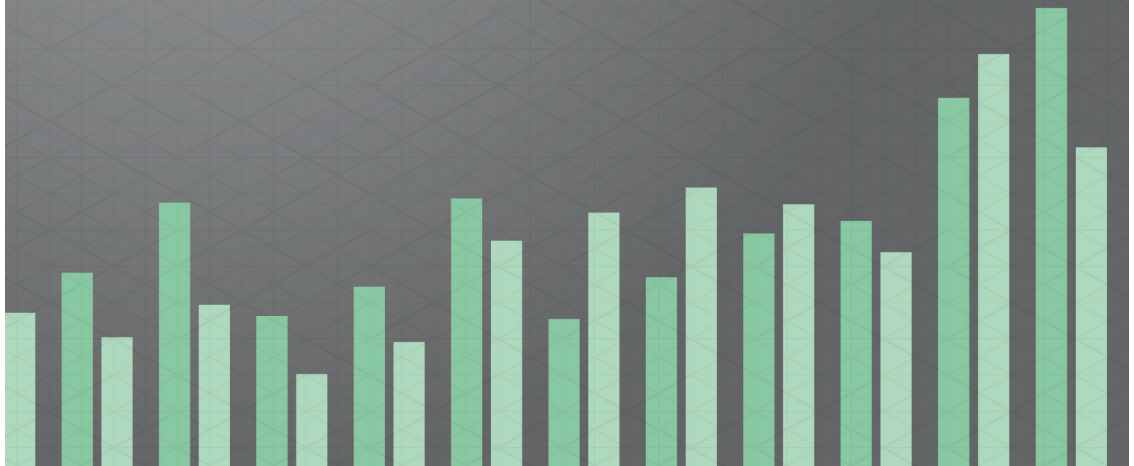




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BIRT Analytics



Installing BIRT Analytics

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About *Installing BIRT Analytics*

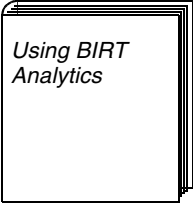
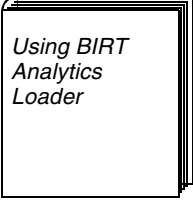
Installing BIRT Analytics includes the following chapters:

- *Introduction*. Provides an overview of this guide and Actuate BIRT iHub documentation.
- *Chapter 1. Installing BIRT iHub overview*. Describes the BIRT iHub modules and environment.
- *Chapter 2. Installing BIRT Analytics on Windows*. Describes how to install BIRT Analytics in a Windows environment.
- *Chapter 3. Installing BIRT Analytics on Linux*. Describes how to install BIRT Analytics in a Linux environment.
- *Chapter 4. Setting up BIRT Analytics and BIRT iHub*. Describes how to access BIRT Analytics, System Console, and BIRT iHub Visualization Platform.

Accessing Actuate BIRT iHub information

The online documentation includes the materials described in Table 1-1. You can obtain HTML and PDF files from the Actuate web site. These documentation files are updated in response to customer requirements.

Table 1-1 BIRT Analytics documentation

For information about this topic	See the following resource
Installing BIRT Analytics on Windows and Linux	 <i>Installing BIRT Analytics</i>
Overview of data analysis and data mining Using BIRT Analytics tools Visualizing data	 <i>Using BIRT Analytics</i>
Using BIRT Analytics Loader to extract, transform, and load data Using projects to manage data Administering BIRT Analytics Loader processes	 <i>Using BIRT Analytics Loader</i>
Using BIRT Analytics Admin to: ■ Set up users and groups ■ Configure security ■ Configure and monitor system options	 <i>Administering BIRT Analytics</i>
Late-breaking information and documentation updates	Release notes and updated localization files posted on Actuate Support

Obtaining documentation

Actuate provides technical documentation in PDF and HTML formats. You can download PDF or view HTML versions of the documentation from www.actuate.com/documentation.

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The release notes contain late-breaking news about Actuate products and features. The release notes are available on the Actuate Support site at the following URL:

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Installing BIRT iHub overview

This chapter contains the following topics:

- Understanding BIRT Analytics installation
- Understanding the BIRT iHub installation environment

Understanding BIRT Analytics installation

BIRT Analytics is a module in an Actuate BIRT iHub System. This chapter describes the modules and components of BIRT iHub. Later chapters describe how to install BIRT Analytics. The system administrator uses the BIRT iHub installation packages to install the BIRT iHub modules described in Table 1-1.

Table 1-1 Actuate BIRT iHub modules

Module	Platform	Description
System Console	Windows and Linux	A web-based tool for configuring, licensing, managing, and monitoring one or more BIRT iHub Systems.
BIRT iHub Visualization Platform	Windows and Linux	A web application, server, and metadata database that provide access to dashboards, files, folders, and jobs in an Encyclopedia volume. Supports viewing BIRT reports and using Report Studio.
BIRT Analytics	Windows and only core module on Linux	An application, including a data repository, data loader, and web service, that supports big data analysis.
Content Services	Windows and Linux	Content management tools enabling users to create, modify, store, test, and deliver intelligent customer communications across multiple channels.
Metrics Management	Windows	A service and database engine for analyzing performance metrics. Requires BIRT iHub Visualization Platform.

Actuate provides two types of BIRT iHub installation packages, installers that include a single module and command-line installers. The single-module installers typically include BIRT iHub and a specified module. For Microsoft Windows platforms, the single-module installers provide an interactive, graphical interface. For Linux systems, the single-module installers provide a shell script that uses values in a properties file. The command-line installers install one or more modules without user interaction.

To set up a system using a single module and System Console, and using default configuration settings, use the single-module installers. To set up a system using multiple modules or using customized configuration settings, to install multiple modules at one time, or to support future installation of additional modules on the same system, use the command-line installers.

To reduce network traffic, install BIRT iHub on the same host machine as the BIRT iHub system database. Alternatively, install BIRT iHub and the metadata database on different machines to distribute processing across multiple machines.

The installation procedures install BIRT iHub using an evaluation license. After installation, the administrator specifies a purchased product license using System Console. For a complete understanding of configuring BIRT iHub licenses, see *BIRT iHub System Administration Guide*.

Overview of installation operations

When installing BIRT iHub, be sure to run the same versions of all products.

To install BIRT iHub, the system administrator performs one of the following operations:

- Installs on Windows or Linux using the installation program or script
 - Downloads the installation programs or packages for System Console and a single BIRT iHub module from the download site
 - Runs the installation programs or shell scripts
- Installs on Windows or Linux using the BIRT iHub command-line installer
 - Downloads the BIRT iHub command-line installation package and installation modules from the download site
 - Extracts the contents of the installation package into a directory, such as `\Actuate\iHub3` or `/Actuate/iHub3`
 - Modifies the installation properties file to specify which products to install and the location of the installation modules
 - Runs the installation script

After performing the installation, the system administrator loads a license for purchased options.

About installation components

Each BIRT iHub module includes one or more components. All single-module installation programs except System Console install the BIRT iHub component and one or more other components. The following section lists and describes these components.

BIRT iHub provides the common services used by all modules such as user management, activity logging, and the PostgreSQL RDBMS containing system metadata.

The System Console module includes one component, System Console, which is the graphical user interface (GUI) for administering the BIRT iHub System.

The BIRT iHub Visualization Platform module includes the following components:

- BIRT iHub System with a PostgreSQL relational database management system (RDBMS), including a default Encyclopedia volume with sample BIRT designs and other documents
- BIRT iHub Visualization Platform, which provides an integrated user interface for viewing and editing BIRT dashboards and reports, and iHub Administration

The BIRT Analytics module includes the following components:

- BIRT iHub System
- BIRT Analytics Core, installable on both Linux and Windows, which includes the analytics repository, data loader, and the web service that communicates between the repository and the BIRT Analytics front end
- BIRT Analytics Application, installable on Windows only, which includes the BIRT Analytics administrator and user tools
- A separate component, installable on Windows only, which includes BIRT Analytics tools for licensing and data migration

The BIRT Content Services module includes the following components:

- BIRT iHub System
- BIRT Content Services, which provide organizations with the power to develop, implement, and control customer communications management solutions

The Metrics Management module is available only on Windows and includes the following components:

- BIRT iHub System
- Metrics Management SQL Server RDBMS, which is the database engine
- Metrics Management Classic Web Client, which is a browser-based client for accessing briefing books
- Metrics Management Web, which is the web tier component and installs in a browser
- Metrics Management Server, which is a service that provides the audit services, calculation engine, and security

Storing cluster and Encyclopedia volume metadata

BIRT iHub stores metadata containing system, cluster, and Encyclopedia volume configuration information in a database. In the default installation, BIRT iHub

uses the open-source, PostgreSQL RDBMS. iHub also supports using other RDBMS, such as Oracle or a pre-existing PostgreSQL instance.

After installation of the default system, the system administrator uses System Console to switch to an alternative RDBMS. The database administrator must pre-configure the database by running SQL Data Definition Language (DDL) to install the iHub database and the cluster and Encyclopedia volume schemas.

The database that contains BIRT iHub system, cluster, and Encyclopedia volume metadata is a critical component of BIRT iHub System. To guard against data loss, the database administrator must back up the schema using the tools and resources of the third-party RDBMS.

For information about the recommended procedures to back up BIRT iHub cluster and Encyclopedia volume schemas, refer to *BIRT iHub System Administration Guide*.

Downloading the installation packages

Download BIRT iHub installation packages from an Actuate download site using the URLs provided by e-mail.

Understanding the BIRT iHub installation environment

The following sections provide supplementary information about the BIRT iHub installation environment.

Running different releases on the same machine

A BIRT iHub 3 installation cannot coexist on the same machine with an earlier release of BIRT iHub or iServer.

Understanding the Java Software Development Kit

BIRT iHub requires a 64-bit version of the JAVA SE Development Kit (JDK) 1.6 or higher. The BIRT iHub installation process installs a Java Software Development Kit (JDK) if it does not detect one already installed in the environment. The iHub installation routine installs the JDK files in:

```
\Actuate\iHub3\modules\JDK64
```

To use a different JDK with iHub, change the files in the installation directory or change the values of the following environment variables:

- AC_JAVA_HOME
- AC_JVM_HOME

- AC_JRE_HOME
- AC_JRE64_HOME

Using an earlier JDK release can cause some BIRT iHub features to fail or to work incorrectly. For example, using an earlier release of JDK can cause Actuate products to display charts incorrectly.

The following types of Actuate executable files use AC_JRE_HOME and AC_JVM_HOME:

- Files containing charts use AC_JVM_HOME to locate the java.exe to generate the chart.
- Files using the Actuate Java Object Interface use AC_JVM_HOME to locate the JVM DLL or library.

Accessing JAR files for document generation

To generate some documents, iHub requires access to jar files in the Jar directory of the iHub installation files. In Windows, include the location of the jar file in the CLASSPATH.

Gathering LDAP information

An optional Open Security application ships with Actuate iHub Integration Technology. This application uses a Lightweight Directory Access Protocol (LDAP) security database to control access to the Encyclopedia volume. To use the Open Security application, you need to perform a custom installation, which requires the following additional information:

- Name of the LDAP server and the port on which the LDAP server listens
- LDAP account and password used to query the LDAP server
- LDAP server organization that contains the BIRT iHub users and user groups
- LDAP base domain names and object classes that contain iHub users and user groups information

Actuate Open Security uses an LDAP configuration file to map BIRT iHub system information to LDAP object attributes. For more information about Actuate Open Security, see the System Console documentation in *System Administration Guide* and reference implementations available in BIRT iHub Integration Technology.

Following best practices

Before deploying BIRT iHub in a production environment, Actuate recommends testing the installation in a separate staging area before deploying to the production system. The following sections provide some guidelines for setting up a test environment and production staging area.

Using a test environment

Set up a test environment and then move to iHub on the production system when the testing is complete. You cannot mix Actuate products from different release levels. For example, you cannot use BIRT iServer Release 11 design tools with BIRT iHub Release 3.

Complete the following general tasks in this order to determine how to upgrade your site to BIRT iHub:

- Create a test environment for BIRT iHub. The test environment cannot be on the same machine that hosts an earlier Actuate installation.
- Install the software in the test environment. Create any applications you need using the BIRT iHub Integration Technology test environment.
- Ask application developers and a few users to perform some typical tasks in the test environment.
- Create a production staging area.
- Install the remaining BIRT iHub desktop products, if required, in production environments on the user workstations. Verify that the desktop products function properly.
- Schedule a low-impact time to switch to the production system.

Setting up a production staging area

A production staging area is one that you can use for testing and also configure as the live production system. The production staging area can be a separate configuration on the live production machine or a separate machine. You can install all BIRT iHub products or the BIRT iHub server products and a subset of the desktop products.

If you plan to test BIRT iHub desktop products, identify which users to include in the final testing. Developers and users can then confirm that applications perform as expected in the BIRT iHub production staging environment.

Complete the following general tasks to test BIRT iHub:

- Install BIRT iHub software in a production staging area.
- Install BIRT iHub desktop software on the test user machines.
- Verify that the BIRT iHub production staging environment works correctly.
- Install the remaining BIRT iHub desktop products, if you installed a subset earlier.
- Verify that all the BIRT iHub desktop products work correctly.
- Begin setting up a production environment as described in the following section.

Setting up a production environment

When testing is complete, confirm that your applications work as expected in the BIRT iHub environment. Set up the production environment and schedule a date and time to activate BIRT iHub.

When you switch to BIRT iHub, use the following procedure list as a general guideline:

- Install design and document files.
- Start BIRT iHub.
- Inform users that they can start using BIRT iHub design tool products.

Installing BIRT Analytics on Windows

This chapter contains the following topics:

- Preparing to install BIRT Analytics on Windows
- Using the BIRT Analytics installation program on Windows
- Using the command-line installation package on Windows
- Reviewing the BIRT Analytics Windows installation
- Starting and stopping BIRT Analytics and BIRT iHub on Windows
- Uninstalling BIRT Analytics and BIRT iHub from Windows

Preparing to install BIRT Analytics on Windows

For optimum performance, use a system that has a minimum of 8GB RAM.

About the supported Java SE Development Kit (JDK)

BIRT Analytics requires a 64-bit version of the JAVA SE Development Kit (JDK) version 1.6 or higher. The BIRT Analytics installation process installs the 64-bit JDK version 1.7 if it does not detect a suitable JDK already installed in the environment. The installer checks for a Java installation using the JAVA_HOME environment variable. On Windows, the installer also checks the registry. If both Java 1.7 and Java 1.6 are available, BIRT Analytics uses Java 1.7.

Checking for ports used by BIRT Analytics

BIRT Analytics processes use network ports to communicate. Before installation, ensure that the ports used by BIRT Analytics are available on the system. The ports used by BIRT Analytics are listed in Table 2-1.

Table 2-1 BIRT Analytics ports

BIRT Analytics module	Ports used
BIRT iHub	Required during and after installation: 8000, 8100, 8432, 8500, 8700, 9432 Required after installation: 8010, 8011, 11100, 11101, 12100, 13500, 14000, 14100, 14200, 15200, 18500, 21000, 21500
BIRT Analytics	For http communication: 80, 8105, 8110, 8114 For https communication: 443, 8106, 8109, 8113

Configuring a Windows user account for BIRT Analytics

Actuate recommends creating a dedicated user account at the operating system level for installing and running BIRT Analytics. Having a dedicated user account isolates Analytics-specific issues and events on a machine, making it easier to administer the environment.

In the Windows environment, the user account must meet the following requirements:

- Be a member of the Windows Administrators group or, depending on more rigorous security requirements, at a minimum, have all data and network permissions required to run BIRT Analytics applications
The account must have privileges to access the required software and hardware, such as database servers, printers, and BIRT Analytics files and folders.
- To run the BIRT Analytics processes as services, have log on as a service privilege
If the account does not meet this requirement, the BIRT Analytics installation program prompts you to configure the privilege to run the Windows Actuate BIRT Analytics service.

If you plan to install BIRT Analytics on a machine controlled by a domain server, install BIRT Analytics while logged in to a user account controlled by the local machine, not by the domain server.

How to configure a Windows user account with administrator privileges

To configure a user account with administrator privileges for installing and running Analytics, perform the following tasks:

- 1 In Windows, open the Command Prompt and type:
`lusrmgr.msc`
- 2 In Local Users and Groups, choose Users to display the list of users.
- 3 Double-click the user to display the properties.
- 4 In Properties—General, deselect Account is disabled, if necessary.
- 5 In Properties—Member Of, choose Add and perform the following tasks:
 - 1 In Select Groups, in Enter the object names, type:
`Administrators`
 - 2 Choose Check Names then choose OK.
- 6 Exit Local Users and Groups.

How to configure the log on as a service privilege

To configure the log on as a service privilege manually, perform the following tasks:

- 1 In Windows Control Panel—System and Security, open Administrative Tools→Local Security Policy.

- 2 In Local Security Settings, navigate to Security Settings→Local Policies→User Rights Assignments.
- 3 In User Rights Assignments, perform the following tasks:
 - 1 Open Log on as a service Properties. Choose Add User or Group.
 - 2 In Select Users or Groups, add the user name. Choose Check Names then choose OK.
- 4 Exit Local Security Settings.

Running BIRT Analytics as a service or from a batch file

The BIRT Analytics installation tools support running BIRT Analytics processes as Windows services. If you choose this option, the services start whenever the system starts. If you choose not to run the BIRT Analytics processes as Windows services, you must run batch files to start the processes.

Prerequisites for BIRT Analytics installation on Windows

BIRT Analytics requires the complete Microsoft .NET 4.0 Framework. Use the Programs and Features tool in Windows Control Panel to check whether the system has this feature installed. If necessary, download the Microsoft .NET 4.0 Framework from the Microsoft Windows download site and then install the downloaded software.

BIRT Analytics also requires Internet Information Services (IIS) including IIS Management Console and all components of IIS 6 Management Compatibility. Use the Turn Windows features on or off tool in Programs and Features to install these features.

Using the BIRT Analytics installation program on Windows

This section describes how to use the single-module installer to install BIRT Analytics. This installer installs the BIRT Analytics and BIRT iHub packages. To select individual packages for installation without BIRT iHub or to support later installation of other Actuate modules on the same system, use the command-line installer, as described in “Using the command-line installation package on Windows,” later in this chapter.

When installing using the BIRT Analytics installation program, the administrator performs the following tasks:

- Downloads the executable installation program for BIRT Analytics, BIRTAnalytics-ihub3.exe, and the installation program for System Console, SystemConsole-ihub3.exe, from the software distribution site
- Runs the installation program for BIRT Analytics, installing the module into a directory such as C:\Actuate\iHub3, using the embedded evaluation license
- Runs the System Console installation program, installing System Console into a directory such as C:\Actuate\iHub3, using the embedded evaluation license

Installing the BIRT Analytics module on Windows

For information about accessing BIRT Analytics after installation, see Chapter 4, “Setting up BIRT Analytics and BIRT iHub.”

How to run the BIRT Analytics installation program on Windows

Install BIRT Analytics and then install the BIRT Analytics tools, as described in “How to install the BIRT Analytics tools.”

- 1 Download the self-extracting executable file, BIRTAnalytics-ihub3.exe, from the software distribution site.
- 2 Run BIRTAnalytics-ihub3.exe. The Installer Language message appears. Select a language or accept the default language, English. Then, choose OK.
- 3 BIRT Analytics Setup appears, as shown in Figure 2-1. Choose Next.

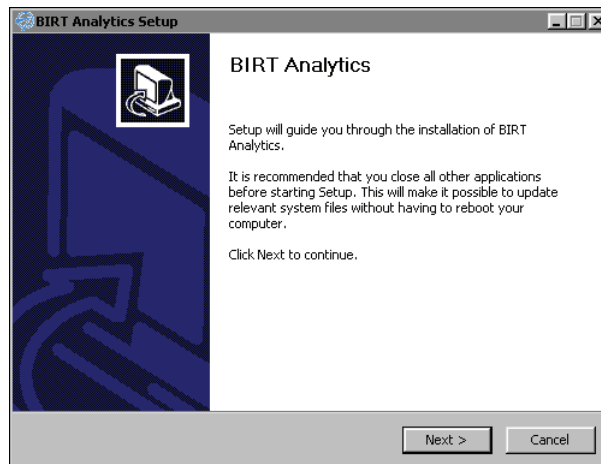


Figure 2-1 Viewing BIRT Analytics Setup

- 4 In License Agreement, choose I Agree, as shown in Figure 2-2. Choose Next.

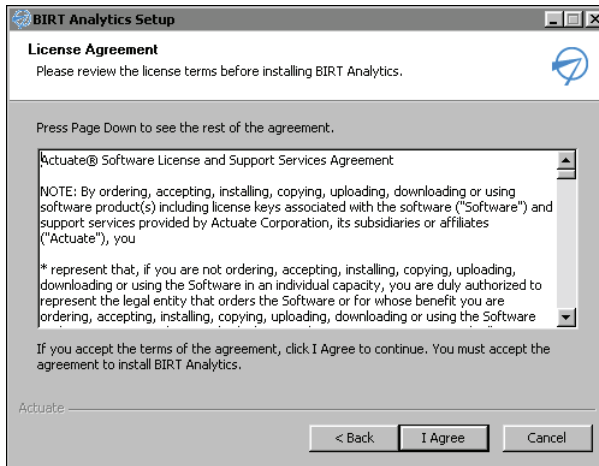


Figure 2-2 Agreeing to license terms for BIRT Analytics

- 5 In Choose Components, select the set of BIRT Analytics components to install, as shown in Figure 2-3. The default selection installs all the BIRT Analytics components.

You must install BIRT iHub. To install the analytics repository, data loader, and the web service that communicates between the repository and the BIRT Analytics front end, select BIRT Analytics Core. To install the BIRT Analytics administrator and user tools, select BIRT Analytics Application.

Then, choose Next.

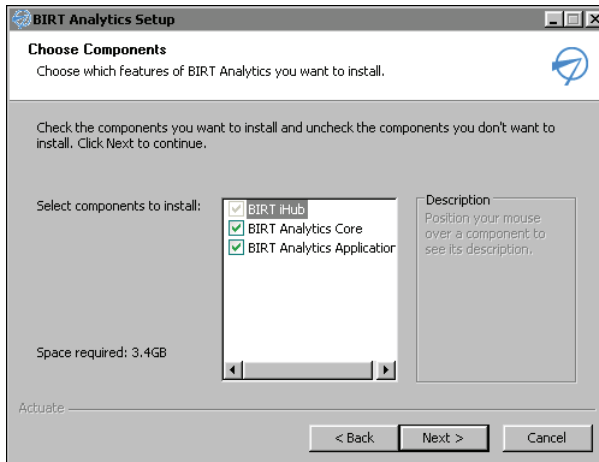


Figure 2-3 Choosing BIRT Analytics installation components

- 6 In Choose Install Location, in Destination Folder, accept the default path or choose Browse to specify a new destination folder in which to install BIRT Analytics, such as C:\Actuate\BIRTAnalytics, as shown in Figure 2-4. Choose Next.

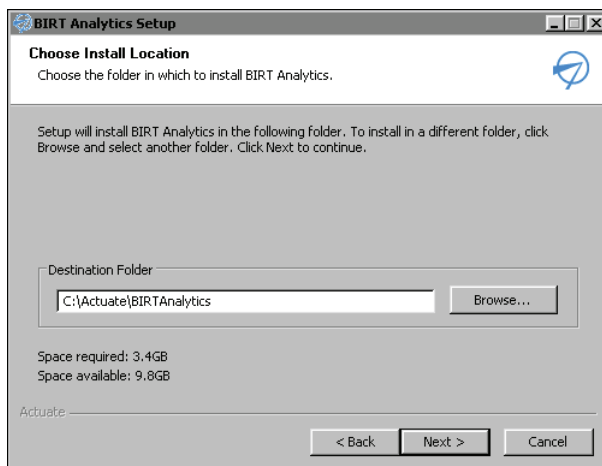


Figure 2-4 Choosing the BIRT Analytics installation folder

- 7 In Specify Profile, specify the Windows account information, including User name and password, and select whether to install BIRT Analytics as a Windows service, as shown in Figure 2-5. Choose Next.

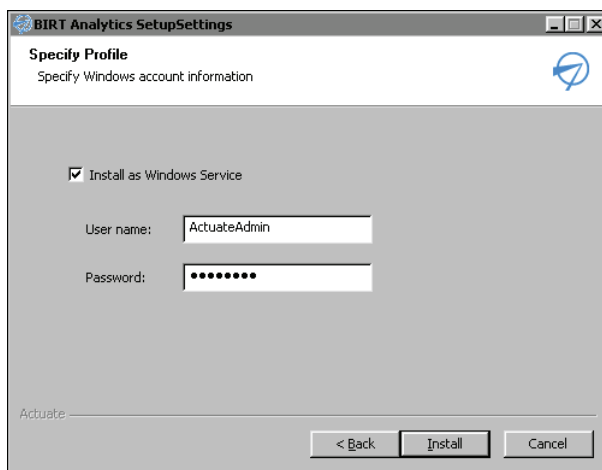


Figure 2-5 Specifying Windows account information for BIRT Analytics

If you select installation as a Windows service, the installer checks whether the account specified has the Log on as a Service privilege. If the account does not have the privilege, a message appears. Choose OK. Perform the steps described in “How to configure the log on as a service privilege,” earlier in this section. Then, choose Install.

Installing appears, showing the status of the BIRT Analytics installation process, as shown in Figure 2-6. Choose Show Details to see more information about the BIRT Analytics installation operations.

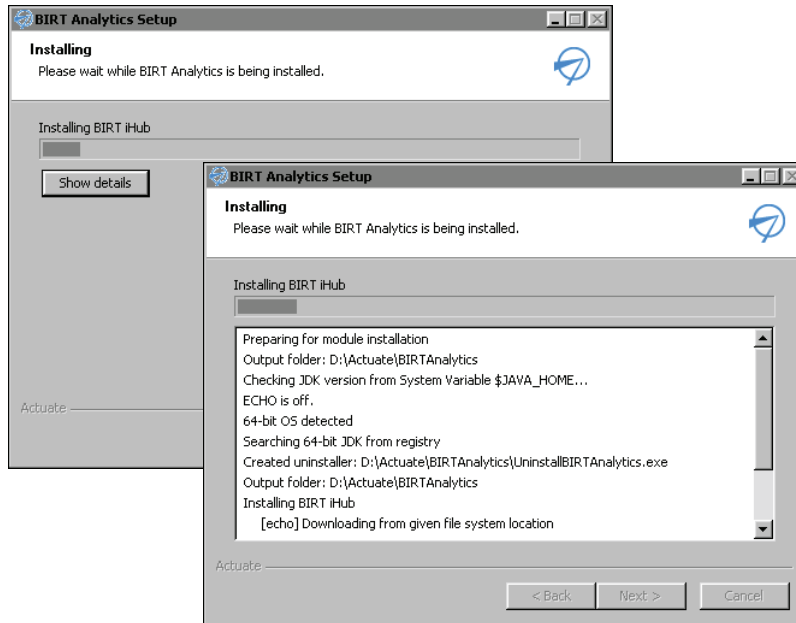


Figure 2-6 Viewing the BIRT Analytics installation process

- 8** If a Windows Security Alert appears indicating that the firewall is blocking access to Actuate BIRT Analytics or one of its related programs, perform the following tasks:
 - 1** In Allow PostgreSQL Server to communicate on these networks, for example, select Private networks, such as my home or work network. Then, choose Allow access, as shown in Figure 2-7.

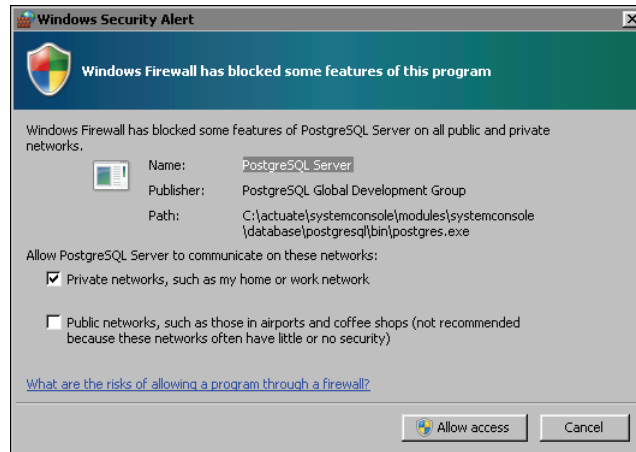


Figure 2-7 Allowing firewall access to PostgreSQL Server

- 2 In User Account Control, type an Administrator account password, as shown in Figure 2-8.

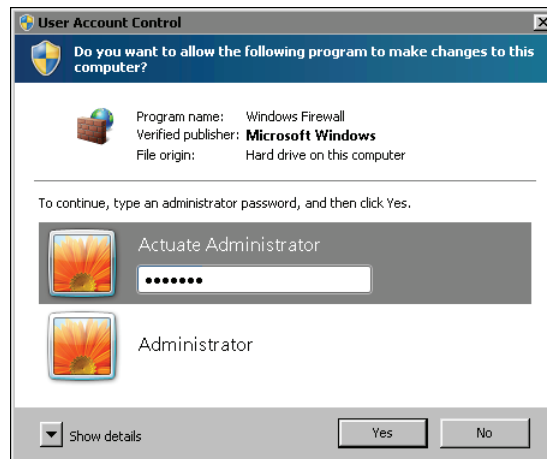


Figure 2-8 Entering an administrator account password

- 3 Repeat this step for other Windows Security Alerts, if prompted to do so.
- 9 With Show Readme selected, choose Finish to close BIRT Analytics Setup, as shown in Figure 2-9. Alternatively, deselect Show Readme to not open the readme.txt file.

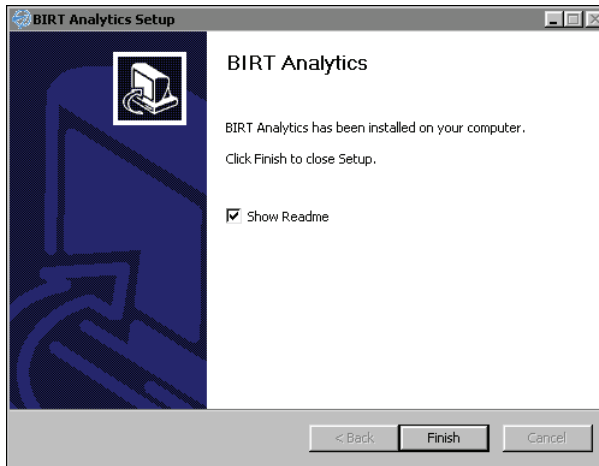


Figure 2-9 Choosing Finish to close BIRT Analytics setup

With Show Readme selected, the readme.txt file opens in Notepad. This file states that BIRT Analytics installed successfully and a shortcut to the product is on the Desktop and in Windows Start menu. Shortcuts to BIRT Analytics Administration, BIRT Analytics, BIRT iHub Visualization Platform, and QLoader appear on the desktop.

- 10** Install the BIRT Analytics tools, as described in “How to install the BIRT Analytics tools.”

How to install the BIRT Analytics tools

Install the BIRT Analytics tools after installing BIRT Analytics, as described in “How to run the BIRT Analytics installation program on Windows.”

- 1** Download the archive (.rar) file, BIRTAnalytics-Tools-ihub3.rar, from the software distribution site onto a Windows system.
- 2** Extract the contents of the RAR file to create the folder, 10-Tools.

Installing the System Console module on Windows

For information about accessing System Console after installation, see Chapter 4, “Setting up BIRT Analytics and BIRT iHub.”

How to run the System Console installation

- 1** Download the self-extracting executable file, SystemConsole-ihub3.exe, from the software distribution site.
- 2** Run SystemConsole-ihub3.exe. The Installer Language message appears. Select a language or accept the default language, English. Then, choose OK.
- 3** System Console Setup appears, as shown in Figure 2-10. Choose Next.

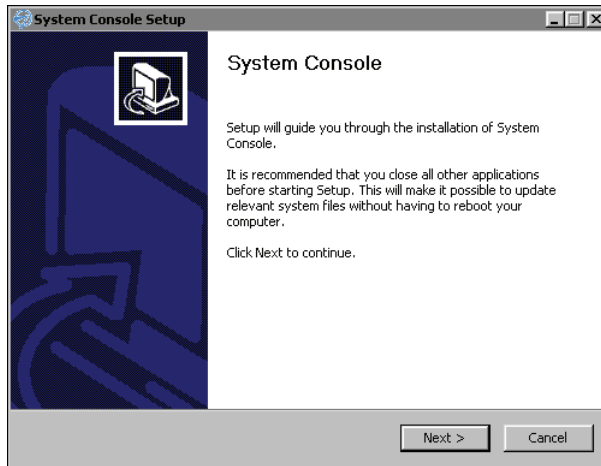


Figure 2-10 Viewing System Console Setup

- 4 In License Agreement, choose I Agree, as shown in Figure 2-11. Choose Next.



Figure 2-11 Agreeing to System Console license terms

- 5 In Choose Install Location, in Destination Folder, accept the default path or choose Browse to specify a new destination folder in which to install System Console, as shown in Figure 2-12. Choose Next.

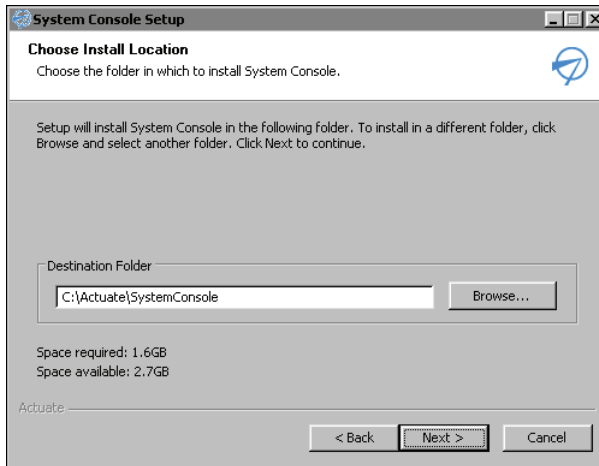


Figure 2-12 Choosing the System Console installation folder

- 6 In Specify Profile, specify the Windows account information, including user name and password, and select whether to install System Console as a Windows service, as shown in Figure 2-13. Choose Next.

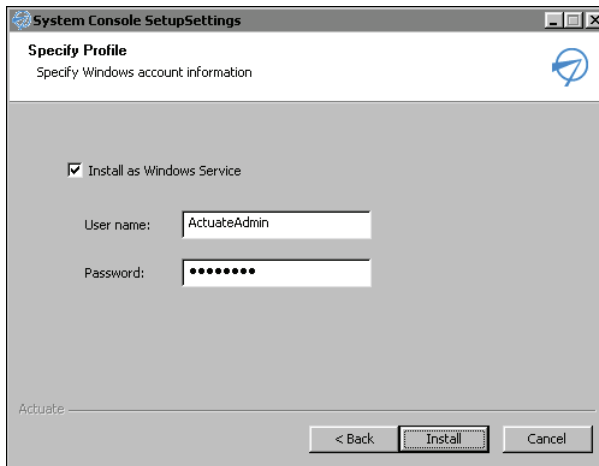


Figure 2-13 Specifying Windows account information for System Console

If you select installation as a Windows service, the installer checks whether the account specified has the Log on as a Service privilege. If the account does not have the privilege, a message appears. Choose OK. Perform the steps described in “How to configure the log on as a service privilege,” earlier in this section. Then, choose Install.

Installing appears, showing the status of the System Console installation process, as shown in Figure 2-14. Choose Show Details to see more information about the System Console installation operations.

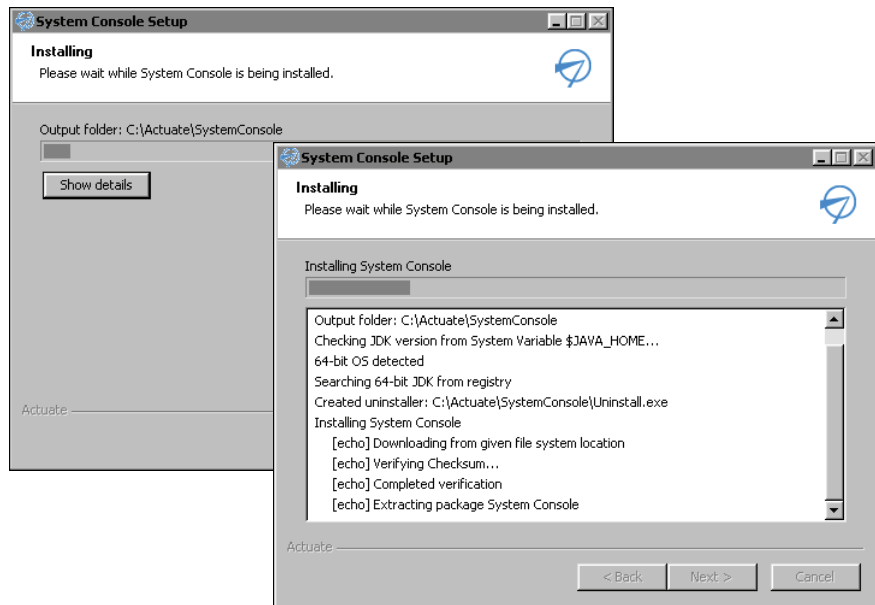


Figure 2-14 Viewing the System Console installation process

- 7 If a Windows Security Alert appears indicating that the firewall is blocking access to System Console or one of its related programs, perform the following tasks:
 - 1 In Allow PostgreSQL Server to communicate on these networks, for example, select Private networks, such as my home or work network. Then, choose Allow access, as shown in Figure 2-15.

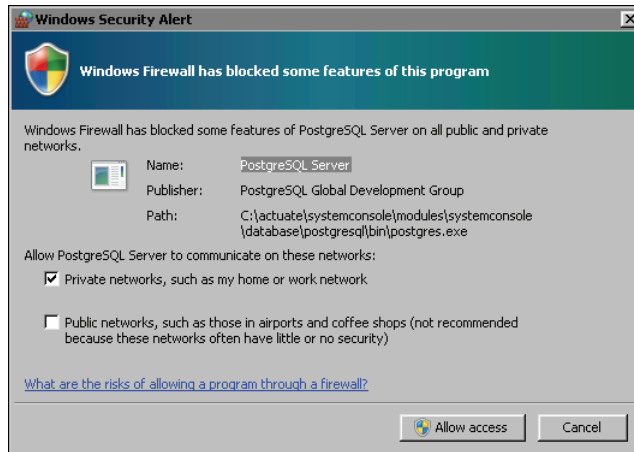


Figure 2-15 Allowing firewall access to PostgreSQL Server

- 2 In User Account Control, type an Administrator account password, as shown in Figure 2-16.

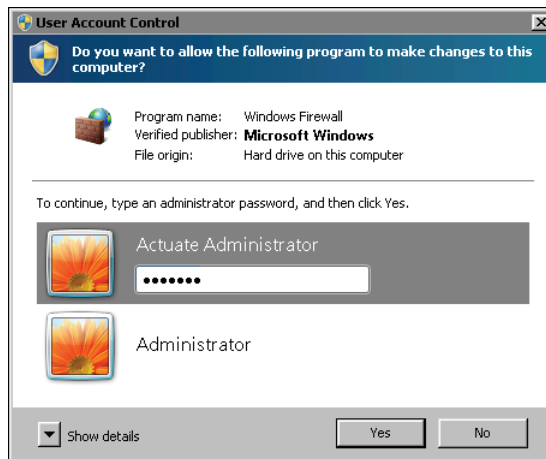


Figure 2-16 Entering an administrator account password

- 3 Repeat this step for other Windows Security Alerts, such as Java Platform SE binary, if prompted to do so.
- 8 With Show Readme selected, choose Finish to close System Console Setup, as shown in Figure 2-17. Alternatively, deselect Show Readme to not open the readme.txt file.

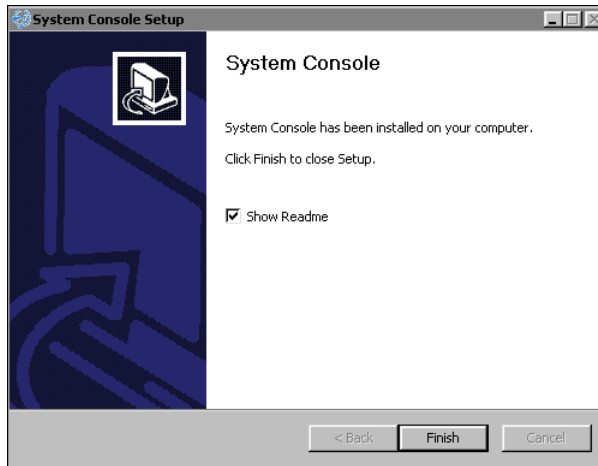


Figure 2-17 Choosing Finish to close System Console Setup

With Show Readme selected, the readme.txt file opens in Notepad. This file states that BIRT iHub installed successfully and a shortcut to the product is on the Desktop and in Windows Start menu. A shortcut to System Console appears on the desktop.

Using the command-line installation package on Windows

The following sections describe how to use the command-line installer to install BIRT Analytics on Windows. This installer supports installing individual packages and installing further Actuate modules later on the same system. To use the single-module installer, which installs the BIRT Analytics and BIRT iHub packages using a graphical interface, see “Using the BIRT Analytics installation program on Windows,” earlier in this chapter.

In installing the BIRT Analytics command-line installation package, the administrator performs the following tasks:

- Downloads the BIRT iHub 3 installation package, iHub3.zip, from the download site
- Downloads the BIRT Analytics module zip installation package and associated MD5 file from the download site
The file names are Actuate.BIRTAnalytics.core and Actuate.BIRTAnalytics.apps.
- Extracts the contents of the installation package into a directory such as C:\Actuate\iHub3

- Reads the readme.txt file and updates the acinstall.properties file
- Runs the install script, install.bat

The readme.txt file contains instructions about how to install the BIRT iHub product packages, as shown in Listing 2-1. The instructions contain the following sections:

- Using BIRT iHub Network Install
Lists the software components the command-line installation package can install.
- Deployment Steps
Describes the deployment tasks required to extract and run install the BIRT iHub Release 3 installation package.
- Properties
Describes the properties in the iHub3/acinstall.properties file.
- Uninstalling Modules
Describes how to unregister or uninstall a module using the batch script uninstall.bat.

Listing 2-1 BIRT iHub readme.txt

```
Using BIRT iHub Network Install
-----

Use the BIRT iHub network installation package to install:

a. System Console
b. BIRT iHub
c. Information Console
d. Metrics Management Server
e. Metrics Management SQL Server RDBMS
f. Metrics Management Web
g. Metrics Management Classic Web Client
h. Metrics Management All
i. BIRT Analytics Core
j. BIRT Analytics Web
k. BIRT Analytics All
l. BIRT iHub PostgreSQL Database
m. JDK
n. Content Services

Deployment Steps
-----

• Download iHub3.zip to your local machine.
• Extract iHub3.zip to a clean folder, such as C:\Actuate\iHub3.
• Open a command prompt with administrator privileges
```


- Go the directory where iHub3 package contents have been extracted
- Run iHub3/install.bat

The default installation installs the following product components:

- BIRT iHub with the out-of-the-box (OOTB) Postgres RDBMS for storing metadata
- BIRT iHub System and Information Consoles
- System Console

To install additional product components, open the iHub3/acinstall.properties file in a text editor. Add the corresponding alphabetic identifier for a component to the ac.package property list.

For example, change ac.package from:

ac.package=a,b

to:

ac.package=a,b,i,k,l

To get the full list of modules available for installation, open a command prompt and type:

```
install -list
```

Properties

iHub3/acinstall.properties contains the following properties:

- ac.login= (Modify the ac.login and ac.password properties to contain the login and password for the network machine that contains the Actuate BIRT product modules.)
- ac.password=
- ac.package=a,b (Default installation packages.)
- ac.homedir=. (Default installation folder.)
- ac.downloadonly=false (Set ac.download to true to download product modules only and have no installation take place.)
- ac.source= (Set ac.source to the network path of the installation modules. For example, //urup/Actuate/Install/iHub3/modules.)
- ac.runasservice=true (Set ac.runasservice to false to open command prompts for iHub server and Postgres services after installation is complete.)
- ac.acceptlicense=y (Leave ac.acceptlicense set to y to install using the evaluation license. After installation, the administrator can specify a purchased product license using System Console.)

Uninstalling Modules

On Windows, Unregistering or uninstalling a module can done using the batch script uninstall.bat

- To get the list of modules that can be uninstalled use following command

```
uninstall.bat -list
```

- Using this script you can uninstall the following modules

- a. System Console
- b. BIRT iHub
- c. Information Console
- d. Metrics Management Server
- e. Metrics Management SQL Server RDBMS
- f. Metrics Management Web
- g. Metrics Management Classic Web Client
- h. Metrics Management All
- i. BIRT Analytics Core
- j. BIRT Analytics Web
- k. BIRT Analytics All
- l. BIRT iHub PostgreSQL Database

- To uninstall use following command

```
uninstall module_Option Path_to_iHub3_install_directory
```

For example: To unregister BIRT iHub installed under C:/install/iHub3

```
uninstall b C:/install/iHub3
```

If you have modules installed in default home location you do not need to specify path to iHub3 installation. Just use following command

```
uninstall b
```

The acinstall.properties file contains the following properties, as shown in Listing 2-2:

- The ac.login and ac.password properties contain the account login name and password for the network machine that contains the installable Actuate BIRT product modules.
- The ac.package installation list contains the BIRT iHub modules to install. You must change this property from its default value to install BIRT Analytics.
- The ac.homedir property specifies the path to the installation files if you do not run the installation script from the directory to which you extracted the files.
- The ac.downloadonly property specifies whether to download the product modules only and have no installation take place. Typically, leave this property at its default value, false, to install the modules.
- The ac.source property specifies the network path of the installation modules.

- The `ac.runasservice` property specifies whether to run BIRT Analytics using Windows services. If the value of this property is `true`, `ac.runasservice_username` specifies the user name and `ac.runasservice_password` the user password for the account that runs the services. If these two properties are blank, BIRT Analytics services run as the local system account. If the value of `ac.runasservice` is `false`, command prompt windows for BIRT Analytics services open after installation is complete.
- The value of `ac.acceptlicense` must be `y` to specify that you accept the software license terms. If this property is `n`, the BIRT Analytics software installation does not proceed.
- The `ac.iHub_cluster_schema_name` and `ac.iHub_postgres_port` properties specify the cluster schema name and PostgreSQL RDBMS port, if necessary.

All path settings use forward slash (/) for the file separators. Do not use Windows, backward-slash (\) notation.

Listing 2-2 `acinstall.properties` on Windows

```
#Tue, 11 Jun 2013 16:19:16 -0700
ac.login=machine/actuate
ac.password=password
ac.package=a,b
ac.homedir=.
ac.downloadonly=false
#ac.source=.
ac.source=//machine/Actuate/Install/iHub3/modules
ac.runasservice=true
ac.runasservice_username=
ac.runasservice_password=

# By changing the value of the ac.acceptlicense parameter
# to "y" you agree to the terms of the license agreement
# in the file "license.pdf" located in the same folder as
# this parameter file.
ac.acceptlicense=y

#Advanced Settings
#ac.iHub_cluster_schema_name=
#ac.iHub_postgres_port=
```

To obtain the list of installable modules and the corresponding letter settings, open a the command prompt and type the following command:

```
install -list
```

This command lists the available packages specified in installation script, as shown in Listing 2-3.

Listing 2-3 Available installation modules for Windows

- a. System Console
 - b. BIRT iHub
 - c. Information Console
 - d. Metrics Management Server
 - e. Metrics Management SQL Server RDBMS
 - f. Metrics Management Web
 - g. Metrics Management Classic Web Client
 - h. Metrics Management All
 - i. BIRT Analytics Core
 - j. BIRT Analytics Web
 - k. BIRT Analytics All
 - l. BIRT iHub PostgreSQL Database
 - m. JDK
 - n. Content Services
- Choose a module

How to extract the contents of the BIRT iHub distribution package on Windows

This procedure is a prerequisite for installing BIRT Analytics.

To extract the BIRT iHub run-time resources and configure the setup script, perform the following tasks.

- 1** Download the required files, iHub3.zip, and the contents of the modules folder from the software distribution site.
- 2** Create a new folder into which to extract the installation files from the distribution archive file. This location must be outside C:\Program Files or C:\Program Files (x86), such as C:\Actuate.
- 3** Extract the contents of iHub3.zip to the folder created in the previous step.
- 4** Navigate to the folder where you extracted the BIRT iHub package.
- 5** Open and read the file, license.pdf. You must agree to the license terms in order to install BIRT iHub.
- 6** Using a text editor, open and read the file, readme.txt. Then, close the file.
- 7** Using a text editor, open the acinstall.properties file, as shown in Listing 2-2, and perform the following tasks:
 - 1** If the installable Actuate BIRT iHub modules are located on a separate network machine, modify the ac.login and ac.password properties to contain the account login and password for that network machine.
 - 2** By default, the installation script installs options a and b, iHub with System Console and the embedded BIRT iHub Visualization Platform. Modify the

ac.package installation list, shown in Listing 2-2, to contain the value for BIRT Analytics, which is one of the letters shown in Table 2-2.

Table 2-2 BIRT Analytics package codes

Package code	Package name	Notes
i	BIRT Analytics Core	
j	BIRT Analytics Web	
k	BIRT Analytics All	Installs the core and web modules.

Add module codes for any other required modules to the installation list. To obtain the list of installable modules and the corresponding letter values, as shown in Listing 2-3, open a the command prompt and type the following command:

```
install -list
```

To install only the BIRT Analytics packages, remove the module codes for System Console and BIRT iHub from the installation list.

- 3 Modify the ac.homedir property to specify the path to the installation files if you do not run the installation script from the directory to which you extracted the files.
- 4 Leave ac.downloadonly set to false.
- 5 Set ac.source to the network path of the installation modules.
- 6 To run BIRT Analytics processes as Windows services, set ac.runasservice to true and edit ac.runasservice_username to the user name and ac.runasservice_password to the user password. Set ac.runasservice to false to see open command prompts for iHub server and Postgres services after installation is complete.
- 7 Set ac.acceptlicense to y to accept the software license terms.
- 8 Uncomment ac.iHub_cluster_schema_name and ac.iHub_postgres_port, setting these two properties to the cluster schema name and PostgreSQL RDBMS port, if necessary.
- 9 Save and close the file.

How to run the BIRT Analytics command-line installation script on Windows

- 1 From the Windows menu, choose Start→Run. Open a command prompt by typing cmd, and choose OK.
- 2 Navigate to the folder where you extracted the BIRT iHub package, such as C:\Actuate\iHub3.

- 3 Type install, and press Enter to execute the installation script. Alternatively, you can navigate to the installation directory using Windows Explorer and double click the install.bat file to execute the script.

The command prompt display a series of status messages regarding the progress of the installation process, as shown in Listing 2-4:

- Detects and confirms administrative permissions
- Searches for a pre-existing registry key
- Detects and confirms a pre-existing JDK installation, or installs a JDK if a previous installation does not exist
- Extracts and installs the iHub3.zip installation package
- Displays BUILD SUCCESSFUL message indicating installation is complete.

If a Windows Security Alert appears indicating that the firewall is blocking access to Actuate BIRT iHub programs, perform the following tasks:

- 1 In Allow Actuate BIRT iHub to communicate on these networks, for example, select Private networks, such as my home or work network, then choose Allow access, as shown in Figure 2-18.
- 2 Repeat this step for other Windows Security Alerts, such as Java Platform SE binary.

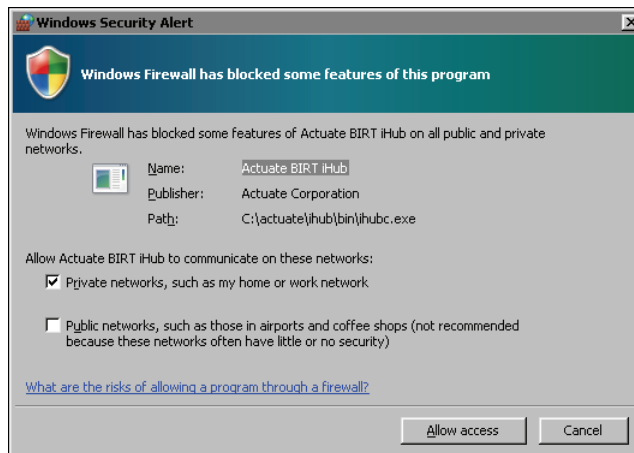


Figure 2-18 Allowing firewall access to Actuate BIRT iHub

When the script finishes running, press any key to close the command prompt, as shown in Listing 2-4.

Listing 2-4 Command prompt messages from installing BIRT Analytics on Windows

```
Administrative permissions required. Detecting permissions...
Success: Administrative permissions confirmed.
Install will start now...
[echo] Downloading from given file system location
[echo] Verifying Checksum...
[echo] Completed verification
[echo] Extracting package System Console
[echo] Installing System Console. This may take a few
minutes...
[echo] "Setup did not detect a valid JDK installation on your
machine"
[echo] Downloading from given file system location
[echo] Verifying Checksum...
[echo] Extracting package JDK64
[echo] iHub3 prerequisite 64-bit JDK was missing. Setup will
now install 64-bit JDK on your machine
[echo] To access System Console, use URL:
http://localhost:8500/sysconsole
[echo] Downloading from given file system location
[echo] Verifying Checksum...
[echo] Completed verification
[echo] Extracting package Actuate BIRT iHub
[echo] Installing Actuate BIRT iHub. This may take a few
minutes...
[echo] acmodules.properties already exists
[echo] Using existing value from acmodules.properties
[echo] Using default PostgreSQL database port number 8432
[echo] Using default schema name
[echo] Downloading from given file system location
[echo] Verifying Checksum...
[echo] Extracting package Actuate.BIRTAnalytics.core
[echo] Installing Actuate.BIRTAnalytics.core. This may take a
few minutes...
[echo] acmodules.properties already exists
[echo] Using existing value from acmodules.properties
[echo] Actuate BIRT Analytics Core Install Complete
[echo] Downloading from given file system location
[echo] Verifying Checksum...
[echo] Extracting package Actuate.BIRTAnalytics.apps
[echo] Installing Actuate.BIRTAnalytics.apps. This may take a
few minutes...
[echo] acmodules.properties already exists
[echo] Using existing value from acmodules.properties
[echo] Actuate BIRT Analytics Web Install Complete
```

```
[echo] To access Information Console, use URL:
http://localhost:8700/iportal
[echo] Setup Completed
INSTALL SUCCEEDED
Total time: 15 minutes 42 seconds
Press any key to close this window
```

Reviewing the BIRT Analytics Windows installation

The BIRT Analytics installation programs create log files containing information about the tasks completed during the installation process. Table 2-3 lists the installation log files for each BIRT iHub module.

Table 2-3 Installation log files for BIRT iHub modules

Module	Windows log files
All modules	In the installation folder: installer.log In the log folder: installer.log_<time-stamp>.log for each component
BIRT Analytics	In modules\BIRTAnalytics: setup.log In modules\BIRTiHub: setupiHub.log startiHub.log In modules\BIRTiHub\iHub\bin: setup.log

Starting and stopping BIRT Analytics and BIRT iHub on Windows

Some administrative actions require a restart of BIRT iHub cluster before they take effect. Use System Console to stop and start BIRT iHub to perform these actions. The System Console processes are still running while BIRT iHub is stopped. To stop BIRT iHub and System Console completely, you must stop these processes.

If you selected to run the BIRT iHub modules as a service, use the Services administration tool to start and stop BIRT iHub services. If the BIRT iHub modules are not running as services, use the batch files provided to start and stop

the modules. Table 2-4 lists the services and batch files for each BIRT iHub module.

Table 2-4 Services and batch files to run BIRT iHub modules

Module	Windows services	Windows batch files
BIRT iHub	Actuate iHub 3 Service Actuate PostgreSQL for iHub 3 Service	In modules\BIRTiHub: startiHub.bat
BIRT Analytics	BIRT iHub Analytics Core BIRT iHub Analytics DDWCron	In modules\BIRTAnalytics: startBAapps.bat startBAcore.bat stopBAapps.bat stopBAcore.bat
System Console	Actuate Apache Tomcat 7 for System Console Actuate PostgreSQL for System Console	In modules\SystemConsole: startupSystemConsole.bat

Uninstalling BIRT Analytics and BIRT iHub from Windows

Uninstalling BIRT iHub deletes the iHub metadata including dashboards, reports, and jobs in an Encyclopedia volume. To transfer an Encyclopedia volume to a different iHub installation or to switch to a different metadata database, see *BIRT iHub System Administration Guide*.

Before uninstalling a BIRT iHub module, stop any processes running the module.

If you installed using the BIRT iHub installation programs, uninstall BIRT iHub modules using Windows Start→Control Panel→Uninstall a program. The programs to uninstall for each modules are shown in Table 2-5.

Table 2-5 Windows programs for BIRT iHub modules

Module	Windows program
System Console	BIRT iHub System Console
BIRT iHub	BIRT iHub
BIRT Analytics	BIRT Analytics

If you installed using the command-line installation package, run the uninstall.bat script from the installation folder. For example, to uninstall a default

installation of BIRT iHub and its associated components, such as System and Information Consoles, and PostgreSQL RDBMS, perform the following tasks, as shown in Listing 2-5:

- Open a command prompt
- Navigate to the installation folder
- Check the contents of the modules folder
- Run `uninstall -list` to view the letter codes for the installed modules
- Run `uninstall` for each module, using the corresponding option letter as an argument

The `uninstall` program unregisters the modules from the operating system and shuts down the specified BIRT iHub services. After the process completes, delete the BIRT iHub module from the file system. Listing 2-5 shows the uninstallation process for System Console.

Listing 2-5 Uninstalling BIRT iHub from Windows

```
C:\Users\Administrator>cd C:\Actuate\iHub3
C:\Actuate\iHub3>dir modules
Volume in drive C has no label.
Volume Serial Number is ECD3-B0D4

Directory of C:\Actuate\iHub3\modules

12/30/2013  05:36 PM    <DIR>          .
12/30/2013  05:36 PM    <DIR>          ..
12/30/2013  05:43 PM    <DIR>          BIRTiHub
12/30/2013  05:35 PM    <DIR>          JDK64
12/30/2013  05:35 PM    <DIR>          SystemConsole
               0 File(s)                0 bytes
               5 Dir(s)   1,357,713,408 bytes free

C:\Actuate\iHub3>uninstall -list
Uninstall Modules...
List of Services
a. System Console
b. BIRT iHub
c. Information Console
d. Metrics Management Server
e. Metrics Management SQL Server RDBMS
f. Metrics Management Web
g. Metrics Management Classic Web Client
h. Metrics Management All
i. BIRT Analytics Core
j. BIRT Analytics Web
k. BIRT Analytics All
```

```
1. BIRT iHub PostgreSQL Database
Command to uninstall Modules:
Type uninstall module_Option Path_to_iHub3_install_directory
Eg: To uninstall BIRT iHub Use command
uninstall b
C:\Actuate\iHub3>uninstall a
Uninstall Modules...
Uninstall Module: System Console
Unregistering Services..
Module a: System Console is unregistered from system successfully.
    Now you can delete the module from the system safely.
Press any key to close this window
```


Installing BIRT Analytics on Linux

This chapter contains the following topics:

- Preparing to install BIRT Analytics on Linux
- Using the BIRT Analytics installation script on Linux
- Using the command-line installation package on Linux
- Reviewing the BIRT Analytics Linux installation
- Starting and stopping BIRT iHub and BIRT Analytics on Linux
- Uninstalling BIRT Analytics and BIRT iHub from Linux

Preparing to install BIRT Analytics on Linux

The following sections describe the prerequisites for installing and running BIRT Analytics Core on Linux.

To access the BIRT Analytics user interface, install the BIRT Analytics Web package on Windows, as described in “How to run the BIRT Analytics command-line installation script on Windows” in Chapter 3, “Installing BIRT Analytics on Linux.”

For optimum performance, use a system that has a minimum of 8GB RAM.

Configuring a Linux user account for BIRT Analytics

Actuate recommends running the installation procedure from an account created exclusively for BIRT Analytics administration. Having a dedicated user account isolates Analytics-specific issues and events on a machine, making it easier to administer the environment. Use the same level of security that your site exercises for other system administrator and root accounts.

Use the dedicated user account for installing, running, and administering BIRT Analytics.

Installing BIRT Analytics under the root account is not supported. If installed under the root account, the default installation is unable to set up the required BIRT iHub metadata schemas and Encyclopedia sample volume. The PostgreSQL RDBMS must run using an unprivileged user account to prevent compromising system security.

Setting up libstdc++

The libstdc++ library is a prerequisite for installing BIRT iHub on Linux systems. This library is present by default on most systems. If it is not present, the administrator must install it before installing BIRT iHub, which is part of the BIRT Analytics installation.

Using run level 5

The BIRT Analytics installation process requires running Linux at run level 5. Run level 5 is typically the default on most Linux operating system distributions. This level supports networking and multi-user mode with a graphical window manager.

Linking to Openmotif

The 32-bit Openmotif bundle must be installed before installing BIRT iHub. BIRT iHub needs libXm.so.3 or libXm.so.4, which are part of Openmotif 2.2 and 2.3,

respectively. If the BIRT iHub installation is unable to locate the required libXm.so.x library, create a symbolic link, as shown in the following example:

```
ln -s libXm.so.3 libXm.so.4
```

32-bit library support

Although BIRT iHub is a 64-bit application, 32-bit library support is required for installation. BIRT iHub requires either glibc.i686 or glibc.i386. If the BIRT iHub installation is unable to locate the required, an error similar to the following one appears:

```
/home/actuate/iHub3/BIRTiHubVisualization/acinstall/Ant/apache-  
ant-1.8.2/bin/ant: /home/actuate/iHub3/BIRTiHubVisualization/  
acinstall/jre/bin/java: /lib/ld-linux.so.2: bad ELF  
interpreter: No such file or directory
```

To install 3-bit glibc, use a command similar to the following one:

```
yum install glibc.i686
```

Using the BIRT Analytics installation script on Linux

This section describes how to use the single-module installer to install BIRT Analytics. This installer installs the BIRT Analytics and BIRT iHub packages. To select individual packages for installation without BIRT iHub or to support later installation of other Actuate modules on the same system, use the command-line installer, as described in “Using the command-line installation package on Linux,” later in this chapter.

When installing using the BIRT iHub installation script, the administrator performs the following tasks:

- Downloads the installation packages for BIRT Analytics, BIRTAnalytics-ihub3.tar.gz, and the installation program for System Console, SystemConsole-ihub3.tar.gz, from the software distribution site
- For BIRT Analytics: and System Console
 - Unpacks the contents of the installation package
 - Reviews the software license agreement
 - Updates the installation properties file
 - Runs install.sh, installing into a directory such as /home/actuate/ihub3

To install System Console, follow the instructions in “How to run the System Console installation script on Linux” later in this chapter.

Installing the BIRT Analytics module on Linux

For information about accessing BIRT Analytics after installation, see Chapter 4, “Setting up BIRT Analytics and BIRT iHub.”

How to run the BIRT Analytics installation script on Linux

Install BIRT Analytics core and then install the BIRT Analytics tools on a Windows system, as described in “How to install the BIRT Analytics tools” in Chapter 2, “Installing BIRT Analytics on Windows.” Install BIRT Analytics application on a Windows system, as described in “Using the command-line installation package on Windows” in Chapter 2, “Installing BIRT Analytics on Windows.”

- 1 Download the installation package, BIRTAnalytics-ihub3.tar.gz, from the software distribution site.
- 2 Decompress the package into a tar file and then unbundle the tar file into the folder where you want to install the software, such as /home/actuate. Unbundling the tar file creates the folder BIRTAnalytics.
- 3 Navigate to /home/actuate/BIRTAnalytics.
- 4 Open and read the file, license.pdf. You must agree to the license terms in order to install BIRT Analytics.
- 5 Using a text editor, open the acinstall.properties file, as shown in Listing 3-1, and perform the following tasks:

Listing 3-1 acinstall.properties for installing BIRT Analytics on Linux

```
#Tue, 11 Jun 2013 16:19:16 -0700
ac.login=//machine/actuate
ac.password=password
ac.package=b,i
ac.homedir=.
ac.downloadonly=false
##ac.source=.
#ac.source=.

# By changing the value of the ac.acceptlicense parameter
# to <93>y<94> you agree to the terms of the license agreement
# in the file <93>license.pdf<94> located in the same folder as
# this parameter file.
ac.acceptlicense=y

#Advanced Settings
#ac.ihub_cluster_schema_name=
#ac.ihub_postgres_port=
```


- 1 Modify the `ac.login` and `ac.password` properties to contain the login and password for the network machine that contains the installable BIRT Analytics product modules.
- 2 Modify the `ac.homedir` property to specify the path to the installation files if you do not run the installation script from the directory to which you extracted the files.
- 3 Leave `ac.downloadonly` set to `false`.
- 4 Set `ac.acceptlicense` to `y` to accept the software license terms.
- 5 Save and close the file.
- 6 Execute the `install.sh` script using the following command:

```
sh ./install.sh
```

Messages similar to the following ones appear:

```
Install will start now...
```

```
[echo] Downloading from given file system location
      [echo] Verifying Checksum...
      [echo] Completed verification
      [echo] Extracting package Actuate BIRT iHub
      [echo] Installing Actuate BIRT iHub. This may take a few
minutes...
      [echo] "Setup did not detect a valid JDK installation on
your machine"
      [echo] Downloading from given file system location
      [echo] Verifying Checksum...
      [echo] Extracting package JDK64
      [echo] iHub3 prerequisite 64-bit JDK was missing. Setup
will now install 64-bit JDK on your machine
      [echo] Using default PostgreSQL database port number 8432
      [echo] Using default schema name
      [echo] Downloading from given file system location
      [echo] Verifying Checksum...
      [echo] Extracting package Actuate.BIRTAnalytics.core
      [echo] Installing Actuate.BIRTAnalytics.core. This may
take a few minutes...
      [echo] acmodules.properties already exists
      [echo] Using existing value from acmodules.properties
      [echo] Actuate BIRT Analytics Core Install Complete
      [echo] To access Information Console, use URL: http://
localhost:8700/iportal
      [echo] Setup Completed
```

```
INSTALL SUCCEEDED
```

```
Total time: 5 minutes 3 seconds
```

```
installation complete
```

Installing the System Console module on Linux

For information about accessing System Console after installation, see Chapter 4, “Setting up BIRT Analytics and BIRT iHub.”

How to run the System Console installation script on Linux

- 1 Download the installation package, `SystemConsole-ihub3.tar.gz`, from the software distribution site.
- 2 Decompress the package into a tar file and then unbundle the tar file into the folder where you want to install the software, such as `/home/actuate`. Unbundling the tar file creates the folder `SystemConsole`.
- 3 Navigate to `/home/actuate/SystemConsole`.
- 4 Open and read the file, `license.pdf`. You must agree to the license terms in order to install System Console.
- 5 Using a text editor, open the `acinstall.properties` file, as shown in Listing 3-2, and perform the following tasks:

Listing 3-2 `acinstall.properties` for installing System Console on Linux

```
#Tue, 11 Jun 2013 16:19:16 -0700
ac.login=//machine/actuate
ac.password=password
ac.package=a
ac.homedir=.
ac.downloadonly=false
##ac.source=.
#ac.source=.
ac.runasservice=true
ac.runasservice_username=
ac.runasservice_password=

# By changing the value of the ac.acceptlicense parameter
# to "y" you agree to the terms of the license agreement
# in the file "license.pdf" located in the same folder as
# this parameter file.
ac.acceptlicense=y

#Advanced Settings
#ac.ihub_cluster_schema_name=
#ac.ihub_postgres_port=
```

- 1 Modify the `ac.login` and `ac.password` properties to contain the login and password for the network machine that contains the installable BIRT iHub product modules.

- 2 Modify the `ac.homedir` property to specify the path to the installation files if you do not run the installation script from the directory to which you extracted the files.
- 3 Leave `ac.downloadonly` set to `false`.
- 4 Set `ac.acceptlicense` to `y` to accept the software license terms.
- 5 Save and close the file.
- 6 Execute the `install.sh` script using the following command:

```
sh ./install.sh
```

Messages similar to the following ones appear:

```
Install will start now...
[echo] Downloading from given file system location
[echo] Verifying Checksum...
[echo] Completed verification
[echo] Extracting package System Console
[echo] Installing System Console. This may take a few
minutes...
[echo] "Setup did not detect a valid JDK installation on
your machine"
[echo] Downloading from given file system location
[echo] Verifying Checksum...
[echo] Extracting package JDK64
[echo] iHub3 prerequisite 64-bit JDK was missing. Setup
will now install 64-bit JDK on your machine
[echo] To access System Console, use URL: http://
localhost:8500/sysconsole
[echo] Setup Completed

INSTALL SUCCEEDED
Total time: 59 seconds
installation complete
```

Using the command-line installation package on Linux

The following sections describe how to use the command-line installer to install BIRT Analytics on Linux. To use the single-module installers, see “Using the BIRT Analytics installation script on Linux,” earlier in this chapter.

In installing the BIRT Analytics command-line installation package, the administrator performs the following tasks:

- Downloads the BIRT iHub 3 installation package, `iHub3.tar.gz`, from the download site

- Downloads the `Actuate.BIRTAalytics.core.tar.gz` archive installation package and associated MD5 file from the download site
Additional BIRT iHub modules are available at the same location.
- Extracts the contents of the installation package into a directory such as `/Actuate/iHub3`
- Reads the README file and updates the `acinstall.properties` file
- Runs the install script, `install.sh`.

The README file contains instructions about how to install the BIRT iHub product packages, as shown in Listing 3-3. The instructions contain the following sections:

- **Using BIRT iHub Network Install**
Lists the software components the command-line installation package can install, such as BIRT iHub, System Console and BIRT iHub Visualization Platform, Java Development Kit (JDK), PostgreSQL, Content Services, and BIRT Analytics.
- **Deployment Steps**
Describes the deployment tasks required to extract and run install the BIRT iHub Release 3 installation package. By default, the installation script installs iHub, System Console, and BIRT iHub Visualization Platform on the local machine.
- **Properties**
Describes the properties in the `iHub3/acinstall.properties` file.

Listing 3-3 **BIRT iHub README**

```
Using BIRT iHub Network Install
-----

Use the BIRT iHub network installation package to install:
* iHub
* System Console
* InformationConsole
* PostgreSQL
* JDK

Deployment Steps
-----
* Download iHub3.tar.gz to your local machine
* Untar iHub3.tar.gz a clean folder e.g. /home/server/ihub3home
* Change working folder to /home/server/ihub3home/iHub3
* Execute install script ./install.sh

By default, both iHub and System Console will be installed.
```

To install other components, modify iHub3/acinstall.properties and add components to ac.package.

To get the list of modules that can be install, in the command prompt type 'install.sh -list'.

Properties

iHub3/acinstall.properties contains the following properties:

- * ac.login=
- * ac.password=
- * ac.package=a,b (Default)
- * ac.homedir=. (Default install folder)
- * ac.downloadonly=false (If true, set up will only download modules and no installation will take place)
- * ac.source=
- * ac.runasservice=true (If false, after installation is complete user will see two DOS prompts corresponding iHub server and Postgres)

If you have modules installed in default home location you do not need to specify path to iHub3 installation. Just use following command

uninstall b

The acinstall.properties file contains the following properties, as shown in Listing 3-4:

- The ac.login and ac.password properties contain the account login name and password for the network machine that contains the installable Actuate BIRT product modules.
- The ac.package installation list contains the BIRT iHub modules to install. You must change this property from its default value to install BIRT Analytics.
- The ac.homedir property specifies the path to the installation files if you do not run the installation script from the directory to which you extracted the files.
- The ac.downloadonly property specifies whether to download the product modules only and have no installation take place. Typically, leave this property at its default value, false, to install the modules.
- The ac.source property specifies the network path of the installation modules.
- On Linux, the ac.runasservice, ac.runasservice_username, and ac.runasservice_password have no effect.
- The value of ac.acceptlicense must be y to specify that you accept the software license terms. If this property is n, the BIRT Analytics software installation does not proceed.

- The `ac.ihub_cluster_schema_name` and `ac.ihub_postgres_port` properties specify the cluster schema name and PostgreSQL RDBMS port, if necessary.

All path settings use forward slash (/) for the file separators. Do not use Windows, backward-slash (\) notation.

Listing 3-4 `acinstall.properties`

```
#Tue, 11 Jun 2013 16:19:16 -0700
ac.login=machine/actuate
ac.password=password
ac.package=a,b,i
ac.homedir=.
ac.downloadonly=false
#ac.source=.
ac.source=//machine/Actuate/Install/iHub3/modules
ac.runasservice=true
ac.runasservice_username=
ac.runasservice_password=

# By changing the value of the ac.acceptlicense parameter
# to "y" you agree to the terms of the license agreement
# in the file "license.pdf" located in the same folder as
# this parameter file.
ac.acceptlicense=y

#Advanced Settings
#ac.ihub_cluster_schema_name=
#ac.ihub_postgres_port=

To obtain the list of installable modules and the corresponding letter settings,
type the following command:

./install.sh -list
```

Listing 3-5 Available installation modules for Linux

```
a. System Console
b. BIRT iHub
c. Information Console
i. BIRT Analytics Core
l. BIRT iHub PostgreSQL Database
m. JDK
n. Content Services
Choose a module
```

How to extract the contents of the BIRT iHub distribution package on Linux

This procedure is a prerequisite for installing BIRT Analytics.

To extract the BIRT iHub run-time resources and configure the setup script, perform the following tasks.

- 1 Download the required files, iHub3.tar.gz, and the contents of the modules folder from the software distribution site.
- 2 Create a new folder into which to extract the installation files from the distribution archive file, such as /home/actuate.
- 3 Extract the contents of iHub3.tar.gz to the folder created in the previous step.

How to run the BIRT Analytics command-line installation script on Linux

- 1 Navigate to the folder where you extracted the BIRT iHub package.
- 2 Open and read the file, license.pdf. You must agree to the license terms in order to install BIRT iHub.
- 3 Using a text editor, open and read the file, README. Then, close the file.
- 4 Using a text editor, open the acinstall.properties file, as shown in Listing 3-4, and perform the following tasks:
 - 1 If the installable Actuate BIRT iHub modules are located on a separate network machine, modify the ac.login and ac.password properties to contain the account login and password for that network machine.
 - 2 By default, the installation script installs options a and b, iHub with System Console and the embedded BIRT iHub Visualization Platform. Modify the ac.package installation list, shown in Listing 3-4, to contain the value for BIRT Analytics Core, which is i.

Add module codes for any other required modules to the installation list. To obtain the list of installable modules and the corresponding letter values, as shown in Listing 3-5, type the following command:

```
./install.sh -list
```

To install only the BIRT Analytics Core module, remove the module codes for System Console and BIRT iHub from the installation list.

- 3 Modify the ac.homedir property to specify the path to the installation files if you do not run the installation script from the directory to which you extracted the files.
- 4 Leave ac.downloadonly set to false.
- 5 Set ac.source to the network path of the installation modules.
- 6 Set ac.acceptlicense to y to accept the software license terms.
- 7 Uncomment ac.iHub_cluster_schema_name and ac.iHub_postgres_port, setting these two properties to the cluster schema name and PostgreSQL RDBMS port, if necessary.

8 Save and close the file.

5 Execute the `install.sh` script using the following command:

```
sh ./install.sh
```

Messages similar to the following ones appear:

Install will start now...

```
[echo] Downloading from given file system location
      [echo] Verifying Checksum...
      [echo] Completed verification
      [echo] Extracting package System Console
      [echo] Installing System Console. This may take a few
minutes...
      [echo] "Setup did not detect a valid JDK installation on
your machine"
      [echo] Downloading from given file system location
      [echo] Verifying Checksum...
      [echo] Extracting package JDK64
      [echo] iHub3 prerequisite 64-bit JDK was missing. Setup
will now install 64-bit JDK on your machine
      [echo] Downloading from given file system location
      [echo] Verifying Checksum...
      [echo] Completed verification
      [echo] Extracting package Actuate BIRT iHub
      [echo] Installing Actuate BIRT iHub. This may take a few
minutes...
      [echo] acmodules.properties already exists
      [echo] Using existing value from acmodules.properties
      [echo] Using default PostgreSQL database port number 8432
      [echo] Using default schema name
      [echo] Downloading from given file system location
      [echo] Verifying Checksum...
      [echo] Extracting package Actuate.BIRTAnalytics.core
      [echo] Installing Actuate.BIRTAnalytics.core. This may
take a few minutes...
      [echo] acmodules.properties already exists
      [echo] Using existing value from acmodules.properties
      [echo] Actuate BIRT Analytics Core Install Complete
      [echo] To access Information Console, use URL:
      http://localhost:8700/iportal
      [echo] To access System Console, use URL:
      http://localhost:8500/sysconsole
      [echo] Setup Completed

INSTALL SUCCEEDED
Total time: 6 minutes 15 seconds
installation complete
```

Reviewing the BIRT Analytics Linux installation

The BIRT Analytics installation programs create log files containing information about the tasks completed during the installation process. Table 3-1 lists the installation log files for each BIRT iHub module.

Table 3-1 Installation log files for BIRT iHub modules

Module	Linux log files
All modules	In the installation folder: installer.log
BIRT Analytics	In modules/BIRTiHub: setup.log setupiHub.log
System Console	In modules/SystemConsole: setup.log setupSystemConsole.log In modules/SystemConsole/setup: setup.log

Starting and stopping BIRT iHub and BIRT Analytics on Linux

Some administrative actions require a restart of BIRT iHub cluster before they take effect. Use System Console to stop and start BIRT iHub to perform these actions. The System Console processes are still running while BIRT iHub is stopped. To stop BIRT iHub and System Console completely, you must stop these processes.

Use the shell scripts provided to start and stop the modules. Table 3-2 lists the shell scripts for the BIRT iHub modules.

Table 3-2 Shell scripts to run BIRT iHub modules

Module	Linux shell scripts
BIRT Analytics	In modules/BIRTAnalytics: startBAcore.sh stopBAcore.sh

(continues)

Table 3-2 Shell scripts to run BIRT iHub modules (continued)

Module	Linux shell scripts
BIRT iHub	In modules/BIRTiHub: startiHub.sh startPostgreSQL.sh stopiHub.sh stopPostgreSQL.sh
System Console	In modules/SystemConsole: startupSystemConsole.sh

Uninstalling BIRT Analytics and BIRT iHub from Linux

Uninstalling BIRT iHub deletes the iHub metadata including dashboards, reports, and jobs in an Encyclopedia volume. To transfer an Encyclopedia volume to a different iHub installation or to switch to a different metadata database, see *BIRT iHub System Administration Guide*.

Uninstall a BIRT iHub module by stopping the module and deleting the folder. Deleting the folder deletes the iHub metadata.

To stop BIRT Analytics, run stopBACore.sh. To stop iHub, run stopiHub.sh. To stop System Console, run stopSystemConsole.sh. To stop the PostgreSQL service, run stopPostgreSQL.sh.

Setting up BIRT Analytics and BIRT iHub

This chapter contains the following topics:

- Accessing BIRT Analytics
- Setting up BIRT iHub and accessing modules

Accessing BIRT Analytics

After installing System Console and one or more BIRT Analytics packages, use System Console to create a cluster containing a single node. The cluster enables the system administrator to license the modules and monitor the iHub usage.

BIRT Analytics front end, administration, and data loader are available from web applications running on a Windows system.

To access BIRT Analytics front end, double-click the BIRT Analytics icon on a Windows desktop or open a browser manually and enter the following URL:

```
http://localhost:8114/bafrontend
```

On Windows, to provide access to BIRT Analytics from another system, use the Windows Firewall advanced settings to open the ports 8114 and 8700 to TCP inbound traffic.

To access BIRT Analytics from another system, open a browser manually and enter a URL similar to the following one, where servername is the name of the machine where you installed BIRT Analytics:

```
http://servername:8114/bafrontend
```

For more information about BIRT Analytics, see *Using BIRT Analytics*.

Managing BIRT Analytics

To access BIRT Analytics administration tools, double-click the BIRT Analytics Administration icon on a Windows desktop or open a browser manually and enter the following URL:

```
http://localhost:8114/baadmin
```

On Windows, to provide access to BIRT Analytics administration tools from another system, use the Windows Firewall advanced settings to open the ports 8114 and 8700 to TCP inbound traffic.

To access BIRT Analytics administration tools from another system, open a browser manually and enter a URL similar to the following one, where servername is the name of the machine where you installed BIRT Analytics:

```
http://servername:8114/baadmin
```

For more information about BIRT Analytics administration tools, see *Administering BIRT Analytics*.

Loading BIRT Analytics data

To access BIRT Analytics data loading tools, double-click the QLoader icon on a Windows desktop or open a browser manually and enter the following URL:

```
http://localhost:8110/qloader
```

On Windows, to provide access to BIRT Analytics data loading tools from another system, use the Windows Firewall advanced settings to open the port 8110 to TCP inbound traffic.

To access BIRT Analytics administration tools from another system, open a browser manually and enter a URL similar to the following one, where servername is the name of the machine where you installed BIRT Analytics:

```
http://servername:8110/qloader
```

For more information about BIRT Analytics administration tools, see *Using BIRT Analytics Loader*.

Updating the BIRT Analytics licenses

BIRT Analytics uses two licenses, one for the core services and one for the application.

To update the license for the core services, place the new license file in the dubnium folder in the module and restart the core service.

To update the BIRT Analytics application license, use the license updating tool, installed as described in “How to install the BIRT Analytics tools” in Chapter 2, “Installing BIRT Analytics on Windows.”

How to update the BIRT Analytics core license on Windows

- 1 In the Windows Start menu, type Services. Choose Services.
- 2 In Services, right-click Actuate iHub Analytics Core and choose Stop.
- 3 Using Windows Explorer, navigate to the following folder in the BIRT Analytics installation:
`modules\BIRTAnalytics\BACore\dubnium`
- 4 Replace the existing dubnium.lic license file with the that you received from Actuate.
- 5 In Services, right-click Actuate iHub Analytics Core and choose Start.

How to update the BIRT Analytics core license on Linux

- 1 Navigate to the following folder in the BIRT Analytics installation:
`modules/BIRTAnalytics`

- 2 To stop the core services, execute the following command:

```
sh ./stopBACore.sh
```

The following message appears:

```
Stopping dubnium...
```

- 3 Navigate to the following folder in the BIRT Analytics installation:

```
modules/BIRTSAnalytics/BACore/dubnium
```

- 4 Replace the existing dubnium.lic license file with the that you received from Actuate.

- 5 Navigate back to the following folder in the BIRT Analytics installation:

```
modules/BIRTSAnalytics
```

- 6 To start the core services, execute the following command:

```
sh ./startBACore.sh
```

The following message appears:

```
Starting dubnium...
```

How to update the BIRT Analytics application license

Use the BIRT Analytics App License Update tool to update the license for the BIRT Analytics application. This tool runs only on Windows.

- 1 Open the 10-Tools folder and navigate to the subfolder named Tool to change BA license.
- 2 Decompress the BIRTLicenseUpdate.rar file. The BAAppLicenseUpdate folder appears.
- 3 Navigate to the BAAppLicenseUpdate folder. Right-click the BAAppLicenseUpdate.exe file and choose Run as administrator. BIRT Analytics App License Update appears.
- 4 Select BA Application is installed in this server and verify that the correct virtual directory is selected. By default, this is qelectron.
- 5 In License, choose the ellipsis button to browse for the license file.
- 6 Select the BIRT Analytics license file and choose Open. Figure 4-1 shows the selected license file.

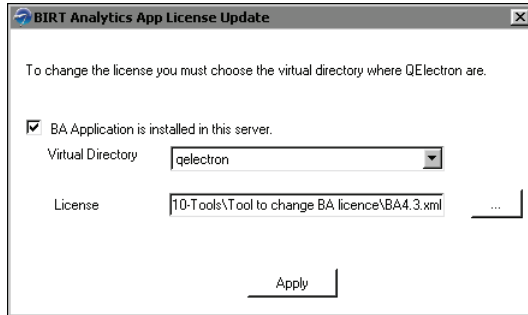


Figure 4-1 Preparing to update a license key

- 7 Choose Apply to apply the new license file. Then, on the message indicating a successful license update, choose OK.
- 8 Close the BIRT Analytics App License Update tool.

Migrating BIRT Analytics data from release 4.2

Prior to BIRT iHub 3, BIRT Analytics stored data in a SQL Server Express database. From BIRT iHub 3, BIRT Analytics stores data in a PostgreSQL database.

Actuate provides a tool to migrate existing BIRT Analytics data from the release 4.2 database to the BIRT iHub 3 database. Do not load new data into BIRT Analytics before migrating existing data. The data migration tool replaces any existing data in the BIRT iHub 3 database.

To install the data migration tool, follow the instructions in “How to install the BIRT Analytics tools” in Chapter 2, “Installing BIRT Analytics on Windows.” This tool runs only on Windows.

How to migrate the BIRT Analytics data from release 4.2

Use the BA 4.2 to 4.3 Backend DB Migration Tool to migrate the BIRT Analytics release 4.2 data to release BIRT iHub 3.

- 1 Open the 10-Tools folder and navigate to the subfolder named Tool Migration backend db.
- 2 Right-click the ba-mssql2psql.exe file and choose Run as administrator. BA 4.2 to BA 4.3 Backend DB Migration Tool appears.
- 3 In MS SQL Connection Parameters, type the following information:
 - In Server\instance, type the server and database name of the BIRT Analytics 4.2 FastDB database.
 - In User ID, type the administrative user name.
 - In Password, type the administrative user password.

- 4 In PostgreSQL Connection Parameters, type the following information:
 - In Server, type the name of server where the BIRT Analytics iHub 3 database component is installed.
 - In Port, type or select the port used by the BIRT Analytics iHub 3 database. The default port is 5432.
 - In User ID, type the name of the Postgres database administrator user. The default user name is postgres.
 - In Password, type the password of the Postgres database administrator user. The default user name is postgres.

The data migration tool looks similar to the one in Figure 4-2.

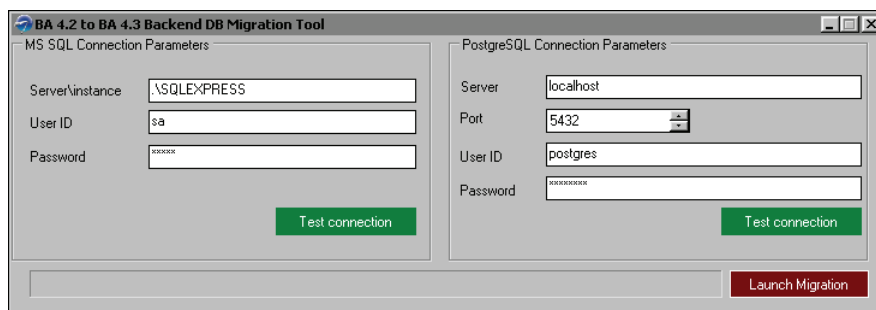


Figure 4-2 Preparing to migrate data from BIRT Analytics 4.2 to iHub 3

- 5 To test the connection values for each database, choose Test Connection. If a failure message appears, correct the information.
- 6 Choose Launch Migration. The progress of the migration appears.
- 7 Close the BA 4.2 to BA 4.3 Backend DB Migration Tool.

Setting up BIRT iHub and accessing modules

After installing System Console and one or more BIRT iHub module, use System Console to create a cluster containing a single node. The cluster enables the system administrator to license the modules and monitor the iHub usage.

Accessing System Console

During the command-line installation on Windows, System Console opens in a browser. The other installation programs do not open System Console, so to open System Console, double-click the System Console icon on a Windows desktop or open a browser manually and enter the following URL:

`http://localhost:8500/sysconsole`

On Windows, to provide access to System Console from another system, use the Windows Firewall advanced settings to open the port 8500 to TCP inbound traffic.

To access System Console from another system, open a browser manually and enter a URL similar to the following one, where servername is the name of the machine where you installed System Console:

`http://servername:8500/sysconsole`

Log in to System Console using the following default system administrator credentials:

- Username: sysadmin
- Password: system11

You can change the default system administrator login name and password in System Console—Settings—System Admin Users. System Console initially displays the 7-day monitoring overview, as shown in Figure 4-3.

The login password for the postgres user in the default PostgreSQL RDBMS is postgres.

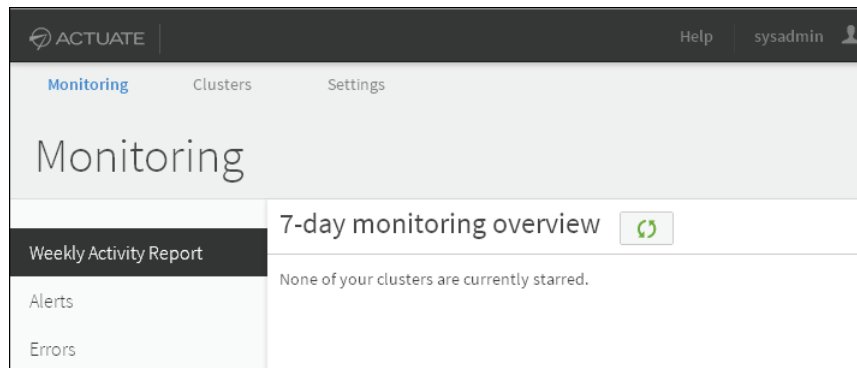


Figure 4-3 Viewing System Console

A system administrator uses System Console to configure BIRT iHub System, including specifying the settings for the following items:

- Create and configure a cluster
- Connect to a database
- Add an Encyclopedia volume
- Tune services and processes
- Specify ports
- Manage resources

- Viewing Logging and Monitoring System (LMS)
- Configure alerts
- Review and update license options

For more information about using System Console, see *BIRT iHub System Administration Guide*. For more information about administering the PostgreSQL RDBMS, see the vendor documentation at:

<http://www.postgresql.org/docs>

Accessing BIRT iHub Visualization Platform

To access BIRT iHub Visualization Platform, double-click the icon on a Windows desktop or open a browser and enter the following URL:

`http://localhost:8700/iportal`

On Windows, to provide access to Visualization Platform from another system, use the Windows Firewall advanced settings to open the port 8700 to TCP inbound traffic.

To access Visualization Platform from another system, open a browser manually and enter a URL similar to the following one, where `servername` is the name of the machine where you installed Visualization Platform:

`http://servername:8700/iportal`

Log in to Visualization Platform using the following default volume administrator credentials:

- Username: Administrator
- Leave the password blank

Then, choose Log In.

To log in to Visualization Platform using an Encyclopedia volume other than the default volume, type `<volume name>\username`. For example, type `sales_volume\Administrator` to log in as Administrator to an Encyclopedia volume named `sales_volume`.

Visualization Platform appears, as shown in Figure 4-4.

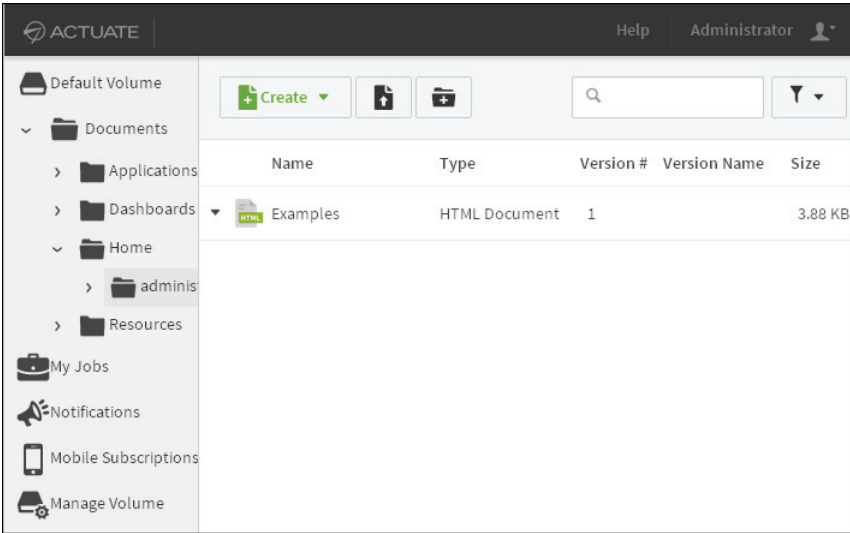


Figure 4-4 Viewing Visualization Platform

About BIRT iHub Visualization Platform functionality

Visualization Platform provides end-user access to dashboards, files, folders, and gadgets. This access includes sharing items that the user owns, and submitting jobs. For more information about this functionality, see *Using Visualization Platform*.

The system administrator uses BIRT iHub Visualization Platform to add users and user groups, and configure access to BIRT iHub shared application services and Encyclopedia volume items such as dashboards, files, folders, and gadgets.

Accessing user administration

To administer the Visualization Platform users and user groups, choose Administrator—iHub Administration, as shown in Figure 4-5. This choice appears if the user has the requisite privileges.

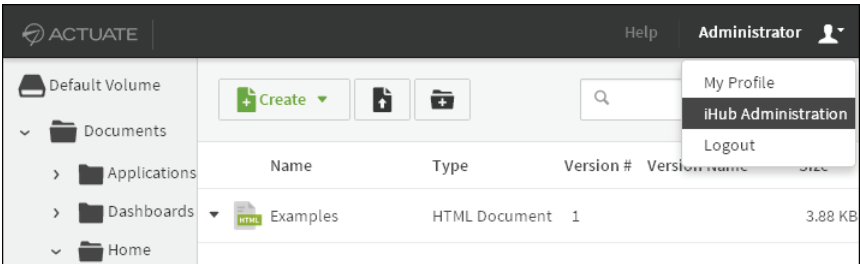


Figure 4-5 Accessing iHub Administration

BIRT iHub Administration appears, as shown in Figure 4-6.

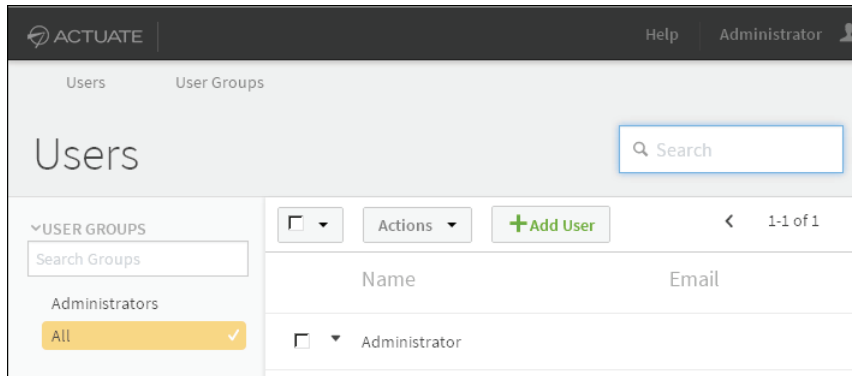


Figure 4-6 Viewing BIRT iHub Administration

How to disable user administration

To disable user administration functionality completely in this web application for security reasons, perform the following tasks:

- 1 Delete the following folder from the installation environment:
~\Actuate\iHub3\modules\BIRTiHub\iHub\web\portal\admin
- 2 Comment out or delete the context path setting in the web.xml file in the following location, shown in Listing 4-1:

```
~\Actuate\iHub3\modules\BIRTiHub\iHub\web\portal\WEB-INF\
web.xml
```

Listing 4-1 Administration context path in Visualization Platform web.xml

```
<context-param>
  <param-name>MC_CONTEXT</param-name>
  <param-value>/acadmin</param-value>
</context-param>
```

For more information about BIRT iHub Visualization Platform user administration tools, see *Managing iHub Client Applications*.

Managing a volume

A user who has administrative privileges has access to the Manage Volume tools in Visualization Platform. For more information about the volume management tools, see *Managing iHub Client Applications*.

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