ACTUATE

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Technical
White Paper

Actuate Release 11 Service Pack 3 Technical Summary of New Features

Actuate 11 SP3 strengthens the ActuateOne™ platform by offering enhancements across the board based on market and customer feedback. This document describes the new features introduced in Actuate 11 SP3.

Notice

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Introduction

Actuate 11 launched the ActuateOne™ Platform – a complete BI solution, built on BIRT. This groundbreaking release introduced numerous new features, products, and more than 40 major enhancements, extending the value of the Actuate BIRT product suite by providing:

- 64-bit, in-memory analytics
- Live Excel® exports
- Print/export Flash® output in PDF files
- Agile access to virtually any data source
- An improved design interface
- User-created analytical and operational dashboards
- New mobile options
- Access to document print streams
- More interactive content for diverse user styles
- Major changes to the Actuate BIRT environment that include:
  - Unified BIRT engine: Single common engine for interactive data visualization and OLAP
  - Unified data access: Multi-layered and multi-sourced
  - Unified metadata layer (Optional): EII-powered with incremental updating and caching
  - Unified deployment server architecture: Disseminate information to a single or a million users both inside and outside the firewall
  - Unified, open API: Access and integrate any content created by the platform into existing applications

Actuate 11 SP3 continues to strengthen the ActuateOne™ platform by offering enhancements across the board based on market and customer feedback. This document describes the new features introduced in Actuate 11 SP3.

BIRT iServer

BIRT iServer is Actuate's world-class server for generating, managing and securely delivering interactive, actionable business information to employees, customers and partners.

Encyclopedia Metadata Supports Use of IBM DB2 v9.7 and Microsoft SQL Server 2008

Actuate 11 enabled IT organizations to use a third party database (RDBMS) as the data store for the Encyclopedia metadata. Out-of-the-box PostgreSQL is the default RDBMS used by the iServer. With Actuate 11 SP3, in addition to Oracle you can also use IBM's DB2 v9.7 or Microsoft's SQL Server 2008 for the Encyclopedia metadata data store.

New Administration Scripts

Actuate 11 SP3 provides new scripts to make it easier for users to run the various server administration tools. These include:

- Squirrel Data Exporter - A tool that exports data from a pre Actuate 11 iServer formatted for loading into the Actuate 11 family of encyclopedia data stores.
- Encyclopedia Data Store Administrator – A tool for administering the iServer's Encyclopedia data stores.
- System Data Store Administrator – A tool for administering the iServer's system data stores.
- Encyclopedia Data Store Upgrader – A tool for upgrading the iServer's Encyclopedia data stores.

Support Large Numbers of Volumes

A number of architectural changes have been made to the BIRT iServer in Actuate 11 SP3 to support thousands of volumes for those customers who are looking for a world class, very high multi-tenancy and scalable BI platform. These changes reduce the resource footprint required to support the large numbers of volumes.

Actuate BIRT Technology

Publish Content to BIRT onDemand using BIRT Designer Professional

BIRT onDemand is a software-as-a-service (SaaS) deployment offering powered by the proven and capable Actuate BIRT iServer that uses the Amazon Web Services (AWS). BIRT onDemand is ideal when business needs call for a hosted, turnkey BIRT deployment solution.

Prior to Actuate 11 SP3, to deploy content to BIRT onDemand, content developers had to use the BIRT onDemand web UI or a custom BIRT Designer Professional plug-in. Starting with Actuate 11 SP3, they can deploy directly from BIRT Designer Professional. No custom plug-ins need to be installed and most importantly all BIRT Designer Professional features available when deploying to BIRT iServer are now available when deploying to BIRT onDemand. These features include the ability to publish BIRT content as well as browse and download deployed content.

To publish content to BIRT onDemand, a BIRT Designer Professional user follows the same simple steps and is presented with the same intuitive experience as when publishing content to an on-premise BIRT iServer. More specifically, the user selects the BIRT content to publish and then an iServer profile identifying the BIRT deployment environment to be used. Starting with Actuate 11 SP3, a new BIRT onDemand iServer profile type is available to support deploying content to BIRT onDemand, as shown in Figure 1.

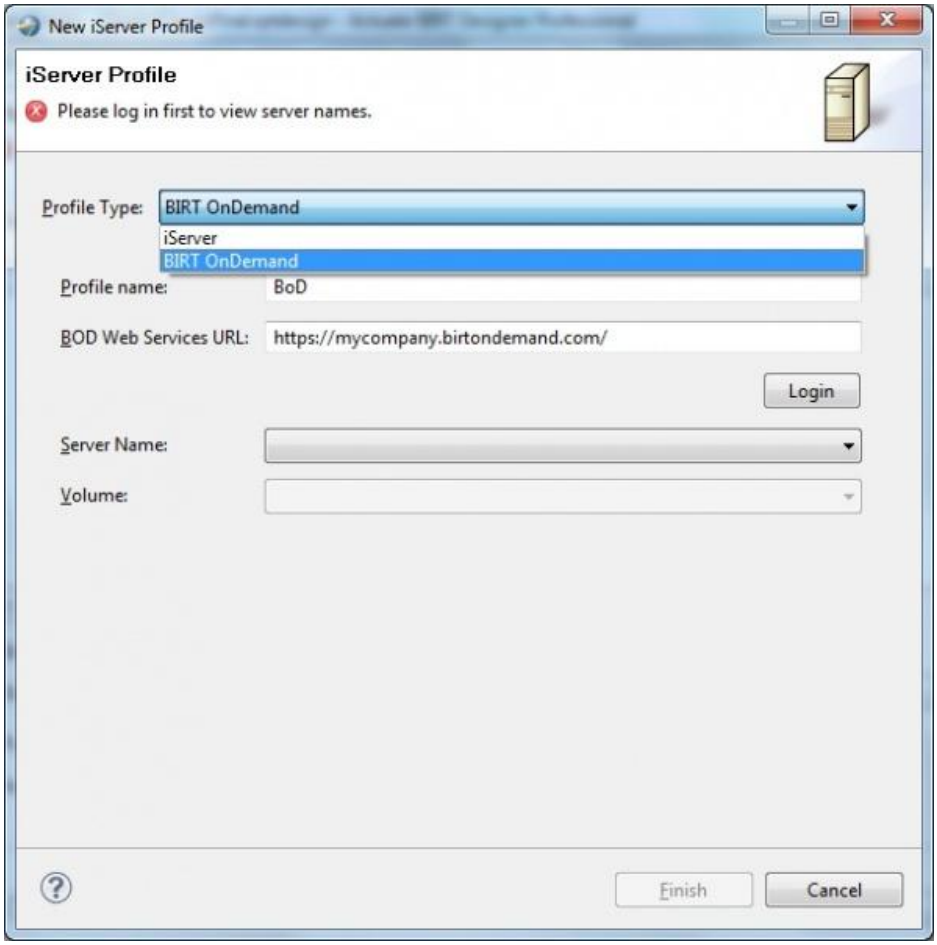

Figure 1: Defining an iServer Profile of type BIRT onDemand

The user experience when browsing and downloading content from the BIRT onDemand repository is also identical to the BIRT iServer one. More specifically the user invokes the same iServer Explorer view within BIRT Designer Professional, but associates it with a BIRT onDemand iServer profile type instead of a regular iServer profile as shown in Figure 2.

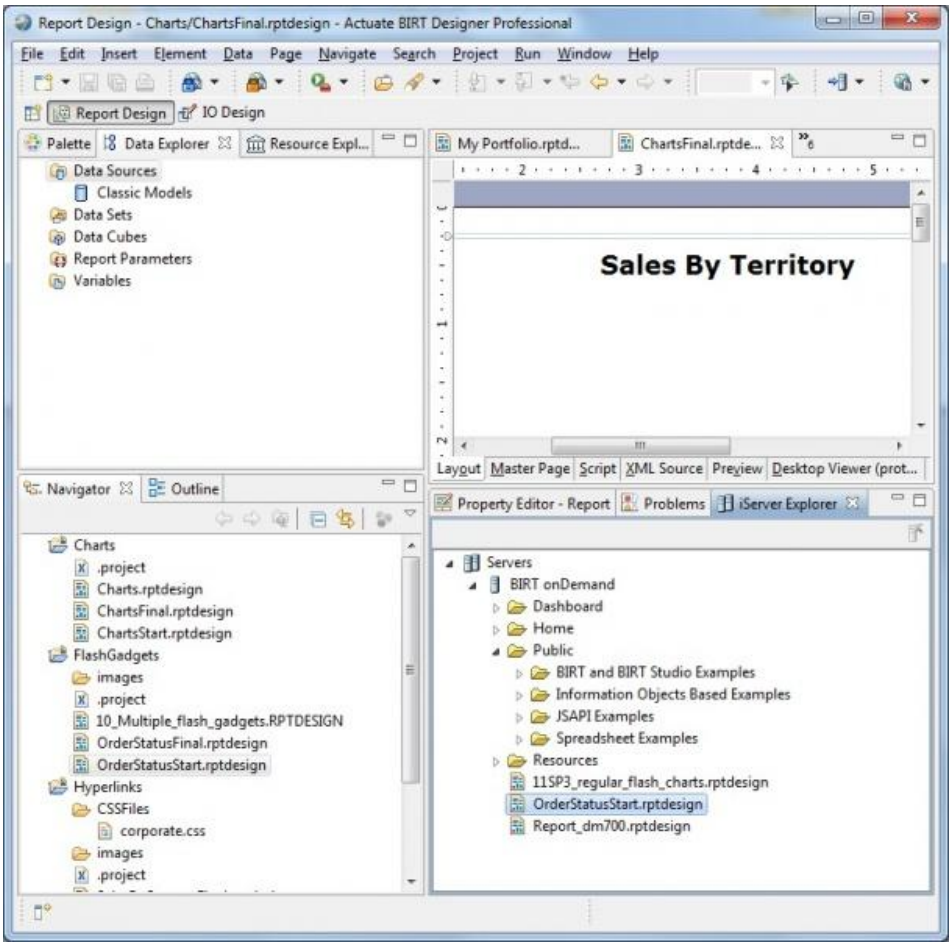

Figure 2: Browsing BIRT content deployed to a BIRT onDemand using the iServer Explorer view

BIRT Studio

Disable the Table Wizard

The BIRT Studio Table Wizard walks users through the steps to populate a BIRT table with the needed data. As more advanced BIRT Studio users may prefer to do this without the help of the wizard, the BIRT Studio configuration file now contains a new setting, TABLE_BUILDER_ENABLE, which iServer administrators use to turn the wizard off.

Extension Interface

To enable application developers to extend BIRT Studio with custom functionality, starting with Actuate 11 SP3, BIRT Studio supports the proven extension interface which the BIRT Interactive Viewer has supported since the initial Actuate 11 release. It allows custom, server-side actions to be programmatically defined and invoked when a BIRT Design is opened, modified, saved or closed. Examples of custom actions include logging the changes applied to a BIRT Design (who opened it, who modified it, and how), customizing BIRT Designs (adding custom indicators to columns that have been filtered or resorted) and many others.

To extend BIRT Studio with custom functionality, an application developer defines the logic in a Java class that extends the BIRT Studio extension interface. Next, the iServer administrator uses an iServer configuration file to associate the Java class with BIRT Studio.

BIRT Data Analyzer

Computed Measures Enhancements

As part of their OLAP analysis BIRT Data Analyzer users often need to define computed measures based on the measures in the corresponding BIRT cube. For example,

Profit = Revenue – Expenses or Sales_Amount = Units_Sold x Price_Each.

Starting with Actuate 11 SP3, when defining computed measures BIRT Data Analyzer users can use any of the cube's measures, not just those included in the current cube view. Figure 3 shows an example of this functionality: a cube view containing a computed measure, Profit, which is the Revenue measure minus the Expenses measure. Neither of the two measures in the computation are part of the current cube view.

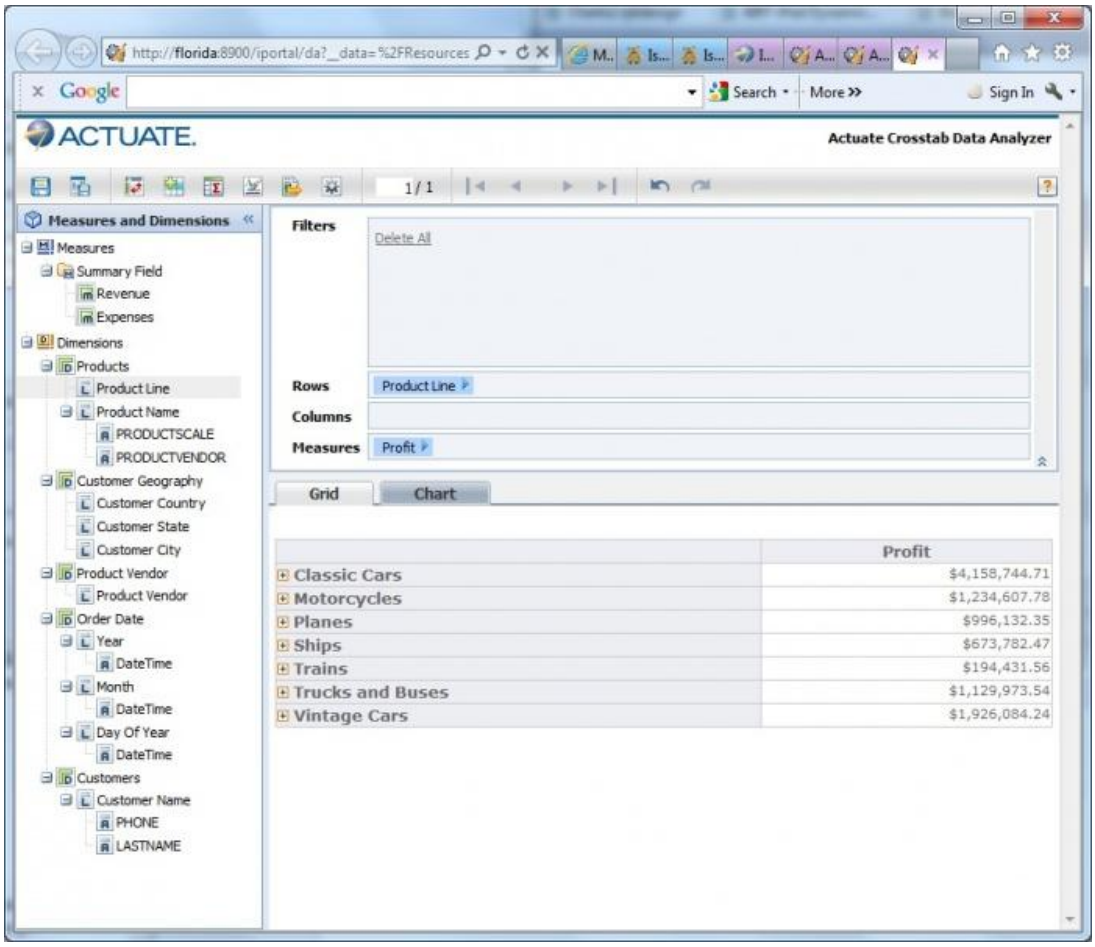

Figure 3: A computed measure based on measures that are not part of the current cube view

Furthermore, BIRT Data Analyzer users can now chart computed measures as well as the cube's predefined measures, as shown in Figure 4.

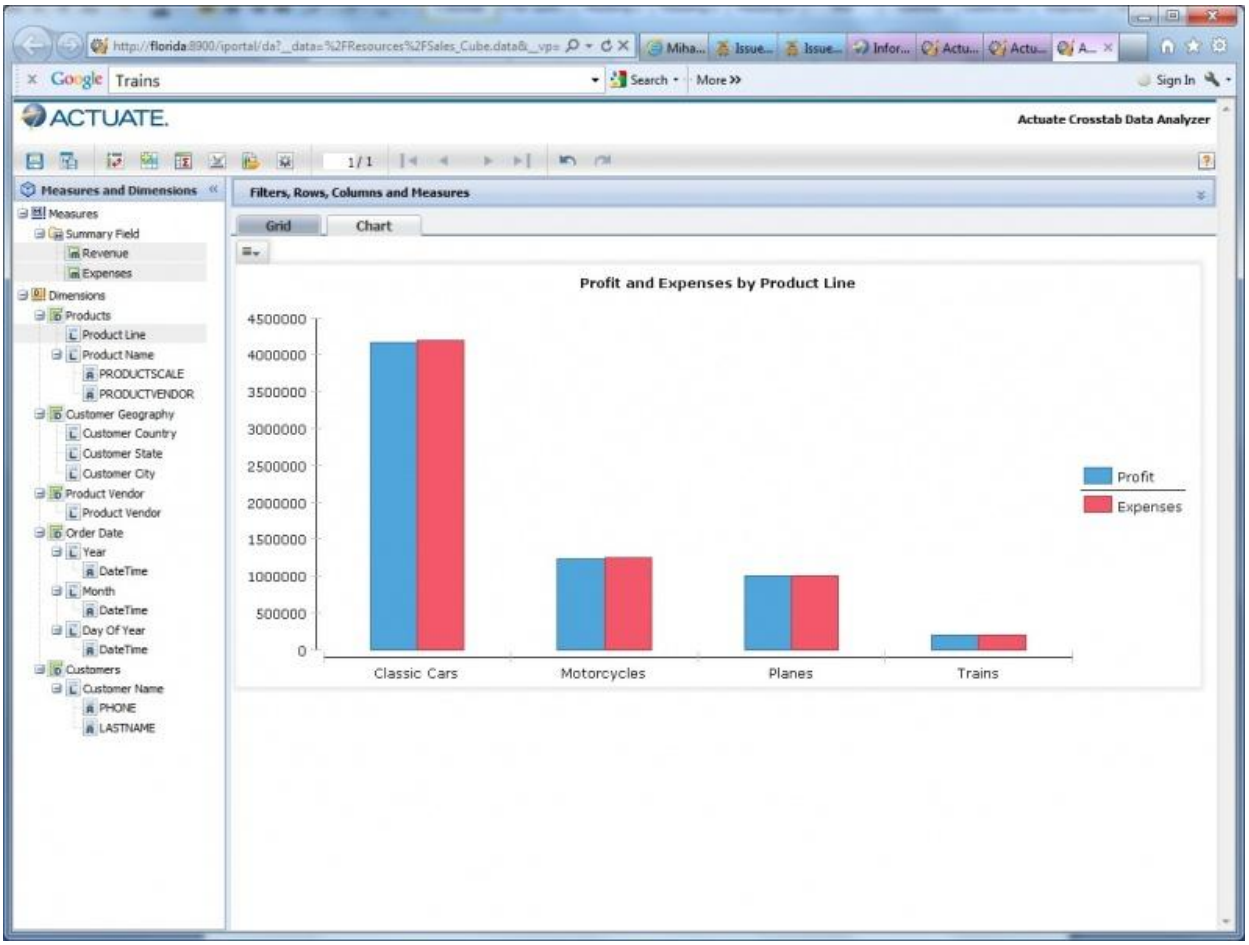

Figure 4: A chart plotting the computed Profit measure alongside the cube's Expenses measure

Pie Chart Support

Actuate 11 SP3 gives BIRT Data Analyzer users more options for visual display of the results of their analysis. In addition to using Bar, Column and Line charts, users can now use Pie charts, as shown in Figure 5.

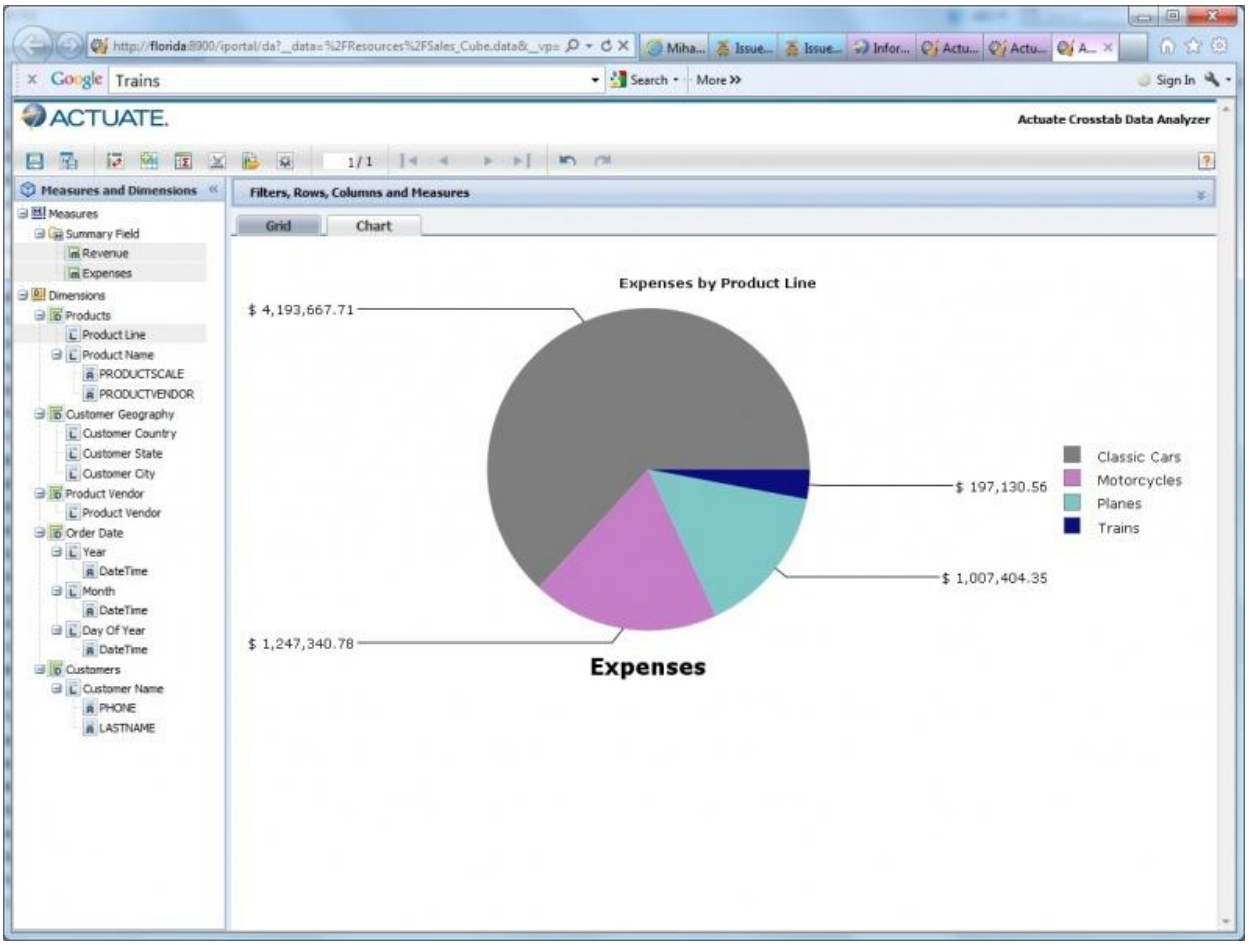

Figure 5: Using a Pie chart in the BIRT Data Analyzer to compare expenses by product line

BIRT 360

Setting a User's Default Dashboard

In Actuate 11 SP3, using the Management Console, users with administrator privileges can setup a default dashboard for other users, as shown in Figure 6. This could be a blank dashboard, a system default dashboard, or a custom shared dashboard. Administrators can also set default settings that control the dashboard layout and free-form layout. With this feature, end users get started quickly and are productive from the first time they login to the Information Console.

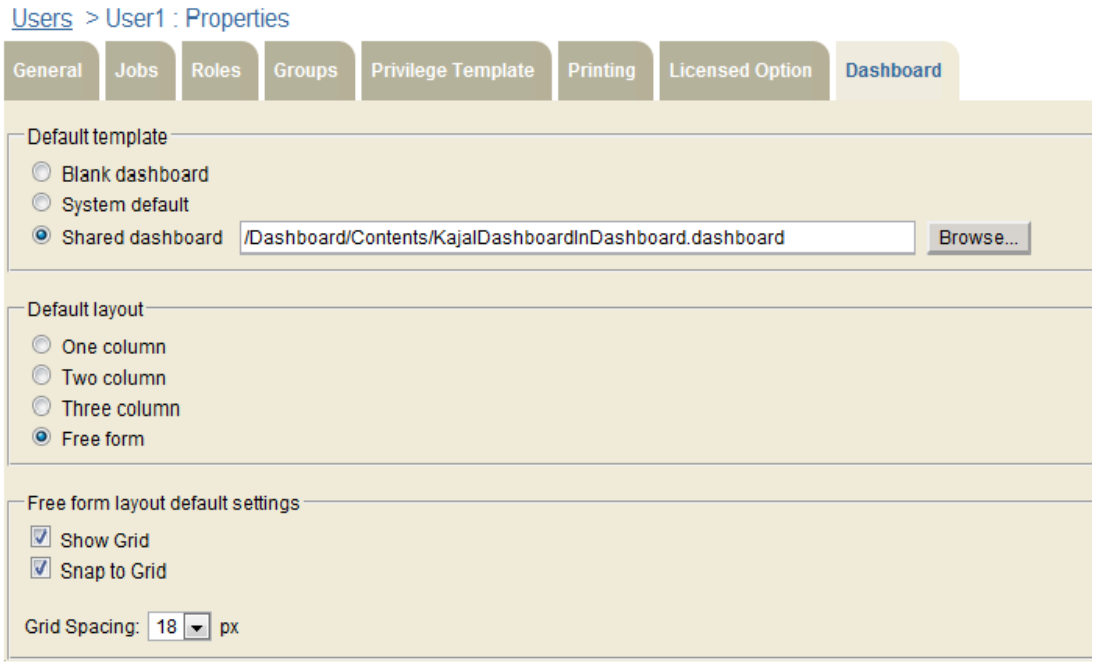

Figure 6: Setting a User's Default Dashboard

Supported Products

Actuate 11 SP3 adds support for the following:

- Windows 7 SP1, AIX 7.1, RHEL 6.1, Solaris 9, 10
- Encyclopedia Databases – Microsoft SQL Server 2008, DB2 9.7
- IE 9 support for BIRT Spreadsheet Engine
- Google Chrome 14 and 15, Firefox 6 and 7 on Windows for Information Console and Management Console
- Firefox 6 on Linux for Information Console and Management Console

Upgrade and Migration

Actuate 11 SP3 is fully upwardly compatible with previous releases.

BIRT iServer

Actuate 11 SP3 includes facilities to migrate content for existing BIRT iServer Encyclopedias to the new release.

Upgrading from Actuate 8 thru Actuate 10 Releases

The installer will migrate existing Encyclopedia metadata to the new Actuate 11 SP3 embedded PostgreSQL database automatically.

Upgrading from Actuate 11, Actuate 11 SP1 or Actuate 11 SP2

The installer will automatically update the schema of the existing Encyclopedia metadata database to the new Actuate 11 SP3 schema.

After installing Actuate 11 SP3, new Encyclopedia migration utilities are provided to move Encyclopedia metadata content from the embedded PostgreSQL database to other supported RDBMS's. These include Microsoft SQL Server, Oracle and DB2.

Actuate 11 SP3 can coexist with any release of a previous major release series on the same server. For example, you can run Actuate 10 and 11 SP3 on the same machine at the same time with the appropriate licenses. This capability is supported across major releases only.

It is not possible for two releases in the same series to coexist on the same hardware. For example, it is not possible to install Actuate 11 SP3 and Actuate 11, Actuate 11 SP1, Actuate 11 SP2 on the same hardware.

Design and Document Compatibility

Actuate Release 11 SP3 is fully backward compatible with previous report designs, executables, and output. All of a customer's existing reports generate the same results as they did prior to upgrade without any changes. There is no need to recompile report designs. As customers identify opportunities to use the new functionality offered by Actuate Release 11 features, they can selectively make changes to individual reports or their enterprise reporting application.

For more detailed instructions, please refer to the installation manuals for the BIRT iServer.