



SERENA[®]

Dashboard 2.1

Installation and Configuration Guide

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Welcome to Serena Dashboard

Thank you for choosing Serena® Dashboard.

Serena Dashboard enables you to produce metrics and reports for all your ALM processes from definition to deployment into production using a variety of sources across distributed environments.

Contacting Technical Support

Serena provides technical support for all registered users of this product, including limited installation support for the first 30 days. If you need support after that time, contact Serena Support at the following URL and follow the instructions:

<http://www.serena.com/support>

Language-specific technical support is available during local business hours. For all other hours, technical support is provided in English.

Platform Support

For details of supported server and client platforms, third party integrations, and Serena Integrations, see the Serena Release Plan for Serena Dashboard at:

<http://support.serena.com/roadmap/Product.aspx?sel=DASHBOARD>

Select the correct version and then display supported platforms and integrations.

Demonstrations

Demonstrations of Serena product features can be viewed at the following public Web site:

<http://courseware.serena.com>

Chapter 1

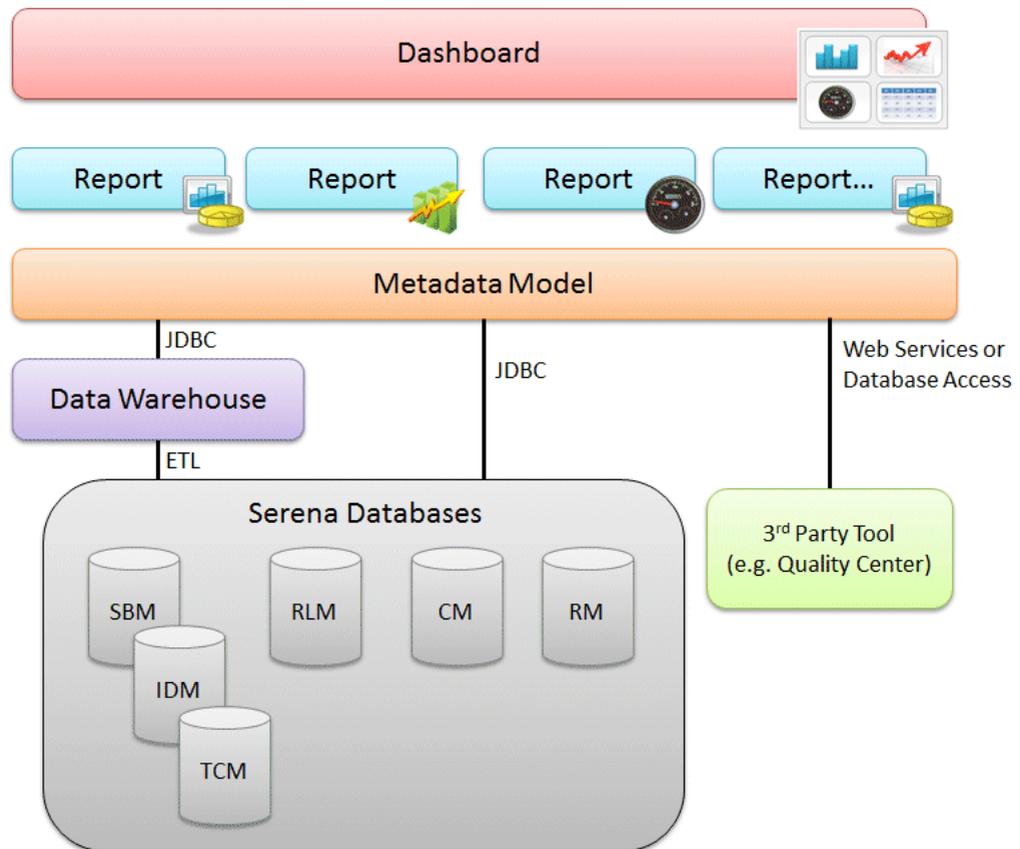
Installation

These topics lead you through the installation of the components required to use Serena® Dashboard.

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Overview

Serena® Dashboard enables graphical views to be produced from data across multiple applications, allowing you to make key business decisions. An overview of its architecture is shown below:



The Serena Dashboard enables you to produce comprehensive graphs, metrics, and views of your ALM processes from different data sources. It retrieves information from the ODBC data sources for SBM and Dimensions CM and also from other third-party tools such as Quality Centre. It provides a set of out-of-box graphs and metrics and enables you to customize them or create your own.

IMPORTANT! You can not install the WebFOCUS Server and Serena Dashboard to the same system where the Serena Dimensions CM server is installed. You must install to a separate system.

Installing the dashboard involves installing:

- 1 IBI WebFOCUS Server (also known as Serena Reporting Server)
- 2 IBI WebFOCUS Developer Studio
- 3 Serena Dashboard

It then involves some configuration steps to connect to the data sources and enable the metrics in order to display them in the dashboard. This is described in [Serena Dashboard System Configuration](#).

Installation Prerequisites

Before installing any of the components of the Serena® Dashboard, please carry out the following steps.

- 1 Obtain and install the Java JDK version 5 or higher. You must get the correct Java version for your Windows OS (32-bit or 64-bit).
- 2 Install Oracle Instant Client 11 on the system to which you will install the WebFOCUS Server. You can download the Oracle instant client directly from Oracle here: <http://www.oracle.com/technetwork/database/features/instant-client/index-097480.html>

- 3 Make sure you have set up the system variable JDK_HOME (for JDK):

```
echo %JDK_HOME%
```

should return something like:

```
C:\Program Files\Java\jdk1.7.0_01
```

IMPORTANT! You can not install the WebFOCUS Server and Serena Dashboard to the same system where the Serena Dimensions CM server is installed. You must install to a separate system.

Installation Sequence

IMPORTANT! You must install these components to on the same server, and in the following order:

- 1 IBI WebFOCUS Server
- 2 IBI WebFOCUS Developer Studio
- 3 Serena Dashboard

Upgrading IBI WebFOCUS and Serena Dashboard

IBI WebFOCUS

If you have previously installed the IBI WebFOCUS / Serena Reporting Server, you may need to upgrade to the latest version. If you are upgrading from a previous version of Serena Dashboard to version 2.1 or later, you must upgrade the Serena Reporting Server to version 7.7.03m.

To verify whether you need to upgrade:

- 1 Open the WebFOCUS Web Console. You can open this from the following shortcut in the Start menu: All Programs | Information Builders | WebFOCUS77 Server | Web Console.

- 2 Select Help | Version. Version information appears under the General section. If the version is 7.7.03 or earlier and you are upgrading to Serena Dashboard 2.1 or later, you must upgrade the WebFOCUS server. For example, for Serena Dashboard 2.1, you must upgrade the server to version 7.7.03m (note the "m" in the version number).

To upgrade to a new version of WebFOCUS Server / Serena Reporting Server:

- 1 Stop the WebFOCUS server. If you are running it as a service, stop the WebFOCUS 77 Server service. You can also stop the server by selecting Stop under Information Builders | WebFOCUS 77 Server.
- 2 Run the Setup application from the new version.
- 3 The installer notifies you that a previous version is already installed. Click OK to continue and upgrade the installed version.
- 4 When setup is complete, a prompt appears that allows you to choose whether to start the server. Choose not to start the server at this time and click **Finish**.
- 5 Display the Windows Services. Start the WebFOCUS 77 Server service.
- 6 Open the Web Console from the following shortcut in the Start menu: All Programs | Information Builders | WebFOCUS77 Server | Web Console.
- 7 Select Help | Version and confirm that the new version is installed.

Serena Dashboard

If you have a previous version of Serena Dashboard already installed, you must uninstall it before installing the new version.

Installing IBI WebFOCUS Server

The Serena Dashboard is built on the IBI WebFocus platform. A prerequisite of installing the Dashboard is that you must first install:

- IBI WebFOCUS Server

Later on, after installing Serena Dashboard, you will need to install:

- IBI WebFOCUS Developer Studio

There is a copy of the server installation Guide, `server_install.pdf`, you can download from Serena providing you with the content you need to install the IBI WebFOCUS platform.

After you have installed the IBI WebFOCUS components, you can display many more documentation resources from shortcuts in your start menus. Please consult these resources to learn more. You can also view and download IBI documentation from the IBI web site at:

<http://documentation.informationbuilders.com/>

Generally, running a simple installation of the IBI WebFOCUS components and accepting all defaults should support most basic configurations. Make sure to make a note of your administrative account as you will need it later. That said, we strongly recommend that

you consult the installation documentation, which is provided as part of the IBI WebFOCUS downloads.

IMPORTANT! You can not install the WebFOCUS Server and Serena Dashboard to the same system where the Serena Dimensions CM server is installed. You must install to a separate system.

To install IBI WebFOCUS Server:

- 1 Make sure there are no existing servers running on your system like Tomcat, IBI WebFOCUS, etc.
- 2 Unzip the file corresponding to your operating system:
- 3 run setup.exe for the server.

Installing WebFOCUS Developer Studio

Install WebFOCUS Developer Studio to ensure that you can customize metrics and build your own.

To install IBI WebFOCUS Developer Studio

- 1 On the server on which you have installed the WebFOCUS server, download and run the Developer Studio setup executable.
- 2 **IMPORTANT!** When you are presented with the options to do so, **you must:**
 - Deselect **Apache Tomcat 6.0**
 - Deselect **Configure Apache Tomcat 6.0 stand-alone**
 - Deselect **WebFOCUS RStat**
- 3 Complete the Installation.
- 4 Restart the WebFOCUS server (from the Windows Services dialog box, this is the WebFOCUS 77 Server service).

Installing Serena Dashboard

Once you have installed the IBI WebFOCUS server, you are ready to install Serena Dashboard.

To install Serena Dashboard:

- 1 Download and run the installer executable for your platform. The installer will detect that you have the IBI WebFOCUS server installed (referred to by the Dashboard installer as the Serena Reporting Server), as well as Serena Business Manager, Dimensions CM, and the Serena Common Tomcat. Both Serena Reporting Server and the Serena common Tomcat are required to complete installation.
- 2 Click through the installer.

- 3** For most scenarios you can accept all of the default options. You may choose to customize the installation location, or opt out of installing the included sample metrics. We recommend that you install the sample metrics in order to see examples with data pulled from SBM and other sources.
- 4** Restart the Serena Common Tomcat (from the Windows Services dialog box, this is the Serena Common Tomcat service).
- 5** To verify that installation was successful, In a web browser, enter the following URL
`http://localhost:8080/dashboard/login`
and log in using the default user name admin with password serena. Make sure to change this user name as soon as possible once you have set up new users.

Chapter 2

Serena Dashboard System Configuration

The following topics tell you how to configure your system after you have completed installing all of the components for Serena Dashboard. This enables the communication between your various sources of data and Serena Dashboard.

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Overview

When you have completed installation, you will have the following files and folders by default:

- **\webapps\metrics** under the Tomcat installation (if you are using the Serena Tomcat instance, by default this resides under \Program Files\Serena\Common). This folder contains the data source definitions and out of box metrics for Serena Release Manager, Serena Development Manager, Serena Requirements Manager, and Serena ChangeMan ZMF. These .sdp files, when imported to Serena Dashboard, establish a connection to a supported data source, provide default out-of-box metrics on that data source, and supply a set of view that organize these metrics. For more on importing the data sources, see ["Adding Data Sources and Importing Out-of-Box Metrics" on page 16](#).

Configuring the IBI WebFOCUS Server

Complete the procedures in this section to configure the IBI WebFocus Server.

Ensure that JAVA_HOME is Set

Display the environment variables for your system and ensure that the JAVA_HOME variable is set to root directory for your JRE installation.

Ensuring the JSCOM3 Listener is Enabled

JSCOM3 is a listener installed with the WebFOCUS Reporting Server that is used when the server creates Active Report Flash/Flex, graphics, accesses data sources through JDBC, or launches other Java processes. It normally uses the fourth port used by the server. By default, this is port 8123. Although not all WebFOCUS functionality requires JSCOM3, it is a good idea to ensure it is available.

To verify that the JSCOM3 listener is enabled:

- 1 Open the WebFOCUS Web console by opening the following URL in a browser: `http://<servername>:8121`.
- 2 Display Configuration Monitor | Java Services | DEFAULT. Right click and select **Properties**, then display Version and Path - Java Version.
- 3 If the **Status** displays **Starting** and is not active for more than 10 seconds, then verify that the correct Java Version is in place and restart the WebFOCUS Server service.
- 4 If you are planning to run Active Report Flash/Flex, ensure that enough memory for Java to compile Flash/Flex files is allocated to the **JSCOM3** service. Perform the following steps to set the maximum Java heap size:
 - a Open the Web Console and navigate to **Workspace Configuration**.
 - b Right-click **Java Services** in the left pane and select **Properties** from the context menu.

- c** Click the **JVM Settings** tab.
- d** In the **Maximum Java Heap Size** field, enter an appropriate value in Megabytes (Mb).

512 Mb should be a sufficient value, however this depends on how much memory is available on the machine that is hosting the server.
- e** Click **Save** and Restart Java Services.

Changing the Port Number for Serena Dashboard

Follow these steps to change the port number Serena Dashboard runs on, under its Tomcat installation, from the default of 8080.

To change the port number:

- 1** Open server.xml in a text or XML editor. By default, this file resides under C:\Program Files\Serena\Common\tomcat\6.0\conf. If you have installed the Serena Tomcat server elsewhere, locate the file in that directory.
- 2** Locate all instances of the following parameter:
port="8080"
And update it to the correct port number.
- 3** Save the server.xml file.
- 4** Restart the Serena Tomcat service.
- 5** Enter the Dashboard login URL with the new port number in a browser window and verify that the login screen appears correctly:
`http://<servername>:<port>/dashboard/login`

For example, if the server name is dashboard and the port number is 9090, enter:
`http://dashboard:9090/dashboard/login`

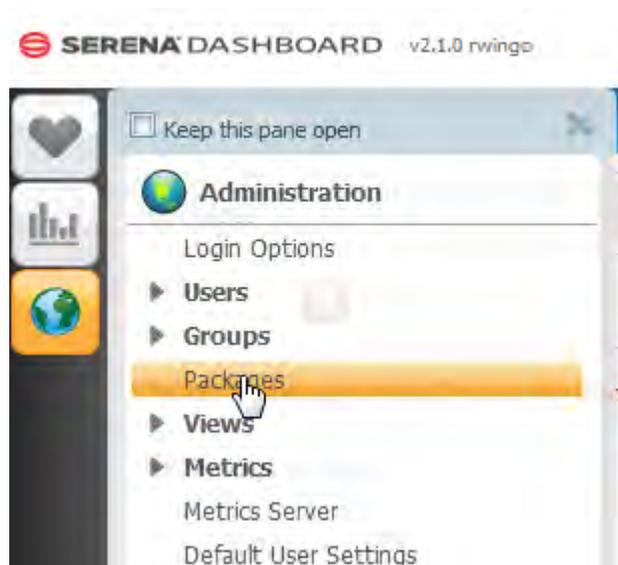
Adding Data Sources and Managing Metrics

Serena Dashboard uses data adapters in WebFOCUS to connect with supported data sources, such as Serena Release Manager, ChangeMan ZMF, and Serena Development Manager. The Serena Dashboard installer configures these data adapters for you, however you must log into Dashboard and define the correct connection information for Release Manager, Development Manager, or whichever applications you use. When you add a connection to one of the supported data sources, Dashboard also imports a collection of pre-defined, out-of-box metrics which you can then organize into packages. Dashboard also creates a set of default views that you can use to review the metrics.

Adding Data Sources and Importing Out-of-Box Metrics

To add a data source and import out-of-box metrics for that data source:

- 1 Log into Serena Dashboard as an Administrator. To log in, enter the following URL in a supported browser:
http://<servername>:<port>/dashboard/login
For example, if the servername is dashboard and the port number is the default of 8080, enter:
http://dashboard:8080/dashboard/login
- 1 If you have not yet logged in and created an administrative user, you can use the default user called admin with password serena.
- 2 Select Packages from the Admin menu.



- 3 Click the **Connect to Data Source** button.



- 4 Choose the type of data source you want to connect to. Your options include Development Manager, Release Manager, Requirements Manager, Sample Data, and ZMF Server. Click **Next**.
- 5 Depending what type of data source you are adding, you must provide the relevant connection information.
 - **Release Manager, Development Manager, Release Manager:**
 - Choose the database platform that Release Manager, Development Manager, or Release Manager is running on. You can choose Oracle or SQL Server.
 - If you selected Oracle, you must provide the following:
TNS Name: This must be in the format <server>:<port>/sbm
For example: stl-dvm-orcla:1521/sbm

User: The user account for the ODBC data source.

Password: The password for the ODBC data source.

Schema Name: Schema name.

- If you selected SQL Server, you must provide the following:

Server Name: Name of the SQL Server.

User: The SQL user account.

Password: The password for the SQL user account.

Database Name: Click the **Get Databases** button to generate a list of available databases. Choose one.

- If you are connecting to Requirements Manager or Development Manager, click **Next** to enter connection information either for the Dimensions RM database or the Dimensions CM database. Choose Oracle or SQL server, and enter the TNS or server name, database user and password, and schema or database name.
- If you are connecting to Development Manager, click Next again to enter connection information for your HP Quality Center database. Choose Oracle or SQL server, and enter the TNS or server name, database user and password, and schema or database name.

■ **Sample Data:**

This option is available if you have no other data sources to connect to and just want to load some example data into Serena Dashboard. You can generally skip this option.

■ **ZMF Server:**

- Under ZMF Server/Subsystems to connect to, enter the ZMF server name, subsystem name, and user name. Click the **Add Server** button to add the server, and click the **Verify Server** button to test the connection. You can also double-click a server in the list to remove it.
- Under **Content Settings**, choose whether to pull data ZMF package, promotion, or component data. This data is imported separately; if you need all three categories of data, select all three options. Promotion and component data may require more time to load. Enter a nickname - a name by which the server is best known within your organization.
- Under **Cache Settings**, choose how frequently you want to update cached ZMF data in the Dashboard. This data is stored in XML files on the Dashboard server. Storing the data locally in this form improves performance when generating metrics on ZMF data; Dashboard retrieves the data from this local cache rather than directly from ZMF itself. This setting determines the interval of time between refreshes of the data that Dashboard displays from ZMF. You can also manually refresh the cache at any time by editing a package from the Packages view and clicking **Update Cache Now**.

- 6 Click **Next** to display the **Package Settings** screen. Because you will import default out-of-box metrics as part defining a data source, you must choose how to organize those metrics into a package. \ A package is simply a collection, or category, or metrics. A package is useful, for example, to categorize all metrics that belong to a particular solution, project, or functional group. Define the following here:

- **Suffix:** An uppercase text string the helps identify the package as belonging to a particular project, group, or other criteria. For example, Dev and QA teams might

each have their own packages of metrics, and can use the suffix to classify them (such as DEV or QA).

- A title, version, and description.
 - Choose an option under **Access Level** to determine who should have access to this package.
- 7** Click **Next**, then click **Install Package** to add the data source and import the out-of-box metrics for that data source. A confirmation screen appears that lists all of the metrics that have been installed, and all of the views that have been created. You can now click Views to see all of the out-of-box views and metrics for the data source you imported.

Importing Metrics to Serena Dashboard

You can import new, custom metrics files to Serena Dashboard. This is necessary if you have built new metrics using WebFOCUS. You can then organize imported metrics into packages to categorize them according to their purpose, project, or group ownership.

You can import metrics as a package (in a zip file) from the server, or add individual metrics files.

To import metrics files from the WebFOCUS server, the files must first be located under the root application directory (by default, c:\ibi\apps).

If you want to learn more about creating your own metrics in WebFOCUS Developer Studio, please see [Basic Customization](#).

Importing Packages of Metrics to Serena Dashboard

To import a package:

- 1** Log in to Serena Dashboard as an administrator.
- 2** Display the Administration | **Packages** view.
- 3** Click the **Import from Server** button to display a list of packages that are available to import.
- 4** Select a package and click **Import**. For example, select the Development Manager package to import data on Serena Development Manager.
- 5** On the Package Settings screen, enter a title, version, and description, and select the access level. Click **Install Package** to complete the import.

Importing Individual Metrics

You can import individual metrics from the IBI WebFOCUS server. To do this, the metric (.fex) file must exist in one of the application directories on the WebFOCUS server (by default, under c:\ibi\apps). When you successfully import a metric, Serena Dashboard displays information about the WebFOCUS synonym and data adapter that the metric uses.

To import a metric:

- 1** Log into Serena Dashboard as an administrator.

- 2 Select Administration | Metrics | **Add**.
- 3 Enter a title and description.
- 4 Optionally, choose a package to which to add the metric.
- 5 Select an access level to determine who should have access to the metric.
- 6 If there are any metadata fields, complete them as needed.
- 7 Under **Source**, select **Metrics Server**. This enables you to import metrics that reside under an application directory on the server.
- 8 Select an application. The **Metric File** list is populated with a list of all metrics available under the selected application directory.
- 9 Select a metric.
- 10 Select the **Resizable** option if you want users to have the ability to expand the viewing size of the metric.
- 11 Click **OK**.
- 12 Select the Administration | Metrics view.
- 13 Confirm that the metric you just imported appears here.

Organizing Metrics into Packages

You can organize your metrics as needed into packages. For example, to create a collection of metrics related to build status, you may create a package called Builds and move your metrics into this package.

To organize metrics into packages:

- 1 You must first create the packages into which you want to organize your metric. To do this:
 - a Log into Serena Dashboard as an administrator.
 - b Select the Administration | Packages view.
 - c Click the **Add** button to create a new package, or select an existing package and click Edit to rename or otherwise modify a package.
 - d Enter a title, version number, and description.
 - e Choose an option under **Access Level** to determine who should have access to this package.
 - f Click **OK**.
- 2 Then, add a metric to the package:
 - a Select Administration | **Metrics**.
 - b Select a metric and click the **Edit** button.
 - c Select the package to which the metric should belong from the **Package** list.
 - d Click **OK**.

Displaying and Editing Metric Properties and Permissions

To display and edit metric properties and permissions:

- 1 Log into Serena Dashboard.
- 2 Select the Administration | **Metrics** view.
- 3 Select a metric and click the **Edit** button.
- 4 From here, you can:
 - Modify the metric title or description.
 - Assign the metric to a package.
 - Copy the direct URL to the metric, which you can then share with other users.
 - Display any attributes associated with the metric.
 - Review information about the metric file on the metric server, including the name of the metric file, and what data adapter and synonym the metric uses.
 - Under **Access Level**, set permissions for the metric. You can hide a metric, limit its view to administrators and owners, restrict access to members of specific user groups, or make it available to all users.
- 5 Click **OK**.

Defining Metric Attributes

You can define custom attributes that allow you to set metadata for your metrics. You can use these attributes to store important additional information about the metrics that is specifically relevant to your organization. Attributes may be text fields, selection lists, integers, or checkboxes.

To define a new metric attribute:

- 1 Log into Serena Dashboard as an administrator.
- 2 Select Administration | Metrics | Metrics Attributes.
- 3 Click the **Add** button,.
- 4 Enter a name and description for the attribute.
- 5 Select the attribute type:
 - Select **Text** to make it a simple text attribute, and enter a default value.
 - Select **Integer** to make it a numeric attribute, and enter a default value.
 - Select **Selection List** to make the attribute a list of values that users can choose from. Enter a comma separated list of options in the Valid Values field.
 - Select **Checkbox** to make the attribute a binary, on or off option represented by a checkbox. Select the Default Value checkbox if you want this attribute to be selected by default for all metrics.
- 6 Click **OK**.

- 7 To display and modify attribute values for a metric, select Administration | Metrics, select a metric, and click the Edit button. You can see and modify the attributes under **Attributes**.

Creating a Metric that Displays an External URL

You can create a metric directly in Serena Dashboard that is simply a container for displaying an external Web page.

To display an external URL in a metric:

- 1 Log into Serena Dashboard as an administrator.
- 2 Select Administration | **Metrics**.
- 3 Click the **Add** button to create a new metric.
- 4 Enter a title and description for the metric, and optionally add it to a package by choosing a package from the **Package** list.
- 5 Under **Source**, select the **External URL** option. Enter the URL to the external web page.
- 6 Set attribute values and access level as needed, and click **OK**.

Setting Up Login Sources

User names must come from a common source. You must define the source before you can add users to Serena Dashboard. Users can come from any of the following:

- Serena Single Sign-on: use Serena SSO if you have installed and configured SSO as part of your SBM implementation.
- LDAP Server: if your organization uses LDAP to centrally manage all users, you can connect to the LDAP server and then choose which users from the LDAP server to add to Dashboard.
- Dashboard user database: You can optionally choose to store all users locally in the Dashboard database.

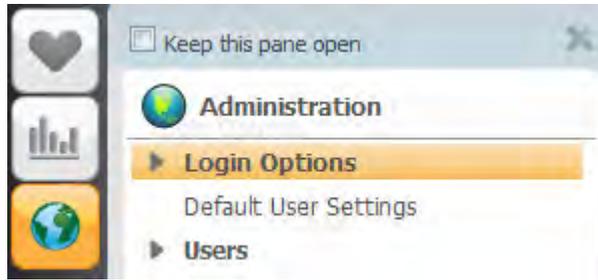
You can choose the login source and define settings for each from the Administration view in Serena Dashboard.

Choosing a Login Source

To set up a login source:

- 1 Log into Serena Dashboard with an administrative account.

- 2 Click the **Administration** button and select **Login Options**.



- 3 Select **Serena Single Sign-On** to use a configured Serena Single Sign-On user database. Please see [Configuring SBM Single-Sign-On for Serena Dashboard](#) for detailed instructions on configuring SSO.
- 4 Select **LDAP Server** to use a central LDAP server for user information. You must then specify the following:
 - **Server Name.** This is the network URL to the machine, in a format such as:
ldap://host:port
for example, if the machine name is users and the port number is 389:
ldap://users:389
 - **User Postfix:** Virtual domain used for LDAP lookups. For example: @serena.com
 - **Automatically Update User and Group Information:** Choose this option to look up users in the LDAP server every time that user logs in, and refresh the user information in the Dashboard user pool. You can also manually refresh all user information.
- 5 Select **Dashboard users database** to store user information directly in Serena Dashboard.
- 6 **Automatically Add New Users:** Choose this option to look up new user names in and, if they exist, add them to the Dashboard user pool.
- 7 Click **OK**.

Configuring SBM Single-Sign-On for Serena Dashboard

If you have enabled Single-Sign-On (SSO) for your Serena Business Manager implementation, you can take advantage of this feature for Serena Dashboard as well. This way, any users who have been defined for SBM will be able to log in to Serena Dashboard.

To configure single-sign-on for Serena Dashboard:

- 1 You must install the SBM SSO component on the Serena Dashboard server.
- 2 On the Serena Dashboard server, open the following file in a text or XML editor:
<tomcat directory>/alfssogatekeeper/conf/gatekeeper-services-config.xml
- 3 Add the following line to the the <GatekeeperProtectionControl> section:
<URIMatcher requestURI="/dashboard/*" />

- 4 Add the following line to the <ServiceEntryPoints><BrowserRequests> section:
<URIMatcher requestURI="/dashboard/*" />
- 5 Save the gatekeep-services-config.xml file.
- 6 Restart the tomcat service.
- 7 Open a supported browser and enter the URL for Serena Dashboard:
http://<servername>:<port>/dashboard/login
For example, if the server name is dashboard and the port number is the default of 8080, enter:
http://dashboard:8080/dashboard/login
You should be prompted for a valid SSO login account. Provide valid SSO login credentials.
- 8 On the Serena Dashboard login screen, log in to Dashboard as the default admin user. The user name is "admin" and the default password is "serena".
- 9 Select **Users** from the **Administration** view.
- 10 Ensure that at least one user with a valid SSO login has administrative rights. If necessary, add a new user corresponding to an SSO user account, and grant that user administrator rights. The login name must exactly match the SSO account name.
- 11 Select **Login Options** from the **Administration** view.
- 12 Under **Validate user access with**, select Serena Single Sign-On.
- 13 Click **OK**.
- 14 Log out of Serena Dashboard and quit the browser.
- 15 Reopen the browser and open the Serena Dashboard URL. When prompted to log in, enter a valid Serena Single Sign-On account. If the configuration is successful, you are logged into Serena Dashboard without having to enter additional Dashboard user credentials.

Configuring Single-Sign-On for Dimensions CM Web Client

If you have installed the WebFOCUS Developer Studio using the Serena Common Tomcat installation (the recommended option) you will need to add some information to the Tomcat web.xml to configure SSO to work with the Dimensions CM web clients.

Locate the web.xml file, for example:

```
C:\Program Files\Serena\Dimensions 12.1\  
Common Tools\tomcat\6.0\conf\web.xml
```

Add the following section:

```

<!-- ===== Start of Serena SSO Gatekeeper Filter Configuration ===== -->
<filter>
<filter-name>ALFSSOGatekeeperFilter</filter-name>
  <filter-class>org.eclipse.alf.security.sso.server.gatekeeper.
    filterloader.GatekeeperFilterLoader</filter-class>
<init-param>
  <param-name>gatekeeper.enabled</param-name>
  <param-value>>true</param-value>
</init-param>
<init-param>
  <param-name>gatekeeper.config.filename</param-name>
  <param-value>${catalina.home}/alfssogatekeeper/conf/gatekeeper-
    services-config.xml</param-value>
</init-param>
<init-param>
  <param-name>gatekeeper.lib.dir</param-name>
  <param-value>${catalina.home}/alfssogatekeeper/lib</param-value>
</init-param>
<init-param>
  <param-name>gatekeeper.root.dir</param-name>
  <param-value>${catalina.home}/alfssogatekeeper</param-value>
</init-param>
<init-param>
  <param-name>gatekeeper.log4j.use-repo-selector</param-name>
  <param-value>>true</param-value>
</init-param>
<init-param>
  <param-name>gatekeeper.log4j.create-new-repo</param-name>
  <param-value>>true</param-value>
</init-param>
<init-param>
  <param-name>gatekeeper.log4j.properties.filename</param-name>
  <param-value>${catalina.home}/alfssogatekeeper/conf/
    log4j.properties</param-value>
</init-param>
</filter>
<filter-mapping>
  <filter-name>ALFSSOGatekeeperFilter</filter-name>
  <url-pattern>/*</url-pattern>
</filter-mapping>
<!-- ===== End of Serena SSO Gatekeeper Filter Configuration ===== -->

```

Logging in and Updating WebFOCUS Server Information

Ensure that Serena Dashboard refers to the correct location and URL for your IBI WebFOCUS server.

To configure WebFOCUS server access:

- 1 Log into Serena Dashboard as an Administrator. To log in, enter the following URL in a supported browser:
http://<servername>:<port>/dashboard/login
For example, if the servername is dashboard and the port number is the default of 8080, enter:
http://dashboard:8080/dashboard/login
- 2 If you have not yet logged in and created an administrative user, you can use the default user called admin with password serena.
- 3 Display the Administration | **Metrics Server** view. Verify that the directory path, application name, and Server URL for the IBI WebFOCUS server are all correct. Update them as needed.
- 4 Click **OK**.

Managing Users

Complete the procedures in this section to set up and manage your user pool, including adding users from LDAP, setting up the default view for your users, and organizing users into groups according to their roles.

Setting the Default View for Users

Complete this procedure to set the default view for all users when they log in. Individual users can override this in their own user settings.

To set the default view for users:

- 1 Log into Serena Dashboard as an administrator.
- 2 Select Administration | **Default User Settings**.
- 3 Here, set the default view that users should see when logging in.

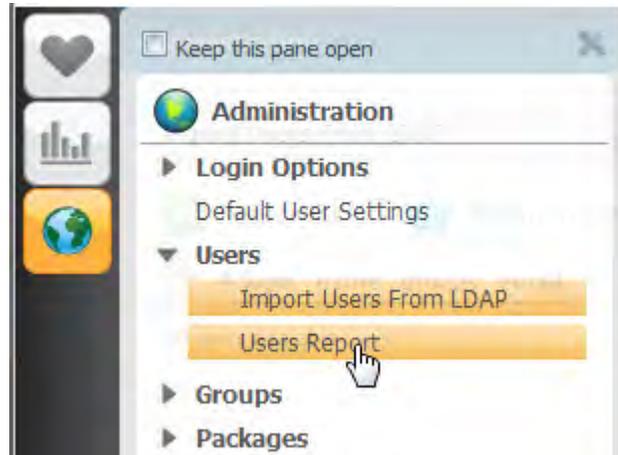
Adding Users from LDAP

If you are managing users centrally using LDAP, you can add new users to Serena Dashboard by choosing them from a list of all users in LDAP.

To add users from LDAP:

- 1 Log in to Serena Dashboard as an administrator.

- 2 Select Administration | Users | **Import Users From LDAP**.



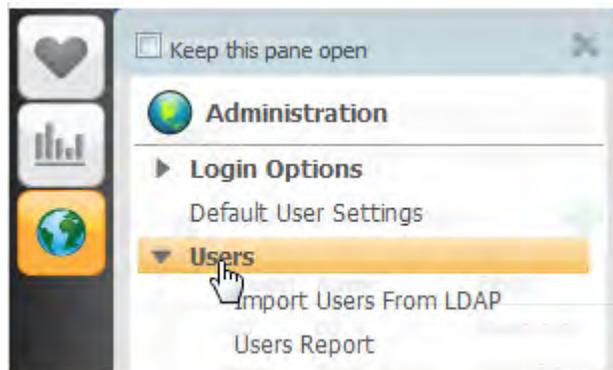
- 3 The list of available users is loaded. You can refresh at any time by clicking the Refresh List.
- 4 Choose the users you want to add and add them.

Adding and Editing Users

You can manually add users directly to the Serena Dashboard user pool.

To add a user:

- 1 Log in to Serena Dashboard as an administrator.
- 2 Select Administration | Users.



- 3 To add a new user, click **Add**. To edit an existing user, click **Edit**.
- 4 Enter the user's login name, actual first and last name, and email address.
- 5 Select **Admin Rights** to grant this user access to the **Administration** view.
- 6 Select **Disabled** to disable this user account. You can always enable the account later.
- 7 If this is an existing user, you can review group membership under **Group Membership**.
- 8 If this is an existing user, you can reset the user's password under **Change User's Dashboard Password**.

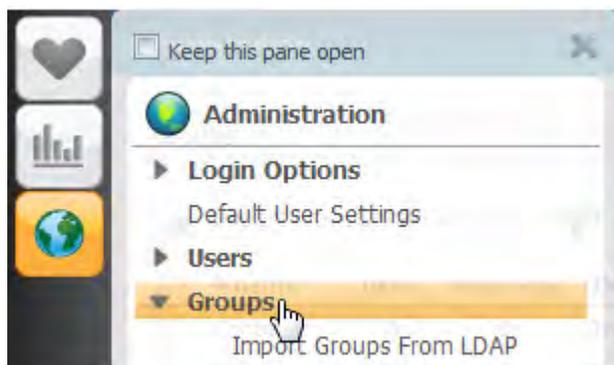
- 9 Click **OK**.

Organizing Users into Groups

You can organize existing users into groups, or load group definitions from LDAP and import them to Dashboard. You can use groups to control access to views. See [Restricting Access to Views](#) for details.

To add or edit groups:

- 1 Log into Serena Dashboard as an administrative user.
- 2 Select Administration | **Groups**.



- 3 Do one of the following:
 - Click the **Add** button to add a new group. Enter a name, optionally select **Disabled** to disable the group, and choose group members from the **Available Users / Group** list. Click **OK** when you are done.
 - Click **Import Groups from LDAP** to display a list of LDAP groups to add to Dashboard. You can then edit the imported groups if you want to disable or enable them.
 - Click the **Edit** button to change a groups name, enable or disable it, or modify its members. You cannot modify the name and members of a group from LDAP.

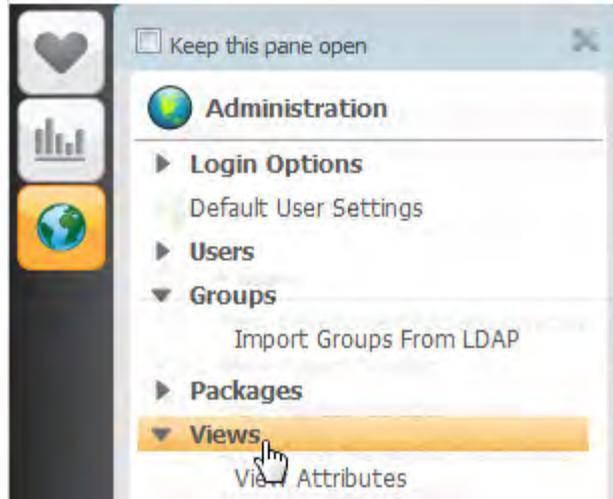
Restricting Access to Views

You can restrict access to views to specific groups.

To restrict access to views:

- 1 Log in into Serena Dashboard as an administrator.
- 2 Set up groups based on the access level you want to grant to the groups. See [Organizing Users into Groups](#).

- 3 Select Administration | **Views**.



- 4 Select the view to which you want to restrict access and click **Edit**.
- 5 Expand the **Access Level** group.
- 6 Select **Restricted**, then select the groups to which you want to grant access, and move them to the **Groups with Access** column.
- 7 Click **OK**.

Setting Up Notification

Serena Dashboard can generate notifications on certain events. You must define email server information and choose which notifications users should receive.

To set up notification:

- 1 Log in to Serena Dashboard as an administrator.
- 2 Display the Administration | **Email Options** view.
- 3 To enable email notification for all users, select the **Enable Email Notification** option.
- 4 Enter the SMTP address, and the reply-to address.
- 5 Choose which notifications to send:
 - **Notify admins when a new user logs in**
 - **Notify admins when a new view is created**
- 6 Click **OK**.

Managing Views

Views display custom arrangements of specific metrics on a page. Create a view to logically organize metrics in a way that Dashboard users should see them. In addition to choosing which metrics to display on a view, you can choose layout options such as placement on the page, and size. You can limit access to views based on user group membership. For example, you may choose to create a view targeted toward executive staff; you would select metrics that best indicate overall project health, and then restrict the view so that only members of an **Executive** user group can see it.

Setting Up New Views

To create and configure a new view:

- 1 Log into Serena Dashboard as an administrator.
- 2 Select Administration | **Views**.
- 3 Click the **Add** button, or to modify an existing view, select the view and click the **Edit** button.
- 4 Enter a title and description for the view.
- 5 Under **Attributes**, set the correct values for any view attributes. See [Defining and Managing View Attributes](#) for more information.
- 6 Under **Metrics in View**, you can see an empty pane representing the view. You need to add metrics to this pane to start laying out the view. click the **Add** button. A box appears representing the placement of a metric on the page.
- 7 Click and drag on the box in order to move the metric to a different location in the view.
- 8 Click on the walls of the metric and drag to resize it.
- 9 Under **Selected Metric**, Select the metric you want to display in this box. Optionally enter a title, or leave the Title field blank to use the default title as defined in the metric.
- 10 Repeat these steps until you have chosen and arranged all of the metrics you want for this view.
- 11 Under **Access Level**, choose who will be able to see this view. You can hide it, limit access to users with Administration privileges, restrict it to members of a specific group, or make it visible to all users.
- 12 Click **OK**.

Defining and Managing View Attributes

You can define custom attributes that allow you to set metadata for your views. You can use these attributes to store important additional information about the views that is specifically relevant to your organization. Attributes may be text fields, selection lists, integers, or checkboxes.

To define a new view attribute:

- 1 Log into Serena Dashboard as an administrator.
- 2 Select Administration | Views | **View Attributes**.
- 3 Click the **Add** button.
- 4 Enter a name and description for the attribute.
- 5 Select the attribute type:
 - Select **Text** to make it a simple text attribute, and enter a default value.
 - Select **Integer** to make it a numeric attribute, and enter a default value.
 - Select **Selection List** to make the attribute a list of values that users can choose from. Enter a comma separated list of options in the **Valid Values** field.
 - Select **Checkbox** to make the attribute a binary, on or off option represented by a checkbox. Select the **Default Value** checkbox if you want this attribute to be selected by default for all views.
- 6 Click **OK**.
- 7 To display and modify attribute values for a view, select Administration | Views, select a view, and click the **Edit** button. You can see and modify the attributes under **View Settings**. If no attributes are defined, then no attributes will be visible. You can also view and modify attributes for your favorite views, by selecting the view from **My Favorites** and then selecting **Edit View** from the **Actions** button.

Backing Up Dashboard Files

Back up Serena Dashboard files to save a copy of all metric and view definitions to a backup location. If anything happens to the Serena Dashboard installation, you can restore your views and metrics from the backup files. You can optionally choose to back up all of the server files as well as the view and metric files.

To back up your dashboard files:

- 1 Log into Serena Dashboard as an administrator.
- 2 Select Administration | **Backups**.
- 3 Set the target directory for the backup files in the **backup root** field.
- 4 Choose whether to back up just the data files, or all of the files in the Dashboard server installation.
- 5 Click **Backup Dashboard Files Now** to start the backup.

Chapter 3

Basic Customization

Creating a New Metric	32
Configuring Quality Center KPI Metrics	39
Troubleshooting	42

Creating a New Metric

Here you will follow a basic example of creating a new metric in WebFOCUS Developer Studio. Follow along to gain a basic understanding of how you can create your own metrics. For more examples, please see the *Serena Dashboard Developer's Reference*, where we have included steps to illustrate how we at Serena created many of the out of box metrics for Serena Dashboard.

To create a new metric, you need to:

- If necessary, create a new synonym. See [To create a new synonym \(.mas plus .acx\) file:](#). Note that Serena Dashboard includes a rich collection of synonyms that represent data from the Serena Orchestrated ALM solutions, such as Release Manager and Development Manager. You can use the tables in these synonyms to create new metrics without having to build new synonyms.
- Create a new procedure (graph definition, .fex) file, see [To create a new procedure \(.fex file\) based on the master file:](#).
- If necessary, create a join for the metric. See [To create a join](#).
- Assign the metric definition to a new or existing metric.

Working with Out-of-the-box Synonyms

To work with existing Serena Dashboard Synonyms:

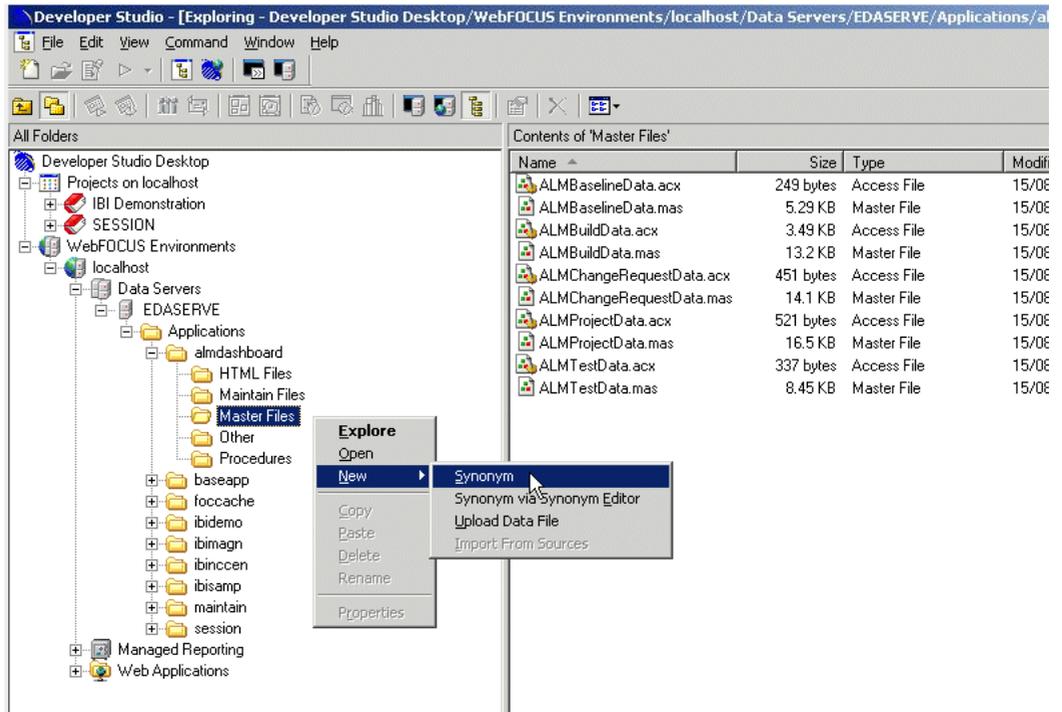
Launch WebFOCUS Developer Studio. From the **Explorer** view, expand the WebFOCUS Environments node, then drill down under localhost | Data Servers \ EDASERVE | Applications. Synonym files (.mas and .acx) appear here. See the Serena Dashboard Table Reference for details on the tables available to you with the out-of-the-box Serena Dashboard synonyms.

Creating a new Synonym

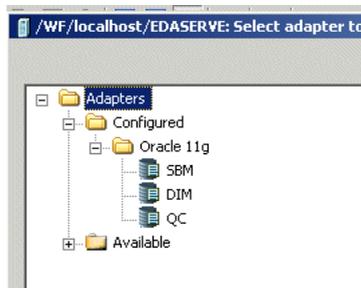
Serena Dashboard includes a rich collection of synonyms designed to retrieve data from Serena Orchestrated ALM solutions such as Serena Release Manager and Serena Development Manager. The tables in these out-of-the-box synonyms may already provide you with the data that you need to build new metrics. Please consult the Serena Dashboard Table Reference for more information. Follow the steps in this section if you need to define new synonyms to pull additional data from your data sources.

To create a new synonym (.mas plus .acx) file:

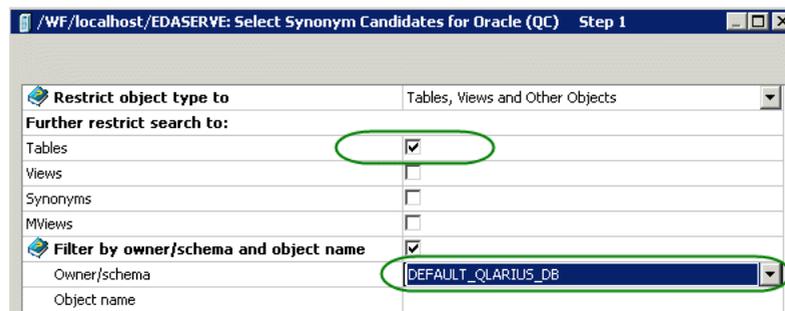
- 1 In Developer Studio, right-click **Master Files** and select **New | Synonym**



- 2 Select the adapter for the data source and click OK.

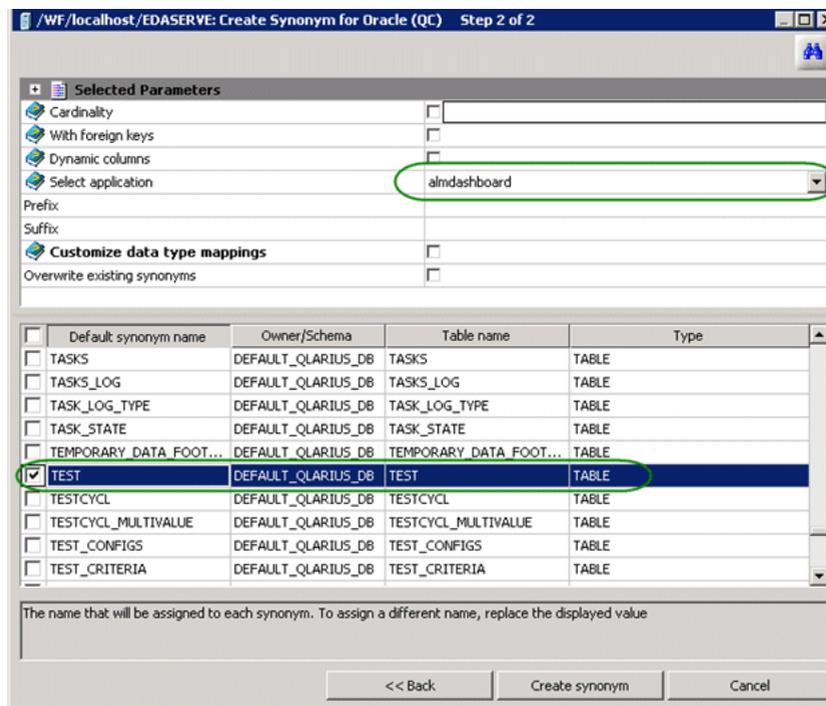


- 3 Select **Tables**, and select the name of the schema from the drop-down list under **Owner/schema**.



- 4 Click **Next**.

- 5 Select almdashboard for the application and select the required table(s).



- 6 Click **Create synonym**.

Testing a Connection

To test the connection:

- 1 Double-click the new synonym.
- 2 Right-click and select **Sample Data**.

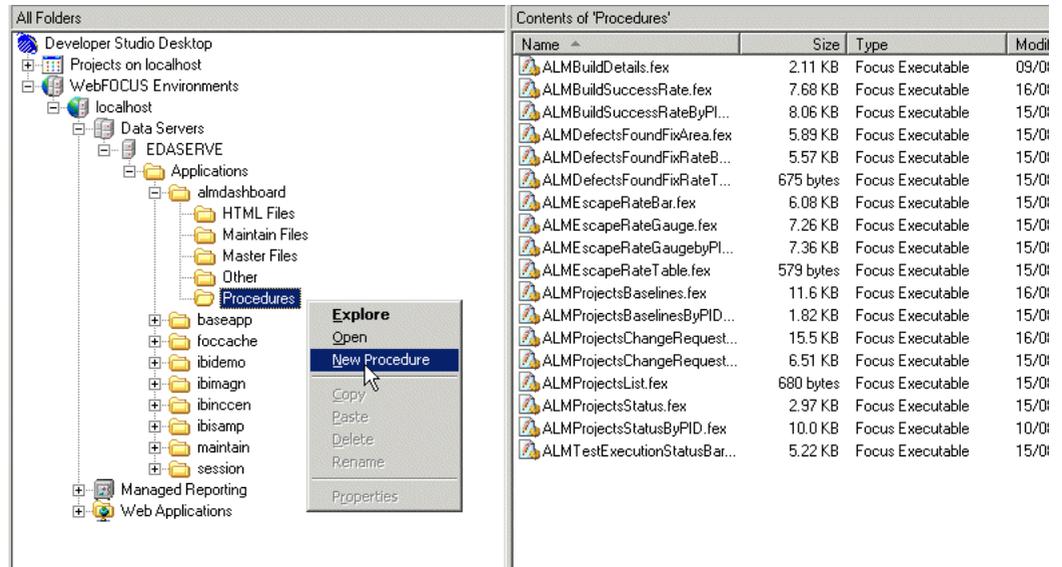
If data is returned, the connection is working.

Creating a New Procedure Based on the Master File

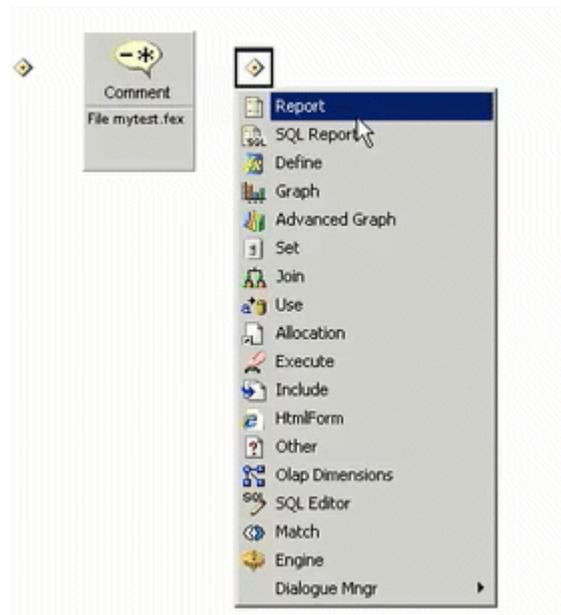
To create a new procedure (.fex file) based on the master file:

- 1 Open WebFOCUS Developer Studio.
- 2 Under WebFOCUS Environments, select the Applications node, for example localhost/Data Servers/EDASERVE/Applications/almdashboard.
- 3 Under **Applications**, select the application where you want to create the report definition, for example almdashboard for Serena ALM.

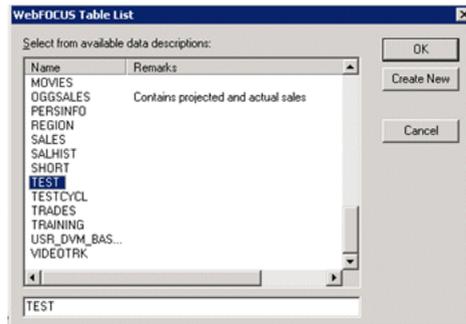
- 4 Right-click the **Procedures** node and select File | New Procedure.



- 5 In the New Procedure File dialog box, enter a file name, e.g. Test, and click **Create**.
- 6 Right-click the  icon and select the type of graph, for example **Report** for a listing type of metric.

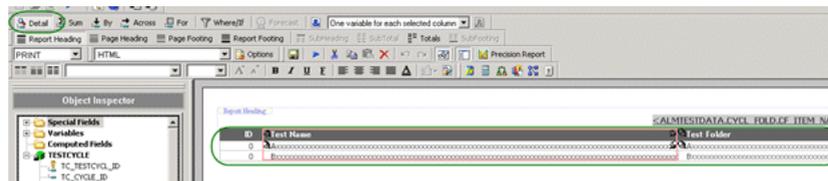


- 7 In the WebFOCUS Table list, select a data description from the list, For example TEST. (You can also create a new one using the **Create New** button.)



For example, you would select SBM_USR_DEVELOPMENT_CONTROL_PROJR to base a report on projects in SBM.

- 8 Click **OK**.
- 9 On the Report editor, select required tables to report. Drag the required fields from the Object Inspector list. In this example, we need only the details for reporting individual items and no summing or counting.

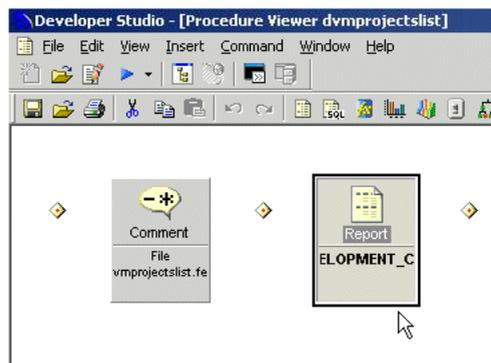


- 10 Click the Save button, and click the  button to view the report. This has now created a new metric (. fex) file.

Editing a Metric Definition

To edit an existing metric definition:

- 1 Select the Procedures node.
- 2 Right-click the . fex file for the Procedure and select **Edit**.
- 3 Double-click the second icon.

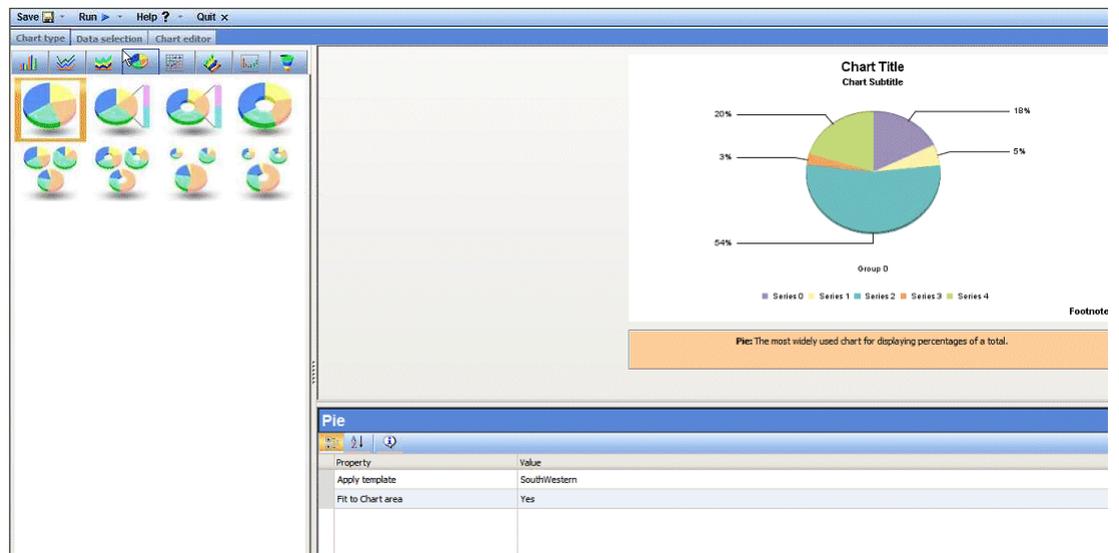


- 4 Delete existing fields or drag the new fields from the Object Inspector list as required.
- 5 Select File | Save.
- 6 Select File | Close.

Creating an Advanced Graph

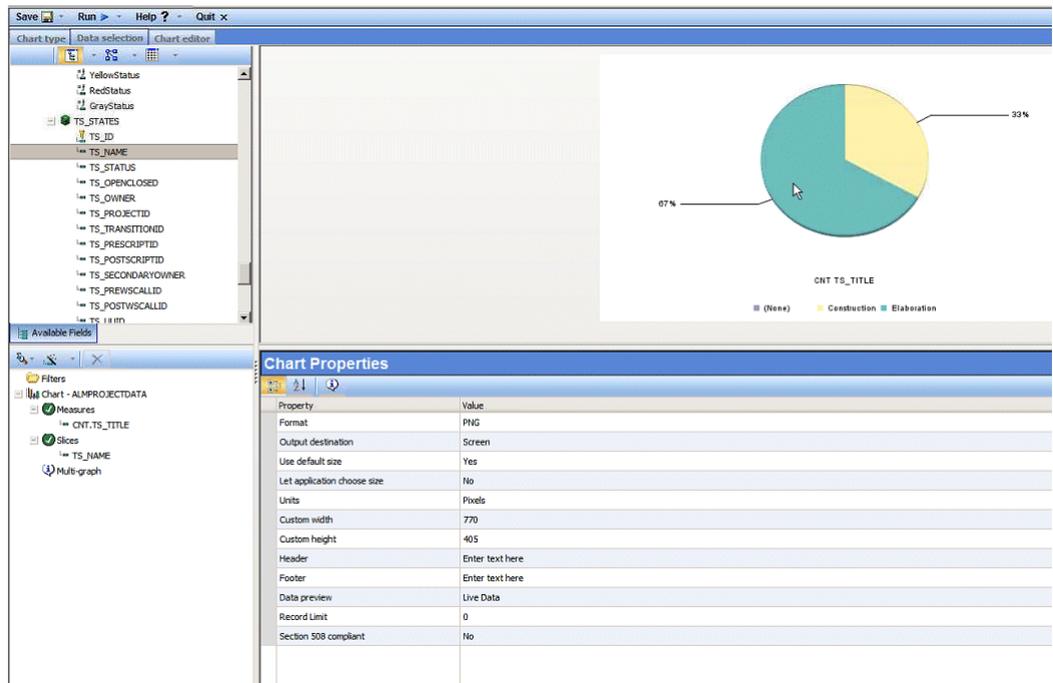
To create an advanced graph:

- 1 Right-click the Procedures node and select File | **New Procedure**.
- 2 In the New Procedure File dialog box, enter a file name, and click **Create**.
- 3 Right-click the  icon and select **Advanced Graph**.
This will launch the Advanced Graph Editor.
- 4 Select the Chart type tab, and select type of graph/chart from the left-hand side.



- 5 Select the **Data selection** tab.

- 6 Select the required data fields and drag them from the top left pane to the bottom left pane. You should see how the chart will look in the preview window.



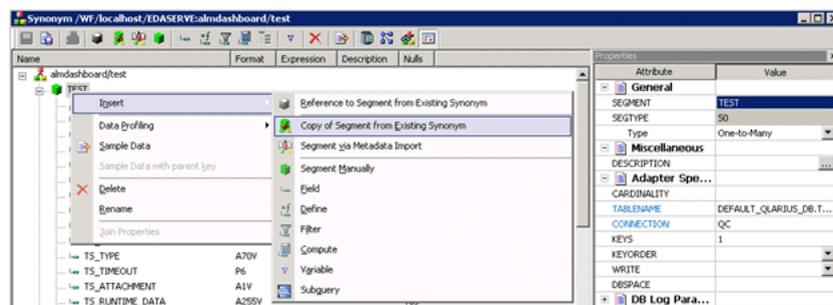
- 7 Select the Chart editor tab to choose various other GUI options if required.
- 8 Click **Save**.

Creating a Join

To create a join

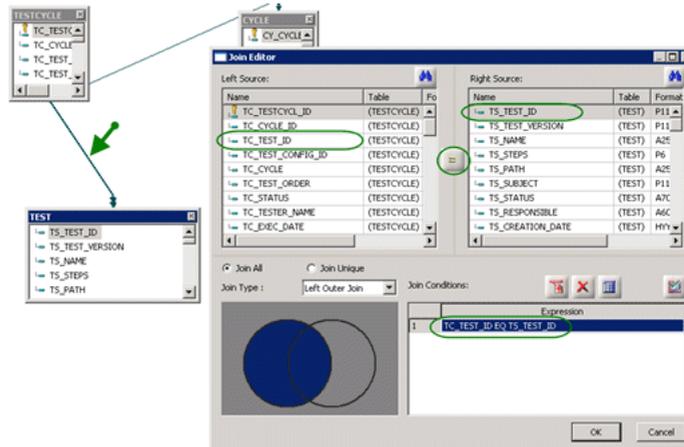
If you need to create a join for the graph:

- 1 Select the **Master Files** node.
- 2 Right-click the synonym (.mas file) and select **Edit in Synonym Editor**.
- 3 Right-click the top node and select **Insert | Copy of segment from Existing Synonym**.



- 4 Select the other synonym and click **Select**.

- 5 Use the Join Editor to define the join.



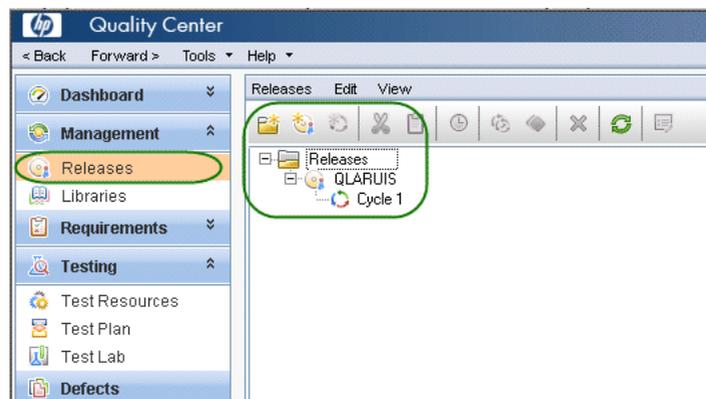
Configuring Quality Center KPI Metrics

This topic walks you through an example of setting up metrics that report on test data from Quality Center. You can apply what you learn from this example to your own environment.

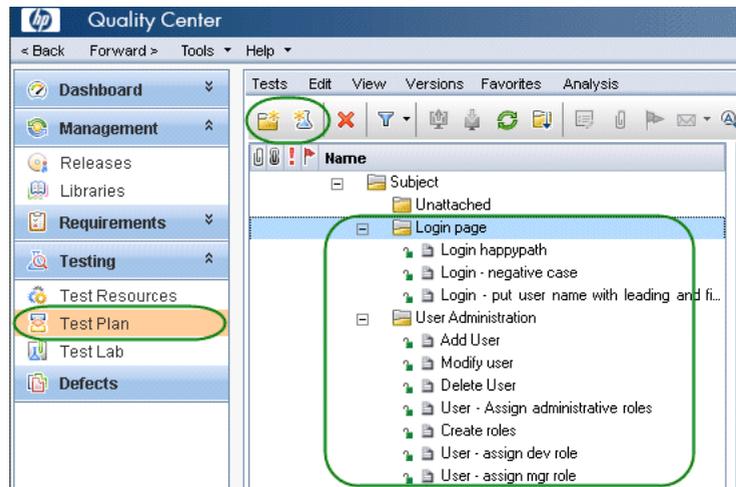
Test Execution Status Metric

This section shows you how to configure a test execution status metric.

- 1 Open the Quality Center web UI.
- 2 Under **Releases**, create a release and a **Cycle** under the release.

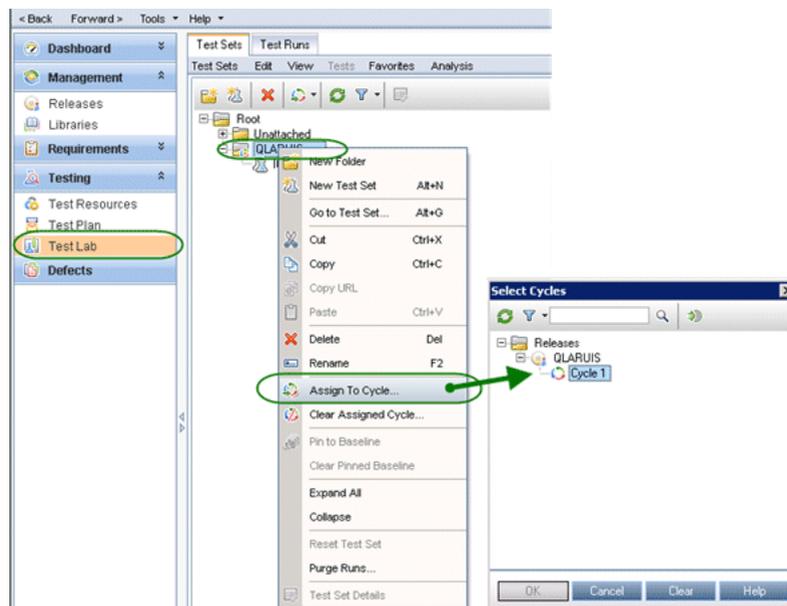


- 3 Select **Test Plan** and create a set of test cases. This is a library of test cases to be used in test runs. For example:



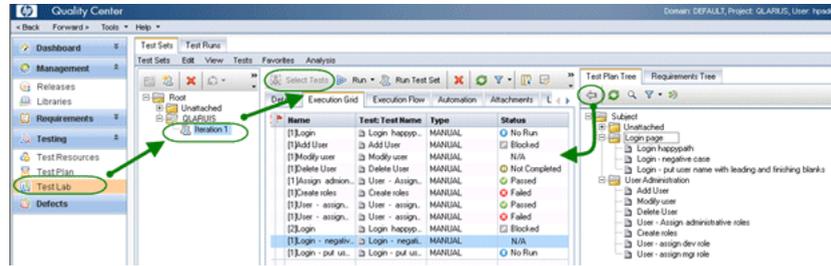
- 4 Select **Test Lab** and create a folder for the test sets, for example QLARIUS. The name of this folder will be displayed on the Dashboard.
- 5 Assign a cycle to this folder.

Only after creating this reference will the Dashboard display the current new folder.



- 6 Create a test set, for example Iteration 1.
- 7 Select the test set and click **Select Tests**.

8 Run the tests (or change their Status)



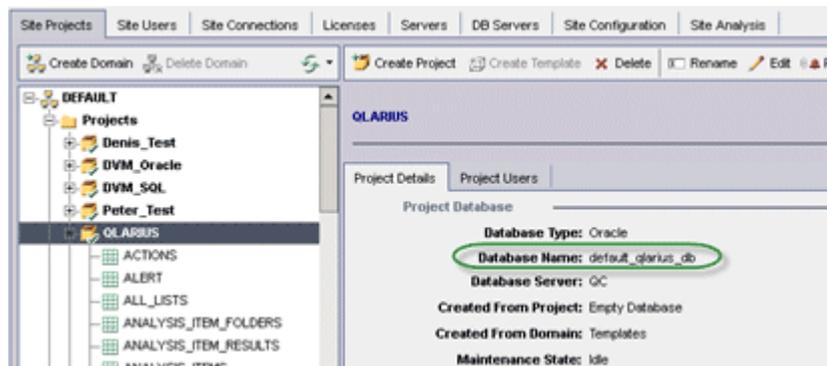
NOTE The names of the test sets are not displayed on the metric, only the name of the parent folder. The metric will display the summary of all the test sets under a folder.

9 Set the database value in the ALMTestData access file.

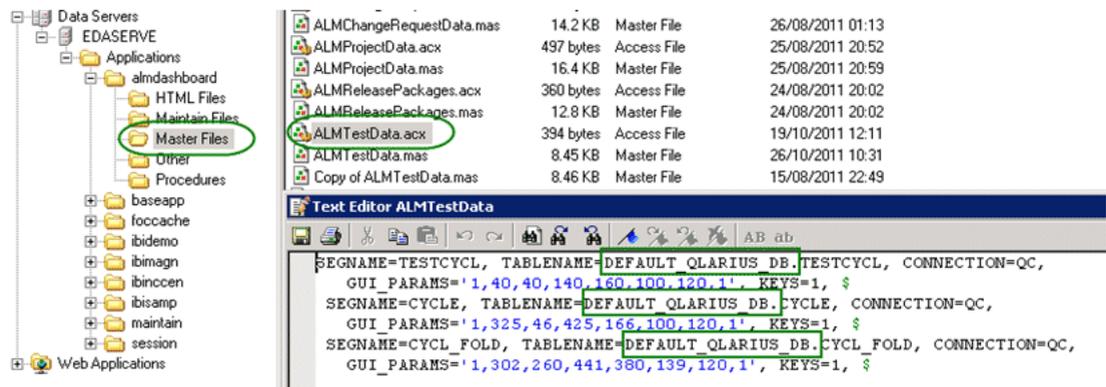


NOTE HP Quality Center creates a new database for every new project, so the metrics access files need to have the correct full table name for a project.

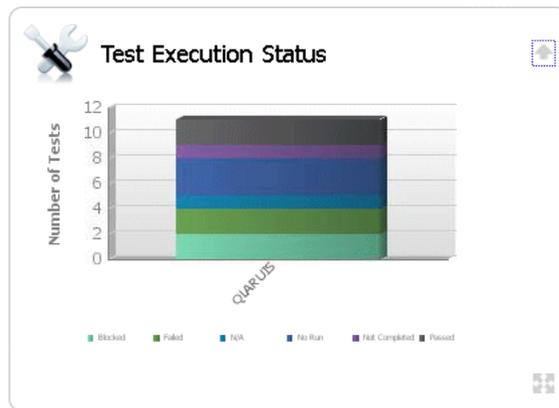
a Obtain the name of the database from QC Administrator:



b Edit the file ALMTestData.acx and set the name of the database in the TABLENAME parameter to this name.



- 10** If everything is configured correctly, you should be able to display a test execution graph in the Serena Dashboard



Troubleshooting

The following section describes a number of issues you may encounter when configuring or using Serena Dashboard. These are:

- [Undeclared Server Error](#)
- [Incorrect Project Status Metric Color](#)

Undeclared Server Error

If you receive this error while loading metrics for Quality Center, it is likely that the schema name referenced in the acx file is not correct:

Error '(FOC1677) UNDECLARED SERVER "QC" REFERENCED FOR SQLODBC INTERFACE'

To correct this:

- 1** Access the IBI WebFOCUS server by entering the following URL in a browser:

```
http://<servername>:8121
```
- 2** Select **Adapter** and select the adapter for Quality Center.
- 3** Click the **Test** button to check that the adapter is configured correctly.
- 4** Locate the folder C:\ibi\apps\almdashboard.
- 5** Edit the file ALMTestData.mas and change SUFFIX
to

```
SQLORA(SUFFIX=SQLORA)
```
- 6** Edit the file ALMTestData.acx and change the schema name in the TABLENAME parameters. For example, if your QC schema name is DEFAULT_QLARIUS_DB, change the table name to:

```
TABLENAME=DEFAULT_QLARIUS_DB.TESTCYCLE
```

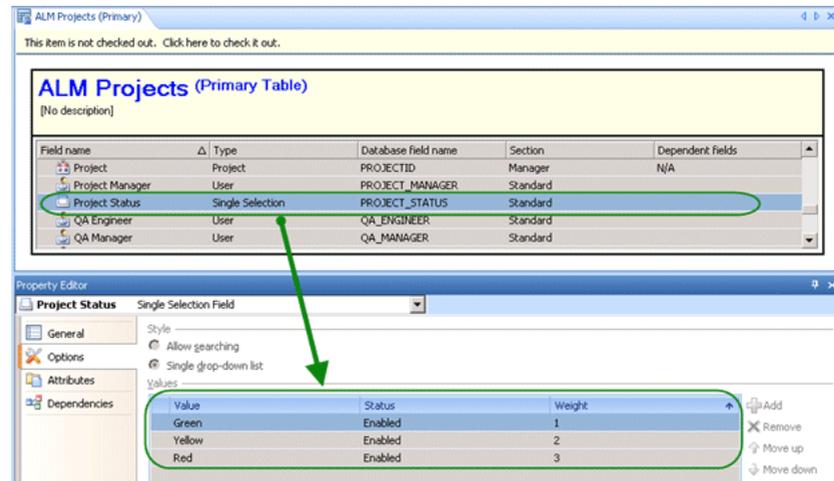
7 Refresh the Dashboard.

Incorrect Project Status Metric Color

One of the Serena Dimensions CM metrics related to Project status will not display the appropriate status color (the color is always grey). This is due to a field value that requires changing because it has a different value on every system.

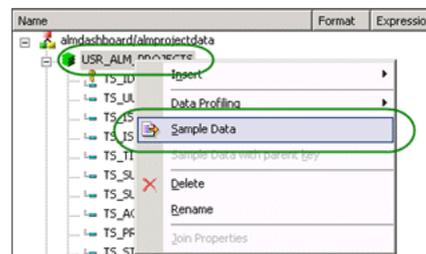
Problem:

The project status is a Single selection field and stored somewhere in SBM in the appropriate table.



The steps below guide you through making the necessary change:

- 1 To find out the Project Status values ID you can view the Sample data for the USR_ALM_PROJECTS table using IBI Developer studio. Alternatively you can look at DB manager into the table that holds selections values.



/WF/localhost/EDASERVE: Sample Data for ALMDASHBOARD/ALMPROJECTDATA. Limited to 50 rows

	TS_END_DATE	TS_DESCRIPTION	TS_PM_ID	TS_PROJECT_STATUS	TS_PROJE
1	.	.	.	0	
2	.	This is Serena's Template Project that spans across...	.	148	
3	.	Create a company web site with home page and conta...	.	146	
4	.	.	.	147	
5	.	Add a product catalogue to the company website....	.	146	
6	.	.	.	146	

- Now change the StatusName, StatusTitle and StatusIcon calculation fields and put the correct values in the correct place in a formula string.

Field Name	Formula
GreenIcon	"img src="/approot/ahdashboard/Status_green_24px.png" width=18 height=18 align="absmiddle" >"
YellowIcon	"img src="/approot/ahdashboard/Status_yellow_24px.png" width=18 height=18 align="absmiddle" >"
RedIcon	"img src="/approot/ahdashboard/Status_red_24px.png" width=18 height=18 align="absmiddle" >"
GrayIcon	"img src="/approot/ahdashboard/Status_gray_24px.png" width=18 height=18 align="absmiddle" >"
InceptionOIRFint	PRINT(TS_INCEPTION_DURATION / (60 * 24), 'YS', 'AS') ' days'
InceptionOIRFint	IF TS_INCEPTION_ON_TIME EQ 1 THEN 'Yes' ELSE 'No'
ElaborationOIRFint	PRINT(TS_ELABORATION_DURATION / (60 * 24), 'YS', 'AS') ' days'
ElaborationOIRFint	IF TS_ELABORATION_ON_TIME EQ 1 THEN 'Yes' ELSE 'No'
ConstructionOIRFint	PRINT(TS_CONSTRUCTION_DURATION / (60 * 24), 'YS', 'AS') ' days'
ConstructionOIRFint	IF TS_CONSTRUCTION_ON_TIME EQ 1 THEN 'Yes' ELSE 'No'
TransitionOIRFint	PRINT(TS_TRANSITION_DURATION / (60 * 24), 'YS', 'AS') ' days'
TransitionOIRFint	IF TS_TRANSITION_ON_TIME EQ 1 THEN 'Yes' ELSE 'No'
StatusName	IF TS_PROJECT_STATUS EQ 143 THEN GreenStatus ELSE IF TS_PROJECT_STATUS EQ 147 THEN YellowStatus ELSE IF TS_PROJECT_STATUS EQ 148 THEN RedStatus ELSE GrayStatus
StatusTitle	IF TS_PROJECT_STATUS EQ 143 THEN GreenTitle ELSE IF TS_PROJECT_STATUS EQ 147 THEN YellowTitle ELSE IF TS_PROJECT_STATUS EQ 148 THEN RedTitle ELSE GrayTitle
StatusIcon	IF TS_PROJECT_STATUS EQ 143 THEN GreenIcon ELSE IF TS_PROJECT_STATUS EQ 147 THEN YellowIcon ELSE IF TS_PROJECT_STATUS EQ 148 THEN RedIcon ELSE GrayIcon