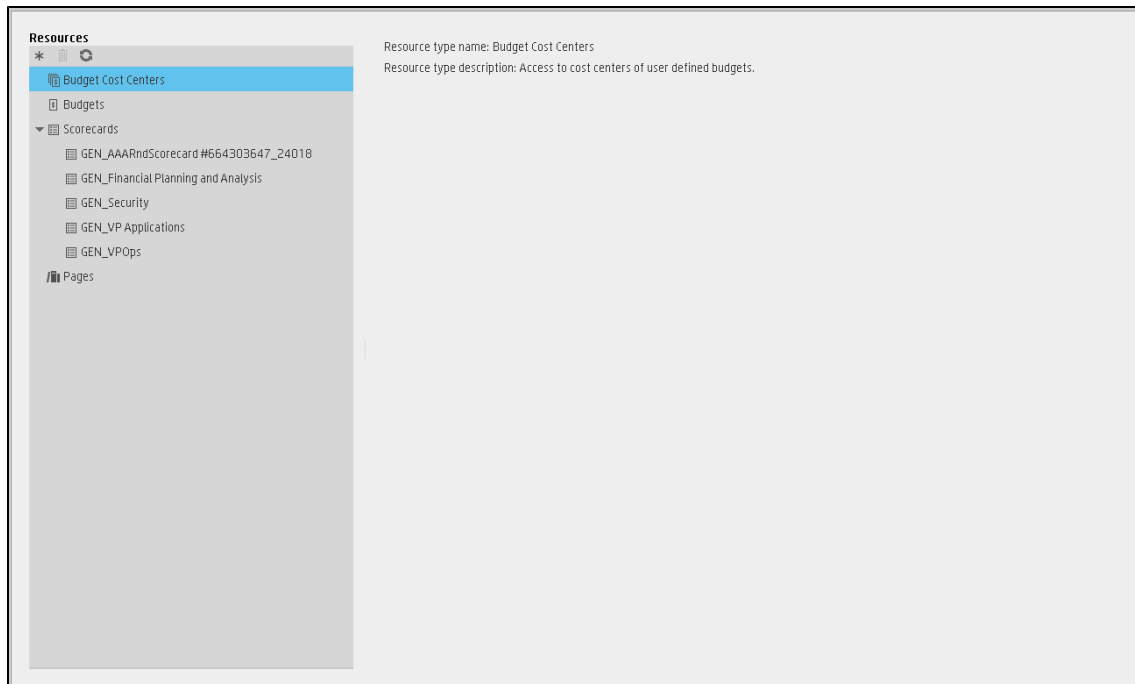
### Manage instances:

1. Select **Admin > Users and Roles > Resource Management**.
2. Select a resource in the **Resources** area.
3. In the **Instances** area of the **Resource Details** pane click **Add instances**  to open the Manage Instances dialog box. Instances are the available application data or components defined in the system that are attached to resources.
4. Select the instance from the **Available Instances** list and use the arrows to move the instance to the **Selected Instances** list.
5. Click **OK** to save your changes.

## UI Description




### Resource Management Page

Click  to refresh the page.



## Resources Pane

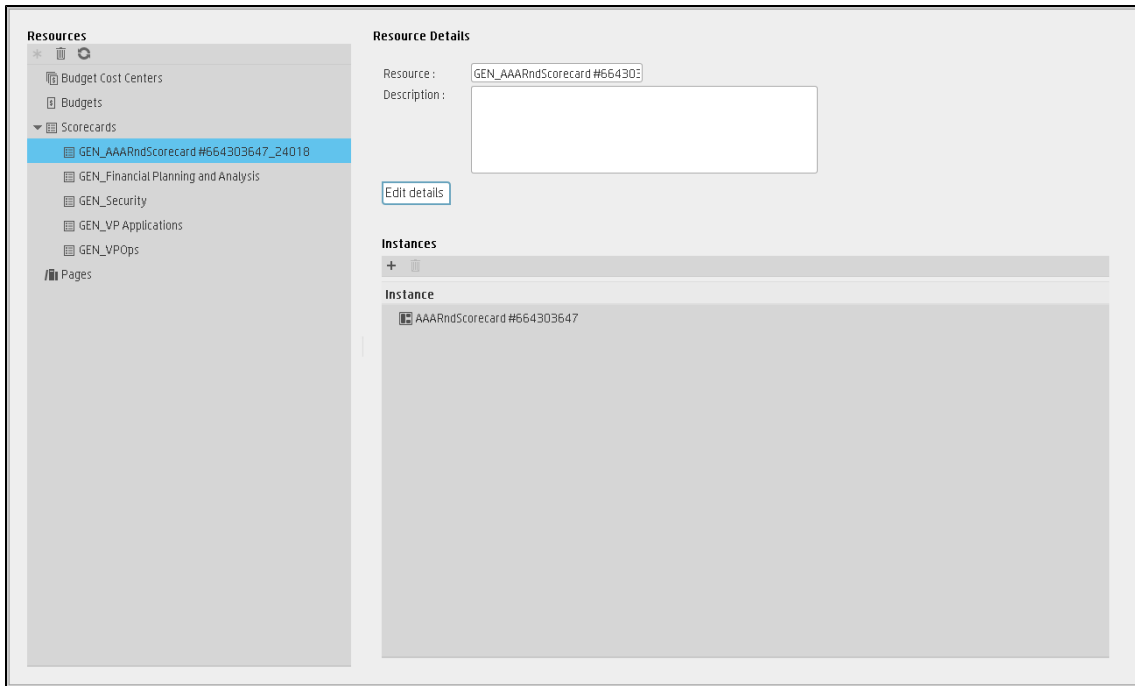
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
	<p>Select a resource and click <b>Create resource</b> to open the <b>Create new resource</b> dialog box and create a new resource of that type.</p> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p><b>Create new resource</b> <span style="float: right;">×</span></p> <p>Resource : <input type="text"/></p> <p>Description : <input style="width: 100%; height: 50px;" type="text"/></p> <p style="text-align: right;"> <input type="button" value="OK"/> <input type="button" value="Cancel"/> </p> </div> <p>After you create the new resource, the Resource Details pane opens. For details, see "<a href="#">Resource Details Pane</a>" below.</p>
	<p><b>Delete Resource.</b> Deletes the selected resource.</p> <p>If the resource is the only resource attached to a permission and that permission is attached to any roles, deleting the resource detaches the corresponding permissions from these roles.</p>
	<p><b>Refresh.</b> Refreshes the displayed information.</p>
<p><b>&lt;Resources Tree&gt;</b></p>	<p>Contains the resource types and the resources defined for each type.</p> <p>By default, the tree includes the following resource types:</p> <ul style="list-style-type: none"> <li>• Budget Cost Centers</li> <li>• Budgets</li> <li>• Scorecards</li> <li>• Pages</li> </ul>



## Resource Details Pane

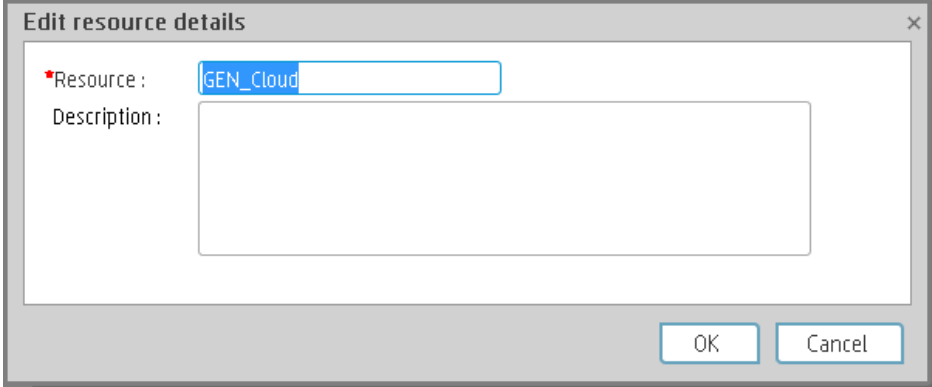
When you select a resource in the **Resources** pane, the details appear in this pane.






User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

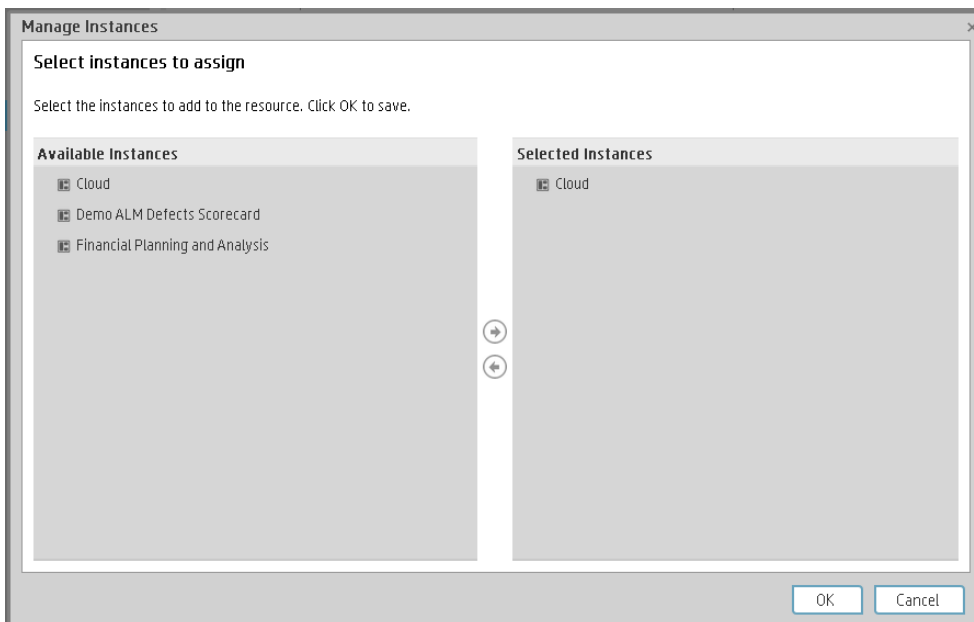
UI Element	Description
<b>Resource type name</b>	The name of the selected resource type. This information is displayed when you set the cursor on one of the resource types in the Resources pane.
<b>Resource type description</b>	The description of the selected resource type. This information is displayed when you set the cursor on one of the resource types in the Resources pane.
	<p><b>Add Instances.</b> Adds instances to the selected resource. Opens the Manage Instances dialog box.</p> <p>Each resource can have one or more assigned application data or component instances.</p> <p>In the Manage Instances dialog box, select a page from the <b>Available Instances</b> list and use the arrows to move the instance to the <b>Selected Instances</b> list. For details, see "<a href="#">Manage Instances Dialog Box</a>" on the next page.</p> <p>These instances are the available pages defined in the system.</p>
	<b>Remove Instances.</b> Removes the selected instance from the resource.
<b>Description</b>	The description of the selected resource.
<b>Resource</b>	The name of the selected resource.

UI Element	Description
<b>Edit Details</b>	Edits the selected resource name and description. 
<b>Resource Description</b>	The description of the selected resource.
<b>Resource Name</b>	The name of the selected resource.
<b>Instances</b>	List of page instances for the selected resource.



### Manage Instances Dialog Box

This dialog box enables you to attach pages to a resource.

Select the resource and click the  button.



User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
 	Select an instance from the <b>Available Instances</b> list and use the arrows to move the instance to the <b>Selected Instances</b> list.
<b>Available and Selected Instances</b>	Each resource can have one or more assigned instances.

# Role Management

You can define user roles and application permissions in the Admin tab. You can also assign resources to specific permissions.

## To access:

Select **Admin > Users and Roles > Role Management**.

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" on page 71](#) ● ["UI Description" on page 72](#)

## Learn More

### Roles and Permissions

Each role contains set of permissions. Permissions define which actions can be performed by the user. For example, you can create a role that enables its users to create pages or view specific ones. In some cases, actions can be performed according to the resource attached to a permission.

**Note:** Users that are created in the Admin tab and require permissions to view reports pages, must be assigned those permissions in SAP BusinessObjects Enterprise.

### Resources

A resource is a logical group of one or more XS application data items (for example pages or budgets). Once you define resources, you attach the resources to a permission. For example, you can specify that the CIO has View permissions for CIO resources, while the Administrator has View permissions for all resources.

**Tip:** It is recommended to define resources prior to defining roles. For details, see ["Resource Management" on page 54](#).

### Pre-Defined Roles

**Note:** Every out-of-the-box Scorecard has its own dedicated resource and role.

Executive Scorecard and IT Financial Management roles can be assigned any permissions. Executive Scorecard and IT Financial Management roles are available with the following out-of-the-box permissions:

Pre-Defined Role (from A-Z)	Description	Permissions	Module
<b>Administrator</b>	<p>The application administrator.</p> <p>When a user with the <b>Administrator</b> role activates a CAP, everyone get permissions to view, edit, delete all the Scorecards in the CAP.</p>	All Permissions	IT Executive Scorecard and IT Financial Management
<b>BUDGET_COORDINATOR</b>	<p>Defines the budget configuration. Notifies the cost center managers to populate the budget line items, follow up with cost center managers for timely update of budgets, and review the input from all included cost centers. Publishes the budget to use in allocation scenarios. This role is related to IT Financial Management.</p>	<ul style="list-style-type: none"> <li>• <b>Finance</b></li> <li>• <b>Budget</b></li> <li>• <b>View consolidated budget</b></li> <li>• <b>Manage cost center budget</b></li> <li>• <b>Manage consolidated budget</b></li> </ul>	IT Financial Management
<b>DWH administrator</b>	N/A		
<b>FINANCIAL ANALYST</b>	<p>Uses published budgets in allocation scenarios. This role is related to IT Financial Management. A FINANCIAL_ANALYST has the following permissions:</p>	<ul style="list-style-type: none"> <li>• <b>Budget</b></li> <li>• <b>Finance</b></li> <li>• <b>Manage Allocation Scenarios</b></li> <li>• <b>Manage Consolidated Budget</b></li> <li>• <b>Manage Cost Center Budget</b></li> <li>• <b>View Consolidated Budget</b></li> </ul>	IT Financial Management

Pre-Defined Role (from A-Z)	Description	Permissions	Module
<p><b>Scorecard Administrator</b></p>	<p>Creates and manages specific Scorecards and Pages. Only a user with the Scorecard Administrator role can view the created Scorecard. Once a Scorecard is created, the system automatically generates a resource for the Scorecard and a role called GEN_&lt;Scorecard name&gt;. This Scorecard can then only be managed by the Scorecard creator and users with the relevant GEN_&lt;Scorecard name&gt; role.</p> <p>In Dashboard, a user can only see a Scorecard when he has the relevant permission. If a component is configured with a specific Scorecard, Perspective, Objective, KPI, or KPI Breakdown, the user cannot see it, and the following message appears:  <b>Data is not displayed because you do not have the correct viewing permissions. Contact your administrator.</b></p> <p>When a user with the <b>Scorecard Administrator</b> role activates a CAP, only</p>	<p>Studio</p> <p>Manage Page</p> <p>Administer Pages</p> <p>Select KPI</p> <p>Explorer Access</p>	<p>IT Executive Scorecard</p>

Pre-Defined Role (from A-Z)	Description	Permissions	Module
	<p>the user gets permissions to view, edit, delete all the Scorecards in the CAP.</p> <p>When a user with the <b>Scorecard Administrator</b> role drags a KPI from the <b>Public Metrics and KPIs</b> folder into a Scorecard in the Studio, a clone of the KPI is added to the Scorecard and the original KPI remains in the <b>Public Metrics and KPIs</b> folder to be available for other Scorecard Administrators. If a user with the <b>Administrator</b> role drags a KPI from the <b>Public Metrics and KPIs</b> folder into a Scorecard in the Studio, the KPI is added to the Scorecard and is removed from the <b>Public Metrics and KPIs</b> folder.</p>		

Pre-Defined Role (from A-Z)	Description	Permissions		Module																					
<b>Viewer User</b>	<p><b>Note:</b> The Viewer user list of permissions cannot be modified (by any user).</p>	<table border="1"> <thead> <tr> <th>Permission</th> <th>Viewer user allowed access</th> </tr> </thead> <tbody> <tr> <td>Users and roles</td> <td>N</td> </tr> <tr> <td>Administer pages</td> <td>N</td> </tr> <tr> <td>Edit settings</td> <td>N</td> </tr> <tr> <td>Data Source management</td> <td>N</td> </tr> <tr> <td>Admin access</td> <td>N</td> </tr> <tr> <td>Select KPI</td> <td>N</td> </tr> <tr> <td>Manage Allocation scenarios</td> <td>N</td> </tr> <tr> <td>View Settings</td> <td>N</td> </tr> <tr> <td>Manage page</td> <td>N</td> </tr> <tr> <td>View Scorecard</td> <td>           Y             The Super Administrator can assign the specific Scorecards the Viewer user can view.         </td> </tr> </tbody> </table>	Permission	Viewer user allowed access	Users and roles	N	Administer pages	N	Edit settings	N	Data Source management	N	Admin access	N	Select KPI	N	Manage Allocation scenarios	N	View Settings	N	Manage page	N	View Scorecard	Y  The Super Administrator can assign the specific Scorecards the Viewer user can view.	
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Pre-Defined Role (from A-Z)	Description	Permissions		Module																								
			<table border="1"> <thead> <tr> <th>Permission</th> <th>Viewer user allowed access</th> </tr> </thead> <tbody> <tr> <td>View Page</td> <td>Y  The Super Administrator can assign the specific Dashboard pages the Viewer user can view.</td> </tr> <tr> <td>View Consolidated budget</td> <td>N</td> </tr> <tr> <td>Manage annotations</td> <td>Y</td> </tr> <tr> <td>Manage consolidated budget</td> <td>N</td> </tr> <tr> <td>context management</td> <td>N</td> </tr> <tr> <td>Cascade Scorecard</td> <td>Y</td> </tr> <tr> <td>ABC Management</td> <td>N</td> </tr> <tr> <td>Explorer access</td> <td>Y</td> </tr> <tr> <td>Budget</td> <td>N</td> </tr> <tr> <td>Studio</td> <td>N</td> </tr> <tr> <td>Content acceleration packs</td> <td>N</td> </tr> </tbody> </table>	Permission	Viewer user allowed access	View Page	Y  The Super Administrator can assign the specific Dashboard pages the Viewer user can view.	View Consolidated budget	N	Manage annotations	Y	Manage consolidated budget	N	context management	N	Cascade Scorecard	Y	ABC Management	N	Explorer access	Y	Budget	N	Studio	N	Content acceleration packs	N	
Permission	Viewer user allowed access																											
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ABC Management	N																											
Explorer access	Y																											
Budget	N																											
Studio	N																											
Content acceleration packs	N																											

Pre-Defined Role (from A-Z)	Description	Permissions		Module
			<b>Viewer user allowed access</b>	
		Manage cost center budget	N	
		Finance	N	

### Pre-Defined Permissions

XS Application Elements	Create and Edit	View
<b>Studio</b>	<ul style="list-style-type: none"> <li>To enter the Studio tab you need the <b>Studio</b> permission</li> <li>To create Scorecards in the Studio, you need the <b>Studio</b> permission.</li> </ul> <p><b>Note:</b> The <b>View Scorecard</b> permission enables customer with different departments to use XS. Each department can have its own Scorecards that cannot be viewed or used by other departments. This removes the need for each department to install its own XS instance.</p> <ul style="list-style-type: none"> <li>To edit relevant Scorecards, you need the <b>View Scorecard</b> permission for the relevant Scorecard.</li> </ul>	<ul style="list-style-type: none"> <li>To view the Studio tab you need the <b>Studio</b> permission.</li> <li>To view specific Scorecards (their Perspectives, Objectives, and KPIs) you need the <b>View Scorecard</b> permission for the relevant Scorecard.</li> <li>To view all the standalone KPIs in the Studio, you need the <b>Select KPI</b> permission.</li> </ul>

XS Application Elements	Create and Edit	View
<p><b>Explorer</b></p>	<p>N/A</p>	<ul style="list-style-type: none"> <li>• To view the Explorer tab you need the <b>Explorer Access</b> permission</li> <li>• To view the relevant Scorecards (their Perspectives, Objectives, and KPIs) in Explorer, you need the <b>View Scorecard</b> permission.</li> <li>• To view all the standalone KPIs in the Studio, you need the <b>Select KPI</b> permission.</li> </ul>
<p><b>Finance</b></p>	<ul style="list-style-type: none"> <li>• To view the Finance tab you need the <b>Finance</b> permission.</li> </ul>	<ul style="list-style-type: none"> <li>• To view the Finance tab you need the <b>Finance</b> permission.</li> </ul>
<ul style="list-style-type: none"> <li>• Budget</li> </ul>	<ul style="list-style-type: none"> <li>• To view the Finance tab you need the <b>Finance</b> permission.</li> <li>• To create and edit the life cycle of consolidated budgets, you need the <b>Manage Consolidated Budget</b> permission.</li> <li>• To create and edit a specific cost center budget, you need the <b>Manage Cost Center Budget</b> permission for the specific cost center instance.</li> </ul>	<ul style="list-style-type: none"> <li>• To view the Finance tab you need the <b>Finance</b> permission.</li> <li>• To view budgets, you need the <b>Budget</b> permission.</li> <li>• To view existing consolidated budgets you need the <b>View Consolidated Budget</b> permission.</li> </ul>
<ul style="list-style-type: none"> <li>• Allocation</li> </ul>	<ul style="list-style-type: none"> <li>• To view the Finance tab you need the <b>Finance</b> permission.</li> <li>• To create, edit, and view allocation scenarios you need the <b>Manage Allocation Scenarios</b> permission.</li> <li>• To view allocation scenarios using Cost Explorer, you need the <b>Manage Allocation Scenarios</b> permission.</li> </ul>	
<ul style="list-style-type: none"> <li>• Cost</li> </ul>	<p>N/A</p>	<ul style="list-style-type: none"> <li>• To view the Finance tab you need the <b>Finance</b> permission.</li> <li>• To view Cost Explorer, you need the <b>Manage Allocation Scenarios</b> permission.</li> </ul>

XS Application Elements	Create and Edit	View
<p><b>Admin</b></p>	<ul style="list-style-type: none"> <li>To access the Admin tab but not the tabs in the Admin tab, you need the <b>Admin Access</b> permission.</li> </ul>	<ul style="list-style-type: none"> <li>To access the Admin tab but not the tabs in the Admin tab, you need the <b>Admin Access</b> permission.</li> </ul>
<ul style="list-style-type: none"> <li>Users and Roles <ul style="list-style-type: none"> <li>User Management</li> <li>Role Management</li> <li>Resource Management</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>To view the Admin tab you need the <b>Admin Access</b> permission.</li> <li>To modify the contents of the Users and Roles accordion tab you need the <b>Edit Settings</b> permission.</li> </ul>	<ul style="list-style-type: none"> <li>To view the Admin tab you need the <b>Admin Access</b> permission.</li> <li>To view the Users and Roles accordion tab you need the <b>Users and Roles</b> permission.</li> </ul>
<ul style="list-style-type: none"> <li>Data Source Management</li> </ul>	<ul style="list-style-type: none"> <li>To view the Admin tab you need the <b>Admin Access</b> permission.</li> <li>To access the Data Source Management page and to activate the content packs you need the <b>Data Source Management</b> permission.</li> </ul>	
<ul style="list-style-type: none"> <li>ETL Management</li> </ul>	<ul style="list-style-type: none"> <li>To view the Admin tab you need the <b>Admin Access</b> permission.</li> <li>To monitor and manage the ETL process for Data Warehouse you need the <b>ABC Management</b> permission.</li> </ul>	

XS Application Elements	Create and Edit	View
<ul style="list-style-type: none"> <li>• Foundation               <ul style="list-style-type: none"> <li>▪ Foundation</li> <li>▪ Single Sign-On</li> <li>▪ Pages</li> <li>▪ Website</li> </ul> </li> <li>• Data Warehouse</li> <li>• Scorecard               <ul style="list-style-type: none"> <li>▪ Dashboard Settings</li> <li>▪ Engine Settings</li> <li>▪ Score Thresholds</li> <li>▪ XS Settings</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• To view the Admin tab you need the <b>Admin Access</b> permission.</li> <li>• To edit the contents of the Scorecard settings, Foundation settings, and Data Warehouse settings accordion tabs you need the <b>Edit Settings</b> permission.</li> </ul>	<ul style="list-style-type: none"> <li>• To view the Admin tab you need the <b>Admin Access</b> permission.</li> <li>• To view the Scorecard settings, Foundation settings, and Data Warehouse settings accordion tabs you need the <b>View Settings</b> permission.</li> </ul>
<ul style="list-style-type: none"> <li>• ITFM</li> </ul>	<ul style="list-style-type: none"> <li>• To view the ITFM tab in the Admin tab , you need the <b>Admin Access</b> permission.</li> </ul>	<ul style="list-style-type: none"> <li>• To view the ITFM tab in the Admin tab , you need the <b>Admin Access</b> permission.</li> </ul>
<ul style="list-style-type: none"> <li>• Semantic Layer</li> </ul>	<ul style="list-style-type: none"> <li>• To view the Admin tab you need the <b>Admin Access</b> permission.</li> </ul>	<ul style="list-style-type: none"> <li>• To view the Admin tab you need the <b>Admin Access</b> permission.</li> <li>• To use the Context Designer feature you need the <b>Context Management</b> permission.</li> </ul>
<ul style="list-style-type: none"> <li>• Content Acceleration Pack</li> </ul>	<ul style="list-style-type: none"> <li>• To view the Admin tab you need the <b>Admin Access</b> permission.</li> <li>• To view, edit, delete Content Acceleration Packs, you need the <b>Content Acceleration Pack</b> permissions.</li> </ul>	

XS Application Elements	Create and Edit	View
<p><b>Dashboard</b></p>	<ul style="list-style-type: none"> <li>To add pages, view and modify all the pages in the Dashboard (add components, delete components, and even delete components) you need the <b>Administer Pages</b> permission.</li> </ul>	<ul style="list-style-type: none"> <li>To add pages, view and modify all the pages in the Dashboard (add components, delete components, and even delete components) you need the <b>Administer Pages</b> permission.</li> <li>To configure components on the page you need the <b>Select KPI</b> permission</li> </ul>
<ul style="list-style-type: none"> <li>Specific page in Dashboard</li> </ul>	<ul style="list-style-type: none"> <li>To view and modify (add components, delete components, and even delete) the relevant page in the Dashboard you need the <b>Manage Page</b> permission.</li> <li>To create a new page in Dashboard you need the <b>Administer Pages</b> permission. Once the page is created and assigned to a user, a user with the <b>Manage Page</b> permission can add components to the page, and modify it.</li> </ul>	<ul style="list-style-type: none"> <li>To view a specific page in Dashboard you need the <b>View Page</b> permission for that page.</li> </ul>

XS Application Elements	Create and Edit	View
<ul style="list-style-type: none"> <li>Components on a page</li> </ul>	<ul style="list-style-type: none"> <li>To view Scorecards you need the <b>View Scorecard</b> permission.</li> <li>To view the contents of the Active KPIs area in all the components filters and to be able to move KPIs from the Active KPIs area to the Selected KPIs area in the filter you need the <b>Select KPI</b> permission.</li> <li>If you do not have this permission, you can, in all the component filters, view the contents of the Selected KPIs area, you cannot modify the selection, and cannot view the contents of the Active KPIs area as the contents are grayed out.</li> </ul>	<ul style="list-style-type: none"> <li>To view the small black arrow (near the Scorecard title) that indicates that the Scorecard has Cascading Scorecards and to be able to click the arrow to display the Cascading Scorecards for which you has permission you need the <b>Cascade Scorecard</b> permission.</li> <li>If you do not have this permission, the small arrow is not displayed and you do not know that Cascading Scorecards are available.</li> <li>To view specific Scorecards and data you need the <b>View Scorecard</b> permission.</li> </ul>
<p>Annotations (in Dashboard and Explorer)</p>	<ul style="list-style-type: none"> <li>To edit or delete an existing annotation you need the <b>Manage Annotation</b> permission.</li> </ul>	<ul style="list-style-type: none"> <li>If you do not have this permission, you can only view the annotation and the <b>Edit</b> and <b>Delete</b> buttons of the annotation are hidden.</li> </ul>

## Tasks

This section includes:


["Create a role" below](#)

["Edit role details" on the next page](#)

["Attach permissions" on the next page](#)

["Add a resource to a permission" on the next page](#)

### Create a role

1. Select **Admin > Users and Roles > Role Management**.
2. In the Roles area, click  to create a new role.


3. Enter the name and description for the role.
4. Click **OK** to save your role.

After creating a role, follow the procedure for attaching permissions and resources.


### **Edit role details**

1. Select **Admin > Users and Roles > Role Management**.
2. In the Roles area, select a role.
3. In the Role Details area, click **Edit Details**.
4. Edit the role as required and click **OK**.

### **Attach permissions**

1. Select **Admin > Users and Roles > Role Management**.
2. In the Roles area, select a role.
3. In the Role Details area, click . The Assign Permission to Role wizard opens.
4. Select a permission from the list.
5. Attach a resource to the selected permission, if required.
6. Complete the wizard procedure to save your assignments.
7. Log off from Executive Scorecard and log on again to complete the permission assignments.

### **Add a resource to a permission**

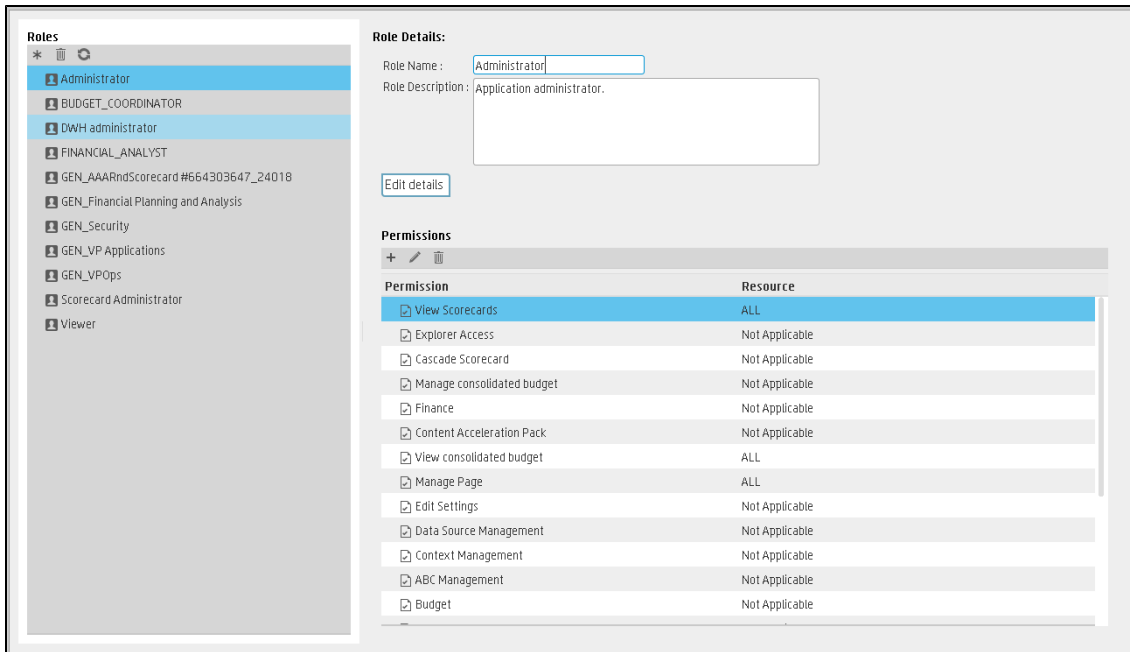
1. Select **Admin > Users and Roles > Role Management**.
2. In the Roles area, select a role.
3. In the Permissions list select a permission.
4. Click  to open the Assign Resources to Permissions page in the Assign Permission to Role wizard.
5. Select a permission and use the arrows to move the required resources from the Available Resources list to the Selected Resources list.

## **UI Description**

### **Role Management Page**

Click  to refresh the page.





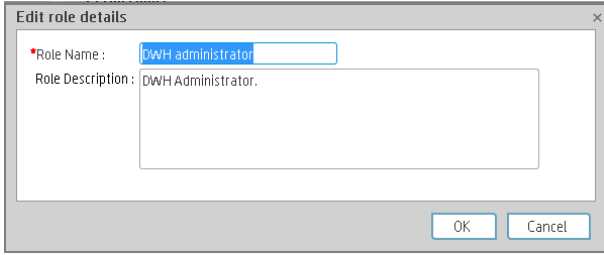



## Roles Area

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):


UI Element	Description
	<p><b>Create Role.</b> Creates a new role.</p> <p>Enter the <b>Role Name</b> and <b>Role Description</b> and click <b>OK</b>.</p>
	<p><b>Delete Role.</b> Deletes the selected role.</p>
	<p>Click <b>Refresh</b> to refresh the display.</p> <p>When in Executive Scorecard, when you navigate to another tab and then return to <b>Admin &gt; Users and Roles</b>, the display is not automatically refreshed. To refresh the display, click  in the toolbar.</p>
<b>&lt;Role List&gt;</b>	<p>A list of roles currently defined in the <b>Admin</b> tab. When you select a role, the details appear in the <b>Role Details</b> area and <b>Permissions</b> list.</p> <p>For a list of pre-defined roles, see "<a href="#">Role Management</a>" on page 60.</p>

## Role Details Area

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

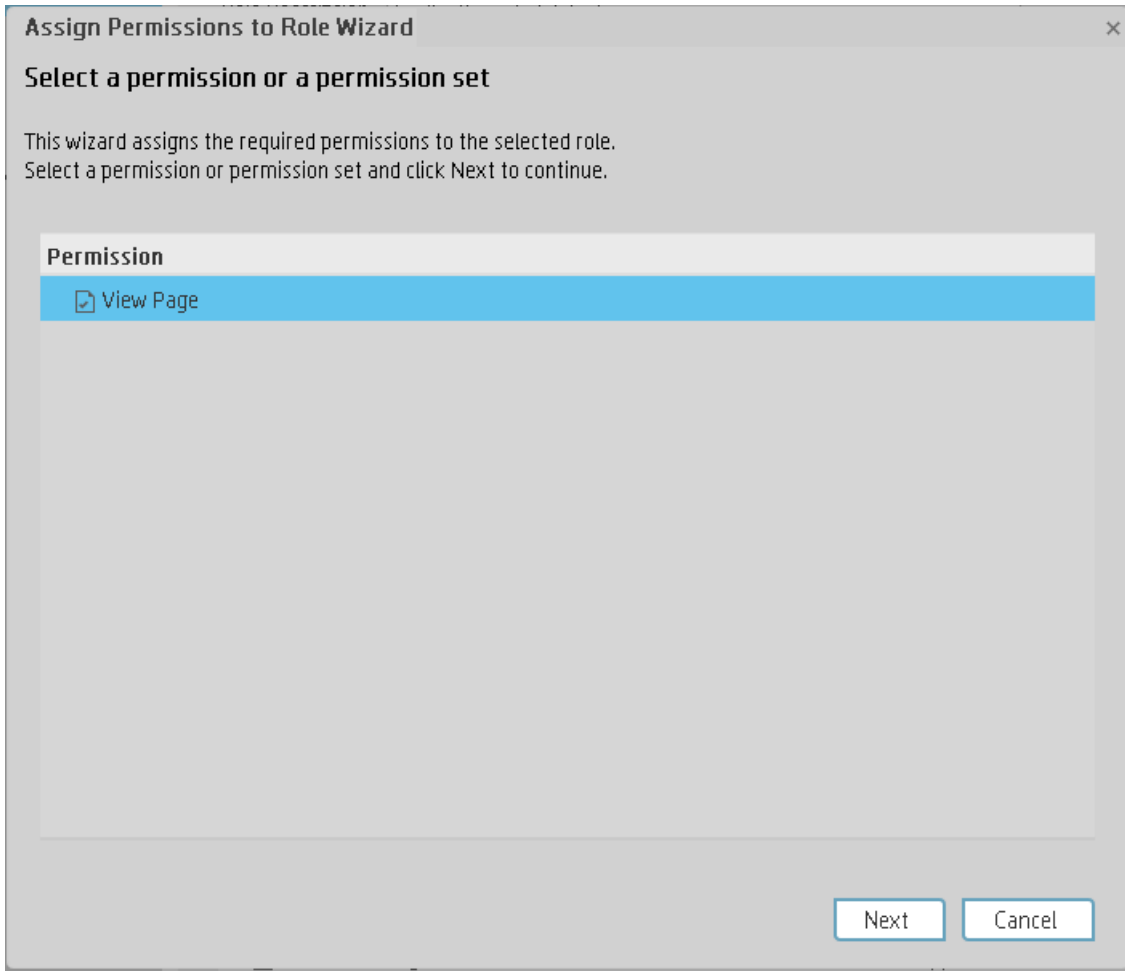
UI Element	Description
<b>Role Name</b>	The name of the selected role.
<b>Role Description</b>	The description of the selected role.
<b>Edit Details</b>	Edits the selected role name and description. 
	<b>Attach permission.</b> Assigns selected permissions to roles. You select permissions using the Assign Permission to Role wizard. For user interface details, see <a href="#">"Assign Permission to Role Wizard" below</a> .
	<b>Manage permission.</b> Modifies the selected permission. Opens the Assign Resources to Permissions page in the Assign Permission to Role wizard. For user interface details, see <a href="#">"Assign resources to permissions page" on page 76</a> .
	<b>Detach permission.</b> Removes the selected permission from the role.
<b>Permissions List</b>	The list of permissions and resources for the selected role.
<b>Permission</b>	The permission sets and permissions attached to the selected role.
<b>Resources</b>	The list of resources for each permission. <b>Not Applicable.</b> None of the available resources apply to this permission. For details, see <a href="#">"Resource Management" on page 54</a> . <b>&lt;Resource Name&gt;</b> . The permission is attached to a specific resource. <b>All.</b> The permission is applicable to all resources.

## Assign Permission to Role Wizard

This wizard enables you to assign permissions to the selected role, as well as assign resources to the permissions. Click  to access the wizard.

<b>Wizard Map</b>	The Assign Permission to Role wizard contains: <b>Select Permission Page</b> > Assign Resources to Permissions Page > Confirmation Page.
-------------------	---

### Select Permission Page




This page may lead directly to the Confirmation page depending on whether the selected permission has resources attached.

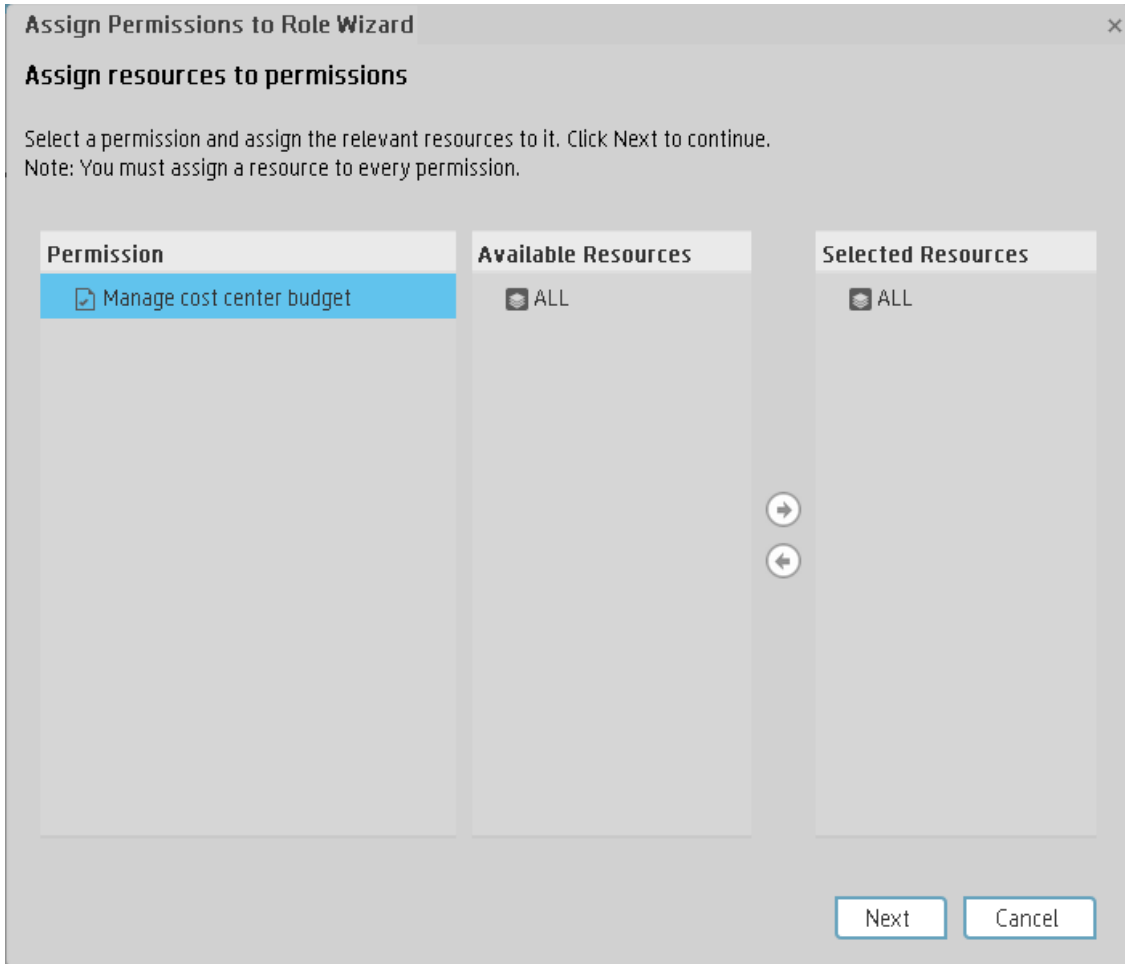
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<Permissions tree>	Select a permission from the tree. Displays the pre-defined permissions. For details, see <a href="#">"Role Management" on page 60</a> .



### Assign resources to permissions page

This page only appears if the permissions are applicable for a resource.

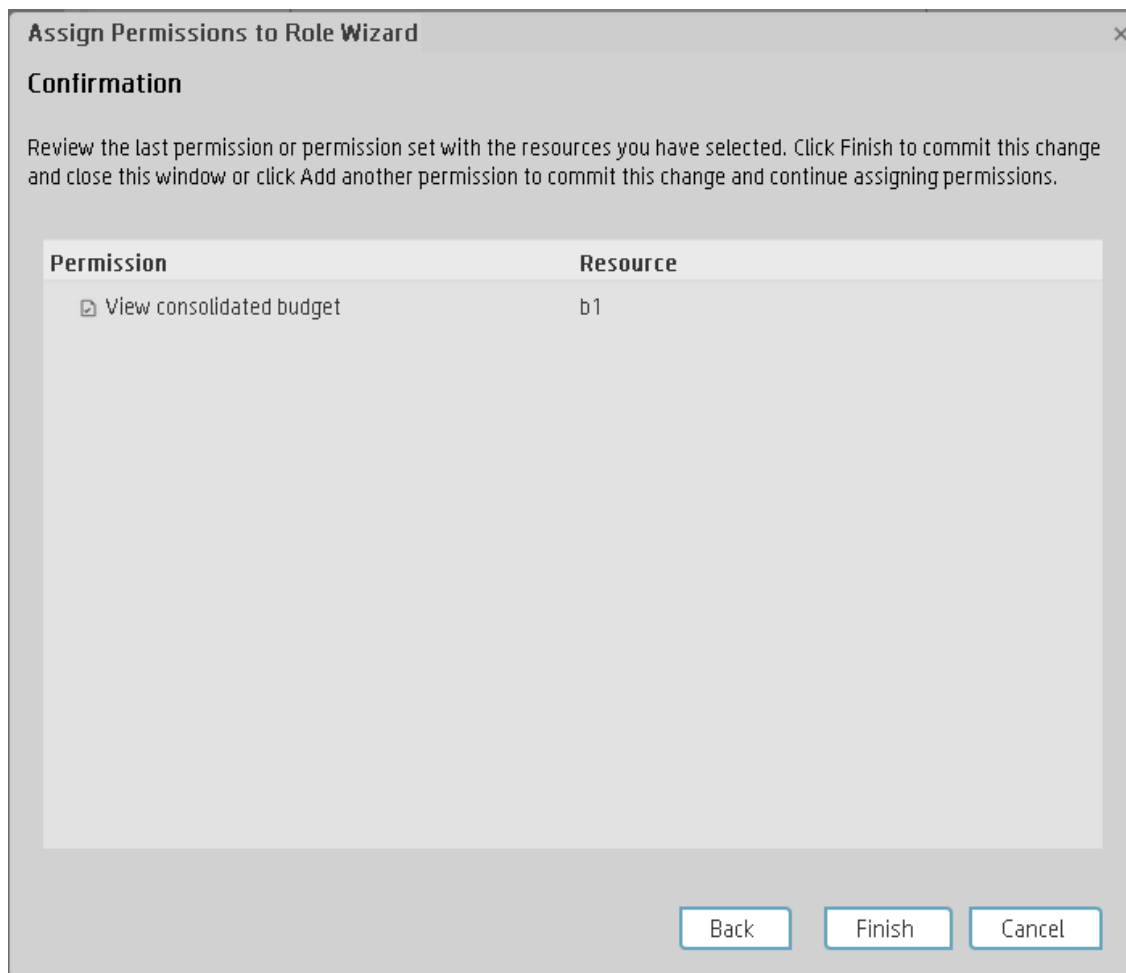
**Note:** Click  to access this page directly.



User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Permission</b>	A tree containing the permissions.
 	Select a permission and use the arrows to move the required resources from the <b>Available Resources</b> list to the <b>Selected Resources</b> list.
<b>Available and Selected Resources</b>	Each permission can be applicable for specific resources, for all resources, or not applicable to a resource.

## Confirmation Page



User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Permission</b>	The permissions assigned to this role.
<b>Resource</b>	The list of resources associated with the each permission.
<b>Add another</b>	Click to commit the current permission and continue in the wizard to add another permission. The <a href="#">"Select Permission Page" on page 75</a> opens.
<b>Finish</b>	Click to commit the assigned permissions and finish wizard functions.
<b>Cancel</b>	Click to cancel the current assignment. All previous actions in the wizard are still valid.

# User Management

The User Management page enables you to add and edit users and groups, as well as add and edit their details.

## To access:

- Select **Admin > Users and Roles > User Management** to access the User Management page.

**Section navigation:** • ["Learn More" below](#) • ["Tasks" below](#) • ["UI Description" on page 81](#)

## Learn More

### Resources, Roles, Permissions, Users, and Groups

- **Resources.** A resource is a logical group of one or more XS application data items (for example application data or components or budgets). Once you define resources, you attach the resource to a permission.
- **Roles and Permissions.** Each role is a set of permissions. Permissions define which actions the user can perform and on which resources. For example, you can create a role that enables its users to create Dashboard pages.
- **Users and Groups.** Each user has a list of roles that define their permissions. When you assign a role, that user only has access to specific portions of the program and specific resources that are relevant to their role. You can also define groups of users with the same roles or access rights. When you attach a user or group to a group, the user or group inherits all of the group's roles.

### Managing Users

Users can be managed using either of the following, but not both:

- **Enterprise Users:** Users are created and managed in Executive Scorecard.
- **LDAP Users:** Users are created and managed on your LDAP server which is connected to Executive Scorecard. For details, see ["LDAP" on page 89](#).

The Administrator uses the Admin tab to define users that have roles, roles that contain a set of permissions that may contain resources. It is recommended to create resources and attach them to permissions first in the user management process. For details, see ["Role Management" on page 60](#).

## Tasks

This section includes:

• [" Search for a user" on the next page](#)

["Add a user" below](#)

["Add a new group under the root" below](#)

["View permissions and resources for specific users" below](#)

["Assign roles to users or groups" on the next page](#)

["Unassign a role from a group" on the next page](#)

["Add Additional Pages to Dashboard and Grant Permissions" on page 81](#)


["Configure User Permissions in Dashboard" on page 81](#)

### **Search for a user**


1. Select **Admin > Users and Roles > User Management**.
2. In the **Search Users** tab, enter the search criteria.
3. Click **Search**. The relevant users are displayed.

### **Add a user**

When using LDAP for user management, you cannot add LDAP users in Executive Scorecard directly. You must first create them in the LDAP server and then populate them into Executive Scorecard manually. You can remove LDAP users from Executive Scorecard, but they will still exist in the LDAP server.

1. Select **Admin > Users and Roles > User Management**.
2. In the **Users & Groups** tab, select the group under which you want to add a user and click **Add User** . The Add user dialog box opens.
3. Enter the relevant details.


### **Add a new group under the root**

1. Select **Admin > Users and Roles > User Management**.
2. In the **Users & Groups** tab, click **Add group under the root** .
3. Enter the **Group Name** and **Group Description** and click **OK**. The group is added under the root.

### **View permissions and resources for specific users**

1. Select **Admin > Users and Roles > User Management**.
2. Select a user from the **Users & Groups** tab.
3. In the **Roles and Permissions** area, select a role to view the permissions and resources associated with the role.

## Assign roles to users or groups

1. Select **Admin > Users and Roles > User Management**.
2. Select a user or group from the **Users & Groups** tab.
3. In the **Roles and Permissions** area, click **Assign role** . The Assign Roles dialog box opens.
4. Select a role from the **Available Roles** list and use the arrows to move the role to the **Selected Roles** list.
5. Click **OK** to save your selections.

## Unassign a role from a group

1. Select **Admin > Users and Roles > User Management**.
2. Select and expand the **Everyone** group.
3. Delete the role related to your specific Scorecard from the **Everyone** group. This Scorecard can now only be viewed by the Admin.
4. Assign the Manage Scorecards role to the specific users you want to view and manage the Scorecard.

## Connect XS Executive Scorecard to an LDAP server:

**Note:** The format of the LDAP directory must be either Microsoft Active Directory or Sun ONE Directory. It cannot be an arbitrary directory structure.

1. In the Management database, in the SETTINGS\_MANAGEMENT table, create a new record with the following information:
  - context: **foundation**
  - name: **fnd.uum.type**
  - value: **ldap**
2. Configure the LDAP connection properties and the structure of the LDAP directory using the properties file located at <installation directory>agora\glassfish\glassfish\domains\BTOA\config\conf\external-ldap.properties.

**Note:** Only connection properties (such as host, port, LDAP version, user, and password) and user/group base dn can be modified.

3. If SSL is used to access LDAP, certificates must be imported.



## Add Additional Pages to Dashboard and Grant Permissions

Users can be granted permissions to perform the following operations on user-defined pages and components: **View page**, **Manage Page** (change and delete specific page) and **Administrate pages** (add pages and full control on all pages in the system).

To create a new page in the Dashboard , contact your administrator. The administrator should:

1. Create the relevant page in HP IT Executive Scorecard.
2. Define the page Instance and Resource. For details, see ["Resource Management" on page 54](#).
3. Give you (the Business Analyst - Dashboard Designer) the needed permissions to update the page. For details, see ["Role Management" on page 60](#).
4. Give the relevant user (executive) the needed permissions to view the page. For details, see ["Role Management" on page 60](#).

## Configure User Permissions in Dashboard

Permissions to work with Dashboard components and pages are defined in **Admin > Users and Roles > User Management**.

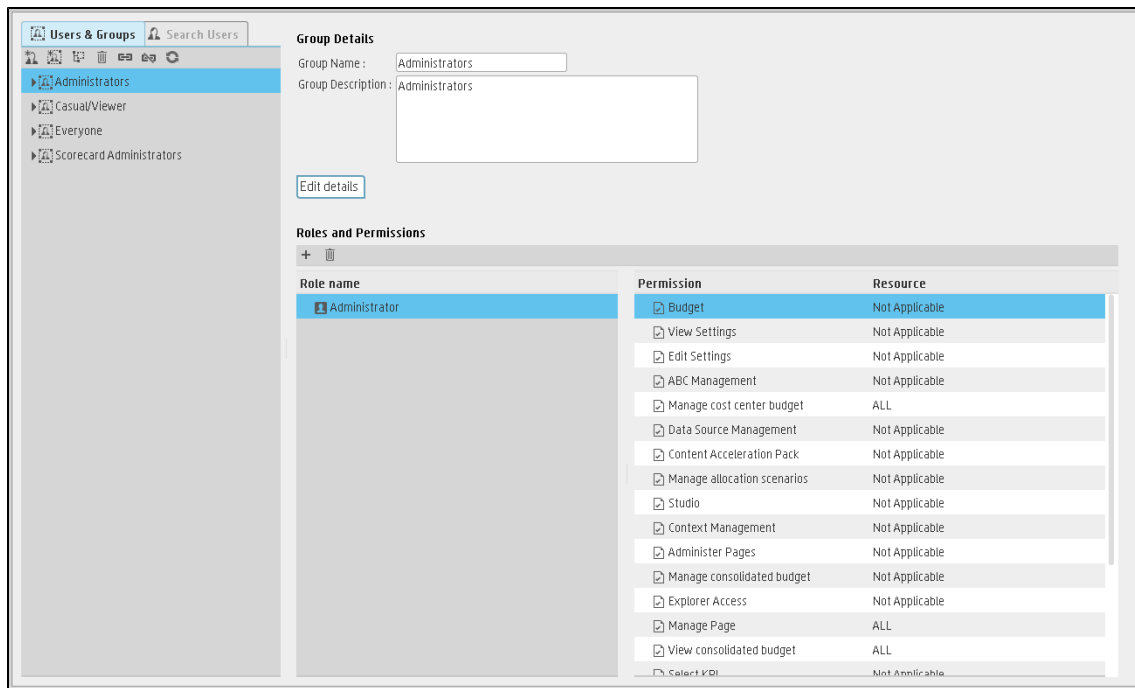
The operations that can be defined for a user are dependent on the area within Dashboard, as follows:

- **Predefined Pages.** These pages are defined out-of-the-box. They have a pre-defined layout but entities are not selected. Users with the relevant permissions can select the relevant entities using the component filters. Depending on their permissions, users can change the component layout in the page and the selections in the component filters. Note that out-of-the-box pages cannot be deleted. More information about the permissions is available in ["Role Management" on page 60](#).
- **User Pages and User Components.** Users can be granted permissions to perform the following operations on user-defined pages and components: **View page**, **Manage Page** (change and delete specific page) and **Administrate pages** ( add pages and full control on all pages in the system).

## UI Description

### User Management Page


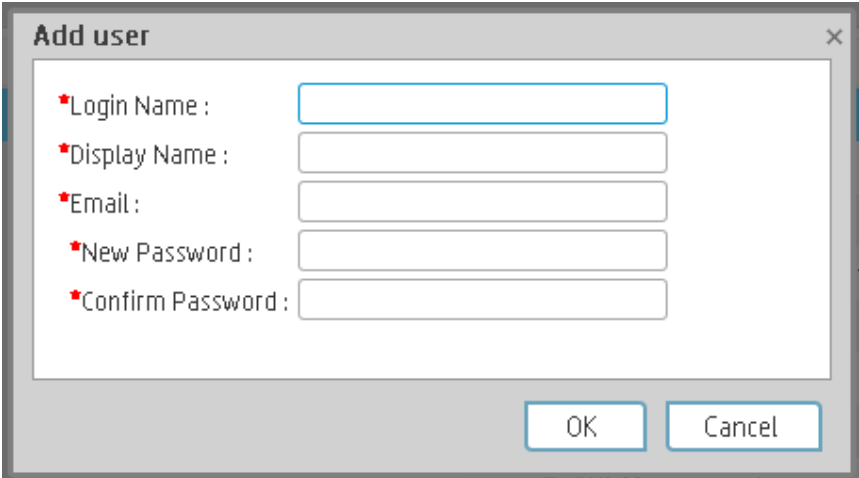
Click  to refresh the page.


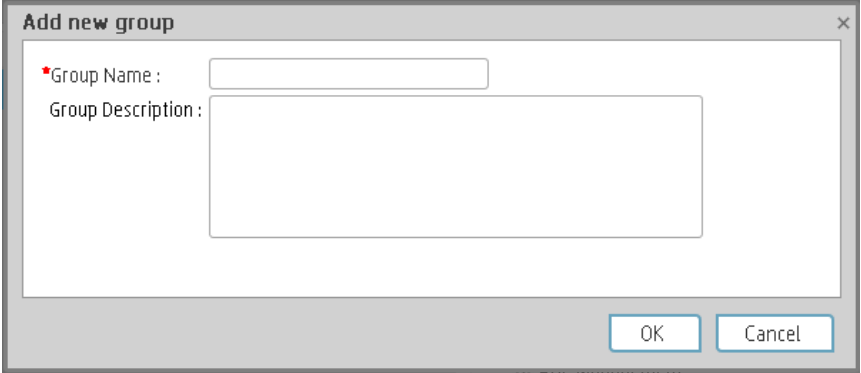



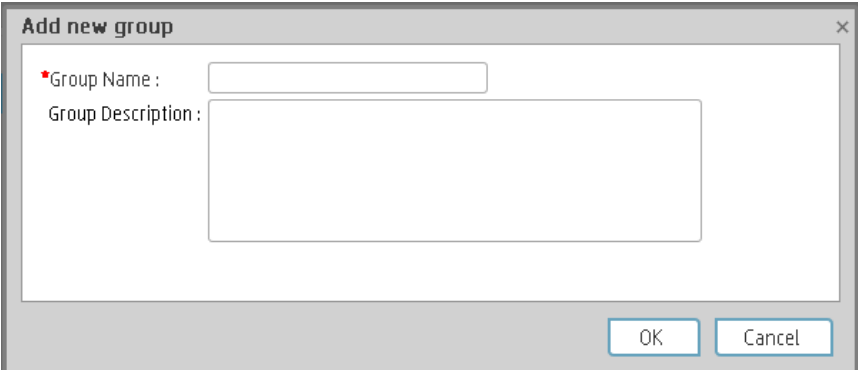

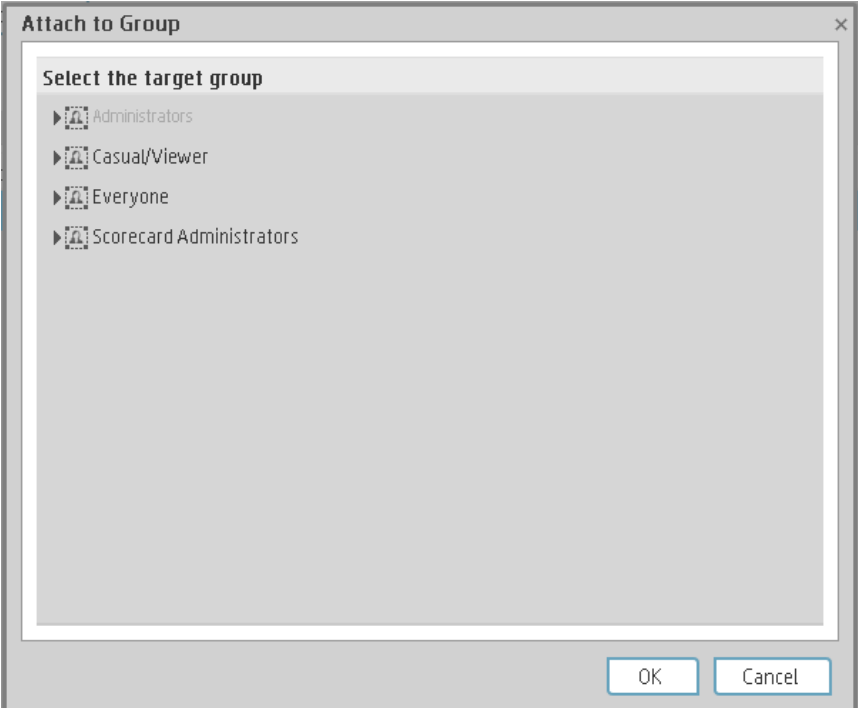
### Users & Groups Tab




User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Users and Groups tree</b>	<p>A tree containing all of the existing groups and users attached to those groups.</p> <p>To find users that are not attached to a specific group, but are under the group <b>Everyone</b>, use the <b>Search Users</b> tab. For details, see "<a href="#">Search Users Tab</a>" on page 86.</p> <p>When a user is added to LDAP, it is displayed in the Users and Groups tree after you log on to HP IT Executive Scorecard. "<a href="#">Search Users Tab</a>" on page 86</p>

UI Element	Description
	<p><b>Create User.</b> Adds a new user under the selected group. The user inherits the group's roles.</p> <div></div> <p>Enter the user's <b>Login Name</b>, <b>Display Name</b>, <b>Email</b>, and <b>New Password</b> and click <b>OK</b>.</p> <p>When using LDAP for user management, you cannot add LDAP users in Executive Scorecard directly. You must first create them in the LDAP server and then populate them into Executive Scorecard manually. You can remove LDAP users from Executive Scorecard, but they will still exist in the LDAP server.</p>

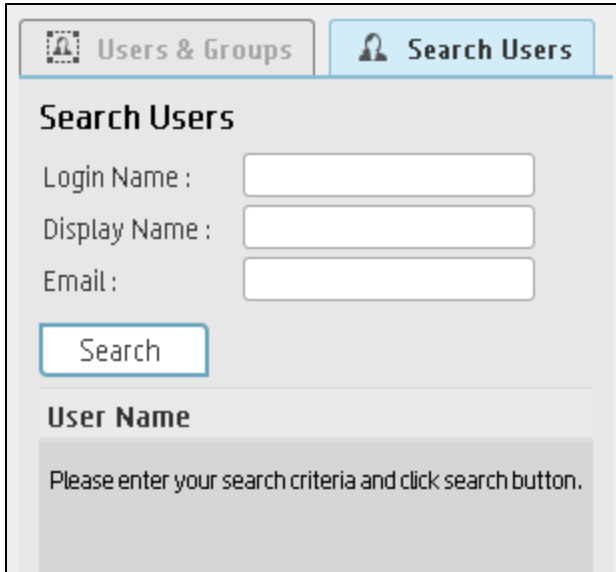
UI Element	Description
	<p><b>Create group.</b> Creates a new group under a selected existing group. The group inherits the existing group's hierarchy.</p> <div></div> <p>Enter the <b>Group Name</b> and <b>Group Description</b> and click <b>OK</b>.</p> <p><b>Available Groups</b></p> <ul style="list-style-type: none"><li>• <b>Administrators.</b> Users who can administer the system.</li><li>• <b>Scorecard Administrators.</b> Users who can manage specific Scorecards and Pages according to the assigned roles and permissions.</li><li>• <b>Everyone.</b> All users of the system.</li></ul> <div><p><b>Note:</b> The following groups are the default groups available in SAP BusinessObjects Enterprise and exported to the Admin tab. They are not applicable to the Executive Scorecard application.</p><ul style="list-style-type: none"><li>• QaaWS Group Designer</li><li>• Report Conversion Group Users</li><li>• Test Root</li><li>• Translators</li><li>• Universe Design Users</li></ul></div>

UI Element	Description
	<p><b>Add group under the root.</b> Creates a new group under the root.</p>  <p>Enter the <b>Group Name</b> and <b>Group Description</b> and click <b>OK</b>.</p>
	<p><b>Attach to group.</b> Attaches the selected user or group to a group. The users or groups inherit all of the group's roles.</p>  <p>Select the group and click <b>OK</b>.</p>

UI Element	Description
	<p><b>Detach from group.</b> Detaches the selected user or group from a group. When you detach a user/group from a group, they no longer have the roles that they inherited from the group.</p> <p>When you detach a group from a group, it moves to the "root" of the groups and users tree.</p>
	<p><b>Delete.</b> Deletes the selected user or group. When a group is deleted, its users still exist under a system group called Everyone.</p>
	<p><b>Refresh.</b> Refreshes the displayed information.</p>

### Search Users Tab

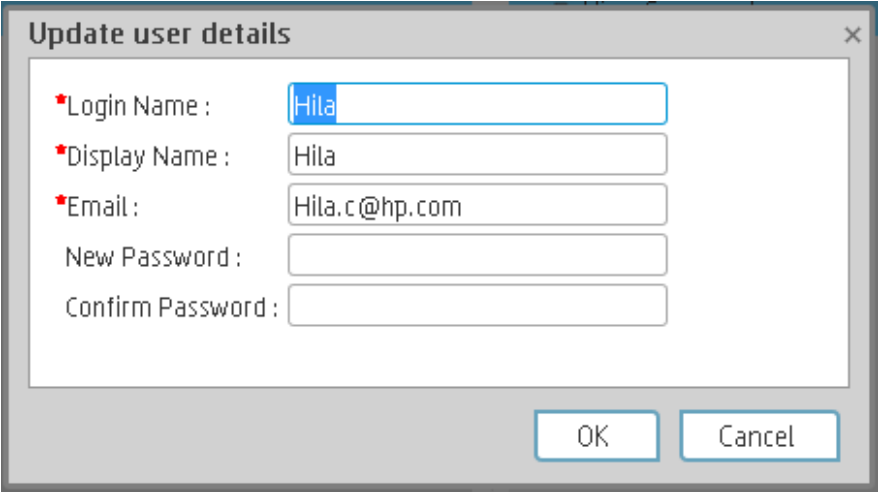


User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Search Users</b>	<p>The search criteria.</p>  <p>To search for users, enter some or all of the user details: <b>Login Name</b>, <b>Display Name</b>, <b>Email</b>.</p>
<b>Search</b>	<p><b>Search.</b> Click to search for users that match the criteria entered in the <b>Search Users</b> tab.</p>
<b>User Name</b>	<p>A list of all users that match the search criteria.</p>


### User Details Pane

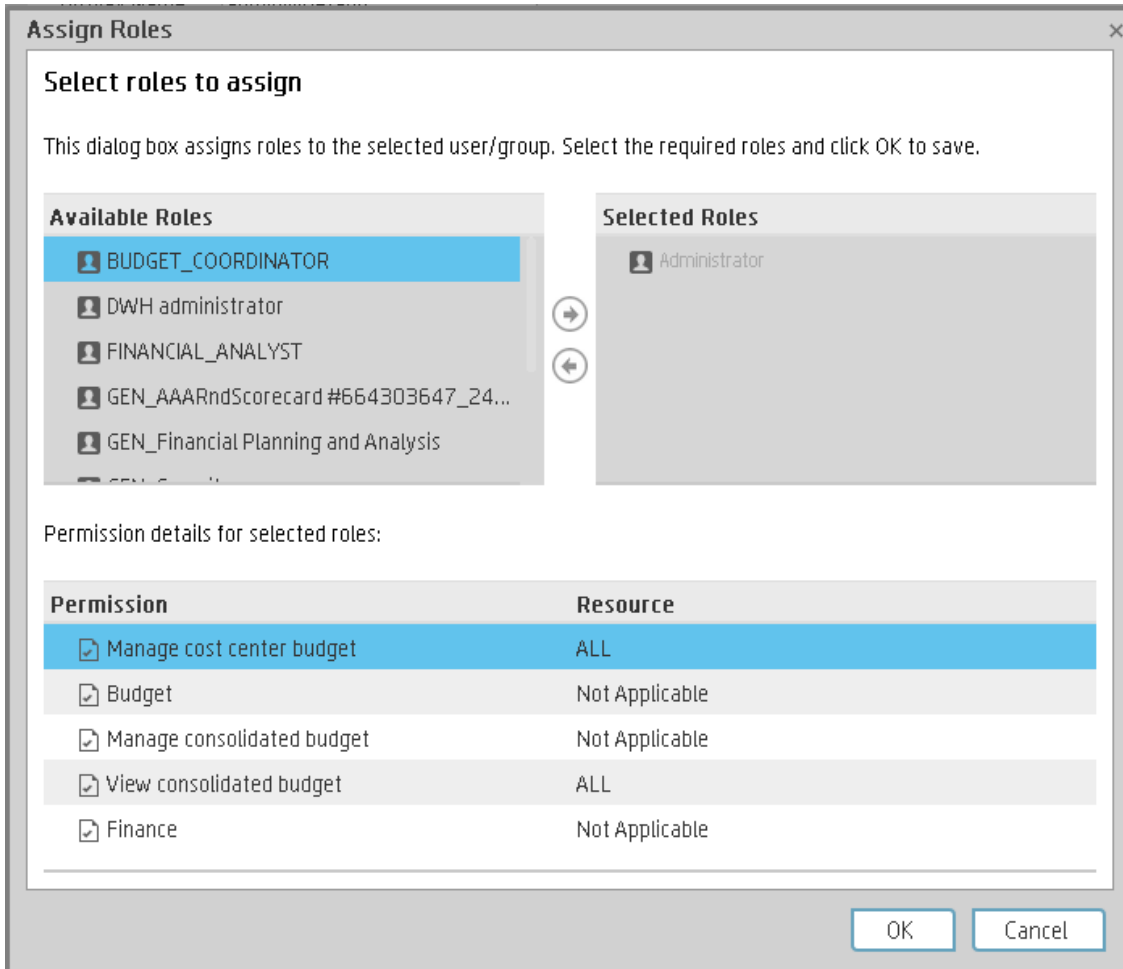
Select a user and click **User Details**.

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):



UI Element	Description
<b>Login Name/ Group Name</b>	The name of the selected user or group.
<b>Display Name/ Group Description</b>	The description of the selected user or group.
<b>Edit Details</b>	Edits the selected user or group details. Enables you to change a user password.  
<b>Roles and Permissions</b>	The assigned roles and corresponding permissions and resources for the selected user or group.
	<b>Assign role.</b> Opens the Assign Roles dialog box that enables you to assign a role to the selected user or group.
	<b>Remove role.</b> Removes the selected role from the user or group.
<b>Role name</b>	The role assigned to the selected user or group.
<b>Permission</b>	List of permission names contained in the selected role.
<b>Resource</b>	The resource attached to the permission of the selected role.  <b>N/A.</b> Not Applicable. None of the available resources apply to this permission.  <b>&lt;Resource Name&gt;.</b> The permission is attached to a specific resource.  <b>All.</b> The permission is applicable to all resources.  For details, see " <a href="#">Resource Management</a> " on page 54.

## Assign Roles Dialog Box

Select a role in Roles and Permissions, and click .



User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
 	Select a role from the <b>Available Roles</b> list and use the arrows to move the role to the <b>Selected Roles</b> list.
<b>Available and Selected Roles</b>	Each user or group can have one or more assigned roles.
<b>Permission details</b>	The read-only details about the permissions and corresponding resources for the selected role.



UI Element	Description
Resource	<p>The list of resources for each permission:</p> <ul style="list-style-type: none"><li>• <b>Not Applicable.</b> Used for permissions that do not require a specific resource setting.</li><li>• <b>&lt;Resource Name&gt;.</b> The permission refers to a specific resource.</li><li>• <b>All.</b> The permission is applicable to all resources.</li></ul>

## LDAP

The User Management page enables you to add and edit users and groups, as well as add and edit their details.

Users can be managed using either of the following, but not both:

- **Enterprise Users:** Users are created and managed in Executive Scorecard.
- **LDAP Users:** Users are created and managed on your LDAP server which is connected to Executive Scorecard. For details, see "[LDAP](#)" above.

The Administrator uses the Admin tab to define users that have roles, roles that contain a set of permissions that may contain resources. It is recommended to create resources and attach them to permissions first in the user management process. For details, see "[Role Management](#)" on page 60.

### To access:

- Select **Admin > Users and Roles > User Management** to access the User Management page.

**Section navigation:** • "[Learn More](#)" below • "[Tasks](#)" on page 91 • "[UI Description](#)" on page 94

## Learn More

The users and authentication when working with or without SAP BusinessObjects and LDAP is as follows:

Operation	Working without SAP BusinessObjects and without LDAP	Working with SAP BusinessObjects and without LDAP	Working with SAP BusinessObjects and with LDAP
Manage users (create, remove, update)	In Executive Scorecard, in <b>Admin &gt; Users and Roles</b> .	Users are created in Executive Scorecard, in <b>Admin &gt; Users and Roles</b>  Users created in Executive Scorecard are automatically transferred to SAP BusinessObjects.  If a user is created in SAP BusinessObjects, it does not appear in the list of users in Executive Scorecard.	Users are created in LDAP.  Users created in LDAP must be manually populated to Executive Scorecard and to SAP BusinessObjects separately.
Passwords	Passwords can be changed in the <b>User Details</b> pane of the User Management page in Executive Scorecard. Click <b>Edit Details</b> to change a user's password.	Passwords can be changed in the <b>User Details</b> pane of the User Management page in Executive Scorecard. Click <b>Edit Details</b> to change a user's password.  A password created in Executive Scorecard is automatically transferred to SAP BusinessObjects for the relevant user.	Passwords are created and stored in LDAP.
Roles, permissions, and groups	In Executive Scorecard, in <b>Admin &gt; Users and Roles</b> .	In Executive Scorecard, in <b>Admin &gt; Users and Roles</b> .	In Executive Scorecard, in <b>Admin &gt; Users and Roles</b> .

**Note:**

- The format of the LDAP directory must be either Microsoft Active Directory or Sun ONE Directory. It cannot be an arbitrary directory structure.
- When a user is added to LDAP, it is displayed in the Users and Groups tree after you log on to HP IT Executive Scorecard.

- When working with LDAP, you must make sure that LDAP is connected to Executive Scorecard and to SAP BusinessObjects. For details, see ["LDAP" on page 89](#).
- Executive Scorecard only supports the LDAP tab with Active Directory as a server type on that tab. Active Directory authentication via the active directory tab is not supported. For details, see ["LDAP" on page 89](#).
- We recommend to use LDAP for secure passwords and better password validation.

## Tasks

This section includes:

["Configure XS to Work with LDAP" below](#)

["Configure BOE to Work with LDAP" on the next page](#)

["Manage Users Using LDAP" on page 93](#)

### Configure XS to Work with LDAP

To configure XS to work with LDAP:

1. **Database changes.** In the Management database, in the SETTINGS\_MANAGEMENT table create a new record with:
  - **context=foundation**
  - **name=fnd.uum.type**
  - **value=ldap**
2. **external-ldap.properties.** Define groups and users in LDAP. In the `<HPXS>\agora\glassfish\glassfish\domains\BTOA\config\conf\external-ldap.properties` file, enter the following values:
  - **host address=ldapHost**
  - **host port=ldapPort**
  - **SSL=enableSSL**
  - **login name to access the LDAP server=ldapAdministrator**
  - **password=ldapAdministratorPassword**
  - **user search DN=usersBase**
  - **group search DN=groupsBase**

3. **bsf.properties.** In the <installation directory>\  
**agora\glassfish\glassfish\domains\BTOA\config\conf\bsf.properties** file, change:  
  
**personalization.provider=EXTERNAL**  
  
**users.provider=EXTERNAL**  
  
**groups.provider=EXTERNAL**  
  
to:  
  
**personalization.provider=SHARED**  
  
**users.provider=SHARED**  
  
**groups.provider=SHARED**
4. **User synchronization.** To improve the synchronization of users, perform the following:
  - a. The synchronization of LDAP users, and Executive Scorecard and SAP BusinessObjects users is performed by default every **60 minutes** (this is the recommended value). To change the periodicity, click **Admin > Scorecard > XS Settings**, and enter a new value in the **Users Info Reload Rate (minutes)** in the Studio update area. Because each synchronization lasts a few minutes, it is recommended to set the default synchronization period so there is no overlap with the synchronization itself. For details, see "[XS Settings](#)" on page 160.
  - b. To make sure that the synchronization is only performed on the relevant users (for performance purposes). Make sure to add to the **external-ldap.properties** file located at <HPXS>\**agora\glassfish\glassfish\domains\BTOA\config\conf**, the **(groupfilter=(&(objectClass=group)(cn=g-s-rbap-t-hpxs\*))**) so that only the users needed for Executive Scorecard are synchronized.

## Configure BOE to Work with LDAP

Make sure you use the LDAP Authentication option:

1. From the Windows Start menu, click **Programs > BusinessObjects XI 3.1 > BusinessObject Enterprise > BusinessObjects Enterprise Central Management Console**.
2. Log on to the Central Management Console as an administrator.
3. Click **Authentication**, then click the **LDAP** tab.
4. Click **Start LDAP Configuration Wizard**.
5. In the **Add LDAP Host** (hostname: port) field, type your host and port information.
6. Click **Add**.

7. Click **Next**.
8. In the LDAP Server Type drop-down list, select your LDAP server, and click **Next**. This is where you select the type of server you are using: Sun One or Active Directory.
9. In the Base LDAP Distinguished Name field, type the distinguished name, and click **Next**.
10. Type the LDAP host credentials:
  - a. **LDAP Server Administration Credentials:** Enter the name and password for a user account that has rights to administer your LDAP server.
  - b. **LDAP Referral Credentials:** Enter the same name and password you entered for LDAP Server Administration Credentials.
11. In the **Maximum Referral Hops** field, type the number of referral hops to limit forwarding the credential request. If you set this field to zero, no referral hops are allowed.
12. Click **Next**.
13. From the Type of SSL authentication drop-down list, select **Basic (no SSL)** and click **Next**.
14. From the **Authentication** drop-down list, select **Basic (no SSO)** and click **Next**.
15. Select the following LDAP options:
  - a. **Create a new account for every added LDAP alias**
  - b. **Create new aliases only when the user logs on**
  - c. **New users are created as named users**
16. Click **Next**.
17. Click **Finish**.

## Manage Users Using LDAP

1. To assign roles and permissions to LDAP users:
  - a. To add users with the ADMIN role, run the following script (it adds the ADMIN role “manually”):

```
<HPXS  
ROOT>\agora\glassfish\glassfish\domains\BTOA\config\population\populate-  
admin-detail.bat <user_ID><password> <firstname> <lastname> <e-mail>
```
  - b. To add users with the EVERYONE role, run the following script (it adds the EVERYONE role “manually”):

**<HPXS**

```
ROOT>\agora\glassfish\glassfish\domains\BTOA\config\population\populate-user-  
detail.bat <user_ID><password> <firstname> <lastname> <e-mail>
```

- c. To add users as ADMIN role without password, run the following script (it adds the ADMIN role “manually”):

**<HPXS**

```
ROOT>\agora\glassfish\glassfish\domains\BTOA\config\population\populate-  
admin-detail-noPwd.bat <user_ID <firstname> <lastname> <e-mail>
```

- d. To add users as EVERYONE role without password, run the following script (it adds the EVERYONE role “manually”):

**<HPXS**

```
ROOT>\agora\glassfish\glassfish\domains\BTOA\config\population\populate-user-  
detail-noPwd.bat <user_ID><firstname> <lastname> <e-mail>
```

Where:

- **<user\_ID>** and **<password>** are the LDAP user name and password.
- **<firstname>**, **<lastname>** are the user names displayed in XS. You can assign permissions, or delete the users in the **Admin > Users and Roles > Role Management**. For details, see ["Role Management" on page 60](#).
- **<email>** is the email of the user.

**Tip:**

- It is recommended to create the users without password as such users can only log on under LDAP mode. Users defined with passwords can log on using the password even when LDAP is off.
- At least one administrator user should be created to be used to perform the administration work.

2. If SSL is used to access LDAP, you must import the relevant certificates.

## UI Description

For details see ["UI Description" on page 81](#).

# Data Source Management

The Data Warehouse can connect to other products (data sources) and gather data about these products. An integration is available for each product (data source). The connection from the data source to the DWH is called a content pack. FBI extracts the data from the specific data source. Content packs contain all the artifacts needed to connect to the relevant data source and gather data from that data source.

Data Source Management enables you to manage the integration of data into the data warehouse through the activation of data sources. The available data source content packs are registered in the deployment process and can then be activated in the Data Source Management page.

**To access:** Select **Admin > Data Source Management** then click **Add data source**.

**Note:** For details on activating Content Packs created in the IDE, see [Activate New Content](#) in the *IT Executive Scorecard Content Extension Guide*.

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" on page 99](#) ● ["UI Description" on page 106](#)

## Learn More

### Content Packs

The Data Warehouse can connect to other products (data sources) and gather data about these products. An integration is available for each product (data source). A Content Pack is a set of files which defines the execution of an ETL along with all its parameters.

The connection from the data source to the DWH is called an integration content pack (i-CP). Each content pack uses an extractor in order to extract the data from the specific data source and contains all the artifacts needed to connect to the relevant data source and to gather data from that data source. Content packs include:

- The definition of the data model used for the connection.
- The type of data gathered from the data source.
- The ETL definitions.
- The definition files.
- The configuration files.
- The scripts that help build and define the Data Warehouse.

The mapping between the raw data from the data source and the target database in the Data Warehouse is included in the ETL. The Executive Scorecard runs the KPI engine that reads the data from the target database, creates the relevant KPIs from that data, calculates the value, and status of the KPI and displays the relevant information in the Dashboard.

You must run the Data Source Management wizard to configure and activate the content packs, depending on the products you want to integrate with.

The out-of-the-box content packs are:

- CORE content pack. This is the central content pack that is automatically installed during the post-installation process. It takes consolidated data to the target schema. It includes all the dimensions, and entities of the Data Warehouse. It also provides the organization of definitions and hierarchies. All the other integrations depend on the CORE content pack.
- ALM
- AM
- AWS
- AWSCW
- BSM
- CSA
- DP
- FPA
- HPV
- IC
- NA
- NNM
- OO
- PPM
- SA
- SE
- SM
- UCMDB
- VCM

### **Context**

A context is the result of a semantic layer of metadata that creates a business oriented view of the data. The context contains a schema of the tables that make up the dimension and measurement



objects. The context is an interface between the data warehouse and the analytics that display the data. It then corresponds to the business contexts used in HP IT Executive Scorecard.

## Learn About Multiple Integration Content Pack Instances

Multiple Integration Content Packs (M-iCP) provide multiple instances of the same data source or product type. This allows for data source configuration per instance, as opposed to a single activation for the data source. Each instance has its own version and product type. The M-iCP source extraction is based on the FBI extractor technology, and consolidation is enabled between instances.

You can add an instance using the Data Source Management page or using the Automation tool. For back-end tool details, see ["The Automation Tool" on page 390](#).

## Learn About File Based Integration

File Based Integration (FBI) enables you to extract data from a specific data source according to a set of instructions. It consists of a plug-able extractor framework for each data source. The extractor gathers data according to the specific instructions it receives, placing it into a relevant txt file. Each supported data source has a corresponding extractor (or multiple extractors) capable of extracting data out of it according to specified instructions. All available Content Packs use FBI.

### Extraction Mechanism

The extraction is based on a set of parameters kept in the **dwabc.INSTRUCTION** table in the staging database. The instruction parameters are set by the BODS workflow during the Source Extract.

### Extraction Methodology

The extraction is done using Enterprise JavaBeans (EJBs) running on the application container of the Data Warehouse. The EJBs use various technologies (for example, JDBC, Web Services, Remote EJB objects, data files, and other kinds of http requests) to extract the data from the data source.

### ETL Source Extract

The first stage of the ETL is the Source Extract. In this phase, the BODS workflow inserts an instruction to the INSTRUCTION table and then invokes a batch file with the instruction ID as a parameter. The batch file calls a JAVA program which performs an http request that activates the relevant extractor. Using the instruction ID, the extractor fetches the relevant parameters from the INSTRUCTION table.

The FBI extractor extracts the data from the data source into BODS data stores. All Content Packs integrate using FBI, where data is extracted from the data source into txt files with well defined standard structure.

The following extractors are available for each source product:

Product	Extractor
ALM	ALM

Product	Extractor
AM	MSSQL, Oracle
AWS	aws_s3
AWSCW	AWSCW
BSM	BSM, GDE, UCMDB
CSA	CSA
DP	DP
FPA	FPA
IC	MSSQL, Oracle, PostgreSQL
NA	MSSQL, Oracle, MySQL
NNM	NNM
OO	MSSQL, Oracle, MySQL
PPM	Oracle
SA	SA
SE	Oracle
SM	MSSQL, Oracle
UCMDB	UCMDB
VCM	script(groovy)

### Troubleshooting Logs

- **<agora>\glassfish\glassfish\domains\BTOA\logs\fbi.log**: This log describes all of the current activity of the file based framework as well as the activity of the extractors themselves.
- **<installation directory>\agora\DataWarehouse\log\dw\_fbi\_client.log**: This log describes the activity of calling the FBI url from a batch file (which is invoked by a BODS workflow during the ETL source extract).

### Learn more about each data source integration

For more detailed information about each data source's integration, see [Integrate the Data Sources](#) in the relevant *IT Executive Scorecard Content Reference Guides*.

[ALM Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Application Lifecycle Management*.

[AM Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Asset Manager*.

[AWS Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of Amazon Web Services*.

[AWSCW Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of Amazon Web Service CloudWatch*.

[BSM Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Business Service Management*.

[CSA Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Cloud Service Automation*.

[DP Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Data Protector*.

[Hyper-V Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of Hyper-V*.

[IC Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Insight Control*.

[NA Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Network Automation*.

[NNM Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Network Automation*.

[OO Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Operation Orchestration*.

[PPM Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Project and Portfolio Management*.

[SA Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Server Automation*.

[SE Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Storage Essentials*.

[SM Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Service Manager*.

[UCMDB Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Universal Configuration Management Database*.

[VCM Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of vCenter Chargeback Manager*.

## Tasks

This section includes:

["Add and activate a new data source instance:" on the next page](#)

["Reactivate an existing data source instance:" on the next page](#)

["Deactivate a data source instance:" on page 101](#)

"View data source configuration settings" on the next page

"Edit data source settings and test the connection:" on the next page

"Add a new data source to the integration mechanism" on the next page

"Configure admin tasks using the command line" on the next page

"Use the FBI Verification Extractor" on the next page

"Configure FBI Properties" on page 102

"Sample Integration Activation Using the UI" on page 102

"Sample Integration Activation Using the Automation Tool" on page 104

### **Add and activate a new data source instance:**

The process of integrating a data source into the Data Warehouse is done through activation of the source instance.

1. Select **Admin > Data Source Management**.
2. Click the **Add data source** to open the Data source wizard. The Add Data Source page opens.
3. Select the data source type and click **Next**.


The relevant data source page opens.

4. Enter and select the configuration parameters.
5. Complete the wizard.

The data source instance is activated.

**Note:** If the first time activation of a data source instance fails, the instance is displayed in the source list with an **Error** status. You can then activate the data source by clicking **Edit Settings** and completing the configuration and activation.

### **Reactivate an existing data source instance:**


1. Select **Admin > Data Source Management**.
2. Click  next to the specific source and the source is activated.

**Note:** Before reactivating the BSM data source, click **Edit Settings** and enter the **RTSM Username** and **RTSM Password**.

Before reactivating the UCMDB data source, click **Edit Settings** and enter the **Username** and **Password**.

### Deactivate a data source instance:


You can deactivate the source and stop the integration process, in order to change configuration details.

1. Select **Admin > Data Source Management**.
2. Click  and the deactivation warning opens.
3. Click **OK**.

### View data source configuration settings

1. Select **Admin > Data Source Management**.
2. Click **View Settings** and the relevant data source page opens.

### Edit data source settings and test the connection:

1. Select **Admin > Data Source Management**.
2. If necessary, deactivate the data source by clicking .
3. Click **Edit Settings** and edit the configuration parameters.
4. Click **Next** to validate your changes and test the connection to the data source.

### Add a new data source to the integration mechanism

For details, see ["Add Additional Data Sources" on page 361](#).

### Configure admin tasks using the command line

For details, see ["Data Warehouse Command Reference" on page 372](#)

### Use the FBI Verification Extractor

FBI also supplies an extractor within the FBI framework that can verify and validate the flat file output you have.

#### To utilize the extractor:

1. Place the Flat File (FF) in a specific folder with a specific name in the RESULT\_FILE\_NAME column in the Instruction table. The name and folder are defined by the ETL developer.
2. The delimiters in FF should be the same as the ones defined in the delimiters columns (FIELD\_

DELIMITER and ROW\_DELIMITER). The FF must contain the list of fields in the first line with all the relevant delimiters.

3. Make sure the order and the name of the fields in the FF are the same as the ones defined in the SourceModelMetadata.

**To activate the extractor:**

1. Define the productType attribute in the datasource.xml as file (productType="file").
2. You can also override the defined extractor by adding a new entry into the connection detail (in the datasource.xml), as follows: `<dw:GenericProperty propertyName="overrideextractor" propertyValue="file" propertyType="string"/>`

### Configure FBI Properties

In data source activation, each source that is extracted with FBI must have the following properties configured.

Navigate to: **<installation directory>\DataWarehouse\conf\fbi.properties**

If multiple extractors are running simultaneously, you may need to configure the following:

**fbi.max.number.of.threads =5**

If you experience problems with languages that do not work with UTF 16 you can change the following:

**fbi.flat.file.encoding =UTF-16**

#### Example

- **Sample Integration Activation Using the UI**

**Activate the Integration (Sample)**

- a. **Prerequisites:** Make sure all of the required prerequisites have been met.
- b. Select **Admin > Data Source Management** then click **Add data source**.
- c. Select the data source type.
- d. Select or enter the configuration parameters.
- e. Click **Next** to proceed to the validation page.

### UI Description (Sample-AM Oracle server)

The screenshot shows a 'Data Source Wizard' dialog box with the following fields and options:

- Instance name :** Text input field.
- AM Version :** Dropdown menu with '5.2/9.3' selected.
- Time Zone :** Dropdown menu with 'UTC' selected.
- Data Source Type :** Dropdown menu with 'MSSQL' selected.
- \*Username :** Text input field with placeholder '<<Enter username>>'. A red asterisk indicates it is a required field.
- \*Password :** Text input field. A red asterisk indicates it is a required field.
- \*Hostname/IP Address :** Text input field with placeholder '<<Enter hostname or IP address>>'. A red asterisk indicates it is a required field.
- Port :** Text input field with placeholder '<<Default: Oracle 1521, MSSQL 1433>>'.
- \*Database Name :** Text input field with placeholder '<<Enter database name>>'. A red asterisk indicates it is a required field.
- Initial Load Period (months) :** Dropdown menu with '6' selected.

At the bottom right of the dialog box are three buttons: 'Back', 'Next', and 'Cancel'. A 'Help' link with a close icon is located in the top right corner.

User interface elements are described below:

UI Element	Description
<b>Instance name</b>	Enter a name for the data source instance you are activating.
<b>AM Version</b>	Select the relevant AM version. For details, see the <i>IT Executive Scorecard Support Matrix</i> .
<b>Time Zone</b>	Select the time zone for the data source.
<b>Data Source Type</b>	AM should be configured to run on an Oracle server.
<b>Server</b>	Enter the Oracle server.
<b>Username</b>	Enter your username used to log on to the AM database.

UI Element	Description
<b>Password</b>	Enter your password used to log on to the AM database.
<b>Hostname/IP Address</b>	Enter the Oracle server hostname or IP address.
<b>Port</b>	Enter the port for database connections.
<b>SID</b>	Enter the unique name of the database.
<b>Service Name</b>	Enter the alias used when connecting.
<b>Initial Load Period (months)</b>	Select the number of months from which you want the initial data loaded.

- **Sample Integration Activation Using the Automation Tool**

If you experience errors or problems with the Data Source Management UI, you can activate the sources using DWH back-end tools.

**Activate the Integration (Sample-AM Oracle server)**

- a. **Prerequisites:** Make sure all of the required prerequisites have been met.
- b. Enter the product name, product version, time zone, and product type of the data source, and the configuration parameters in the `datasource.xml` file as follows:
  - **server.** The data source server.
  - **user.** The user required for authenticating to the data source server.
  - **password.** The password required for authenticating to the data source server.
  - **host.** The remote server on which the data source server resides.
  - **port.** The port in the data server. By default, the port number is 1521 for Oracle database and 1433 for SQL Server database.
  - **sid.** The unique name of the database.
  - **servicename.** The alias used when connecting.
  - **initial load period.** The number of months from which you want the data loaded.

**Note:** Each Content Pack contains a sample xml file for  
`<Installation Directory>\agora\ContentPacks\SA\conf\dataSources.xml`.



### Sample xml configuration (Advanced configuration)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dw:DataSourceConnections version="1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://schemas.hp.com/bto/dwh/v1/dw_dataSources ..\xmlSchemas\dw_dataSources.xsd"
  xmlns:dw="http://schemas.hp.com/bto/dwh/v1/dw_dataSources">
  <dw:DataSourceConnection productName="AM" productVersion="5.2" timeZone="Asia/Shanghai" productType="oracle">
    <dw:GenericProperty propertyName="server" propertyValue="" propertyType="string"/>
    <dw:GenericProperty propertyName="user" propertyValue="" propertyType="string"/>
    <dw:GenericProperty propertyName="password" propertyValue="" propertyType="password"/>
    <dw:GenericProperty propertyName="port" propertyValue="1521" propertyType="string"/>
    <dw:GenericProperty propertyName="sid" propertyValue="" propertyType="string"/>
    <dw:GenericProperty propertyName="servicename" propertyValue="" propertyType="string"/>
    <dw:GenericProperty propertyName="dwh.etl.initialloadmonths" propertyValue="6" propertyType="string"/>
  </dw:DataSourceConnection>
</dw:DataSourceConnections>
```

**Note:** In order to verify that the connection details added in the datasources.xml file are correct, it is recommended to test the connection to the data source before running the configuration. For details, see ["The Automation Tool" on page 390](#).

#### c. Register Instance:

To add an additional data source instance enter: **dw\_cp\_register.bat -addInstance -name <CP\_NAME>**

The Data Warehouse then looks for the CP in the Content Packs Folder. The instance ID is displayed in the output. "Instance ID: XX has been added to Content Pack: <CP\_NAME>"

It is also added to the CONTENT\_PACK table.

#### d. Configuration:

For first time activation, enter the following: **dw\_ds\_automation.bat -task ConfigureInitial -cp <content pack name> -instance <INSTANCE\_ID> -xmlFilePath** [Path to datasources.xml file].

For all subsequent activations, enter the following: **dw\_ds\_automation.bat -task Configure -cp <content pack name>-instance <INSTANCE\_ID> -xmlFilePath** [Path to datasources.xml file].

**Note:** After you have configured **dw\_ds\_automation.bat -task ConfigureInitial** or **dw\_ds\_automation.bat -task Configure**, delete the value in the `propertyValue` field of the password from the `datasources.xml` file, as follows:

```
<dw:GenericProperty propertyName="password" propertyValue=""  
propertyType="password" />
```

For details, see ["The Automation Tool" on page 390](#).

e. **Deployment:**

Enter the following: **dw\_ds\_automation.bat -task Deploy -cp <content pack name>-instance <INSTANCE\_ID>**. The content pack is initialized.

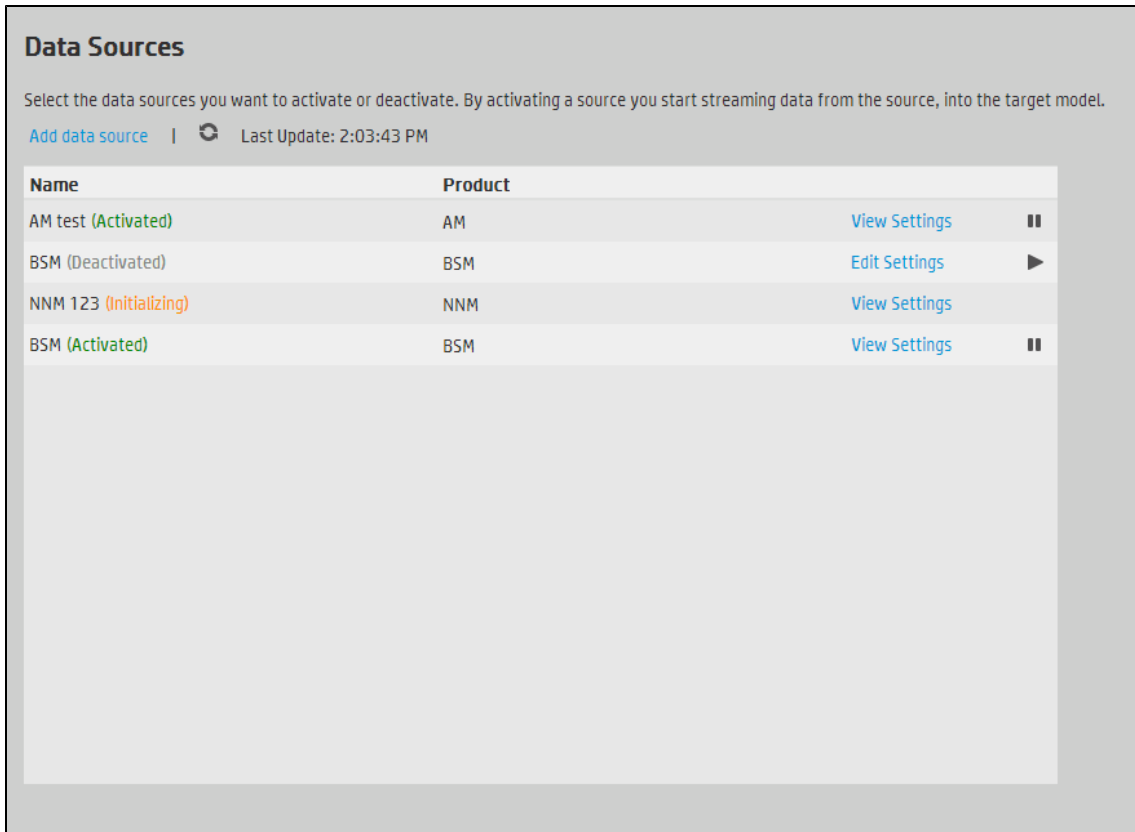
f. **Activate the data source:**

Enter the following: **dw\_ds\_automation.bat -task Activate -cp <content pack name> -instance <INSTANCE\_ID>**.

## UI Description



### Data Source Management Page

The Data Source Management page enables you to select from a list of Integration Content Packs recognized by the data warehouse. Additionally, it enables you to activate the integration of the data sources, as well as deactivate and make configuration changes.



User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Add data source</b>	Click to open the Data Source wizard. For details, see " <a href="#">Data Source Wizard</a> " on the <a href="#">next page</a> .
<b>&lt;Data Sources&gt;</b>	<p>A list of sources, by <b>Name</b> (instance name) and <b>Product</b> (data source product), that have been added to the data warehouse. The current status of the data source is displayed next to the instance name:</p> <ul style="list-style-type: none"> <li>• Activated</li> <li>• Deactivated</li> <li>• Error</li> <li>• Initializing: Data source is currently being activated. Relevant only for first time activation.</li> </ul>

UI Element	Description
<b>View Settings</b>	<p>Available when the data source has been activated. Displays the read-only configuration of all connection parameters.</p> <div style="border: 1px solid gray; padding: 5px; background-color: #f0f0f0;"> <p><b>Note:</b> All connection settings are run-time related. You must deactivate the connection to the data source in order to change the settings.</p> </div>
<b>Edit Settings</b>	<p>Available when the data source has been deactivated. Displays the configuration of all connection parameters and enables you to test the connection to the data source. The parameters can be edited.</p> <p>If the first time activation of a data source instance fails, the instance is displayed in the source list with an <b>Error</b> status. You can then activate the data source by clicking <b>Edit Settings</b> and completing the configuration and activation.</p>
	<p>Activates the relevant data source.</p> <ul style="list-style-type: none"> <li>Once the content pack is activated, the ETL is ready to run. For details on how to monitor and manage the ETL, see "<a href="#">ETL Management</a>" on page 112.</li> <li>Do not activate a content pack while the ETL is running.</li> </ul>
	<p>Deactivates the relevant data source.</p> <div style="border: 1px solid gray; padding: 10px; background-color: #f0f0f0; margin: 10px 0;"> <p>Data Warehouse</p> <p><b>i</b> Do you want to deactivate this data source?</p> <ul style="list-style-type: none"> <li>Note that deactivating this application will disable any KPI or Objective from being calculated.</li> <li>Note that an ETL stream is currently running. Clicking "OK" will abort the running ETL stream.</li> </ul> <p style="text-align: right;"> <input type="button" value="OK"/> <input type="button" value="Cancel"/> </p> </div> <p>Do not deactivate a content pack while ETL is running.</p>

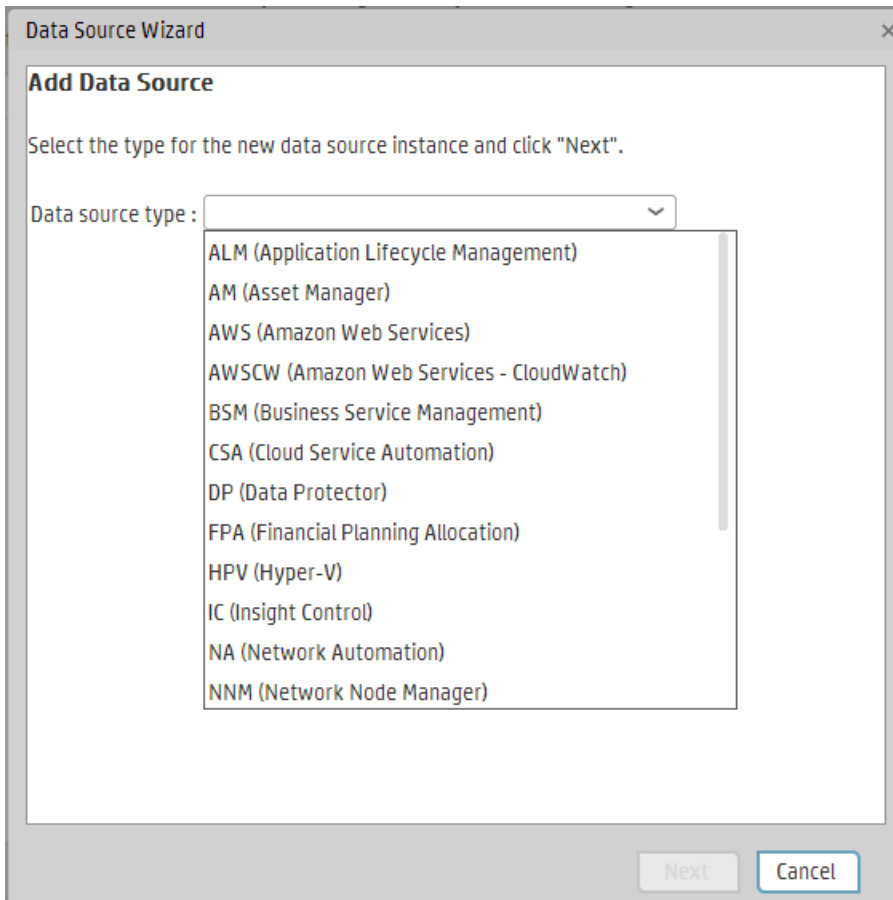
## Data Source Wizard

The Data Source wizard enables you to add and activate a selected data source instance.

<b>To access</b>	<p>Select <b>Admin &gt; Data Source Management</b> and then click <b>Add data source</b>.</p> <p>Select the data source type to activate the integration processes.</p>
------------------	---

<b>Important Information</b>	<p>The UI elements of the wizard differ according to the selected data source.</p> <p>You can also add additional data sources. For details see <a href="#">"Add Additional Data Sources"</a> on page 361.</p> <p>For configuration parameter details, see <a href="#">Integrate the Data Sources</a> in the <i>IT Executive Scorecard Content Reference Guide</i>.</p> <p>For each source, enter the relevant information and click <b>Next</b> to proceed to the validation page.</p> <div style="background-color: #f0f0f0; padding: 5px;"><p><b>Note:</b> If the activation process is taking more than one hour, you can change the status of the CP in the CONTENT_PACK table to "ERROR" and then activate the CP again.</p></div>
<b>Wizard Map</b>	<p>The Data Source wizard contains:</p> <p><b>Add Data Source Page &gt; Configuration Parameters Page &gt; Validation Page</b></p>

## Add Data Source Page



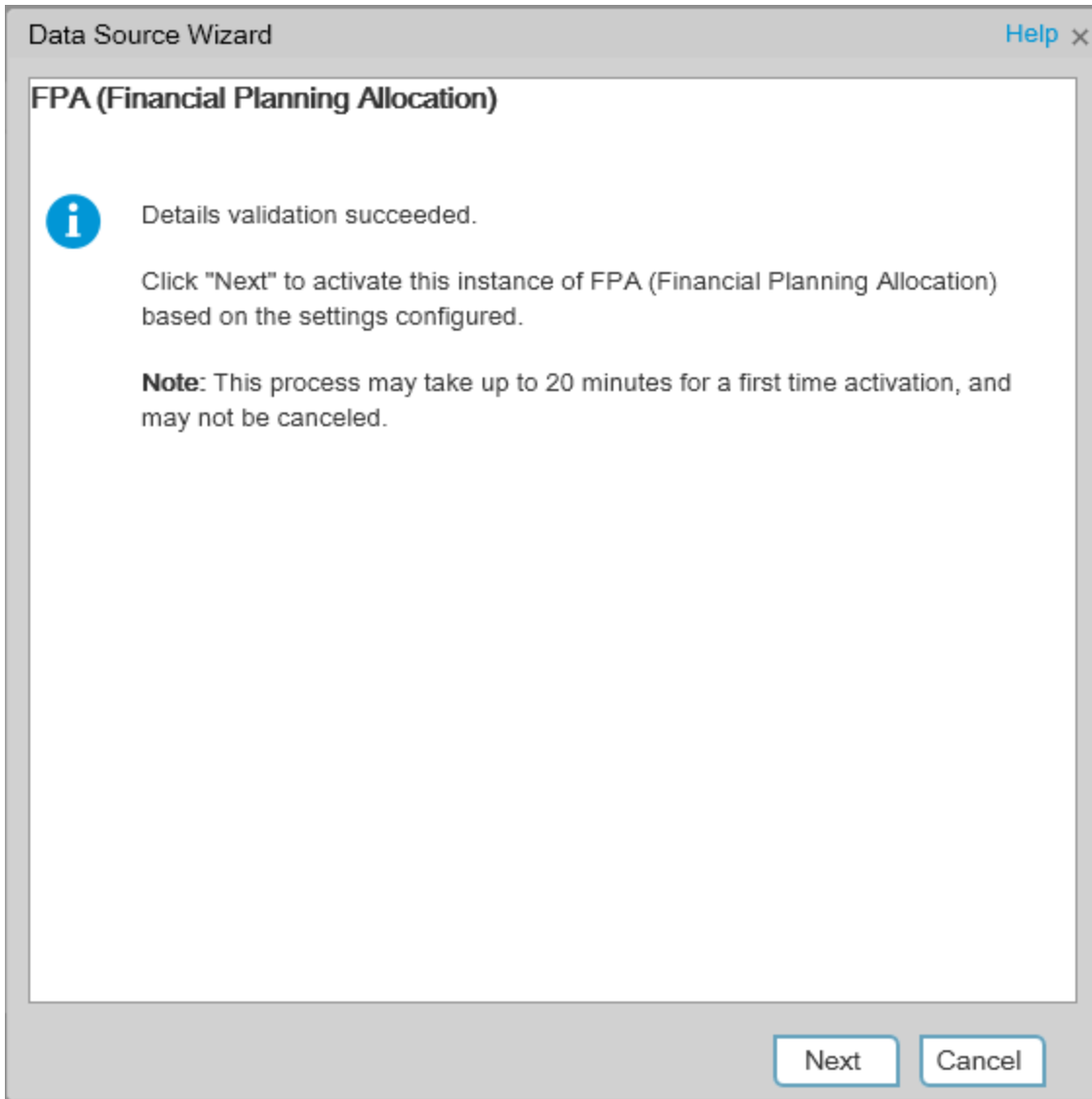
Click **Next** to move to the next page of the wizard..

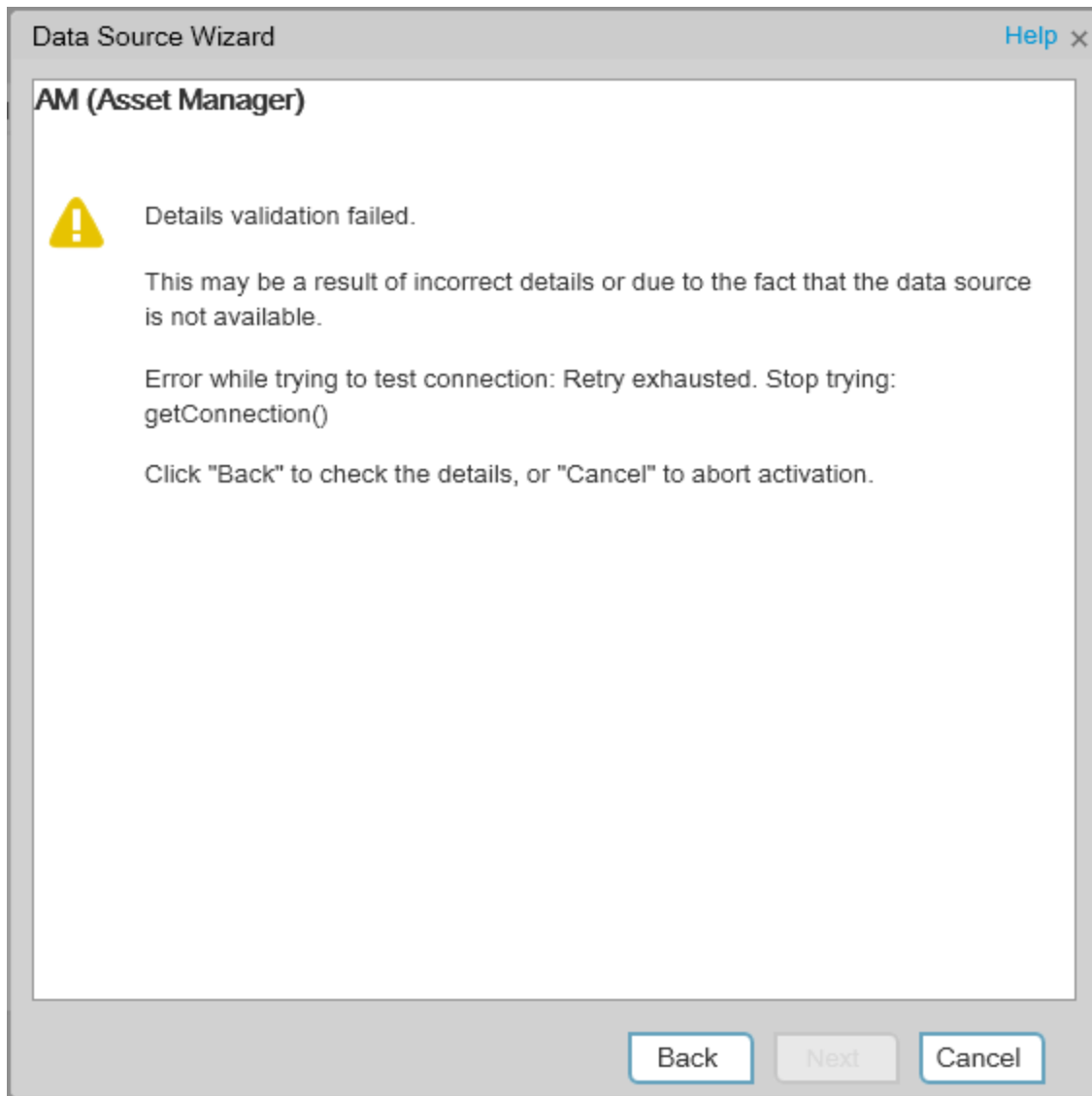
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
Data source type	Select the data source type you want to activate.

## Validation Page

This validation page displays activation status information pertaining to the selected data source.





A message displays the data source status information.

Click **Finish** to complete the wizard activation process.

# ETL Management

The ETL Management tab displays the DW ABC Streams Management UI which enables you to perform the essential tasks related to ETL and stream functionality. It displays the state of active streams, and enables you to schedule and control stream activity. It also allows you to view the historical data and the archived stream definitions. All ETL management and functionality is accessed and performed through this UI.

## To access:

Select Admin > ETL Management.

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" on the next page](#) ● ["UI Description" on page 117](#)

## Learn More

### ETL

The Extract, Transform, and Load (ETL) process is an end-to-end transfer of external source data through several staging layers and into the target layer of the data warehouse. The source data can reside in a single database or multiple databases. The data warehouse uses the ETL process to extract, consolidate, and transform the source data into a meaningful target model that populates relevant business analytics.

The ETL process comprises eight primary stages. The stages of this process depend on metadata and the nature of the sources.

The ETL is monitored and managed through the DW ABC Streams Management User Interface. For details, see [ETL Management and Monitoring](#)

### ETL Stream Management and Monitoring

The Audit Balance and Control Management user interface performs all of the back-end configuration and supports full ABC functionality in the ETL. The UI enables you to view the active stream and all of the nodes containing the stream steps. This allows you to pinpoint exactly which steps have failed when the stream has been stopped. You can also view the history of the stream as well as inactive streams.

- **Stream.** A stream represents the definition of what should run in the ETL, for example, Upstream. It is a set of a flow of ETL steps. The DW ABC Streams Management UI displays any stream that is defined, along with the historical data and archived stream information for that stream.
- **Batch.** A batch is a particular run-time instance of the stream. There is a new batch ID for each run of the batch. Each time you load a batch, you are creating a run-time instance of the current stream definition.
- **Step.** Any type of execution that you want to run in the ETL. The step is defined in a stream.



- **Note.** A group of steps that run in parallel and are independent of each other. A node is meant to simplify the display of the stream and to indicate whether a stream is blocked. The node indicates whether the batch can progress to the next node. If one step has failed, even if all other steps in the node are successful, the execution of the ETL will not progress to the next node.

The DW ABC Streams Management UI provides visibility and management of:

- Multiple streams
- Stream progress
- Stream execution history
- Archiving
- Batch scheduling

### **Audit, Balance, and Control**

Audit, Balance, and Control (ABC) is a set of functions based on data warehousing best practices. Although SAP BusinessObjects Data Services manages the ETL workflow, ABC ensures work flow integrity. It controls the overall ETL execution, provides error handling, and collects job progress statistics. ABC's ETL streams and functions can be viewed and managed through the DW ABC Streams Management User Interface, as well as the CLI. Other ABC features are:

- Job stream management
- Command line administration tools
- Generated ABC operational system reports
- Generated ABC historical system reports

For report details, see [ABC Operational Reports](#) and [Data Model Reports](#).

## **Tasks**

This section includes:

["View active streams" on the next page](#)

["Display hidden streams" on the next page](#)

["Verify or schedule the run\\_steps command" on the next page](#)

["View stream attributes" on page 115](#)

["Schedule a batch job" on page 115](#)

["Load or resume a batch job" on page 115](#)

["Suspend a stream" on page 115](#)

["Abort a stream" on page 115](#)

["View node information" on the next page](#)

["View step attributes" on page 116](#)

["Refresh stream data" on page 116](#)

["View historical data" on page 116](#)

["View archived data" on page 116](#)

["Automatically retry steps" on page 116](#)



["Manually retry steps" on page 116](#)

## View active streams

1. Select **Admin > ETL Management**.
2. In the DW ABC Streams Management UI page the stream information is displayed.

## Display hidden streams

The DW ABC Streams Management UI enables you to view streams that are hidden and used only for back-end maintenance.


1. Select **Admin > ETL Management** and select **Show Hidden Streams**.
2. The hidden ETL streams are displayed.
3. You can then schedule the run-steps command and load the batches, as needed.
4. Click  to load and run the batch.
5. Click  to refresh and check the running status of the ETL.

For details, see ["Enterprise Readiness \(ER\) Tools" on page 284](#).

## Verify or schedule the run\_steps command

Run\_steps is automatically scheduled after deployment in the post-install. It schedules steps for each defined stream. The run\_steps Scheduler dialog box enables you to verify or change the settings. The ABC Web Services server automatically creates a schedule for each active stream (Upstream). Run\_steps executes every five minutes, or whatever interval you have set in the DWH settings for the value run\_steps scheduler interval. For details see ["Data Warehouse Settings" on page 140](#). The stream will only run once you have loaded a batch.

**Note:** If you add a new stream definition, you must manually define a run\_steps schedule.


1. Select **Admin > ETL Management** and click  in the Stream Information area.
2. The Stream Scheduler dialog box opens.
3. Select the **Run-Steps Scheduler** tab.

4. Click **Add New** to create a new schedule for a specific stream.
5. Click **Save**.
6. Click **Delete** to delete a displayed schedule. You can then add a new one to replace it.

### View stream attributes

1. Select **Admin > ETL Management** and click **More Info** in the Stream Information area.
2. The Stream Attributes dialog box opens, displaying the various read-only stream details.

### Schedule a batch job

1. Select **Admin > ETL Management** and click  in the Stream Information area.
2. The Stream Scheduler dialog box opens.
3. Select the **Load -Batch Scheduler** tab.
4. Select the relevant **Schedule Type** and times and click **Save**.

### Load or resume a batch job

1. Select **Admin > ETL Management**.
2. When there is no running batch (stream state is **None**) or the running batch is in a suspended state (stream state is **Suspended**), click  to load or resume a batch.


### Suspend a stream

When the stream is running and the state is Active, you can suspend the stream to allow no action to happen.

- Select **Admin > ETL Management** and click  in the Stream Information area.

### Abort a stream

When you abort, the batch cannot be run again, when you load, it will start a new batch.

- Select **Admin > ETL Management** and click  in the Stream Information area.


### View node information

1. Select **Admin > ETL Management** and click a node in the Stream Information area.
2. The Node Step list opens with the step information displayed.

## View step attributes

1. Select **Admin > ETL Management** and click **More Info** in a specific node.
2. The Step Attributes dialog box opens, displaying the various read-only step details.

## Refresh stream data

- Select **Admin > ETL Management** and click  in the Stream Information area.

## View historical data

The most recent batch history of the stream is displayed first. You can navigate through the pages of the various batches. You can view up to five batches at a time.

1. Select **Admin > ETL Management** and click Historical Data in the Stream Information area.
2. The Historical Data page opens.
3. Select **Next** to view the other batches in the stream's history. All fields are read only.

## View archived data

You can view previous stream definitions and the historical data for each. The historical data is the batch history for that particular definition. When you add a data source it changes the stream definition. The new definition has no historical data, you can only view the archived stream and see the historical data of the previous definitions. All fields are read only.

1. Select **Admin > ETL Management** and click **Archived Streams** in the Stream Information area.
2. The Archived Stream Definition page opens.



## Automatically retry steps



There is an automatic retry for attempting to fix step errors. A step that has an error it will not necessarily remain and can resolve itself.

There is a configurable automatic retry mechanism which is set by default to four times. For details on changing the amount of automatic retries, see "[Change the Number of Retries for a Failed ETL Step](#)" on page 396.

## Manually retry steps

**The retry image appears when there has been a failure on a step.**

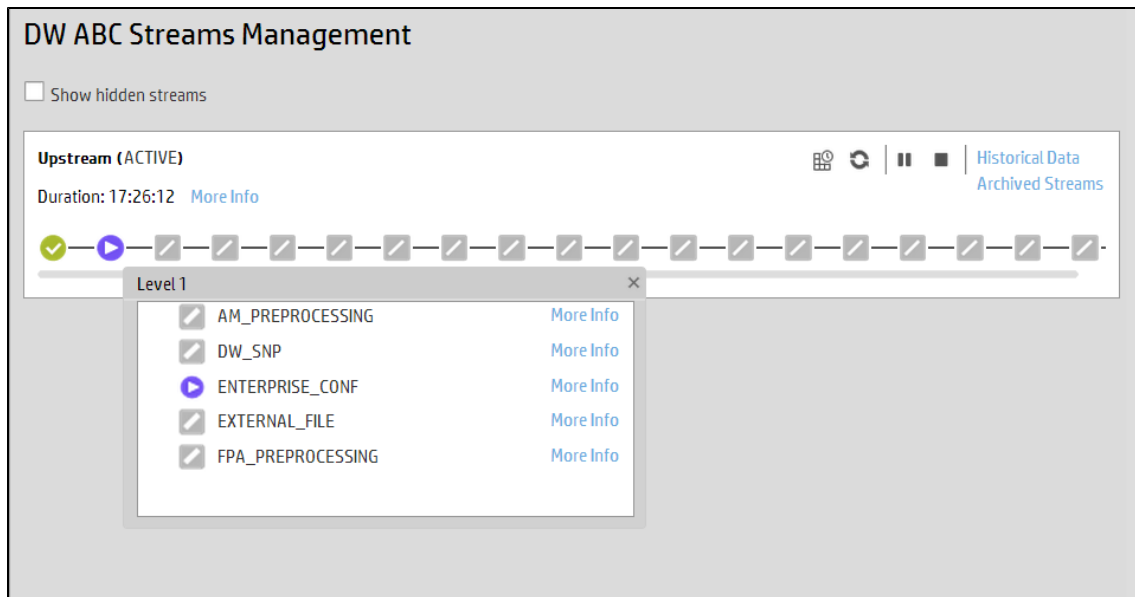
1. Select **Admin > ETL Management** and click an error node in the Stream Information area.
2. The Node Step list opens with the step information displayed.
3. If all of the retries have been exhausted, and the Retry icon  appears.
4. Click  in the Stream Information area to suspend the stream.

5. Fix the problem, and manually retry by clicking .
6. Once the error is resolved, click  to resume the stream.

## UI Description

### DW ABC Streams Management Page






You can view and manage ETL stream functions and run-time information through the DW ABC Streams Management UI. The active stream and details are displayed as well as the node and step details.





























### <Stream Display>

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

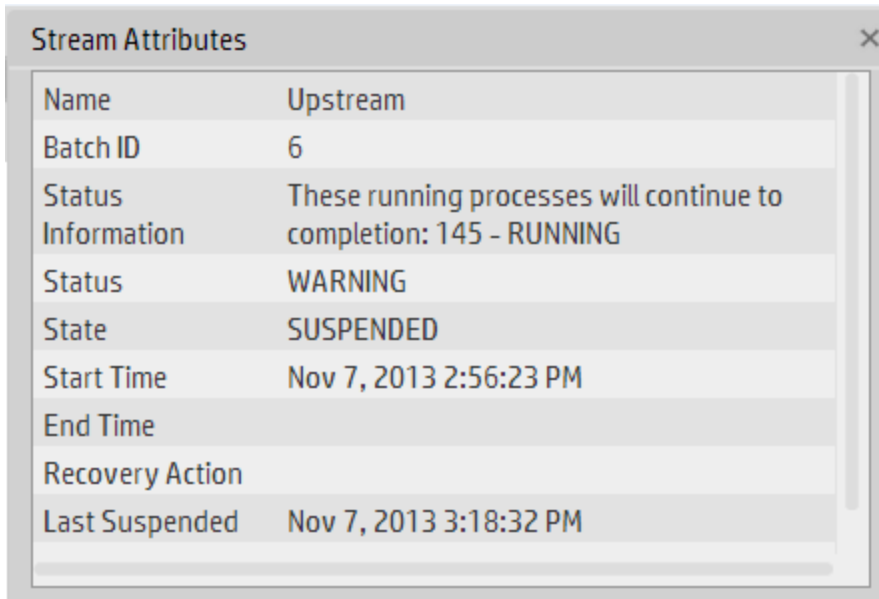
UI Element	Description
<Stream Information>	<p>Displays the following stream details:</p> <ul style="list-style-type: none"> <li>• Stream Name</li> <li>• Status: Active or Suspended or None</li> <li>• Duration</li> <li>• Date</li> </ul>

UI Element	Description
<b>Show Hidden Streams</b>	Click to display the hidden ETL streams.
	Refreshes the stream information. There is an automatic refresh of the stream information every two minutes.
<b>More Info</b>	Opens the Stream Attributes dialog box. For details, see <a href="#">"Stream Attributes Dialog Box" on page 120</a>
	<b>Load Batch/Resume.</b> Starts or resumes the running of the specific batch of ETL stream.
	Opens the Stream Scheduler dialog box. Enables you to schedule the load batch and run_steps commands. For details, see <a href="#">"Stream Scheduler Dialog Box" on page 123</a> .
	<b>Suspend Stream.</b> Temporarily suspends the stream.
	<b>Abort Stream.</b> Stops the stream that is running.

UI Element	Description															
<Node Display>	<p>Displays the nodes representing the groups of steps within one level of execution of an ETL run, the steps that can run in parallel. A node is a collection of steps that all run in parallel. The icon for each node represents the worst status of all of the steps in the node.</p> <p> Indicates that the particular step or all steps in the node have finished successfully in the execution.</p> <p> Indicates that a step or a step in the node is currently running</p> <p> Indicates an error in one of the steps. The step is automatically retried four times by default. Click the Error node to display the Node Step List in order to retry steps. Click  to retry the step.</p> <p> Indicates a warning in one of the steps.</p> <p>Click a node to open the Node Step list.</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p>Level 1 <span style="float: right;">✕</span></p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;"></td> <td>DW_SNP</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> <tr> <td style="text-align: center;"></td> <td>ENTERPRISE_CONF</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> <tr> <td style="text-align: center;"></td> <td> EXTERNAL_FILE</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> <tr> <td style="text-align: center;"></td> <td>PPM_PREPROCESSING</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> <tr> <td style="text-align: center;"></td> <td> PPM_SOURCE_EXTRACT_INSTANCE_1</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> </table> </div> <p>If a step is in error and its maximum number of automatic retries has been exhausted, then the stream is blocked and will not advance to the next node. All of the steps contained in the node will run to completion or maximum retries. The errors must be resolved before the stream will advance to the next node.</p> <p>Click <b>More Info</b> to display the Step Details dialog box pertaining to the particular step. For details, see <a href="#">"Step Attributes Dialog Box" on page 121</a>.</p>		DW_SNP	<a href="#">More Info</a>		ENTERPRISE_CONF	<a href="#">More Info</a>		 EXTERNAL_FILE	<a href="#">More Info</a>		PPM_PREPROCESSING	<a href="#">More Info</a>		 PPM_SOURCE_EXTRACT_INSTANCE_1	<a href="#">More Info</a>
	DW_SNP	<a href="#">More Info</a>														
	ENTERPRISE_CONF	<a href="#">More Info</a>														
	 EXTERNAL_FILE	<a href="#">More Info</a>														
	PPM_PREPROCESSING	<a href="#">More Info</a>														
	 PPM_SOURCE_EXTRACT_INSTANCE_1	<a href="#">More Info</a>														
<b>Historical Data</b>	<p>Opens the Historical Data page where you can view stream history, including the active stream.</p> <p>For details, see <a href="#">"Historical Data Page" on page 126</a></p>															
<b>Archived Streams</b>	<p>Opens the Archive Data page where you can view streams that were previously active with a different definition. for details, see <a href="#">"Archived Streams Page" on page 127</a>.</p>															

## Stream Attributes Dialog Box

This dialog box enables you to view the attributes of the displayed stream.



User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

All fields are read-only.

UI Element	Description
<b>Name</b>	Stream name.
<b>Batch ID</b>	The ID of the specific batch job of the stream.
<b>Status Information</b>	Provides details about the status of the stream.
<b>Status</b>	Displays the status of the batch: <ul style="list-style-type: none"><li>• <b>OK</b></li><li>• <b>Warning</b></li><li>• <b>Error</b></li></ul>



UI Element	Description
<b>State</b>	Displays the state of the batch: <ul style="list-style-type: none"><li>• <b>Active</b></li><li>• <b>Suspended</b></li><li>• <b>Finished</b></li><li>• <b>Aborted</b></li></ul>
<b>Start Time</b>	The date and time of the start of the batch job.
<b>End Time</b>	The date and time of the end of the stream batch job.
<b>Recovery Action</b>	Displays any information about recovery actions if the stream was suspended or stopped.
<b>Last Suspended</b>	The date and time the stream was suspended.
<b>Last Resumed</b>	The date and time the stream was resumed.
<b>Aborted</b>	The date and time the stream was aborted.

### Step Attributes Dialog Box

This dialog box enables you to view the attributes of the displayed step.

**Step Attributes** ×

Name	PPM_PREPROCESSING
Batch ID	6
Process ID	135
Status Information	WFs statuses: success: 25, error: 0    Audit metrics: success: 0, warning: 0, error: 0.
Status	WARNING
State	FINISHED
Start Time	Nov 7, 2013 3:00:25 PM
End Time	Nov 7, 2013 3:00:30 PM
Recovery Action	

**Step Details**

Status	Name	Status Info...	Start Time	End Time
SUCCESS	PPM_FM_EX...		Nov 7, 2013 3:00:27 PM	Nov 7, 2013 3:00:28 PM
SUCCESS	PPM_KCRT_...	PPM_FM_EXCHANGE_RATES_FF_PREPROCESSING_WF	3:00:25 PM	3:00:26 PM
SUCCESS	PPM_KCRT_...		Nov 7, 2013 3:00:27 PM	Nov 7, 2013 3:00:28 PM
SUCCESS	PPM_KCRT_...		Nov 7, 2013 3:00:27 PM	Nov 7, 2013 3:00:28 PM

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

All fields are read-only.

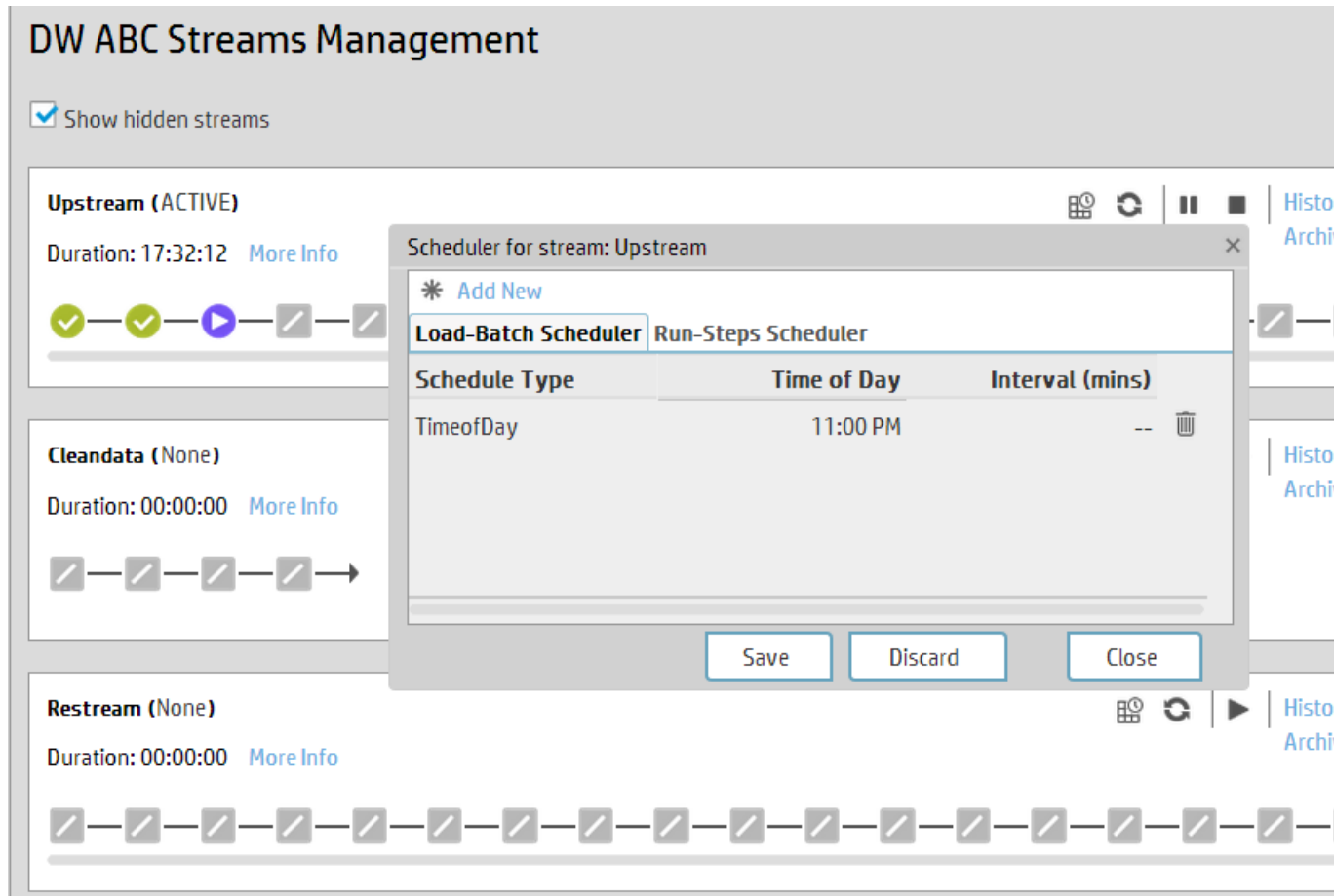
UI Element	Description
<b>Name</b>	Step name.
<b>Process ID</b>	The ID of the specific run of the step.
<b>Batch ID</b>	The ID of the specific batch job of the stream.
<b>Status Information</b>	Provides details about the status of the step.

UI Element	Description
<b>Status</b>	<p>Displays the status of the step:</p> <ul style="list-style-type: none"> <li>• <b>NA</b></li> <li>• <b>SUCCESS</b></li> <li>• <b>WARNING</b></li> <li>• <b>ERROR</b></li> <li>• <b>MAX_EXECUTION_TIME_EXCEEDED</b></li> </ul>
<b>State</b>	<p>Displays the state of the step:</p> <ul style="list-style-type: none"> <li>• <b>WAITING</b></li> <li>• <b>RUNNING</b></li> <li>• <b>STARTING</b></li> <li>• <b>FINISHED</b></li> </ul>
<b>Start Time</b>	The date and time of the start of the run.
<b>End Time</b>	The date and time of the end of the run.
<b>Job Name</b>	The BODS job name.
<b>Retry Sequence</b>	The number of automatic retries.
<b>Recovery Action</b>	Displays any information about recovery actions if the step failed.
<b>Schedule Time</b>	The date and time the batch was loaded.
<b>WS Call Time</b>	The date and time that ABC makes the call to execute. Indicates if there is a problem in the execution.
<b>Step Details</b>	<p>BODS Jobs: The workflows for the BODS jobs associated with each step.</p> <p>Other executables: Sub-processes of the step.</p>


### Stream Scheduler Dialog Box

This dialog box enables you to schedule a specific batch job and schedule a run\_steps command.

### Load Batch Scheduler Tab



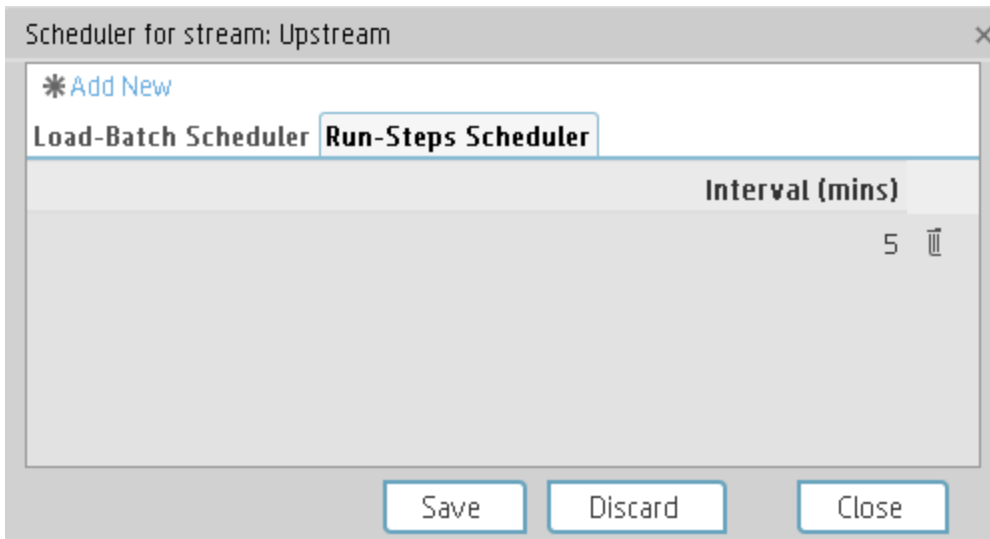
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Schedule Type</b>	Select either: <ul style="list-style-type: none"> <li><b>Interval:</b> Timeframe in minutes.</li> <li><b>Time of day:</b> Time according to 24 hour clock.</li> </ul> Enter the required schedule time in the relevant row.
	<b>Delete.</b> Deletes the adjacent schedule time.
<b>Add New</b>	Creates a new schedule. The new schedule is displayed in blue. When the schedule is saved to the server, the schedule is displayed in black.

UI Element	Description
<b>Save</b>	Saves all changes to the server.
<b>Discard</b>	Discards all changes without saving them to the server.
<b>Close</b>	Closes the Load Batch Scheduler dialog box.

### Run\_Steps Scheduler Tab

This sets the frequency that the ETL Management runs all of the executables for the stream. This includes steps that are loaded as well as the batches created.



User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Interval (mins)</b>	Enter the interval at which you want to schedule the run_steps command. The default run_steps interval is initially set at 5 minutes in the Data Warehouse page of the Admin tab, but it is recommended to only make changes to the run_steps interval in this scheduler.
<b>Add New</b>	Enables you to add a new schedule for the run_steps command.
<b>Save</b>	Saves all changes to the server.
<b>Discard</b>	Discards all changes without saving them to the server.
<b>Close</b>	Closes the run-steps Scheduler dialog box.



















## Historical Data Page

You can view a stream's job history on the Historical Data page..

### <Stream Display>

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Back to Active Streams</b>	Opens the DW ABC Streams Management UI main page.
<b>&lt;Stream Information&gt;</b>	Displays the following stream details: <ul style="list-style-type: none"> <li>• Batch ID Number</li> <li>• Status: Active, Suspended or Aborted</li> <li>• Duration</li> <li>• Date</li> </ul>

UI Element	Description										
<b>More Info</b>	Opens the Stream Details dialog box. For details, see " <a href="#">Stream Attributes Dialog Box</a> " on page 120.										
<b>&lt;Node Display&gt;</b>	<p>Displays the nodes representing the groups of steps within the execution of an ETL run. A node is a collection of steps that all run in parallel.</p> <p> Indicates that all steps have finished successfully.</p> <p> Indicates an error in at least one of the steps.</p> <p> Indicates that the worst status of all contained steps is a warning.</p> <p>Click a node to open the Node Step list.</p> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p>Level 1 <span style="float: right;">x</span></p> <table border="0" style="width: 100%;"> <tr> <td> DW_SNP</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> <tr> <td> ENTERPRISE_CONF</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> <tr> <td> EXTERNAL_FILE</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> <tr> <td> PPM_PREPROCESSING</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> <tr> <td> PPM_SOURCE_EXTRACT_INSTANCE_1</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> </table> </div>	 DW_SNP	<a href="#">More Info</a>	 ENTERPRISE_CONF	<a href="#">More Info</a>	 EXTERNAL_FILE	<a href="#">More Info</a>	 PPM_PREPROCESSING	<a href="#">More Info</a>	 PPM_SOURCE_EXTRACT_INSTANCE_1	<a href="#">More Info</a>
 DW_SNP	<a href="#">More Info</a>										
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 EXTERNAL_FILE	<a href="#">More Info</a>										
 PPM_PREPROCESSING	<a href="#">More Info</a>										
 PPM_SOURCE_EXTRACT_INSTANCE_1	<a href="#">More Info</a>										
<b>Previous</b>	Navigates to the previous job history data for the stream.										
<b>Next</b>	Navigates to the next job history data for the stream.										
<<	Navigates to the earliest job history data for the stream.										

### Archived Streams Page

This page enables you to view stream definitions that have been changed and archived..


[Back to Active Streams](#)

## DW ABC Streams Management

### Archived stream definitions for stream Upstream


**Upstream\_Wed Nov 20 07:05:12 UTC 2013 (None)** History

Duration: 00:00:00 [More Info](#)




**Upstream\_Wed Nov 20 07:05:05 UTC 2013 (None)** History

Duration: 00:00:00 [More Info](#)



**Upstream\_Tue Nov 19 22:35:19 UTC 2013 (None)** History

Duration: 00:00:00 [More Info](#)



User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

All fields are read-only.

UI Element	Description
<b>Back to Active Streams</b>	Opens the DW ABC Streams Management UI main page.



UI Element	Description
<b>&lt;Stream Information&gt;</b>	Displays the following stream details: <ul style="list-style-type: none"><li>• Stream Name</li><li>• Status: Active or Suspended</li><li>• Duration</li><li>• Date</li></ul>
<b>More Info</b>	Opens the Stream Details dialog box. For details, see " <a href="#">Stream Attributes Dialog Box</a> " on page 120.
<b>Historical Data</b>	Opens the Historical Data Page where you can view the archived stream history. For details, see " <a href="#">Historical Data Page</a> " on page 126.
<b>Back to Active Streams</b>	Opens the DW ABC Streams Management UI main page.
<b>&lt;Node Display&gt;</b>	Displays the nodes representing the groups of steps within the execution of an ETL run. A node is a collection of steps that all run in parallel.

# Perform Administration Tasks for Foundation

Foundation settings enables you to define various system settings for the administration of the product. The Foundations Settings includes the following:

- ["Foundation" on the next page](#). Enables you to configure virtual server settings.
- ["Pages Settings" on page 136](#). Enables you to configure page settings.
- ["Single Sign-On Settings" on page 133](#). Enables you to define SSO parameters.
- ["Website Settings" on page 138](#). Enables you to set the ping time interval.

# Foundation

Enables you to configure foundation settings in Executive Scorecard.

**To access:**

Select **Admin > Foundation > Foundation**.

**Section navigation:** ● ["Tasks" below](#) ● ["UI Description" below](#)

## Tasks

### Configure the Foundation settings

1. Select **Admin > Foundation > Foundation**.
2. Click the relevant row and enter the required setting.
3. Click **Save** to save your settings.

## UI Description

### Foundation

This page enables you to configure the Pages settings.

Click  to refresh the page.

Foundation		
Name	Description	Value
Automatic update of anti virus database	Enter true to periodically update the anti virus database.	<input type="text" value="false"/>
Query Engine Expired Execution Time	Query Engine Expired Execution Time	<input type="text" value="600"/>
Virtual Server URL	Virtual Server URL	<input type="text"/>

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Automatic update of anti virus database</b>	Set to <b>true</b> to periodically update the anti virus database. The update occurs every Sunday at 12:00 am (midnight). Default: <b>false</b>

UI Element	Description
<b>Query Engine Expired Execution Time</b>	If the SQL executing time exceeds the value of the setting, the allocation of ITFM returns an error. You may need to increase the value if your allocations have many stages or if your database includes many cost data. The unit is seconds. Default: <b>600</b> .
<b>Virtual Server URL</b>	The URL of the virtual server.

# Single Sign-On Settings

HP Lightweight Single Sign-On is a method of access control that enables you to navigate to other HP products that implement LW-SSO without supplying credentials again. A user can log on once and gain access to the resources of HP software systems without being prompted to log on again. The applications inside the configured group of software systems trust the authentication, and there is no need for further authentication when moving from one application to another.

The Single Sign-On page enables you to configure Single Sign-On (SSO) requirements.

## To access:

Select **Admin > Foundation > Single Sign-On**.

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" below](#) ● ["UI Description" below](#)

## Learn More

HP Lightweight Single Sign-On is a method of access control that enables you to navigate to other HP products that implement LW-SSO without supplying credentials again. A user can log on once and gain access to the resources of HP software systems without being prompted to log on again. The applications inside the configured group of software systems trust the authentication, and there is no need for further authentication when moving from one application to another.

### Important Information

For details on SSO and Identity Management, see ["Use the Identity Management Single Sign-On"](#).

## Tasks

### Add or change SSO values

1. Select **Admin > Foundation > Single Sign-On**.
2. Click the relevant field in the **Value** column and enter the value.
3. Click **Save** to save your settings.

## UI Description

### Single Sign-On Page

This page enables you to configure the SSO settings to log on of all HP products.

Click  to refresh the page.

▼ Identity Management Single Sign-On

Identity Management Enabled

Name	Description	Value
Identity Management Header	Name of the Identity Management header on the request that contain...	<input type="text"/>

▼ Lightweight Single Sign-On

Name	Description	Value
LW-SSO Server Domain	Used for token creation (required for multi-domain support).	hpswlab.s.adapps.hp.com
LW-SSO Token Creation Key (initString)	Used for init of the symmetric encryption key for the token creation/...	*****
LW-SSO Trusted Hosts - DNS Domains	Comma separated list of trusted DNS domains that allow multi-domain...	hpswlab.s.adapps.hp.com
LW-SSO Trusted Hosts - FQDN	Comma separated list of trusted hosts FQDN that allow multi-domain...	<input type="text"/>
LW-SSO Trusted Hosts - IPs	Comma separated list of trusted hosts IPs (include IPv6 support) that...	<input type="text"/>
LW-SSO Trusted Hosts - Net Bios Names	Comma separated list of trusted hosts net bios names that allow mul...	<input type="text"/>

### Identity Management Single Sign-On Table

UI Element	Description
<b>Identity Management Enabled</b>	Select the check box and enter the name of the IDM header (the header that contains the user logon name) in the <b>Value</b> field of the <b>Identity Management Header</b> setting.  For details, see <a href="#">"Use the Identity Management Single Sign-On"</a> .
<b>Identity Management Header</b>	The name of the IDM header (the header that contains the user logon name).

### Lightweight Single Sign-On Parameters

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>LW-SSO Server Domain</b>	The domain used for token creation. This value is required in cases of multi domains.
<b>LW-SSO Token Creation Key (initString)</b>	The string used as the encryption key for token creation and validation.
<b>LW-SSO Trusted Hosts - DNS Domains</b>	The list of trusted DNS domains that allow multi-domain support (must be separated by commas).
<b>LW-SSO Trusted Hosts - FQDN</b>	The list of trusted hosts' FQDN that allow multi-domain support (must be separated by commas).

UI Element	Description
<b>LW-SSO Trusted Hosts - IPs</b>	The list of trusted hosts' IPs (including IPv6) that allow multi-domain support (must be separated by commas).
<b>LW-SSO Trusted Hosts - Net Bios Names</b>	The list of trusted hosts' net bios names that allow multi-domain support (must be separated by commas).

# Pages Settings

Enables you to configure the Dashboard page settings in Executive Scorecard.

**To access:**

Select **Admin > Foundation > Pages**.

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" below](#) ● ["UI Description" on the next page](#)

## Learn More

For more information about Executive Scorecard pages, see [Page Layout and Components](#) in the *IT Executive Scorecard Business Analyst Guide*.

## Tasks

This section includes:

["Configure the page settings" below](#)

["Modify the maximum number of open pages" below](#)

["Modify the maximum number of active pages" on the next page](#)

### Configure the page settings

1. Select **Admin > Foundation > Pages**.
2. Click the relevant row and enter the required setting.
3. Click **Save** to save your settings.

### Modify the maximum number of open pages

By default, an unlimited number of pages can be open at the same time. If you have multiple pages open, up to 5 of the most popular pages are immediately available for display when you switch to them. The other pages are least viewed pages, meaning that are silently deactivated in the background. When you select them, it might take a few seconds until they load and display their content.

Note that if you increase these limits, performance may be impaired.

To modify the maximum number of open pages:

1. Select **Admin > Foundation > Pages**.
2. Modify the **Maximum number of open pages** entry as needed.

For details, see ["Perform Administration Tasks for Foundation" on page 130](#).



Note that if you increase the maximum number of pages, performance may be impaired.

## Modify the maximum number of active pages

By default, an unlimited number of pages can be open at the same time. If you have multiple pages open, up to 5 of the most popular pages are immediately available for display when you switch to them. The other pages are least viewed pages, meaning that are silently deactivated in the background. When you select them, it might take a few seconds until they load and display their content.

Note that if you increase these limits, performance may be impaired.

To modify the maximum number of active pages:

1. Select **Admin > Foundation > Pages**.
2. Modify the **Maximum number of loaded pages** entry as needed.

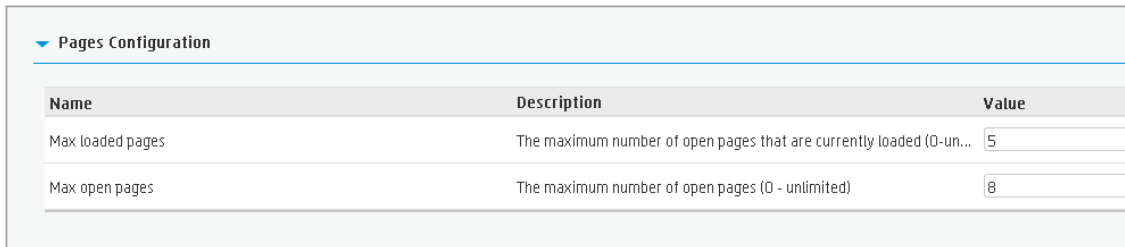
For details, see "[Perform Administration Tasks for Foundation](#)" on page 130.

## UI Description

### Pages Settings

This page enables you to configure the Pages settings.

Click  to refresh the page.



Name	Description	Value
Max loaded pages	The maximum number of open pages that are currently loaded (0-un...	5
Max open pages	The maximum number of open pages (0 - unlimited)	8

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Max loaded Pages</b>	The maximum number of open pages that are currently loaded in Executive Scorecard. The options are any valid number or 0 for unlimited.
<b>Max open pages</b>	The maximum number of open pages in Executive Scorecard. The options are any valid number or 0 for unlimited.

# Website Settings

The Website page enables you to configure ping time intervals for refreshing the browser automatically

**To access:**

Select **Admin > Foundation > Website**.

**Section navigation:** ● ["Tasks" below](#) ● ["UI Description" below](#)

## Tasks

### Set the ping interval

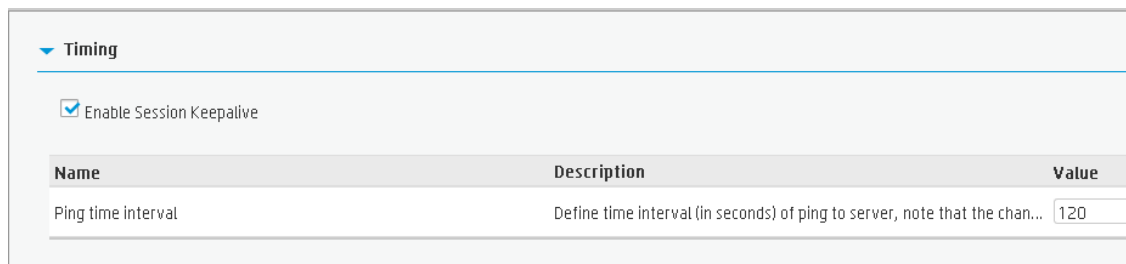
1. Select **Admin > Foundation > Website**.
2. Select the check box to enable the ping feature. De-select the check box to disable the ping feature. The browser will then time out.
3. Click the **Ping time interval** row and enter the required time in seconds.
4. Click **Save** to save your settings.

## UI Description

### Website Page

This page enables you to configure the Website settings.

Click  to refresh the page.



Name	Description	Value
Ping time interval	Define time interval (in seconds) of ping to server, note that the chan...	120

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Enable Session Keepalive</b>	Select to enable the ping feature.

UI Element	Description
<b>Ping time interval</b>	<p>The amount of time (in seconds) between browser refresh. This ensures that the application does not time out.</p> <p><b>Note:</b> Changes will only take effect in the next logon.</p>

# Data Warehouse Settings

Data Warehouse Settings enables you to define settings for various parts of the data warehouse structure.

**To access:**

Select **Admin > Data Warehouse**.

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" on page 145](#) ● ["UI Description" on page 145](#) ●

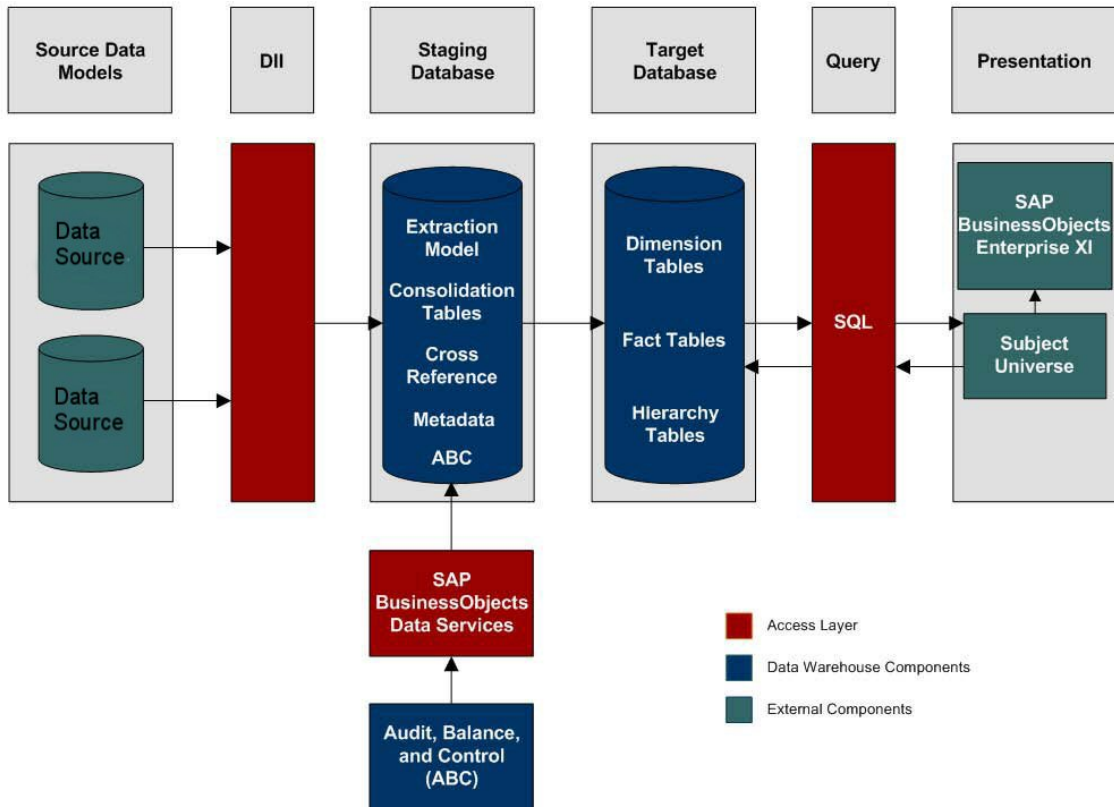
## Learn More

### Model

The data warehouse model is an end-to-end solution for extracting source data and consolidating disparate source data models into a consolidated data model. The data organized to reflect this model resides in target tables that become the source for Executive Scorecard.

The data warehouse relies on an external RDBMS to provide daily maintenance and backup support, SAP BusinessObjects Data Services to assist with ETL, an ABC infrastructure of utilities and processes to govern regularly scheduled ETL jobs, and internal data warehouse utilities to create the data warehouse and maintain data integrity.

The figure below shows the principal data warehouse components and how they interact. Read the following sections for more information about each component, its role, and responsibilities.



## Source Data Models

Source data originates in external application repositories. Data generated by an external application can be rich in business information, but unless you can integrate it with equally important business information generated by other applications, it is difficult to get a complete view of operational information.

The source data models describe the source and extraction format so that the data warehouse can consume this data and integrate it into a common view that you can use to populate comprehensive business intelligence reports and dashboards.



## Data Integration Interface

The data integration interface (DII) is the access layer that stands between the source database models and the extraction models in the staging database. The DII uses a mapping model that transforms the source data to fit into extraction work tables. The DII can accommodate minor variations in the source model schemas from one version to another.

**Note:** This interface requires access to the source systems.

## SAP BusinessObjects Data Services

SAP BusinessObjects Data Services is the access mechanism that performs the physical data extraction from the source repository to the staging database. Each stage of the ETL is embodied in a Data Services job, from the extraction of source data to the target database.

## Audit, Balance, and Control

Audit, Balance, and Control (ABC) processes ensure that source data is not corrupted in the extraction process, and that the integrity of the extracted data is maintained as it progresses from the initial source extraction through the logical and physical transformation into target tables. SAP BusinessObjects Data Services can move the data but does not evaluate whether the final result is correct. ABC establishes checkpoints and provides feedback on each step to guarantee that each step is valid before the next step begins.

The Audit component ensures consistency during ETL processing. It measures the number of records in and the number of records out for each step and displays these runtime statistics in a collection of audit reports.

Balance verifies that data in the data warehouse matches data in the source system.

**Example** If the data warehouse stores project dollar amounts then the balance process verifies that the aggregate project dollars in the data warehouse matches the aggregate project dollars in the source application data.

Control governs the order of execution of ETL processes. Control makes sure that there is a proper restart and recovery when a system error occurs. Control also manages job dependencies at runtime.

ABC utilities are applications that you can invoke automatically or manually to run ETL, solve problems, and perform ETL-related tasks.

## Staging Database

The staging database contains tables and snapshots that are critical to the ETL process. Metadata describes these tables. Executive Scorecard processes data in the staging database before loading it into the final target tables in the target database.

- Extraction (EXT) tables contain the initial version of source data. EXT tables are used during the stage of ETL when Executive Scorecard loads data from the extract flat files into the staging database.
- Validation failure (VALF) tables are used during the data validation process that ensures all of

the data is usable. VALF tables store source data that is rejected by the ETL process due to validation failure. Data validation is part of the process to load the EXT tables.

- Identification (SSI and MSI) tables restructure the diverse source system data into a conformed structure. Executive Scorecard uses SSI and MSI tables to standardize the data and add an enterprise key.
- Consolidation (MSC) tables integrate disparate source data into a consolidated entity. The MSC tables contain the uniform structure that Executive Scorecard uses to load the data into the target tables.
- Transformation (XFR) tables are load-ready tables that match the internal structure of the target tables. Executive Scorecard uses XFR tables while preparing the data to be loaded into the target tables in the target database.
- Lookup (LOOKUP) tables store durable keys and surrogate keys. Executive Scorecard uses these tables to establish dimension-to-dimension references in dimension tables and foreign key references in fact tables.
- Snapshot (TSNP, SSNP, and CSNP) tables are the persistent storage for ETL staging data. These snapshot tables capture the changed data and support the data warehouse recovery process. The data warehouse uses TSNP tables for source extraction staging, SSNP tables for single source integration staging, and CSNP tables for multiple source consolidation staging. The final ETL stage captures the snapshot data.
- Cross Reference (XREF) tables support the data integration processes that combine records from multiple sources into a single record in the consolidation model.
- Cross Reference Generator (XREFGEN) tables support data matching and cross reference inputs for the consolidation models.
- Metadata tables contain a logical model and describe how to translate that model into the physical implementation of tables and views.

ABC tables support the ETL workflow and enable job control and sequencing. They also host audit information to ensure data quality.

## Target Database

The target data models describe the format of the data that produces business intelligence analytics. The instantiated data models are dimension, fact, and hierarchy tables populated with data obtained through ETL processes.

**Dimension tables** contain the data model to be queried and presented by Executive Scorecard in a variety of reports and analytics.

**Fact tables** contain data that describes events, transactions, or other granular information.

**Fact snapshots tables** are fact tables that describe the state of things in a particular instance of time, and usually includes more semi-additive and non-additive facts.

- **Semi-Additive:** Semi-additive facts are facts that can be summed up for some of the dimensions in the fact table, but not the others.
- **Non-Additive:** Non-additive facts are facts that cannot be summed up for any of the dimensions present in the fact table.

**Hierarchy tables** capture hierarchical relationships among levels of data.

## Queries

You can use structured query language (SQL) to create a primary abstraction layer of data from the target tables and use that data to populate reports, dashboards, or resolve business questions. The SAP BusinessObjects Enterprise XI 3.1 suite of business tools simplify accessing this information and storing it in business-oriented views.



## Presentation

SAP BusinessObjects Enterprise XI 3.1 uses a universe abstraction layer to organize data for presentation in out-of-box or user-designed analytics. The universe provides a business oriented



view of the data that resides in the data warehouse target tables.

## Tasks

### To Define the Data Warehouse Settings

1. Select **Admin > Data Warehouse**.
2. Click the relevant field in the **Value** column and enter the value.
3. Click **Save** to save your settings.

## UI Description

### Data Warehouse Page

This page enables you to configure the Data Warehouse settings.

#### Data Warehouse Table

<b>Name</b>	The name of the Data Warehouse field.
<b>Description</b>	The description of the Data Warehouse field.
<b>Value</b>	The current Data Warehouse field value. Click the relevant row and enter a value.

#### General Table

General		
Name	Description	Value
BODS Cleanup Days of Week	Days of the week (0-7) on which to run the cleanup of dump files. Se...	*
BODS Cleanup Time of Day	Hour and minute (HH:mm) at which to run the cleanup of dump files.	23:00
Data Warehouse Port	Data Warehouse webserver port.	443
Data Warehouse Server Name	Data Warehouse server machine's hostname or IP address.	MYD-VM02178.hpswlab.adapps.hp.com
External Source File Location	The location of the external source files used by Data Warehouse.	C:\HPX\Sagora\DataWarehouse\ExternalSources
First year handled by DWH dates	First year handled by DWH dates (period, timezones, DST)	2005
Fiscal month of year	The first month of the year according to the financial company docu...	1
Last year handled by DWH dates	Last year handled by DWH dates (period, timezones, DST)	2025
Scheduler Run-Steps Interval	Interval value (in minutes) for automatic, periodic execution of ABC R...	5

UI Element	Description
<p><b>BODS Cleanup Days of Week</b></p>	<p>The days of the week when you want to perform the cleanup of the BODS dump. Select: 0 or 7 for Sunday is, 1 for Monday, 2 for Tuesday, 3 for Wednesday, 4 for Thursday, 5 for Friday, and 6 for Saturday, or use the first three letters of the day name.</p> <p>SAP BusinessObjects Data Services creates dump files whenever it runs into a problem. These dumps are usually large and are not removed automatically, causing the file system to eventually run out of disk space.</p> <p>When the scheduled cleanup of the dump files is executed, it first cleans up the dump files, and then it examines the schedule settings and update its schedule if needed. So, if you've scheduled the cleanup for once a day Sunday – Thursday, and you want to change it to once a week, simply change the days of week value and the next time the cleanup is triggered, the new schedule will go into effect.</p> <div style="background-color: #f0f0f0; padding: 10px; margin: 10px 0;"> <p><b>Example</b></p> <p>If you want to schedule the cleanup every Sunday, you can enter any of the following in the BODS Cleanup Days of Week setting value:</p> <ul style="list-style-type: none"> <li>• “Sun”</li> <li>• 0</li> <li>• 7</li> </ul> <p>If you want to schedule the cleanup every Monday – Friday, you can enter any of the following in the BODS Cleanup Days of Week setting value:</p> <ul style="list-style-type: none"> <li>• “Mon” – “Fri”</li> <li>• 1-5</li> <li>• 1,2,3,4,5</li> <li>• “Mon”, “Tues”, “Wed”, “Thurs”, “Fri”</li> </ul> </div> <p>The value is simply used to set the dayOfWeek field in the javax.ejb.ScheduleExpression and the ScheduleExpression performs the validation of the value.</p>
<p><b>BODS Cleanup Time of Day</b></p>	<p>The time (hours and minutes) when you want to perform the cleanup of the BODS dump. The format is: HH:MM for a 24 hour clock (for example: 16:00). The hour is according to the server time zone, not to the client time zone.</p>

UI Element	Description
<b>Data Warehouse Port</b>	The Data Warehouse web server port. This field is read-only.
<b>Data Warehouse Server Name</b>	The Data Warehouse server machine hostname or IP address. This field is read-only.
<b>External Source File Location</b>	The directory where the external source files used by the Data Warehouse are stored.
<b>First year handled by DWH dates</b>	The first available year for Data Warehouse dates. This includes period, time zones or DST.
<b>Fiscal month of year</b>	The first month of the fiscal year. This field is read-only.
<b>Last year handled by DWH dates</b>	The last available year for Data Warehouse dates. This includes period, time zones or DST.
<b>Scheduler Run-steps Interval</b>	<p>The interval value in minutes that you want the run_steps command to automatically execute. This is the default value for initial execution. All changes in interval should be made in the DW ABC Streams Management UI. For details, see <a href="#">" ETL Management " on page 112.</a></p> <p>A run-steps schedule configured in Data Warehouse Settings does not affect the existing running batch schedule. It is recommended to only change the run-steps interval schedule in the ETL Management tab DW ABC Streams Management UI.</p> <p>To enable a new run-steps schedule configured in Data Warehouse Settings on existing defined streams you can:</p> <ul style="list-style-type: none"> <li>• Restart the XS server.</li> <li>• Reload the dw-abc-services application: <b>Glassfish Admin Console &gt; Applications</b>, and click <b>Reload</b> for the dw-abc-services application.</li> <li>• Redeploy the application</li> </ul> <p>In these cases you would now have two scheduled intervals. Delete one in the DW ABC Streams Management UI.</p>

## SAP BusinessObjects Data Services for HP XS Table

SAP BusinessObjects Data Services for HP		
Name	Description	Value
BODS Database Administrator Username	Username to access the database with. Must have write privileges.	sa
BODS Database Administrator Password	User's password.	*****
BODS database type/product.	Either Oracle, SQL Server, DB2, MySQL or Sybase ASE	MSSql (Default)
BODS Repository Server Name	Repository server-machine's hostname or IP address.	labm3amrddb13
Installation Directory	Absolute path to the directory in which SAP BusinessObjects Data S...	C:\Program Files (x86)\Business Objects\BusinessObjects Data Servic
Management Console Password	SAP BusinessObjects Data Services for HP Management Console Pa...	*****
Management Console URL	SAP BusinessObjects Data Services for HP Management Console URL	http://MYD-VM02178.hpswlab.s.adapps.hp.com:8080/DataServices
Management Console Username	SAP BusinessObjects Data Services for HP Management Console Us...	admin
Repository Database-Server's Port	SAP BusinessObjects Data Services for HP Repository Database-ser...	1433
Repository Name	SAP BusinessObjects Data Services for HP Repository Name	myd_vm02178_REP
Repository Password	SAP BusinessObjects Data Services for HP Repository Password	*****
Repository Username	SAP BusinessObjects Data Services for HP Repository Username	myd_vm02178_REP
Web Services Timeout	The amount of time (in seconds), the Data Warehouse will wait for S...	180

UI Element (in alphabetical order)	Description
<b>BODS Database Administrator Username</b>	The username to access the SAP BusinessObjects Data Services database. Must have write permissions.
<b>BODS Database Administrator Password</b>	The user's password to access the SAP BusinessObjects Data Services database.
<b>BODS database type/product</b>	The database type: Oracle, SQL Server, DB2, MS SQL, or Sybase ASE. This field is read-only.  <b>Note:</b> Currently only MS SQL is supported.
<b>BODS Repository Server Name</b>	The SAP BusinessObjects Data Services repository server machine's host name or IP address.
<b>Installation Directory</b>	The absolute path to the SAP BusinessObjects Data Services and HP XS installation directory. This field is read-only.
<b>Management Console Password</b>	The SAP BusinessObjects Data Services management console password.

UI Element (in alphabetical order)	Description
<b>Management Console URL</b>	The SAP BusinessObjects Data Services management console URL. This field is read-only.
<b>Management Console Username</b>	The SAP BusinessObjects Data Services management console username.
<b>Repository Database-Server's Port</b>	The SAP BusinessObjects Data Services repository database server's port. This field is read-only.
<b>Repository Name</b>	The SAP BusinessObjects Data Services repository name. This field is read-only.
<b>Repository Password</b>	The SAP BusinessObjects Data Services repository password.
<b>Repository Username</b>	The SAP BusinessObjects Data Services repository username. This field is read-only.
<b>Web Services Timeout</b>	The amount of time, in seconds, that Data Warehouse waits for a SAP BusinessObjects Data Services to respond to a web services request before a timeout.

## Staging Database Table

▼ Staging Database

Name	Description	Value
ABC Database Password	User's password.	*****
ABC Database Username	ABC Database Username to access the database with. Must have wr...	dwabc
ABC DB login name	ABC DB login name to access the database. Might be different than ...	dwabc11
ABC DB login password	ABC DB login password to access the abc database.	*****
Database Password	Staging Database Password	*****
Database Server Name	Staging Database server machine's hostname or IP address.	labm3amrddb13
Database Server Port	Staging Database server's port.	1433
Database Username	Staging Database Username to access the database with. Must hav...	dws
Metadata Database Password	User's password.	*****
Metadata Database Username	Metadata Database Username to access the database with. Must ha...	dwmetadata
Metadata DB login name	Metadata DB login name to access the database. Might be different ...	dwmetadata11
Metadata DB login password.	Metadata DB login password to access the metadata database.	*****
Password	Staging Database Administrator Password	*****
Staging Database Name	Staging Database MS SQL Server Database Name	myd_vm02178_STG
Staging DB login name	Staging DB login name to access the database. Might be different th...	dws11

Staging DB login password	Staging DB login password to access the staging database..	*****
Staging Target DB Database Password	Staging Target DB Database Password	*****
Staging Target DB Database Username	Staging Target DB Database Username to access the database with...	dwst
Staging target DB login name	Staging target DB login name to access the database. Might be diffe...	dwst11
Staging Target DB login password to access the staging target data...	Staging Target DB login password to access the staging target data...	*****
Time Dimension Granularity	Granularity of time (in minutes) that the time dimension is populate...	1
Username	Username to access the database with. Must have write and schem...	sa

UI Element (in alphabetical order)	Description
<b>ABC Database Password</b>	The ABC database password.
<b>ABC Database Username</b>	The ABC database username. This field is read-only.
<b>ABC DB login name</b>	ABC logon name used to access the database.
<b>ABC DB login password</b>	ABC logon password used to access the database.
<b>Database Password</b>	The staging database password.
<b>Database Server Name</b>	The staging database server machine hostname or IP address.
<b>Database Server Port</b>	The staging database server port.
<b>Database Username</b>	The staging database username. This field is read-only.
<b>Metadata Database Password</b>	The metadata database password.
<b>Metadata Database Username</b>	The metadata database username. This field is read-only.
<b>Metadata DB login name</b>	Metadata logon name used to access the database.
<b>Metadata DB login password</b>	Metadata logon password used to access the database.
<b>Password</b>	The staging database administrator password.
<b>Staging Database Name</b>	The name of the staging database on the MS SQL server. This field is read-only.
<b>Staging DB login name</b>	Staging database logon name used to access the database.
<b>Staging DB login password</b>	Staging database logon password used to access the database.

UI Element (in alphabetical order)	Description
<b>Staging Target DB Database Password</b>	The staging target database password.
<b>Staging Target DB Database Username</b>	The staging target database username. This field is read-only.
<b>Staging Target DB login name</b>	Staging Target database logon name used to access the database.
<b>Staging Target DB login password</b>	Staging Target database logon password used to access the database.
<b>Time Dimension Granularity</b>	The granularity of time, in minutes, of the time dimension. This field is read-only.
<b>Username</b>	The staging database administrator username. This user must have write permissions. This field is read-only.

## Target Database Table

▼ Target Database

Name	Description	Value
Administrator Password	Target Database Administrator Password	*****
Administrator Username	Target Database Username to access the database with. Must have ...	sa
Database Password	Target Database password	*****
Database Server Port	Target Database-Server Port	1433
Database Username	Target Database Username to access the database with. Must have ...	dw1
MS SQL Server Database Name	Target Database MS SQL Server Database Name	myd_vm02178_TRG
Server Name	Target Database Server Name	labm3amrddb13
Target DB login name	Target DB login name to access the database. Might be different th...	dw111
Target DB login password.	Target DB login password to access the metadata database.	*****

UI Element (in alphabetical order)	Description
<b>Administrator Password</b>	The target database administrator password.
<b>Administrator Username</b>	The username used to access the target database. This user must have write privileges. This field is read-only.
<b>Database Password</b>	The target database password.
<b>Database Server Port</b>	The target database server port. This field is read-only.

<b>UI Element (in alphabetical order)</b>	<b>Description</b>
<b>Database Username</b>	The target database username. This user must have write permissions. This field is read-only.
<b>MS SQL Server Database Name</b>	The target database MS SQL server name. This field is read-only.
<b>Server Name</b>	The target database server name. This field is read-only.
<b>Target DB login name</b>	The logon name for the target database. May be different than the fixed user and schema name.
<b>Target DB login password</b>	The target database logon password used to access target database metadata.



# Scorecard

The Scorecard settings enables you to define various HP IT Executive Scorecard settings and includes the following pages:

- **"Dashboard Settings" on the next page.** Enables you to set the settings for the Dashboard, where an executive can view the progress of the required objectives.
- **"Score Thresholds" on page 158.** Enables you to set the score thresholds for the KPIs in the HP IT Executive Scorecard.
- **"XS Settings" on page 160.** Enables you to set various scorecard settings. The HP IT Executive Scorecard is a way to map and translate complex business information into something that is understandable to everyone.
- **"Engine Settings" on page 156.** Enables you to configure settings for the HP IT Executive Scorecard KPI engine, which performs discovery on data coming from Contexts (data sources).

# Dashboard Settings

Enables you to set the settings for the Dashboard, where an executive can view the progress of the required objectives.

**To access:**

Select **Admin > Scorecard > Dashboard Settings**.

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" below](#) ● ["UI Description" below](#)

## Learn More

For more Executive Scorecard dashboard information, see ["Prepare the Dashboard Display"](#).

## Tasks

### Set Dashboard Settings

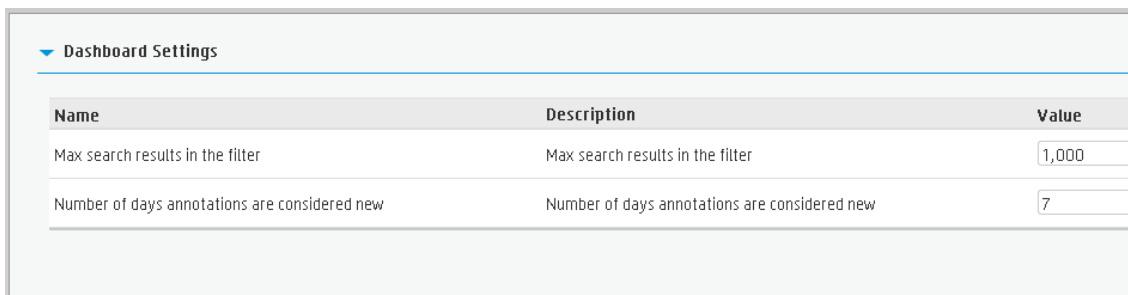
1. Select **Admin > Scorecard > Dashboard Settings**.
2. Click the row of the relevant setting and enter the value.
3. Click **Save** to save your settings.

## UI Description

### Dashboard Settings Page

This page enables you to configure specific dashboard settings.

Click  to refresh the page.



Name	Description	Value
Max search results in the filter	Max search results in the filter	<input type="text" value="1,000"/>
Number of days annotations are considered new	Number of days annotations are considered new	<input type="text" value="7"/>

### Dashboard Settings Parameters

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Max search results in the filter</b>	The maximum number of search results allowed in the filter. The default value is <b>1000</b> .
<b>Number of days annotations are considered new</b>	The number of days annotations are considered new. The default value is <b>7</b> .

# Engine Settings

Enables you to configure settings for the HP IT Executive Scorecard KPI engine, which performs discovery on data coming from contexts (data sources).

**To access:**

Select **Admin > Scorecard > Engine Settings**.

**Section navigation:** ● ["Tasks" below](#) ● ["UI Description" below](#)

## Tasks

### Set Engine Values

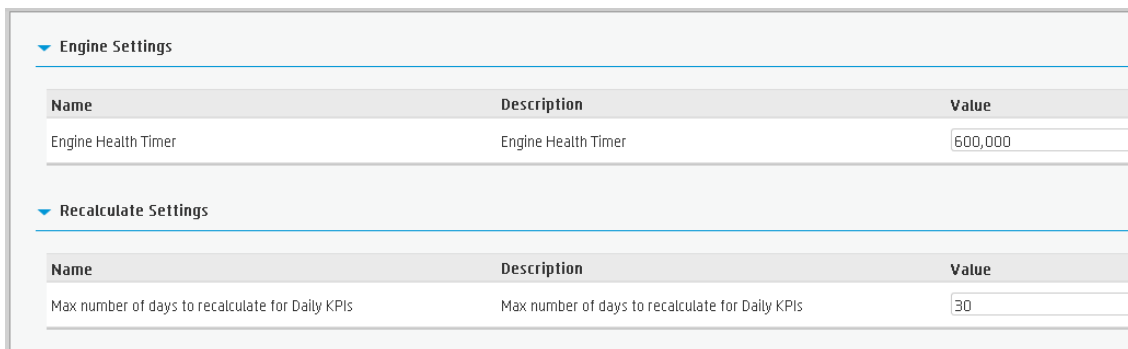
1. Select **Admin > Scorecard > Engine Settings**.
2. Click the row of the relevant engine function and enter the value in milliseconds.
3. Click **Save** to save your settings.

## UI Description

### Engine Settings Page

This page enables you to configure the engine settings for HP IT Executive Scorecard.

Click  to refresh the page.



The screenshot shows the 'Engine Settings' page with two expandable sections. The first section, 'Engine Settings', contains a table with columns 'Name', 'Description', and 'Value'. The second section, 'Recalculate Settings', also contains a table with columns 'Name', 'Description', and 'Value'.

Engine Settings		
Name	Description	Value
Engine Health Timer	Engine Health Timer	600,000

Recalculate Settings		
Name	Description	Value
Max number of days to recalculate for Daily KPIs	Max number of days to recalculate for Daily KPIs	30

### Engine Settings

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Engine Health Timer</b>	The amount of time in milliseconds, after which, if the calculation result is not received for the KPI, a new calculation attempt is started. The default value is 600,000, which equals 10 minutes.

## Recalculate Settings

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Max number of days to recalculate for Daily KPIs</b>	The maximum number of days used in recalculations for KPIs and Metrics with a Calculation Period set to <b>Daily</b> . Default: 30.  For details, see <a href="#">Recalculation</a> in the <i>IT Executive Scorecard Business Analyst Guide</i> .

# Score Thresholds

Enables you to set the score thresholds for the KPIs in the HP IT Executive Scorecard.

**To access:**

Select **Admin > Scorecard > Score Thresholds**.

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" below](#) ● ["UI Description" below](#)

## Learn More

For more score threshold information, see ["Learn About KPI Formula and Filter, Threshold, Value, Trend, and Score"](#) in the *IT Executive Scorecard Business Analyst Guide*.

## Tasks

### Set Score Thresholds

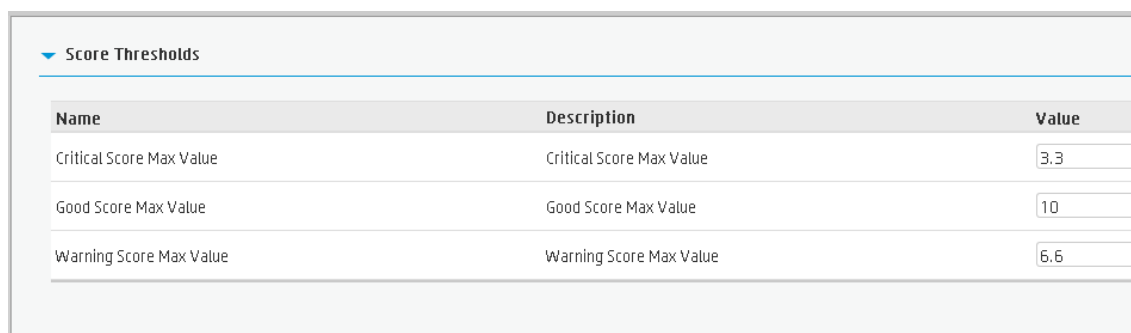
1. Select **Admin > Scorecard > Score Thresholds**.
2. Click the row of the relevant score threshold and enter the value.
3. Click **Save** to save your settings.

## UI Description

### Score Thresholds Page

This page enables you to configure the score threshold settings for the KPIs in HP IT Executive Scorecard.

Click  to refresh the page.



Name	Description	Value
Critical Score Max Value	Critical Score Max Value	3.3
Good Score Max Value	Good Score Max Value	10
Warning Score Max Value	Warning Score Max Value	6.6

### Score Thresholds Parameters

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

**Note:** Each **Score Max Value** must be greater than 0 and less than the next one ( **Error Score Max Value < Warning Score Max Value < Good Score Max Value**)

UI Element	Description
<b>Critical Score Max Value</b>	<p>The maximum value on the KPI scale, below which the value is scored as an error. KPIs that score values equal to or below this value, receive an error score.</p> <p><b>Example</b> If the maximum error score is 3.3, then a score on the scale from 0 - 3.3 is an error. Default: <b>3.3</b></p>
<b>Good Score Max Value</b>	<p>The maximum value on the KPI scale, below which the value is scored as good. KPIs that score values equal to or below this value, receive a good score.</p> <p><b>Example</b> If the maximum good score is 10, then a score on the scale from 6.6 - 10, is good. Default: <b>10</b></p>
<b>Warning Score Max Value</b>	<p>The maximum value on the KPI scale, below which the value is scored as a warning. KPIs that score values equal to or below this value, receive a warning score.</p> <p><b>Example</b> If the maximum warning score is 6.6, then a score on the scale from 3.3 - 6.6, is a warning. Default: <b>6.6</b></p>

# XS Settings

Enables you to set various scorecard settings. The HP IT Executive Scorecard is a way to map and translate complex business information into something that's understandable to everyone.

**To access:**

1. Select **Admin > Scorecard > XS Settings**.

**Section navigation:** ● ["Tasks" below](#) ● ["UI Description" below](#)

## Tasks

This section includes:

["Configure XS settings" below](#)

["Show or Hide Debug Properties" below](#)

### Configure XS settings

1. Select **Admin > Scorecard > XS Settings**.
2. Click the row of the relevant setting and enter the value.
3. Click **Save** to save your settings.

### Show or Hide Debug Properties

The maintenance of HP IT Executive Scorecard is performed using the Admin tab.

To display or hide the debug properties (ID and Type) displayed in the Configuration details tab for all templates or active nodes, select **Admin > Scorecard > XS Settings > Debug Mode**, and:

- Select the **Application Debug Mode** option to display the debug information in the Configuration details tabs.
- Clear the **Application Debug Mode** option to hide the debug information in the Configuration details tabs.

## UI Description

### XS Settings Page

This page enables you to configure specific XS settings.

Click  to refresh the page.



▼ Context Designer

Name	Description	Value
Maximum size of .CSV file (MB)	Maximum size of .CSV file (MB)	20

▼ Debug Mode

Application Debug Mode

▼ Studio update

Name	Description	Value
Meta Data reload rate(Days)	Meta Data reload rate(Days)	7
Users Info reload rate(Minutes)	Users Info reload rate(Minutes)	60

### Context Designer

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Maximum size of .CSV file (MB)</b>	The maximum size of a .CSV file that can be imported into the Context Designer. The default value is 20 MB.

### Debug Mode

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<b>Application Debug Mode</b>	Select to activate the debug mode.

### Studio Update

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<b>Meta Data reload rate (Days)</b>	<p>The number of days after which the meta data is reloaded. If you configure Executive Scorecard to work with the SAP BusinessObjects Enterprise universes, every X days (where X corresponds to what you specified in <b>Meta Data reload rate (Days)</b>), Executive Scorecard reloads all the universes metadata from the SAP BusinessObjects Enterprise.</p> <p>The default value is 7 days.</p>

<b>UI Element</b>	<b>Description</b>
<b>Users Info reload rate (Minutes)</b>	The number of minutes after which user info is reloaded. The default value is <b>60</b> minutes.

# ITFM Settings

Enables you to configure the settings for the IT Financial Management module.

**To access:**

Select **Admin > ITFM > ITFM**.

**Section navigation:** ● ["Tasks" below](#) ● ["UI Description" on the next page](#)

## Tasks

This section includes:

["Configure ITFM Settings" below](#)

["Configure ITFM Users, Roles, and Permissions" below](#)

["Change the Currency of the ITFM " below](#)

### Configure ITFM Settings

1. Select **Admin > ITFM > ITFM**.
2. Click the row of the relevant setting and enter the value or select the option.
3. Click **Save** to save your settings.

### Configure ITFM Users, Roles, and Permissions

Roles and permissions for users is managed through the Admin tab, enabling you to specify permissions for each role. Additionally, you can attach instances to a permission, so that the user can only access certain budgets or allocations. This model is based on:

- The permissions of each user, instead of relying on the user's roles. The permissions are final and cannot be modified or deleted, allowing the flexibility to grant users access to different ITFM features, while assigning them to different roles.
- Budget related operations according to each user's scope (instance level permissions).

Two out-of-the-box roles are available: BUDGET\_COORDINATOR and FINANCIAL\_ANALYST. For details, see ["Role Management" on page 60](#).

### Change the Currency of the ITFM

The default currency for all IT Financial Management KPIs is \$.

During the post-installation process, if you have changed the currency in the **Data Warehouse - Currency Configuration** page of the post-install wizard, you must change the currency in each one of the KPIs to match your selection, as follows:

1. In the application, click **Studio**.
2. In the Active KPIs pane, for each KPI under the **Financial Planning Analysis Scorecard**, and in the **Configuration details** tab, select the relevant unit in the **Unit** drop down list.
3. Click **Save**.

## UI Description

### ITFM Page

This page enables you to configure specific IT Financial Management-related settings .

Click  to refresh the page.

General		
Name	Description	Value
Interval for clearing FPA cache	Interval for clearing FPA cache	10,800,000
Polling interval for FPA's process new data monitor	Polling interval for FPA's process new data monitor	300,000

### General area

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Interval for clearing FPA cache</b>	How long the system should save the objects loaded from the database during the allocation scenario calculations.  <b>Note:</b> Do not modify this parameter.
<b>Polling interval for FPA's process new data monitor</b>	Specifies the execution interval of the IT Financial Management procedure that checks whether new data was loaded using ETL, and recalculates allocation scenarios accordingly.  <b>Note:</b> Do not modify this parameter.

# Contexts and Universes - Semantic Layer

Executive Scorecard semantic layer includes Contexts and universes.

The Context Designer feature enables you to create and manage Contexts (universes). The Contexts can be based on your target schema tables or on .CSV files that can be uploaded to the target schema using the Data Loader.

Context Designer can be used to upload data and create contexts based on the data, when you want to work with the Executive Scorecard and IT Financial Management applications without using Data Warehouse and SAP BusinessObjects Enterprise. It is a direct way to upload data into the Executive Scorecard Studio using files without performing integrations to external sources or to other HP products. It can be used, to integrate third party data, testing, or for Proof of Concept (POC) sessions. It can also be used as a component of Executive Scorecard to integrate third party data.

Context Designer provides KPI results based on your real data.

# Semantic Layer - Context Management

The Context Management feature enables you to view the Contexts that have been created in your application or the Contexts that have been loaded in your application, to delete Contexts, and to launch Context Designer where you can create a new Context, view the design of an existing Context, or upload a .CSV file.

## To access:

In Executive Scorecard, click **Admin > Semantic Layer > Semantic Layer**. The Context Management page opens.

**Section navigation:** ● ["Tasks" below](#) ● ["UI Description" on the next page](#)

## Tasks



This section includes:

["View existing out-of-the-box Contexts \(universes\)" below](#)

["Export contexts using Content Acceleration Packs \(CAPs\)" below](#)

["Import contexts using Content Acceleration Packs \(CAPs\)" on the next page](#)

### **View existing out-of-the-box Contexts (universes)**

1. In Executive Scorecard, click **Admin > Semantic Layer > Semantic Layer**. The Context Management page opens.
2. The list of out-of-the-box Contexts is displayed.
3. You can now:
  - Click **Launch Context Designer** to open the Context Designer. For details, see ["Semantic Layer - Context Designer" on page 170](#).
  - Double-click the relevant Context in the list to open the Context Designer in context. For details, see ["Semantic Layer - Context Designer" on page 170](#).
  - Click  to refresh the display.
  - Select the relevant context and click  to delete the context.

### **Export contexts using Content Acceleration Packs (CAPs)**

To export contexts, proceed as follows:

1. Create a CAP that only includes the contexts you want to export. For details, see ["Create a CAP with the Executive Scorecard application data" on page 246](#).

2. Export the CAP you created. For details, see ["Download a CAP to the user's local system" on page 237](#)

**Note:** You can also export contexts using a legacy JMX-based procedure. For details, see ["Export or Import Contexts" on page 349](#).

## Import contexts using Content Acceleration Packs (CAPs)

To import contexts, proceed as follows:

1. Copy the CAP that includes the relevant contexts to the relevant local system.
2. Upload the CAP. For details, see ["Upload a CAP to the Executive Scorecard application" on page 234](#).
3. Activate the CAP in **Admin > Content Acceleration Pack**. For details, see ["Activate a CAP" on page 235](#).
4. Verify the upload by accessing the contexts in **Admin > Semantic Layer**. For details, see ["Semantic Layer - Context Designer" on page 170](#).

**Note:**

- If the context you import already exists, it is deleted and replaced by the context imported using the CAP.
- You can also import contexts using a legacy JMX-based procedure. For details, see ["Export or Import Contexts" on page 349](#).

## UI Description

### Context Management Page




The Context Management page enables you to manage the Contexts.

## Context Management

The Context Designer enables you to create and manage business contexts (universes). Contexts can include your target schema tables or .CSV files that you can upload to the target schema using Context Designer. Double-click a context in the list below to open its configuration.

The screenshot shows a user interface for managing contexts. At the top right, there is a button labeled "Launch Context Designer". Below this is a list of contexts. Each context entry consists of a checkbox on the left and the context name on the right. The context names are: ALM Defect, ALM Requirement, ALM Test, ApplicationPerformance, ApplicationPerformanceDemo, ApplicationPortfolioManagement, AssetManagement, AssetManagementDemo, AvailabilityManagement, ChangeManagement, CloudOptimization, CloudOptimizationDemo, and DataProtection. Above the list, there are two icons: a trash can and a refresh icon.

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
	Select the relevant context and click  to delete the context. You can select more than one context and click the icon to delete all the selected contexts from the list.
	Refreshes the display.



<b>Launch Context Designer</b>	Click to open the Context Designer. For details, see " <a href="#">Semantic Layer - Context Designer</a> " on the next page.
<b>&lt;Context name&gt;</b>	Double-click the Context name to open its detail in the Context Designer. For details, see " <a href="#">Semantic Layer - Context Designer</a> " on the next page.

# Semantic Layer - Context Designer

The Context Designer feature enables you to create and manage Contexts (universes). The Contexts can be based on your target schema tables or on .CSV files that can be uploaded to the target schema using the Data Loader.

Context Designer can be used to upload data and create contexts based on the data, when you want to work with the Executive Scorecard and IT Financial Management applications without using Data Warehouse and SAP BusinessObjects Enterprise. It is a direct way to upload data into the Executive Scorecard Studio using files without performing integrations to external sources or to other HP products. It can be used, to integrate third party data, testing, or for Proof of Concept (POC) sessions. It can also be used as a component of Executive Scorecard to integrate third party data.

Context Designer provides KPI results based on your real data.

## To access:

1. In Executive Scorecard, click **Admin > Semantic Layer > Semantic Layer**. The Context Management page opens. If not, click **Data Loader**. For details, see "[Context Designer Page](#)" on page 191.
2. In the Context Designer page that opens:
  - To create a new context, click **Create a new context**.
  - To edit a context, click **Open an existing context**.

**Section navigation:** ● "[Learn More](#)" below ● "[Tasks](#)" on page 184 ● "[UI Description](#)" on page 191

## Learn More

This section includes:

["Semantic Layer \(Context and Universe\)" below](#)

["Context or Universe Contents" on page 173](#)

["Out-of-the-Box Contexts " on page 173](#)

["Contexts, entities, and fields UUIDs" on page 173](#)

["Loops in Contexts" on page 174](#)

["Link between Contexts and KPI or Metric Formulas" on page 178](#)

### **Semantic Layer (Context and Universe)**

A semantic layer is a business representation of corporate data that helps end-users access data autonomously using common business terms. It maps complex data into familiar business terms such as product, customer, or revenue to offer a unified, consolidated view of data across the

organization. By using common business terms, rather than data language, to access, manipulate, and organize information, it simplifies the complexity of business data. These business terms are stored as objects in a Business Context (or universe), accessed through business views. Business Contexts enable business users to access and analyze data stored in a relational database and OLAP cubes. This is claimed to be core business intelligence (BI) technology that frees users from IT while ensuring correct results.

Business Views is a multi-tier system that is designed to enable companies to build comprehensive and specific business objects that help report designers and end users access the information they require. Business Views is intended to enable people to add the necessary business context to their data islands and link them into a single organized Business View for their organization.

A Context or universe is a business representation of an organization's data that helps end-users access data using common business terms. A Context is the result of a semantic layer of metadata that creates a business oriented view of the data. A Context contains a schema of the tables that make up the dimension and measurement objects. A Context is an interface between the data warehouse and the analytics that display the data.

Context are made up of objects and classes that are mapped to the source data and are accessed through queries and reports. They correspond to the business contexts used in HP IT Executive Scorecard.

Each Context includes classes (entities), objects with a dimension attribute, and relationships between the entities. The entity's values are used in the calculation of values and statuses of the Key Performance Indicators (KPIs) or Metrics that represent them. The KPIs or Metrics are the building blocks used by the HP IT Executive Scorecard engine and the Studio.

Executive Scorecard Semantic Layer may include:

- Universes created in SAP BusinessObjects. For more details on universes, see the relevant SAP BusinessObjects documentation.
- Out-of-the-box Contexts created using the Context Designer.
- User-defined Contexts created using Context Designer and populated with data uploaded from .CSV files using Context Designer. For details on the Context Designer, see "[Semantic Layer - Context Designer](#)" on the previous page.

If you want to change the formula of a KPI or Metric , you must be aware of the relationships in the context (universe) of the KPI or Metric. For details, see the [KPI and Metric Library in Excel format](#) or in the relevant:

- [ALM Data Source - Integration, Associated Contexts, KPIs, Metrics, Data Lineage, and Reports](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Application Lifecycle Management*
- [AM Data Source - Integration, Associated Contexts, KPIs, Metrics, Data Lineage, and Reports](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Asset Manager*

- [AWS Data Source - Integration, Associated Context, KPIs, Metrics, and Data Lineage](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of Amazon Web Services*
- [AWSCW Data Source - Integration, Associated Context, KPIs, Metrics, and Data Lineage](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of Amazon Web Service CloudWatch*
- [BSM Data Source - Integration, Associated Contexts, KPIs, Metrics, Data Lineage, and Reports](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Business Service Management*
- [CSA Data Source - Integration, Associated Context, KPIs, Metrics, and Data Lineage](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Cloud Service Automation*
- [DP Data Source - Integration, Associated Context, KPIs, Metrics, and Data Lineage](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Data Protector*
- [Hyper-V Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of Hyper-V*
- [IC Data Source - Integration, Associated Context, KPIs, Metrics, and Data Lineage](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Insight Control*
- [NA Data Source - Associated Contexts, KPIs, Metrics, and Data Lineage](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Network Automation*
- [NNM Data Source - Integration, Associated Context, KPIs, Metrics, and Data Lineage](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Network Automation*
- [OO Data Source - Integration, Associated Contexts, KPIs, Metrics, and Data Lineage](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Operation Orchestration*
- [PPM Data Source - Integration, Associated Contexts, KPIs, Metrics, and Data Lineage](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Project and Portfolio Management*
- [SA Data Source - Associated Contexts, KPIs, Metrics, and Data Lineage](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Server Automation*
- [SE Data Source - Integration, Associated Contexts, KPIs, Metrics and Data Lineage](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Storage Essentials*
- [SM Data Source - Associated Contexts, KPIs, Metrics, Data Lineage, and Reports](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Service Manager*
- [UCMDB Data Source - Integration and Associated Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Universal Configuration Management Database*

- [VCM Data Source - Integration, Associated Context, KPIs, Metrics, and Data Lineage](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of vCenter Chargeback Manager*
- [Alternate Source Integration](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of Alternate Data Sources*

The contexts, entities, and dimensions that are displayed and used in the Studio are part of the universes that are located in the **XS\_Studio** library.

## Context or Universe Contents

A Context (or Universe) is a set of entities. Each entity is a set of fields. Each field can be a dimension, measurement, or fact that can provide information about the business.

A formula calculates, for a specified time period, using the values of specific entities, a value that represents a specific aspect of the business. The value is assigned to a Key Performance Indicator (KPI) so that the KPI represents a specific aspect of the business.

Each Context includes some KPIs. The KPIs are the building blocks of the Studio and the KPI engine.

These entities that are used in the calculation of the KPIs are provided by the relevant integrated data source. Each data source corresponds to a specific Content Pack that provides the connection between the data source and Executive Scorecard.

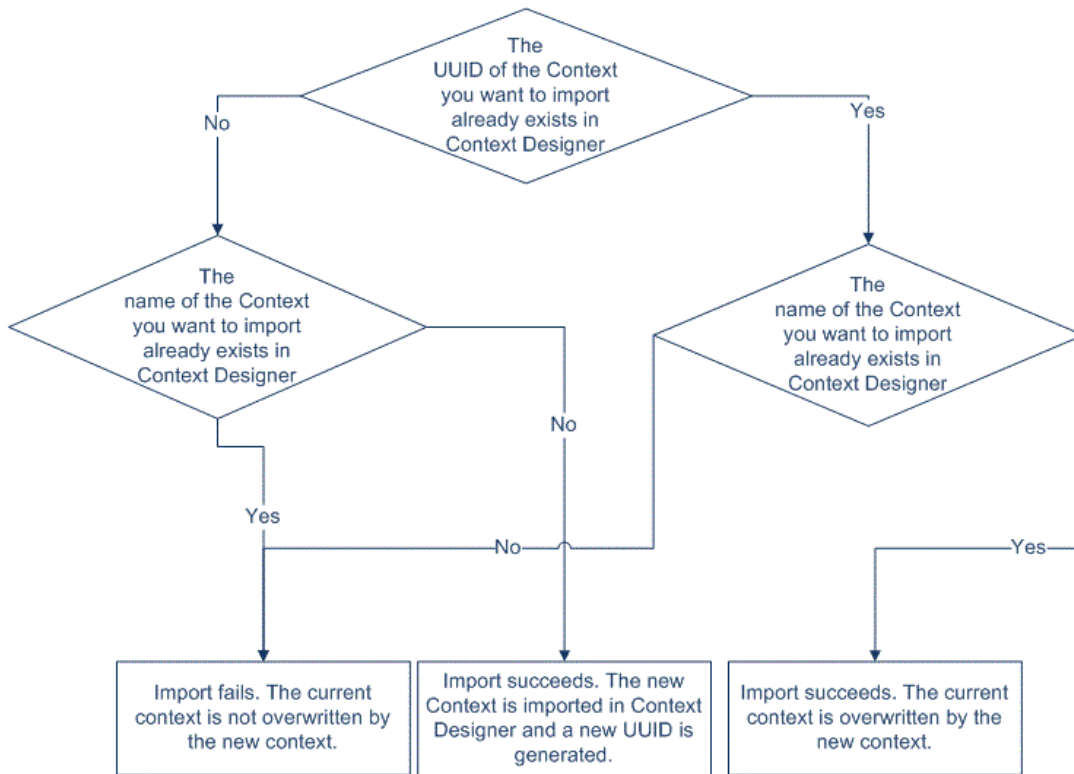
## Out-of-the-Box Contexts

You can only add more tables and entities to an out-of-the-box Context, you cannot remove or modify the original elements.

## Contexts, entities, and fields UUIDs

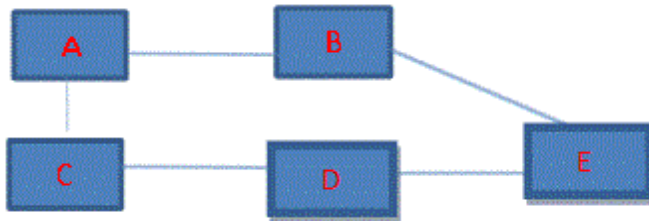
To uniquely identify contexts, entities, and fields, a universally unique identifier (UUID) is assigned to them. When you save a new context, the UUID is auto-generated.

The flowchart explains the different configurations and their impact on the import of a Context in the Context Designer:



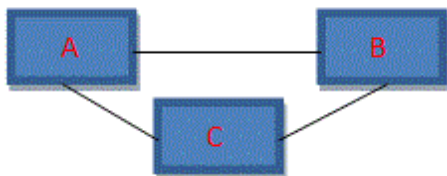
### Loops in Contexts

Contexts can include tables that are linked together forming a loop.



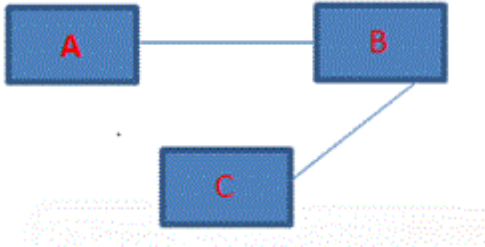
To perform the calculation of a KPI or Metric, the system selects the path with the lowest number of joins as the default path. If the formula includes both fields in A and in E, then the system will choose A-B-E (2 joins) instead of A-C-D-E (3 joins).

If the structure has the same number of joins and the formula includes fields from the three tables, then the system cannot select the path with the lowest number of joins (same number for each path).

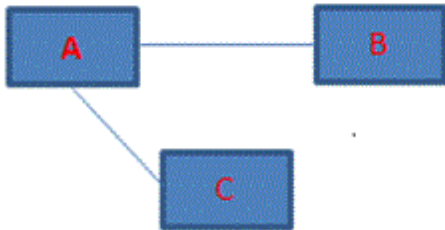


In that case, the selection of the path used for calculation is random.

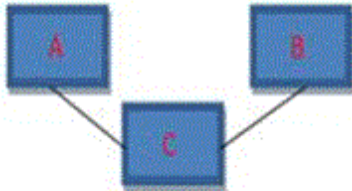
The paths could then be:



Or



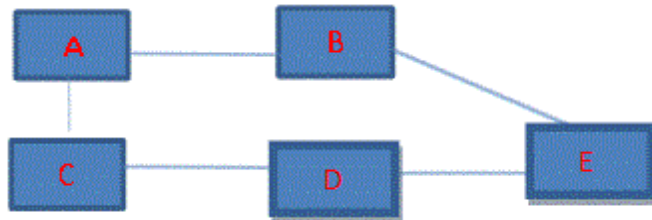
Or



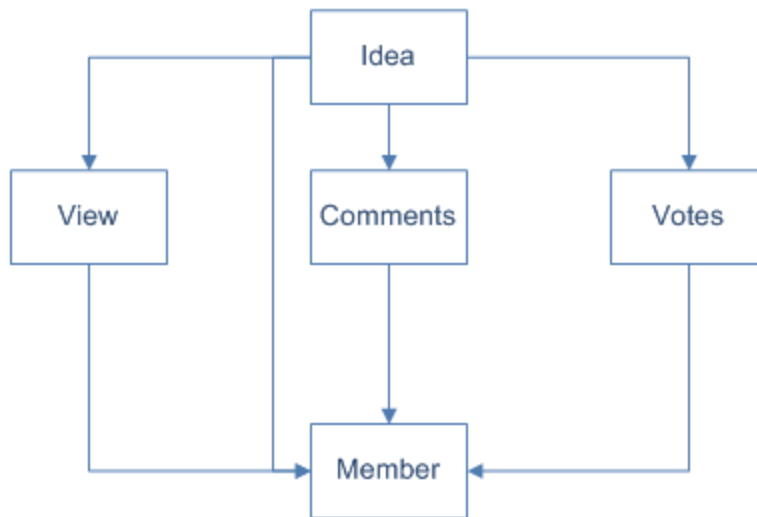
**Tip:** The problem of loops in context structure is that calculations may have different results depending on the path selected by the system (random or lowest number of joins), therefore loops are not recommended.

#### Workarounds:

- **Modify the formulas:** If you want the path to follow a specific path, you must modify the formula so it includes the path. For example, if the formula is `SUM (A.duration, *)` filter `E.status='OK'` it will follow the A-B-E path because it has the smallest number of joins, but if you want it to pass via C you can modify the formula as follows: `SUM (A.duration, *)` with filter `E.status='OK'` but then the path could go A-C-D-E or C-A-B-E. If you want it to follow A-C-D-E you should use `SUM (A.duration, C.id=C.id and D.id=D.id)` with filter `E.status='OK'`.

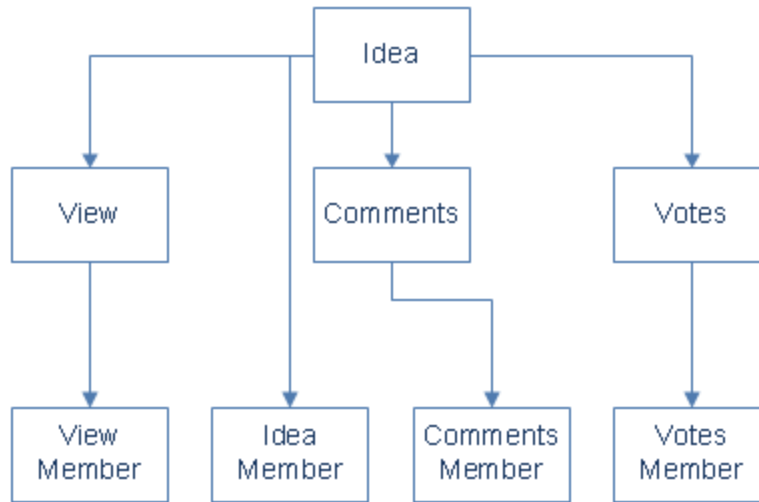


- **Duplicate the table:** Duplicate the table that is linked to a large number of other tables. If you have the following context structure:



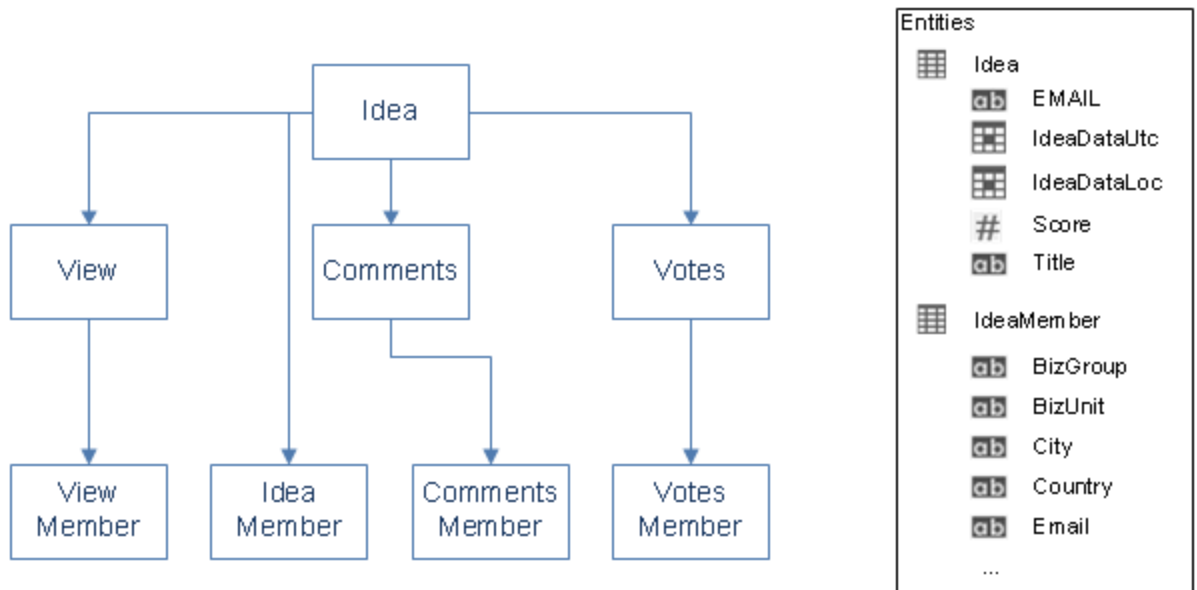
You can create the same structure without loops by using copies (aliases) of the Member table, give each table another name, and create the relevant joins, as follows:



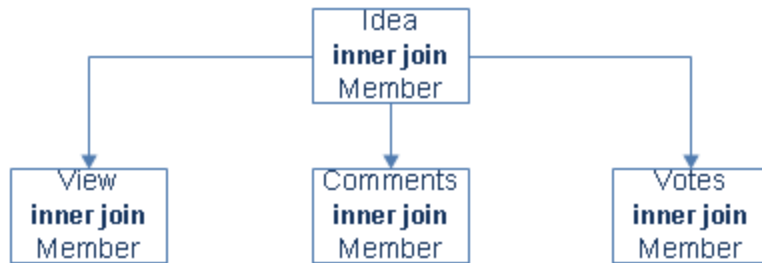


Once you have created the aliases you can drag them to the Entities area.

- **Modify the view:** If you have the structure below then when the tables are dragged to the Context Designer Entities area, then each entity and its attributes appear separately .



You can modify the views in the Target schema to correspond to the structure below, where the attributes of the entity include both the entity original attributes and the attributes corresponding to the person who submitted the idea. You create these views in the SQL server. This way when the tables are dragged to the Context Designer Entities area they display the entity and its attributes as well as the corresponding Member entity and its attributes.



Entities	
	Idea
	EMAIL
	IdeaDataUtc
	IdeaDataLoc
	Score
	Title
	BizGroup
	BizUnit
	City
	Country
	Email
...	

### Link between Contexts and KPI or Metric Formulas

When you create a Context, you select tables, create links between the tables, and select the relevant columns in the tables to be part of the Context. For details, see ["Semantic Layer - Context Designer" on page 170](#) in the *IT Executive Scorecard Administrator Guide*.

When you create a KPI or a Metric you assign them a Context in the Studio. The Context tables become variables that you can use when creating KPI or Metric formulas, and the table columns become the variable entities.

For example the **% of Reopened Defects** KPI has the following formula:

**RATIO\_MATH(COUNT\_DISTINCT( DefectHist.Defect , DefectHist.ReopenFlag =1 And Defect.Status <> 'Closed') , COUNT( Defect ,Defect.DefectSummary<> 'INVALID' And Defect.DefectSummary<> 'UNKNOWN' ),0)\*100**

Its definition is:

The screenshot shows the configuration details for a KPI named '% of Reopened Defects'. The interface is divided into several sections:

- General - KPI:** The name is '% of Reopened Defects' and the unit is '%'. The description is 'The number of reopened defects (supposedly fixed defects or defects that were once fixed but reappeared) relative to the total number of logged defects.' The calculation period is set to 'Monthly'.
- Result Threshold:** The direction is 'Minimize'. There is a checkbox for 'Include marginal status (Warning)'. A horizontal bar chart shows a threshold at 20, with a warning zone from 0 to 20 and a critical zone from 20 to 100.
- Additional Details:** The business motivation is 'Make sure our defect correction procedure is efficient.' There is an 'Additional Info' table with columns for 'Name' and 'URL', which is currently empty.

Buttons for 'Test KPI', 'Save', and 'Discard' are visible at the bottom of the configuration panel.

The Business Context is ALM\_Defect.

Click **Admin > Semantic Layer** and open the ALM\_Defect Context:

**Semantic Layer**

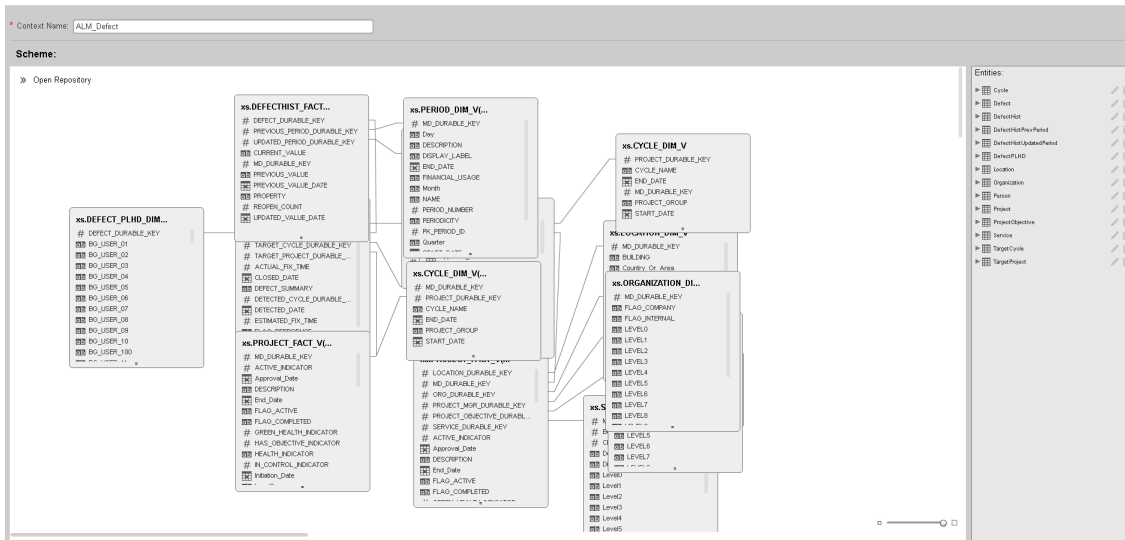
**Context Management**

The Context Designer enables you to create and manage business contexts (universes). Contexts can include your target schema tables or .CSV files that you can upload to the target schema using Context Designer. Double-click a context in the list below to open its configuration.

Launch Context Designer

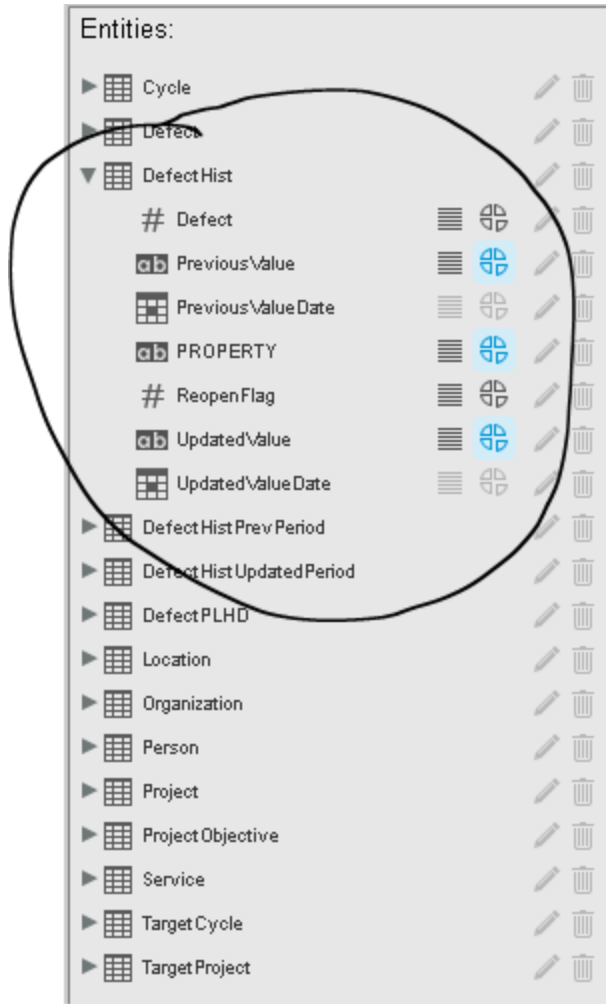
- Context Name
- ALM\_Defect
- ALM\_Req
- ALM\_Test
- ApplicationPerformance
- ApplicationPortfolioManagement
- AssetManagement
- AvailabilityManagement
- ChangeManagement
- CloudOptimization
- CloudOptimizationDemo
- DataProtection
- DemandManagement
- FinancialManagement
- IncidentManagement
- Link\_Test\_Context
- NetworkNodeManager
- OrchestrationAutomation
- Period\_Universe

The contents of the Context including the ALM tables is displayed:



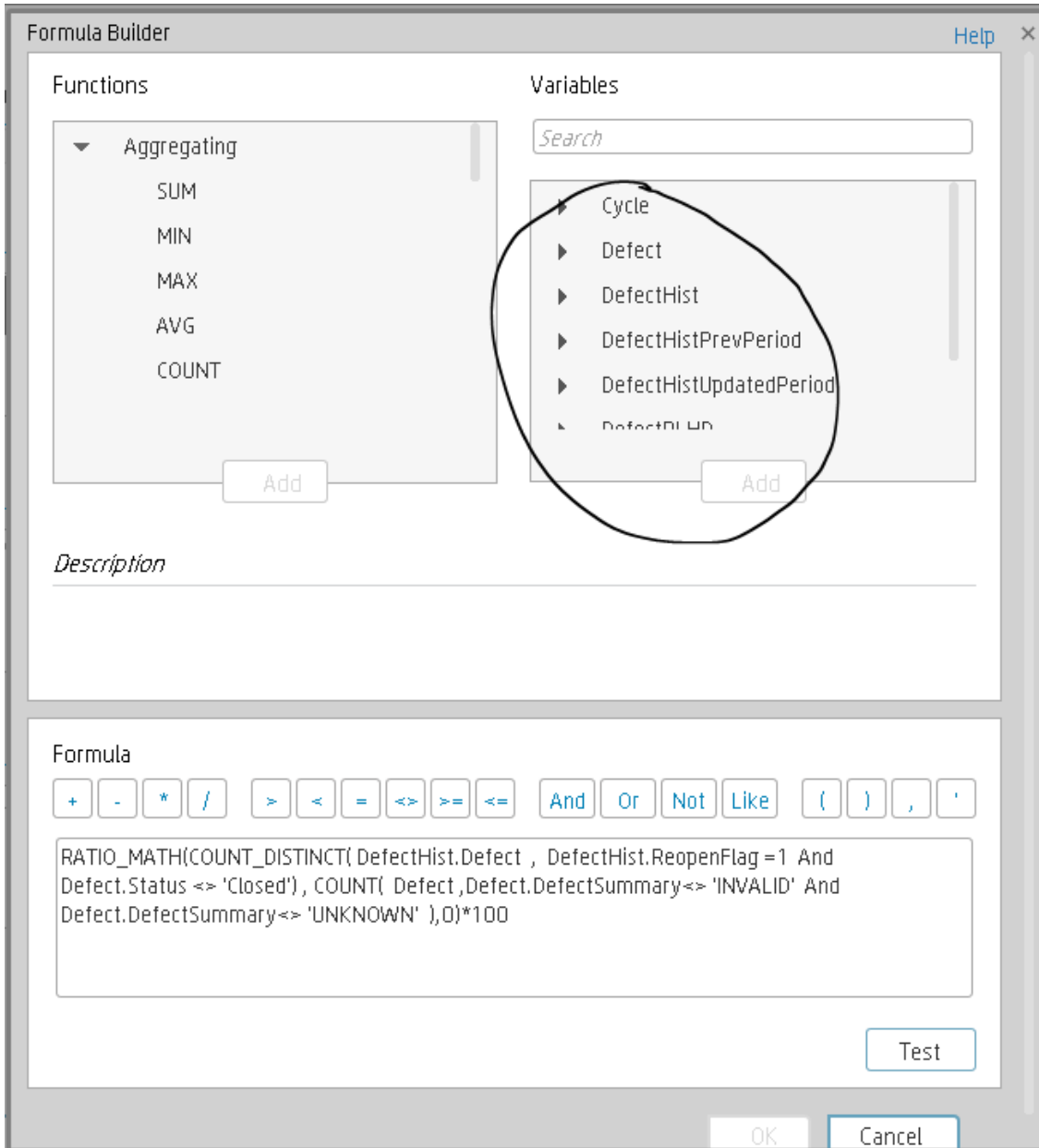
In the Entities area on the right, you can see the tables and the table columns that were selected to be part of the ALM\_Defect Context itself.

It is recommended that the person who creates the KPI or Metric formula should be familiar with the ALM entities that are used in the ALM\_Defect context as the XS documentation does not provide that information:

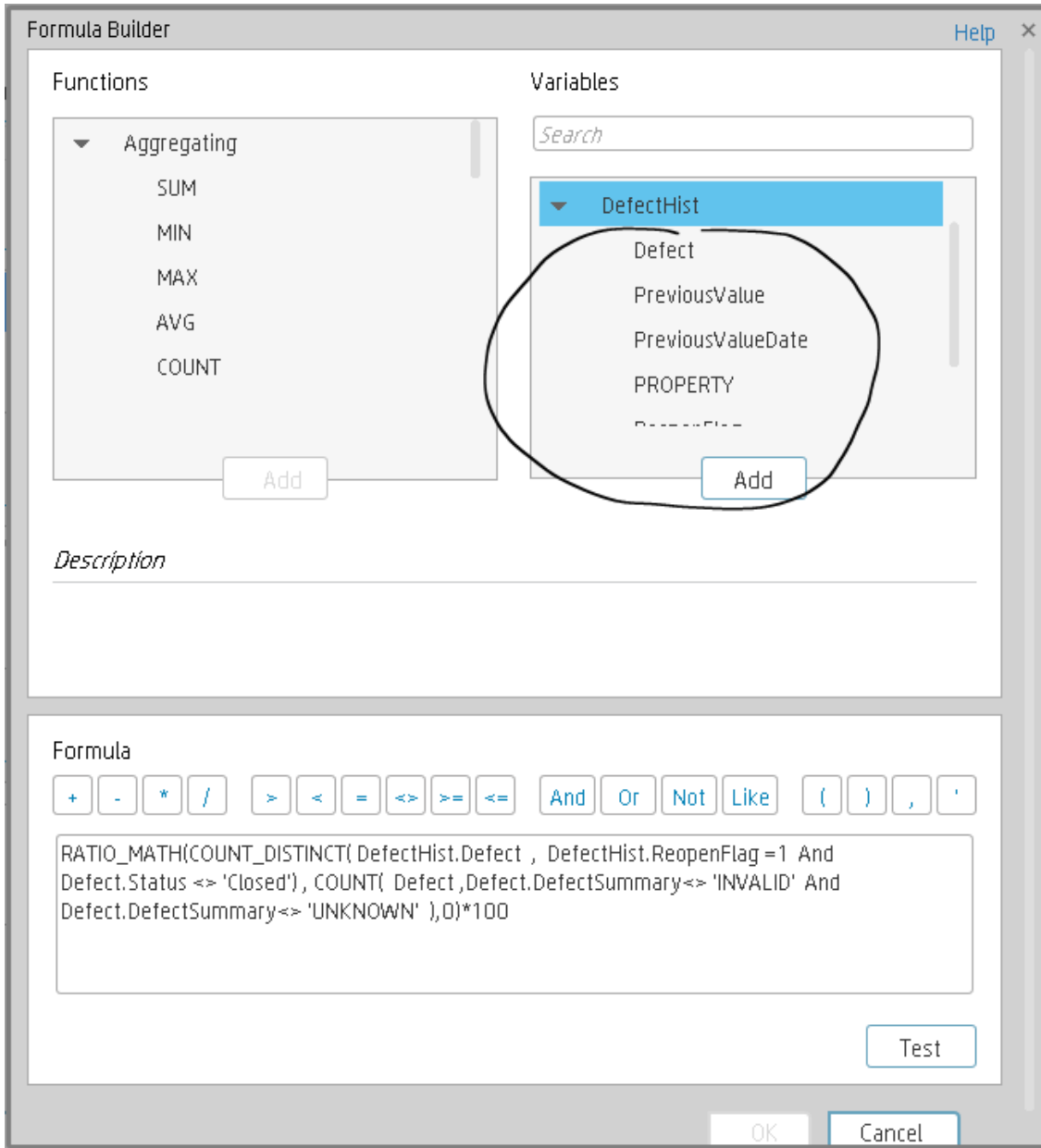


The **Defect\_Hist** table corresponds to one of the entities (**DefectHist**) that appears in the list of Variables that can be used when creating or modifying the formula of a KPI based on the **ALM\_Defect** context. To access the KPI or Metric formula, click **Studio**, highlight the relevant KPI (**% of Reopened Defects** for example), click the **Calculation Details** tab, and then click **Open Formula builder**.

The variables you see in the formula builder correspond to the Entities in the Context Designer (above) and correspond to the <EntityName> in the syntax of the formulas (as explained in [Modify a KPI or Metric Formula](#) in the *IT Executive Scorecard Business Analyst Guide*).



When you expand a variable, the items you see below correspond to the fields (in the Context Designer) and correspond to the <FieldName> items in the formulas syntax (as explained in [Modify a KPI or Metric Formula](#) in the *IT Executive Scorecard Business Analyst Guide*).



## Tasks

This section includes:

["View existing out-of-the-box Contexts \(universes\)" on the next page](#)

["Create a Context and use its contents in the Studio" on page 186](#)

["Update a Context" on page 188](#)



["Add a column to a Target database table and the impact on the context" on page 189](#)

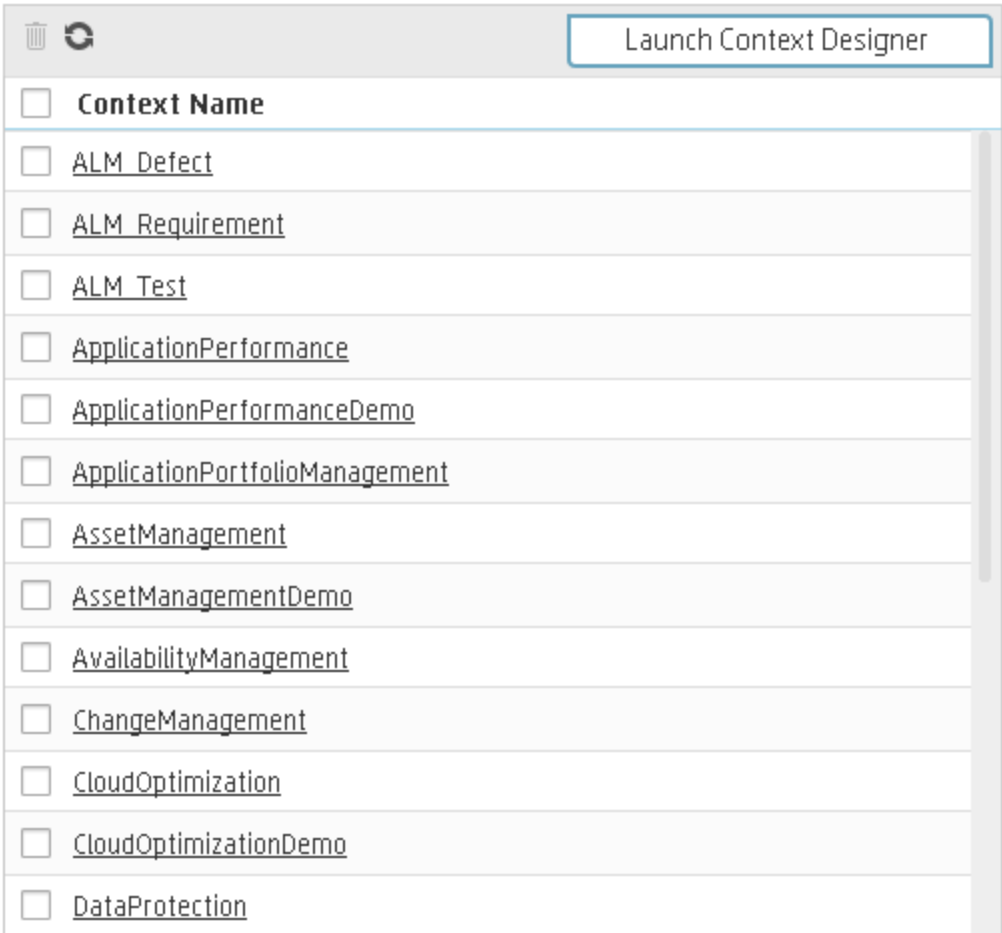
["Remove a column from a Target database table and impact on context" on page 190](#)

### View existing out-of-the-box Contexts (universes)

1. In Executive Scorecard, click **Admin > Semantic Layer > Semantic Layer**. The Context Management page opens.
2. The list of out-of-the-box Contexts is displayed.

## Context Management

The Context Designer enables you to create and manage business contexts (universes). Contexts can include your target schema tables or .CSV files that you can upload to the target schema using Context Designer. Double-click a context in the list below to open its configuration.

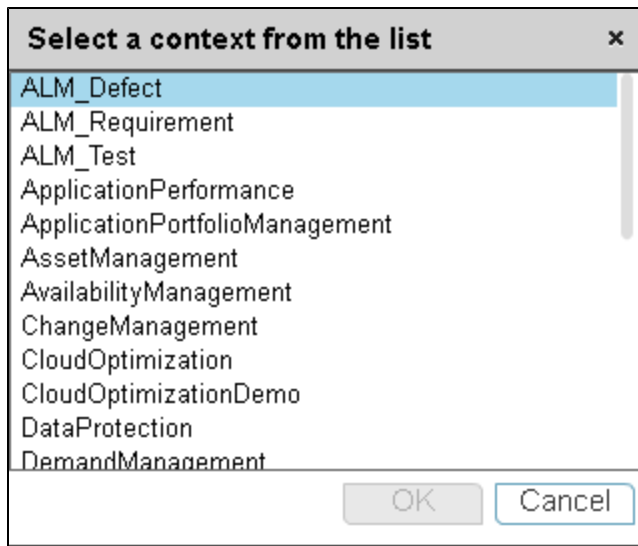


The screenshot shows a web interface for 'Context Management'. At the top right, there is a button labeled 'Launch Context Designer'. Below this is a list of contexts, each with a checkbox and a text label. The contexts listed are: Context Name, ALM Defect, ALM Requirement, ALM Test, ApplicationPerformance, ApplicationPerformanceDemo, ApplicationPortfolioManagement, AssetManagement, AssetManagementDemo, AvailabilityManagement, ChangeManagement, CloudOptimization, CloudOptimizationDemo, and DataProtection. A vertical scrollbar is visible on the right side of the list.

<input type="checkbox"/>	Context Name
<input type="checkbox"/>	<a href="#">ALM Defect</a>
<input type="checkbox"/>	<a href="#">ALM Requirement</a>
<input type="checkbox"/>	<a href="#">ALM Test</a>
<input type="checkbox"/>	<a href="#">ApplicationPerformance</a>
<input type="checkbox"/>	<a href="#">ApplicationPerformanceDemo</a>
<input type="checkbox"/>	<a href="#">ApplicationPortfolioManagement</a>
<input type="checkbox"/>	<a href="#">AssetManagement</a>
<input type="checkbox"/>	<a href="#">AssetManagementDemo</a>
<input type="checkbox"/>	<a href="#">AvailabilityManagement</a>
<input type="checkbox"/>	<a href="#">ChangeManagement</a>
<input type="checkbox"/>	<a href="#">CloudOptimization</a>
<input type="checkbox"/>	<a href="#">CloudOptimizationDemo</a>
<input type="checkbox"/>	<a href="#">DataProtection</a>

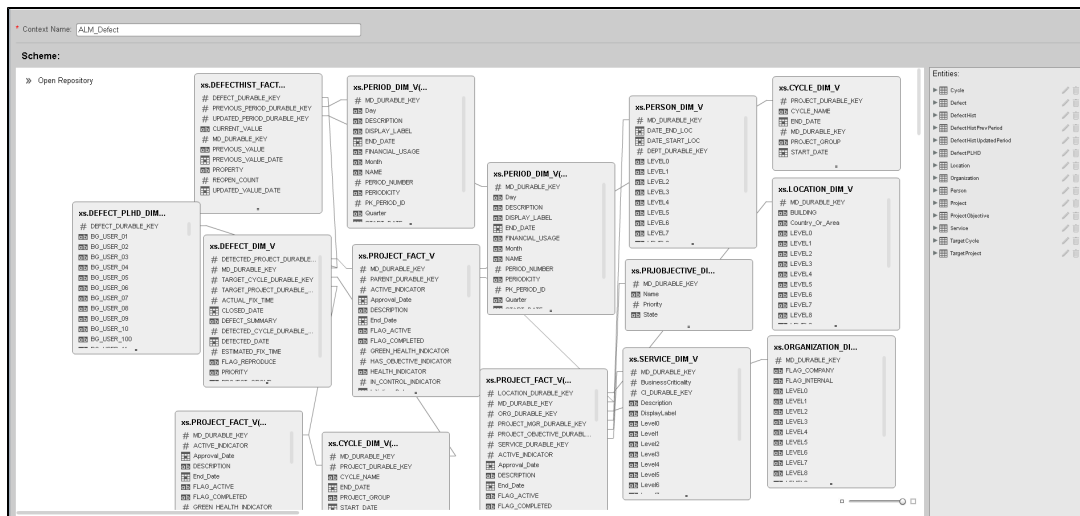
3. Click **Launch Context Designer**.

4. In the Context Designer page that opens, click **Open an existing context**.



5. Select the relevant Context.


The structure of the Context is displayed.



## Create a Context and use its contents in the Studio

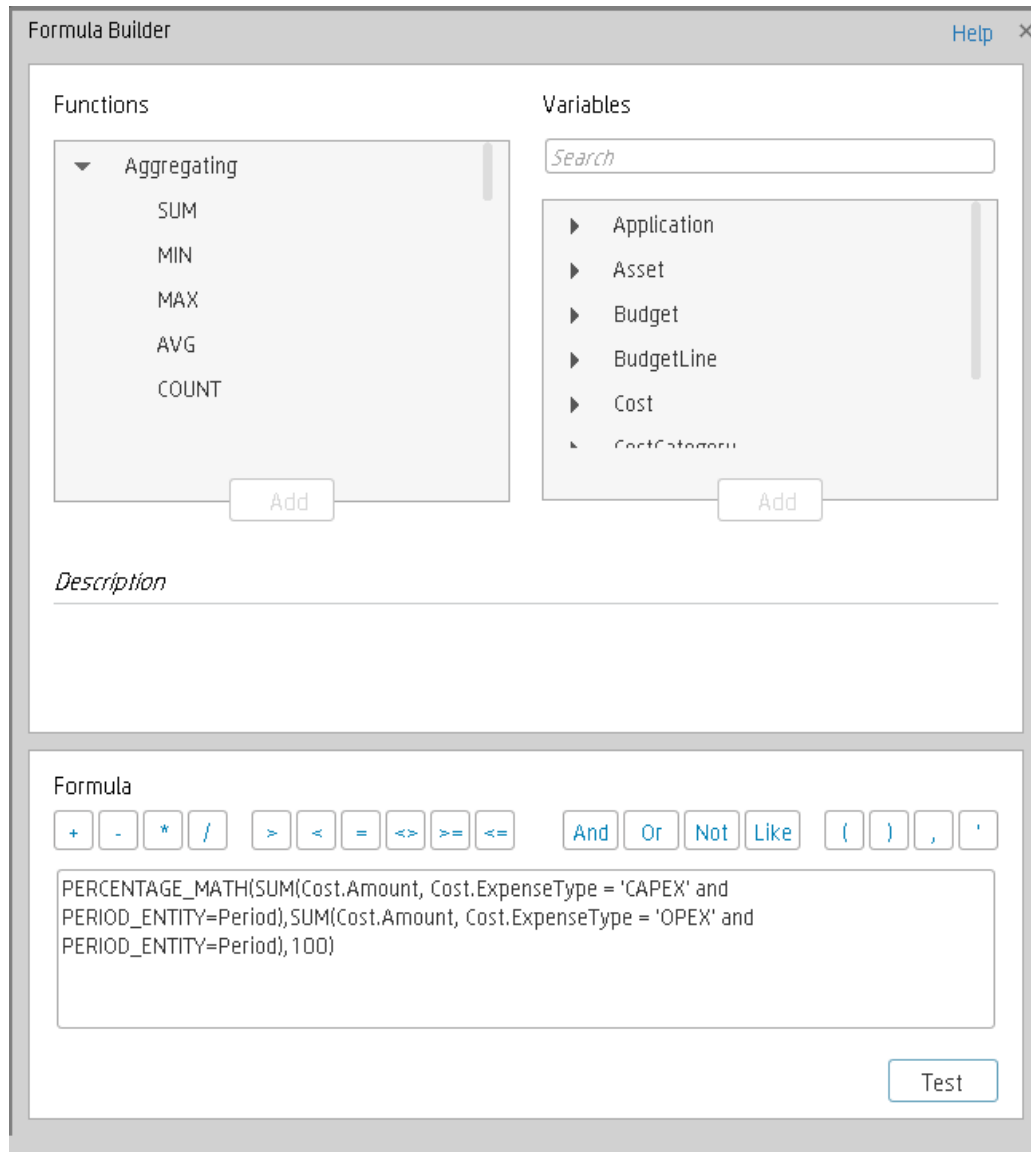
1. **Create a new Context**

- a. In Executive Scorecard, click **Admin > Semantic Layer > Semantic Layer**.
- b. In the Context Management page, click **Launch Context Designer**.
- c. Click **Create a New Context**. The Context Designer page opens.

- d. Enter the name of the Context .
- e. Click **Open Repository**. The **Repository** area opens. You can use:
  - o Tables from the **ExternalTables** list. These tables are created from external tables in CSV format that are uploaded to Executive Scorecard. For details on how to upload a CSV table, see "[Semantic Layer - Context Designer](#)" on page 170. After the table is uploaded, a corresponding table named **ext.<csv\_table\_name>** is listed in the **ExternalTables** list.
  - o Internal tables from the **InternalTables** list.  
  
If you are working with Enterprise Executive Scorecard, the tables listed in the InternalTables list are the Data Warehouse tables, the Period tables created during the post-install procedure, and the View table.
- f. Drag the relevant tables from the **Repository** to the **Scheme** area.
- g. Define the relationships between the tables by dragging a specific column from one table and dropping it over the relevant column in another table. A visual link is added to the graph to indicate the relationship.
- h. Drag the relevant tables from the **Scheme** area to the **Entities** pane. The tables become variables and the columns become the variable entities that can be used to create KPI or Metric formulas when a KPI or Metric is assigned the Context in the Studio.
- i. Click  to save the Context.

## 2. Load the Context and verify the variables and entities


- a. In Executive Scorecard, click **Studio**.
- b. Activate a KPI or a Metric or clone any active KPI or Metric that does not have a KPI Breakdown or Breakdown Metric. For details, see [Activate Scorecards, Perspectives, Objectives, Metrics, or KPIs Using Templates](#) or [Create Active Scorecards, Perspectives, Objectives, Metrics, or KPIs](#) in the *IT Executive Scorecard Business Analyst Guide*.
- c. Click the **Calculation details** tab, and click **Select business context**. For details, see [KPI or Metric Configuration and Calculation Details](#) in the *IT Executive Scorecard Business Analyst Guide*.
- d. In the Business Context dialog box, change its Context to the new Context.
- e. You can then modify the formula that is used to calculate the KPI or Metric status by selecting the variables that correspond to the entities and fields that were defined in the Context Designer. To do that click **Open Formula Builder**.
- f. In the Formula Builder dialog box, verify that the variables correspond to the tables you selected in the Entities area in the Context Designer, and that the entities of the variables correspond to the selected columns of those tables. Click **OK** to save the KPI.



**Note:** In the same way, you can modify the Filter of the KPI or Metric to use the variables corresponding to the .CSV file-based Context (universe).

## Update a Context

1. In Executive Scorecard, click **Admin > Semantic Layer > Semantic Layer**. In the **Context Management** page, click **Launch Context Designer**. The Context Designer page opens. For details, see "[Context Designer Page](#)" on page 191.
2. Select the relevant Context.
3. Make the relevant changes: delete or add entities, fields, tables, columns, or relationships.

4. Click  to save the Context.
5. Load the Context and verify.

## Export contexts using Content Acceleration Packs (CAPs)

To export contexts, proceed as follows:

1. Create a CAP that only includes the contexts you want to export. For details, see ["Create a CAP with the Executive Scorecard application data" on page 246](#).
2. Export the CAP you created. For details, see ["Download a CAP to the user's local system" on page 237](#)

**Note:** You can also export contexts using a legacy JMX-based procedure. For details, see ["Export or Import Contexts" on page 349](#).

## Import contexts using Content Acceleration Packs (CAPs)

To import contexts, proceed as follows:

1. Upload the CAP. For details, see ["Upload a CAP to the Executive Scorecard application" on page 234](#).
2. Activate the CAP in **Admin > Content Acceleration Pack**. For details, see ["Activate a CAP" on page 235](#).
3. Verify the upload by accessing the contexts in **Admin > Semantic Layer**. For details, see ["Semantic Layer - Context Designer" on page 170](#).

**Note:**

- If the context you import already exists, it is deleted and replaced by the context imported using the CAP.
- You can also import contexts using a legacy JMX-based procedure. For details, see ["Export or Import Contexts" on page 349](#).

## Add a column to a Target database table and the impact on the context

When you restructure the Target database by adding a column to a table, the corresponding tables in the relevant Contexts are automatically refreshed. You must then proceed as follows:

1. Restructure the Target database by adding a column to a specific table.

The column is automatically and immediately inserted into the corresponding table in the Context, and the links between the Context tables are maintained. A new index is not created if you add a new column directly in the target DB so you have to create an entry for the new

column accessing by the SQL Studio Manager. The index is located under the table and then under the columns.

2. If needed, create additional links between the new column and the other tables.
3. If needed, drag the new column into the **Entities** area.
4. Save the context.

**Note:**

- If you change the type of a column from a table in the Target database, the formula that calculates KPIs based on the Context that includes that table, may also be invalid.
- If you change the name of a column from a table in the Target database, the effect is the same as adding a new column. Refer to the procedure above.

### **Remove a column from a Target database table and impact on context**

When you restructure the Target database by removing a column from a table, the corresponding tables in the Contexts are automatically refreshed. You must then proceed as follows:

1. Remove the index corresponding to the relevant column by accessing the SQL Studio Manager. The index is located under the table and then under the columns.
2. Remove the relevant column from the table in the Target database.

The column is automatically and immediately removed from the corresponding table in the Context, and the links between the Context tables are maintained. The link from this column to other tables are removed.

3. Remove the column from the **Entities** area.
4. Save the context.

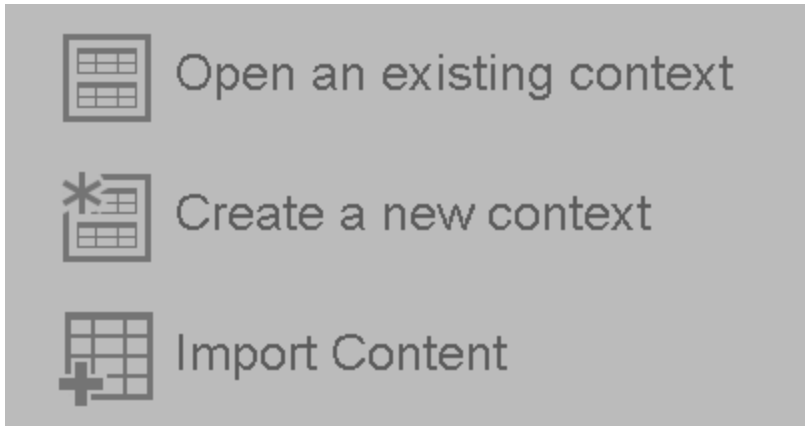
**Note:**

- If you remove a column from a table in the Target database, the corresponding column is automatically and immediately removed from the relevant Context.
- If the column was also listed in the Entities then make sure to remove it from the Entities as well before saving and validating the modified context.
- If the column is removed from a table in the Target database, and the Context is not verified, the formula that calculates KPIs based on the Context, might also be invalid. If the removed column has a link to another column, the link is also removed


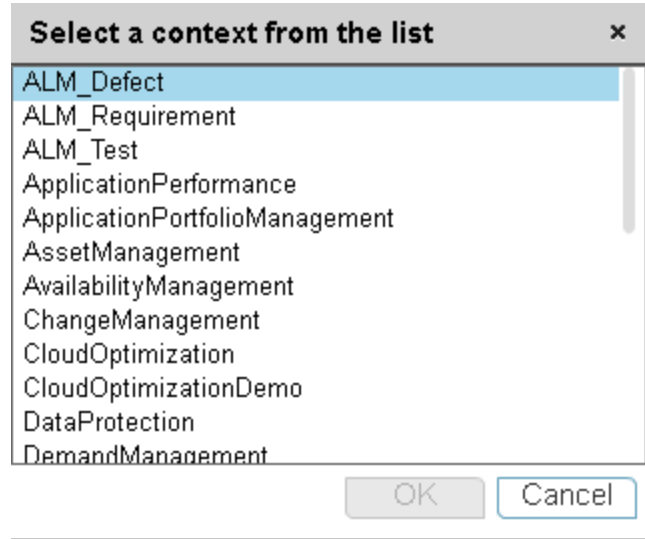
## UI Description



### Context Designer Page

The Context Designer page enables you to manage the Contexts that you create using the Context Designer feature.



User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
	<p>Click to display a list of existing Contexts created in the Context Designer. Select the relevant Context and click <b>OK</b>.</p>  <p>The screenshot shows a dialog box with the title 'Select a context from the list' and a close button (X). The list contains the following items: ALM_Defect (highlighted), ALM_Requirement, ALM_Test, ApplicationPerformance, ApplicationPortfolioManagement, AssetManagement, AvailabilityManagement, ChangeManagement, CloudOptimization, CloudOptimizationDemo, DataProtection, and DemandManagement. At the bottom are 'OK' and 'Cancel' buttons.</p>

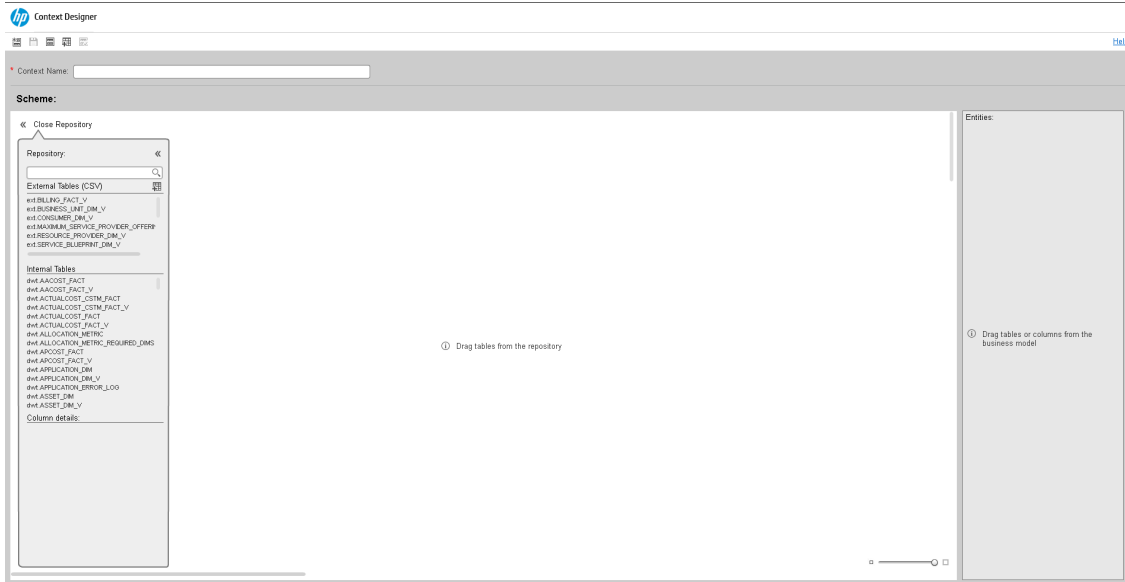
	Click to create a new Context. The Context Designer Wizard opens. For details, see below.
	Click to open the Import Content wizard. For details, see " <a href="#">Semantic Layer - Data Loader</a> " on page 200.

## Context Designer Wizard

The Context Designer wizard enables you to create a Context with tables, entities, and relationships. Once you have completed the Context, save it. The Context is then added to the list of Contexts available in the Studio. The tables that compose the universe are added as variables and the table columns as variable entities. The variables and entities can be used to calculate the formulas for the KPIs that are assigned the Context. For details, see [KPI or Metric Configuration and Calculation Details](#) in the *IT Executive Scorecard Business Analyst Guide*.









This page enables you to configure a Context.



### Context Designer Toolbar

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
	<b>New.</b> Click to create a new Context.
	<b>Save.</b> Click to save the currently opened Context.

	<p><b>Open.</b> Click to display a list of existing Contexts created in the Context Designer. Select the relevant Context and click <b>OK</b>.</p> <div style="border: 1px solid gray; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;"><b>Select a context from the list</b> <span style="float: right;">×</span></p> <ul style="list-style-type: none"> <li>ALM_Defect</li> <li>ALM_Requirement</li> <li>ALM_Test</li> <li>ApplicationPerformance</li> <li>ApplicationPortfolioManagement</li> <li>AssetManagement</li> <li>AvailabilityManagement</li> <li>ChangeManagement</li> <li>CloudOptimization</li> <li>CloudOptimizationDemo</li> <li>DataProtection</li> <li>DemandManagement</li> </ul> <p style="text-align: right;"> <input type="button" value="OK"/> <input type="button" value="Cancel"/> </p> </div>
	<p><b>Add table.</b> Click to add tables in CSV format to the Repository. The data loader wizard opens. For details, see "<a href="#">Semantic Layer - Context Designer</a>" on page 170.</p>
	<p>Click to validate the Context. The validation checks if the name of the Context is unique, if all the tables in the Context exist in the Repository, and more.</p> <p>When you click the  Save button, the Context is validated. An invalid Context is not saved.</p>

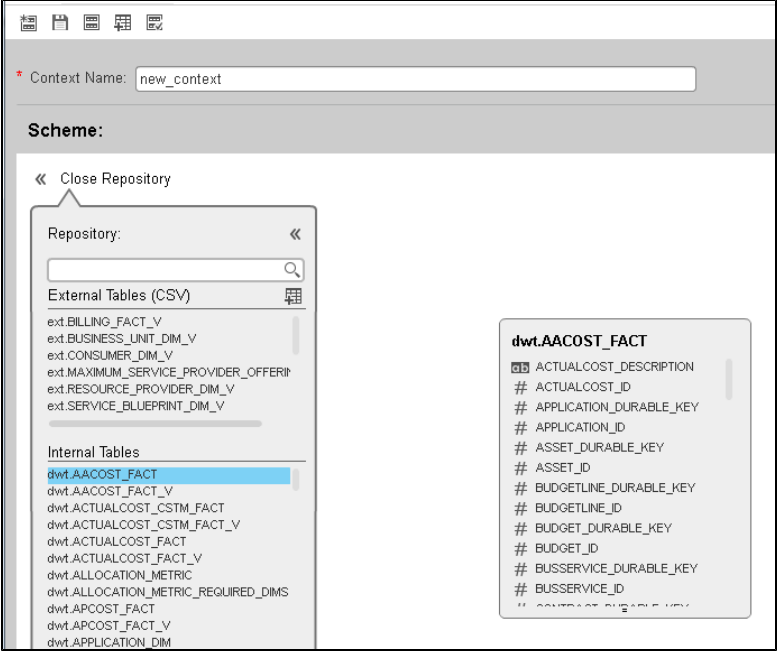
### Context Area

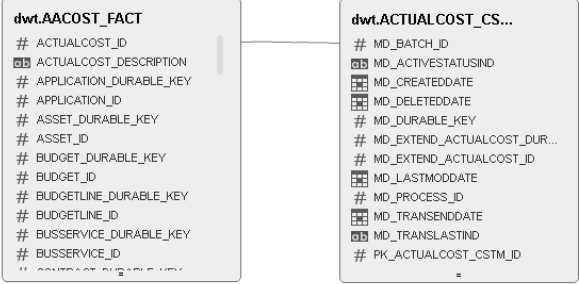

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Context name</b>	<p>The name of the Context.</p> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p><b>Limitation:</b> SAP BusinessObjects Enterprise Universe names should not duplicate Context names, and all names of Universes and Contexts should be unique.</p> </div> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p><b>Note:</b> If you have assigned to a KPI a Context created with the Context Designer, and then you modify the Context name in the Context Designer, make sure that you assign the modified Context to the KPI in the Studio otherwise the KPI becomes invalid as it uses a Context that does not exist.</p> </div>

### Scheme Area

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Repository</b>	Click the button to open the table repository. For details, see <a href="#">"Repository" on the next page.</a>
<Drag and drop>	<p>Select the relevant table in the Repository and drag and drop it in the Scheme area to make the table part of the universe.</p> 


UI Element	Description
<p><b>&lt;Create relationships&gt;</b></p>	<p>Select the relevant entity in a table and drag and drop it on the relevant entity in another table to create the relationship between these two entities.</p>  <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• Double-click a table to shrink it down to its title. Double-click a shrunk table to expand it.</li> <li>• To delete a relationship, click it and press the <b>Delete</b> key.</li> </ul>
	<p>Use the slider to zoom in or out.</p>

**Repository**

The Repository area enables you to select external or internal tables to add to the Context you are building.

« Close Repository

Repository: «

External Tables (CSV) 

- ext.BILLING\_FACT\_V
- ext.BUSINESS\_UNIT\_DIM\_V
- ext.CONSUMER\_DIM\_V
- ext.MAXIMUM\_SERVICE\_PROVIDER\_OFFERING\_DIM\_V
- ext.RESOURCE\_PROVIDER\_DIM\_V
- ext.SERVICE\_BLUEPRINT\_DIM\_V






Internal Tables

- dwt.AACOST\_FACT
- dwt.AACOST\_FACT\_V
- dwt.ACTUALCOST\_CSTM\_FACT
- dwt.ACTUALCOST\_CSTM\_FACT\_V
- dwt.ACTUALCOST\_FACT
- dwt.ACTUALCOST\_FACT\_V
- dwt.ALLOCATION\_METRIC
- dwt.ALLOCATION\_METRIC\_REQUIRED\_DIMS
- dwt.APCOST\_FACT
- dwt.APCOST\_FACT\_V
- dwt.APPLICATION\_DIM
- dwt.APPLICATION\_DIM\_V
- dwt.APPLICATION\_ERROR\_LOG
- dwt.ASSET\_DIM
- dwt.ASSET\_DIM\_V

ext.BILLING\_FACT\_V - Column details:

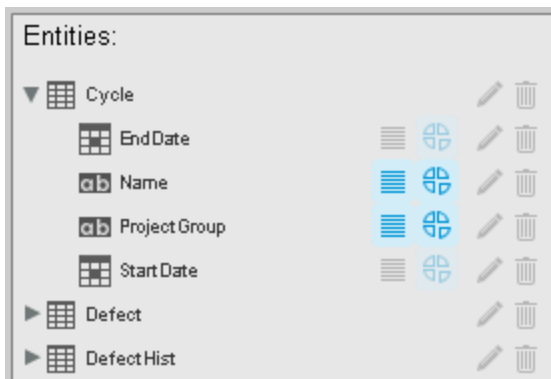
- # AMOUNT\_BASE
- # AMOUNT\_LOC
- # BILLING\_PERIOD\_DURABLE\_KEY
- cb** CURRENCY\_BASE
- cb** CURRENCY\_LOC
- # EXCHANGE\_BASE\_DURABLE\_KEY
- # EXCHANGE\_LOC\_DURABLE\_KEY
- # MD\_DURABLE\_KEY
- # RECURRING\_FLAG
- # SERVICE\_BLUEPRINT\_DURABLE\_KEY
- # SERVICE\_INSTANCE\_DURABLE\_KEY
- # SERVICE\_OFFERING\_DURABLE\_KEY
- # SUBSCRIPTION\_DURABLE\_KEY

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):







UI Element	Description
	Click to close the Repository.
<b>External Tables (CSV)</b>	Lists the CSV tables that were uploaded using the data loader wizard. Click the relevant table to display its column details.
	Click to add tables in CSV format to the Repository. The data loader wizard opens. For details, see " <a href="#">Content Loader</a> " on page 202.
<b>Internal Tables</b>	Lists the tables. Click on the relevant table to display its entities in the Column details section.
<b>Column Details</b>	Lists the entities (columns) of the table selected in the <b>Internal Tables</b> section. Each entity is preceded by an icon indicating the type of entity: <ul style="list-style-type: none"> <li> - date.</li> <li> - string.</li> <li> - numeric</li> </ul>

### Entities Area

You drag tables from the Scheme area to the Entities area to add a variable corresponding to the table to the list of variables available to create the formula for the KPI that is assigned the Context. The table columns become the variable entities.



User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Drag and drop>	<p>Drag and drop a table from the middle pane to the Entities pane to add the table's entities and fields to the list of available entities and fields available to be added to a KPI formula in the Formula Builder. For details, see <a href="#">KPI or Metric Formula</a> in the <i>IT Executive Scorecard Business Analyst Guide</i>.</p>
<Table and columns>	<p>The table that you dragged from the Scheme area to the Entities area is displayed followed by its columns.</p> <p>Icons indicate the format of the column.</p> <ul style="list-style-type: none"> <li>•  - date.</li> <li>•  - string.</li> <li>•  - numeric</li> </ul> <p>The icons to the right of the column enable you to decide to:</p> <ul style="list-style-type: none"> <li>•  - Enables the auto-completion feature when using this field in a formula, in the Studio. This feature is not supported for a date field. For details, see <a href="#">Variables</a> in the <i>IT Executive Scorecard Business Analyst Guide</i>.</li> <li>•  - Enable the creation of a Breakdown for the KPI using this dimension, in the Studio. This feature is not supported for a date field. For details, see <a href="#">KPI Breakdowns</a> in the <i>IT Executive Scorecard Business Analyst Guide</i>.</li> </ul> <p>The list of fields that are available for breakdowns is configured in the Context Designer. By default, numeric fields are not dimensions, therefore they are not available for breakdowns. If you want them to be available for breakdown, open the Context Designer and in the Entities area, click  to enable the creation of Breakdowns. For details, see "<a href="#">Semantic Layer - Context Designer</a>" on page 170 in the <i>IT Executive Scorecard Administrator Guide</i>.</p> <p>Date fields are not available for breakdowns.</p>
Remove	Click to remove the selected table or entity.

## Reference

For details about the out-of-the-box contexts, see the *IT Executive Scorecard Content Reference Guide* relevant for the integration.



# Semantic Layer - Data Loader

The Context Designer feature enables you to create and manage Contexts (universes). The Contexts can be based on your target schema tables or on .CSV files that can be uploaded to the target schema using the Data Loader.

Context Designer can be used to upload data and create contexts based on the data, when you want to work with the Executive Scorecard and IT Financial Management applications without using Data Warehouse and SAP BusinessObjects Enterprise. It is a direct way to upload data into the Executive Scorecard Studio using files without performing integrations to external sources or to other HP products. It can be used, to integrate third party data, testing, or for Proof of Concept (POC) sessions. It can also be used as a component of Executive Scorecard to integrate third party data.

Context Designer provides KPI results based on your real data.

## To access:

- In Executive Scorecard, click **Admin > Semantic Layer > Semantic Layer**. The Context Management page opens. Click **Launch Context Designer** and select **Import Content**. For details, see "[Semantic Layer - Data Loader](#)" above.
- In the Context Designer page, click the **Import Content**  icon in the toolbar to open the Import wizard.
- In the Context Designer page, in the Repository area, click the **Import Content**  icon to open the Import wizard.

**Section navigation:** ● "[Learn More](#)" below ● "[Tasks](#)" on the next page ● "[UI Description](#)" on page 202

## Learn More

To understand more about Contexts, see the Learn More section in "[Semantic Layer - Context Designer](#)" on page 170.

### **Difference between importing a .csv file to create a context in the Context Designer and using .csv files as data sources in the Integrated Development Environment (IDE)**

The differences between the two techniques is as follows:

- **Context Designer:** When you import a .csv file using **Admin > Context Designer**, a Context based on the structure of the file is created in Context Designer. You can then extend the context by adding other tables and creating connections. The newly created context can then be used as a base for KPIs.



This process is fast and efficient and displays value very quickly. It is recommended for one-time operations, when the data does not change very often, when you don't need historical information, or for POCs.

- **IDE:** When you use a .csv file as the data source in the IDE, you create a content pack and a basic ETL.

This process is more complex, but provide more flexibility. It is recommended for Production environments. Because this procedure creates a content pack and uses an ETL, it enables the use of all the other capabilities of the system. It provides the handling of historical information, the scheduling of data import from the same .csv file when the file changes periodically, the creation of Target database tables different from the original .csv table, the connection to other entities, the splitting of the original .csv table into different tables in the Target database, or the addition of the original data to other tables in the Target database. In addition, the process identifies changes and deletions of data, and can handle large amounts of data.

## Tasks


### Upload Tables in .CSV Format to the Tables Repository

You can upload data into the Studio using .CSV files and without integration to external sources or to other HP products. It can be used to integrate third party data sources, testing, or for Proof of Concept (POC) sessions. You can, in the same way, replace the data in an existing table, or add data to an existing table when the table has been loaded using a .CSV file.

To upload data from the .CSV file into the Studio:

1. Create the .CSV file containing the data you want to use in the Studio (for example: latest.CSV).

**Recommended:** CSV tables should have unique names across all active Content Acceleration Packs (CAPs). For details on CAPs, see "[Create Content Acceleration Packs](#)" on page 246.

2. In **Executive Scorecard**, click the **Admin > Semantic Layer > Semantic Layer**.
3. In the **Context Management** page, click **Launch Context Designer** .
4. Click **Import Content**  to open the Import Wizard (data loader). Follow the steps to upload the .CSV file. For details, see "[Semantic Layer - Data Loader](#)" on the previous page.

The file is uploaded. The upload operation saves the changes you made to the .CSV file. The new table appears in the External Tables area.

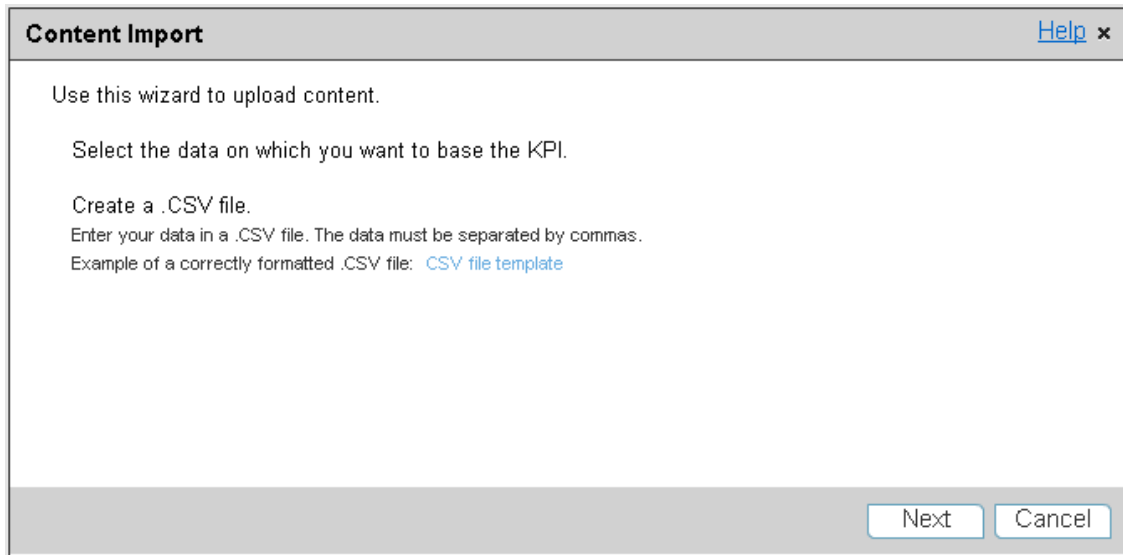
**Note:** If you modify a .CSV table, you must remove the table from the Context, reimport the table, and recreate the links with the other tables. Alternatively, you can add the column directly in the Target database.

## UI Description

### Content Loader (Import) Wizard

The wizard enables you to upload content.

#### Content Loader



User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<p><b>Select the data on which you want to base the KPI.</b></p>	<p>You can use .CSV files as a data source. A .CSV file contains data separated by commas. Each .CSV file that is uploaded corresponds to a universe with only one entity. The name of the Context (universe) that is created is the name of the .CSV file. The names of the columns in the .CSV file (first row of the file) represent the names of the entity fields. These fields become the variables that can be used to create the formula that is used to calculate the value of the KPIs or Metrics associated with the Context.</p> <p><b>File Structure</b></p> <p>The .CSV file should have a table structure.</p> <div style="background-color: #f0f0f0; padding: 10px;"> <p><b>Example</b> The following is an example of a .CSV file in CSV format:</p> <pre>MD_BUSINESS_KEY,SLA_NAME,SLA_STATE,SLA_TYPE,DATE_START,DATE_END SLA01,SLA01,Passed,Corporate,1/1/2011 13:00:00,2/1/2011 19:00:00 SLA02,SLA02,Passed,Corporate,1/2/2011 13:00:00,2/2/2011 19:00:00 SLA03,SLA03,Passed,Corporate,1/3/2011 13:00:00,2/3/2011 19:00:00 SLA03,SLA03,Passed,Corporate,1/3/2011 13:00:00,2/3/2011 19:00:00 SLA04,SLA04,Passed,Corporate,1/4/2011 13:00:00,2/4/2011 19:00:00 SLA13,SLA13,Passed,Corporate,1/3/2011 13:00:00,2/3/2011 19:00:00 SLA14,SLA14,Passed,Corporate,1/6/2011 13:00:00,2/6/2011 19:00:00</pre> </div> <p><b>Limitations</b></p> <ul style="list-style-type: none"> <li>• The maximum size of the .CSV file is 20 MB. This is configurable using the <b>Maximum Size of .CSV file (MB)</b> setting in <b>Admin tab &gt; Scorecard &gt; XS Settings</b>.</li> <li>• The maximum number of characters in an entity field name is 30 characters (an entity field name is the string between commas in the first row of the .CSV file).</li> <li>• The entity field names should follow the rules of column titles in the database (include only alphanumeric characters, and underscore (_)).</li> <li>• The name of the .CSV file should follow the rules of Context names (include only alphanumeric characters, and underscores (_)).</li> </ul> <div style="background-color: #f0f0f0; padding: 10px;"> <p><b>Tip:</b></p> <ul style="list-style-type: none"> <li>• The date data obtained from the data sources is automatically reformatted internally using the <b>YYYY.MM.dd HH:mm:ss</b> (based on 24 hours) format. All internal calculations are performed using this format.</li> <li>• If you are using CSV files, you can select the date format in the &lt;Data</li> </ul> </div>

UI Element	Description																																													
	<p>upload&gt; wizard. The selected format is automatically reformatted internally using the <b>YYYY.MM.dd HH:mm:ss</b> (based on 24 hours) format.</p> <ul style="list-style-type: none"> <li>The dates displayed in the application user interface are reformatted according to the browser locale.</li> </ul>																																													
<p><b>Create a .CSV File</b></p>	<p>Hover above <b>CSV file template</b> to display an example of a .CSV file structure in table format that can be uploaded.</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Field_1_Name</td> <td>Field_2_Name</td> <td>Field_3_Name</td> <td>Field_4_Name</td> </tr> <tr> <td>2</td> <td>Field_1_Value_1</td> <td>Field_2_Value_1</td> <td>Field_3_Value_1</td> <td>Field_4_Value_1</td> </tr> <tr> <td>3</td> <td>Field_1_Value_2</td> <td>Field_2_Value_2</td> <td>Field_3_Value_2</td> <td>Field_4_Value_2</td> </tr> <tr> <td>4</td> <td>Field_1_Value_3</td> <td>Field_2_Value_3</td> <td>Field_3_Value_3</td> <td>Field_4_Value_3</td> </tr> <tr> <td>5</td> <td>Field_1_Value_4</td> <td>Field_2_Value_4</td> <td>Field_3_Value_4</td> <td>Field_4_Value_4</td> </tr> <tr> <td>6</td> <td>Field_1_Value_5</td> <td>Field_2_Value_5</td> <td>Field_3_Value_5</td> <td>Field_4_Value_5</td> </tr> <tr> <td>7</td> <td>Field_1_Value_6</td> <td>Field_2_Value_6</td> <td>Field_3_Value_6</td> <td>Field_4_Value_6</td> </tr> <tr> <td>8</td> <td>Field_1_Value_7</td> <td>Field_2_Value_7</td> <td>Field_3_Value_7</td> <td>Field_4_Value_7</td> </tr> </tbody> </table>		A	B	C	D	1	Field_1_Name	Field_2_Name	Field_3_Name	Field_4_Name	2	Field_1_Value_1	Field_2_Value_1	Field_3_Value_1	Field_4_Value_1	3	Field_1_Value_2	Field_2_Value_2	Field_3_Value_2	Field_4_Value_2	4	Field_1_Value_3	Field_2_Value_3	Field_3_Value_3	Field_4_Value_3	5	Field_1_Value_4	Field_2_Value_4	Field_3_Value_4	Field_4_Value_4	6	Field_1_Value_5	Field_2_Value_5	Field_3_Value_5	Field_4_Value_5	7	Field_1_Value_6	Field_2_Value_6	Field_3_Value_6	Field_4_Value_6	8	Field_1_Value_7	Field_2_Value_7	Field_3_Value_7	Field_4_Value_7
	A	B	C	D																																										
1	Field_1_Name	Field_2_Name	Field_3_Name	Field_4_Name																																										
2	Field_1_Value_1	Field_2_Value_1	Field_3_Value_1	Field_4_Value_1																																										
3	Field_1_Value_2	Field_2_Value_2	Field_3_Value_2	Field_4_Value_2																																										
4	Field_1_Value_3	Field_2_Value_3	Field_3_Value_3	Field_4_Value_3																																										
5	Field_1_Value_4	Field_2_Value_4	Field_3_Value_4	Field_4_Value_4																																										
6	Field_1_Value_5	Field_2_Value_5	Field_3_Value_5	Field_4_Value_5																																										
7	Field_1_Value_6	Field_2_Value_6	Field_3_Value_6	Field_4_Value_6																																										
8	Field_1_Value_7	Field_2_Value_7	Field_3_Value_7	Field_4_Value_7																																										

**Select Action**

**Select Action**
[Help](#) ×

External context can be uploaded to either a new table or to an existing one:

- Upload a new table
- Update an existing table
  - Add data to an existing table
  - Override the data in an existing table with the new data

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Upload a new table</b>	Select this option if you want to create a new table in the Context Designer using the information from the .CSV file.
<b>Update an existing table</b>	Select this option if you want to update an external table that already exists in the Context Designer. When you click this option, the following options are displayed: <ul style="list-style-type: none"><li>• <b>Add data to an existing table.</b> Select this option when you want to add data to an existing table. The data from the new .CSV file is added at the end of the existing table. The formats of the two .CSV files must be the same.</li><li>• <b>Override the data in an existing table with the new data.</b> Select this option when you want to replace the data of an existing table with the data of the .CSV file you are loading. The formats of the two .CSV files must be the same.</li></ul>

### Select File

This page is displayed when you selected the **Upload a new table** option:

**Select File** [Help](#) ×

Select the .CSV file to be used to create the new table:

File Name:

Table Name:   
Maximum 50 characters

This page is displayed when you selected the **Update an existing table** option:

**Select File** [Help](#) x

Select the .CSV file to be used to create the new table:

File Name:

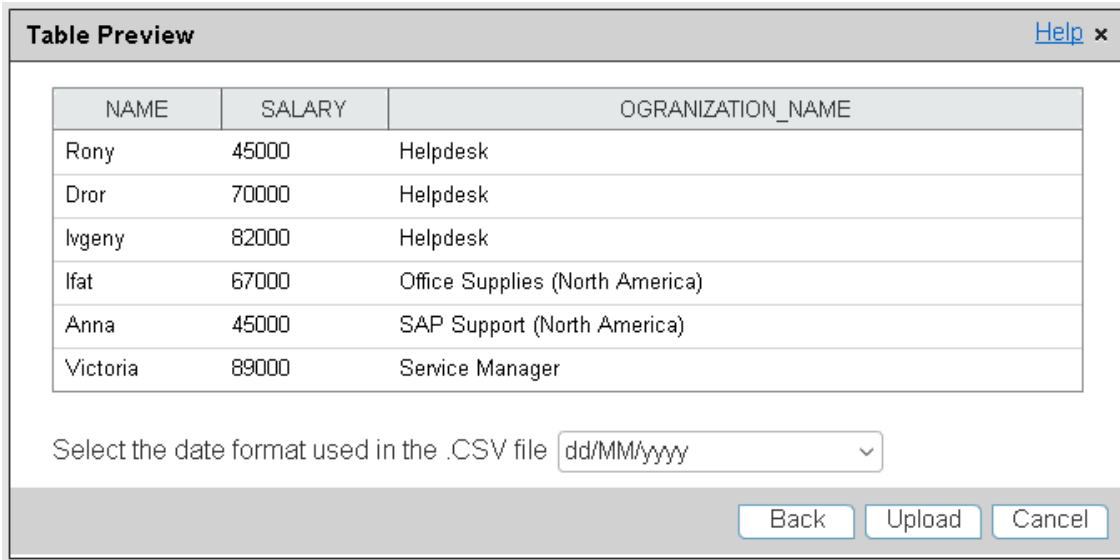
Table Name:   
Maximum 50 characters

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>File Name</b>	Select the .CSV file you want to upload.
<b>Table Name</b>	If you are loading a new .CSV file, enter the name of the corresponding table. If you are adding data to an existing external table or if you are replacing the data in an existing external table, select the relevant table name.

### Preview

This page displays the table created from the .CSV file.



User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<table>	The .CSV file is displayed in the box in table format. If an error message is displayed (for example some of the values include spaces or unsupported characters) you can make the necessary corrections directly in the box:
<b>Select the date format you used in the .CSV file</b>	Select the date format you used in the .CSV file.
<b>Upload</b>	Click to upload the .CSV file into the Studio. For details, see " <a href="#">Semantic Layer - Data Loader</a> " on page 200.



# SAP BusinessObjects Enterprise Contexts (Universes)

A KPI or Metric Context (universe) represents a global business facet related to the aspect of business the KPI or Metric represents. For example, the % of Assets in Maintenance KPI represents one aspect of the AssetManagement universe.

You can add a Context to the Studio and the XS engine and attach KPIs or Metrics to the new Context in the Studio.

**Section navigation:** ● ["Tasks" below](#) ● ["Reference: Universe Creation Guidelines" on the next page](#)

## Tasks

This section includes:

["Add a Context to Executive Studio using Context Designer" below](#)

["Add a Context to Executive Studio using BO" below](#)

### Add a Context to Executive Studio using Context Designer

You can create new Contexts, using Context Designer. For details, see ["Semantic Layer - Context Designer" on page 170](#) in the *IT Executive Scorecard Administrator Guide*.

If you have SAP BusinessObjects Enterprise installed, you can also create Contexts (Universes) using BOE. Once you are done you must add these Contexts to the Studio.

### Add a Context to Executive Studio using BO

1. Make sure you have modeled the data structure in your database.
2. Add the universe using the BO Designer according to the Universe Creation Guidelines. For details, see ["Reference: Universe Creation Guidelines" on the next page](#).
3. Export the universe to the XS\_Studio folder in your BO CMS (Central Management Server) using the BO Designer .
4. To load the universe to the Studio library you can do one of the following:
  - Run the JMX reload metadata.
    - i. Make sure you have JDK installed.
    - ii. Run **jconsole** in the **Start** menu.
    - iii. In the window that opens, select the **Remote Process** option, enter **<host\_name>:<port\_number>** and click **Connect**.

- iv. After the application completes its loading, click the **MBeans** tab.
  - v. Click **com.hp.btoa.studio.jmx**.
  - vi. Click **loadMetaData**.
    - Note that if you do not click **loadMetaData**, the change will be performed by an automatic update after 24 hours or 7 days depending on your configuration. You can modify the configuration using the **Meta Data reload rate (Days)** parameter in the **XS Settings** section of the Admin Tab. For details, see "[XS Settings](#)" on page 160.
5. You can now design active or template entities, create the formulas and filters for the KPIs or Metrics, and more.

## Reference: Universe Creation Guidelines

This section explains how you can create Universes that can be used by the HP IT Executive Scorecard Studio and the XS Engine.

### Guidelines

1. Folders represent the name of the entity that is presented.
2. Classes in the folder represent the attributes of that entity.
3. Classes should be of type Date, String, or Numeric.
4. Entities (represented by folders) in the same universe must have a relationship between them.
5. Hierarchical relationships should be flattened to attributes (Level1, Level2, ...). These relationships can be defined in a joined table.

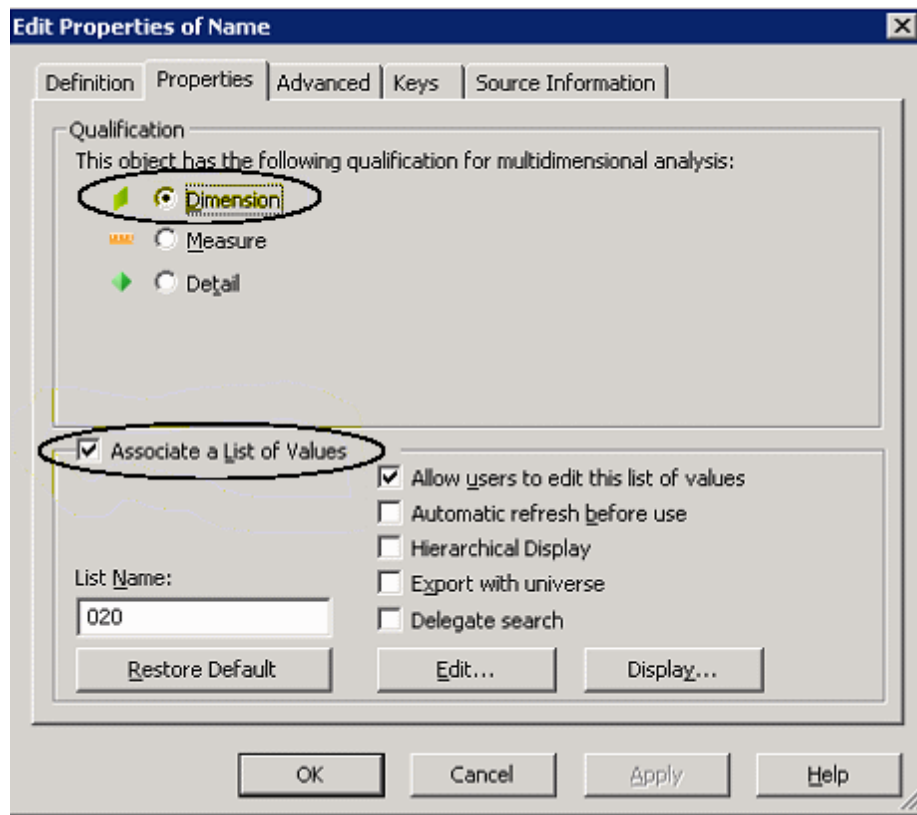
### Limitations

1. No current support for folders within folders or other hierarchies.
2. Ensure that there aren't multiple joins between entities represented in the Universe (This is a Universe limitation). Use aliases to copy.
3. Folder names should be unique.
4. Count, in a formula, can only be performed on Numeric and String fields.
5. Conditions on objects not supported.
6. Details on objects not supported.
7. Do not put mappings in the universe – where fields are translated from the value in the database to the value that the universe returns.

## Field Types

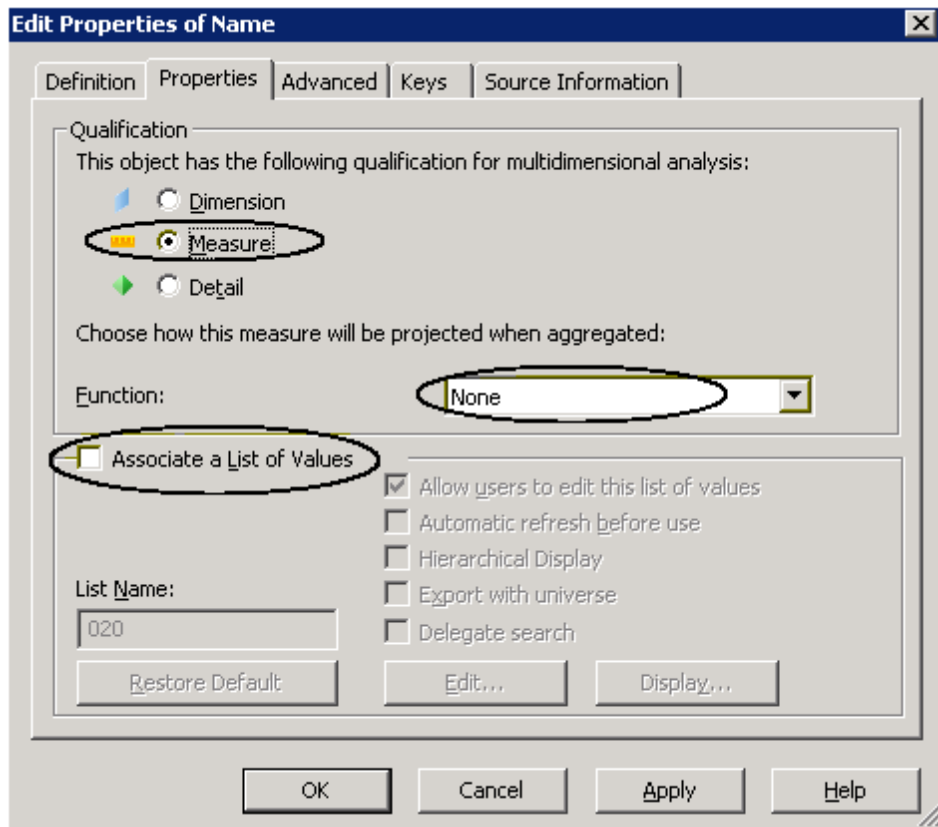
- **Dimensions**

- Fields that can be broken down per KPIs or Metrics should be marked as Dimensions – see the top mark in the figure below.
- If the field can only have a limited set of values, then turn on the List of Values field below – see the second mark in the figure below. The studio will only show the first 100 values.
- Warning - this should only be turned on for fields that have a small set of values – all the values will be loaded into memory in the studio.



- **Measures**



- Fields that are only used as measures in KPI or Metric formulas should be marked as Measures. Make sure to configure as in figure below.



# Contexts and KPIs-Related Reports

You can add components to a page in Dashboard to provide reports about the KPI templates currently in the KPIs Library, Contexts currently in Executive Scorecard, the structure of Contexts, the list of KPIs included in a Context, and a list of the fields with names include a specific string that are part of a Context, or that are used in a specific KPI formula.

## To access:

1. In the Executive Dashboard, click the **New Page**  button in the Dashboard toolbar.
2. If needed, configure the page that opens. For details, see [Configure a Page Layout](#) in the *IT Executive Scorecard Business Analyst Guide*.
3. Click the **Components**  button.
4. In the Component Gallery page that opens, double-click the Web Intelligence Static Report Viewer component to place it in the layout area, or select the component and drag it to an area on the page, and close the Component Gallery page.

## Tasks

This section includes:

["Change the Connection to the Target DB" below](#)

["View the List of KPI Templates Currently in the KPIs Library" on the next page](#)

["View a list of the Contexts and to view a Context structure" on page 215](#)

["View a list of the KPIs of a selected Context" on page 217](#)

["Search for a field in Contexts or in KPI Formulas" on page 220](#)

["Display the trees of KPIs in the KPIs Library" on page 221](#)

["Setting the report so it displays data in the Web Intelligence Dynamic or Static Report Viewer component" on page 222](#)

### Change the Connection to the Target DB

You can change the connection of a Context to a specific Target database.

To change the connection to the Target database:




1. Access glassfish using `<XS_server_name>:10001/common/index.jsf`
  - a. In Common Tasks, select **Resources > JDBC > JDBC Connections > TargetDbConnectionPool**
  - b. Click the **Additional Properties** tab and change the URL of the Target Schema in the **URL** field using the following format: `jdbc:mercury:sqlserver:<XS_server_name>:1433;databaseName=<Target_schema_name>`

- c. Change the name of the Target database in the **databaseName** field.
  - d. Click **Save**.
2. In Microsoft SQL Server Management Studio, access XS Manage DB, and open **dbo.TENANT\_SCHEMA**, change the **HOST\_NAME** and **DB\_NAME** of the Target Database, and click **Save**.

### View the List of KPI Templates Currently in the KPIs Library

You can view a list of the KPI templates and their Context that are currently in the KPIs Library pane. The Contexts can have been defined either in SAP BusinessObjects or in the Context Designer. You can also view a more detailed list of KPIs (Context, Business Question, Formula, Data Source, Thresholds, and more):

**Note:** If you delete a KPI in the list of KPI templates, the list of KPIs displayed in the components reflects the deletion.

1. In the Executive Dashboard, click the **New Page**  button in the Dashboard toolbar.
2. If needed, configure the page that opens. For details, see [Configure a Page Layout](#) in the *IT Executive Scorecard Business Analyst Guide*.
3. Click the **Components**  button.
4. In the Component Gallery page that opens, double-click the Web Intelligence Dynamic Report Viewer component to place it in the layout area, or select the component and drag it to an area on the page, and close the Component Gallery page.
5. In the component, click the **Configure Component**  button:
  - a. In the Web Intelligence Dynamic Report Viewer Filter dialog box that opens, select:
    - i. The **KPI Templates** report to view the list of the KPI templates that are currently in the KPIs Library pane and basic information about the KPI template.

Metric Name	Description	Context Name	Formula	Period
Number of Applications in Different Lifecycle	Number of Applications in different lifecycle including all four categories for active application (Invest/Sustain/Sunset/Decommission)	ApplicationPortfolioManagement	COUNT(APMApplication, APMApplication.Status='IN_PROGRESS' And (APMApplication.Disposition='Sustain' or APMApplication.Disposition='Sunset' or APMApplication.Disposition='Decommission' or APMApplication.Disposition='Invest'))	MONTHLY
Number of Applications in the Portfolio Trend	Number of active applications during the measure period. Application assessments and transformation often result in a reduction in the total number of applications.	ApplicationPortfolioManagement	COUNT(APMApplication, APMApplication.Status='IN_PROGRESS' And (APMApplication.Disposition='Sustain' or APMApplication.Disposition='Sunset' or APMApplication.Disposition='Decommission' or APMApplication.Disposition='Invest') And APMApplication.PlacedInServiceDate is not Null and APMApplication.PlacedInServiceDate IN_PERIOD)	MONTHLY

- ii. The **KPI Template Details** report to view the list of the KPI templates that are currently in the KPIs Library pane, and details about their Context, Data Source, Business Question, Formula, Thresholds, and more.

**KPI Template Details**

KPI Name	Description	Business Questions	Semantic Layer Name	Formula	Period	Range From	Range To	Good From	Good To	Warning From	Warning To
Acceptable Amount of Data Loss	Also called Recovery point objective (RPO). This KPI describes the acceptable amount of data loss measured in time. The recovery point objective is the point in time to which an organization must recover data as defined by their policies. This is generally a definition of what an organization determines is an acceptable loss in a disaster situation. The RPO allows an organization to define a window of time before a disaster during which data may be lost. The value of the data in this window can then be weighed against the cost of the additional disaster prevention or loss-prevention measures that would be necessary to close the window. Typically segmented by application type. Actual versus target values are measured (e.g., tests).	Make sure our data loss protection procedures are efficient.	DataProtection	PERCENTAGE_MATH(AVG((BackupDurationSinceLastSuccessfulBackup PERIOD_ENTIT Y=EndPeriod), AVG((BackupRptTarget PERIOD_ENTIT Y=EndPeriod), 100))	MONTHLY	0	200	0	50	50	
	The approved changes relative to the rejected changes. The approved and rejected changes are broken down by: 1. Urgency: Impact, Service/Business Service, CI, CI Type, Platform, 2. Risk (side-by-side).	Make sure our change		RATIO_MATH(COUNT(ChangeApprovalStatus='Denied' And PERIOD_ENTIT Y=CreateTimePeriod) COUNT(ChangeApprovalStatus='Approve' and PERIOD_ENTIT							



b. Click **OK**.

- 6. To view data in the component in the Dashboard page, click the Refresh button in the report toolbar.


### View a list of the Contexts and to view a Context structure

You can view a list of the Contexts currently defined in the Context Designer in Executive Scorecard. The Contexts have been defined in the Context Designer. You can also display the structure of the fields and tables that are included in a selected Context:

**Note:** If you create your own Context in the Context Designer, the Context appears in the list of Contexts displayed by the component. For details on the Context Designer, see "[Semantic Layer - Context Designer](#)" on page 170.

1. In the Executive Dashboard, click the **New Page**  button in the Dashboard toolbar.
2. If needed, configure the page that opens. For details, see [Configure a Page Layout](#) in the *IT Executive Scorecard Business Analyst Guide*.
3. Click the **Components**  button.
4. In the Component Gallery page that opens, double-click the Web Intelligence Dynamic Report Viewer component to place it in the layout area, or select the component and drag it to an area on the page, and close the Component Gallery page.



5. In the component, click the **Configure Component**  button:
  - a. In the Web Intelligence Dynamic Report Viewer Filter dialog box that opens, select:
    - i. The **Context Summary** report to view the list of the Contexts currently defined in the Context Designer in Executive Scorecard.

#### Context Summary

Context Name	Entity Count	Field Count	Table Count	Alias Count	Join Count
ApplicationPortfolioManagement	1	17	2		1
AvailabilityManagement	7	44	7		8

- ii. The **Context Summary Details** report to view the tables and fields that are included in the selected Context. The user running the report is prompted to select a specific Context. The prompt is optional.

#### Context Summary Details



Context Name	Entity Name	Field Name	Source Table Name	Alias Table Name	DB Column Name	Field Type
ApplicationPortfolio	APM_APPLICATION	ActiveProcess	XS.APM_APPLICATION_DIM_V		ACTIVE_PROCESS	STRING
ApplicationPortfolio	APM_APPLICATION	Approved_Date	XS.APM_APPLICATION_DIM_V		Approved_Date	DATE
ApplicationPortfolio	APM_APPLICATION	Availability	XS.APM_APPLICATION_FACT_V		Availability	NUMERIC
ApplicationPortfolio	APM_APPLICATION	Close_Time	XS.APM_APPLICATION_DIM_V		Close_Time	DATE
ApplicationPortfolio	APM_APPLICATION	Create_Time	XS.APM_APPLICATION_DIM_V		Create_Time	DATE
ApplicationPortfolio	APM_APPLICATION	Disposition	XS.APM_APPLICATION_FACT_V		Disposition	STRING
ApplicationPortfolio	APM_APPLICATION	ExpectedEndOfLife	XS.APM_APPLICATION_FACT_V		Expected_End_of_Life_Date	DATE
ApplicationPortfolio	APM_APPLICATION	Maintainability	XS.APM_APPLICATION_FACT_V		Maintainability	NUMERIC
ApplicationPortfolio	APM_APPLICATION	Performance	XS.APM_APPLICATION_FACT_V		Performance	NUMERIC
ApplicationPortfolio	APM_APPLICATION	PlacedInServiceDate	XS.APM_APPLICATION_FACT_V		Placed_in_Service_Date	DATE
ApplicationPortfolio	APM_APPLICATION	Priority	XS.APM_APPLICATION_DIM_V		PRIORITY	STRING
ApplicationPortfolio	APM_APPLICATION	REFERENCE_NUM	XS.APM_APPLICATION_DIM_V		REFERENCE_NUMBER	STRING
ApplicationPortfolio	APM_APPLICATION	Start_Date	XS.APM_APPLICATION_DIM_V		Start_Date	DATE
ApplicationPortfolio	APM_APPLICATION	Status	XS.APM_APPLICATION_DIM_V		Status	STRING
ApplicationPortfolio	APM_APPLICATION	Target_Date	XS.APM_APPLICATION_DIM_V		Target_Date	DATE
ApplicationPortfolio	APM_APPLICATION	THRESHOLDMET	XS.APM_APPLICATION_DIM_V		THRESHOLDMET	STRING
ApplicationPortfolio	APM_APPLICATION	Type	XS.APM_APPLICATION_DIM_V		Type	STRING

- b. Click **OK**.


6. To view data in the component in the Dashboard page, click the Refresh button in the report toolbar.

## View a list of the KPIs of a selected Context

You can view a list of the KPIs of a selected Context. The Contexts can have been defined either in SAP BusinessObjects or in the Context Designer.



1. In the Executive Dashboard, click the **New Page**  button in the Dashboard toolbar.
2. If needed, configure the page that opens. For details, see [Configure a Page Layout](#) in the *IT Executive Scorecard Business Analyst Guide*.
3. Click the **Components**  button.
4. In the Component Gallery page that opens, double-click the Web Intelligence Dynamic Report

Viewer component to place it in the layout area, or select the component and drag it to an area on the page, and close the Component Gallery page.

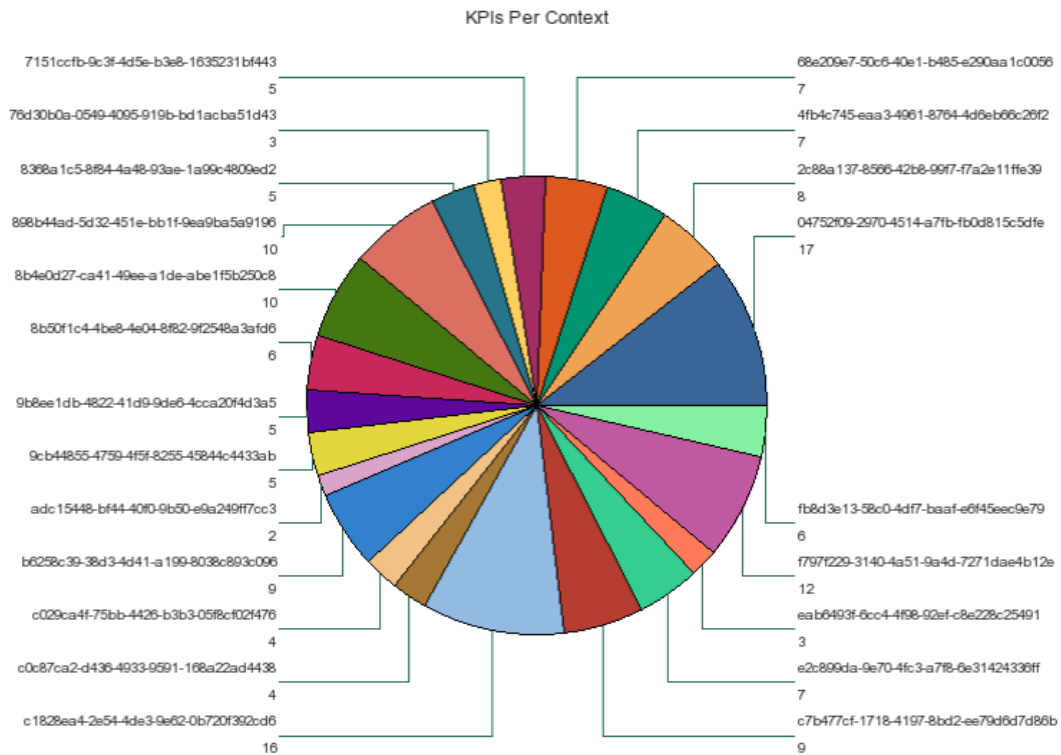
5. In the component, click the **Configure Component**  button.
6. In the Web Intelligence Dynamic Report Viewer Filter dialog box that opens, select the **KPIs per Context** report to view the list of the KPIs of a selected Contexts currently defined in the Context Designer in Executive Scorecard. The user running the report is prompted to select a specific Context. The prompt is optional.

In table format:

Context Name	KPI Name
ALM_Defect	Average Cycle Duration
ALM_Defect	Average Time to Resolve Production Defect
ALM_Defect	Defect Resolution Time
ALM_Defect	Detected Vs. Closed Defects Ratio
ALM_Defect	Number of Escaped Defects
ALM_Defect	% of Critical Defects
ALM_Defect	% of Rejected Defects
ALM_Defect	% of Reopened Defects
ALM_Requirement	Average Time to Review Requirement
ALM_Requirement	% of Documented Requirements
ALM_Requirement	% of Requirements Traced to Tests
ALM_Requirement	% of Reviewed Requirements
ALM_Requirement	% of Tested Requirements
ALM_Test	% of Actual vs. Planned Executed Tests
ALM_Test	% of Authorized Tests
ALM_Test	% of Automated Tests
ALM_Test	% of Completed Tests
ALM_Test	% of Failed Tests
ALM_Test	% of Successful Test Runs
ALM_Test	% of Tests Resulting in Defects
ApplicationPerformance	% Monitored Applications
ApplicationPerformance	% of Affected End Users by Application Quality
ApplicationPerformance	% of Failed Business Transactions
ApplicationPerformance	% of Non-Encrypted Traffic
ApplicationPortfolioManagement	Average Availability Rating
ApplicationPortfolioManagement	Average Maintainability Rating
ApplicationPortfolioManagement	Average Performance Rating
AssetManagement	Avg Age of Hardware Assets

 Graph
 **Table**

In graph format:






7. Click **OK**.

8. To view data in the component in the Dashboard page, click the Refresh button in the report toolbar.

### Search for a field in Contexts or in KPI Formulas

You can display a list of fields whose names include the specified string and the Contexts that include these fields. The Contexts can have been defined either in SAP BusinessObjects or in the Context Designer. You can also display a list of fields whose names include the specified string and the KPIs whose formulas include these fields:

1. In the Executive Dashboard, click the **New Page**  button in the Dashboard toolbar.
2. If needed, configure the page that opens. For details, see [Configure a Page Layout](#) in the *IT Executive Scorecard Business Analyst Guide*.
3. Click the **Components**  button.
4. In the Component Gallery page that opens, double-click the Web Intelligence Dynamic Report Viewer component to place it in the layout area, or select the component and drag it to an area on the page, and close the Component Gallery page.

5. In the component, click the **Configure Component**  button:
  - a. In the Web Intelligence Dynamic Report Viewer Filter dialog box that opens, select:
    - i. The **Field in Context** report to display a list of fields whose names include the specified string and the Contexts that include these fields. The user running the report is prompted to select a specific Context. The prompt is optional.

Context Name	Entity Name	Field Name	Source Table Name	Alias Table Name	DB Column Name
ALM_Defect	Cycle	EndDate	xs.CYCLE_DIM_V		END_DATE
ALM_Defect	Cycle	Name	xs.CYCLE_DIM_V		CYCLE_NAME
ALM_Defect	Cycle	ProjectGroup	xs.CYCLE_DIM_V		PROJECT_GROUP
ALM_Defect	Cycle	StartDate	xs.CYCLE_DIM_V		START_DATE
ALM_Defect	Defect	ActualFixTime	xs.DEFECT_DIM_V		ACTUAL_FIX_TIME
ALM_Defect	Defect	ClosedDate	xs.DEFECT_DIM_V		CLOSED_DATE
ALM_Defect	Defect	DefectSummary	xs.DEFECT_DIM_V		DEFECT_SUMMARY
ALM_Defect	Defect	DefectedDate	xs.DEFECT_DIM_V		DETECTED_DATE
ALM_Defect	Defect	EstimatedFixTime	xs.DEFECT_DIM_V		ESTIMATED_FIX_TIME
ALM_Defect	Defect	IsReproducible	xs.DEFECT_DIM_V		FLAG_REPRODUCE




- ii. The **Fields in KPI Name or Formula** report to view a list of fields whose names include the specified string and the KPIs whose formulas include these fields. The user running the report is prompted to select a specific Context. The prompt is optional.

Context Name	Entity Name	Field Name	Source Table Name	Alias Table Name	DB Column Name

- b. Click **OK**.
6. To view data in the component in the Dashboard page, click the Refresh button in the report toolbar.

## Display the trees of KPIs in the KPIs Library

You can display the list of hierarchy trees of KPIs (templates) in the KPIs Library, with their Scorecards, Perspectives, Objectives, and KPIs. The KPI Contexts can have been defined either in SAP BusinessObjects or in the Context Designer.

1. In the Executive Dashboard, click the **New Page**  button in the Dashboard toolbar.
2. If needed, configure the page that opens. For details, see [Configure a Page Layout](#) in the *IT Executive Scorecard Business Analyst Guide*.
3. Click the **Components**  button.
4. In the Component Gallery page that opens, double-click the Web Intelligence Dynamic Report Viewer component to place it in the layout area, or select the component and drag it to an area on the page, and close the Component Gallery page.
5. In the component, click the **Configure Component**  button.
6. In the Web Intelligence Dynamic Report Viewer Filter dialog box that opens, select the **KPI Tree Hierarchy** report to display the list of hierarchy trees of KPIs in the KPIs Library, with

their Scorecards, Perspectives, Objectives, and KPIs.

Tree Name	Scorecard Name	Perspective Name	Objective Name	KPI Name	Id

7. Click **OK**.
8. To view data in the component in the Dashboard page, click the Refresh button in the report toolbar.

### Setting the report so it displays data in the Web Intelligence Dynamic or Static Report Viewer component

**Note:** Use the Web Intelligence Dynamic Report Viewer component when you want the report to display the report in table format and in graphic format (where the report can be displayed in graphic format). If you want the report to display only in graphic format you can also use a Web Intelligence Static Report Viewer component, but in this case you must make sure that the report is scheduled as explained below).

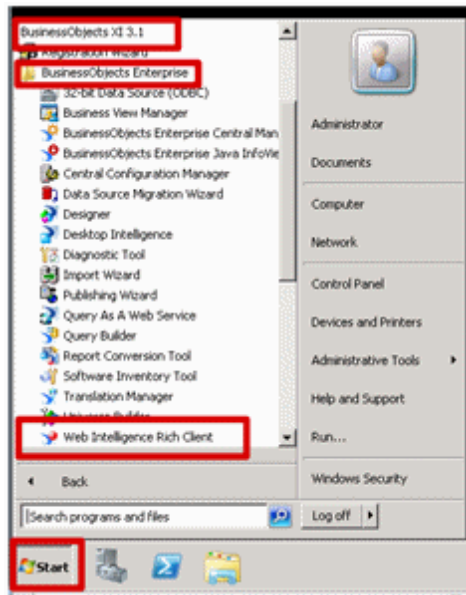
To configure the Web Intelligence Dynamic or Static Report Viewer components so they display information when the component is part of a Dashboard page, select one of the following options:

- ["Contexts and KPIs-Related Reports" on page 213](#)
- [" Press the refresh button when importing the report to the page" on page 224](#)
- ["Schedule the report" on page 224](#)

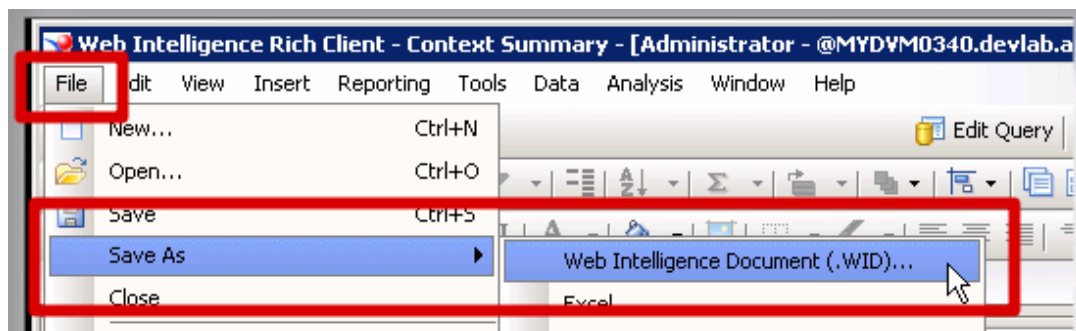
#### Set the report properties to be 'Refresh on open'

This option works with a Web Intelligence Dynamic Report Viewer component or with a Web Intelligence Static Report Viewer component. When the Dashboard page where the component is included, is displayed, the component is automatically refreshed.

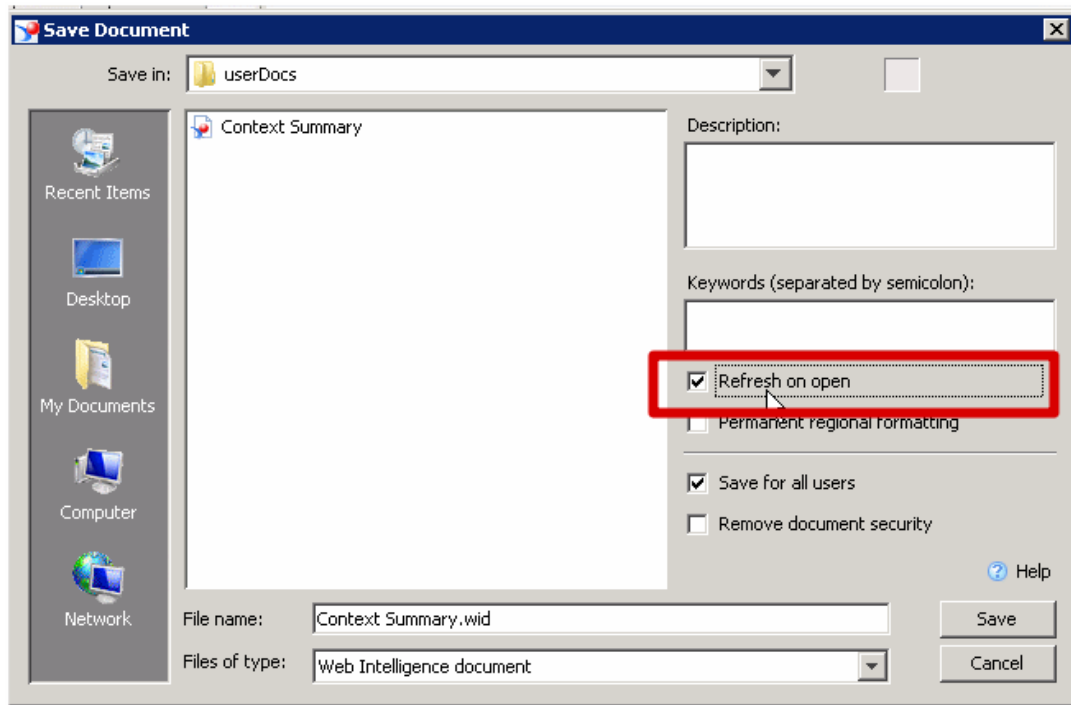
1. Click the Start menu and select **All Programs > BusinessObjects XI 3.1 > BusinessObjects Enterprise > Web Intelligence Rich Client**.



2. Log on to the server, import the report from the CMS, and save it.



3. Select the **Refresh on open** option.



4. Click **Save** and export the report to back to the CMS (**public folder > Studio Analysis**).

#### **Press the refresh button when importing the report to the page**

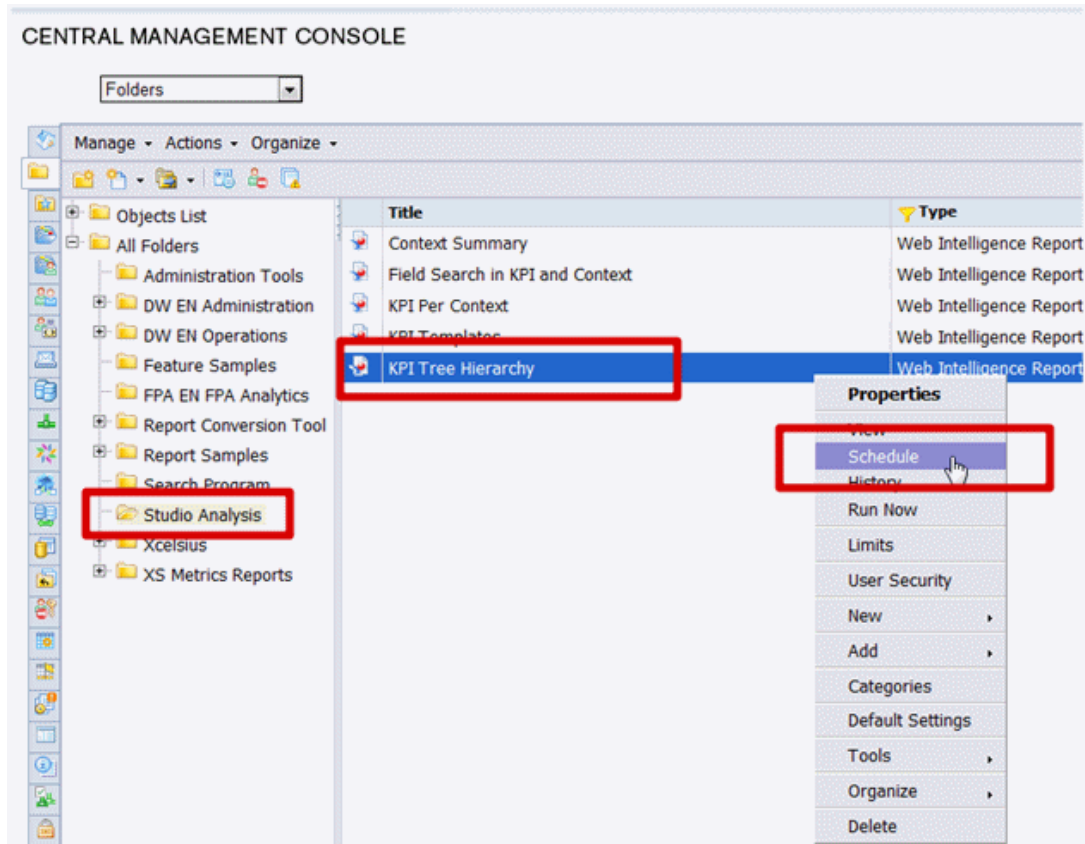
This option works with a Web Intelligence Dynamic Report Viewer component. When the Dashboard page where the component is included, is displayed, the component is not automatically refreshed and does not display data. You must click the Refresh button in the report toolbar to refresh the display and display data.

#### **Schedule the report**

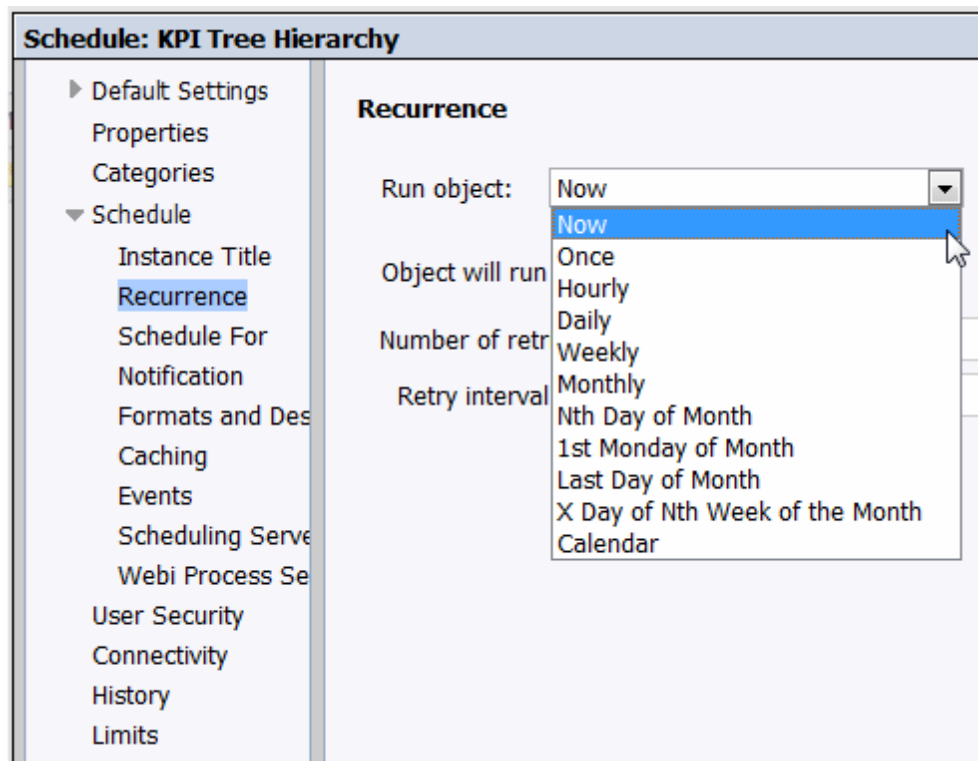
This option works with a Web Intelligence Dynamic Report Viewer component or with a Web Intelligence Static Report Viewer component. When the Dashboard page where the component is included, is displayed, the component automatically displays the latest scheduled data.

1. Click the Start menu and select **All Programs > BusinessObjects XI 3.1 > BusinessObjects Enterprise > Web Intelligence Rich Client**.
2. Log on to the Central Management Console.





3. Choose the **Recurrence** type from the list and click **Schedule**.



Once you have a single instance of the report, you can then review the data in the report.

# Import or Export Contexts, Data, KPIs, Metrics, Trees, Pages, or Components

You can import or export complete trees (with their Scorecards, Perspectives, Objectives, and KPIs), Unassigned KPIs, Metrics from the Active KPIs pane, as well as user-defined pages or components.

The import or export flows are meant to be used when moving from staging to production and not as a way to update system configuration. If you want to use the import or export flows to update the system configuration, you must delete all the nodes in the active KPIs pane, before performing the import operation. . For details, see "[Migrate from Development or Test Environment to Production](#)" on page 290.

The export and import flows are also meant to be used for localization purposes, when you want to work with other languages than English. For details, see "[Localization and Globalization](#)" on page 281.

To export or import the items listed above, you can use the Content Acceleration Pack (CAP) feature. You can export or import:

- Contexts. For details, see "[Migrate contexts](#)" on page 296.
- Data imported using .CSV files. For details, see "[Migrate Data Imported using .CSV files](#)" on page 297.
- Trees of their Scorecards, Perspectives, Objectives, and KPIs, Unassigned KPIs, and Metrics. For details, see "[Migrate Trees, Metrics, and Unassigned KPIs](#)" on page 298.
- User-defined pages or components. For details, see "[Migrate User-defined Pages or Components](#)" on page 301.

**Note:** You can migrate Contexts, trees, KPIs, Metrics, user-defined pages, or components using one CAP per type of item or one CAP for all the items you want to export/import/migrate.

## Reference: Contexts (Universes)

HP IT Executive Scorecards includes out-of-the-box Context (universes) that correspond to specific aspects of the business. The entities in these Contexts are IT Data Model-compliant. For details about IT Data Model, see [IT Data Model](#) in the *IT Executive Scorecard Business Analyst Guide*.

**Section navigation:** ● ["Learn More" on the next page](#) ● ["Tasks" on the next page](#) ● ["" on the next page](#)

## Learn More

### **IT Executive Scorecard Universe Created using SAP BusinessObjects Enterprise**

A SAP BusinessObjects Enterprise Context (universe) represents a business universe.

A Context is a set of entities. Each entity is a set of fields. Each field can be a dimension, measure, or fact. It can be measured.

A formula calculates, for a specified time period, using the values of specific entities, a value that represents a specific aspect of the business. The value is given to a Key Performance Indicator (KPI). The KPI represents the specific aspect of the business.

Each universe includes some KPIs. The KPIs are the building blocks of the Studio and the KPI engine.

The universe entity relationship diagrams (ERDs) are logical views of the universe data models. The ERDs are interactive and contain details about the tables and classes used in the universe.

## Tasks

### **Plan the integration of the relevant data sources and the activation of the corresponding Content Packs**

Proceed as follows:

1. Learn about KPIs and Metrics ([KPIs and Metrics](#) in the *IT Executive Scorecard Business Analyst Guide*).
2. Consult the list of KPIs and Metrics ( the [KPI Library in Excel format](#) - you can sort the list according to the business context).

This document is available in the PDFs directory in the Installation DVD, is accessible from the Help Center page in the online Help Center (documentation library), or from the [HP Software Product Manual Site](http://h20230.www2.hp.com/selfsolve/manuals) (<http://h20230.www2.hp.com/selfsolve/manuals>).

3. Learn about the KPIs or Metrics and their relation to Contexts ("[SAP BusinessObjects Enterprise Contexts \(Universes\)](#)" on page 209 in the *IT Executive Scorecard Business Analyst Guide*).
4. Understand the structure of the Contexts. "[IT Executive Scorecard Universe Created using SAP BusinessObjects Enterprise](#)" above and the links to the Contexts in the table below.
5. Consult the list below to understand the link between the Context and the data source.

## Data Sources Corresponding to Contexts

This section lists the Contexts (universes) and their data sources (Content Packs)

- [ALM\\_Defect Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Application Lifecycle Management*.
- [ALM Requirement Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Application Lifecycle Management*.
- [ALM Test Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Application Lifecycle Management*.
- [ApplicationPerformance Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Business Service Management*.
- [ApplicationPortfolioManagement Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Business Service Management*.
- [Asset Management Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Asset Manager*.
- [Availability Management Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Business Service Management*.
- [Change Management Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Service Manager*.
- [CloudOptimization Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Cloud Service Automation*, *IT Executive Scorecard Content Reference Guide for the Integration of Amazon Web Services*, *IT Executive Scorecard Content Reference Guide for the Integration of vCenter Chargeback Manager*, or *IT Executive Scorecard Content Reference Guide for the Integration of Amazon Web Service CloudWatch*.
- [DataProtection Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Data Protector*.
- [Financial Management Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Project and Portfolio Management*.
- [Incident Management Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Service Manager*.
- [NetworkNodeManager Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Network Automation*.
- [OrchestrationAutomation Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Operation Orchestration*.
- [PolicyCompliance Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Network Automation*.
- [PolicyRemediation Context](#) in the *IT Executive Scorecard Content Reference Guide for the*

*Integration of HP Server Automation or IT Executive Scorecard Content Reference Guide for the Integration of HP Network Automation.*

- [PowerManagement Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Insight Control.*
- [Project Portfolio Management \(PPM\) Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Project and Portfolio Management.*
- [RequestManagement \(DemandManagement\) Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Universal Configuration Management Database.*
- [Service Desk Management Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Service Manager.*
- [Service Level Management Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Business Service Management or IT Executive Scorecard Content Reference Guide for the Integration of HP Service Manager.*
- [Storage Management Context](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Storage Essentials and IT Executive Scorecard Content Reference Guide for the Integration of HP Business Service Management.*

**Note:** The Period ( [Period Context](#) ) does not have a corresponding external data source.

# Content Acceleration Pack (CAP) Management

Content Acceleration Packs (CAPs) are ready-to-import packages that include Dashboard pages that display Scorecards and components, KPIs, Metrics, Contexts (universes), data (.CSV files), and documentation for the CAP.

CAPs describe typical stories that show how correct implementation of Executive Scorecard drives Performance Improvement and Cost Reduction for the IT organization. CAPs demonstrate Executive Scorecard capabilities, and helps you add basic elements that can be used to customize your Dashboard.

This section includes:

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Create Content Acceleration Packs .....	246
CAPs Automatic Anti Virus Scans .....	256
Migrate a CAP to XS .....	257
Data Files (.CSV Tables) .....	258

# Content Acceleration Pack

Content Acceleration Packs (CAPs) are ready-to-import packages that include Dashboard pages that display Scorecards and components, KPIs, Metrics, Contexts (universes), data (.CSV files), and documentation for the CAP.

CAPs describe typical stories that show how correct implementation of Executive Scorecard drives Performance Improvement and Cost Reduction for the IT organization. CAPs demonstrate Executive Scorecard capabilities, and helps you add basic elements that can be used to customize your Dashboard.

## To access:

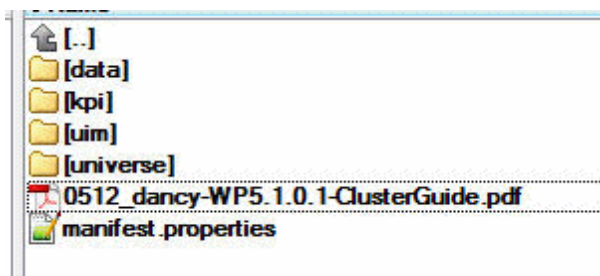
Click **Admin > Content Acceleration Pack > Content Acceleration Pack**

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" on page 234](#) ● ["UI Description" on page 238](#)

## Learn More

### Content Acceleration Pack Contents

The Content Acceleration Pack ZIP file includes the following folders:



- **data** - contains the .CSV files. The name of the .CSV files to be uploaded provide data for the Content Acceleration Pack KPIs and Metrics. For details, see ["Semantic Layer - Context Designer" on page 170](#).
- **kpi** - contains the .XML files that correspond to KPIs and Scorecards. The KPIs and Scorecards are imported into the Studio Active KPIs pane. The Scorecards and relevant KPIs are also displayed in the Dashboard pages after the calculation completes and the relevant page is loaded. For details, see ["Content Acceleration Pack" above](#).
- **uim**- contains:
  - **Components** folder - contains the .XML files that correspond to the components that you can add to a page.
  - **Pages** folder - contains the .XML files that describe the pages that are included in the CAP.



You import the components, events, and pages into the Dashboard where they are used to build the Dashboard pages. For details, see "[Content Acceleration Pack](#)" on the previous page.

- **universe** folder- contains the .XML files that correspond to the Business Contexts (universes). The Content Acceleration Pack installation automatically installs the Business Contexts.
- **<CAP\_documentation>** - the PDF or Microsoft Word document that describes the CAP.
- **manifest.properties** file - includes information about the following items:
  - **UUID.** A unique ID for the Content Acceleration Pack.
  - **Name.** The name of the Content Acceleration Pack. Mandatory.
  - **BCs.** The names of the Business Contexts to be calculated (comma separated).
  - **Description.** The description of the Content Acceleration Pack. Optional
  - **recalculate.date.** The start date of the recalculation. Recalculation is started automatically when you activate the CAP.
  - **bo.in.use.**
    - **false** - The Content Acceleration Pack contents do not include SAP BusinessObjects Enterprise reports.
    - **true** - The Content Acceleration Pack contents include SAP BusinessObjects Enterprise reports.
  - **version.** The version of the Content Acceleration Pack.
  - **publisher.** The name of the creator of the CAP. It can be a single user, an HP partner, or a group in your organization.
  - **xs.version.** The version of Executive Scorecard

## Out-of-the-box Content Acceleration Packs

[VP of Operations Content Acceleration Pack](#) in the *VP of Operations Content Acceleration Pack Guide*

[VP of Applications Content Acceleration Pack](#) in the *VP of Applications Content Acceleration Pack Guide*

[Security Enterprise Architecture Content Acceleration Pack](#) in the *Security Enterprise Architecture Content Acceleration Pack Guide*

[Cloud Optimization Content Acceleration Pack](#) in the *Cloud Optimization Content Acceleration Pack Guide*

## Tasks

This section includes:

- ["View the available CAPs" below](#)
- ["Upload a CAP to the Executive Scorecard application" below](#)
- ["Upload a localized CAP" on the next page](#)
- ["Activate a CAP" on the next page](#)
- ["Deactivate a CAP" on page 236](#)
- ["Delete a CAP from the Executive Scorecard application" on page 236](#)
- ["Download a CAP to the user's local system" on page 237](#)
- ["Create a CAP from the Executive Scorecard application data" on page 237](#)
- ["Modify a CAP" on page 238](#)


### View the available CAPs

To view a list of all the CAPs available in the system:

1. In Executive Scorecard, click **Admin > Content Acceleration Pack**.  
  
The page displays the list of available CAPs. For details, see ["CAP Management Page" on page 238](#).
2. You can now manage (create, upload, delete, download, activate, and deactivate) the CAPs.

### Upload a CAP to the Executive Scorecard application

To upload a CAP to the Executive Scorecard application:

1. Prerequisites:
  - The .ZIP file of the CAP you want to upload is copied in an accessible file system.
  - A corresponding CAP (with the same UUID) does not already exist in the Executive Scorecard application.
2. In Executive Scorecard, click **Admin > Content Acceleration Pack**.  
  
The page displays the list of available CAPs.
3. Click  to open a browser dialog box where you can select the relevant .ZIP file corresponding to CAP you want to upload .
4. Check the **Activate CAP after upload** checkbox if you want to activate the CAP automatically when the upload is completed.

You can now activate the CAP. For details, see ["Activate a CAP" on the next page](#).

## Upload a localized CAP

To upload localized CAPs:

1. Delete the pre-imported out-of-the-box CAPs in the English language.
2. Upload the localized CAPS:
  - **Localized out-of-the-box CAP.** To upload a localized out-of-the-box CAP, proceed as described in "[Upload a CAP to the Executive Scorecard application](#)" on the previous page and specify the location of the out-of-the-box CAP.

**Note:** Localized out-of-the-box CAPs .ZIP files are placed in the relevant language folder during installation:  
`..\HPXS\agora\glassfish\glassfish\domains\BTOA\config\cap\import\languages`

For example, the VPOPS CAP in German is located at:  
`..\HPXS\agora\glassfish\glassfish\domains\btoa\config\cap\import\languages\de_DE\VPOPS_de_DE.zip`

- **Localized user-defined CAP.** To upload a localized user-defined CAP proceed as described in "[Upload a CAP to the Executive Scorecard application](#)" on the previous page and specify the location of the localized CAP you have created.

## Activate a CAP


When you activate a CAP, all the content of the CAP is added to current data (Contexts, KPIs, Pages, etc.) and a recalculation is performed according to the CAP definitions.

To activate a CAP:

1. Prerequisites:
  - The CAP is in the list of available CAPs and is not activated.
2. In Executive Scorecard, click **Admin > Content Acceleration Pack..**
  - The page displays the list of available CAPs.
3. Select the relevant CAP and click **Activate**.

You get a notification that the CAP is being activated. Click **Yes** to complete the Activation. It takes a few minutes.

If a CAP that shares the same content was already activated, an alert warns you that activating the new CAP will override the overlapping instances.

Once the activation is complete, an indication  is added to the CAP.

4. You can now:

- View the Business Context details in Context Designer. For details, see "[Semantic Layer - Context Designer](#)" on page 170.
- View and expand the Scorecard tree in the Active KPIs pane. For details, see [Activate Scorecards, Perspectives, Objectives, Metrics, or KPIs Using Templates](#) in the *IT Executive Scorecard Business Analyst Guide*.
- View the Scorecard, and KPIs configuration in the Configuration Details, and Calculation Details tabs. For details, see [Configure a Scorecard](#) or [Configure a KPI or a Metric](#) in the *IT Executive Scorecard Business Analyst Guide*.
- View the Content Acceleration Pack page in Dashboard. For details, see [Manage Page Categories](#) in the *IT Executive Scorecard Business Analyst Guide*.
- View information in Explorer. For details, see [View and Analyze Results in the Explorer Page](#) in the *IT Executive Scorecard Business Analyst Guide*.

## Deactivate a CAP

When you deactivate a CAP, all the content of the CAP is deleted.

To deactivate a CAP:

1. Prerequisites:

The CAP is in the list of available CAPs and is activated.


2. In Executive Scorecard, click **Admin > Content Acceleration Pack..**

The page displays the list of available CAPs.

3. Select the relevant CAP and click **Deactivate**.

If the CAP is activated a message is issued to task you to deactivate the CAP before you can delete it.

You get a notification that the CAP is being deactivated.

Once the deactivation is complete, an indication  is added to the CAP.

**Note:** You are notified that the deactivation of a CAP may cause errors in pages and KPIs using this CAP content. All the CAP entities will be deleted if you acknowledge the warning.

## Delete a CAP from the Executive Scorecard application

When you delete a CAP, the CAP is deleted from the Executive Scorecard server and is not listed in the list of CAPs any more.

To delete a CAP:

1. Prerequisites: The CAP is in the list of available CAPs and is not activated.
2. In Executive Scorecard, click **Admin > Content Acceleration Pack**.
3. Select **Content Acceleration**.

The page displays the list of available CAPs.

4. Select the relevant CAP and click .


Once the deletion is complete, the CAP is removed from the list of available CAPs.

### Download a CAP to the user's local system

To download a CAP and save it to the local system to be used in other environments:

1. In Executive Scorecard, click **Admin > Content Acceleration Pack** tab.
2. Select **Content Acceleration**.

The page displays the list of available CAPs.

3. Click  to open a browser dialog box where you can select where you want to download the CAP.


The CAP .ZIP file is saved at that location.

### Create a CAP from the Executive Scorecard application data

You can create a new CAP that includes existing Contexts, Scorecards, KPIs and Metrics, and Dashboard pages.

1. Before creating the CAP, make sure you have already created all the relevant Scorecards, KPIs, Metrics, Pages and Contexts that you wish to include in the CAP and that they have been calculated with the expected results. If you find that some content is missing, go back and create it. Once this is done, you can start creating the CAP.
2. In Executive Scorecard, click **Admin > Content Acceleration Pack**.

The page displays the list of available CAPs.


3. Click  to open a wizard where you can create the CAP. For details, see "[Create Content Acceleration Packs](#)" on page 246.

## Modify a CAP

To modify an existing CAP, it is recommended to create a new CAP with the relevant content and then to delete the existing CAP.

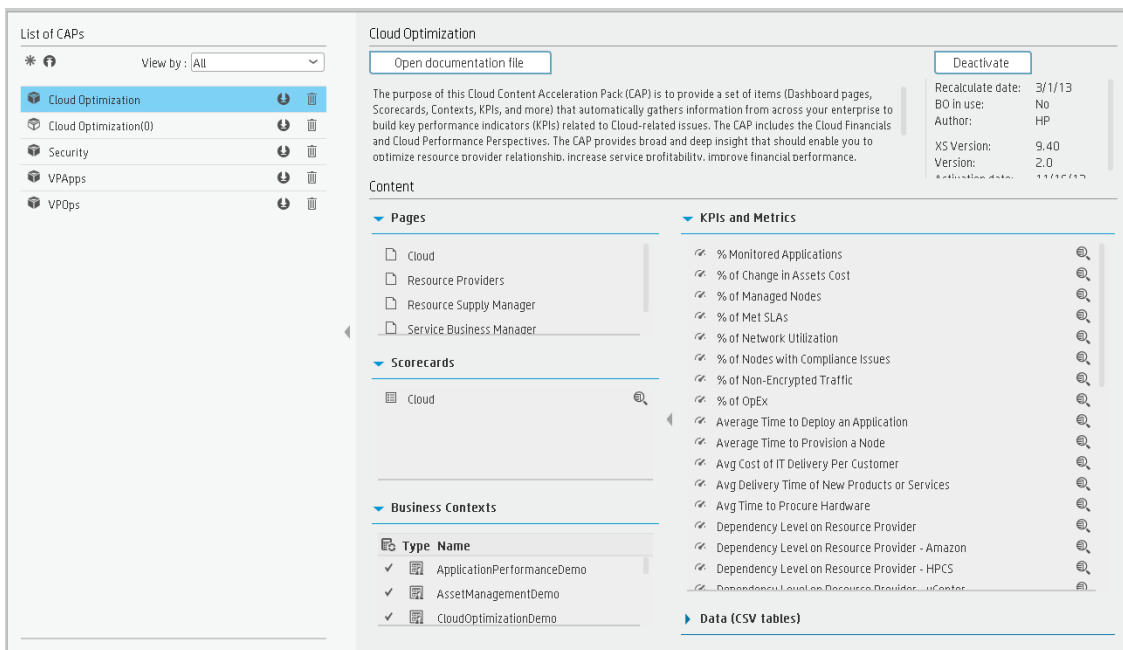
1. In Executive Scorecard, click **Admin > Content Acceleration Pack**.

The page displays the list of available CAPs.

2. Click  to open a wizard where you can create the CAP. For details, see ["Create Content Acceleration Packs" on page 246](#).
3. After you have created the new CAP, remove the old CAP.


## UI Description


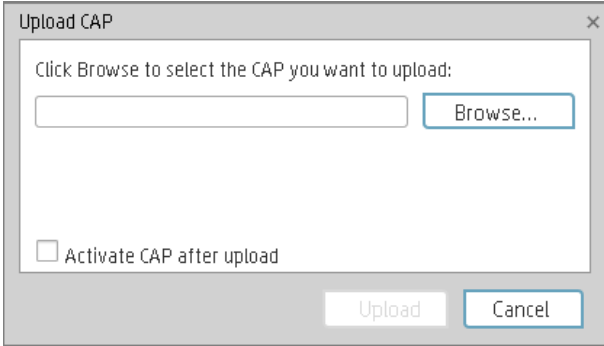


### CAP Management Page







### List of CAPs area

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
	Click to create a new Content Acceleration Pack. The Create CAPs wizard opens. For details, see <a href="#">"Create Content Acceleration Packs" on page 246</a> .

	<p>Click to upload a .ZIP file from the file system to the Executive Scorecard application. A dialog box opens to enable you to browse to locate the .ZIP file.</p> <p>Before clicking the button make sure that:</p> <ul style="list-style-type: none"><li>• The .ZIP file of the CAP you want to upload is copied in an accessible file system.</li><li>• A corresponding CAP (with the same UUID) does not already exist in the Executive Scorecard application.</li></ul> <p><b>Select Activate CAP after upload</b> to automatically activate the CAP after it completes its upload.</p> 
	<p>Click to download the .ZIP file corresponding to the selected Content Acceleration Pack to the file system.</p> <p>During the creation of a CAP using the wizard, all the contents of the CAP are automatically saved in a .ZIP file.</p>
	<p>Click to delete the corresponding Content Acceleration Pack.</p> <p>Before your click the button, make sure that:</p> <p>The CAP is in the list of available CAPs and is not activated.</p>

<b>View by</b>	<p>Filter the available Content Packs by their status:</p> <ul style="list-style-type: none"> <li>• <b>All.</b> All statuses.</li> <li>• <b>Activated.</b> Displays the activated Content Packs. Activated Content Packs are indicated by .</li> <li>• <b>Deactivated.</b> Displays the deactivated Content Packs. Deactivated Content Packs are indicated by .</li> <li>• <b>Activating.</b> Displays the Content Packs that are in the process of being activated. Activating Content Packs are indicated by .</li> <li>• <b>Deactivating.</b> Displays the Content Packs that are in the process of being deactivated. Deactivating Content Packs are indicated by .</li> </ul>
<b>&lt;List of CAPs&gt;</b>	The list of available CAPs within the Executive Scorecard server.

### CAP Description area

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

<b>UI Element</b>	<b>Description</b>
<b>&lt;CAP name&gt;</b>	<p>The name of the Content Acceleration Pack.</p> <p>The standard characters are supported: a-z,A-Z,and 0-9.</p>
<b>Description</b>	<p>The description of the Content Acceleration Pack.</p> <p>The standard characters are supported: a-z,A-Z,and 0-9.</p> <div style="background-color: #f0f0f0; padding: 10px;"> <p><b>Note:</b> Only the beginning of the description is displayed in this field (1000 characters). To view the complete description of the CAP, click the <b>Open documentation file</b> link.</p> </div>

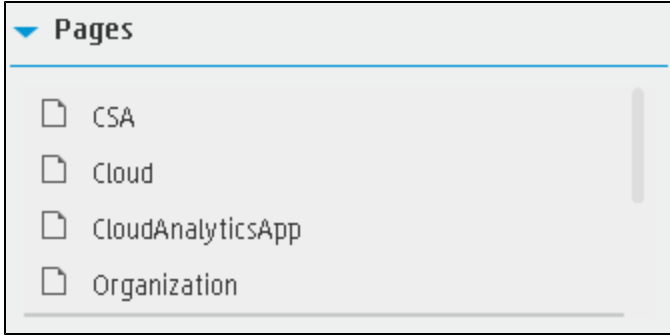
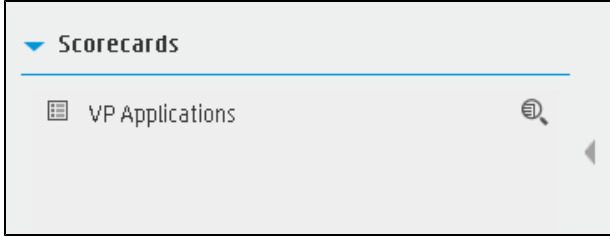

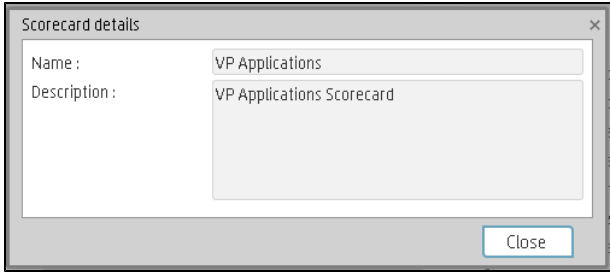


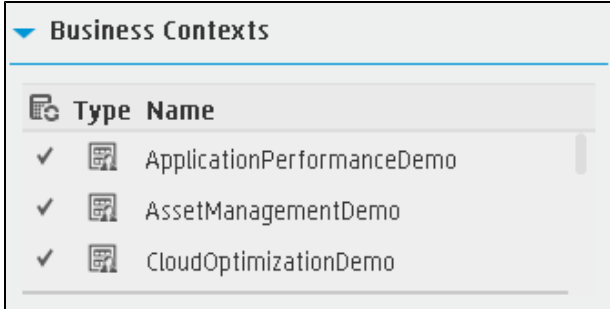












<div style="border: 1px solid black; padding: 2px; width: fit-content; margin-bottom: 5px;">Activate</div> <div style="border: 1px solid black; padding: 2px; width: fit-content;">Deactivate</div>	<p>Click to activate or deactivate the Content Acceleration Pack.</p> <p><b>Note:</b> If the Content Acceleration Pack is already activated the <b>Deactivate</b> button is displayed and vice-versa.</p> <ul style="list-style-type: none"> <li>When you click <div style="border: 1px solid black; padding: 2px; display: inline-block;">Activate</div>, the system scans the CAP entities (Pages, Scorecards, KPIs, Metrics, Contexts, and data (in .CSV table format)). If such entities already exist in the system because they are part of an activated CAP, a warning is issued so the user can select to continue the activation or not. Note that when the CAP is activated, its entities override the entities already activated in the application (not the templates).</li> <li>When you click <div style="border: 1px solid black; padding: 2px; display: inline-block;">Deactivate</div>, the system removes the CAP entities (Pages, Scorecards, KPIs, Metrics, user-defined Contexts, and data (in .CSV table format)) except for the Contexts that are out-of-the-box.</li> </ul>
<b>Open documentation file</b>	Click to display a detailed description of the Content Acceleration Pack.
<b>Recalculate date</b>	The date from when the CAP's Business Contexts are recalculated when the CAP is activated.
<b>BO in use</b>	<p><b>Yes.</b> The CAP comprises a page or a KPI that includes SAP BusinessObjects Enterprise elements.</p> <p><b>No.</b> The CAP does not comprise a page or a KPI that includes SAP BusinessObjects Enterprise elements.</p>
<b>Author</b>	The user, partner, or company that created the CAP.
<b>XS Version</b>	The version of HP IT Executive Scorecard used when the CAP was created.
<b>Version</b>	The version of the CAP.
<b>Activation date</b> <b>Deactivation date</b>	The date when the CAP was activated, deactivated, or created.

### CAP Description area

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

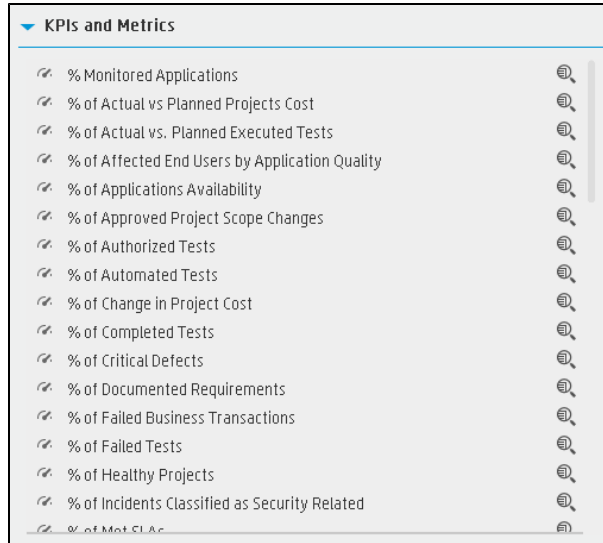
UI Element	Description
------------	-------------

<b>Pages</b>	<p>The list of pages included in the Content Acceleration Pack.</p> 
<b>Scorecards</b>	<p>The list of Scorecards included in the Content Acceleration Pack.</p>  <p> Select a Scorecard and click the button to display the Name and Description of the selected Scorecard in the XS Active Configuration tree.</p>  <p><b>Note:</b> The name of the entity in the dialog box might be different from the name in the CAP Management list if the entity name was modified in the Studio or if duplicate entity names were discovered during the CAP activation.</p>

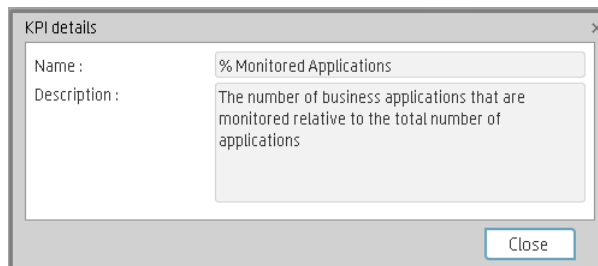
<b>Business Contexts</b>	<p>The list of Business Contexts included in the Content Acceleration Pack.</p> <div><table border="1"><thead><tr><th>Type</th><th>Name</th></tr></thead><tbody><tr><td>✓ </td><td>ApplicationPerformanceDemo</td></tr><tr><td>✓ </td><td>AssetManagementDemo</td></tr><tr><td>✓ </td><td>CloudOptimizationDemo</td></tr></tbody></table></div> <p>The area displays the following information:</p> <ul style="list-style-type: none"><li>•  - In the recalculation status column, ✓ indicates that the corresponding Business Context needs to be recalculated.</li><li>• <b>Type.</b> In this column, the icon indicates that:<ul style="list-style-type: none"><li>▪  The CAP's Business Context is out-of-the-box (it is provided with the application).</li><li>▪  The CAP's Business Context is user-defined.</li></ul></li><li>• <b>Name.</b> The name of the Business Context.</li></ul>	Type	Name	✓ 	ApplicationPerformanceDemo	✓ 	AssetManagementDemo	✓ 	CloudOptimizationDemo
Type	Name								
✓ 	ApplicationPerformanceDemo								
✓ 	AssetManagementDemo								
✓ 	CloudOptimizationDemo								

## KPIs and Metrics

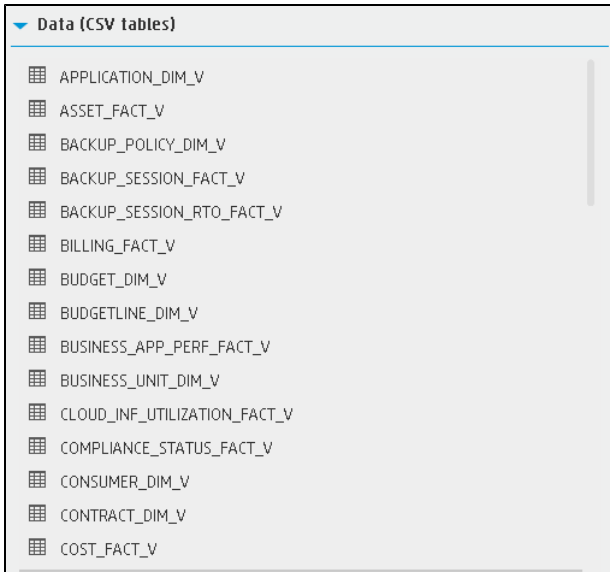
The list of KPIs and Metrics included in the CAP.



Select a KPI or Metric and click the button to display the current Name, and Description of the selected KPI or Metric (as specified in the current definition in the Studio). The button is activated only for the KPIs that are included in activated CAPs.



**Note:** The name of the entity in the dialog box might be different from the name in the CAP Management list if the entity name was modified in the Studio or if duplicate entity names were discovered during the CAP activation.

<b>Data (CSV Tables)</b> <b>dat</b>	<p>Click to display the list of all the CSV tables that compose all the Business Context in the Data (CSV Tables).</p>  <p>The screenshot shows a dropdown menu with the title "Data (CSV tables)". Below the title is a list of 16 CSV table names, each preceded by a small grid icon. The list is as follows:</p> <ul style="list-style-type: none"><li>APPLICATION_DIM_V</li><li>ASSET_FACT_V</li><li>BACKUP_POLICY_DIM_V</li><li>BACKUP_SESSION_FACT_V</li><li>BACKUP_SESSION_RTO_FACT_V</li><li>BILLING_FACT_V</li><li>BUDGET_DIM_V</li><li>BUDGETLINE_DIM_V</li><li>BUSINESS_APP_PERF_FACT_V</li><li>BUSINESS_UNIT_DIM_V</li><li>CLOUD_INF_UTILIZATION_FACT_V</li><li>COMPLIANCE_STATUS_FACT_V</li><li>CONSUMER_DIM_V</li><li>CONTRACT_DIM_V</li><li>COST_FACT_V</li></ul>
--	---

## Reference

For details about the out-of-the-box CAPs, see one of the following:


- [VP of Applications Content Acceleration Pack](#) in the *VP of Applications Content Acceleration Pack Guide*
- [VP of Operations Content Acceleration Pack](#) in the *VP of Operations Content Acceleration Pack Guide*
- [Security Enterprise Architecture Content Acceleration Pack](#) in the *Security Enterprise Architecture Content Acceleration Pack Guide*
- [Cloud Optimization Content Acceleration Pack](#) in the *Cloud Optimization Content Acceleration Pack Guide*

# Create Content Acceleration Packs

Content Acceleration Packs (CAPs) are ready-to-import packages that include Dashboard pages that display Scorecards and components, KPIs, Metrics, Contexts (universes), data (.CSV files), and documentation for the CAP.

CAPs describe typical stories that show how correct implementation of Executive Scorecard drives Performance Improvement and Cost Reduction for the IT organization. CAPs demonstrate Executive Scorecard capabilities, and helps you add basic elements that can be used to customize your Dashboard.

## To access:

Click **Admin > Content Acceleration Pack**, and then click  to open a wizard where you can create the CAP.

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" below](#) ● ["UI Description" on the next page](#)

## Learn More

For details about the Content Accelerations (CAPs) contents, see ["Content Acceleration Pack Contents" on page 232](#).


## Tasks

### Create a CAP with the Executive Scorecard application data

You can create a new CAP that includes existing Contexts, Scorecards, KPIs and Metrics, Data (via .CSV files), and Dashboard pages.

1. **Prerequisite:** Before creating the CAP, make sure you have already created all the relevant Scorecards, KPIs, Metrics, Pages and Contexts that you wish to include in the CAP and that they have been calculated with the expected results. If you find that some content is missing, go back and create it. Once this is done, you can start creating the CAP.
2. In Executive Scorecard, click **Admin > Content Acceleration Pack**.

The page displays the list of available CAPs.

3. Click the **Create a new CAP**  button to open the Create Content Acceleration Pack wizard where you can create the CAP.

Click **Next** and specify the CAP name, author, version, description, recalculation date and link to any relevant document.

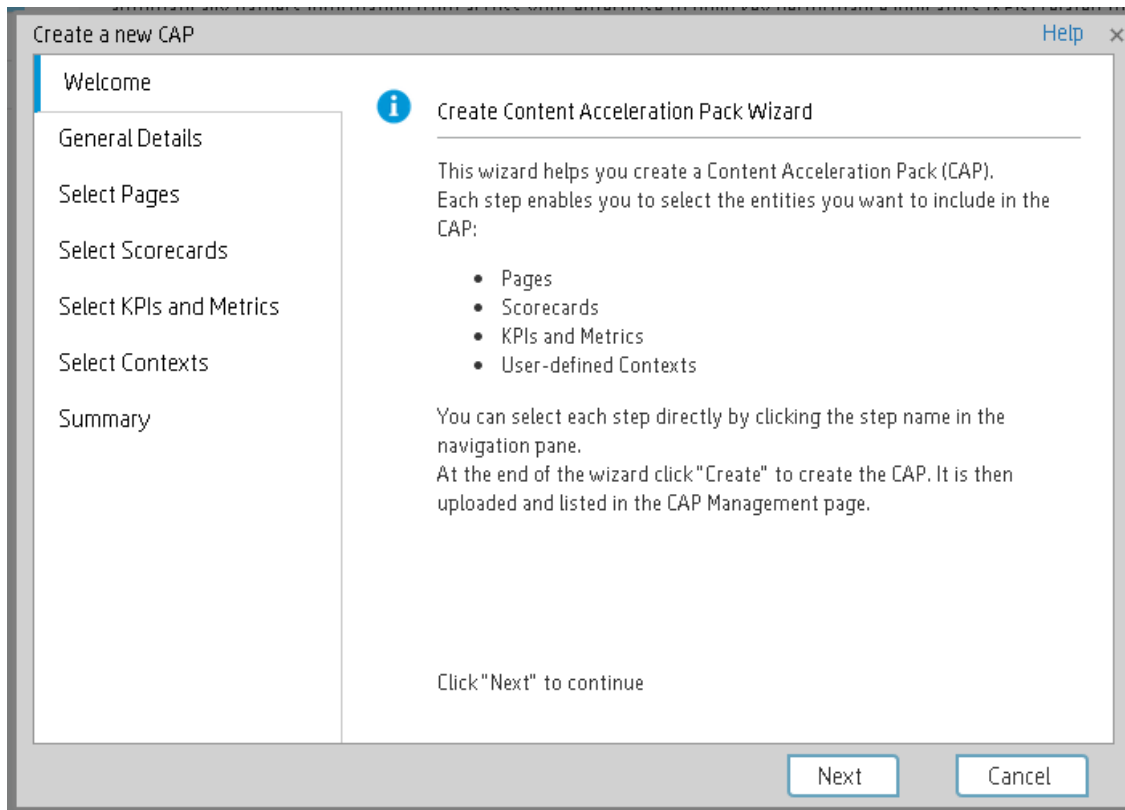
Click **Next** and in the **Select Pages** wizard page, select the pages you want to include in this CAP.

**Note:** Once you have selected a Page, the Scorecards, KPIs, and Metrics that are included in that page and the Contexts that are assigned to the KPIs included in the page, are automatically selected. If you want to add to the CAP additional elements like Scorecards, KPIs, and more, click the **Next** button and modify your selection in the other pages of the wizard. Otherwise you can jump directly to the Summary wizard page.

4. Click **Create** to create the CAP. Once the CAP is created you cannot modify it. The new CAP is displayed in the list of CAPs in the CAP Management page. In the right pane you can see the contents of the CAP you have just created. For details, see "[Content Acceleration Pack](#)" on page 232.

## UI Description

### Create CAP Wizard - Welcome Wizard Page



## Create CAP Wizard - General Details Wizard Page

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Name</b>	The name you want to give to the CAP. The name should be unique. The standard characters are supported: a-z,A-Z, and 0-9. The size of the name is limited to 256 characters.
<b>Author</b>	The name of the creator of the CAP. It can be a single user, an HP partner, or a group in your organization.
<b>Description</b>	The description of the CAP. The size of the description is limited to 1000 characters.
<b>Recalculate date</b>	The date used to recalculate all the Contexts included in the CAP during the CAP activation. Default value is one year back from the CAP upload date. You can delete the default value. If you do not specify a recalculation date, the recalculation is not performed during CAP activation.



<b>Documentation</b>	Click <b>Browse</b> to access the location of the CAP documentation or enter the path to the document. The document can be a Microsoft Word file or a .PDF.  When the CAP .ZIP file is created, the document you selected is automatically added to the .ZIP file at the level of the <b>manifest.properties</b> file.
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### Create CAP Wizard - Select Pages Wizard Page

Select the pages you want to include in the CAP from the **Available** area and click the relevant arrows to move these pages to the **Selected** area. The pages listed in the **Available** area are the pages that already exist in the application.

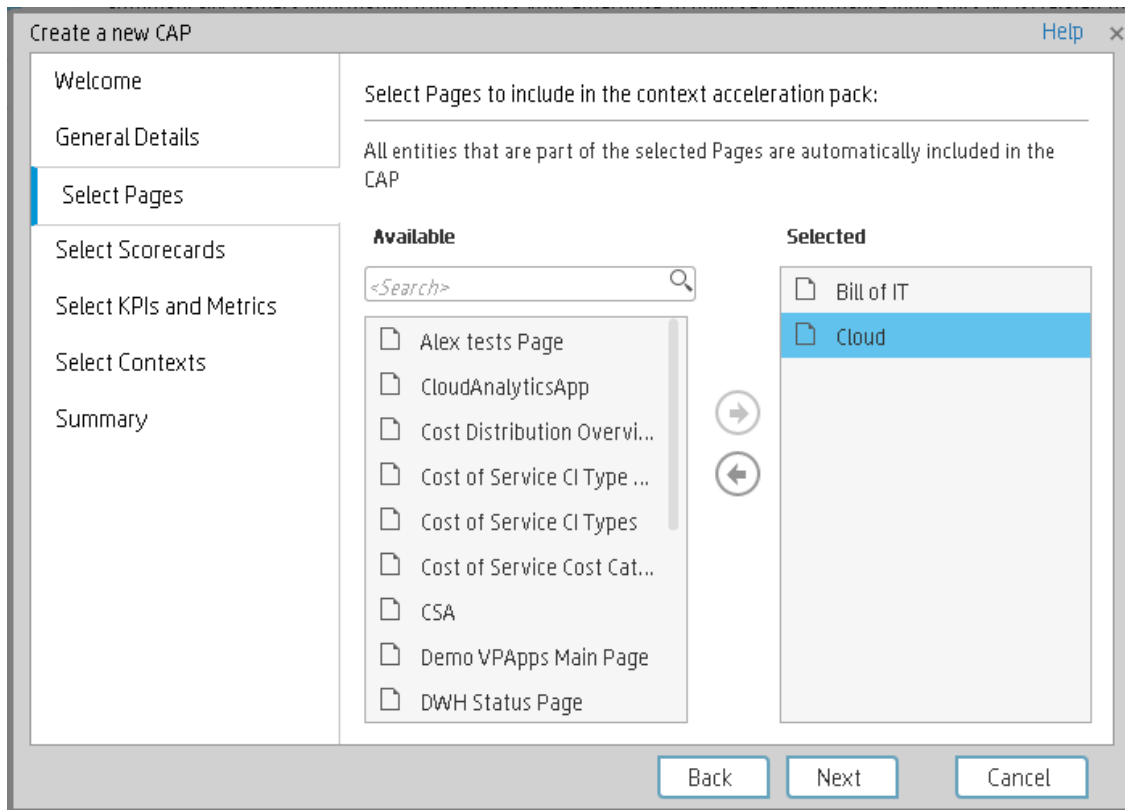
You can select more than one page using the **Shift** button.

To unselect pages, select them in the **Selected** area and click the relevant arrows to move the selected pages back to the **Available** area.

Click the relevant link in the navigation pane to access the corresponding page or click **Next** to open the next page of the wizard.

#### Limitation:

- "Shared KPIs" are KPIs that are reused in different Scorecards. If you share KPIs between CAPs by including pages that include these Scorecards, then after uploading these CAPs to another XS machine, and after activating the first CAP, and while activating the second CAP, the shared KPIs are removed from the Active KPIs hierarchies and from the Scorecard of the CAP that is activated first.  
It is recommended to add all the Scorecards with shared KPIs to each CAP to prevent the removal of the shared KPIs during the activation of the second CAP.  
The same issue may occur during the backup of a CAP with shared KPIs.
- Pages from an activated CAP are listed in the Settings menu of the XS app installed on your tablet or smartphone, only after they are opened in the XS Dashboard.



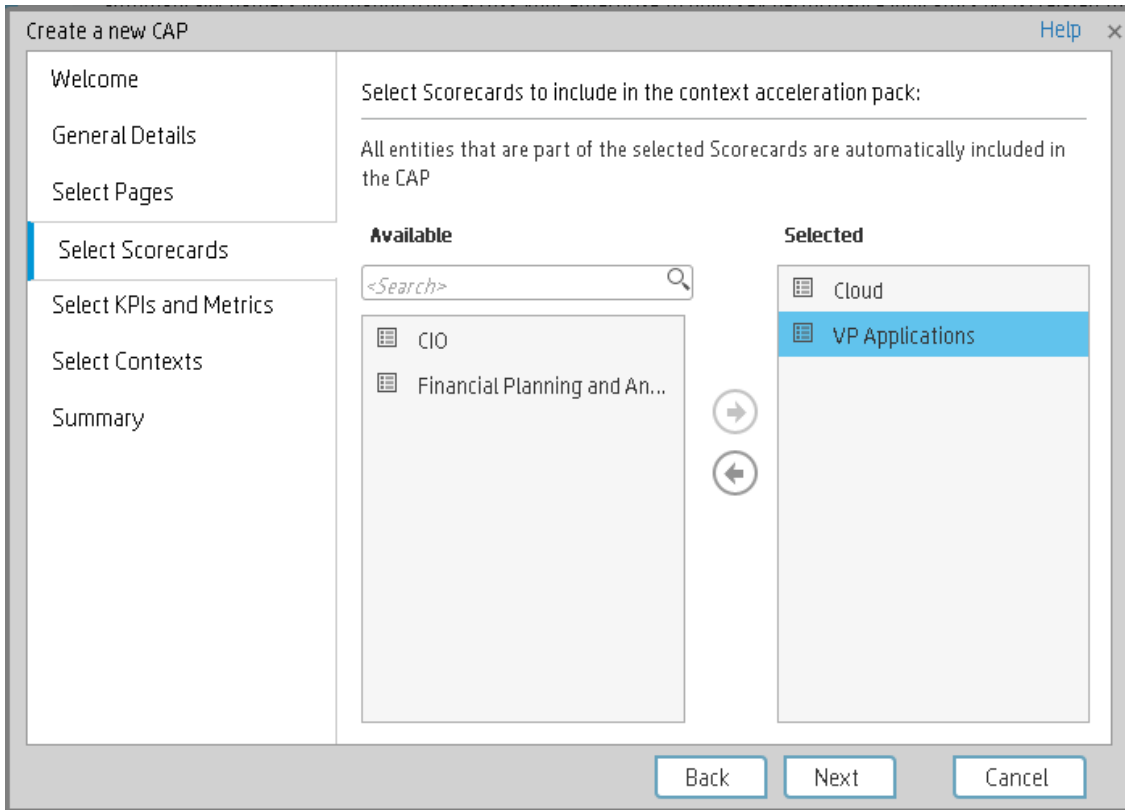
### Create CAP Wizard - Select Scorecards Wizard Page

Select the Scorecards you want to include in the CAP from the **Available** area and click the relevant arrows to move these Scorecards to the **Selected** area. The Scorecards listed in the **Available** area are the Scorecards that already exist in the application.

You can select more than one Scorecard using the **Shift** button.



To unselect Scorecards, select them in the **Selected** area and click the relevant arrows to move the selected Scorecards back to the **Available** area.

Click the relevant link in the navigation pane to access the corresponding page or click **Next** to open the next page of the wizard.

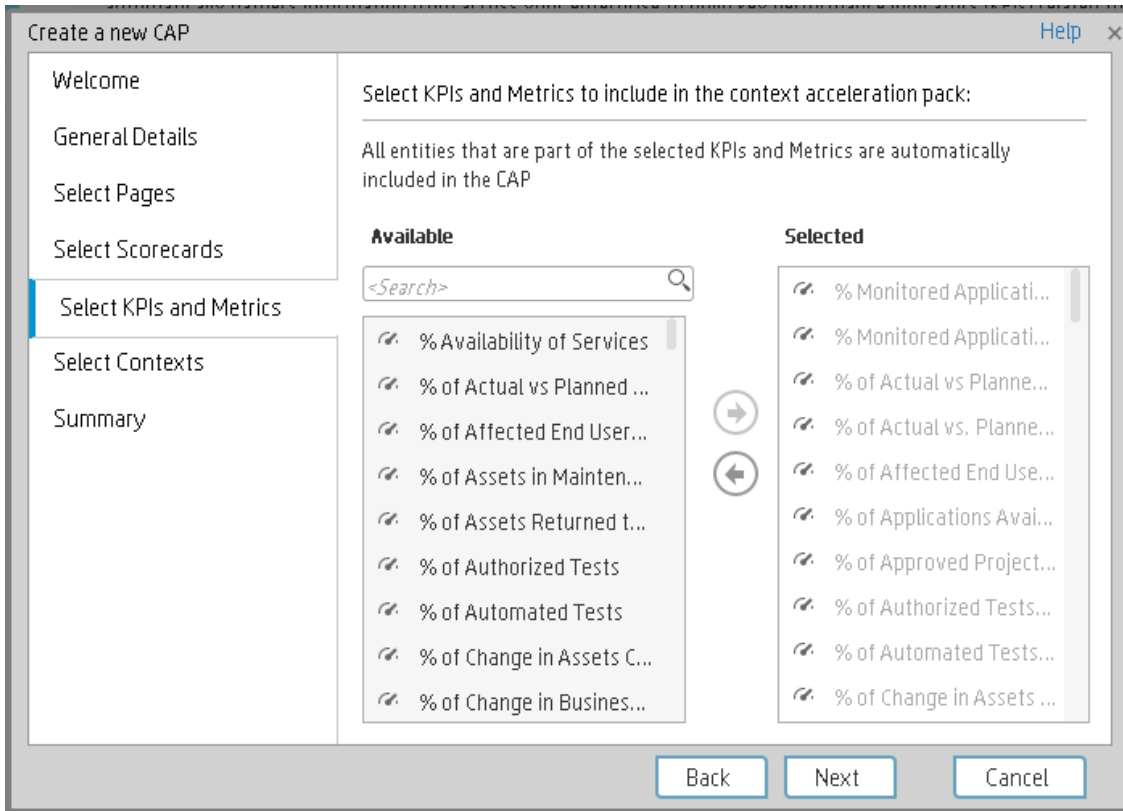


User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Available Scorecards</b>	<p>The list of Scorecards that are already active in the application, that the user has permissions to view, and that have not already been manually selected, or that were not automatically selected as part of the pages that were selected in the <b>Create CAP Wizard - Select Pages</b> page.</p> <p>You can select more than one Scorecard using the <b>Shift</b> button.</p>



<p><b>Selected Scorecards</b></p>	<p>The list of Scorecards that you want to include in the CAP.</p> <div style="background-color: #f0f0f0; padding: 10px; margin: 10px 0;"> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• Some Scorecards (that appear as dimmed) are read-only because they are automatically included in the list of Selected Scorecards. These Scorecards were automatically selected because in the <b>Create CAP Wizard - Select Pages</b> wizard page you selected pages that include these Scorecards. You cannot deselect these Scorecards.</li> <li>• If you add to the CAP, a Dashboard page that includes a Scorecard, and the Dashboard page already belongs to a CAP that has just been activated, the Scorecard is automatically added to the list of Selected only when the Dashboard page is opened once.</li> </ul> </div> <p>You can select more than one Scorecard using the <b>Shift</b> button.</p>
 	<p>Select the Scorecards you want to include in the CAP from the <b>Available</b> area and click the relevant arrows to move these Scorecards to the <b>Selected</b> area. The Scorecards listed in the <b>Available</b> area are the active Scorecards that already exist in the application.</p> <p>To unselect Scorecards, select them in the <b>Selected</b> area and click the relevant arrows to move the selected Scorecards back to the <b>Available</b> area.</p> <p>You can also drag and drop Scorecards from the <b>Available</b> area to the <b>Selected</b> area and vice-versa.</p>
<p><b>Search</b></p>	<p>Enter a string to list all the active Scorecards with names that include the string.</p>

## Create CAP Wizard - Select KPIs and Metrics Wizard Page

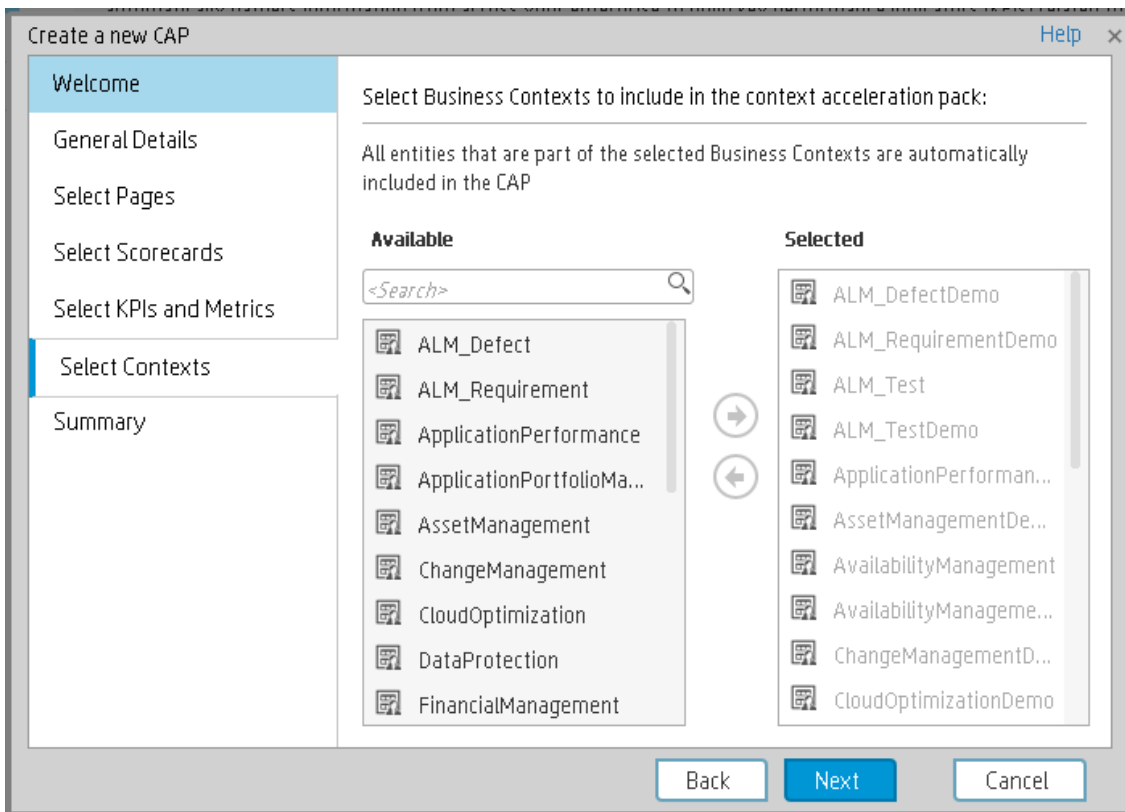


User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<b>Available</b>	The list of KPIs and Metrics that already exist in the application. You can select more than one KPI or Metric using the <b>Shift</b> button.
<b>Selected</b>	The list of KPIs and Metrics that you want to include in the CAP. KPIs or Metrics that are included in the Scorecards selected in the <b>Create CAP Wizard - Select Scorecards</b> page appear as read-only. They are already listed in the <b>Selected</b> area and you cannot deselect them. You can select more than one KPI or Metric using the <b>Shift</b> button.



 	<p>Select the KPIs and Metrics you want to include in the CAP from the <b>Available</b> area and click the relevant arrows to move these KPIs and Metrics to the <b>Selected</b> area. The KPIs and Metrics listed in the <b>Available</b> area are the active KPIs and Metrics that already exist in the application.</p> <p>To unselect KPIs and Metrics, select them in the <b>Selected</b> area and click the relevant arrows to move the selected KPIs and Metrics back to the <b>Available</b> area.</p> <p>You can also drag and drop KPIs or Metrics from the <b>Available</b> area to the <b>Selected</b> area and vice-versa.</p>
<b>Search</b>	Enter a string to list all the active KPIs or Metrics with names that include the string.

### Create CAP Wizard - Select Contexts Wizard Page



User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
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<p><b>Available</b></p>	<p>The list of available user-defined Contexts that already exist in the application and that are not already selected.</p> <p>You can select more than one Context using the <b>Shift</b> button.</p> <div style="background-color: #f0f0f0; padding: 5px; margin-top: 10px;"> <p><b>Recommended:</b> CSV tables used in Contexts should have unique names across all active Content Acceleration Packs (CAPs). For details on CAPs, see <a href="#">"Content Acceleration Pack" on page 232</a>.</p> </div>
<p><b>Selected</b></p>	<p>The list of Contexts that you want to include in the CAP.</p> <p>User-defined contexts that are related to KPIs or Metrics selected in the Create CAP Wizard - Select KPIs and Metrics Page are already pre-selected and cannot be deselected.</p> <p>You can select more than one Context using the <b>Shift</b> button.</p>
<div style="display: flex; flex-direction: column; align-items: center;">   </div>	<p>Select the Contexts you want to include in the CAP from the <b>Available</b> area and click the relevant arrows to move these Contexts to the <b>Selected</b> area. The Contexts listed in the <b>Available</b> area are the Contexts that already exist in the application.</p> <p>To unselect Contexts, select them in the <b>Selected</b> area and click the relevant arrows to move the selected Contexts back to the <b>Available</b> area.</p> <p>You can also drag and drop Contexts from the <b>Available</b> area to the <b>Selected</b> area and vice-versa.</p>
<p><b>Search</b></p>	<p>Enter a string to list all the active Contexts with names that include the string.</p>

### Create CAP Wizard - Summary Wizard Page

The Summary page of the wizard displays all the details of the CAP you just configured.

Expand the areas to display the details of each area.

Click **Back** to change the configuration.

Click **Create** to create the CAP. Once the CAP is created you cannot modify it. The new CAP is displayed in the list of CAPs in the CAP Management page. For details, see ["Content Acceleration Pack" on page 232](#).

The screenshot shows a 'Create a new CAP' dialog box. On the left is a sidebar with a list of options: 'Welcome', 'General Details', 'Select Pages', 'Select Scorecards', 'Select KPIs and Metrics', 'Select Contexts', and 'Summary'. The 'General Details' option is selected and expanded, showing a form with the following fields: 'Name' (containing 'New CAP'), 'Author', 'Version', 'Description', and 'Recalculate date' (containing '11/11/12'). Below these fields are four sections with expandable arrows: 'Pages', 'Scorecards', 'KPIs and Metrics', and 'Contexts'. At the bottom of the dialog are three buttons: 'Back', 'Create', and 'Cancel'.

## CAPs Automatic Anti Virus Scans

New custom Content Acceleration Packs (CAPs) may inadvertently include viruses.

Executive Scorecard automatically scans a CAP you are uploading using an out-of-the-box anti virus based on ClamWin (<http://ClamWin.com>).

XS includes an anti virus database (also based on ClamWin) to make sure that the latest anti viruses are used in the provided out-of-the-box anti virus feature. By default, the database is not automatically updated.

Alternatively, you can run your own anti virus using the same XS command instead of running the out-of-the-box anti virus.

## Tasks

This section includes:

["Work with the out-of-the-box anti virus" below](#)

["Work with your own anti virus" on the next page](#)

["Manually Update the Virus Database" on the next page](#)

### Work with the out-of-the-box anti virus

The anti virus runs automatically every time you upload a CAP. If a virus is included in the CAP an



error message is displayed. You can view the CAP log, located at **<HPXS>\agora\glassfish\glassfish\domains\BTOA\logs\cap.log** to get more information about the virus.

By default, the anti virus database is provided with each version and is not automatically updated.

You can decide to automatically update the anti virus database every Sunday at 12:00 am (midnight). To do so,

1. In the Executive Scorecard application, click **ADMIN > Foundation > Foundation**. For details, see "[Foundation](#)" on page 131.
2. In the page that opens, set the **Automatic update of anti virus database** parameter to **true**.

## Work with your own anti virus

If you do not want to use the out-of-the-box anti virus (based on ClamWin) and you want to use your own anti virus:

1. Open the **antiVirusScan.bat** file located at **<HPXS>\agora\agora\glassfish\glassfish\domains\BTOA\config\antivirus\**.
2. Replace the command line with the command line that triggers your own anti virus, and click **Save**.

Every time you upload a CAP, the **antiVirusScan.bat** runs and triggers your anti virus detection.

## Manually Update the Virus Database

To manually update the virus database, download the **main.cvd** and **daily.cvd** virus database files from the ClamAV home page at <http://www.clamav.net> and copy them to the ClamWin virus database folder located at:

**<HPXS>\agora\glassfish\glassfish\domains\BTOA\config\antiVirus\clamwin\bin\db**, replacing the existing files.

# Migrate a CAP to XS

A CAP contains only demo data. To get real data you must:

1. Activate the relevant integration (select **Admin > Data Source Management**, select the relevant data source and click **Activate**). For details, see "[Data Source Management](#)" on page 95.
2. If needed, switch the context of each KPI or Metric in the CAP to the relevant context (click **Studio**, select the KPI or Metric, click the **Calculation Details** tab, and select the relevant context in the **Business Context** list). For details, see [KPI or Metric Configuration and Calculation Details](#) in the *IT Executive Scorecard Business Analyst Guide*.
3. Perform the relevant calculation. For details, see [Calculation](#) in the *IT Executive Scorecard Business Analyst Guide*.

**CAP KPI or Metric Breakdowns:** When the CAP includes KPI or Metric Breakdowns, XS does not allow you to change Contexts. You can then do one of the following:

- Delete the KPI or Metric Breakdowns, then switch the Context for the KPIs and Metrics as explained above, and then recreate the KPI or Metric Breakdowns.
- Go to the Dashboard page of the CAP and replace the CAP KPIs/Metrics used in the CAP page components with the out-of-the-box KPIs/Metrics from the KPI Library.

## Data Files (.CSV Tables)

The data files provided for the VP of Ops, VP of Apps, Cloud Optimization, and Security Enterprise Architecture CAPs are as follows:

Data Files (.CSV Tables)	VP of Ops	VP of Apps	Cloud Optimization	Security Enterprise Architecture
ACTUAL_COST_FACT_V	X	X	N/A	X
APPLICATION_DIM_V	X	X	X	X
ASSET_FACT_V	X	X	X	X
BACKUP_POLICY_DIM_V	X	X	X	X
BACKUP_SESSION_FACT_V	X	X	X	X
BACKUP_SESSION_RTO_FACT_V	X	X	X	X
BILLING_FACT_V	N/A	N/A	X	N/A
BUDGET_DIM_V	X	X	X	X
BUDGETLINE_DIM_V	X	X	X	X
BUSINESS_APP_PERF_FACT_V	X	X	X	X
BUSINESS_APP_STATUS_FACT_V	X	X	N/A	X
BUSINESS_UNIT_DIM_V	N/A	N/A	X	N/A
CHANGE_FACT_V	X	X	N/A	X
COMPLIANCE_STATUS_FACT_V	X	X	X	X
CONSUMER_DIM_V	N/A	N/A	X	N/A
CONTRACT_DIM_V	X	X	X	X
COST_FACT_V	X	X	X	X

<b>Data Files (.CSV Tables)</b>	<b>VP of Ops</b>	<b>VP of Apps</b>	<b>Cloud Optimization</b>	<b>Security Enterprise Architecture</b>
COSTCATEGORY_DIM_V	X	X	X	X
COSTCENTER_DIM_V	X	X	X	X
CYCLE_DIM_V	X	X	N/A	X
DEFECT_FACT_V	N/A	X	N/A	X
DEMAND_FACT_V	X	X	N/A	X
INCIDENT_FACT_V	X	X	N/A	X
INTERACTION_FACT_V	X	X	N/A	X
ITFUNCTION_DIM_V	X	X	X	X
KPINAME_DIM_V	X	X	X	X
LOCATION_DIM_V	X	X	X	X
MAXIMUM_SERVICE_PROVIDER_OFFERING_V	N/A	N/A	X	N/A
MODEL_DIM_V	X	X	X	X
NODE_DIM_V	X	X	X	X
NODE_METRIC_FACT_V	X	X	X	X
ORGANIZATION_DIM_V	X	X	X	X
PERIOD_DIM_V	X	X	X	X
PERSON_DIM_V	X	X	X	X
POLICY_DIM_V	X	X	X	X
POLICY_REMEDIATION_FACT_V	X	X	X	X
POLICY_RESULT_FACT_V	X	X	X	X
PRJECTIVE_DIM_V	X	X	X	X
PROGRAM_DIM_V	X	X	X	X
PROJECT_FACT_V	X	X	X	X
PROJECTISSUE_FACT_V	X	X	X	X
PROJECTRISK_FACT_V	X	X	X	X
PROJECTTASK_FACT_V	X	X	X	X

<b>Data Files (.CSV Tables)</b>	<b>VP of Ops</b>	<b>VP of Apps</b>	<b>Cloud Optimization</b>	<b>Security Enterprise Architecture</b>
PROPOSAL_FACT_V	X	X	N/A	X
REQUIREMENT_FACT_V	X	X	N/A	X
RESOURCE_PROVIDER_DIM_V	N/A	N/A	X	N/A
RESTORE_SESSION_FACT_V	X	X	X	X
SCOPECHANGE_FACT_V	X	X	N/A	X
SERVICE_DIM_V	X	X	X	X
SERVICE_BLUEPRINT_DIM_V	N/A	N/A	X	N/A
SERVICE_INSTANCE_DIM_V	N/A	N/A	X	N/A
SERVICE_OFFERING_DIM_V	N/A	N/A	X	N/A
SERVICE_PROVIDER_OFFERING_DIM_V	N/A	N/A	X	N/A
SERVICESTATUS_FACT_V	X	X	N/A	X
SLA_DIM_V	X	X	X	X
SLAOUTAGE_FACT_V	X	X	X	X
SLAOVERALLSTATUS_FACT_V	X	X	X	X
SLASTATUS_FACT_V	X	X	X	X
STATUS_DIM_V	X	X	X	X
SURVEYRESULT_FACT_V	X	X	N/A	X
TEST_FACT_V	X	X	N/A	X
TESTINSTANCE_FACT_V	X	X	N/A	X

# Distributed Configuration - Server Connection

When you are configuring an allocation scenario and you mark it as **Affect Dashboard**, all the KPI calculations based on the FinancialManagement context run on the allocated data.

To make sure that the data is extracted using the correct schema, when you work in a distributed configuration, you must make sure that the server on which XS is installed and the server on which Data Warehouse (DWH) is installed are connected via the network using **port 10002**.

In addition, you must make sure that this setting (connection using **port 10002**) is reestablished every time the session is restarted.

This connection enables the Dashboard to pull data from the COST\_FACT\_V view:

- Using the ITAAPP schema when the **Affect Dashboard** option has been selected for an allocation.
- Using the DWH schemas when the **Affect Dashboard** option has **not** been assigned.

For details about allocations, see [Allocation Management](#) in the *IT Executive Scorecard Financial Analyst Guide*.

# Partitioning

Partitioning provides a performance improvement for very large tables and indexes used in daily operations performed by the allocation engine, the KPI Engine, and other queries.

Partitioning is triggered by the ETL.

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" on the next page](#) ● ["Reference" on the next page](#)

## Learn More

### Partitioning in XS

XS expect tables to grow to hundreds of GB or more. Such tables cause performance issues as they make it difficult to load and manipulate data, to remove old data, and to maintain indexes.

Partitioning tables and their indexes divides the object into smaller segments, so that maintenance operations can be done on a single segment at-a-time, rather than on the entire table. Partitioning the table can also automatically direct queries to the appropriate partition, which reduces the amount of records to scan and speeds up the queries.

The tables that are partitioned by default are all the FACT tables in the Target database and the SNAPSHOT tables in the Staging database.

### Benefits

The benefits of using partitioning are:

- The SQL Server automatically manages the placement of data into the correct partition.
- The partitioning of tables and indexes is transparent to the application.
- Faster and easier loading.
- Improve the performance of the allocation engine, KPI engine, and other queries.
- Control of Locks, Compressions and Read-Only at partition level.

### Limitations

The limitations are:

- To work with partitioning you must install the SQLServer 2008 Enterprise Edition.
- XS supports a maximum of 1000 partitions per table.
- Partition Operations like (Split, Merge and Switch) can be blocked by other Data Manipulation Language (DML) statements like SELECT, UPDATE, or INSERT that are ran on the table at the same time.

- Rebuilding Indexes cannot be implemented online, the main reason for that is that the whole table will be locked during this action
- Once the partitioning column(s) is set, it is not possible to change it.
- Changing the sliding windows scenarios can be difficult
- Switch Partition mainly for Archive purposes have to reside on the same database (not implemented in XS 9.4).
- In a CLUSTERED table, the Column Partition MUST be part of Primary Key or CLUSTERED INDEX

## Tasks

### Deactivate Partitioning

Partitioning is activated by default.

To deactivate partitioning, proceed as follows:

1. In the Staging database, locate the Configuration table (for details, see ["Configuration Table" on page 265](#)) and change the **Activation Status** from **True** to **False**.
2. In the Target database, locate the Configuration table (for details, see ["Configuration Table" on page 265](#)) and change the **Activation Status** from **True** to **False**.

## Reference

### Partitioning New Objects

- **Store Procedures**

The XS Store procedures that are responsible for partitioning are as follows:

- **CreateTBLPartition\_P** – This Store Procedure is responsible for converting existing Tables/Indexes into Partition Objects. It is executed from Init DB, or from a customization script in Upgrade. It reads the list of tables from the configuration table, and partitions the given table and it indexes one by one.

**Format:**

```
CREATE PARTITION FUNCTION <TABLE_NAME>_PF AS RANGE RIGHT FOR  
VALUES (List of Dates, or Integer Boundary)
```

```
CREATE PARTITION SCHEME <TABLE_NAME>_PS AS PARTITION TABLE_NAME_  
PF ALL TO (<FILE GROUP>)
```

### Example

```
CREATE PARTITION FUNCTION NODE_FACT AS RANGE RIGHT FOR VALUES  
(...'01-feb-2012','01-mar-2012'....)
```

- **Partitioning indexes:**

If Primary KEY exists, the procedure will drop it and recreate new clustered unique index using the primary key plus the new partition column.

**Format:**

```
DROP INDEX <Constraint_Name> ON <Table_Schema>.<Table_name>  
WITH (Move To <PS_Name> (<Partition_Columns>))
```

For every existing index, it will add this partition column, and partition the index:

```
CREATE INDEX <Previous_Index_Name> ON <SCHEMA>.<TABLE_NAME> (List of  
Columns) ON <Partition Scheme> (Partition Column)
```

- **Check\_Configuration\_Partition\_fnc** – The function that checks and validates records in the **configuration\_partition** before starting the actual partitioning procedure. This function is the first step of **CreateTBLPartition\_P**.
- **ADDPartition\_P** – The procedure adds a partition when needed, according to the partitioning methods. It creates new Partitions for a given Object that is already partitioned. It executes as one of the last step in XS ETL run.
  - Date\_boundary
  - Integer\_Boundary
  - Period\_Boundary

If the SP fails it writes the errors into APPLICATION\_ERROR\_LOG table.

### Note:

- Snapshots partitioning is done automatically. When each Staging ETL is running, the Create Partitioning procedure is running. It searches for new Snapshot tables in Staging: if there are new tables it will insert their names/details into the Configuration\_Partition table.
- For **Snapshot\_Boundary** (TSNP, SSNP staging tables) the partitioning is fixed (0-9 and A-Z), so no need to add partition.
- For Snapshot with CSNP tables the partition column is **MD\_BUSINESS\_KEY** and the partitioning method is **Integer\_Boundary**.



- **Tables**

- **Configuration\_Partition** – The configuration table that includes the list of candidates Objects for partitioning.
- **APPLICATION\_ERROR\_LOG** – The auditing and error log table. The procedures above write the errors into this table in case of failure.

**Note:**

- The tables above are created as part of the **Init\_DB** or **Upgrade** processes.
- The **CreateTBLPartition\_P** and **Check\_Configuration\_Partition\_fnc** procedures are executed at the last step in XS ETL run.

## Table Partitioning

XS partition support (right now) four ways of partitioning, all RIGHT range partition:

- Date Boundary Range
- Integer Boundary Range
- Period Boundary Range
- Snapshot Boundary Range – Fixed Range (0-9 , A-Z)

## Configuration Table

This table is provided out-of-the-box.

Column Name	Description
Entity_Name	Services, Person, Projects, SLA....
Entity_Type	<b>Target_core</b> or <b>Snapshot</b> Snapshots are located in staging DB(SSNP, TSNP) or in target (CSNP)
Table_Name	The name of the Partition Table.
Table_Schema	<b>dwt, dws, or itaapp</b>
Partition_Method	Date_Boundary, Integer_Boundary, Snapshot_Boundary, Period_Boundary

Column Name	Description
Partition_Policy	<ul style="list-style-type: none"> <li>• Date_Boundary (Month)</li> <li>• Integer_Boundary (NULL)</li> <li>• Snapshot_Boundary (NULL)</li> <li>• Period_Boundary (Month)</li> </ul>
Partition_Columns	MUST be DATETIME or Integer types
Amount_of_Records_Per_Partition	Amount_of_Records_Per_Partition (minimum of 1,000,000) Active only for Integer_Boundary
Retention_Policy	In Days, how long to keep the data, default 36,525= 100 years
Partition_Status	<ul style="list-style-type: none"> <li>• Normal - For new not partitioned tables.</li> <li>• Partitioned - For partitioned tables.</li> </ul>
Activation_Status	<p><b>True.</b> Continue the partitioning of the object. Default.</p> <p><b>False.</b> Stop the partitioning of the object.</p>
Archive_Status	<p>This is for future use.</p> <p><b>True.</b> The table is to be archived.</p> <p><b>False.</b> The table is not to be archived. Default.</p>

# Add Dimensions to FinancialManagement Context and Integrate with PPM

The integration with HP Project and Portfolio Management provides KPIs based on the Financial Management context. You can use these KPIs in Dashboard page components to help you manage the finances of your company. For details on these KPIs, see [PPM Data Source](#) in the *IT Executive Scorecard KPIs, Metrics, and Data Lineage Reference Guide*.

In addition, the integration provides Allocations and Costs that are based on the Financial Management context. For details, see [Allocation Management](#) and [Cost Explorer](#) in the *IT Executive Scorecard Financial Analyst Guide*.

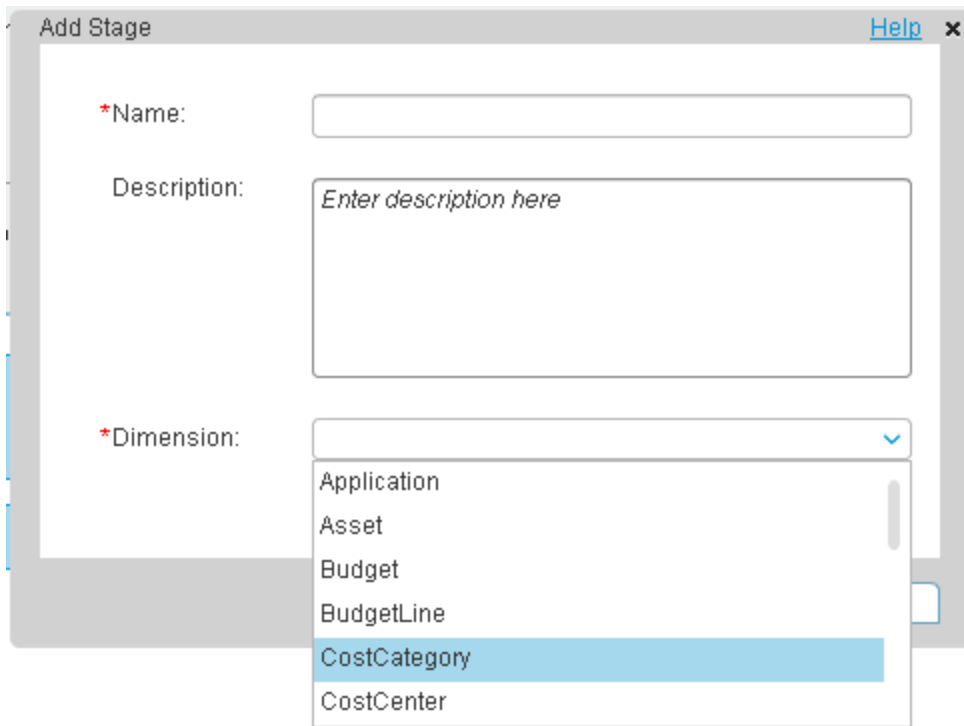
## Tasks

### Add dimensions to the FinancialManagement context and use these dimensions in Allocation stages

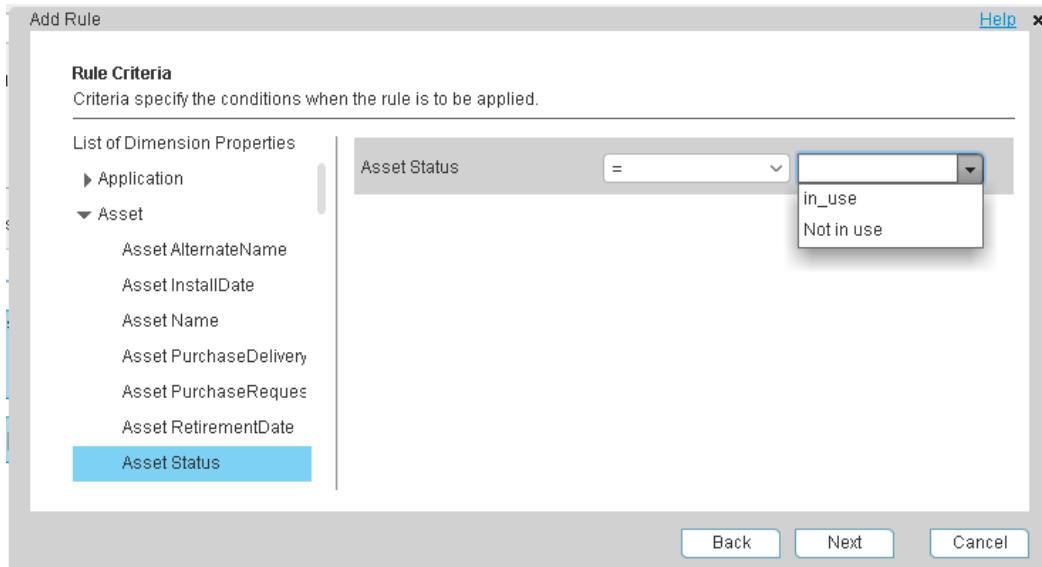
**Note:** You can use the default dimensions provided in the Finance tab to create your allocations and costs. You can also add your dimensions to the FinancialManagement context and base your allocations and costs on these dimensions. You can also rename the existing dimensions to better reflect your financial environment. These new dimensions or renamed dimensions are listed in this field. For details, see ["Add Dimensions to FinancialManagement Context and Integrate with PPM"](#) above in the *IT Executive Scorecard Administrator Guide*.

You can extend content using the OOTB Actual Cost custom Target extension (ACTUAL\_COST\_CSTM). You can add columns and associated dimensions to ACTUAL\_COST\_CSTM for use in Allocation scenarios and stages. Allocation can be done based on an extended set of dimensions or based on added dimensions from a new data source.

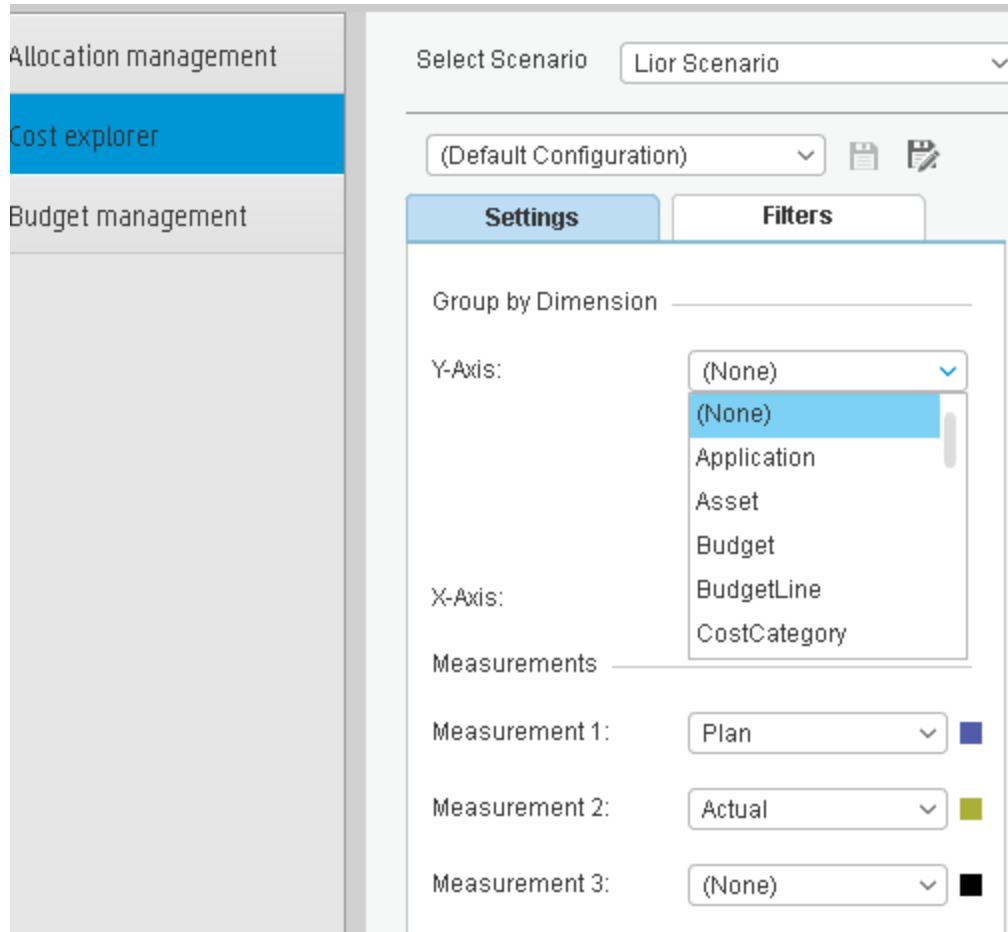
1. To add your dimensions to the FinancialManagement context, create the relevant dimensions in the IDE, and create the relevant ETL process and run it. For details, see [Extend custom ITFM Entities](#): in the *IT Executive Scorecard Content Extension Guide*.
2. You must then connect the new dimensions to the existing FinancialManagement context in the Context Designer. For details, see ["Add a column to a Target database table and the impact on the context"](#) on page 189.
3. Once the ETL is running:
  - The new dimensions, or the renamed dimensions are available in the Allocation Stage for Planned or Actual Costs. For details, see [Allocation Stages](#) in the *IT Executive Scorecard Financial Analyst Guide*.



- The new dimensions, or the renamed dimensions are available in the Rule Criteria of an Allocation Stage for Planned or Actual Costs. For details, see [Allocation Rules](#) in the *IT Executive Scorecard Financial Analyst Guide*.



- The new dimensions, or the renamed dimensions are also available in the Group by Dimension fields in the Cost Explorer. For details, see [Cost Explorer](#) in the *IT Executive Scorecard Financial Analyst Guide*.



# KPI and Metric Data Lineage

The data lineage of a KPI or a Metric enables you to see, in graphical format, for a specific KPI or Metric, the chain of entities, fields, views, tables, and contexts that are used to obtain data from the data source, import it into the Data Warehouse, and calculate the value, status, and trend of the KPI or Metric.

For details about the KPIs, Metrics, and their data lineages, see the *IT Executive Scorecard Content Reference Guide* for the relevant data source.

# Work with Enhanced Telecom Operations Map KPIs

The eTOM (enhanced Telecom Operations Map), published by the TM Forum, is a guidebook that defines the most widely used and accepted standard for business processes in the telecommunications industry. The eTOM model describes the full scope of business processes required by a service provider and defines key elements and how they interact. As a not-for-profit organization, TM Forum is driven by a Board of senior executives from across the industry.

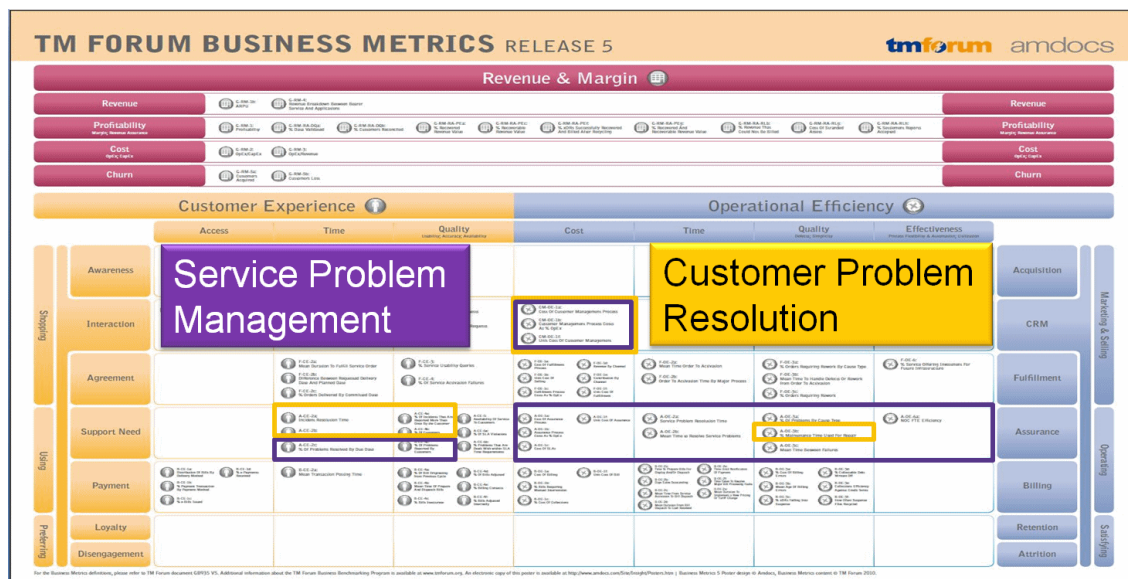
**Section navigation:** ● "Learn More" below ● "Tasks" on page 273 ● "Work with Enhanced Telecom Operations Map KPIs" above

## Learn More

### More information about eTOM's Business Metrics and Benchmarking Programs

Developed by service providers, for service providers, eTOM's Business Metrics and Benchmarking Programs define and gather quantitative metrics ranging from tactical to business performance data and conduct qualitative surveys on topics of service provider interest. There are two primary aspects to Business Metrics Automation (BMA): Inclusion of the appropriate, standard eTOM Business Metrics in products and systems used by service providers and support for the programmatic interface into the Forum's secure Benchmarking Database, via controlled, secure data transfer. Service providers can also implement these aspects directly in their internal systems and can then work with the BMA interface.

The following figure presents the complete set of eTOM Business metrics in release 5. The 2 groups currently implemented in Executive Scorecard have been highlighted.



## How does it work?

For many service providers, the easier approach is simply to use products from suppliers who have added the Business Metrics and BMA interface to their commercial off the shelf (COTS) products. These products bear a mark indicating that they have been tested for their inclusion of the appropriate group of metrics (such as the set of revenue assurance metrics for a revenue assurance product) and the BMA interface functionality. Service providers can ensure consistent, accurate, and apples-to-apples comparisons for both benchmarking studies and internal dashboards by procuring products with TM Forum Business Metrics built in. eTOM's Business Benchmarking Program manages and delivers metric-based business performance benchmarking studies on topics including Broadband, Mobile, Business IP Services, and Self-Service.

HP IT Executive Scorecard is certified (from this version and above) in the following areas: **Customer Problem Resolution** and **Service Problem Management**. The certification provides a secure interaction with the eTOM Business Benchmarking database, including uploading data for the specified standard metrics in the correct format, generating queries, and downloading the query results.



HP IT Executive Scorecard offers the standard metrics in the following areas: **Customer Problem Resolution** and **Service Problem Management**.

A special tool extracts the results from the eTOM-related KPIs from the Results database, the values extracted are mapped to TM Forum business metrics and business metrics details. This information is then structured as XML and changed into an XML file and the XML files are sent to the eTOM Benchmarking database via the eTOM secure Web Portal.



## eTOM-Related KPIs Location in the Studio

After they have been imported, the eTOM-related KPIs are listed in the Active KPIs pane, in the **Industry Standards** Scorecard, in the **eTOM** Perspective, and are distributed under two Objectives: **Customer Problem Resolution** and **Service Problem Management**.

**Tip:** Though these KPIs also appear by default in the KPI Template pane, it is recommended not to drag and drop these KPIs from the KPIs Template pane to the Active KPIs pane to activate them, because in such a case, the KPI Breakdowns do not appear in the Active KPIs pane and these KPI Breakdowns are important for TMF. It is recommended instead to import the TMF-related tree of Scorecards, Perspectives, Objectives, KPIs, and KPI Breakdowns directly as described below into the Active KPIs pane.

## eTOM-Related KPIs

A folder of XML files is available to be imported into the Studio to provide the relevant components needed to create the corresponding eTOM-related KPIs.

Each file corresponds to a KPI.

## Data Displayed by the eTOM-Related KPIs

The data displayed by the eTOM-related KPIs is extracted from the Incident and Interaction Data in the IT Infrastructures Library (ITIL) of HP Service Manager related to SQM or CME.

# Tasks

This section includes:

["Work with Enhanced Telecom Operations Map KPIs" on page 271](#)

["Import Source Data using ETL tool" below](#)

["Import the TM Forum-related KPIs into the Active KPIs pane in the Studio" below](#)

["Calculate All Breakdown Paths" on page 275](#)

["Work with Enhanced Telecom Operations Map KPIs" on page 271](#)

["Check Certification Results in BMA Portal" on page 277](#)

["View the eTOM-Related KPIs in the Dashboard" on page 277](#)

1. **Make sure that the integration with the HP Service Manager data source has been performed**

For details, see [Integrate with the SM Data Source](#) in the *IT Executive Scorecard Content Reference Guide for the Integration of HP Service Manager*.

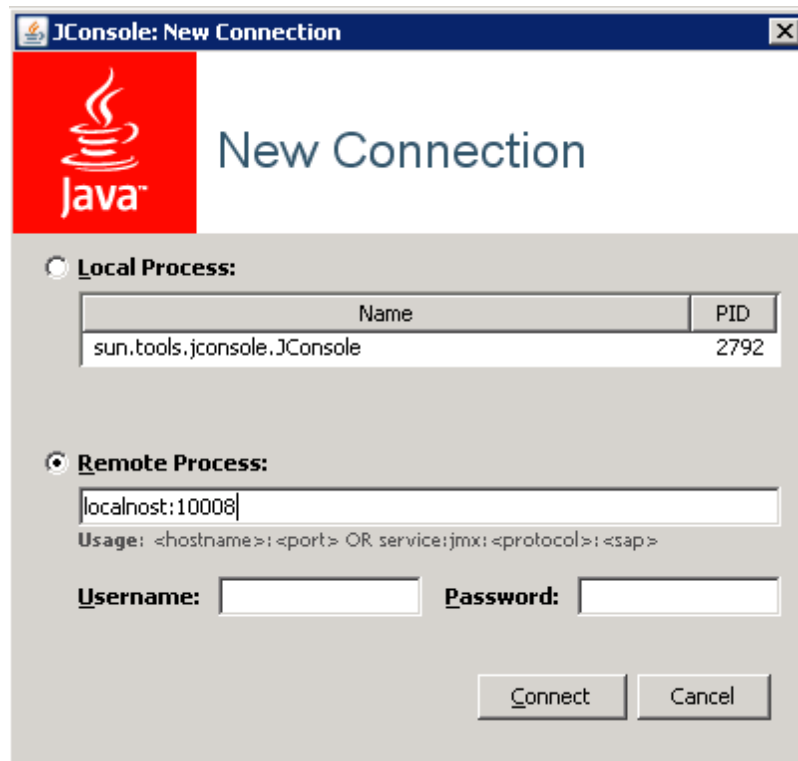
2. **Import Source Data using ETL tool**

Import the source data into the Studio using the ETL tool. For details, see ["ETL Management" on page 112](#) in the *IT Executive Scorecard Administrator Guide*.

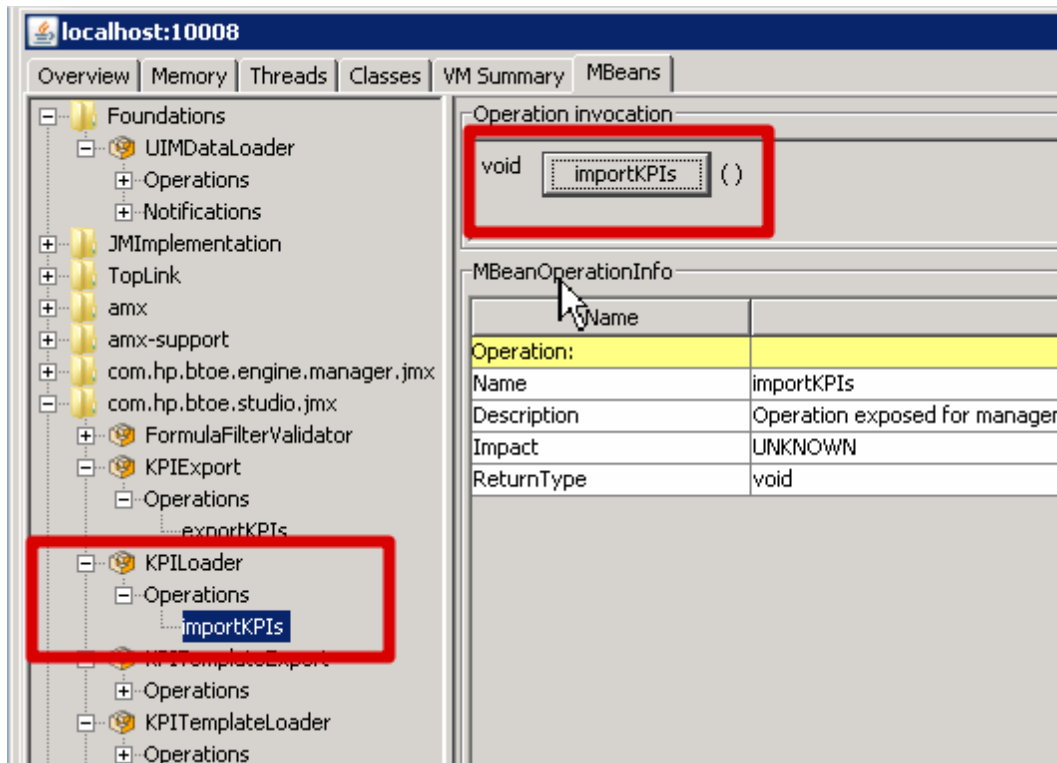
3. **Import the TM Forum-related KPIs into the Active KPIs pane in the**

## Studio

- a. Copy the files from the `<install-root>\tools\TMF\ContentApp` directory in the Executive Scorecard DVD to the following directory:  
**C:\<installation directory>\agora\glassfish\glassfish\domains\BTOA\config\kpicomfiguration\import\load**
- b. Activate `<installation directory>\agora\jdk\bin\j-Console.exe`.
- c. Select **Remote process** and enter **localhost:10008** in the field below.




- d. Click the **MBeans** tab.
- e. Expand the **KPILoader** and click the **importKPIs** button. Close the j-Console.



#### 4. Calculate All Breakdown Paths

In the Active KPI Pane in the Studio, under the Industry Standards Scorecard, under the TM Forum Perspective, the KPIs are distributed between the Customer Problem Resolution Objective and the Service Problem Management Objective.

Click the TM Forum Perspective, and click  Preferences and select the **Calculate now** option, and in the Calculate now dialog box, select the ServiceDesk universe. This operation calculates the values, statuses, and trends of all the KPIs and KPI Breakdowns as well as the values of the related Objectives, Perspectives, and Scorecards and displays the relevant data in the Dashboard.

For details on calculating KPIs, see [Calculate Displayed Values after Configuration Change](#).

#### 5. Generate XML Data and Send the Data to the BMA Portal for Certification

- a. Set the XS server information and BMA web service information in the **xmlTemplateConfig.properties** file. The file is used to store information about the XS server and the BMA web service.

```
#CPR --- Customer Problem Resolution
CPR = CPR-BB-Max-Data,CPR-IP-Min-Short-Data
CPR_Data = CPR-BB-Max-Data,CPR-IP-Min-Short-Data
```

```
CPR_App = CPR-BB-Max-App,CPR-BB-Min-App
#SPM --- Service Problem Management
SPM = SPM-BB-Max-Data,SPM-IP-Min-Short-Data
SPM_Data = SPM-BB-Max-Data,SPM-IP-Min-Short-Data
SPM_App = SPM-BB-Max-App,SPM-BB-Min-App
#All metric names - the names of the separate Metric XML files that are c
reated by the import operation.
#batch file and that are sent to the BMA site.
Metric_All = CPR-BB-Max-Data,CPR-IP-Min-Short-Data,CPR-BB-Max-App,CPR-BB-
Min-App,
SPM-BB-Max-App,SPM-BB-Max-Data,SPM-BB-Min-App,SPM-IP-Min-Short-Data
#Periods (Don't change the Periods name) - The periods for which you want
to calculate the metrics.
Periods = FY2011/04(Apr),FY2011/05(May),FY2011/06(Jun)
#Logon TMF info (Don't change the key name) - the username and password a
re provided by BMA: #BMA
WS logon name:
ws_name = xyz
#BMA Web Service logon password:
ws_password = xyz
#BMA Web Service URL:
ws_url = http://
#BMA Web Service port:
ws_port =
# The host name of the XS Server:
server = xyz
# The port of the Executive Scorecard server:
port = 10004
```

- b. For each metric group, generate the relevant XML file based on the templates using the command:

```
java -jar BMA_16.jar <metric_group_code> <research_stream> 0
```

where `metric_group_code` can be:

- **CPR** - Customer Problem Resolution
- **SPM** - Service Problem Management

and `<research_stream>`. For certification, TM Forum has defined Research Streams which corresponds to different types of industry. Current research streams are:

- **BB** (Broadband) - Includes xDSL, cable fiber and satellite.
- **Mobile** - Includes 2G, 3G and 4G. It represents network equipment used to be provide the service.
- **IP** - IP Business Services.

**Example** java -jar BMA\_16.jar CPR BB 0

- c. For each metric group, send the relevant XML file to the BMA web service using the command:

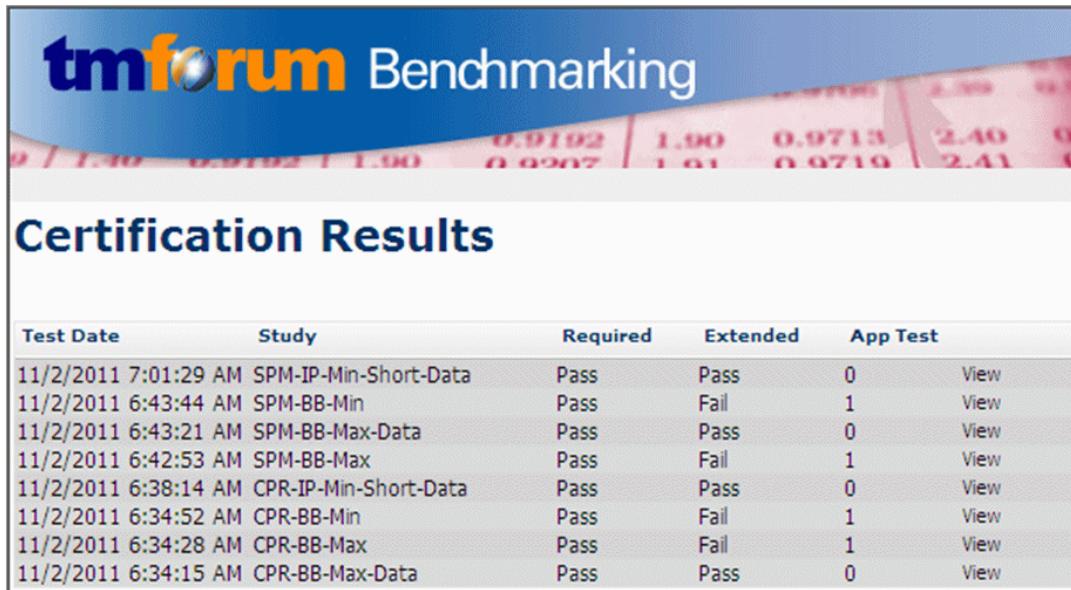
**java -jar BMA\_16.jar <metric group code> BB 1**

**Example** java -jar BMA\_16.jar CPR BB 1, where CPR represents the Customer Problem Resolution metric group and BB means Broadband.

## 6. Check Certification Results in BMA Portal

Access the BMA portal and check the certification results.

A typical certification results screen is as follow:



Test Date	Study	Required	Extended	App Test	View
11/2/2011 7:01:29 AM	SPM-IP-Min-Short-Data	Pass	Pass	0	View
11/2/2011 6:43:44 AM	SPM-BB-Min	Pass	Fail	1	View
11/2/2011 6:43:21 AM	SPM-BB-Max-Data	Pass	Pass	0	View
11/2/2011 6:42:53 AM	SPM-BB-Max	Pass	Fail	1	View
11/2/2011 6:38:14 AM	CPR-IP-Min-Short-Data	Pass	Pass	0	View
11/2/2011 6:34:52 AM	CPR-BB-Min	Pass	Fail	1	View
11/2/2011 6:34:28 AM	CPR-BB-Max	Pass	Fail	1	View
11/2/2011 6:34:15 AM	CPR-BB-Max-Data	Pass	Pass	0	View

The failed tests in the above picture, are due to optional (Extended) Business Metrics not supported by HP Service Manager.

## 7. View the eTOM-Related KPIs in the Dashboard

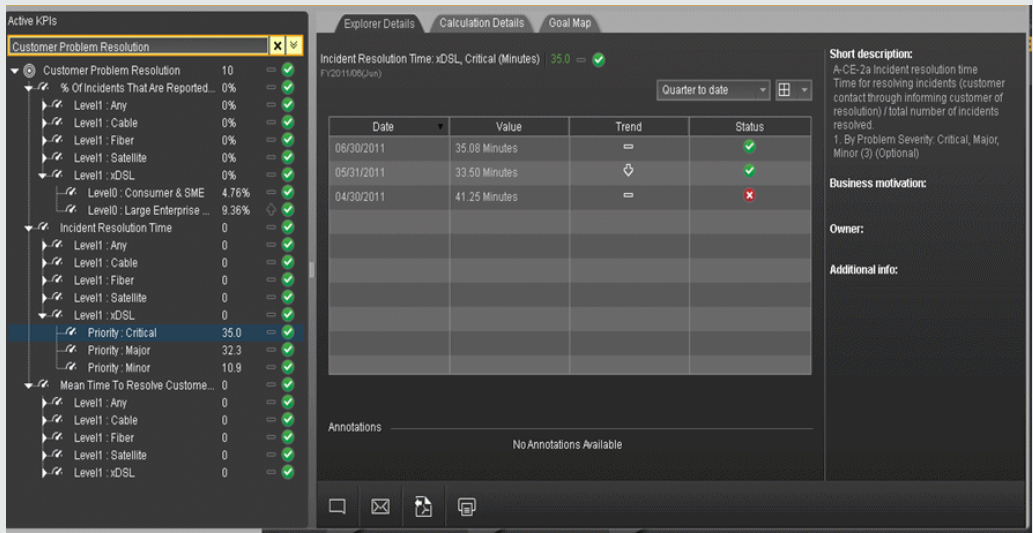
Create a page in Dashboard to display components that include the eTOM-Related KPIs. For details, see [Configure a Page Layout](#).

**Example**



Click the or to display the tooltip of the Objective and click the relevant KPI or KPI Breakdown.

The Explorer tab opens and displays the KPI or KPI Breakdown details:



For details about the Explorer tab, see [View and Analyze Results in the Explorer Page](#)

## eTOM-Related KPIs

### Customer Problems Resolution

The Metric IDs are standard in eTOM.

Metric ID	KPI Name	Description
A-CE-2a	<a href="#">Incident Closure Time KPI</a>	Incident resolution time Time for resolving incidents (customer contact through informing customer of resolution) / total number of incidents resolved.  1. By Problem Severity: Critical, Major, Minor (3) (Optional)
A-CE-2b	<a href="#">Mean Time To Resolve Customer Incident KPI</a>	Mean time to resolve customer incident Time for resolving incidents (customer contact through informing customer of resolution) / total number of incidents resolved.  1. By Customer Segment: Consumer & SME, Large Enterprise & Government (2) (Optional)  2. By Service Component: Voice Services, Data Services (2) (Optional)
A-CE-4a	Metric ID	% of incidents that are reported more than once by the customer Number of incident re-reports / total number of customer reported incidents  1. By Customer Segment: Consumer & SME, Large Enterprise & Government (2) (Optional)
A-CE-4c	<a href="#">% Of Problems Reported By Customers KPI</a>	% of problems reported by customers Total number of problems reported by CUSTOMERS / Total number of problems reported  1. By Problem Severity: Critical, Major, Minor (3) (Optional)
A-OE-3b	<a href="#">% Maintenance Time Used For Repair</a>	% maintenance time used for repair Repair time / Total assurance time (Maintenance + Repair)

### Service Problem Management

The Metric IDs are standard in TM Forum.

Metric ID	KPI Name	Description
A-CE-2c	% Of Problems Resolved By Due Date KPI	% of problems resolved by due date Number of problems resolved to customer satisfaction by committed date / total number of problems occurring during the reporting period
A-CE-4c	% Of Problems Reported By Customers KPI	% of problems reported by customers Total number of problems reported by CUSTOMERS / Total number of problems reported 1. By Problem Severity: Critical, Major, Minor (3) (Optional)
A-OE-2a	Service Problem Resolution Time KPI	Service Problem Resolution Time Aggregate time to resolve SO service problems for Assurance Meta Process Blocks (1-4) inclusive / number of closed problem reports 1. By Problem Severity: Critical, Major, Minor (3) (Optional) 2. By Customer Segment: Consumer & SME, Large Enterprise & Government (2) (Optional)
A-OE-2b	Mean Time To Resolve Service Problems KPI	Mean Time to resolve service problems Time to resolve SO Service Problems by process block (Meta Blocks 1-4) / Number of Service Problems closed within period 1. By META process blocks: resource data collection and processing, service problem management, resource trouble detection/handling, customer QoS/SLA management (4) 2. By Customer Segment: Consumer & SME, Large Enterprise & Government (2) (Optional) 3. By Problem Severity: Critical, Major, Minor (3) (Optional)
A-OE-3a	% of Problems By Cause Type KPI	% problems by cause type Number of problem reports of type X / Total number of problem reports 1. By Cause Type: customer caused, technology caused, workforce caused, data mismatch problems for internal systems, other (5)
A-OE-3b	% Maintenance Time Used For Repair	% maintenance time used for repair Repair time / Total assurance time (Maintenance + Repair)
A-OE-3c	Mean Time Between Failures KPI	Mean time between failures ((Revenue System Size) - (MTTR*number of trouble tickets closed in month)) / number of trouble tickets closed in month
A-OE-6a	NOC FTE Efficiency KPI	NOC FTE Efficiency Total Number of problem reports resolved / Total number of NOC FTEs working on problem resolution



# Localization and Globalization

You can localize and globalize Executive Scorecard. The user interface of HP Executive Scorecard supports multiple languages.

## Tasks

["Localize the Out-of-the-box KPI Library Pane Contents" below](#)

["Localize the Out-of-the-box Dashboard Content \(Pages and Components\)" on the next page](#)

### Localize the Out-of-the-box KPI Library Pane Contents

The localized installation adds the language libraries of XML files in specific folders. You copy and then import these files to display the out-of-the-box template Scorecards, Perspectives, Objectives, Folders, and KPIs in the KPI Library in the selected language.

To localize the out-of-the box content of the KPI Library: Scorecards, Perspectives, Objectives, and KPIs, proceed as follows:

1. In the Executive Scorecard server, locate the `<XS_installation_directory>\agora\glassfish\glassfish\domains\BTOA\config\kpitemplates\import\languages\<language_code>_<country_code>` folder relevant for the language you want to use in the application. The .xml files in the folder represent both KPIs and KPI directories.

The language code and country codes are as follows:

Language	Language Code	Country Code
Brazilian Portuguese	pt	BR
French	fr	FR
Spanish	es	ES
German	de	DE
Japanese	ja	JP
English	en	US
Dutch	nl	NL
Italian	it	IT
Simplified Chinese	zh	CN
Korean	ko	KR
Russian	ru	RU
Turkish	tr	TR

2. Copy these .xml files to the **<XS\_server>\agora\glassfish\glassfish\domains\BTOA\config\kpitemplates\import\load** folder.

**Tip:**

If the folder contains other sets of files (for different languages), it is recommended to keep in the folder only the required set of language files and to move the other files outside the folder to prevent the loading of both set of language files and an unknown result.

3. Import the out-of-the-box language files using the **KPI Loader > importKPIs()** procedure described in "[Migrate Trees, Metrics, and Unassigned KPIs](#)" on page 298 in the *IT Executive Scorecard Administrator Guide*.

## Localize the Out-of-the-box Dashboard Content (Pages and Components)

The localized installation adds the language libraries of XML files in specific folders. You copy and then import these files to display the out-of-the-box template pages and components in the selected language, in the Dashboard.

To localize the out-of-the box pages and components, proceed as follows:

1. **Prerequisite**

You have performed the installation and post-installation procedures or the upgrade to the current version.

2. **Copy the libraries**

- a. In the Executive Scorecard server, locate the **<XS\_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\import\languages\<language\_code>\_<country\_code>** folder relevant to the language you want to install. These .uim.xml files represent the components and the pages used in the Dashboard.

- b. The language code and country codes are as follows:

- **Components\_<lang>\_<country\_code>.uim.xml**
- **Pages\_<lang>\_<country\_code>.uim.xml,**

where **lang** is the language code and **country\_code** is the code of the country:

Language	Language Code	Country Code
Brazilian Portuguese	pt	BR
French	fr	FR

Language	Language Code	Country Code
Spanish	es	ES
German	de	DE
Japanese	ja	JP
English	en	US
Dutch	nl	NL
Italian	it	IT
Simplified Chinese	zh	CN
Korean	ko	KR
Russian	ru	RU
Turkish	tr	TR

- c. Copy these files to the `<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\ui\mashup\import\to\load` folder.

**Tip:**

If the folder contains several sets of files (for different languages), it is recommended to keep in the folder only the required set of language files and to move the other files outside the folder to prevent the loading of both set of language files and an unknown result.

- d. Import the out-of-the-box language files (**only for the pages and components - events are not localized**) using the relevant procedure described in "[Migrate User-defined Pages or Components](#)" on page 301 in the *IT Executive Scorecard Administrator Guide*.

# Enterprise Readiness (ER) Tools

The ER tools provide better manageability and awareness of processes in the system, and enable you to clean problematic entities or all data, as well as re-stream existing data with problematic logic according to batch or specific date. The Restream and CleanData streams are hidden by default. However, they can be managed, as any other stream, in the ETL Management tab.

When you have specific KPI and data problems in Executive Scorecard, or after you run the ETL, check the Target tables for any issues. If you find a problem with specific entities, note the specific batch ID or the specific load date in the Target tables. Depending on the issue, you will need to either clean or restream the data to fix the issues.

## To access the CleanData and Restream streams:

**Admin > ETL Management** and select the **Show Hidden Streams** checkbox.

For ETL stream details, see "[ETL Management](#)" on page 112.

**Section navigation:** ● "[Learn More](#)" below ● "[Tasks](#)" on page 287 ● "[UI Description](#)" on page 288

## Learn More

### CleanData

**Note:** The CleanData stream is an advanced ETL tool. Running the CleanData stream erases all existing data in the Staging tables.

CleanData does not clean historical data in the Target tables.

The DW ABC Streams Management User Interface enables you to clean corrupted data by specific criteria and then reload data from the source by running the Upstream ETL stream.

CleanData is used to enable the data in DWH to be restored to a specific version, as follows:

- CleanData by batch, entity or all entities.
- CleanData by date, entity or all entities.

**Note:** Running the CleanData stream may not recover all existing data.

### Restream

The DW ABC Streams Management User Interface enables you to manage re-streaming the entire ETL loading process. This functionality allows you to re-stream the entire ETL stream from a previous batch to the latest batch, as well as revise incorrect data in the DWH Target.

Restream is used to re-stream the entire ETL loading from a specific batch point to the latest point, as follows:

- Re-stream by batch, entity or all entities.

## Command Line Interface Tool

To run the ER tools in ETL Management you must first use command line batch files to set the stream parameters. The two batch files are found in the DWH/bin folder.

The log information is in **DWH/log/dw\_abc.log**.

The log level can be modified in **DWH/conf/abc-log4j.xml**.

**Note:** The arguments are populated into an ABC table called CONTROL\_ARGS. If there are unexecuted commands in CONTROL\_ARGS, the batch files cannot insert new records into the CONTROL\_ARGS table.

### CleanData Command

#### dw\_abc\_cleandata

`[-batch <batch_id>] [-entity <entity_name>] [-inputdate <input_date_of_batch>] [-display] [-delete] [-help]`

#### Options:

- `-batch`: The batch ID of the point in DWH from which you want the data to be cleaned.

**Example** If the DWH system has 5 batches, and the problem is with batch 2, then it will delete batch numbers 2, 3, 4, and 5.

- `-entity`: The model name of the entity that you want cleaned.
- `-inputdate`: The date of the restore point in DWH from which you want data cleaned.
- `-display`: Display all existing commands.
- `-delete`: Delete the unexecuted commands.
- `-help`: Print the help message.

#### Example

```
dw_abc_cleandata -batch 1 -entity LOCATION
dw_abc_cleandata -batch 1 -entity LOCATION,SERVICE,ORG
dw_abc_cleandata -batch 1 -entity ALL
dw_abc_cleandata -inputdate 2012-09-30 -entity LOCATION,SERVICE,ORG
dw_abc_cleandata -inputdate 2012-09-30 -entity ALL
dw_abc_cleandata -help
dw_abc_cleandata -display
dw_abc_cleandata -delete
```

**Returns:**

- 0 success
- 1 success with warnings
- >1 errors present

**Restream Command:**

**dw\_abc\_restream**

restream. bat [-batch <batch\_id>] [-entity <entity\_name>] [-full <full\_restream>] [-display] [-delete] [-help]

**Options:**

- -batch: The batch ID of the point in DWH from which you want the batch re-streamed.

**Example** If the DWH system has 5 batches, and the problem is with batch 2, then it will re-stream batch numbers 2, 3, 4, and 5.

- -help: Print the help message.
- -entity: The model name of the entity you want re-streamed.
- -full: The flag of the re-stream indicator that allows only re-streaming the error data from the VALF table when it is equal to N, otherwise it re-streams all data.
- -display: Display all existing commands.
- -delete: Delete the unexecuted commands.
- -help: Print the help message.

**Example**

```
dw_abc_restream -batch 1 -entity LOCATION -full Y
dw_abc_restream -batch 1 -entity LOCATION,SERVICE,ORG -full Y
dw_abc_restream -batch 1 -entity ALL -full Y
dw_abc_restream -batch 1 -entity LOCATION -full N
dw_abc_restream -batch 1 -entity LOCATION,SERVICE,ORG -full N
dw_abc_restream -batch 1 -entity ALL -full N
dw_abc_restream -help
dw_abc_restream -display
dw_abc_restream -delete
```

**Returns:**

- 0 success
- 1 success with warnings
- >1 errors present

## Tasks

This section includes:

["Utilize the Restream or CleanData streams" below](#)

["Display hidden streams" below](#)

### Utilize the Restream or CleanData streams



1. Run the following command line batch files found in the DWH/bin folder to set the stream parameters.

```
dw_abc_cleandata
```

```
dw_abc_restream
```

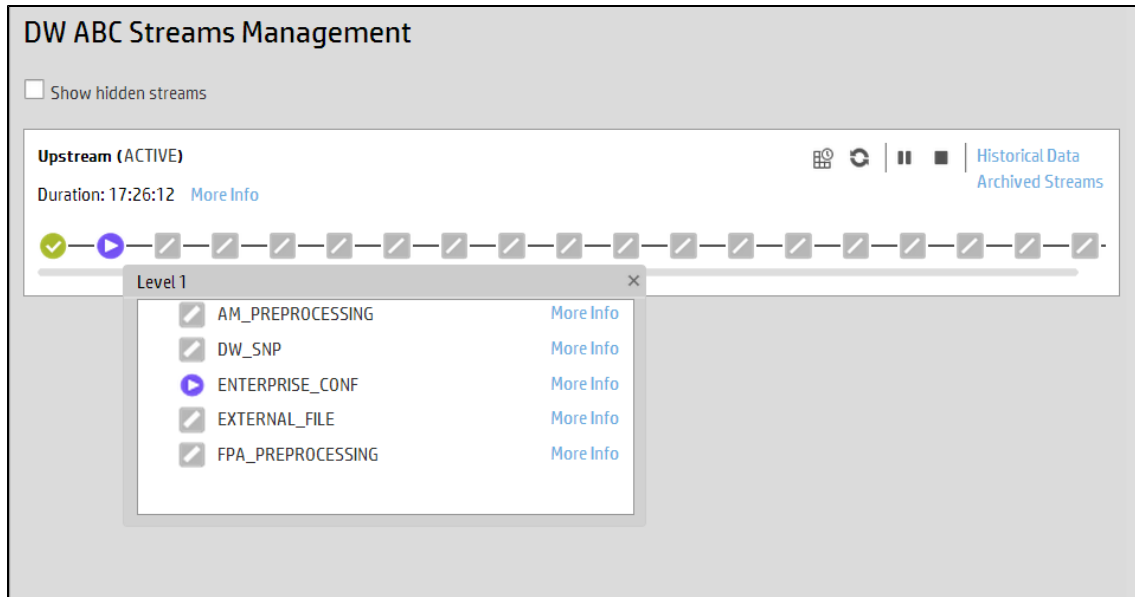
2. After you run the command line batch files, access the ER tools and run the Restream or CleanData streams.

### Display hidden streams

1. Select **Admin > ETL Management** and select **Show Hidden Streams**.
2. The hidden ETL streams are displayed.
3. You can then schedule the batches, as needed.
4. Click  to load and run the batch.
5. Click  to refresh and check the running status of the ETL.
6. Once the ETL is running successfully, re-run the Upstream stream.



For ETL Management details, see [" ETL Management " on page 112](#).

## UI Description
































### <Stream Display>

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets>):

UI Element	Description
<Stream Information>	Displays the following stream details: <ul style="list-style-type: none"> <li>• Stream Name</li> <li>• Status: Active or Suspended or None</li> <li>• Duration</li> <li>• Date</li> </ul>
Show Hidden Streams	Click to display the hidden ETL streams.
	Refreshes the stream information. There is an automatic refresh of the stream information every two minutes.
More Info	Opens the Stream Details dialog box. For details, see " <a href="#">Enterprise Readiness (ER) Tools</a> " on page 284
	<b>Load Batch/Resume.</b> Starts or resumes the running of the specific batch of ETL stream.



UI Element	Description															
	<p>Opens the Stream Scheduler dialog box. Enables you to schedule the load batch and run_steps commands. For details, see <a href="#">"Enterprise Readiness (ER) Tools" on page 284</a>.</p>															
	<p><b>Suspend Stream.</b> Temporarily suspends the stream.</p>															
	<p><b>Abort Stream.</b> Stops the stream that is running.</p>															
<p><b>&lt;Node Display&gt;</b></p>	<p>Displays the nodes representing the groups of steps within one level of execution of an ETL run, the steps that can run in parallel. A node is a collection of steps that all run in parallel. The icon for each node represents the worst status of all of the steps in the node.</p> <p> Indicates that the particular step or all steps in the node have finished successfully in the execution.</p> <p> Indicates that a step or a step in the node is currently running</p> <p> Indicates an error in one of the steps. The step is automatically retried four times by default.</p> <p>Click the Error node to display the Node Step List in order to retry steps. Click  to retry the step.</p> <p> Indicates a warning in one of the steps.</p> <p>Click a node to open the Node Step list.</p> <div style="border: 1px solid gray; padding: 5px;"> <p>Level 1 <span style="float: right;">x</span></p> <table border="0"> <tr> <td></td> <td>DW_SNP</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> <tr> <td></td> <td>ENTERPRISE_CONF</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> <tr> <td></td> <td> EXTERNAL_FILE</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> <tr> <td></td> <td>PPM_PREPROCESSING</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> <tr> <td></td> <td> PPM_SOURCE_EXTRACT_INSTANCE_1</td> <td style="text-align: right;"><a href="#">More Info</a></td> </tr> </table> </div> <p>If there is an error in any of the steps, then all steps in the execution of the stream are stopped. In order to move to the next node, the error must be resolved.</p> <p>Click <b>More Info</b> to display the Step Details dialog box pertaining to the particular step. For details, see <a href="#">"Enterprise Readiness (ER) Tools" on page 284</a>.</p>		DW_SNP	<a href="#">More Info</a>		ENTERPRISE_CONF	<a href="#">More Info</a>		 EXTERNAL_FILE	<a href="#">More Info</a>		PPM_PREPROCESSING	<a href="#">More Info</a>		 PPM_SOURCE_EXTRACT_INSTANCE_1	<a href="#">More Info</a>
	DW_SNP	<a href="#">More Info</a>														
	ENTERPRISE_CONF	<a href="#">More Info</a>														
	 EXTERNAL_FILE	<a href="#">More Info</a>														
	PPM_PREPROCESSING	<a href="#">More Info</a>														
	 PPM_SOURCE_EXTRACT_INSTANCE_1	<a href="#">More Info</a>														

For more details on managing ETL streams, see [" ETL Management " on page 112](#).

# Migrate from Development or Test Environment to Production

This section lists the tasks involved in moving from a Development or Test environment to a Production environment.

This section includes:

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# Change Data Sources

If you changed one or more of the data sources (for example moving from one version of a data source to a higher version of the data source in the Development or Testing environment, you must modify the data source settings in the Data Source Management page in the Production environment. Click **Admin > Data Source Management** and make your changes.

For details, see ["Data Source Management" on page 95](#) .

# Restore from Backup

To restore your system from backup follow the backup instructions. For details, see ["Executive Scorecard Back Up" on page 317](#).

# Migrate the Data Services


SAP BusinessObjects Data Services is the access mechanism that performs the physical data extraction from the source repository to the staging database. Each stage of the ETL is embodied in a Data Services job, from the extraction of source data to the target database.

To migrate the Data Services from the Development/Testing environment to the Production environment:

1. In the Development/Testing environment, export the Data Services files using the **dw\_etl\_export** command. For details, see ["dw\\_etl\\_export" on page 384](#).
2. In the Production environment, import the Data Services files you exported, using the **dw\_etl\_import** command. For details, see ["dw\\_etl\\_import" on page 385](#).

# Activate the Data Sources

In the Production server, activate the relevant data sources:

1. Select **Admin > Data Source Management**.
2. The Data Sources page opens. Click the **Activate**  button for the relevant data source.

# Run the ETLs to Pull Data from the Data Sources

In the Production server, run the relevant ETLs to pull data from the data sources.

For details, see "[ETL Management](#)" on page 112.

# Migrate contexts

To migrate the contexts, proceed as follows:

1. **Prerequisite:** Make sure your schemas are the same in the Development or Testing environment and in the Production environment.
2. Create a CAP that only includes the contexts you created or modified in the Development or Testing environments. For details, see ["Create a CAP with the Executive Scorecard application data" on page 246](#).

**Note:** You can migrate Contexts, trees, KPIs, Metrics, user-defined pages, or components using one CAP per type of item or one CAP for all the items you want to export/import/migrate.

**Note:** You can select to perform a recalculation during the CAP activation by specifying a recalculation date when you create the CAP. You can also perform the calculation after all the items are migrated. For details, see ["Perform the calculation" on page 304](#).

3. Export the CAP you created. For details, see ["Download a CAP to the user's local system" on page 237](#).
4. Copy the CAP you downloaded from the Development or Testing environment to the Production server or from the user's local system to the system where you want to import the item.
5. Upload the CAP to the Production server. For details, see ["Upload a CAP to the Executive Scorecard application" on page 234](#).
6. Activate the CAP in **Admin > Content Acceleration Pack**. For details, see ["Activate a CAP" on page 235](#).
7. Verify the upload by accessing the contexts in **Admin > Semantic Layer**. For details, see ["Semantic Layer - Context Designer" on page 170](#).

**Note:** If the context you import already exists in the Production environment, it is deleted and replaced by the context imported using the CAP.



# Migrate Data Imported using .CSV files

To migrate data imported into Executive Scorecard using .CSV files, proceed as follows:

1. Create a CAP that only includes the contexts used to import the .CSV files you created or modified in the Development or Testing environments. For details, see ["Create a CAP with the Executive Scorecard application data" on page 246](#).

**Note:** You can migrate Contexts, trees, KPIs, Metrics, user-defined pages, or components using one CAP per type of item or one CAP for all the items you want to export/import/migrate.

**Note:** You can select to perform a recalculation during the CAP activation by specifying a recalculation date when you create the CAP. You can also perform the calculation after all the items are migrated. For details, see ["Perform the calculation" on page 304](#).

2. Export the CAP you created. For details, see ["Download a CAP to the user's local system" on page 237](#).
3. Copy the CAP you downloaded from the Development or Testing environment to the Production server or from the user's local system to the system where you want to import the item..
4. Upload the CAP to the Production server. For details, see ["Upload a CAP to the Executive Scorecard application" on page 234](#).
5. Activate the CAP in **Admin > Content Acceleration Pack**. For details, see ["Activate a CAP" on page 235](#).
6. Verify the upload by accessing the contexts in **Admin > Semantic Layer**. For details, see ["Semantic Layer - Context Designer" on page 170](#).
7. Reimport the data by accessing the relevant context in **Admin > Semantic Layer**. For details, see ["Semantic Layer - Context Designer" on page 170](#).
8. Perform the calculation for the relevant contexts in the Studio. For details, see [Calculate Displayed Values after Configuration Change](#) in the *IT Executive Scorecard Business Analyst Guide*.

**Note:** If the context you import already exists in the Production environment, it is deleted and replaced by the context imported using the CAP.

# Migrate Trees, Metrics, and Unassigned KPIs

You can export complete trees (with their Scorecards, Perspectives, Objectives, and KPIs) from the Active KPIs pane.

You can import existing template trees or sub-trees, active trees, active sub-trees, Metrics, or Unassigned KPIs into the Active KPIs pane.

The import or export flows are meant to be used when moving from staging to production and not as a way to update system configuration. If you want to use the import or export flows to update the system configuration, you must delete all the nodes in the active KPIs pane, before performing the import operation.

The export and import flows are also meant to be used for localization purposes, when you want to work with other languages than English.

## Learn More

### About Exporting or Importing Trees

You use the export or import feature when you want to import or export out-of-the-box templates, automatically update existing templates, or import new templates, or active trees into the Executive Studio.

The export and import feature is the process used to move from staging environment to production.

The export feature collects the contents of the Active KPIs tree (Scorecards, Perspectives, Objectives, KPIs, Metrics, and Unassigned KPIs). It converts the contents to a **configuration.xml** file that describes the structure of the active tree or to a **<Scorecard\_name>.xml** file for each Scorecard. These files include the UUID, KPI name of the KPIs, and Metrics name of the Metrics included in the trees. In addition, the process creates a **<kpi\_or\_metric\_name>.xml** file per KPI or Metric in the system; that file describes the configuration of the KPI or Metric. The XML files are created in a specific directory on the machine.

The import feature collects the content of a specific directory on the machine. The directory can include **configuration.xml** files, and **<kpi\_or\_metric\_name>.xml** files according to the same format used by the export feature or can include .xml files with other names. The import feature uses these files to upload the information in the specific area in the Active KPIs tree.

The export and import operations work with XML files with a specific structure. Each **configuration.xml** file includes information about the hierarchy from the lowest node to the tree root. That information is used to add the new node is added to the relevant location in the relevant tree, or the imported node overrides the relevant node. Each **<KPI\_or\_Metric\_name>.xml** file includes information about the KPI or Metric configuration. That information is used so that the relevant configuration and calculation details are added to the relevant KPI or Metric.

The export operation uses the KPI or Metric UUID to identify the KPI or the Metric.

In addition, you can import KPIs from Excel files. You can use this capability to import KPIs without consideration about their location in the tree. You can also create an .xml file that provides information about a tree structure and that refers to KPIs that are imported from the Excel file. The import feature uses these files to upload the information in the specific area in the Active KPIs tree.

**Note:** When the server on which the Executive Studio is located starts, if the system detects files in the  
<XS\_server>\agora\glassfish\glassfish\domains\Config\KPI Template\ Import directory, it automatically uploads that information. This feature is used when you log on to the Executive Studio for the first time, to upload the out-of-the-box templates.

## Tasks

This section includes:

["Migrate Scorecards, Perspectives, Objectives, Metrics, and KPIs" below](#)

["Export nodes using CAPs" below](#)

["Import nodes using CAPs" on the next page](#)

### Migrate Scorecards, Perspectives, Objectives, Metrics, and KPIs

Export complete trees (with their Scorecards, Perspectives, Objectives, and KPIs), Metrics, or Unassigned KPIs from the Active KPIs pane of the Development/Test environment. For details, see ["Export nodes using CAPs" below](#).

Import these template trees or sub-trees, active trees, active sub-trees, Metrics or Unassigned KPIs into the Active KPIs pane of the Production environment. For details, see ["Import nodes using CAPs" on the next page](#).

### Export nodes using CAPs

To export nodes and hierarchical structure (trees and their Scorecards, Perspectives, Objectives, and KPIs, Unassigned KPIs or Metrics), proceed as follows:

1. Create a CAP that only includes the items you want to export. For details, see ["Create a CAP with the Executive Scorecard application data" on page 246](#).

**Note:** You can migrate Contexts, trees, KPIs, Metrics, user-defined pages, or components using one CAP per type of item or one CAP for all the items you want to export/import/migrate.

**Note:** You can select to perform a recalculation during the CAP activation by specifying a recalculation date when you create the CAP.  
You can also perform the calculation after all the items are migrated. For details, see ["Perform the calculation" on page 304](#).

2. Export the CAP you created to the user local system. For details, see ["Download a CAP to the user's local system" on page 237](#).

You can now copy the CAP to the another server (for example to the Production server) and then import it into the application. For details, see ["Import nodes using CAPs" below](#).

**Note:** You can also export nodes using a legacy JMX-based procedure. For details, see ["Export or Import Trees and KPIs" on page 336](#).

## Import nodes using CAPs

To import nodes, proceed as follows:

1. Copy the relevant CAP from the Development or Testing environment to the Production server or from the user's local system to the system where you want to import the item.
2. Upload the CAP to the application. For details, see ["Upload a CAP to the Executive Scorecard application" on page 234](#).
3. Activate the CAP in **Admin > Semantic Layer**. For details, see ["Activate a CAP" on page 235](#).
4. Verify the upload by accessing Studio and checking that all the items you wanted to import appear in the Active KPIs.

**Note:** You can also import nodes using a legacy JMX-based procedure. For details, see ["Export or Import Trees and KPIs" on page 336](#).

# Migrate User-defined Pages or Components

You can export or import user-defined pages and components from or into the Dashboard page.

You use the import or export flows for localization purposes (when you want to work with other languages than English) or when moving from staging to production and not as a way to update system configuration.

## Note:

- You migrate user-defined pages and components using Content Acceleration Packs (CAPs). For details, see ["Migrate user-defined Dashboard pages and components" on the next page](#).
- If you need to migrate out-of-the-box, pages, components, and events you must use the legacy JMX procedures. For details, see ["Export or Import Out-of-the-box Pages, Components, and Events" on page 332](#).

Section navigation: ● ["Learn More" below](#) ● ["Tasks" below](#)

## Learn More

### About importing or exporting user-defined Pages and Components

Pages are available or created in the Dashboard. Pages can include components. Components in a page can be wired and can interact with each other using events. For details, about the Dashboard, see [Dashboard Display](#) in the *IT Executive Scorecard Business Analyst Guide*.

The export operation collects the contents of user-defined pages and components. It converts the contents to **components.uim.xml**, and **pages.uim.xml** files that describes the structure and content of the pages and components . These files include the universally unique identifier (UUID) of the pages and components.

The export operation uses the page and component UUID to identify the page or component .

The import operation collects the contents of a specific directory on the machine. The directory can include **components.uim.xml** and **pages.uim.xml** files according to the same format used by the export feature. The import feature uses these files to upload the information into the database. After the import operation, the file is moved to the **Loaded** directory if the import operation succeeds, or to the **Errors** directory if the import operation fails.

**Note:** When the server on which the Dashboard is located starts and detects files in the `<XS_server>\agora\glassfish\glassfish\domains\BTOA\uimashup\import\toload` directory, it automatically uploads that information.

## Tasks

This section includes:

["Migrate user-defined Dashboard pages and components" below](#)

["Export user-defined pages and components using CAPs" below](#)

["Import user-defined pages and components using CAPs" below](#)

## Migrate user-defined Dashboard pages and components

1. Export user-defined pages and components from the Dashboard page of the Development/Test environment. For details, see ["Export user-defined pages and components using CAPs" below](#).
2. Import these user-defined pages and components into the Dashboard page of the Production environment. For details, see ["Import user-defined pages and components using CAPs" below](#).

## Export user-defined pages and components using CAPs

To export user-defined pages and components , proceed as follows:

1. Create a CAP that only includes the user-defined pages and components you want to export. For details, see ["Create a CAP with the Executive Scorecard application data" on page 246](#).

**Note:** You can migrate Contexts, trees, KPIs, Metrics, user-defined pages, or components using one CAP per type of item or one CAP for all the items you want to export/import/migrate.

**Note:** You can select to perform a recalculation during the CAP activation by specifying a recalculation date when you create the CAP. You can also perform the calculation after all the items are migrated. For details, see ["Perform the calculation" on page 304](#).

2. Export the CAP you created to the user local system or to the Production server. For details, see ["Download a CAP to the user's local system" on page 237](#).

You can now copy the CAP to the another server (for example to the Production server) and then import it into the application. For details, see ["Import user-defined pages and components using CAPs" below](#).

**Note:** You can also export user-defined pages and components using a legacy JMX-based procedure. For details, see ["Export or Import Out-of-the-box Pages, Components, and Events" on page 332](#).

## Import user-defined pages and components using CAPs

To import user-defined pages and components , proceed as follows:

1. Copy the relevant CAP from the Development or Test server to the Production server or from the user local system to the server where you want to import the items.

2. Upload the CAP to the application. For details, see ["Upload a CAP to the Executive Scorecard application" on page 234](#).
3. Activate the CAP in **Admin > Semantic Layer**. For details, see ["Activate a CAP" on page 235](#).
4. Verify the upload by accessing the Dashboard and checking that all the user-defined pages and components that you wanted to import appear in the Dashboard.

**Note:** You can also import user-defined pages and components using a legacy JMX-based procedure. For details, see ["Export or Import Out-of-the-box Pages, Components, and Events" on page 332](#).

# Perform the calculation



In the Production server, perform the calculation to populate the KPIs, Objectives, Perspectives, Scorecards, and Dashboard pages with data.

**Note:** You can select to perform a recalculation during the CAP activation by specifying a recalculation date when you create the CAP.  
You can also perform the calculation after all the items are migrated. For details, see ["Perform the calculation" above](#).

## Calculate for the current period

When you change the definition of a KPI (formula or threshold), the change impacts the KPI's value and impacts the Objectives related to the KPI. You may want to perform the calculation for each KPI in the selected business context for the period specified in the KPI configuration, so the impact of the change is felt immediately in the results displayed in the Dashboard.

To calculate the current data:

1. In the Active KPIs pane, click the **Calculation options**  button in the Active KPIs toolbar, and select the  **Calculate now** option.
2. In the Calculate Now dialog box that opens:
  - In **Universe/context for recalculation**, select the relevant context (data source) you want to use for the recalculation.
  - Select the **I understand the implications of this process and would like to proceed with the calculation** option to proceed with the calculation.

**Limitations:** You perform the calculation for the current period of each KPI within the selected business context.

3. Click **Calculate**.
4. Select the **I understand the implications of this process and would like to proceed with the calculation** option to proceed with the calculation.

The calculation is performed for all KPIs and Objectives with the selected context (universe).

### Note:

- The calculation deletes the data that was available for the same period as the period selected for the calculation.
- No backup is available.



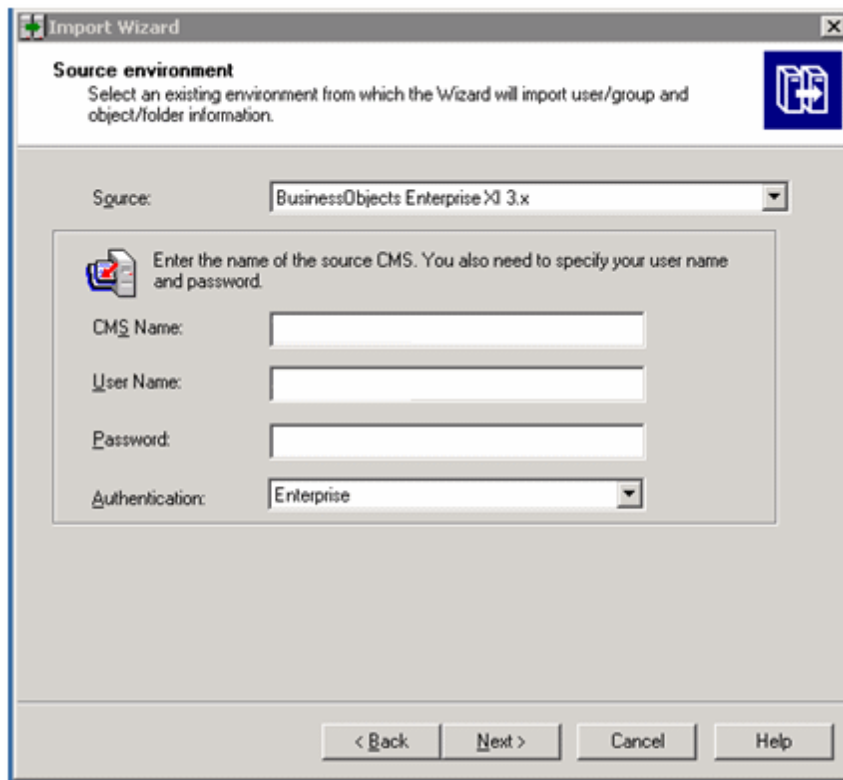
For details, see [Calculate Displayed Values after Configuration Change](#) in the *IT Executive Scorecard Business Analyst Guide*.

# Migrate the SAP BusinessObjects Enterprise reports and BIAR files


You export the relevant BIAR files from the Development/Test environment, and then import it in the Production environment.

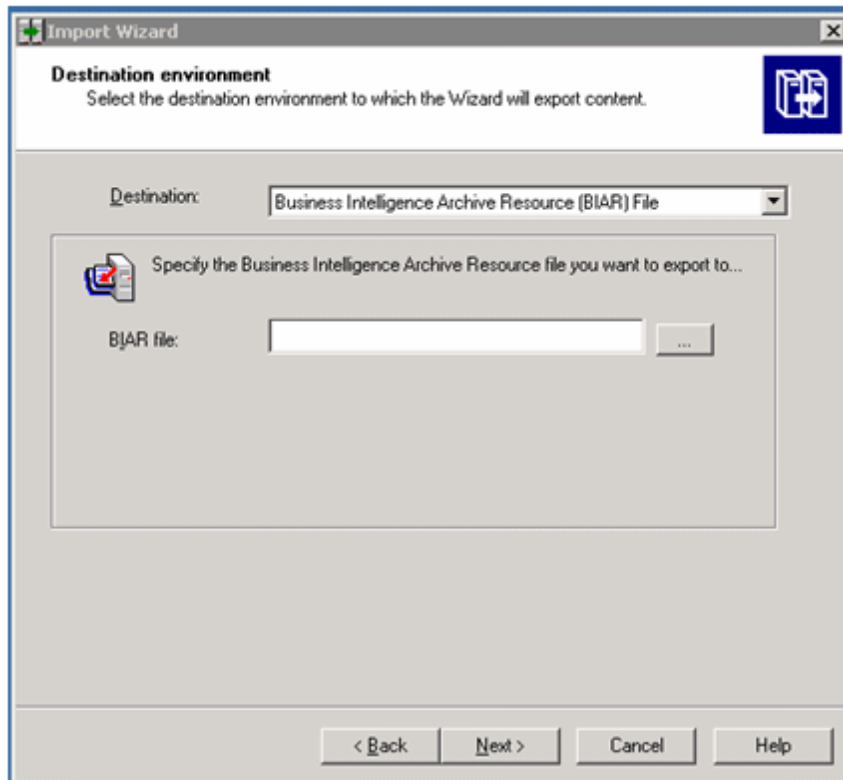
## 1. Export BOE data to BIAR file

- a. Open **Import Wizard** under BusinessObjects 3.1 of the Development/Test environment. Click **Next**.
- b. The **Source environment** page of the Import Wizard opens. Select your BOE source and enter the CMS Name, User Name and Password. Click **Next**.

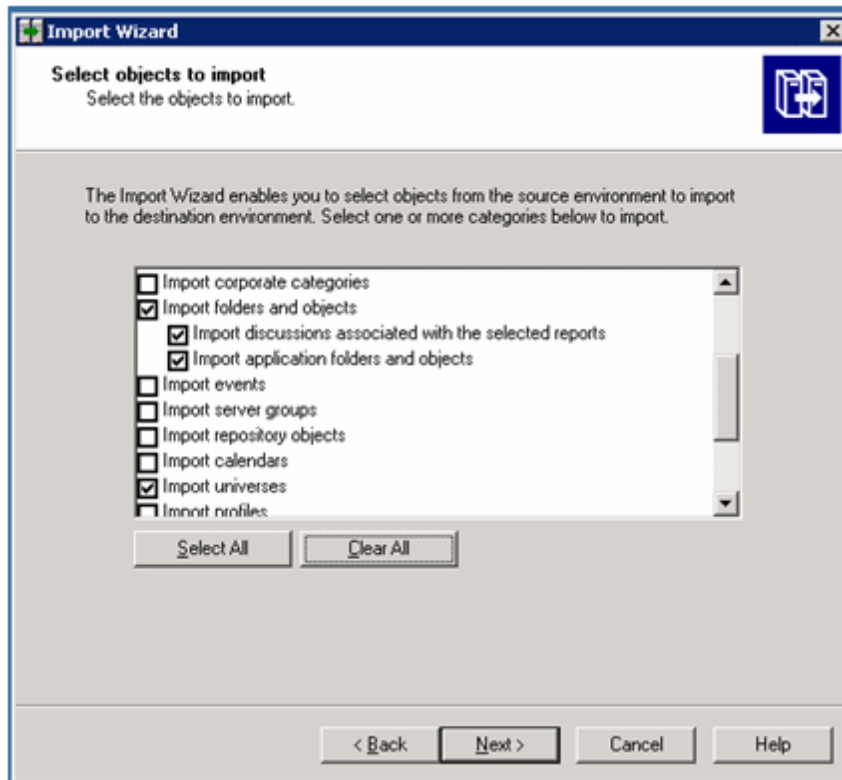


The screenshot shows the 'Import Wizard' dialog box, specifically the 'Source environment' page. The title bar reads 'Import Wizard'. Below the title bar, the text says 'Source environment' and 'Select an existing environment from which the Wizard will import user/group and object/folder information.' There is a blue icon with a plus sign in the top right corner. The 'Source:' dropdown menu is set to 'BusinessObjects Enterprise XI 3.x'. Below this, there is a section with a document icon and the text 'Enter the name of the source CMS. You also need to specify your user name and password.' This section contains four input fields: 'CMS Name', 'User Name', 'Password', and 'Authentication'. The 'Authentication' dropdown menu is set to 'Enterprise'. At the bottom of the dialog, there are four buttons: '< Back', 'Next >', 'Cancel', and 'Help'.

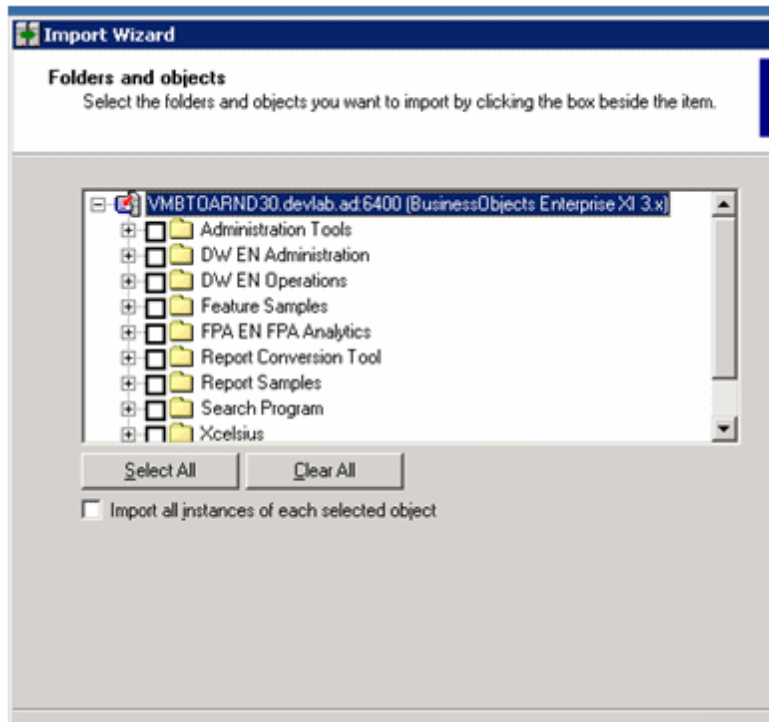
- c. The **Destination environment** page opens. Select the relevant BIAR file option from the **Destination** list. Click  and select the file name and location of the BIAR file. Click **Next**.



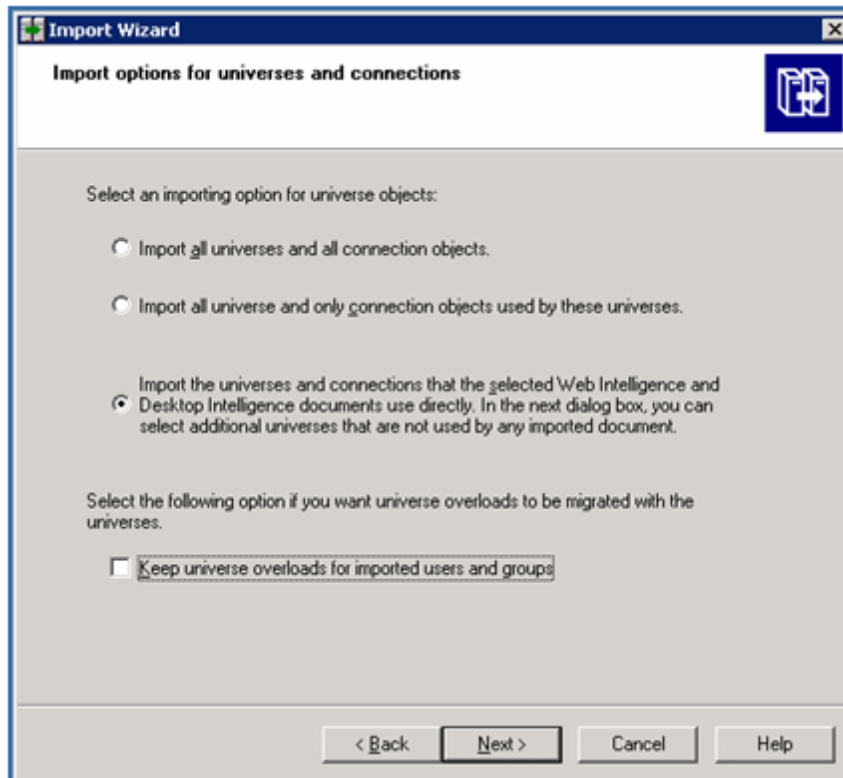
- d. The **Select objects to import** page opens. Click **Clear All** and select the options as shown below:



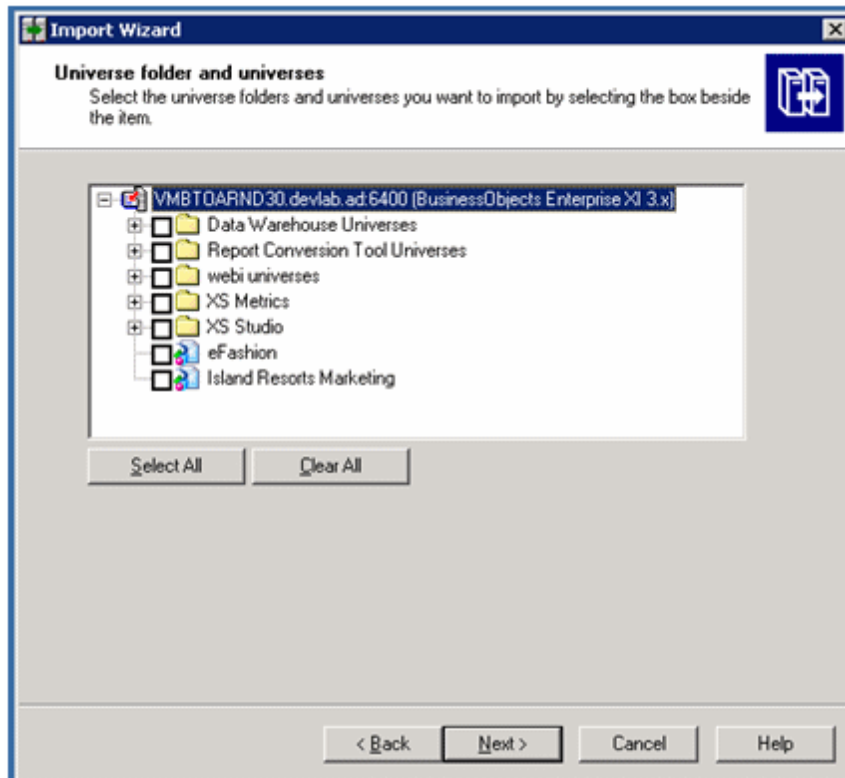
- e. Click **Next** until the **Folders and objects** page opens and check the relevant folders and object:



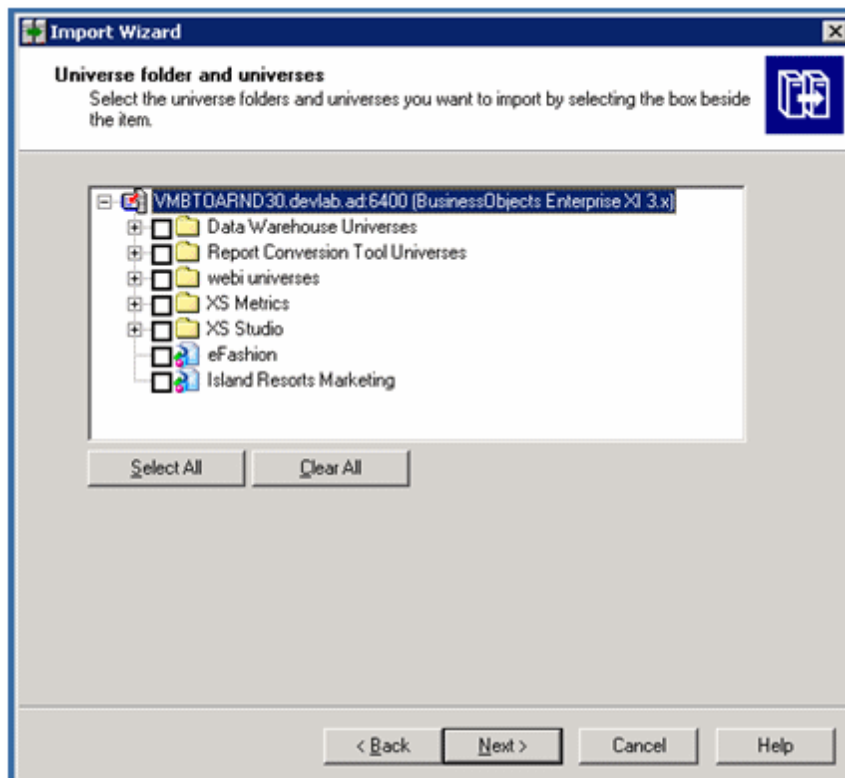
- f. Click **Next** until the **Import options for universes and connections** page opens and select the 3rd option:



- g. Click **Next** until the **Universes folder and universes** page opens and select the relevant universes (universes related to objects selected before are automatically checked):



- h. Click **Next** until the **Ready to import** page opens, where you can see what is included in the BIAR file and if the content is OK, click **Finish**.



- i. The creation of the file begins. When it is completed, click **Done** or **View detail log** to see the list of objects that were not transferred and the reason why, and then click **Done**.

## 2. Import data from BIAR file to BOE system

In the BusinessObjects 3.1 of the Production environment proceed as above but with the source being the BIAR file and the destination being the existing BOE installation.



# Data Warehouse Back Up

It is critical that you backup Data Warehouse so that you can rebuild your Data Warehouse infrastructure and content in disaster scenarios such as the following:

- In a total disaster recovery scenario.
- The RDBMS server failed but all Executive Scorecard component servers are fully functioning.
- When the Data Warehouse server failed, but the RDBMS server and its databases are intact.
- When a Data Warehouse database is corrupt.
- When an ETL is deleted.
- When an ETL job fails.

This section includes:

- ["What to Back Up" below](#)
- ["General Backup Guidelines" on the next page](#)
- ["Files to Back Up" on page 315](#)

## What to Back Up

It is strongly recommended that you back up the following resources that may be used if one of the above scenarios occurs.

1. Microsoft SQL Server 2008 enterprise SP2 databases
  - a. Target database
  - b. SAP BusinessObjects Data Services database
  - c. SAP BusinessObjects CMS database, and if necessary the Audit database.
  - d. Management database
  - e. Executive Scorecard database

**Note:** The host and database names can be found in the Management database configured in the Executive Scorecard Configuration wizard.

2. Staging database
3. It is highly recommended that you keep the passwords for the Staging, Target and SAP

BusinessObjects Data Services database logon users in a safe place for usage in disaster recovery situations.

4. External source files that can be found in the external source file location configured in the Executive Scorecard Configuration wizard.
  - a. If the default external source file location was configured in the wizard, the Content Pack flat files created during the ETL process can be found in:  
**<Installation Directory>\agora\DataWarehouse\ExternalSources\<Content pack name>**

**Example** The BSM content pack flat file would therefore located in the following directory:  
**<Installation Directory>\agora\DataWarehouse\ExternalSources\BSM**

5. Data Warehouse Configuration files.

## General Backup Guidelines

It is recommended that you use the following backup and restore guidelines:

- A best practice for data warehouse administrators is to back up critical data on a regular basis.
- Database backups should consist of a weekly full database backups, and daily differential backups.
- Backups should be periodically verified by restoring a copy onto a test system.
- External source files and Data Warehouse configuration files should be backed up as required.
- Although out of scope for this document, regular backups should be taken of all source databases.
- Start scheduled backups before running the daily ETLs.
- Use backup compression.
- Perform full backups in off-peak times.

## Maintain the External Source Directory

In the <ExternalSource> directory , there are folders that contain extracted data from each data source.

This data is infinitely accumulated and is never cleaned by the Data Warehouse. You are required to periodically backup and remove old files from those folders in order to free disk space if available disk space is low on the Data Warehouse platform machine.

## Reference

### Files to Back Up

The contents of the following directories and their sub-directories should be included in the backup schedules:

Directory Name	Backup Frequency	Description of files
<Installation Directory>\Agora\DataWarehouse\<ExternalSourceslocation>	Daily	.xls, and the ETL flat files
<Installation Directory>\Agora\DataWarehouse\Conf	When configuration changes are made	Configuration files
<Installation Directory>\Agora\DataWarehouse\etc	After the installation, and when configuration changes are made.  When you recover from a Data Warehouse server failure, it is important that this directory and it's sub-directories are restored.	Configuration files
<Installation Directory>\Agora\DataWarehouse\log	Daily	Log files

<Installation Directory>\Agora\ContentPacks	Before activating or deactivating a content pack in the Executive Scorecard Admin application, or when changes are made to content packs	Content pack configuration files
<Installation Directory>\Agora\DataWarehouse\etc\ABC		

# Executive Scorecard Back Up

It is critical that you backup your databases, configuration files, logs and configuration settings so that you can rebuild your IT Executive Scorecard solution and content in circumstances such as the following:

- When you need to recover from a total disaster recovery scenario.
- The RDBMS server failed but all HP Executive Scorecard component servers are fully functioning.
- When a database is corrupted.
- When a component server fails, but the RDBMS server and it's databases are intact.

The section includes the following topics:

- ["What to Back Up" below](#)
- ["General Backup Guidelines" on the next page](#)

## What to Back Up

HP recommends that you back up the following resources that may be used when one of the above scenarios occurs.

1. Microsoft SQL Server 2008 enterprise SP2 databases
  - a. Staging database
  - b. Target database
  - c. SAP BusinessObjects Data Services database
  - d. SAP BusinessObjects CMS database, and if necessary the Audit database.
  - e. Management database
  - f. Executive Scorecard database

**Note:** The host and database names can be found in the Management database configured in the Executive Scorecard Configuration wizard.

2. Data Warehouse Configuration files. For more information, see ["Data Warehouse Back Up" on page 313](#).
3. SAP BusinessObject Enterprise configuration. This can be backed up with the BusinessObjects Enterprise XI 3.1 Import Wizard. For more information, see Chapter 7 of the BusinessObjects Enterprise XI 3.1 Import Wizard Guide at

[http://help.sap.com/businessobject/product\\_guides/boexir31/en/xi3-1\\_bip\\_importwiz\\_en.pdf](http://help.sap.com/businessobject/product_guides/boexir31/en/xi3-1_bip_importwiz_en.pdf).

4. It is highly recommended that you keep the passwords for the Staging, Target and SAP BusinessObjects Data Services databases in a safe place for usage in disaster recovery situations.
5. Back up **<agora>\dat\Version.txt** (you may need to restore it later).

## General Backup Guidelines

It is recommended that you use the following backup and restore guidelines:

- Your database administrator should back up critical data and configuration settings on a regular basis.
- Database backups should consist of a weekly full database backups, and daily differential backups.
- Backups should be periodically verified by restoring a copy onto a test system.
- External source files and Data Warehouse configuration files should be backed up as required.
- Although out of scope for this document, regular backups should be taken of all source file databases.
- Start scheduled backups before running the daily ETLs.
- Use backup compression.
- Perform full backups in off-peak times.

# Disaster and Recovery

The HP IT Executive Scorecard, Data Warehouse, or SAP BusinessObjects Data Services servers have become unusable, for example the hard disk has crashed. The following procedure describes how to recover the XS, DWH, and Database servers.

When you start the recovery process, you must have complete backups of the relevant databases, configuration files and settings that are readily available. It is possible that you will lose history data. For details about the backups, see ["Executive Scorecard Back Up" on page 317](#) and ["Data Warehouse Back Up" on page 313](#).

The following scenarios are independent from the external data sources and entities. Recovering from a scenario means that the component returns to a stable state.

## About the recovery procedure

This section is a reference for the HP IT Executive Scorecard recovery process. The recovery process for your environment may vary according to your business needs and may require customization. Verify that the following processes are consistent with your architecture and environment before you proceed with real data.

## Recovery for BOE server failure when BO was not installed using XS and the configuration is distributed

To recover from a major SAP BusinessObjects Enterprise server failure where SAP BusinessObjects Enterprise was not installed using Executive Scorecard, follow the instructions in the SAP BusinessObjects Enterprise Disaster Recovery documentation.

## Recovery for a DWH server failure when the configuration is distributed

The following procedure describes how to recover from a DWH server failure in a distributed configuration.

1. Back up the external sources directory contents and the external sources archive directory from the disaster DWH machine.
2. **On a clean machine where you want to install a new DWH server in a distributed environment:**
  - a. Run the XS 9.40 installer.
  - b. When the post-install wizard pops up, restore the external sources directory contents and

the external sources archive directory that were backed up prior to the disaster.

- c. Run the following SQL statement:  
**USE <Mng\_Db\_Name>**  
**delete dbo.SETTINGS\_MANAGEMENT**  
where NAME = 'dwh.is.installed' or NAME = ' fnd.dbverify.done'
  - d. Run the following SQL statement  
**USE <Mng\_Db\_Name>**  
**UPDATE [dbo].[SYS\_VER] SET [MN] = 40**  
**truncate table [dbo].[DB\_UPGRADE]**
  - e. Activate the post-install wizard:
    - i. In the **Management Database - Configure Management Database Settings** page, connect to your existing Configure Central Management (CCM) database.
    - ii. In the **SAP BusinessObjects Enterprise Configure Central Management Server (CMS) Database** page, if displayed, select what you did in the original installation procedure.
    - iii. In the **Configure Target DatabaseSettings** page, if displayed, choose to use the existing target database.
    - iv. In the **Data Warehouse - Define Staging Database Logins** page, provide the original logons.
    - v. In the **Data Warehouse - Define Target Database Login** page, provide the original logons.
    - vi. When the post-install wizard is successfully completed, click **Finish**.
    - vii. Run the XS 9.41 installer and 9.41 post-install configure wizard.
    - viii. Activate all CPs that were activated before the disaster
    - ix. For each CP activated before the disaster, execute:  
**dw\_ds\_automation.bat -task Activate -cp <Content\_Pack\_Name>**.
3. **On the old XS App server, reconfigure the URLs for the data source management (DSM) page and ETL management page as follows:**
- a. Disable Executive Scorecard.
  - b. Open  
**<agora>\agora\glassfish\glassfish\domains\BTOA\config\appFW\applications.**
  - c. Edit the **dwh.xml** file:



- d. For the DSM page, change:  
**https://[OLD DWH server: port]/dw-web/DataSourceManagement.jsp**  
to  
**https://[NEW DWH server: port]/dw-web/DataSourceManagement.jsp**
  - e. For ETL management page, change:  
**https://[OLD DWH server: port]/dw-abc-web/abc.jsp**  
to  
**https://[NEW DWH server: port]/dw-abc-web/abc.jsp**
  - f. Open **<agora>\glassfish\glassfish\domains\BTOA** and delete the **generated** and **osgi-cache** folders if they exist.
  - g. Open **<agora>\glassfish\glassfish\brokers** and delete the **instances** folder if it exists.
  - h. Enable HP Executive Scorecard.
4. Continue to run your ETLs on the new DWH server.

## Recovery from a XS server failure when the configuration is distributed

The following procedure describes how to recover from an XS server failure in a distributed configuration.

1. **On a clean machine where you want to install a new XS server in a distributed environment:**
  - a. Run the XS 9.40 installer.
  - b. When the post-install wizard pops up, run the following SQL statement:  
**USE <Mng\_Db\_Name>**  
**delete dbo.SETTINGS\_MANAGEMENT**  
where NAME = '**xs.is.installed**'.
  - c. Run the following SQL statement:  
**USE <Mng\_Db\_Name>**  
**UPDATE [dbo].[SYS\_VER] SET [MN] = 40**  
**truncate table [dbo].[DB\_UPGRADE]**
  - d. Activate the post-install wizard:
    - i. In the **Management Database - Configure Management Database Settings** page, connect to your existing Management database.
    - ii. In the **SAP BusinessObjects Enterprise Configure Central Management Server (CMS) Database** page, if displayed, connect to your existing configure central management database.

- iii. In the **Configure Target Database Settings** page, if displayed, choose to use the existing target database.
  - iv. In the **Data Warehouse - Define Staging Database Logins** page, provide the original logons.
  - v. In the **Data Warehouse - Define Target Database Login** page, provide the original logons.
  - vi. In the **Executive Scorecard - Configure Executive Scorecard Database** page, select to connect to an existing database.
  - vii. When the post-install wizard is successfully completed, click **Finish**.
- e. After running 9.40 post-install, run the following SQL statement:  
**USE <Mng\_Db\_Name>**  
**UPDATE [dbo].[SYS\_VER] SET [MN] = '41'**
  - f. Run the XS 9.41 installer and the 9.41 post-install wizard.

## Recovery from the DWH, XS app, and BOE server failure when the configuration is typical

The following procedure describes how to recover from a DWH, XS application, and BOE server failure in a typical configuration.

1. Back up the external sources directory contents and the external sources archive directory from the disaster server machine.
2. **On the clean machine where you want to install XS in a typical environment:**
  - a. Run the XS 9.40 installer.
  - b. When the post-install wizard pops up, restore the external sources directory contents and the external sources archive directory that were backed up prior to the disaster.
  - c. Run the following SQL statement:  
**USE <Mng\_Db\_Name>**  
**delete dbo.SETTINGS\_MANAGEMENT**  
where NAME = 'dwh.is.installed' or NAME = ' fnd.dbverify.done'
  - d. Run the following SQL statement:  
**USE <Mng\_Db\_Name>**  
**delete dbo.SETTINGS\_MANAGEMENT**  
where NAME = 'xs.is.installed'.

- e. Run the following SQL statement:  
**USE <Mng\_Db\_Name>**  
**delete dbo.SETTINGS\_MANAGEMENT**  
where NAME = 'bo.engine.is.installed' or NAME='bo.in.use'.
- f. Run the following SQL statement  
**USE <Mng\_Db\_Name>**  
**UPDATE [dbo].[SYS\_VER] SET [MN] = 40**  
**truncate table [dbo].[DB\_UPGRADE]**
- g. Activate the post-install wizard:
  - i. In the **Management Database - Configure Management Database Settings** page, connect to your existing Management database.
  - ii. In the **SAP Business Objects Enterprise - Configure Central Management Server (CMS) Database** page, connect to your existing Configure Central Management (CMS) database.
  - iii. In the **Configure Target Database Settings** page, if displayed, choose to use the existing target database.
  - iv. In the **Data Warehouse - Define Staging Database Logins** page, provide the original logons.
  - v. In the **Data Warehouse - Define Target Database Login** page, provide the original logons.
  - vi. In the **Executive Scorecard - Configure Executive Scorecard Database** page, select to connect to an existing database.
  - vii. When the post-install wizard is successfully completed, click **Finish**.
  - viii. Run the XS 9.41 installer and 9.41 post-install configure wizard.
  - ix. Activate all the CPs that were activated before the disaster.  
  
For each CP activated before the disaster, execute:  
**dw\_ds\_automation.bat -task Activate -cp <Content\_Pack\_Name>**.

3. Continue to run your ETLs on the new DWH server.

## Recovery of a database server failure when the configuration is typical or distributed

The following procedure describes how to recover from a database server failure.

1. Verify that XS is stopped.
2. Restore the databases from the backup (CMS, MNG, REP, RES, STG, TRG) into the new dbServer.
3. Change the settings as follows.

**Note:** Passwords, including the admin password, in the new server cannot be changed. You can change them once XS is up and running again.

```
UPDATE [<new_mng_database_name>].[dbo].[SETTINGS_MANAGEMENT]
SET VALUE =
CASE
WHEN NAME = 'new.tenant.db.host.name' THEN '<mng_new_db_server>'
WHEN NAME = 'new.tenant.db.port' THEN '<mng_new_db_port>'
WHEN NAME = 'target.db.server' THEN '<target_new_db_server>'
WHEN NAME = 'target.db.mssql.dbname' THEN '<target_new_db_name>'
WHEN NAME = 'target.db.port' THEN '<target_new_db_port>'
WHEN NAME = 'target.db.admin.username' THEN '<target_new_admin_logon_name>'
WHEN NAME = 'bods.db.name' THEN '<bods_new_db_name>'
WHEN NAME = 'bods.db.admin.username' THEN '<bods_new_db_admin_logon>'
WHEN NAME = 'bods.db.username' THEN '<bods_new_db_logon>'
WHEN NAME = 'bods.db.server' THEN '<bods_new_db_server>'
WHEN NAME = 'bods.db.port' THEN '<bods_db_port>'
WHEN NAME = 'staging.db.mssql.dbname' THEN '<staging_db_name>'
WHEN NAME = 'staging.db.admin.username' THEN '<staging_db_admin_logon>'
WHEN NAME = 'staging.db.server' THEN '<staging_db_admin_server>'
WHEN NAME = 'staging.db.port' THEN '<staging_db_port>'
WHEN NAME = 'result.db.host' THEN '<result_db_server>'
WHEN NAME = 'result.db.server' THEN '<result_db_server>'
WHEN NAME = 'result.db.mssql.dbname' THEN '<result_db_name>'
ELSE VALUE
END
```

**For example:**

```
UPDATE [dvm1319_MNG_new].[dbo].[SETTINGS_MANAGEMENT]
SET VALUE =
CASE
WHEN NAME = 'new.tenant.db.host.name' THEN 'labm3amdb38.devlab.ad'
WHEN NAME = 'new.tenant.db.port' THEN '1433'
WHEN NAME = 'target.db.server' THEN 'labm3amdb38.devlab.ad'
WHEN NAME = 'target.db.mssql.dbname' THEN 'dvm1319_TRG_new'
WHEN NAME = 'target.db.port' THEN '1433'
WHEN NAME = 'target.db.admin.username' THEN 'sa'
WHEN NAME = 'bods.db.name' THEN 'dvm1319_REP_new'
```

```
WHEN NAME = 'bods.db.admin.username' THEN 'sa'  
WHEN NAME = 'bods.db.username' THEN 'dvm1319_REP_new'  
WHEN NAME = 'staging.db.mssql.dbname' THEN 'dvm1319_STG_new'  
WHEN NAME = 'staging.db.admin.username' THEN 'sa'  
WHEN NAME = 'staging.db.server' THEN 'labm3amdb38.devlab.ad'  
WHEN NAME = 'staging.db.port' THEN '1433'  
WHEN NAME = 'result.db.host' THEN 'labm3amdb38.devlab.ad'  
WHEN NAME = 'result.db.server' THEN 'labm3amdb38.devlab.ad'  
WHEN NAME = 'result.db.mssql.dbname' THEN 'dvm1319_RES_new'  
ELSE VALUE  
END
```

4. **Mng DB Details:** On each DWH and XS server you install, in **<agora>\conf\mngdb.properties**, change the values of the following keys:
  - central.db.name
  - central.host.name
  - central.user.name
  - central.server
  - central.port
  - mng.db.name
  - mng.host.name
  - mng.user.name
  - mng.server
  - mng.port
  - jdbc.url (server, port and DBName)
  - db.username
5. In **<agora>\glassfish\glassfish\domains\BTOA\config\domain.xml** change the connection pool properties (User, URL, databaseName) in three locations for DWH server and in four locations for XS server, by searching for:

```
<property name="user"  
<property name="url"  
<property name="databaseName"
```
6. On each server where you are performing an installation, restart **Glassfish**

In a distributed environment, it is recommended perform the restart on the servers in the following order: BO, DWH, and XS servers.

7. Verify that XS is up and running, as follows:

- Execute the following URL on the server  
browser:**http://localhost:11021/invoke?operation=showServiceInfoAsHTML&objectname=Foundations%3Atype%3DSupervisorManager**

- If you are prompted for authentication, enter:

**Username: admin**

**Password: admin**

- Refresh the execution until the status of XS is **STARTED**.

8. Recreate the logons and and regenerate logons and users for:

- **DWH logons: (Run the command on the DWH server)**

**<HPXS>\agora\DataWarehouse\bin\dw\_foundation\_setup.bat -taskName initDB**

- **Other logons:**

**Note:** If the logon exists use **alter** instead of **create**.

- For BODS: Run a query on the relevant DB Server (BODS Repository dbServer).**

```
Use master
CREATE LOGIN <bods_new_logon_name> WITH PASSWORD=N'<the_same_password>', DEFAULT_DATABASE=<bods_logon_name >, DEFAULT_LANGUAGE=[us_english], CHECK_EXPIRATION=OFF, CHECK_POLICY=OFF
GO
use <bods_database_name>

ALTER USER <bods_user_name> WITH LOGIN = <bods_new_logon_name>
GO
ALTER USER <bods_user_name> WITH DEFAULT_SCHEMA=[dbo]
GO
EXEC sp_addrolemember N'db_datareader', N'<bods_user_name>'
GO
EXEC sp_addrolemember N'db_ddladmin', N'<bods_user_name>'
GO
```

```
EXEC sp_addrolemember N'db_owner', N'<bods_user_name>'
GO
```

**Note:** <the\_same\_password> is the password used for the sa logon to the target database server.

ii. **For XS: Run a query on the relevant DB Server (Target dbServer).**

```
Use master
CREATE LOGIN XS WITH PASSWORD=N'<the_same_password>', DEFAULT_DATABASE
=<new_target_database_name>, DEFAULT_LANGUAGE=[us_english], CHECK_EXPI
RATION=OFF, CHECK_POLICY=OFF
GO
use <new_target_database_name>
ALTER USER XS WITH DEFAULT_SCHEMA=XS
GO
EXEC sp_addrolemember N'db_datareader', N'XS'
GO
EXEC sp_addrolemember N'db_ddladmin', N'XS'
GO
EXEC sp_addrolemember N'db_owner', N'XS'
GO
EXEC sp_addrolemember N'DWT_USER_ROLE', N'XS'
GO
ALTER AUTHORIZATION ON SCHEMA::XS TO XS
GO
ALTER USER XS WITH LOGIN = XS
GO
```

**Note:** <the\_same\_password> is the password used for the sa logon to the target database server.

iii. **For ITFM:Run a query on the relevant DB Server (Target dbServer).**

```
Use master
CREATE LOGIN itaapp WITH PASSWORD=N'<the_same_password>', DEFAULT_DATA
BASE=<new_target_database_name>, DEFAULT_LANGUAGE=[us_english], CHECK_
EXPIRATION=OFF, CHECK_POLICY=OFF
GO
use <new_target_database_name>
ALTER USER itaapp WITH DEFAULT_SCHEMA= itaapp
GO
EXEC sp_addrolemember N'db_datareader', N'itaapp'
GO
EXEC sp_addrolemember N'db_ddladmin', N'itaapp'
GO
```

```
EXEC sp_addrolemember N'db_owner', N'itaapp'  
GO  
EXEC sp_addrolemember N'DWT_USER_ROLE', N'itaapp'  
GO  
ALTER AUTHORIZATION ON SCHEMA:: itaapp TO itaapp  
GO  
ALTER USER itaapp WITH LOGIN = itaapp  
GO
```

```
Use master  
CREATE LOGIN itafpaqry WITH PASSWORD=N'<the_same_password>', DEFAULT_D  
ATABASE=<new_target_database_name>, DEFAULT_LANGUAGE=[us_english], CHE  
CK_EXPIRATION=OFF, CHECK_POLICY=OFF  
GO  
use <new_target_database_name>  
ALTER USER itafpaqry WITH DEFAULT_SCHEMA= itafpaqry  
GO  
EXEC sp_addrolemember N'db_datareader', N'itafpaqry'  
GO  
EXEC sp_addrolemember N'db_ddladmin', N'itafpaqry'  
GO  
EXEC sp_addrolemember N'db_owner', N'itafpaqry'  
GO  
EXEC sp_addrolemember N'DWT_USER_ROLE', N'itafpaqry'  
GO  
ALTER AUTHORIZATION ON SCHEMA:: itafpaqry TO itafpaqry  
GO  
ALTER USER itafpaqry WITH LOGIN = itafpaqry  
GO
```

9. On the DWH server:

■ **BODS Job Server**

- i. On the DWH server, locate the <BODS> \bin\DSCconfig.txt file.
- ii. Search for the section that includes your jobServer details (typically it should be named: “[AL\_JS\_JobServer\_1]”).

Change the relevant entries (**User**, **database**, **server**) to match the new database details. Do not change the password.

**Note:** **User** refers to the BODS logon name, not BODS user name.

■ **Resync BODS**



- i. On the DWH server, navigate to **Start > SAP BusinessObjects XI 3.2 > Data Services Server Manager**.
  - ii. Click **Edit Job Server Config**.
  - iii. Double-click the JobServer.
  - iv. Click **Resync**.
  - v. Enter the BODS logon password and click **Apply**.
  - vi. Click **OK** to close the window.
  - vii. Click **OK** to finish the configuration.
  - viii. Restart your JobServer from the button at the bottom of the main dialog.
- **Repository Manager:**
- i. On the DWH server, navigate to **Start > SAP BusinessObjects XI 3.2 > Data Services Management Console**.
  - ii. Log on to the console. The default is admin/admin, if it has not been changed.
  - iii. Click **Administrator**.
  - iv. Navigate to **Management > Repositories**.
  - v. Delete the old repository and create a new one according to the new database details.
  - vi. Click **Test** to verify the connection information, and click **Apply**.
  - vii. Go to **Administrator > Web Services**.
  - viii. Click the **Web Services Configuration** tab.
  - ix. Go to the bottom of the screen and select the **Select All** check box.
  - x. In the combobox below it, click **Enable Session Security**.
  - xi. Click **Apply**.
- **BODS Datastores (glassfish must be up and running):**
- Run the following commands on the DWH server:
- `<HPXS>\agora\DataWarehouse\bin\dw_ds_gen.bat -datastore all -outputdir "<HPXS>\agora\DataWarehouse\tmp\datastores"`

- <HPXS>\agora\DataWarehouse\bin\dw\_ds\_import.bat -inputdir "<HPXS>\agora\DataWarehouse\tmp\datastores"

10. On the BOE Server:

■ **BOE – Update ODBC Connections**

- i. Open **C:\Windows\SysWOW64\odbcad32.exe**.
- ii. Open **System DSN** and configure the BOE ODBC connection to connect the new CMS database.

■ **BOE – Update JDBC Connections**

- i. Navigate to **Start > BusinessObjects XI 3.1 > BusinessObjects Enterprise > Designer**.
- ii. In the dialog box that opens, enter the following parameters:
  - **System:** localhost:6400
  - **Username:** administrator
  - **Password:** <BOE\_Password>
  - **Authentication:** Enterprise
- iii. Click **Cancel** in the Welcome page.
- iv. Navigate to **Tools > Connections**.
- v. Change all connection details and test the connection for the following: **XS\_MNG\_JDBC, ita\_admin, ita\_operations**.
- vi. After the tests are successful, click **Next**.
- vii. In the next dialog box, enter the recommended numbers as follows:
  - **Connection Pool Mode:** Keep the connection active for
  - **Pool timeout:** 600
  - **Array fetch size:** 100
  - **Array bind size:** 500
  - **Login timeout:** 500
- viii. Click **Finish**.

11. On the DWH server, run the ETL.

# Legacy and Backward Compatibility Procedures

This section includes the legacy procedures and the procedures needed for backward compatibility:

This section includes:

- Export or Import Out-of-the-box Pages, Components, and Events ..... 332
- Export or Import Trees and KPIs ..... 336
- Export or Import Contexts ..... 349

# Export or Import Out-of-the-box Pages, Components, and Events

## Note:

- This is a legacy procedure meant to use for backward compatibility. The current procedure uses CAPs. For details, see ["Migrate User-defined Pages or Components" on page 301](#).
- The import and export of templates is not supported from version 9.02.

You can export out-of-the-box pages, components and events from the Dashboard page.

You can import existing out-of-the-box pages, components and events into the Dashboard page.

The import or export flows are meant to be used for localization purposes (when you want to work with other languages than English) or when moving from staging to production and not as a way to update system configuration.

**Section navigation:** • ["Learn More" below](#) • ["Tasks" on the next page](#)

## Learn More

### About Importing or Exporting OOTB Pages, Components, and Events

Out-of-the-box pages are available in the Dashboard. Pages can include components. Components in a page can be wired and can interact with each other using events. For details, about the Dashboard, see [Dashboard Display](#) in the *IT Executive Scorecard Business Analyst Guide*.

The import and export feature is the process used to move from the staging environment to production.

The export feature collects the contents of the pages, components, and events. It converts the contents to **components.uim.xml**, **pages.uim.xml**, and **events.uim.xml** files that describes the structure and content of the pages, components, and events. These files include the universally unique identifier (UUID) of the pages and components.

The export operation uses the page, component, or event UUID to identify the page, component, or event.

The import feature collects the contents of a specific directory on the machine. The directory can include **components.uim.xml**, **pages.uim.xml**, and **events.uim.xml** files according to the same format used by the export feature. The import feature uses these files to upload the information into the database.

After the import operation, the file is moved to:

- The **Loaded** directory if the import operation succeeds.
- The **Errors** directory if the import operation fails.

**Note:** When the server on which the Dashboard is located starts, if the system detects files in the `<XS_server>\agora\glassfish\glassfish\domains\BTOA\uimashup\import\toload` directory, it automatically uploads that information.

## Tasks

This section includes:

["Migrate Dashboard pages, components, and events" below](#)

["Export pages, components, or events using JMX" below](#)

["Import pages, components, or events using JMX" on the next page](#)

### Migrate Dashboard pages, components, and events

1. Export out-of-the-box pages, components and events from the Dashboard page of the Development/Test environment. For details, see ["Export pages, components, or events using JMX" below](#).
2. Import these out-of-the-box pages, components and events into the Dashboard page of the Production environment. For details, see ["Import pages, components, or events using JMX" on the next page](#).

### Export pages, components, or events using JMX

The legacy procedure detailed in this section produces the same results as ["Export user-defined pages and components using CAPs" on page 302](#).

1. Make sure you have JDK installed.
2. Run `jconsole` in the **Start** menu.
3. In the window that opens, select the **Remote Process** option, enter `<host_name>:<port_number>` and click **Connect**.
4. After the application completes its loading, click the **MBeans** tab.
5. You can now:
  - **Export pages.** Expand **UIM** and select **Operations**. In the Operation invocation area, click the **exportPages** button and specify the **pathToExportLocation**. If the export operation is successful, the message **Method successfully invoked** is returned, and the result is XML files in the folder you specified.
  - **Export components and events.** Expand **UIM** and select **Operations**. In the Operation invocation area, click the **exportMetaData** button and specify the **pathToExportLocation**. If the export operation is successful, the message **Method successfully invoked** is returned, and the result is XML files in the folder you specified.

## Import pages, components, or events using JMX

The legacy procedure detailed in this section produces the same results as ["Import user-defined pages and components using CAPs" on page 302](#).

1. Make sure you have JDK installed.
2. Run **jconsole** in the **Start** menu.
3. In the window that opens, select the **Remote Process** option, enter **<host\_name>:<port\_number>** and click **Connect**.
4. After the application completes its loading, click the **MBeans** tab.
5. To import all the pages, components, and events at once, expand **UIM**, select **Operations** and in the Operation invocation area, click the **importData** button.  
Or, you can also import pages, components and events separately as follows:

- **Import the pages.** Expand **UIM**, and select **Operations**. In the Operation invocation area, click the **loadPagesData** button.

If the import operation is successful, the message **Method successfully invoked** is returned, and the imported entities are displayed in the Page Gallery.

In addition, the XML file is moved to the

**<XS\_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\import\loaded\** folder.

If the import operation fails, an explanation of the failure is added in the relevant file in the

**<XS\_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\import\errors\** folder.

Note that the message **Method successfully invoked** might be displayed in some cases in case of failure of the import operation.

- **Import the components.** Expand **UIM** and select **Operations**. In the Operation invocation area, click the **loadComponentsGallery** button. If successful, the message **Method successfully invoked** is returned, and the imported entities are displayed in the Component Gallery..

In addition, the XML file is moved to the

**<XS\_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\import\loaded\** folder.

If the import operation fails, an explanation of the failure is added in the relevant file in the

**<XS\_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\import\errors\** folder.

Note that the message **Method successfully invoked** might be displayed in some cases in case of failure of the import operation.

- **Import the events.** Expand **UIM**, and select **Operations**. In the Operation invocation area, click the **loadEvents** button.

If the import operation is successful, the message **Method successfully invoked** is returned.

In addition, the XML file is moved to

**<XS\_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\import\loaded\** folder.

If the import operation fails, an explanation of the failure is added in the relevant file in the

**<XS\_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\import\errors\** folder.

Note that the message **Method successfully invoked** might be displayed in some cases in case of failure of the import operation.

**Note:**

- If information is missing from the Load directory, part of the import operation might not be performed.
- When a file is copied to the **<XS\_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\import\loaded\** folder during the import process, a timestamp (Milliseconds since midnight, January 1, 1970 UTC) is added to its name, for example: **Components\_pt\_BR\_130810232011.xml**. This way, you can see which file is currently assigned to the database.

# Export or Import Trees and KPIs

## Note:

- This is a legacy procedure meant to use for backward compatibility. The current procedure uses CAPs. For details, see ["Migrate Trees, Metrics, and Unassigned KPIs" on page 298](#).
- The import and export of templates is not supported from version 9.02.

You can export complete trees (with their Scorecards, Perspectives, Objectives, and KPIs) from the Active KPIs pane.

You can import existing template trees or sub-trees, active trees, active sub-trees, or Unassigned KPIs into the Active KPIs pane.

The import or export flows are meant to be used when moving from staging to production and not as a way to update system configuration. If you want to use the import or export flows to update the system configuration, you must delete all the nodes in the active KPIs pane, before performing the import operation.

The export and import flows are also meant to be used for localization purposes, when you want to work with other languages than English.

**Section navigation:** • ["Learn More" below](#) • ["Tasks" on the next page](#) • ["Reference" on page 340](#)

## Learn More

### About Exporting or Importing Trees

You use the export or import feature when you want to import or export out-of-the-box templates, automatically update existing templates, or import new templates, or active trees into the Executive Studio.

The export and import feature is the process used to move from staging environment to production.

The export feature collects the contents of the Active KPIs tree (Scorecards, Perspectives, Objectives, KPIs, and Unassigned KPIs). It converts the contents to a configuration.xml file that describes the structure of the active tree. These files include the UUID and KPI name of the KPIs included in the trees. In addition, the process creates a <kpi\_name>.xml file per KPI in the system; that file describes the configuration of the KPI. The XML files are created in a specific directory on the machine. For details about the directory, see ["Locations" on the next page](#)

The import feature collects the content of a specific directory on the machine. The directory can include configuration.xml files, and <kpi\_name>.xml files according to the same format used by the export feature or can include .xml files (the structure of these files should follow the XSD legal model; for details, see ["XML Files Used in Import and Export Operations" on page 340](#)) with other names. The import feature uses these files to upload the information in the specific area in the Active KPIs tree. For details about the directory, see ["Locations" on the next page](#).



The export and import operations work with XML files with a specific structure. Each configuration.xml file includes information about the hierarchy from the lowest node to the tree root. That information is used to add the new node is added to the relevant location in the relevant tree, or the imported node overrides the relevant node. Each <KPI\_name>.xml file includes information about the KPI configuration. That information is used so that the relevant configuration and calculation details are added to the relevant KPI. For details about the XML file structure, see ["XML Files Used in Import and Export Operations" on page 340](#).

The export operation uses the KPI's UUID to identify the KPI.

In addition, you can import KPIs from Excel files. You can use this capability to import KPIs without consideration about their location in the tree. You can also create an .xml file that provides information about a tree structure and that refers to KPIs that are imported from the Excel file. The import feature uses these files to upload the information in the specific area in the Active KPIs tree. For details about the directory, see ["Locations" below](#).

**Note:** When the server on which the Executive Studio is located starts, if the system detects files in the <XS\_server>\agora\glassfish\glassfish\domains\BTOA\Config\KPI Template\ Import directory, it automatically uploads that information. This feature is used when you log on to the Executive Studio for the first time, to upload the out-of-the-box templates.

## Locations

When working with XML files, the files are located in the following directory <XS\_server>\agora\glassfish\glassfish\domains\BTOA\Config\KPIConfiguration\Export or Import for files corresponding to nodes in the Active KPI pane.

The Import directory includes the **Error**, **Load**, and **Loaded** directories.

Before you import a tree, the relevant XML files or the KPI Excel files must be located in the **Load** directory. After the import operation, the file is moved to:

- The **Loaded** directory if the import operation succeeds.
- The **Error** directory if the import operation fails. In this case, an error file explaining the problem is added to the Error directory.

## Tasks

This section includes:

["Migrate Scorecards, Perspectives, Objectives, and KPIs" below](#)

["Export a node using JMX" on the next page](#)

["Import a node using JMX" on the next page](#)

### Migrate Scorecards, Perspectives, Objectives, and KPIs

Export complete trees (with their Scorecards, Perspectives, Objectives, and KPIs) from the Active KPIs pane of the Development/Test environment. For details, see ["Export a node using JMX" on the next page](#).

Import these active trees, active sub-trees, or Unassigned KPIs into the Active KPIs pane of the Production environment. For details, see ["Import a node using JMX" below](#).

## Export a node using JMX

The legacy procedure detailed in this section produces the same results as ["Export nodes using CAPs" on page 299](#).

1. Make sure you have JDK installed.
2. Run `jconsole` in `<XS_server>\agora\jdk\bin`.
3. In the window that opens, select the **Remote Process** option, enter `<host_name>:<port_number>` and click **Connect**.
4. After the application completes its loading, click the **MBeans** tab.
5. Click `com.hp.btoe.studio.jmx`.
6. You can now export active KPIs from the Active KPIs pane. Expand **KPIExport**, select the **Operations** branch, and click `exportKPIs`. In the Operation invocation area, enter `0` in the text field, and click the `exportKPIs` button. If the export operation is successful, the message **Method successfully invoked** is returned, and the result is XML files in the `<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\kpiconfiguration\export\` folder.

## Import a node using JMX

The legacy procedure detailed in this section produces the same results as ["Import nodes using CAPs" on page 300](#).

1. Before importing any entity, you can create a XML file with appropriate structure or you can take an XML file you exported previously and that you want to import now. For details, see ["About Exporting or Importing Trees" on page 336](#).
2. Save the XML file to `<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\kpiconfiguration\import\load\` folder for importing to the Active KPIs pane.
3. Make sure you have JDK installed.
4. Run `jconsole` in the `<XS_server>\agora\jdk\bin`.
5. In the window that opens, select the **Remote Process** option, enter `<host_name>:<port_number>` and click **Connect**.
6. After the application completes its loading, click the **MBeans** tab.
7. Click `com.hp.btoe.studio.jmx`.
8. You can now import the tree structure or the Unassigned KPIs to the Active KPIs pane. Expand **KPILoader**, select the **Operations** branch, and click `importKPIsAllTenants` (to

import all the KPIs of all the tenants) or **importKPIsByTenant** (to import all the KPIs of a specific tenant).

If the import operation is successful, the message **Method successfully invoked** is returned, and the imported entity is displayed in the Active KPIs pane in the Studio.

In addition, the XML file is moved to the **<XS\_server>\agora\glassfish\glassfish\domains\BTOA\config\kpicomfiguration\import\loaded\** folder.

If the import operation fails, an explanation of the failure is added in the relevant file in the **<XS\_server>\agora\glassfish\glassfish\domains\BTOA\config\kpitemplates\import\errors\** folder.

Note that the message Method successfully invoked might be displayed in some cases in case of failure of the import operation.

If information is missing from the Load directory, part of the import operation might not be performed.

#### Example

- If one or more of the KPI XML files are missing from the **<XS\_server>\agora\glassfish\glassfish\domains\BTOA\Config\KPITemplate\Import\Load** directory, the trees that include the missing KPIs (represented by the configuration.xml or by the <tree\_name>.xml files) are not imported. In addition, the relevant error files are entered in the **<XS\_server>\agora\glassfish\glassfish\domains\BTOA\Config\KPITemplate\Import\Errors** directory.
- If one or more of the mandatory properties of a KPI (for example, the formula) are missing from the **<XS\_server>\agora\glassfish\glassfish\domains\BTOA\Config\KPITemplate\Import\Load** directory, the KPI is not imported. In addition, the relevant error files are entered in the **<XS\_server>\agora\glassfish\glassfish\domains\BTOA\Config\KPITemplate\Import\Errors** directory.

For details about the structure of the XML files, see ["XML Files Used in Import and Export Operations" on the next page.](#)

## Reference

### XML Files Used in Import and Export Operations

Import and export work with XML files. The XML files have the following structures:

#### Example of a KPI XML File:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<KPI tenantId="0">
  <name>% Actual vs Planned Costs</name>
  <description>The actual costs relative to the budgeted costs of an activ
ity.
  </description>
  <type>LEAF</type>
  <period>MONTHLY</period>
  <dimension></dimension>
  <formula>PERCENTAGE_MATH(
SUM(Cost.Amount, Cost.CostType='Actual' and PERIOD_ENTITY=Period),
SUM(Cost.Amount, Cost.CostType='Planned' and PERIOD_ENTITY=Period)
)
  </formula>

  <thresholdType type="MINIMIZE">
    <rangeFrom>0.0</rangeFrom>
    <rangeTo>4.0</rangeTo>
    <goodFrom>0.0</goodFrom>
    <goodTo>2.0</goodTo>
    <warningFrom>2.0</warningFrom>
    <warningTo>3.0</warningTo>
  </thresholdType>
  <unit>%</unit>
  <filter></filter>
  <dataSource>test</dataSource>
  <uuid>3c7a1c22-5c10-4703-a22b-4a1eac317a5c</uuid>
</KPI>
```

Where:

Tag	Explanation	Example
-----	-------------	---------

<p><b>&lt;name&gt;</b></p>	<p>The name of the KPI.</p> <p><b>Limit:</b></p> <ul style="list-style-type: none"> <li>• The name can be up to 265 characters or symbols.</li> <li>• The forward slash (/) symbol is not supported.</li> </ul>	<p>&lt;name&gt;% Actual vs Planned Costs&lt;/name&gt;</p>
<p><b>&lt;description&gt;</b></p>	<p>The description of the KPI</p> <p><b>Limit:</b></p> <ul style="list-style-type: none"> <li>• The name can be up to 1000 characters or symbols.</li> <li>• The forward slash (/) symbol is not supported.</li> </ul>	<p>&lt;description&gt; The actual costs relative to the budgeted costs of an activity.&lt;/description&gt;</p>
<p><b>&lt;type&gt;</b></p>	<p>This is type of the entity. It can be:</p> <ul style="list-style-type: none"> <li>• <b>LEAF</b></li> <li>• <b>PARENT</b></li> <li>• <b>BREAKDOWN</b></li> <li>• <b>BD_PARENT</b></li> </ul> <p>The entry must be in uppercase.</p>	<p>&lt;type&gt;LEAF&lt;/type&gt;</p>

<b>&lt;period&gt;</b>	The period of the KPI. It can be: <ul style="list-style-type: none"><li>• <b>WEEKLY</b></li><li>• <b>MONTHLY</b></li><li>• <b>QUARTERLY</b></li><li>• <b>YEARLY</b></li></ul> The entry must be in uppercase. For details, see <a href="#">Configure a KPI or a Metric</a> in the <i>IT Executive Scorecard Business Analyst Guide</i> .	<b>&lt;period&gt;MONTHLY&lt;/period&gt;</b>
-----------------------	---	---

<p><b>&lt;businessQuestions&gt;</b></p>	<p>The Business motivation displayed in the Metadata area in the KPI's <b>Configuration details</b> tab.</p> <p>For details, see <a href="#">Configure a KPI or a Metric</a> in the <i>IT Executive Scorecard Business Analyst Guide</i>.</p> <p><b>Limit:</b></p> <ul style="list-style-type: none"> <li>• The name can be up to 1000 characters or symbols.</li> <li>• The forward slash (/) symbol is not supported.</li> </ul>	<p><b>&lt;businessQuestions&gt;</b>What are the actual cost and planned cost values? What is the percentage of actual versus planned spending? How do the actual versus planned costs measure against the thresholds? Is actual versus planned spending on target or in the minimum or maximum<b>&lt;/businessQuestions&gt;</b></p>
<p><b>&lt;comments&gt;</b></p>	<p>The comments displayed in the Comments area in the KPI's <b>Calculation details</b> tab.</p> <p>For details, see <a href="#">Configure a KPI or a Metric</a> in the <i>IT Executive Scorecard Business Analyst Guide</i>.</p>	<p><b>&lt;comments&gt;</b>My comments<b>&lt;/comments&gt;</b></p>
<p><b>&lt;formula&gt;</b></p>	<p>The formula used to calculate the value of the KPI.</p>	<p><b>&lt;formula&gt;</b>PERCENTAGE_MATH(SUM (Cost.Amount, Cost.CostType='Actual' and PERIOD_ENTITY=Period), 100000)<b>&lt;/formula&gt;</b></p>

<b>&lt;thresholdType type=" "&gt;</b>	<p>The direction of the Result threshold. It can be:</p> <ul style="list-style-type: none"> <li>• <b>MAXIMIZE</b></li> <li>• <b>CENTRALIZE</b></li> <li>• <b>MINIMIZE</b></li> </ul> <p>The entry must be in uppercase.</p> <p>For details, see <a href="#">Configure a KPI or a Metric</a> in the <i>IT Executive Scorecard Business Analyst Guide</i>.</p>	<b>&lt;thresholdType type="MAXIMIZE"&gt;</b> % and 10% (green), and a bad rate is between 10% and 100% (red).
<b>&lt;rangeFrom&gt;</b>	Lower value of the error range.	<b>&lt;rangeFrom&gt;0.0&lt;/rangeFrom&gt;</b>
<b>&lt;rangeTo&gt;</b>	Higher value of the error range.	<b>&lt;rangeTo&gt;100.0&lt;/rangeTo&gt;</b>
<b>&lt;goodFrom&gt;</b>	Lower value of the good range.	<b>&lt;goodFrom&gt;90.0&lt;/goodFrom&gt;</b>
<b>&lt;goodTo&gt;</b>	Higher value of the good range.	<b>&lt;goodTo&gt;100.0&lt;/goodTo&gt;</b>
<b>&lt;warningFrom&gt;</b>	Lower value of the warning range.	<b>&lt;warningFrom&gt;80.5&lt;/warningFrom&gt;</b>
<b>&lt;warningTo&gt;</b>	Higher value of the warning range.	<b>&lt;warningTo&gt;90.0&lt;/warningTo&gt;</b>



<b>&lt;unit&gt;</b>	<p>The KPI's unit. It can be:</p> <ul style="list-style-type: none"> <li>• %</li> <li>• <b>\$US</b> (The entry must be in uppercase.)</li> <li>• <b>Days</b> (The entry must be init cap.)</li> </ul>	<p><code>&lt;unit&gt;%&lt;/unit&gt;</code>  <code>&lt;unit&gt;\$US&lt;/unit&gt;</code>  <code>&lt;unit&gt;Days&lt;/unit&gt;</code></p>
<b>&lt;filter&gt;</b>	<p>The formula used to calculate the KPI's value.</p>	<p><code>&lt;filter&gt;Budget.Name = 1&lt;/filter&gt;</code></p>
<b>&lt;dataSource&gt;</b>	<p>The Context. The Context's entities are the basis of the calculation and provide the entities used in the formula.</p>	<p><code>&lt;dataSource&gt;FinancialManagement&lt;/dataSource&gt;</code></p>
<b>&lt;uuid&gt;</b>	<p>Set UUID to identify the KPI. You can set your own UUID for the KPI. For example <b>&lt;uuid&gt;This is MY KPI&lt;/uuid&gt;</b></p>	<p><code>&lt;uuid&gt;1c9eab96-5013-412c-a428-17a1ae39317b&lt;/uuid&gt;</code></p>

### Example of a Folder tree XML File:

```
<?xml version="1.0" encoding="UTF-8"?>
<tree xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xsi:noNamespaceSchemaLocation="../xsd/templates/Template_tree.xsd" name="Industry Standard" tenantId="0">
  <folder name="ITIL" description="ITIL">
    <folder name="Asset Management" description="Asset Management">
      <template name="Average Age of Hardware Assets"/>
    </folder>
    <folder name="Change Management" description="Change Management">
```

```
        <template name="Change Risk"/>
    </folder>
    <folder name="Financial Management" description="Financial Management"
t">
        <template name="% of budget deviation relative to total budget"/>
        <template name="% Project Budget over or under"/>
        <template name="Actual vs. budgeted costs"/>
    </folder>
    <folder name="Incident Management" description="Financial Management"
t">
        <template name="% of escalated incidents"/>
        <template name="% incidents solved within SLA time"/>
    </folder>
    <folder name="Problem Management" description="Financial Management">
        <template name="% of problems resolved on time"/>
    </folder>
</folder>
    <folder name="All working KPI's" description="just a copy of all tempalt
es">
        <template name="% of Reopened Incidents"/>
        <template name="% of critical and high incidents"/>
    </folder>
</tree>
```

### Example of a Scorecard tree XML File:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<tree xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="../xsd/templates/Template_tree.xsd" name="Industry Standard" tenantId="0">
    <scorecard name="CIO Scorecard" description="Business Value">
        <perspective name="Customer" description="?">
            <objective name="Reduce incident/problem management related customer complaints by 30% in 2011"
                rule="BEST_CHILD" period="MONTHLY">
                <template name="% of Reopened Incidents"/>
                <template name="% of escalated incidents"/>
            </objective>
            <objective name="Improve Service Delivery by 30%" rule="BEST_CHILD" period="MONTHLY">
                <template name="% of Service Level Objectives for Met IT Process Activities"/>
                <template name="Service request avg response time"/>
                <template name="Service request backlog"/>
            </objective>
```

```
        <objective name="Increase Customer Satisfaction by 20% in 2011"
rule="BEST_CHILD" period="MONTHLY">
            <template name="Reported exceptions to SLA"/>
            <template name="Customer Satisfaction"/>
            <template name="Critical time outage"/>
        </objective>
    </perspective>
    <perspective name="Internal Business Process" description="?">
        <objective name="Improve Project Delivery by increasing throughp
ut by 15%" rule="BEST_CHILD"
            period="MONTHLY">
            <template name="Employee Utilization Rate"/>
            <template name="% of projects on time"/>
            <template name="Deviation % of Planned Work Hours"/>
            <template name="TTM"/>
        </objective>
    </perspective>
    <perspective name="Financial" description="?">
        <objective name="Reduce unhealthy projects budget risk by 10% in
2011" rule="BEST_CHILD" period="MONTHLY">
            <template name="Unhealthy projects"/>
            <template name="% of Capital Exposure at Risk"/>
            <template name="Unhealthy projects budget risk"/>
        </objective>
        <objective name="Increase Employee Utilization by 3% in 1st Qtr
2011" rule="BEST_CHILD" period="MONTHLY">
            <template name="Employee Utilization Rate"/>
            <template name="FCR"/>
        </objective>
        <objective name="Reduce IT budget by 20% in 2011" rule="BEST_CHI
LD" period="MONTHLY">
            <template name="% FTE"/>
            <template name="Service Actual to Plan"/>
            <template name="% Outages/Total SLA uptime"/>
            <template name="Business Service Cost Reduction"/>
        </objective>
    </perspective>
    <perspective name="Learning and Growth" description="?">
        <objective name="Increase Manager skills against the competency
model by 15% in 2011 above 2010"
            rule="BEST_CHILD" period="MONTHLY">
            <template name="Percentage of managers meeting or exceeding
leadership competency model"/>
        </objective>
        <objective name="Increase Employee Satisfaction by 10% in 2011"
rule="BEST_CHILD" period="MONTHLY">
            <template name="Employee Attrition"/>
        </objective>
    </perspective>
</perspective>
```

```
        <template name="Job Satisfaction"/>
        <template name="Employee Satisfaction"/>
    </objective>
    <objective name="Increase employee productivity by 10%" rule="BEST_CHILD" period="MONTHLY">
        <template name="Employee Utilization Rate"/>
    </objective>
</perspective>
</scorecard>
</tree>
```

### Example of a KPI Excel File:

The Excel table must include the following columns in the following order:

- ID
- KPI
- Description
- Business Questions
- Context
- Formula
- Unit Type
- Time Period
- Direction
- Range From
- Range To
- Good From
- Good To
- Warning From
- Warning To

For details about the above column contents, see [Configure a KPI or a Metric](#) in the *IT Executive Scorecard Business Analyst Guide*.

# Export or Import Contexts

**Note:** This is a legacy procedure meant to use for backward compatibility. The current procedure uses CAPs. For details, see "[Semantic Layer - Context Designer](#)" on page 170.

## Tasks

This section includes:

["Import Contexts" on the next page](#)

["Export Contexts" below](#)

### Export Contexts

Each `<universe_name>.xml` file includes the relevant Context information.

They are located in the `<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\context\export_<tenant_ID>` folder. If a file with this name already exists in the folder, the name is changed to `<universe_name><n>.xml`.

1. Make sure you have JDK installed.
2. Run `jconsole` in the `<XS_server>\agora\jdk\bin`.
3. In the window that opens, select the **Remote Process** option, enter `<host_name>:<port_number>` and click **Connect**.
4. After the application completes its loading, click the **MBeans** tab.
5. Click `com.hp.btoe.xs2go.jmx`.
6. Click the **ExportForTenant** button. This imports all the Context XML files that were in the load folder. The format is **ExportForTenant (p1,p2)** where **p1** is the universe name and **p2** is the tenant id.
  - If the import operation is successful, the message **Method successfully invoked** is returned, and the imported Contexts are displayed in **Admin> Context Designer > Launch Context Designer**.
  - In addition, the XML file is moved to the `<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\export\loaded\` folder.
  - If the import operation fails, an explanation of the failure is added in the relevant file in the `<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\export\errors\` folder.

Note that the message Method successfully invoked might be displayed in some cases in case of failure of the export operation.

**Note:** If information is missing from the Load directory, part of the export operation might not be performed.

**Note:** For information about the UUIDs, see ["Contexts, entities, and fields UUIDs" on page 173](#).

## Import Contexts

1. Save the Context XML files to the `<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\context\import\load\` folder.
2. Make sure you have JDK installed.
3. Run `jconsole` in the `<XS_server>\agora\jdk\bin`.
4. In the window that opens, select the **Remote Process** option, enter `<host_name>:<port_number>` and click **Connect**.
5. After the application completes its loading, click the **MBeans** tab.
6. Click `com.hp.btoe.xs2go.jmx`.

Click the **ImportForTenant** button. This imports all the Context XML files that were in the load folder.

- If the import operation is successful, the message **Method successfully invoked** is returned, and the imported Contexts are displayed in **Admin > Context Designer > Launch Context Designer**.
- In addition, the XML file is moved to the `<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\context\import\loaded\` folder.
- If the import operation fails, an explanation of the failure is added in the relevant file in the `<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\context\import\errors\` folder.

**Note:**

- The message Method successfully invoked might be displayed in some cases in case of failure of the import operation.

- If information is missing from the Load directory, part of the import operation might not be performed.
- For information about the UUIDs, see ["Contexts, entities, and fields UUIDs" on page 173](#).

# Data Warehouse Back-End Maintenance

You can monitor and the ETL and other functions of the Data Warehouse using the back-end tools.

This section includes:

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# Clean Up the Staging and Target Databases

You clean up the databases when you want to run the initial load anew.

The tables that are cleaned are:

- All the data in the **dwt** tables in the target database.
- All the data in the **dws**, **dwst**, and **xrefgen** schemas in the staging database.

## Note:

- The clean up tool cleans all data.
- The clean up tool cannot be activated during an ETL run.
- There is no possibility of rollback after the clean up.

## Tasks

### Clean up the staging and target databases

1. Backup the staging and target databases (so they are synchronized at the time of the backup) using the tools of the relevant database servers.
2. Clean up the databases using the **dw\_cleandb** tool. For details, see "[DWH Command Reference](#)" on page 381

# Time Zone Configuration

The data warehouse contains data extracted from external sources. The original data sources can be repositories in disparate locations. It is important that the data warehouse maintain accurate date and time stamps that normalize the differences between the source time zones and the current time of the data warehouse location. These differences include both Coordinated Universal Time (UTC) offset and daylight savings time (DST) variations.

The data warehouse foundation has transparent internal functions that convert a source time zone value to a UTC value, and convert the UTC value to the data warehouse local time zone during the ETL process.

## To access:

At a Windows command prompt, switch to the **<Installation directory>\Agora\Data Warehouse\bin** directory.

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" on the next page](#) ● ["Time Zone Configuration" above](#)

## Learn More

### Data Warehouse DST Time Zone Information

The administrator must make sure that time zone information is current on the server hosting the Data Warehouse. Although the definition of time zones and DST rules are fairly static, changes can occur, for example, when moving the DST conversion date on a country-wide basis.

You can synchronize these changes to the Olson Timezone Database by obtaining and running the Java TZUpdater Tool that is available on the Sun Developer Network (SDN). For more information, visit the [Java SE Timezone Updater Tool](#) home page.

### Change the Data Warehouse Period Dimensions

This procedure should be followed when expanding the Data Warehouse First and Last Year period dimension range.

It is highly recommended that once you enter First and Last Year period dimensions in the Executive Scorecard Configuration wizard, any future changes should take the following into account:

1. The First Year period dimension should only be changed downwards, thereby including the current First Year period dimension.

**Example** If the First Year dimension is currently set to 2005, any change should be a year lower than 2005. Entering a year higher than 2005 can cause some data inconsistencies.

2. The Last Year period dimension should only be changed upwards, thereby including the current Last Year period dimension.

**Example** If the First year dimension is currently set to 2025, any change should be a year higher than 2025. Entering a year lower than 2025 can cause some data inconsistencies.

## Time Zone Update

The dw\_tz\_update\_dst utility updates the Data Warehouse DST time zone information.

## Tasks

["Update the Data Warehouse DST time zone" below](#)

["Change Data Warehouse period dimensions" below](#)

["Run the dw\\_tz\\_update\\_dst utility" on the next page](#)

### Update the Data Warehouse DST time zone

1. Download and run the TZUpdater tool.
2. To update Data Warehouse Server tables, run the dw\_tz\_update\_dst as described in ["Time Zone Configuration" on the previous page](#).

To change data source Time Zone settings:

1. In the Executive Scorecard application, click **Admin > Data Source Management**, and for the relevant Content Pack, click **Activate** to open the relevant activation page.

**Note:** If the content pack is already activated, you must deactivate, and then reactivate the content pack .

2. Change the Time Zone for the relevant data source, and click **Next**.

The TimeZoneInfo table which is part of the Staging database is automatically updated.

**Note:** There is a discrepancy in the status time display between ETL runs when BSM has a different time zone than the BSM server.

### Change Data Warehouse period dimensions

1. In the Executive Scorecard application, click **Admin > Data Warehouse**, under **General**, make the required changes in the **First year handled by DWH dates** and **Last Year handled by DWH dates** settings, and click **Save**.
2. From a command prompt, navigate to  
**<Installation Directory>\Agora\DataWarehouse\Bin**

Run `dw_period_dim_generator`.

## Run the `dw_tz_update_dst` utility

1. At a Windows command prompt, switch to the `<Installation directory>\Agora\Data Warehouse\bin` directory.
2. Run this command:  
**`dw_tz_update_dst`**
  - a. Load or update the time zone information for a data source and the data warehouse.
  - b. Run this utility whenever you deploy new source data or when you manually change the time zone.
  - c. Time zone is expressed in GMT format: GMT +\-nn:nn.

## Syntax

```
dw_tz_update_dst.bat  
                [-help]  
                [-verbose]
```

## Options

Option	Required?	Description
-help	N	Display command syntax.
-verbose	N	Produce more detailed output.

## Return codes:

0 – Success

1 – Success with warnings

>1 – Errors

## Example

```
dw_tz_update_dst -verbose
```

# Tracing and Logging

This section describes the Data Warehouse logging and tracing mechanism. Data warehouse scripts have different types of output log files:

One log file for each data warehouse batch utility, using the Java application Log4J.

One log file for each SQL command.

**Section navigation:** ● ["Learn More" below](#) ● ["Tasks" on the next page](#) ● ["Reference" on page 359](#)

## Learn More

### The Java Logging Mechanism

The data warehouse generates one log file for each batch utility, and stores it in the following directories:

**<installation directory>\agora\DataWarehouse\logs** and

**<installation directory>\agora\glassfish\glassfish\domains\BTOA\logs**

#### Example

- dw\_initdb.log
- dw\_generateschemas.log

The logging mechanism allows each new block of log information to be appended to the existing log until it reaches the maximum size of 1 MB. At that point, new logging information is stored in a backup file. There can be a maximum of five log files for a single script. You can change the log file name, size, and maximum number of backup files.

#### SQL Command Logging Mechanism

All the SQL commands that are executed at the direction of the data warehouse software are redirected to simple log file. You can view the log file to trace the execution of all SQL commands.

All log files are in the following directory:

**<installation directory>\agora\Datawarehouse\conf**

- mssql\_TablesAndSeqsResult.log
- mssql\_create\_dw\_schema\_LastRun.log

The prefix of the log file name is the RDBMS type: mssql. The suffix of the log file name is \_LastRun. This suffix indicates that the file contains the last run output of the SQL command.

To simplify interpreting SQL errors, the data warehouse applications parse the SQL server log files to report the most critical SQL error to the user. For more information, you can review the entire log file. Because the data warehouse appends log information in a history format in certain log files, you

can review prior errors. Other log files retain only the history of the most recent execution. These files always have the `_LastRun` suffix. For example:

- `mssql_check_db_options_LastRun.log`
- `mssql_create_dw_schema_date_time_dim_LastRun.log`

These history log files contain the date and time the SQL command runs, the date and time it completes, and the returned status of the SQL command. For example:

```
-----  
Start of command: sqlcmd -S localhost -d BTODW -U dwmetadata -P **** -i  
"C:\...\foundation\etc\sql\mssql\create_dw_staging_resources.sql" -o  
"C:\...\foundation\log\mssql_create_dw_staging_resources_LastRun.log"  
At: Wed Jul 02 13:35:59 PDT 2009  
-----  
1:  
2: ***** Creating staging resources *****  
-----  
End of command: sqlcmd -S localhost -d BTODW -U dwmetadata -P **** -i  
"C:\...\foundation\etc\sql\mssql\create_dw_staging_resources.sql" -o  
"C:\...\foundation\log\mssql_create_dw_staging_resources_LastRun.log"  
At: Wed Jul 02 13:35:59 PDT 2009  
Returned code is: 0
```

## SAP BusinessObjects Enterprise Logs

SAP BusinessObjects Data Services produces many run-time logs. You can locate these logs in the relevant directory

structure:

**C:\<installation directory>\BO\bods\BusinessObjects Data Services\log**

The `\log` folder has sub-directories to further organize the SAP BusinessObjects Data Services logs.

## Data Warehouse Log Files

You can access the Data Warehouse Log files in:

- `datawarehouse\logs`
- `C:\<Installationdirectory>\agora\glassfish\glassfish\domains\btoa\logs\server.log`

All information in the Data Warehouse log files is automatically sent to the Windows Event Viewer Application log.

## Tasks

["Configure the Logs" on the next page](#)

["Access Data Warehouse log information" on the next page](#)

## Configure the Logs

For data warehouse utilities, you can customize logging behavior by editing a related log configuration file with this naming convention: **xxx-log4j.xml**. For example, `importdefs-log4j.xml`. The log configuration files are in this directory:

**<installation directory>\agora\DataWarehouse\conf**

Open the related **xxx-log4j.xml** file with a text editor to choose the trace levels and to change other parameter values. If you make changes, save the file before you close it.

For ABC utilities, (abc-xxxx) there is a single log configuration file: `abc-log4j.xml`. The values that you specify in this file apply to all log files generated by any ABC utility.

### Trace Levels

You can choose one of the following trace levels to control the amount of information stored in the logs:

- **trace**
- **debug**
- **info**
- **warn**
- **error**
- **fatal**

The default value is **info**. You can experiment with different levels to see how much information that you want to display or suppress.

## Access Data Warehouse log information

1. On the Windows taskbar, click **Start > Administrative Tools > Event Viewer**.
2. Expand Windows Logs, right-click **Application**, and then click **Filter Current Log**.
3. Select the relevant Event Levels, select the relevant **Event Sources**, and then click **OK**.

**Note:** All the Data Warehouse Event Sources begin with DWH.

## Reference

### Sample Log Information

The following examples show the type of information you can find in these log files. The first example shows that a fatal error has occurred.

```
2008-07-02 13:33:10,652 INFO [com.hp.bto.dw.sqlbatch.SqlBatch] -  
Checking database options...
```

```
2008-07-02 13:33:10,949 FATAL
[com.hp.bto.dw.dbcreate.DbCreateCommandLine] - Problem during DB
options check:
An error that can be corrected by the user has been found. Check the
log file to correct the problem.
Check the error log file
'C:\...\foundation\log\mssql_check_db_options_LastRun.log', line
number 2
008-07-02 13:33:10,949 FATAL
[com.hp.bto.dw.dbcreate.DbCreateCommandLine] - Exit code: 6
```

The second example shows successful execution.

```
2008-07-02 13:36:27,136 INFO
[com.hp.bto.dw.dbmetadatatool.DbMetadatatool]
Creating Date and Time stored procedures and populating the dimension
tables...
2008-07-02 13:36:30,511 INFO
[com.hp.bto.dw.common.dblogparser.LogParserStatus] - Command
successfully executed.
```

It is possible to change the format of the reported information by changing the corresponding configuration files.



# Add Additional Data Sources

You can add additional Content Packs to the data warehouse that can then be activated or deactivated.



## Add additional data sources

1. Copy the Content Pack file into the CP directory: **<Installation Directory>\agora\Content Packs**.
2. Run the following batch file: **dw\_cp\_register.bat -name <new CP>**. The name entered must match the Content Pack file name.
3. Activate the data source using the Data Source Management page. For details, see "[Data Source Management](#)" on page 95.

# Change the Configuration Definition

You can change data source configuration information only after you deactivate and then re-activate the specific data source.

## Change the data source configuration

1. Select **Admin > Data Source Management**.
2. If necessary, deactivate the data source by clicking  .
3. Click **Edit Settings** and edit the configuration parameters.
4. Click **Next** to validate your changes.
5. Click  next to the specific source and the source is activated.

For details, see "[Data Source Management](#)" on page 95.

# Change the Data Warehouse Period Dimensions

This procedure should be followed when expanding the Data Warehouse First and Last Year period dimension range.

It is highly recommended that once you enter First and Last Year period dimensions in the Executive Scorecard Configuration wizard, any future changes should take the following into account:

1. The First Year period dimension should only be changed downwards, thereby including the current First Year period dimension.

**Example** If the First Year dimension is currently set to 2005, any change should be a year lower than 2005. Entering a year higher than 2005 can cause some data inconsistencies.

2. The Last Year period dimension should only be changed upwards, thereby including the current Last Year period dimension.

**Example** If the First year dimension is currently set to 2025, any change should be a year higher than 2025. Entering a year lower than 2025 can cause some data inconsistencies.

## Change Data Warehouse period dimensions

1. In the Executive Scorecard application, click **Admin > Data Warehouse**, under **General**, make the required changes in the **First year handled by DWH dates** and **Last Year handled by DWH dates** settings, and click **Save**.
2. From a command prompt, navigate to  
**<Installation Directory>\agora\DataWarehouse\Bin**

Run **dw\_period\_dim\_generator**.

# Data Warehouse Naming Conventions

The following describes table and field naming conventions.

Type	_Value	Description
Table Name Suffixes	_DIM	Dimension or bridge table.
	_FACT	Fact table.
	_MS	Monthly snapshot table that shows the last known value for the data at the end of a month.
	_HIER	Hierarchy table.
	_AGG	Aggregate roll up table.
Field Name Prefixes	MD_	Metadata.
	SRC_	Used for all fields that exist just for data warehouse internal processes. Source. Used for all field drawn from the source for ETL purposes only (not pushed to the target).
	PK_	Primary key.
	FLAG_	A binary field: Y/N.
	DATE_	A date type.
	DURATION_	A measure representing a length of time.
	COUNT_	A measure representing a raw count.
	AVG_	A measure representing an average roll up.
	MAX_	A measure representing a maximum roll up.
	MIN_	A measure representing a minimum roll up.
	PCT_	A measure representing a percentage.
Field Name Suffixes	_ID	A surrogate key field that is primary or foreign.
	_BASE	A financial amount, currency, or exchange rate in the default currency of the data warehouse.
	_UTC	A date expressed in the UTC time zone. For dates: a date expressed in the default display time zone for the data warehouse. For money: a financial amount, currency, or exchange rate in the original currency of the source data.
	_LOC	A date expressed in the local time zone.

## Target and Staging Databases Naming Conventions

The first character of the Target and Staging databases name must begin with an alpha character. The `init_db` utility fails if you use database names that begin with numbers.

## SAP BusinessObjects Data Services Naming Conventions

This section describes the naming conventions used by tables that are part of the SAP BusinessObjects Data Services ETL process.

This section includes:

- ["Datastore " below](#)
- ["Datastore Alias " on the next page](#)
- ["Project" on the next page](#)
- ["Job Names" on page 367](#)
- ["Workflows" on page 367](#)
- ["Dataflows" on page 368](#)
- ["Variables - Global - Local Variables - Parameters" on page 368](#)
- ["Custom Functions" on page 368](#)
- ["Data Warehouse Naming Conventions" on the previous page](#)
- ["Try/Catch" on page 369](#)
- ["Conditionals" on page 370](#)
- ["Flat File Targets" on page 370](#)

### Datastore

Description	Naming Convention and Examples
-------------	--------------------------------

Connection to database with source application views	<p>Datstore names have a prefix with the datstore name and a suffix of _DS.</p> <p><b>Format:</b></p> <p>&lt;SOURCE APP&gt;_DS</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• AMVIEW_DS</li> <li>• PPMVIEW_DS</li> <li>• SMVIEW_DS</li> </ul>
Connection to transactional entity staging database	SRCSTAGING_DS
Connection to target entity staging database	DWSTAGING_DS
Connection to data warehouse database	DW_DS

### Datstore Alias

Description	Naming Convention and Examples
Name of Datstore for the specific source in SAP BusinessObjects Data Services	<p>Alias names have a prefix with the source application name and a suffix of _ALIAS.</p> <p><b>Format:</b></p> <p>&lt;SOURCE APP&gt;_ALIAS</p> <p><b>Example</b> AMVIEW_ALIAS</p>
Alias user for transactional entity staging database	SRCSTAGING_ALIAS
Alias user for target entity staging database	DWSTAGING_ALIAS
Alias user for data warehouse database	DW_ALIAS

### Project

Description	Naming Convention and Examples
-------------	--------------------------------

<p>Allows you to group jobs that have dependent schedule or belong to the same application</p>	<p>Project names have a prefix with the source application name or purpose of the project and a suffix of _PJ.</p> <p><b>Format:</b></p> <p>&lt;DESCRIPTION&gt;_PJ</p> <p><b>Example</b> FPA_PJ</p>
--	---

## Job Names

Description	Naming Convention and Examples
<p>SAP BusinessObjects Data Services job which is a group of objects that you can schedule and execute together</p>	<p>Job names have a prefix with the name of the source application. An internal segment can describe the job purpose. There is a suffix of _JB.</p> <p><b>Format:</b></p> <p>&lt;SOURCE APP&gt;_&lt;PURPOSE&gt;_JB or &lt;PURPOSE&gt;_JB</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• AM_SOURCE_EXTRACT_JB</li> <li>• DW_JB</li> </ul>

## Workflows

Description	Naming Convention and Examples
<p>Defines a decision making process to execute a dataflow</p>	<p>Workflow names have a prefix with the source or target name. A SUB-CATEGORY segment describes the ETL phase. There is suffix of _WF.</p> <p><b>Format:</b></p> <p>&lt;SRC NAME/TARGET NAME&gt;_&lt;SUB-CATEGORY&gt;_WF</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• AM_AMRIGHTSUSES_COUNT_EXT_WF</li> <li>• AM_MSI_CONTAINER_WF</li> </ul>

## Dataflows

Description	Naming Convention and Examples
Data flows extract, transform and load data	<p>Dataflow names have a prefix with the source or target name. A SUB-CATEGORY segment describes the ETL phase. There is a suffix of _DF.</p> <p><b>Format:</b></p> <p>&lt;SRC NAME/TARGET NAME&gt;&lt;SUB_CATEGORY&gt;_&lt;ACTION&gt;_DF</p> <p><b>Examples:</b></p> <p>AM_AMRIGHTSUSES_COUNT_EXT_DF</p> <p>AM_SWAUDITDETAIL_MSI_DF</p>

## Variables - Global - Local Variables - Parameters

Description	Naming Convention and Examples
Variables defined in a job Variables defined in a job/ workflow Parameters in a workflow/ dataflow	<p>Variable names have a dollar sign (\$) and prefix to identify the type of variable (G for global, L for local, or P for parameter). The suffix identifies the purpose or identifying parameter name.</p> <p><b>Format:</b></p> <p>\$G_&lt;PURPOSE&gt; or \$L_&lt;PURPOSE&gt; or \$P_&lt;PURPOSE&gt;</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• \$G_BATCH_ID</li> <li>• \$L_STARTDATE</li> <li>• \$P_STATUS</li> </ul>

## Custom Functions

Description	Naming Convention and Examples
-------------	--------------------------------



<p>Script functions in Data Integrator scripting language</p>	<p>Custom function names have a prefix that describes the purpose of the function.</p> <p>The suffix is _FN.</p> <p><b>Format:</b></p> <p>&lt;PURPOSE&gt;_FN</p> <p><b>Example</b> STARTJB_FN</p>
---	---

## Scripts

Description	Naming Convention and Examples
<p>Scripts created in jobs or work flows. Description can refer to function the script is performing or the name of the table the script is loading</p>	<p>Script names have a prefix that describes the data source or target name.</p> <p>A SUB-CATEGORY segment describes the ETL phase. The suffix is _SC.</p> <p><b>Format:</b></p> <p>&lt;SRC NAME/TARGET NAME&gt; or &lt;SUB_CATEGORY&gt;_SC.</p> <p><b>Example</b> AM_ AMRIGHTSUSESCOUNT_ EXT_FAIL_SC</p>

## Try/Catch

Description	Naming Convention and Examples
-------------	--------------------------------

<p>Specify alternative workflows if errors occur while executing a job</p>	<p>Try/catch names have a prefix that describes the data source or target name. A SUB-CATEGORY segment describes the ETL phase. The suffix is _TRY or _CATCH.</p> <p><b>Format:</b></p> <p>&lt;SRC NAME/TARGET NAME&gt;&lt;SUB_CATEGORY&gt;_TRY or &lt;SRC NAME/TARGET NAME&gt;&lt;SUB_CATEGORY&gt;_CATCH</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• AM_AMRIGHTSUSES_COUNT_EXT_TRY</li> <li>• AM_AMRIGHTSUSES_COUNT_EXT_CATCH</li> </ul>
--	--

## Conditionals

Description	Naming Convention and Examples
<p>Conditionals are single-use objects used to implement if-then-else logic in a work flow</p>	<p>Conditional names have a prefix that describes the data source or target name. A SUB-CATEGORY segment describes the ETL phase. The suffix is _COND.</p> <p><b>Format:</b></p> <p>&lt;SRC NAME/TARGET NAME&gt;&lt;SUB_CATEGORY&gt;_COND</p> <p><b>Example</b> AM_AMRIGHTSUSES_COUNT_EXT_COND</p>

## Flat File Targets

Description	Naming Convention and Examples
-------------	--------------------------------

<p>Flat file extracts of source view</p>	<p>Flat file target names have a prefix that describes the datastore name. Segments describe the source table name, batch ID, and A SUB-CATEGORY segment describes the ETL phase. The suffix is .txt.</p> <p><b>Format:</b></p> <p>&lt;DATASTORENAME (without _DS)&gt;_&lt;SOURCETABLENAME_BATCHID&gt;_&lt;SUB-CATEGORY&gt;.txt</p> <p><b>Example</b> AMVIEW_AMRIGHTSUSESCOUNT_'   \$G_Batch_ID  '_EXTRACT_FF.TXT AMVIEW_AMRIGHTSUSESCOUNT_'   \$G_Batch_ID  '_EXTRACT_DELETE_FF.TXT</p>
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# Data Warehouse Command Reference

This section is a syntax reference for the out-of-box scripts that are available to ETL designers and developers.

The data warehouse contains out-of-box .xml files in this directory:

**<DWH\_home\_directory>\DataWarehouse\conf**

The table in the Command Summary section lists the out-of-box scripts that you can use to accomplish command line tasks. These scripts produce specific results. Changing them may produce unpredictable results when they run. For details, see "[DWH Command Reference](#)" on [page 381](#).

This section includes:

["ABC Command Reference" on the next page](#)

["DWH Command Reference" on page 381](#)

["The Automation Tool" on page 390](#)

# ABC Command Reference

This section describes all of the out-of-box ABC command files that are available to administer the ABC functions. The table in the Command Summary section lists the out-of-box files that you can use to accomplish ABC tasks.

Although SAP BusinessObjects Data Services runs the jobs that extract, transform, and load data, ABC manages the actual launch, execution, and sequencing of the steps in these jobs. If you run jobs using SAP BusinessObjects Data Services only, there can be conflicts, sequence errors, and data corruption, and run-time statistics can be lost.

The data warehouse provides the out-of-box file (upstream.xml) that contains the required job steps. The primary ABC tasks are to launch ETL batch jobs at regularly scheduled intervals and ensure that the individual job steps run as soon as they are ready. In addition, the ABC Audit and Control reports enable you to view information pertaining to the utilities.

## Syntax Conventions

Command options in square brackets ([ ]) are optional.

Italicized lowercase expressions are variable values.

If a command option argument is a text string that contains blank spaces, you must enclose it in quotation marks. Otherwise, the text before the blank space is considered the entire argument and the remaining text becomes an undefined option.

## Command Summary

The following command script files are available in this directory:

**<Installation Directory>\agora\DataWarehouse\bin**

Name	Purpose	Primary User
"dw_abc_batch_control " on the next page	Start and stop batch job streams.	Administrator
"dw_abc_load_batch " on page 375	Load a batch job stream or register it as a scheduled task.	Administrator
"dw_abc_run_steps " on page 377	Run job stream steps (the ABC engine) or register it as a scheduled task.	Administrator
"dw_abc_retry_step " on page 378	Restart a job stream step.	Administrator
"dw_abc_job_launcher " on page 379	Start or stop job steps within a job stream.	Administrator or ETL developer
"dw_abc_set_status " on page 380	Capture the status of job stream steps that are implemented as batch scripts.	Administrator or ETL developer

## ***dw\_abc\_batch\_control***

Use this script to start and stop batch job streams. The `dw_abc_batch_control` utility enables you to:

- Suspend an active batch job stream
- Resume a suspended batch job stream
- Abort a running batch job stream

### **User**

Administrator

### **Syntax**

DWH\_Admin

```
dw_abc_batch_control (-abort | -resume | -suspend)
                    (streamID <streamid> | -all)
                    [-help]
```

### **Options**

<b>Option</b>	<b>Required?</b>	<b>Description</b>
Choose one of the following options:		
<code>-commandName all</code>	No	Complete the named command action on all loaded job streams.
<code>-abort</code>	No	Terminate <code>-all</code> or a specific streamID where the streamID value is the catalog parameter value for <code>dwid="xxxx"</code> .
<code>-abortAndKillJobs</code>	No	Abort the specified stream and kill all currently running SAP BusinessObjects Data Services jobs (if any currently running).
<code>-resume</code>	No	Re-start <code>-all</code> or a specific streamID where the streamID value is the catalog parameter value for <code>dwid="xxxx"</code> .

-suspend	No	Temporarily stop -all or a specific streamID where the streamID value is the catalog parameter value for dwid="xxxx"
Choose one of the following options:		
• -streamId <i>streamId</i>	No	The streamID value is the catalog parameter value for dwid="xxxx" found in the xml file that describes the stream: <Installation Directory>\agora\Content Packs\Core\ABC\upstream.xml
• -all	No	All streams currently executing.
-help	No	Display command syntax

### Examples

- **dw\_abc\_batch\_control -suspend -streamid Stream1**
- **dw\_abc\_batch\_control -resume -all**

## ***dw\_abc\_load\_batch***

Use this script to load a batch job stream or register it as a scheduled task.

The **dw\_abc\_load\_batch** utility is responsible for starting an ABC ETL track. You can run this utility manually at the command line, or scheduled it to run at scheduled intervals.

Batch job streams can run concurrently if each job stream is independent of other job streams; however, if two concurrent batch jobs invoke the same job stream, they cannot run successfully. If the **dw\_abc\_load\_batch** utility successfully loads a batch job, as long as that batch job is running, any attempt to load a second instance of the same batch job will fail. Running the out-of-box upstream.xml job stream in overlapping batches produces errors.

The **dw\_abc\_load\_batch** utility initializes the ABC stream and prepares the stream steps for execution.

The **dw\_run\_steps** utility looks for these steps that are ready and starts each one individually. The batch job manages the details of extracting entities from source databases.

All the job steps in the batch job reference the same batch ID. The initial state of the batch is Active. The initial state of all of the pending processes (job steps) is Waiting.

### **User**

Administrator

## Syntax

```
dw_abc_load_batch -streamId <string>
[-register (-every <string> |-starttime <string>)]
    [-unregister]
    [-list]
    [-help]
```

## Options

Option	Required?	Description
Choose one of the following options:		
-list	No	List tasks scheduled to run.
-list_streamId <streamId>	Yes	Identify the stream ID value that is specified in the stream file parameter dwid="xxxx".
-register	No	Create a scheduled task to run dw_abc_load_batch at regular intervals.
-unregister_streamId <streamId>	No	Unregister all the events for the specified streamId stream.
-starttime <i>hh:mm</i>	No	Start the task to load the batch where the value for hh is 00–24 and the value for mm is 00–59.
-streamid <i>stream_id</i>	Yes	Identify the stream ID value that is specified in the stream file parameter dwid="xxxx".
-help	No	Display command syntax.

## Examples

- **dw\_abc\_load\_batch -streamId streamId**
- **dw\_abc\_load\_batch -streamId streamId -register -every 720**
- **dw\_abc\_load\_batch -streamId streamId -register -starttime 22:30**
- **dw\_abc\_load\_batch -unregister -streamId streamId**
- **dw\_abc\_load\_batch -list -streamId streamId**
- **dw\_abc\_load\_batch -unregister**



- `dw_abc_load_batch -list`

## ***dw\_abc\_run\_steps***

Use this script to run job stream steps or register the action as a scheduled task.

The command verifies the successful execution of each step before a dependent step begins. It also compiles a list of parallel and sequential execution steps that are ready to run, then launches each step that is ready for execution.

The command:

- Determines which steps are ready to run and starts them.
- Creates processes for each step in a batch job stream.
- Reports execution state for each process, then updates a final execution status for the batch.
- Sets a status of `Max_Execution_Time_Exceeded` if a step exceeds its maximum execution time.
- If `Max_Execution_Time_Exceeded` occurs, stops job step execution.
- Finds all steps that are blocking the execution of a job stream and reports them.
- Retries any step that terminates with an error and has not exceeded the specified maximum number of retries.

You can specify a maximum number of retries when an error occurs, and a maximum execution time for each step in the job stream definition file. Because they are optional parameters, they have default values of no retries and unlimited execution time. For details see ["Change the Number of Retries for a Failed ETL Step" on page 396](#).

### **User**

Administrator

### **Syntax**

```
dw_abc_run_steps [-streamId <string>]
                 [-every <interval>]
                 [-register]
                 [-unregister]
                 [-list]
                 [-help]
```

## Options

Option	Required?	Description
-every <i>nnn</i>	No	Start the batch load task every <i>nnn</i> minutes.
-list	No	Display a list of the registered events for all the stream Ids.
-list <i>_streamId</i> < <i>streamId</i> >	No	Display a list of the registered events for the specified <i>streamId</i> .
-register	No	Create a scheduled task to run <b>dw_abc_run_steps</b> at regular intervals.
-unregister <i>_streamId</i> < <i>streamId</i> >	No	Unregister all the events for the specified <i>streamId</i> stream.
- <i>streamId</i> <i>stream_id</i>	No	Stream ID value for the step to restart.
-help	No	Display command syntax for this command.

## Examples

- To run all possible steps with a ready status:  
**dw\_abc\_run\_steps -streamId Upstream**
- To create a scheduled task that executes the **dw\_abc\_run\_steps** command every 60 minutes:  
**dw\_abc\_run\_steps -register -every 60 -streamId Upstream**
- To remove a scheduled task that starts the **dw\_abc\_run\_steps**:  
**dw\_abc\_run\_steps -unregister -streamId Upstream**
- To list a scheduled task that starts the **dw\_abc\_run\_steps**:  
**dw\_abc\_run\_steps -list -streamId Upstream**
- To remove all scheduled tasks that starts the **dw\_abc\_run\_steps**:  
**dw\_abc\_run\_steps -unregister**
- To list all scheduled tasks that starts the **dw\_abc\_run\_steps**:  
**dw\_abc\_run\_steps -list**

## ***dw\_abc\_retry\_step***

Use this script to restart a job stream step.

The **dw\_abc\_retry\_step** utility re-starts a job step. When you specify a maximum number of retries, the ABC engine blocks the job stream when that number is exceeded.

## User

Administrator

## Syntax

```
dw_abc_load_batch -streamId <string>  
                  -stepId <string>  
                  [-help]
```

## Options

Option	Required?	Description
-stepId <i>step_id</i>	Y	Step ID value for the step to restart.
-streamId <i>stream_id</i>	Y	Stream ID value for the step to restart.
-help	N	Display command syntax.

## Example

```
dw_abc_retry_step -streamId Upstream -stepId step_id
```

## *dw\_abc\_job\_launcher*

Use this script to start or stop specific SAP BusinessObjects Data Services jobs.

## User

Administrator or ETL developer

## Syntax

```
dw_abc_job_launcher -jobname <string>  
                   [-stop]  
                   [-help]
```

## Options

Option	Required?	Description
-jobname <i>job_name</i>	Y	Name of the job that you want to run.
-stop <i>job_name</i>	N	Stop job execution.
-help	N	Display command syntax.

If you omit the -process option, you must set an environment variable %DW\_PROCESS\_ID% that contains the value of the process ID.

## Example

- `dw_abc_job_launcher -jobname DW_JB`
- `dw_abc_job_launcher -stop -jobname DW_JB`

## ***dw\_abc\_set\_status***

Use this script to set the status of job stream steps that are implemented as batch scripts.

### **User**

Administrator or ETL developer

### **Syntax**

```
dw_abc_set_status (-error | -final | running | -success | -warning)
                  [-info <string>]
                  [-help]
```

### **Options**

Option	Required?	Description
Choose one of the following status parameters:		
• -error	N	If an error occurs, update the data warehouse with the error status.
• -final	N	If an error occurs, update the data warehouse with the most severe status.
• -running	N	If an error occurs, update the data warehouse with the run status.
• -success	N	If successful, update the data warehouse with the success status.
• -warning	N	If a warning status occurs, update the data warehouse with the warning status.
-help	N	Display command syntax.

The -info "message\_text" is optional free text that you can display.

This script requires the DW\_PROCESS\_ID environment variable to be set with the value of the process ID before you run this script.

### **Example**

```
dw_abc_set_status -error -info "Job failed"
```

# DWH Command Reference

The following command script files are available in this directory:

<DWH\_home\_directory>\DataWarehouse\bin

## Data Warehouse Script Files

Name	Purpose	Primary User
<a href="#">"dw_bods_xml_import" on the next page</a>	Import ETL from XML files to the SAP BusinessObjects Data Services repository.	Administrator
<a href="#">"dw_cleandb" on page 383</a>	Clean data from staging and target databases to imitate initial load. For details, see <a href="#">"Clean Up the Staging and Target Databases" on page 353</a> .	Administrator
<a href="#">"dw_ds_gen" on page 383</a>	Generate the metadata repository.	ETL developer
<a href="#">"dw_ds_import" on page 384</a>	Import source files into the metadata repository	ETL developer
<a href="#">"dw_etl_export" on page 384</a>	Export the SAP BusinessObjects Data Services jobs, workflows, and other ETL components.	ETL developer
<a href="#">"dw_etl_import" on page 385</a>	Import the SAP BusinessObjects Data Services jobs, workflows, and other ETL components.	ETL developer
<a href="#">"dw_etl_update_containers" on page 386</a>	Build an ETL workflow container.	ETL developer
<a href="#">"dw_foundation_setup" on page 386</a>	Build the data warehouse foundation	Installer

<a href="#">"dw_generateschemas" on page 387</a>	Generate schemas and tables.	ETL developer
<a href="#">"dw_initdb" on page 388</a>	Initialize the data warehouse database schema	Administrator
<a href="#">"dw_tz_update_dst" on page 389</a>	Update time zone information	Administrator
dw_ds_automation.bat	Data Source Configuration using the Automation Tool. For details, see <a href="#">"The Automation Tool" on page 390</a> .	Administrator

## ***dw\_bods\_xml\_import***

Use this script to import ETL from XML files to the SAP BusinessObjects Data Services repository. The input XML files are located in the indicated directory, or its subdirectories.

### **User**

Administrator

### **Syntax**

```
dw_bods_xml_import [-help] [-fromfile "<xmlfile>" | -fromdir "<directory>"]
```

### **Options**

Option	Required?	Description
-fromdir <fromdir>	N	The directory, in the data source repository, that contains the ETL XML files to import .
-fromfile <fromfile>	N	The XML file, in the data source repository, from which the ETL is imported .
-help	N	Display command syntax.

### **Examples**

```
dw_ds_gen -datastore all -outputdir c:\datastores dw_ds_gen -datastore PPM -outputdir c:\datastores\PPM
```

## ***dw\_cleandb***

Use this script to clean data from the staging and target databases to start an initial load..

### **User**

Administrator

### **Syntax**

```
dw_clean_data [-help]
```

### **Options**

Option	Required?	Description
-help	N	Display command syntax.

### **Examples**

```
dw_clean_data.bat
```

## ***dw\_ds\_gen***

Use this script to generate one or more datastores. SAP BusinessObjects Data Services imports these datastores to enable SAP BusinessObjects Data Services jobs to connect to the database.

### **User**

ETL developer

### **Syntax**

```
dw_ds_gen -datastore <dws|dwst|dwt|dwabc|PPM|AM|SM|all>  
          -outputdir <directory>  
          [-verbose]  
          [-help]
```

### **Options**

Option	Required?	Description
-datastore	Y	Generate the specified data source (dws, dwst, dwt, dwabc, PPM or AM). Specify all to generate all sources.
-outputdir <i>directory_name</i>	Y	Path and name of the target directory where the data source files are to be generated.
-verbose	N	Produce more detailed output.

-help	N	Display command syntax.
-------	---	-------------------------

### Examples

```
dw_ds_gen -datastore all -outputdir c:\datastores dw_ds_gen -datastore PPM -outputdir c:\datastores\PPM
```

## ***dw\_ds\_import***

Use this script to import source files from a named directory into the metadata repository. For example, to import a collection of files into the datastore directory.

### User

ETL developer

### Syntax

```
dw_ds_import -inputdir directory  
[-help]
```

### Options

Option	Required?	Description
-inputdir <i>directory_name</i>	Y	Path and name of the directory where the data source files are to be imported.
-help	N	Display command syntax.

### Example

```
dw_ds_import -inputdir "c:\datastore\Source Files"
```

## ***dw\_etl\_export***

Use this script to export Data Services jobs, workflows, data flows, and functions to a zip file.

### User

ETL developer

### Syntax

```
dw_etl_export -zip <zipfile>  
[-help]
```



## Options

Option	Required?	Description
-zip <i>zip_file_name</i>	Y	Export to the specified archive file.
-help	N	Display command syntax.

### Example

```
dw_etl_export -zip c:\etlFiles.zip
```

## *dw\_etl\_import*

Use this script to import Data Services jobs, workflows, data flows, and functions to a zip file.

### User

ETL developer

### Syntax

```
dw_etl_import [-atl <atlFile>]
               -topdir <directory>
               [-zip <zipfile>]
               [-help]
```

## Options

Option	Required?	Description
-atl <i>atl_file_name</i>	N	Import the specified .atl file.
-topdir <i>directory_name</i>	Y	Import all .atl files under a specified directory and subdirectory.
-zip <i>zip_file_name</i>	N	Import the contents of the archive file.
-help	N	Display command syntax.

### Examples

```
dw_etl_import -topdir c:\etlFiles
```

```
dw_etl_import -topdir "c:\ETL Files"
```

```
dw_etl_import -zip c:\etlFiles.zip
```

```
dw_etl_import -atl c:\functions.atl
```

## ***dw\_etl\_update\_containers***

This script loads .atl files during the installation process.

### **User**

ETL developer

### **Syntax**

```
dw_etl_update_containers -topdir <directory>  
                        [-verbose]  
                        [-help]
```

### **Options**

Option	Required?	Description
-topdir <i>directory_name</i>	Y	Name of the directory that contains all application-specific .atl files.
-verbose	N	Produce more detailed output.
-help	N	Display command syntax.

### **Return codes**

0 – Success  
1 – Success with warnings  
>1 – Errors

### **Examples**

```
dw_etl_update_containers -topdir "c:\My Application"  
dw_etl_update_containers -topdir c:\MyApplication
```

## ***dw\_foundation\_setup***

Use this script to call the scripts that initialize the data warehouse, or load the metadata for data source connections into the database.

### **Syntax**

```
dw_foundation_setup [-args <taskArguments>]  
                  -taskName <taskName>  
                  [-verbose]  
                  [-help]
```

## Options

Option	Required?	Description
-args <i>task_argument</i>	N	Name of the task argument.
-taskName <i>task_name</i>	Y	Name of the requested task.
-verbose	N	Produce more detailed output.
-help	N	Display command syntax.

You can see the individual tasks and associated arguments called by `dw_foundation_setup` if you open this file with a text or xml editor:

```
<DWH_home_directory>\DataWarehouse\etc\xml\dw_foundation_setup.xml
```

## Return codes

- 0 – Success
- 1 – Success with warnings
- >1 – Errors

## *dw\_generateschemas*

Use this script to generate schemas and tables.

## Syntax

```
dw_generateschemas [-aggregates]
                    [-application <application>|all]
                    [-autoloadingmode true|false]
                    [-interface]
                    [-noninteractive]
                    [-product <product>|all]
                    [-staging]
                    [-target]
                    [-verbose]
                    [-help]
```

## Options

Option	Required?	Description
-aggregates	N	Generate or update the aggregation tables.
-application <i>application_name</i>   all	N	Load the named application or load all applications. All is the default if you are in non-interactive mode.
-autoloadingmode	N	Specify true or false. True is the default value.

-interface	N	Generate the SQL script files to create the interface.
-noninteractive	N	Run this script without prompting for user input. Use all default values.
-product <i>product_name</i>   all	N	Load the specified product. All is the default value.
-staging	N	Generate or update the staging tables.
-target	N	Generate or update the target tables.
-verbose	N	Produce more detailed output.
-help	N	Display command syntax.

Interfaces will always be written to a file, whether autoloadingmode is on or not. Each interface for a Data Source Connection is written to a separate file. If you do not specify a specific phase, all phases execute.

### Example

```
dw_generateschemas -application myApp -autoloadingmode true -target
```

## *dw\_initdb*

Use this script to initialize data warehouse foundation database schemas.

### Syntax

```
dw_init.bat [-confdir <directory>]
            [-schema <schemaname>]
            -sqldir <directory>
            [-help]
```

### Options

Option	Required?	Description
-confdir <i>directory</i>	N	Name of the directory that contains the .properties file for the designated <b>schemaname</b> .
-schema <i>schemaname</i>	N	Name of the schema, such as <b>dwmetadata</b> , <b>dws</b> , <b>dwst</b> , or <b>dwt</b> .
-sqldir <i>directory</i>	Y	Name of the directory that contains the schema and .properties file.
-help	N	Display command syntax.

## Examples

```
dw_init.bat -sqldir c:\myDbDirectory  
dw_init.bat -sqldir c:\myDbDirectory -schema dwmetadata -confdir "c:\my Config  
Directory"
```

## *dw\_tz\_update\_dst*

Load or update the time zone information for a data source and the data warehouse.

Run this utility whenever you deploy new source data or when you manually change the time zone.

Time zone is expressed in GMT format: GMT +\-nn:nn.

## Syntax

```
dw_tz_update_dst.bat  
                [-help]  
                [-verbose]
```

## Options

Option	Required?	Description
-help	N	Display command syntax.
-verbose	N	Produce more detailed output.

## Return codes:

0 – Success

1 – Success with warnings

>1 – Errors

## Example

```
dw_tz_update_dst -verbose
```

# The Automation Tool

The automation tool is built and designed to simplify the different tasks of Data Source Management.

It contains Data Source Management back-end tools that simplify the usage, add some necessary validations, and set the different statuses. The functions are used by the Data Source Management user interface but also provides a command line interface so it can be used outside the application server.

The following Command Line Interface (CLI) is available for Data Source Management functionality outside the UI. The command script files are found in this directory:

**<DWH\_home\_directory>\DataWarehouse\bin**

## TestConnection

**Usage:** dw\_ds\_automation.bat -task TestConnection -cp xxx -xmlFilePath [Path to datasources.xml file]

**Description:** Test the connection to the data source. Should be used before running the configuration task in order to validate correct connection details.

## Register Instance

**Usage:** dw\_cp\_register.bat -addInstance -name <CP\_NAME>

**Description:**

- Use to add an additional instance of the data source.
- The Data Warehouse then looks for the CP in the Content Packs Folder.
- The instance ID is displayed in the output. "Instance ID: XX has been added to Content Pack: <CP\_NAME>"
- It is also added to the CONTENT\_PACK table.

## ConfigureInitial

**Usage:** dw\_ds\_automation.bat -task ConfigureInitial -cp <content pack name>-instance <INSTANCE\_ID>-xmlFilePath [Path to datasources.xml file]

**Description:**

- Configure the CP connection settings before the CP has been initialized.
- Use prior to CP initialization (Deploy).

**Note:** To successfully run this command, the ALM password must be encrypted before saving it in the Staging database.

## Configure

**Usage:** dw\_ds\_automation.bat -task Configure -cp <content pack name>-instance <INSTANCE\_

ID> -xmlFilePath [Path to datasources.xml file]

**Description:** Configure the CP connection settings and regenerate the datastore of the product. Can be used only after the CP has been successfully initialized.

**Note:** If any the following sources HP Application Lifecycle Management, HP Business Service Management, or HP Universal Configuration Management Database are configured via a back-end too, the relevant URL listed below should be run before the ETL is run:

- **HP Application Lifecycle Management:**  
<http://localhost:10002/dw/integrations/generic/reset/ALM>
- **HP Business Service Management:**  
<http://localhost:10002/dw/integrations/bsm/reset/connection>
- **HP Universal Configuration Management Database:**  
<http://localhost:10002/dw/integrations/ucmdb/ucmdb/reset/connection>

## Deploy

**Usage:** dw\_ds\_automation.bat -task Deploy -cp <content pack name>-instance <INSTANCE\_ID>

**Description:** Initialize the CP and set the CP status as **Initialized**.

## Activate

**Usage:** dw\_ds\_automation.bat -task Activate -cp <content pack name>-instance <INSTANCE\_ID>

**Description:** Activate the CP using the stream Assembler and set the CP status as Activated. Activating the CP causes its ABC stream to be merged with the Main (Core) CP stream. Activated CP stream steps will be executed during the execution of the Main (Core) ABC Stream.

## Deactivate

**Usage:** dw\_ds\_automation.bat -task DeActivate -cp <content pack name>-instance <INSTANCE\_ID>

**Description:** Deactivate the CP using the stream assembler and set the CP status as **Non-Activated**. Deactivate performs the opposite action from Activate. Deactivate subtracts the deactivated CP ABC Steps from the Main ABC Stream Steps.

## AutoActivate

**Usage:** dw\_ds\_automation.bat -task AutoActivate

**Description:** Deploy and activate all CPs with "autostart" flag according to the order set by "autostartpriority" in the manifest used by the post- install tool. The manifest found in cp\_manifest.properties, is a list of attributes located in the root folder of the Content Pack.

# Advanced Data Warehouse Administration

This section describes some of the advanced commands for DWH processes. DWH also provides a set of reports that provide the administrator with awareness and insight into the DWH processes.

This section includes:

["Advanced Utilities" on the next page](#)

["Validate Catalog and Stream Definitions" on page 395](#)

["Change the Number of Retries for a Failed ETL Step" on page 396](#)

["Change Data Warehouse Passwords" on page 398](#)

["Improve Performance" on page 400](#)

["Check the Runtime Status of Batch Jobs" on page 401](#)

["Resolve an ETL Error" on page 402](#)

["Monitor and Tune the Data Warehouse" on page 403](#)

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# Advanced Utilities

The Data Warehouse enables you to run advanced ABC utilities.

## ***dw\_abc\_job\_launcher***

Use this script to start or stop specific SAP BusinessObjects Data Services jobs.

### **User**

Administrator or ETL developer

### **Syntax**

```
dw_abc_job_launcher -jobname <string>
                    [-stop]
                    [-help]
```

### **Options**

Option	Required?	Description
-jobname <i>job_name</i>	Y	Name of the job that you want to run.
-stop <i>job_name</i>	N	Stop job execution.
-help	N	Display command syntax.

If you omit the -process option, you must set an environment variable %DW\_PROCESS\_ID% that contains the value of the process ID.

### **Example**

- `dw_abc_job_launcher -jobname DW_JB`
- `dw_abc_job_launcher -stop -jobname DW_JB`

## ***dw\_abc\_set\_status***

Use this script to set the status of job stream steps that are implemented as batch scripts.

### **User**

Administrator or ETL developer

### **Syntax**

```
dw_abc_set_status (-error | -final | running | -success | -warning)
                  [-info <string>]
                  [-help]
```

## Options

Option	Required?	Description
Choose one of the following status parameters:		
-error	N	If an error occurs, update the data warehouse with the error status.
-final	N	If an error occurs, update the data warehouse with the most severe status.
-running	N	If an error occurs, update the data warehouse with the run status.
-success	N	If successful, update the data warehouse with the success status.
-warning	N	If a warning status occurs, update the data warehouse with the warning status.
-help	N	Display command syntax.

The -info "message\_text" is optional free text that you can display.

This script requires the DW\_PROCESS\_ID environment variable to be set with the value of the process ID before you run this script.

### Example

```
dw_abc_set_status -error -info "Job failed"
```

## Validate Catalog and Stream Definitions

ABC utilities automatically validate xml syntax and perform more sophisticated validation, such as loop detection in a job stream and valid catalog references to the job stream (dwid=Upstream).

If an error occurs, you can view the DW ABC Streams Management UI for stream information. For details, see "[ETL Management](#)" on page 112.

Additionally you can review the ABC Operational Status report to see where the process failed. For details, see "[ABC - Operational Status Report](#)"

# Change the Number of Retries for a Failed ETL Step

The job stream batch file has a job stream step for each required task in the end-to-end ETL process and for each data source. Each job stream step has a parameter value that specifies the number of retries allowable before the job step terminates with an error. You can manually edit this value to increase or decrease the number of retries.

## Change the number of retries

1. Navigate to the installation directory structure to locate the following file:  
<Installation Directory>\agora\contentpacks\{CP}\ABC\{stream name}.xml,  
(depending on the {CP})
2. Save a backup copy of the file before you proceed.
3. Open upstream.xml with a text editor. There is a sequential list of job stream steps that manage the entire ETL process.

```
<ns1:JobStreamSteps>
<ns1:JobStreamStep dwid="SYS_READY" businessname="check ETL pre
conditions" ... maxretries="4"/>
<ns1:JobStreamStep dwid="EXTERNAL_FILE" businessname="extract External
Files" ... maxretries="4"/>
<ns1:JobStreamStep dwid="PPM_SOURCE_EXTRACT" businessname="extract PPM
to FF"... " maxretries="4"/>
<ns1:JobStreamStep dwid="AM_SOURCE_EXTRACT" businessname="extract AM to
FF" ... maxretries="4"/>
<ns1:JobStreamStep dwid="ENTERPRISE_XREF" businessname="load Xref
table" ... maxretries="4"/>
<ns1:JobStreamStep dwid="PPM_EXT" businessname="load PPM FF" ...
maxretries="4"/>
<ns1:JobStreamStep dwid="AM_EXT" businessname="load AM FF" ...
maxretries="4"/>
<ns1:JobStreamStep dwid="PPM_SSI" businessname="PPM Single Source
Identity" ... maxretries="4"/>
```

4. Locate the job stream step that you want to modify and change **maxretries="4"** to **maxretries="nn"** where **nn** is the number of retries before the job step terminates.
5. Save and close the file.
6. In order to activate the new ABC definitions, you must activate the changed CP ABC definitions.
  - a. If the ABC definitions were modified in the CORE content pack, any change to the content packs state would update the change.
  - b. If the ABC definitions were modified in any of the Integration Content packs, you must re-activate the content pack to import the new definitions.

7. Open the Data Source Management user interface, and re-activate the modified CP of which definitions you modified. For details, see "[Data Source Management](#)" on page 95.

# Change Data Warehouse Passwords

The installation and configuration process gathers all data warehouse and SAP BusinessObjects passwords, encrypts them, and stores them in the Data Warehouse platform settings management.

**Note:** In order for the ETL to successfully run after you have changed a password, you must change the Database Password and the Database Login Password in Data Warehouse Settings UI. For details, see "[Data Warehouse Settings](#)" on page 140.

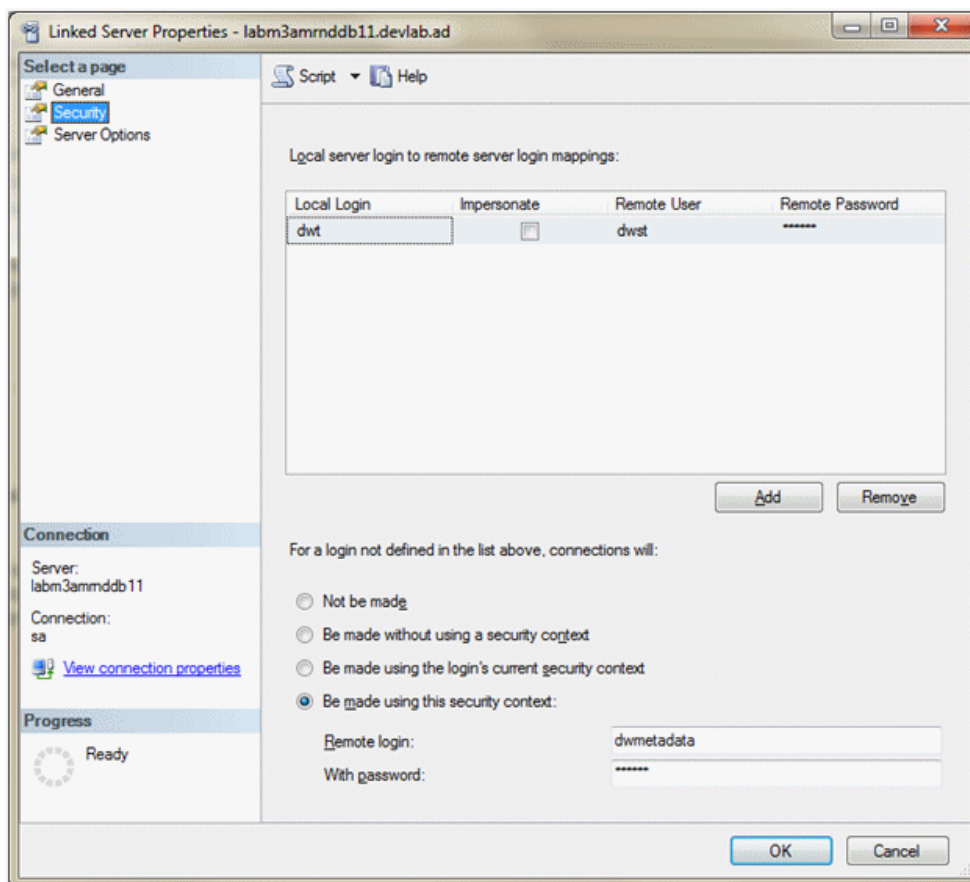
## Change a password

1. Stop any ETLs that are running, or abort a job stream if it is running.
2. On the RDBMS server, change the password for a specific logon name.
3. Click **Admin > Data Warehouse**, and update the relevant logon with the new password from step 2.

**Note:** Changing the password in the Data Warehouse user interface does not modify the password in the database servers. It is preferable to rely on the user performing the password update manually.

4. The Data Warehouse creates a database link which then uses the Data Warehouse and SAP BusinessObjects Enterprise passwords. The Linked Server is created in the following situations:
5.
  - a. The staging and target databases are installed on different servers.
  - b. The populated database server name in the post-install is different than the database host name on the system server for server id\_0.

In these situations, if you reset DWH user passwords (for dwabc, dwmetadata, dws, dwst, or, dwt), go to **Linked Servers** in the Microsoft SQL Server Management Studio, and change the relevant passwords in the **Security** tab of the **Linked Server Properties**, as follows.



6. When you change the passwords in the Data Warehouse user interface as well as the database server you must run the following:
  - <DWH root dir>\bin\dw\_ds\_gen.bat -outputdir \tmp\datastores -datastore all
  - <DWH root dir>\bin\dw\_ds\_import -inputdir \tmp\datastores
7. Reload the batch using **dw\_abc\_load\_batch.bat**.
8. Run ETL.
9. Note that a reboot is recommended after passwords change.

**Note:** It is recommended to avoid using localhost as the server database name.

# Improve Performance

Normal procedures require database administrators to set up aggregation, indices, and partitions that can enhance performance.

Enhancing and tuning overall database performance also improve the data warehouse performance.

Because the end-to-end ETL process involves accessing remote source databases and network connections, you may want to evaluate where performance degradation occurs and apply tuning strategies to these external connections.



## Check the Runtime Status of Batch Jobs

You can check the status of batch jobs and step status using the DW ABC Streams Management UI.

Additionally, the data warehouse produces operational and administrative reports that contain information about job status and other critical data warehouse activities.

When you view the ABC Operational Status report, you can see the global status and state of each ETL job stream and a snapshot of the runtime status of each job stream step.

For details, see [" ETL Management " on page 112](#)

To view reports, see ABC - Operational Status in ["Control Reports"](#) .

## Resolve an ETL Error

ETL jobs contain stream steps that you can restart. Using the DW ABC Streams Management UI, you can view relevant step information.

If the stream step is ready for processing, the next scheduled execution of `abc_run_steps.bat` will restart the stream step automatically.

If there is another impediment, such as source database or connection issues, you must resolve that issue before the step can complete successfully.

In the DW ABC Streams Management UI you can view step status, manually retry steps, as well as schedule `run_steps` command.

For details on viewing errors and step information, see "[ETL Management](#)" on page 112.

For back-end details, see "[ABC Command Reference](#)" on page 373.

# Monitor and Tune the Data Warehouse

The overall health of the data warehouse depends on the administrative skill of the RDBMS administrator.

The Microsoft SQL Server 2008 database administrator uses standard operating procedures for daily database operations.

The data warehouse is governed by these same processes and procedures.

For monitoring and tuning details, see the Microsoft SQL Server 2008 documentation.

## Purge Validation Tables

There is no automated process to purge these tables on a regular schedule.

Because organizations require audit and validation information to be retained for varying amounts of time, you should verify what the appropriate retention period is in your organization.

Use the following SQL script to delete all records in each of the validation tables that are older than the defined retention period.

```
CREATE OR REPLACE PROCEDURE sp_del_valf_info AS
--declare variables
BEGIN
--Delete All Required records in selection
DELETE FROM *.VALF
WHERE --trunc(Date) < '09-FEB-06'
);
COMMIT;
END sp_del_valf_info >
```

# Upgrade Content Packs

In a case where you have a newer Content Pack folder that contains updates or fixes for the OOTB CP you can perform the following.

**Upgrade Content Packs: `dw_ds_automation.bat -task Upgrade -cp [cp name] -newContentPackPath [path of the new cp]`**

The following steps are automatically included in the upgrade tool:

1. Deactivate all Integration Content Packs that are activated. It is recommended to stop ETL running and cancel all scheduling.
2. Zip the original Content Pack directory.
3. Copy the Content Pack to a new folder and run the upgrade command for that path.

This overwrites the existing Content Pack folder.

4. Activate the Core Content Pack as well as the remaining Content Packs.
5. Update the `content_pack` table according to the new manifest, `cp_manifest.properties`, a list of attributes located in the root folder of the Content Pack being upgraded.

For activation and deactivation details, see ["Data Source Management" on page 95](#).

Note the following usage limitations:

- ETL Stream should not be in a running mode - all streams must be aborted.
- The new CP folder must be a valid CP folder.
- CP should not be in **Installed** state, Integration Content Packs should be activated at least once before upgrade.
- If Core is being upgraded, it must be in the **Activated** state.

**Note:** In order to avoid upgrade failure, do not change the executables in the ABC catalog.

# Consolidate Entities using the XREF Mechanism

The consolidation process for data sources enables you to take information from the various sources and consolidate it into a single entity. Information from two or three sources is incorporated in the data warehouse in order to create a new entity. The XREF mechanism enables you to give priorities to a specific source when the same entity is extracted from different sources. Additionally you can give priority to instances of the same source.

## Set Consolidation Priorities

You can change the specific consolidation priority at the entity level using an Excel spreadsheet. Each source has an Excel which contains a list of the entities that can be consolidated, which you can prioritize according to number, starting with 1. If you do not want an entity from a particular source to be consolidated, enter a priority of -1.

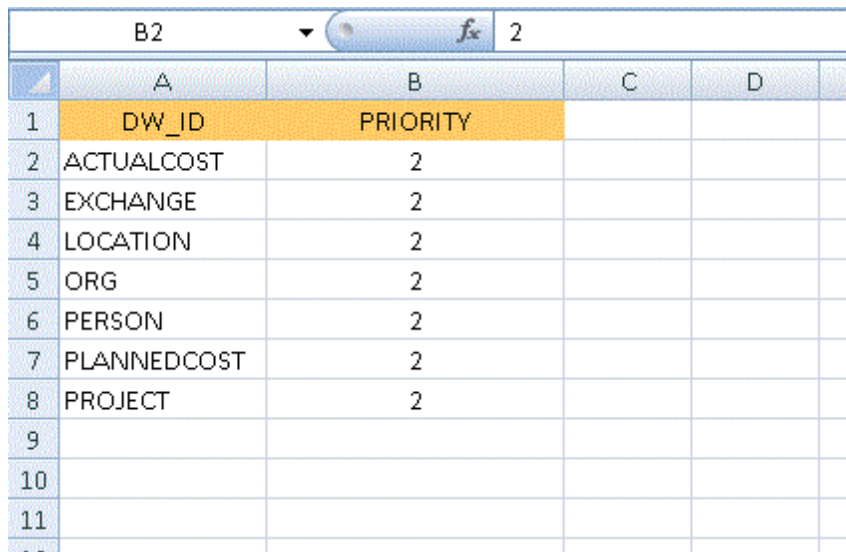
## Tasks

["Change the entity priority" below](#)

["Cancel the consolidation of a specific entity" on the next page](#)

### Change the entity priority

1. Using Windows Explorer, navigate to **C:\<Installation Directory>\agora\ContentPacks\<name of CP>\ETL\flatfiles**. For XREF consolidation following deployment, navigate to **C:\<Installation Directory>\agora\DataWarehouse\ExternalSources**.
2. Open the specific consolidation file, for example: CONSOLIDATION\_PRIORITIES\_PPM.



	A	B	C	D
1	DW_ID	PRIORITY		
2	ACTUALCOST	2		
3	EXCHANGE	2		
4	LOCATION	2		
5	ORG	2		
6	PERSON	2		
7	PLANNEDCOST	2		
8	PROJECT	2		
9				
10				
11				

3. Enter the priority you want to assign to each entity (**DW\_ID**).

4. Save and close the file.

**Note:**

- Consolidation priorities for multiple instances of the same data source are given according to the order of deployment.
- If in the same instance several records have the same priority qualifier, there is consolidation between those entities (the process does not fail), and the latest priority is utilized.

### **Cancel the consolidation of a specific entity**

1. In the database, open **[dwmetadata].[ConsolidationPriorities]**.
2. Change the priority number to -1 for the specific entity.
3. Save the changes.

**Note:** It is not permitted to manually change the -1 priority for OOTB entities that cannot be consolidated.

# SA Password Change

The procedure for changing this password is complex, therefore it is recommended not to be done often.

## Change the SA password

- **On BOE server:**
  - a. Change the password in BOE ODBC connection to the new password and restart the BOE.
  - b. Perform the following only if you created your own universes and you are using your own connections (not one of the following: XS\_APP\_JDBC, XS\_DWH\_JDBC, ita\_admin, ita\_operations).
    - i. Import all of your universes into the BOE designer.
    - ii. In the Tools menu, select **Connections**.
    - iii. Change the SA password for all of your connections.
    - iv. Save and export the Universes.
    - v. Make sure that Period\_Universe appears under the XS\_Studio folder.
- **On the DWH server:**
  - a. Stop running Executive Scorecard.
  - b. Copy the run\_postinstall.bat file from **\<Installation Directory>\installation\HPXS903\backup\agora\confwizard** to **\HPXS\agora\confwizard** and execute this file.
  - c. In the MNG DB page of the wizard, change the password for the SA user.
  - d. Before the final wizard step, select **Skip Data Warehouse configuration** and continue completing the post-install wizard.
  - e. Open the Data Warehouse UI, using the following url: **http://<DWH Server name (FQDN)/dwh**
  - f. Log on to the application using the same credentials you used to log on to the XS application.
  - g. Navigate to **Admin > Data Warehouse** and change the passwords for all SA users.
  - h. Restart the DWH server.
  - i. If you used the SA user as a BODS user (not recommended configuration), perform the following from the CMD dir **<<Installation Directory>\agora\DataWarehouse\bin**:



- i. `dw_ds_import.bat -inputdir \tmp\datastores`
  - ii. `dw_etl_update_containers.bat --topdir \tmp\datastores -upgrade`
  - j. If you are not sure which user was used for BODS repository configurations, navigate to **Admin > Data Warehouse** and check the **Repository Username** parameter in the SAP BusinessObjects Data Services for HP FPA area.
- **On the XS server:**
    - a. Stop running Executive Scorecard.
    - b. Remove **biar XS\_SP2.biar** from **\<Installation Directory>\agora\confwizard\confscripts** and rename **XS\_SP3.biar** to **XS\_SP2.biar**.
    - c. Remove **dwh\_target\_sp2\_views** from **\<Installation Directory>\agora\confwizard\confscripts\database\mssql** and rename **dwh\_target\_sp3\_views** to **dwh\_target\_sp2\_views**.
    - d. Copy the **run\_postinstall.bat** file from **\<Installation Directory>\installation\HPXS903\backup\agora\confwizard** to **\HPXS\agora\confwizard** and execute this file.
    - e. In the ManagementDatabase page of the wizard, change the password for the SA user.
    - f. In the Result Database page of the wizard, change the password for the SA user.

Make sure that you always connect to the existing DB when running configurations.

# Glossary

## A

### ABC

Audit, Balance, and Control (ABC) is an application that triggers the ETL processes. Audit ensures consistency during ETL processing. It measures the number of records in and the number of records out for each step and displays these runtime statistics in a collection of audit reports. Balance verifies that data in the data warehouse matches data in the source system. For example, if the data warehouse stores project dollar amounts then the balance process verifies that the aggregate project dollars in the data warehouse matches the aggregate project dollars in the source application data. Control governs ETL processes. Control makes sure that there is a proper restart and recovery when a system error occurs. Control also manages job dependencies at runtime.

### Activity Based Costing (ABC)

The ABC methodology assigns an organization's resource costs through activities to the products and services provided to its customers.

## D

### Dimension

An entity that describes, qualifies, or otherwise adds meaning to the measurements (facts) that business users want to analyze.

## E

### ETL (Extract Transform Load)

E - The extract process extracts delta data from the source systems and writes it to delimited flat files on the file system. The data warehouse uses the Change Data Capture (CDC) technique for extracting data from the source tables. T - During the transformation process, ITFM transforms data into the format of the target tables and populates the load-ready target staging tables. The Transformation layer contains load-ready tables that match the internal structure of the data warehouse target tables. L - The load process adds new records, updates existing records, and flags deleted records in the data warehouse target layer fact and dimension tables.

## M

### Measure

A value collected by the executable during execution, such as the number of rows processed during an ETL job, or an amount extracted from a table that describes expenses in a source application. The ABC application does not make any assumptions about the business tasks performed by the executable or impose any semantic requirements on computed measure

values. The ABC application provides an interface for the executable to store measures. The ABC reports provide drill down capabilities into the stored measures.

**Metadata**

Agreed-upon definitions and business rules stored in a centralized repository to ensure that business users use common terminology for key business terms.

**Metric**

A framework to establish and collect measurements of success or failure on a regulated, timed basis that can be audited and verified.

**Multi-Dimensional**

The aggregation of data by the dimensions of the business. For example, sales by region by product by time.

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