

# 5 - Installing calIntegrator v.1.4 or 1.4.2 Application and Services

Directions are given on this page for installing v.1.4 or 1.4.x application and services. This page includes the following topics:

- [Installing calIntegrator v.1.4 or 1.4.x Application and Services](#)
  - [Downloading calIntegrator v.1.4 Files](#)
  - [Downloading calIntegrator v.1.4.2 Files](#)
  - [Installing a New calIntegrator v.1.4](#)
    - [GUI Installer Method of Installation for v.1.4](#)
    - [Command-Line Method of Installation](#)
      - [About Properties](#)
      - [Command-line Installation Steps](#)
  - [Installing a New calIntegrator v.1.4.2](#)
    - [GUI Installer Method of Installation for v.1.4.2](#)
    - [Command-Line Method of Installation](#)
      - [About Properties](#)
      - [Command-line Installation Steps](#)



## calIntegrator versions 1.4 and 1.4.x

All content on this page applies to both versions of calIntegrator.

## Installing calIntegrator v.1.4 or 1.4.x Application and Services

To newly install the calIntegrator v.1.4 or 1.4.x application and services, follow the steps in these sections:

- [Downloading calIntegrator v.1.4 Files](#)
- [Installing a New calIntegrator v.1.4](#)
  - [GUI Installer Method of Installation](#)
  - [Command-Line Method of Installation](#)
- [Configuring JBoss](#)
  - [Configuring JBoss Servers and MySQL Server to Run as Services](#)
- [Post-Installation Tasks](#)
  - [Using UPT to Administer calIntegrator Users](#)



## BEFORE YOU BEGIN

There must already be a pre-existing MySQL DB and connection username/password for calIntegrator to install into; calIntegrator does not create its own DB.

## Downloading calIntegrator v.1.4 Files

To download the calIntegrator v.1.4 files, follow this step:

The various installation files for calIntegrator v.1.4 are between 150-200MB in size. All of the files can be downloaded from the [calIntegrator GForge files archive](#).

- For a new command-line installer or command-line upgrade installer, download the `cainTEGRATOR2-install-1.4.zip` file (around 165MB).
- For a GUI installer that you can use to do a fresh calIntegrator installation, download the `cainTEGRATOR2_gui_distribution_1.4.jar-201207171753.jar` file (about 190 MB).

Remember the download location, as you will be using this file to run the installation in the steps that follow.



## Server components in calIntegrator v.1.4

These server components are installed and configured as part of the calIntegrator v.1.4 or 1.4.x installation. You do not need to do anything further to download or install these components.

- JBoss 5.1.0 (hosts the calIntegrator application)

## Downloading calIntegrator v.1.4.2 Files

To download the calIntegrator v.1.4.2 files, follow this step:

Download the files from the calIntegrator distribution folder.

- To install calIntegrator using the command-line installer, download the [caintegrator-install-1.4.2.zip](#) file.
  - To upgrade calIntegrator using the command-line installer, download the [caintegrator-upgrade-1.4.2.zip](#) file. For more information about upgrading calIntegrator, see [6 - Upgrading calIntegrator..](#)
- To install calIntegrator using the GUI installer, download the [caintegrator\\_gui\\_distribution\\_1.4.2.jar](#) file.



**Remember the directory location where you downloaded the file, as you will be using this file to run the installation in the steps that follow.**

## Installing a New calIntegrator v.1.4

You can perform a new installation of calIntegrator v.1.4 using either of these two methods:

- A GUI Installation wizard. Instructions for this method start in the following section.
- A command-line installation. For instructions, see [Command-Line Method of Installation](#).

### GUI Installer Method of Installation for v.1.4

For detailed information on all of the GUI installer fields, refer to the [BDA Properties](#) page.

For performing an installation using the GUI Installer, follow these steps:

1. Open a command prompt in the directory where you downloaded the .jar file. `caintegrator2_gui_distribution_1.4.jar-201207171753.jar`. Enter this command to invoke the GUI installer: `java --jar caintegrator2_gui_distribution_1.4.jar-201207171753.jar`.
2. The Installation Wizard opens to facilitate the installation process. Click **Next** to proceed through the pages of the wizard, beginning with progressing past the Welcome page.
3. Review the release notes.
4. You must accept the license agreement.
5. Select the **Install** installation type. For a new installation, select **Install**.
6. Select **Browse** to navigate to the directory where you would like to install calIntegrator. The directory then displays in the text box. If the folder does not yet exist, click **OK** in the dialog box to indicate that you want the folder to be created.
7. Select the type of installation you would like to perform. You can install everything, or just specific components (JBoss or Database only). The remaining sections in this guide assumes you chose to install everything.
8. Continue walking through the pages of the installer. Configure the calIntegrator JBoss server on the next two pages of the installation wizard. The screen shots show example values. The port values which are specified are the defaults and can be used unless you want to reconfigure the values because of values already in use.

**JBoss Configuration**

As part of this installation, JBoss will be installed in C:\apps\caintegrator2\jboss-4.0.5.GA. It will be configured based on the values you enter below and on the following screens. NOTE: The Hostname below (and on other panels of this installer) is the host name accessible from this machine and others on the local network. To access this JBoss application server from the Internet, you may need to provide the ports below and on the following page to your Network administrator to allow access through the firewall.

Hostname of this Server:	Anglesite
JBoss Server Name (JBoss_HOME/server/JBoss_SERVER_NAME):	default
JBoss Web Console User:	admin
JBoss Web Console Password:	
Confirm JBoss Web Console Password:	
JBoss Server JAVA_OPTS:	-server -Xms256m -Xmx512m -XX:ThreadStackSize=128 -X
JBoss HTTP Port:	48210
JBoss JNDI Port:	48200
JBoss RMI Port:	48230
JBoss EJBInvoker Port:	48150
JBoss CORBAORG port:	48350
JBoss hajndi port:	48160
JBoss hajrmi port:	48260
JBoss JMS port:	48170

## 9. JBoss Installation Options

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### JBoss Configuration continued

JBoss jmx-rmi port:	48290
JBoss messaging port:	48330
JBoss pooledha port:	48270
JBossremotingport:	48320
JBoss bind port:	48190
JBoss rmiobject port:	48240
JBoss snmp-trapd port:	48300
JBoss SNMP port:	48310
JBoss web service port:	48250
JBoss Unified Invoker Port	48360
JBoss hajndi Auto Discovery Port	48370
JBoss SSL	48380
JBoss Messaging 2.x HTTP port	48390
JBoss Messaging 2.x HTTP port	48390
JBoss Messaging 2.x SSL port	48400
JBoss Transaction Recovery port	48410
JBoss Transaction Status port	48420
JBoss Transaction Process ID port	48430

10. JBoss SSL requires that you have requested and retrieved certificates already. If this does not apply to your installation, leave the values as false and continue.

### Installation Options

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### JBoss Security Listener Configuration

For JBoss SSL and Secure Grid configuration requires that you have requested and retrieved certificates already. See <https://wiki.nci.nih.gov/x/7xWw> for details on SSL, see <https://wiki.nci.nih.gov/x/88Ww> for details on Secure Grid.

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Enable JBoss SSL Port (note requires SSL Certificate Keystore and Internet facing DNS)

☐ True  
☒ False

Keystore file location:

Keystore file password:

Confirm keystore file password:

Keystore alias name:

Fully Qualified Host Name (FQHN) (ie, www.mydomain.com):

---

For JBoss Grid SSL Port, values not required if not using.

Enable secure Grid

☐ True  
☒ False

Remove HTTP Port

☐ True  
☒ False

Port to run the Grid service on JBoss:

caGrid certificate file location:

caGrid private key file location:

11. If your JBoss is externally accessible then fill out the JBoss External Hostname Configuration page. Otherwise, leave it blank and continue.
12. For a standard installation of calIntegrator, do not use SSO.
13. Specify the authentication type that calIntegrator should use. Database is the most likely choice if you aren't sure what to select here.
14. If you selected LDAP in the previous step (authentication type), enter the appropriate configuration information for LDAP: the LDAP URL and the LDAP Search Back DN.
15. If the authentication type is database, specify the following data base configuration information:
  - The Database Host Name
  - The Database Port *Example:* 3306
  - Database name of the **pre-existing** database where the calIntegrator schema will be installed
  - The **pre-existing** Database Application User to be used by calIntegrator to connect to its database.

Error messages inform you if the following occurs:

  - If the specified database host cannot be reached, or the field is blank.
  - If the specified database does not already exist, or the calIntegrator DB user's credentials are wrong.

16. Specify SMTP mail server connection information so that calIntegrator can send emails from users with new account requests. You must provide the following
  - Mail Server Host *Example:* localhost
  - Mail Server Port Number *Example:* 25
  - Mail Server Authentication: default is **false**.
  - Mail Server starttls: default is **false**.
17. If jar signing is necessary for the installation, then enable it on the Jar Signing Configuration page. This step is optional and can be skipped.
18. Review the summary of the information you entered.
19. Review the selected installation type and the installation destination.  
After you click **Next** from reviewing the installation destination, the installer runs. The installation wizard displays the installation progress and completion.
20. When you are informed that the process is finished, click **Done** in the lower right corner of the wizard to close the installer.
21. To verify calIntegrator installation:
  - a. Open your web browser to installed instance. The URL follows this format: `http://<jboss.server.hostname>:<jboss.server.port>/caintegrator/workspace.action`.
  - b. Enter **ncimanager** as the user and **changeme** as the password. Refer to the `<user home>/ .installer-caintegrator/caintegrator_installer/install.properties` file for the correct values.
22. After successfully installing calIntegrator, make a backup of the `<user home>/ .installer-caintegrator/caintegrator_installer/install.properties` file in a different directory for future reference.

## Command-Line Method of Installation

### About Properties

An important component of command-line installation is configuring properties.



#### Overview of command-line installer properties files

- When you do a command-line installation of calIntegrator for the first time, you will work with `install.properties` file included in the `caIntegrator_install_1_4.zip`.
- If you are upgrading by command-line from a previous version of calIntegrator, you will work with the `install.properties` file included in the `caIntegrator_install_1_4.zip` as well as the existing `install.properties` file.

See also [Working with Properties Files](#) .



#### calIntegrator Port Usage

Verify that default port values defined in `install.properties` files are not in use on your system by running `netstat --a` from the command line. If the ports are in use prior to installation, you will likely experience problems with your installation.



#### JBoss Errors During Installation

You may receive an error such as `Exception in thread "main" java.lang.NoClassDefFoundError: org/jboss/Shutdown`. This should not be a problem, as the installer attempts to stop previously installed servers to prevent problems during the installation. If this is your first time installing calIntegrator, you may receive and disregard this error message.

### Command-line Installation Steps

To install a new instance of calIntegrator using the command-line, follow these steps:

1. From the directory where you downloaded the `caIntegrator2-install-1.4.zip` files described in [Downloading calIntegrator v.1.4 Files](#), unzip the files, using one of these two methods:
  - a. Open a command prompt and use it to extract this file to a temporary location. For example, you may enter a command such as `unzip -q caIntegrator2-install-1.4.zip`. You must have a ZIP tool installed. This location will be referred to as the `<installer_directory>` henceforth.
  - b. Use WinZip or a similar utility to unzip the files to a temporary location. This location will be referred to as the `<installer_directory>` henceforth.  
*Example:* `<installer_directory> = C:\caIntegrator_installer`



#### About setting property values

Setting the property values is an important step in the installation process. Before you complete steps 2 & 3, review [Working with Properties Files](#) .

2. Open the `<installer_directory> / install.properties` file, modify the values for your environment and save the file. For the latest details about configuring the properties for your environment, refer to the [BDA Properties wiki page](#).
3. **Record the property values you have set.**



#### Other default values

You should not need to modify the other default values as we have chosen unique ports to reduce the risk of other applications using the same values. However, be sure to verify that the ports in this file are not being used by other applications.

4. From the command line, navigate to <installer\_directory>/(*Example: cd C:\caIntegrator\_2\_0\_installer*), and type **ant** . This initiates the installation process. The anticipated duration is anywhere from 1-15 minutes, depending on your system's speed, power and memory. The installer installs the calIntegrator schema in the specified **pre-existing** database on your MySQL server, and installs, configures, and starts the JBoss server for the calIntegrator application.
5. To verify calIntegrator installation, open your web browser to the installed instance. The URL follows this format: `http://<jboss.server.hostname>:<jboss.server.port>/caIntegrator/workspace.action`. Refer to the <installer\_directory>/install.properties file for the correct values. Enter **manager** as the user and **manager** as the password.
6. After successfully installing calIntegrator, make a backup of the <installer\_directory>/install.properties file in a different directory for future reference.

## Installing a New calIntegrator v.1.4.2

You can perform a new installation of calIntegrator v.1.4.2 using either of these two methods:

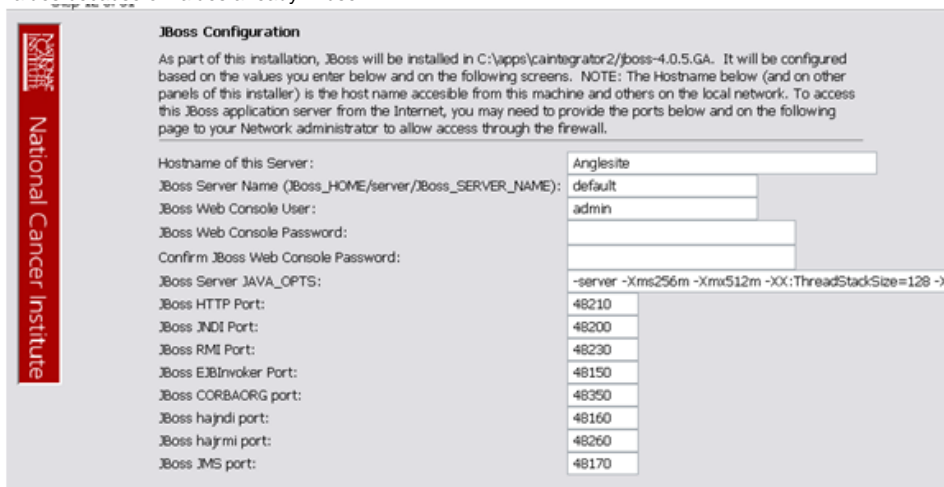
- A GUI Installation wizard. Instructions for this method start in the following section.
- A command-line installation. For instructions, see [Command-Line Method of Installation](#).

### GUI Installer Method of Installation for v.1.4.2

For detailed information on all of the GUI installer fields, refer to the [BDA Properties](#) page.

For performing an installation using the GUI Installer, follow these steps:

1. Open a command prompt in the directory where you downloaded the .jar file. `caIntegrator_gui_distribution_1.4.2.jar`. Enter this command to invoke the GUI installer: `java --jar caIntegrator_gui_distribution_1.4.2.jar` .
2. The Installation Wizard opens to facilitate the installation process. Click **Next** to proceed through the pages of the wizard, beginning with progressing past the Welcome page.
3. Review the release notes.
4. You must accept the license agreement.
5. Select the **Install** installation type. For a new installation, select **Install**.
6. Select **Browse** to navigate to the directory where you would like to install calIntegrator. The directory then displays in the text box. If the folder does not yet exist, click **OK** in the dialog box to indicate that you want the folder to be created.
7. Select the type of installation you would like to perform. You can install everything, or just specific components (JBoss or Database only). The remaining sections in this guide assumes you chose to install everything.
8. Continue walking through the pages of the installer. Configure the calIntegrator JBoss server on the next two pages of the installation wizard. The screen shots show example values. The port values which are specified are the defaults and can be used unless you want to reconfigure the values because of values already in use.



**JBoss Configuration**

As part of this installation, JBoss will be installed in C:\apps\caIntegrator2\jboss-4.0.5.GA. It will be configured based on the values you enter below and on the following screens. NOTE: The Hostname below (and on other panels of this installer) is the host name accessible from this machine and others on the local network. To access this JBoss application server from the Internet, you may need to provide the ports below and on the following page to your Network administrator to allow access through the firewall.

Hostname of this Server:	Anglesite
JBoss Server Name (JBoss_HOME/server/JBoss_SERVER_NAME):	default
JBoss Web Console User:	admin
JBoss Web Console Password:	
Confirm JBoss Web Console Password:	
JBoss Server JAVA_OPTS:	-server -Xms256m -Xmx512m -XX:ThreadStackSize=128 -Xc
JBoss HTTP Port:	48210
JBoss JNDI Port:	48200
JBoss RMI Port:	48230
JBoss EJBInvoker Port:	48150
JBoss CORBAORG port:	48350
JBoss hajndi port:	48160
JBoss hajrmi port:	48260
JBoss JMS port:	48170

## 9. JBoss Installation Options

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### JBoss Configuration continued

JBoss jmx-rmi port:	48290
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JBoss pooledha port:	48270
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JBoss Unified Invoker Port	48360
JBoss hajndi Auto Discovery Port	48370
JBoss SSL	48380
JBoss Messaging 2.x HTTP port	48390
JBoss Messaging 2.x HTTP port	48390
JBoss Messaging 2.x SSL port	48400
JBoss Transaction Recovery port	48410
JBoss Transaction Status port	48420
JBoss Transaction Process ID port	48430

10. JBoss SSL requires that you have requested and retrieved certificates already. If this does not apply to your installation, leave the values as false and continue.

### Installation Options

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### JBoss Security Listener Configuration

For JBoss SSL and Secure Grid configuration requires that you have requested and retrieved certificates already. See <https://wiki.nci.nih.gov/x/7xWw> for details on SSL, see <https://wiki.nci.nih.gov/x/88Ww> for details on Secure Grid.

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Enable JBoss SSL Port (note requires SSL Certificate Keystore and Internet facing DNS)

☐ True  
☒ False

Keystore file location:

Keystore file password:

Confirm keystore file password:

Keystore alias name:

Fully Qualified Host Name (FQHN) (ie, www.mydomain.com):

---

For JBoss Grid SSL Port, values not required if not using.

Enable secure Grid

☐ True  
☒ False

Remove HTTP Port

☐ True  
☒ False

Port to run the Grid service on JBoss:

caGrid certificate file location:

caGrid private key file location:

11. If your JBoss is externally accessible then fill out the JBoss External Hostname Configuration page. Otherwise, leave it blank and continue.
12. For a standard installation of caIntegrator, do not use SSO.
13. Specify the authentication type that caIntegrator should use. Database is the most likely choice if you aren't sure what to select here.
14. If you selected LDAP in the previous step (authentication type), enter the appropriate configuration information for LDAP: the LDAP URL and the LDAP Search Back DN.
15. If the authentication type is database, specify the following data base configuration information:
  - The Database Host Name
  - The Database Port *Example:* 3306
  - Database name of the **pre-existing** database where the caIntegrator schema will be installed
  - The **pre-existing** Database Application User to be used by caIntegrator to connect to its database.

Error messages inform you if the following occurs:

  - If the specified database host cannot be reached, or the field is blank.
  - If the specified database does not already exist, or the caIntegrator DB user's credentials are wrong.

16. Specify SMTP mail server connection information so that caIntegrator can send emails from users with new account requests. You must provide the following
  - Mail Server Host *Example:* localhost
  - Mail Server Port Number *Example:* 25
  - Mail Server Authentication: default is **false**.
  - Mail Server starttls: default is **false**.
17. If jar signing is necessary for the installation, then enable it on the Jar Signing Configuration page. This step is optional and can be skipped.
18. Review the summary of the information you entered.
19. Review the selected installation type and the installation destination.  
After you click **Next** from reviewing the installation destination, the installer runs. The installation wizard displays the installation progress and completion.
20. When you are informed that the process is finished, click **Done** in the lower right corner of the wizard to close the installer.
21. To verify caIntegrator installation:
  - a. Open your web browser to installed instance. The URL follows this format: `http://<jboss.server.hostname>:<jboss.server.port>/caintegrator/workspace.action`.
  - b. Enter **ncimanager** as the user and **changeme** as the password. Refer to the `<user home>/ .installer-caintegrator/caintegrator_installer/install.properties` file for the correct values.
22. After successfully installing caIntegrator, make a backup of the `<user home>/ .installer-caintegrator/caintegrator_installer/install.properties` file in a different directory for future reference.

## Command-Line Method of Installation

### About Properties

An important component of command-line installation is configuring properties.



#### Overview of command-line installer properties files

- When you do a command-line installation of caIntegrator for the first time, you will work with `install.properties` file included in the `caintegrator-install-1.4.2.zip` for
- If you are upgrading by command-line from a previous version of caIntegrator, you will work with the `upgrade.properties` file included in the `caintegrator-upgrade-1.4.2.zip` as well as the existing `upgrade.properties` file.

See also [Working with Properties Files](#) .



#### caIntegrator Port Usage

Verify that default port values defined in `install.properties` files are not in use on your system by running `netstat --a` from the command line. If the ports are in use prior to installation, you will likely experience problems with your installation.



#### JBoss Errors During Installation

You may receive an error such as Exception in thread "main" java.lang.NoClassDefFoundError: org/jboss/Shutdown. This should not be a problem, as the installer attempts to stop previously installed servers to prevent problems during the installation. If this is your first time installing caIntegrator, you may receive and disregard this error message.

### Command-line Installation Steps

To install a new instance of caIntegrator using the command-line, follow these steps:

1. From the directory where you downloaded the `caintegrator-install-1.4.2.zip` files described in [Downloading caIntegrator v.1.4 Files](#), unzip the files, using one of these two methods:
  - a. Open a command prompt and use it to extract this file to a temporary location. For example, you may enter a command such as `unzip -q caintegrator-install-1.4.2.zip`. You must have a ZIP tool installed. This location will be referred to as the `<installer_directory>` henceforth.
  - b. Use WinZip or a similar utility to unzip the files to a temporary location. This location will be referred to as the `<installer_directory>` henceforth.  
*Example:* `<installer_directory> = C:\caIntegrator_installer`



#### About setting property values

Setting the property values is an important step in the installation process. Before you complete steps 2 & 3, review [Working with Properties Files](#) .

2. Open the `<installer_directory> / install.properties` file, modify the values for your environment and save the file. For the latest details about configuring the properties for your environment, refer to the [BDA Properties wiki page](#).
3. **Record the property values you have set.**



#### Other default values

You should not need to modify the other default values as we have chosen unique ports to reduce the risk of other applications using the same values. However, be sure to verify that the ports in this file are not being used by other applications.

4. From the command line, navigate to `<installer_directory>/` (*Example: cd C:\cainegrator-install-1.4.2*), and type **ant** . This initiates the installation process. The anticipated duration is anywhere from 1-15 minutes, depending on your system's speed, power and memory. The installer installs the cainegrator schema in the specified **pre-existing** database on your MySQL server, and installs, configures, and starts the JBoss server for the cainegrator application.
5. To verify cainegrator installation, open your web browser to the installed instance. The URL follows this format: `http://<jboss.server.hostname>:<jboss.server.port>/cainegrator/workspace.action`. Refer to the `<installer_directory>/install.properties` file for the correct values. Enter **manager** as the user and **manager** as the password.
6. After successfully installing cainegrator, make a backup of the `<installer_directory>/install.properties` file in a different directory for future reference.