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BIRT iHub

Installing BIRT iHub on Linux

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About *Installing BIRT iHub on Linux*

Installing BIRT iHub on Linux 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 iHub*. Describes how to install BIRT iHub in a Linux environment.
- *Chapter 3. Setting up BIRT iHub*. Describes how to access System Console and 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 iHub documentation




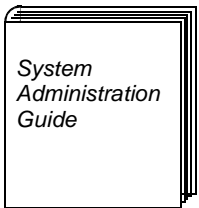
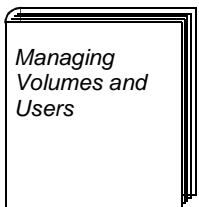

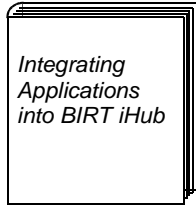
For information about this topic	See the following resource
Installing BIRT iHub modules on Linux	 A stack of three book icons representing the document 'Installing BIRT iHub on Linux'. The text 'Installing BIRT iHub on Linux' is written on the top page of the stack.
Installing BIRT iHub modules on Windows	 A stack of three book icons representing the document 'Installing BIRT iHub on Windows'. The text 'Installing BIRT iHub on Windows' is written on the top page of the stack.
Installing BIRT Analytics on Linux and Windows	 A stack of three book icons representing the document 'Installing BIRT Analytics'. The text 'Installing BIRT Analytics' is written on the top page of the stack.
Architecture overview Using the default PostgreSQL RDBMS Using an alternative RDBMS Setting up a cluster Backing up the metadata RDBMS	 A stack of three book icons representing the document 'System Administration Guide'. The text 'System Administration Guide' is written on the top page of the stack.
Managing volume-level operations Setting up users and groups Advanced job schedules Using HTTPS to access Visualization Platform	 A stack of three book icons representing the document 'Managing Volumes and Users'. The text 'Managing Volumes and Users' is written on the top page of the stack.

Table 1-1 BIRT iHub documentation (continued)

For information about this topic	See the following resource
Installing a stand-alone Visualization Platform Configuring Visualization Platform Configuring BIRT Viewers and Report Studio	 <p><i>Installing Visualization Platform</i></p>
Actuate web services and SOAP messaging overview Actuate Information Delivery API operations and data types reference Using Actuate JavaScript API to customize access to reports and report components Reference for configuring BIRT Viewer and Report Studio Reference for BIRT Viewer and Report Studio URIs Using Java Report Server Security Extension (RSSE) APIs Using logging, performance monitoring, and archiving features Customizing the Actuate software installation process	 <p><i>Integrating Applications into BIRT iHub</i></p>
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.

Obtaining late-breaking information and documentation updates

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:

<http://support.actuate.com/documentation/releasenotes>

If you are a new user, you must first register on the site and log in to view the release notes. [actuate.com](http://www.actuate.com) also provides product update information.

Obtaining technical support

You can contact Customer Support by e-mail or telephone. For contact information, go to the following URL:

<http://www.actuate.com/services/support/contact-support.asp>

Supported and obsolete products

The Actuate Support Lifecycle Policy and Supported Products Matrix are available on the Actuate Support web site at the following URL:

<http://support.actuate.com/documentation/spm>

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Installing BIRT iHub overview

This chapter contains the following topics:

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

Understanding BIRT iHub installation

This chapter describes the modules and components of BIRT iHub. The system administrator uses the BIRT iHub installation packages to install the Actuate 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 a 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, including binding the BIRT iHub processes to particular processors in a multi-core machine, see *BIRT iHub System Administration Guide*.

Overview of installation operations

When installing BIRT iHub on Linux, 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 Linux using the installation script
 - Downloads the installation packages for System Console and a single BIRT iHub module from the download site
 - Runs the installation shell scripts
- Installs on 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`
 - 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 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 volume metadata

BIRT iHub stores metadata containing system, cluster, and 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 volume schemas.

The database that contains BIRT iHub system, cluster, and 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 volume schemas, refer to *BIRT iHub System Administration Guide*.

Support for the metadata database

If you encounter a problem with the operation of the metadata database, Actuate will work with you to resolve it. For example, Actuate may take any or all of the following actions:

- Propose a change in your environment that avoids the problem.
- Make a change in Actuate's code to work around the problem.
- In the case of PostgreSQL, engage with the development community to obtain a patch.
- In the case of Oracle, help you to isolate the problem and report it to the vendor.

Downloading the installation packages

Download BIRT iHub 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.

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 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 iHub

This chapter contains the following topics:

- Prerequisites for installing BIRT iHub on Linux
- Installing BIRT iHub modules on Linux
- Using the command-line installation package on Linux
- Reviewing the BIRT iHub installation on Linux
- Starting and stopping BIRT iHub on Linux
- Uninstalling BIRT iHub from Linux

Prerequisites for installing BIRT iHub on Linux

BIRT iHub requires a 64-bit operating system.

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

About the supported Java SE Development Kit (JDK)

BIRT iHub requires a 64-bit version of the JAVA SE Development Kit (JDK) version 1.6 or higher. The BIRT iHub 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. If both Java 1.7 and Java 1.6 are available, BIRT iHub uses Java 1.7.

Checking for ports used by BIRT iHub

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

Table 2-1 BIRT iHub ports

BIRT iHub module	Ports used
All	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
Content Services	No additional ports

Requirements to install and run BIRT iHub on Linux

The following sections describe the requirements for installing and running BIRT iHub on Linux.

Configuring a Linux user account for BIRT iHub

Actuate recommends running the installation procedure from an account created exclusively for BIRT iHub administration. Having a dedicated user account isolates iHub-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 iHub.

Installing BIRT iHub 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 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 running 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, using a command similar to the following one:

```
yum install libstdc++.i686
```

On RedHat Enterprise Linux 7 and CentOS 7 operating systems, BIRT iHub requires both the 32-bit and 64-bit versions of the library.

Installation of BIRT iHub succeeds if this library is not present, but the server fails to start.

Using run level 5

The BIRT iHub 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.

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:

```
/opt/actuate/iHub3/BIRTiHubVisualization/acinstall/Ant/apache-ant-1.8.2/bin/ant: /opt/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
```

Installing BIRT iHub modules on Linux

The following sections describe how to use the installers to install individual BIRT iHub modules on Linux. To use the command-line installer, see “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, `SystemConsole-ihub3.tar.gz` and a single module, such as `BIRTiHubVisualization-ihub3.tar.gz`, from the software distribution site
- For System Console and the additional module:
 - 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 `/opt/actuate/ihub3`

Installing the System Console module on Linux

For information about accessing System Console after installation, see Chapter 3, “Setting up 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 `/opt/actuate`. Unbundling the tar file creates the folder `SystemConsole`.
- 3 Navigate to `/opt/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 2-1, and perform the following tasks:

Listing 2-1 `acinstall.properties` for installing System Console

```
#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
```

Installing the Visualization Platform module on Linux

For information about accessing Visualization Platform after installation, see Chapter 3, “Setting up BIRT iHub.” To install multiple BIRT iHub modules on the same system, see “Using the command-line installation package on Linux,” later in this chapter.

How to run the Visualization Platform installation script on Linux

- 1 Download the installation package, `BIRTiHubVisualization-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 `/opt/actuate`. Unbundling the tar file creates the folder `BIRTiHubVisualization`.
- 3 Navigate to `/opt/actuate/BIRTiHubVisualization`.
- 4 Open and read the file, `license.pdf`. You must agree to the license terms in order to install BIRT iHub Visualization Platform.
- 5 Using a text editor, open the `acinstall.properties` file, as shown in Listing 2-2, and perform the following tasks:

Listing 2-2 `acinstall.properties` for installing BIRT iHub Visualization Platform

```
#Tue, 11 Jun 2013 16:19:16 -0700
ac.login=/machine/actuate
ac.password=password
ac.package=b
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 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] To access Information Console, use URL: http://
localhost:8700/iportal
[echo] Setup Completed
```

```
INSTALL SUCCEEDED
Total time: 2 minutes 46 seconds
installation complete
```

Installing the Content Services module on Linux

For information about accessing Content Services after installation, see Chapter 3, “Setting up BIRT iHub.” To install multiple BIRT iHub modules on the same system, see “Using the command-line installation package on Linux,” later in this chapter.

How to run the Content Services installation script on Linux

- 1 Download the installation package, `ContentServices-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 `/opt/actuate`. Unbundling the tar file creates the folder `ContentServices`.
- 3 Navigate to `/opt/actuate/ContentServices`.
- 4 Open and read the file, `license.pdf`. You must agree to the license terms in order to install Content Services.
- 5 Using a text editor, open the `acinstall.properties` file, as shown in Listing 2-3, and perform the following tasks:

Listing 2-3 `acinstall.properties` for installing Content Services

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

# 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 Content Services 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 ActuateBIRTiHubContentServices
      [echo] Installing ActuateBIRTiHubContentServices. This may
take a few minutes...
      [echo] Actuate Content Services Install Complete
      [echo] To access Information Console, use URL:
http://localhost:8700/iportal
      [echo] Setup Completed

INSTALL SUCCEEDED
Total time: 2 minutes 58 seconds
installation complete
```

- 7 At the prompt to shut down BIRT iHub, type:

```
no
```

Then, press Enter.

Using the command-line installation package on Linux

The following sections describe how to use the command-line installer to install BIRT iHub modules on Linux. To use the installers for a single BIRT iHub module, see “Installing BIRT iHub modules on Linux,” earlier in this chapter.

In installing the BIRT iHub 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 `tar.gz` archive installation packages and associated MD5 files for the required BIRT iHub modules from the download site
- 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 2-4. 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 2-4 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)

The acinstall.properties file contains the following properties, as shown in Listing 2-5:

- 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. By default, the installation script installs options a and b, iHub with System Console and the embedded BIRT iHub Visualization Platform.
- 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 iHub 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 2-5 `acinstall.properties`

```
#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

# 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
```

This command lists the available packages specified in installation script, as shown in Listing 2-6. Linux does not support Metrics Management, nor the BIRT Analytics Web modules, so these options do not appear for Linux.

Listing 2-6 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

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 `/opt/actuate`.
- 3 Extract the contents of `iHub3.tar.gz` to the folder created in the previous step.

How to run the 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 2-5, and perform the following tasks:
 - 1 Modify the `ac.login` and `ac.password` properties to contain the account login and password for the network machine that contains the installable Actuate BIRT product modules.
 - 2 By default, the installation script installs options a and b, iHub with System Console and the embedded BIRT iHub Visualization Platform. To obtain the list of installable modules and the corresponding letter settings, as shown in Listing 2-6, type the following command:

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

Modify the `ac.package` installation list, shown in Listing 2-5, to contain the values for other BIRT iHub packages, such as a stand-alone Information Console, JDK, BIRT iHub PostgreSQL Database, Content Services, or BIRT Analytics.

- 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] 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: 3 minutes 34 seconds
installation complete
```

Reviewing the BIRT iHub installation on Linux

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

Table 2-2 Installation log files for BIRT iHub modules

Module	Linux log files
All modules	In the installation folder: installer.log
System Console	In modules/SystemConsole: setup.log setupSystemConsole.log In modules/SystemConsole/setup: setup.log
Visualization Platform	In modules/BIRTiHub: setup.log setupiHub.log startiHub.log In modules/BIRTiHub/iHub/bin: setup.log
BIRT Analytics	In modules/BIRTiHub: setup.log setupiHub.log
Content Services	In modules/BIRTiHub: setupiHub.log In modules/ContentServices: setupContentServices.log

Starting and stopping BIRT iHub 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 2-3 lists the shell script files for each BIRT iHub module.

Table 2-3 Shell scripts to run BIRT iHub modules

Module	Linux shell scripts
System Console	In modules/SystemConsole: startupSystemConsole.sh
BIRT iHub	In modules/BIRTiHub: startiHub.sh startPostgreSQL.sh stopiHub.sh stopPostgreSQL.sh
BIRT Analytics	In modules/BIRTSAnalytics: startBAcore.sh stopBAcore.sh
Content Services	No additional shell scripts

Uninstalling BIRT iHub from Linux

Uninstalling BIRT iHub deletes the iHub metadata including dashboards, reports, and jobs in a volume. To transfer a 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 iHub, run stopiHub.sh. To stop System Console, run stopSystemConsole.sh. To stop the PostgreSQL service, run stopPostgreSQL.sh.

Setting up BIRT iHub

This chapter contains information on Setting up BIRT iHub and accessing modules.

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. For information about configuring BIRT iHub applications and databases, see *BIRT iHub System Administration Guide*.

Accessing System Console

To open System Console, open a browser manually and enter the following URL:

```
http://localhost:8500/sysconsole
```

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 3-1.

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

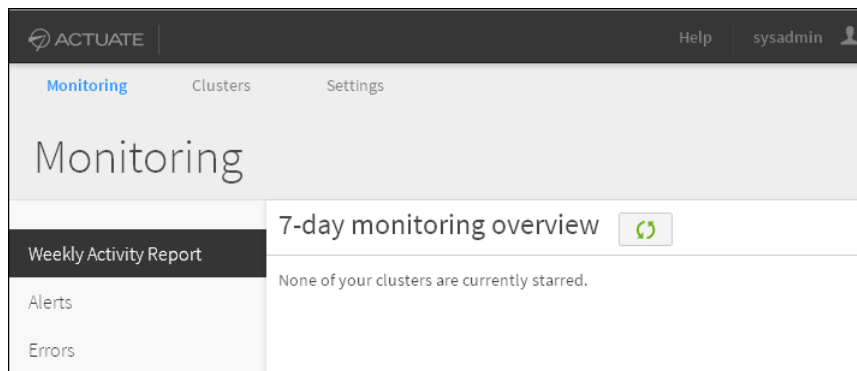


Figure 3-1 Viewing System Console

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 a 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 Visualization Platform

To access Visualization Platform, open a browser and enter the following URL:

```
http://localhost:8700/iportal
```

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 a volume other than the default volume, type `<volume name>\username`. For example, type `sales_volume\Administrator` to log in as Administrator to a volume named `sales_volume`.

Visualization Platform appears, as shown in Figure 3-2.

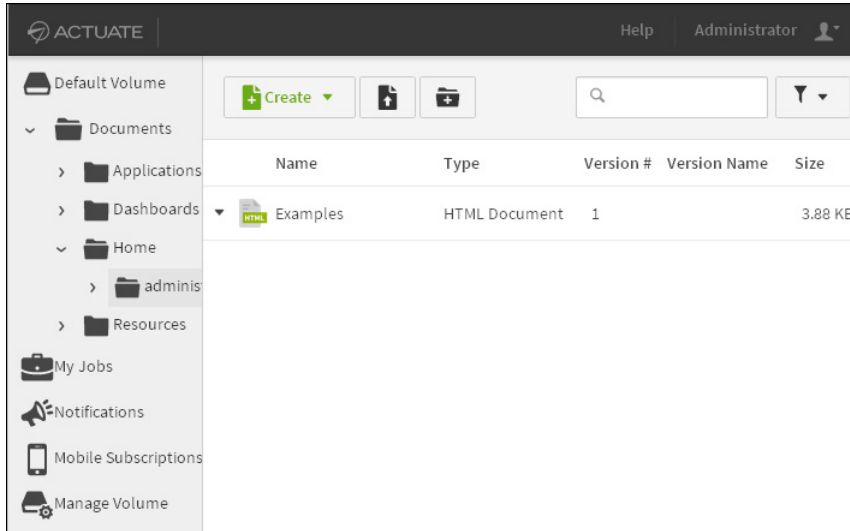


Figure 3-2 Viewing Visualization Platform

About 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 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 3-3. This choice appears if the user has the requisite privileges.

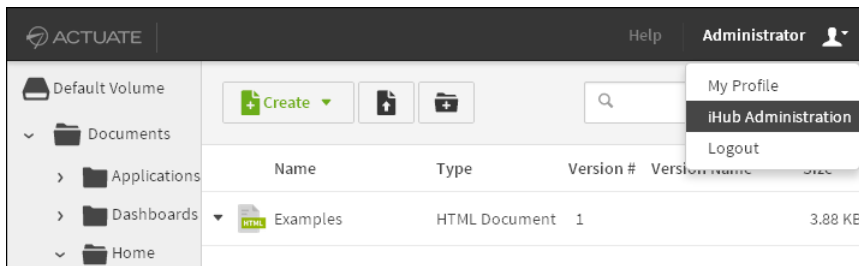


Figure 3-3 Accessing iHub Administration

BIRT iHub Administration appears, as shown in Figure 3-4.

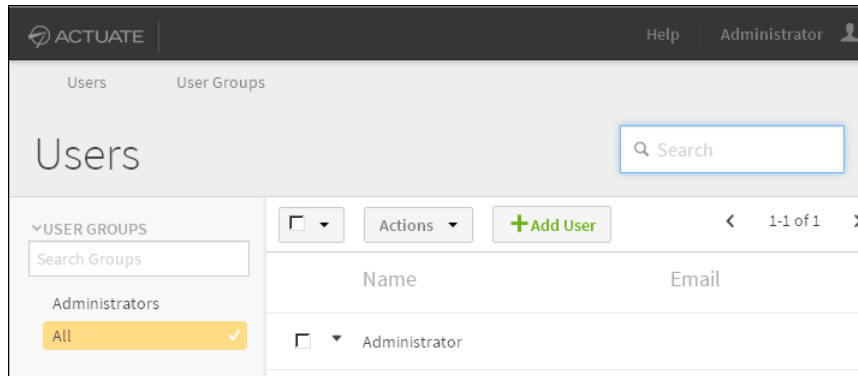


Figure 3-4 Viewing BIRT iHub Administration

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:
iHub3/modules/BIRTiHub/iHub/web/iportal/admin
- 2 Comment out or delete the context path setting in the web.xml file in the following location, shown in Listing 3-1:

iHub3/modules/BIRTiHub/iHub/web/iportal/WEB-INF/web.xml

Listing 3-1 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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