

Installing Apama

5.2.0

August 2014

This document applies to Apama 5.2.0 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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Preface

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About this documentation

This guide describes how to install and configure the Developer, Server or User version of Apama 5.2 on the following platforms:

- Microsoft Windows
- Redhat Enterprise Linux
- SUSE Linux

For details about the specific versions of supported platforms, go to [Software AG's Knowledge Center in Empower](#).

[Preface](#)

How this book is organized

The information in this book is organized as follows:

- ["Overview of Installing Apama" on page 9](#) describes Apama behavior related to the license file, provides a link to a list of supported platforms and describes the contents of each installation option (Developer, Server, or User).
- ["Installation on Windows" on page 12](#) provides instructions for installing Apama Release 5.2 on Windows.
- ["Installation on Linux" on page 22](#) provides instructions for installing the server version of Apama Release 5.2 on Linux.

[Preface](#)

Documentation roadmap

On Windows platforms, the specific set of documentation provided with Apama depends on whether you choose the Developer, Server, or User installation option. On UNIX platforms, only the Server option is available.

Apama provides documentation in three formats:

- HTML viewable in a Web browser
- PDF
- Eclipse Help (if you select the Apama Developer installation option)

On Windows, to access the documentation, select **Start > All Programs > Software AG > Apama 5.2 > Apama Documentation** . On UNIX, display the `index.html` file, which is in the `doc` directory of your Apama installation directory.

The following table describes the PDF documents that are available when you install the Apama Developer option. A subset of these documents is provided with the Server and User options.

Title	Contents
<i>What's New in Apama</i>	Describes new features and changes since the previous release.
<i>Installing Apama</i>	Instructions for installing the Developer, Server, or User Apama installation options.
<i>Introduction to Apama</i>	Introduction to developing Apama applications, discussions of Apama architecture and concepts, and pointers to sources of information outside the documentation set.
<i>Using Apama Studio</i>	Instructions for using Apama Studio to create and test Apama projects; write, profile, and debug EPL programs; write JMon programs; develop custom blocks; and store, retrieve and playback data.
<i>Developing Apama Applications in Event Modeler</i>	Instructions for using Apama Studio's Event Modeler editor to develop scenarios. Includes information about using standard functions, standard blocks, and blocks generated from scenarios.
<i>Developing Apama Applications in EPL</i>	Introduces Apama's Event Processing Language (EPL) and provides user guide type information for how to write EPL programs. EPL is the native interface to the correlator. This document also provides information for using the standard correlator plug-ins.
<i>Apama EPL Reference</i>	Reference information for EPL: lexical elements, syntax, types, variables, event definitions, expressions, statements.
<i>Developing Apama Applications in Java</i>	Introduces the Apama in-process API for Java, referred to as JMon, and provides user guide type information for how to write Java programs that run on the correlator. Reference information in Javadoc format is also available.
<i>Building Dashboards</i>	Describes how to create dashboards, which are the end-user interfaces to running scenario instances and data view items.
<i>Dashboard Property Reference</i>	Reference information on the properties of the visualization objects that you can include in your dashboards.

Title	Contents
<i>Dashboard Function Reference</i>	Reference information on dashboard functions, which allow you to operate on correlator data before you attach it to visualization objects.
<i>Developing Adapters</i>	Describes how to create adapters, which are components that translate events from non-Apama format to Apama format.
<i>Developing Clients</i>	Describes how to develop C, C++, Java, or .NET clients that can communicate with and interact with the correlator.
<i>Writing Correlator Plug-ins</i>	Describes how to develop formatted libraries of C, C++ or Java functions that can be called from EPL.
<i>Deploying and Managing Apama Applications</i>	<p>Describes how to:</p> <ul style="list-style-type: none"> • Use the Management & Monitoring console to configure, start, stop, and monitor the correlator and adapters across multiple hosts. • Deploy dashboards over wide area networks, including the internet, and provide dashboards with effective authorization and authentication. • Improve Apama application performance by using multiple correlators, and saving and reusing a snapshot of a correlator's state. • Use the Apama ADBC adapter to store and retrieve data in JDBC, ODBC, and Apama Sim databases. • Use the Apama Web Services Client adapter to invoke Web Services. • Use correlator-integrated messaging for JMS to reliably send and receive JMS messages in Apama applications. • Use Universal Messaging to connect correlators.
<i>Using the Dashboard Viewer</i>	Describes how to view and interact with dashboards that are receiving run-time data from the correlator.

Preface

Contacting customer support

You may open Apama Support Incidents online via the eService section of Empower at <http://empower.softwareag.com>. If you are new to Empower, send an email to empower@softwareag.com with your name, company, and company email address to request an account.

If you have any questions, you can find a local or toll-free number for your country in our Global Support Directory at https://empower.softwareag.com/public_directory.asp and give us a call.

Preface

Chapter 1: Overview of Installing Apama

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This documentation provides information and instructions for installing Apama 5.2. You can download Apama Release 5.2 from Empower, Software AG's customer support portal. Installation of Apama 5.2 does not require previous installation of Apama 5.0. It does not matter whether or not you installed an Apama 5.0 release.

Your Apama sales contact or an authorized Apama reseller must supply you with a 5.2 license file. After installation, be sure to follow the instructions in this guide for copying the license file to the correct location.

About the Apama license file

Apama behavior with regard to the Apama license file is as follows:

- You can start a correlator without specifying a license file. When you start the correlator without specifying a license file, the correlator runs for 30 minutes in a constrained mode that accepts connections from only the local host (127.0.0.1).
- A running correlator does not shut down when its license expires. It continues operating for seven days beyond expiration. The correlator logs periodic warning messages until it reaches the end of the seven days or until you replace the expired license.
- Removing the license file from a running correlator does not cause it to shut down. It continues operation for seven days after the license file is removed. The correlator logs periodic warning messages until it reaches the end of the seven days or until you restore the license.
- You can start a correlator with an expired license if it is less than seven days beyond expiration.
- You can use the Management and Monitoring console to start a correlator without first sending a license, but only on the same host as the console. Also, you must configure the component's host as `localhost`.

Refer to the licensing terms specified in your software contract for any additional legal restrictions that may be imposed on your use of this Apama release.

[Overview of Installing Apama](#)

Link to list of supported platforms

Apama 5.2 runs on the platforms listed in the Apama 5.2 Support Matrix available from a link on the following web page: empower.softwareag.com.

Memory, disk, and processor requirements for Apama components vary significantly depending on the component and the application being run. You will need to determine your application's processing and memory requirements since they vary from application to application. Apama customer support can help you do this.

Overview of Installing Apama

Contents of this release

During installation on Windows, you select the Developer, Server or User installation option. On Linux, only the Server option is available. The table below indicates the components that are installed for each option:

Apama Component	Developer	Server	User
Event Correlator: Core processing engine for event correlation and logic processing.	X	X	
Adapter Framework: Provides the ability to integrate external data sources with the event correlator.	X	X	
Management and Monitoring Framework: Lets you configure, manage, and monitor Apama server processes.	X	X	
Dashboard Servers: Provides the ability to serve Apama dashboards to end users of applications created with Apama.	X	X	
Samples: A library of samples demonstrating concepts and techniques for Apama application development.	X	X	
Supporting Utilities: Utilities for managing and monitoring the runtime behavior of Apama components.	X	X	
Apama Studio: Center piece of Apama application development. Provides the ability to define and develop Apama projects.	X		
Dashboard Builder: Provides for the development of custom dashboards for interacting with Apama applications.	X		
Event Modeler: Visual design tool for creating applications in Apama Studio.	X		
Tutorials: A library of step-by-step tutorials introducing Apama application development.	X		

Apama Component	Developer	Server	User
Dashboard Viewer: End user tool for accessing dashboards created with Dashboard Builder.	X		X
Documentation: Product documentation in multiple formats including PDF and HTML.	X	X	X

Overview of Installing Apama

Chapter 2: Installation on Windows

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This chapter provides information and instructions for

"Installing 5.2 on Windows" on page 12

You can download the installation package from Software AG's Software Download Center (SDC) in Empower at <https://empower.softwareag.com>. Installation of Apama 5.2 does not require previous installation of Apama 5.0. It does not matter whether or not you also installed Apama 5.0.

The installation log for an Apama installation can be found in the Apama installation's `logs` directory. For example, if you accepted the default installation location for Apama 5.2, the path is:

```
C:\Program Files\SoftwareAG\Apama 5.2\install\Apama_5.2.0.0\logs
```

Installing 5.2 on Windows

Information and instructions for installing Apama 5.2 is in the following topics:

- "Installation prerequisites on Windows" on page 12
- "Apama 5.2 installation procedure on Windows" on page 15
- "Post-installation steps on Windows" on page 16
- "What was installed on Windows" on page 17
- "Uninstalling Apama on Windows" on page 20

Apama 5.2 must be installed before you install any service packs or hotfixes.

[Installation on Windows](#)

Installation prerequisites on Windows

Apama installation prerequisites depend on the installation option you choose. Apama provides three installation options on Windows:

- Developer installation provides all components needed to develop, run, and test an Apama application. A Developer installation includes all Apama components; it is a superset of the Server and User installations.
- Server installation provides the components needed to run an Apama application. It is for systems where Apama applications will be deployed.

- User installation provides the Apama Dashboard Viewer and client libraries. It is for end users of Apama applications who need to use dashboards that were deployed with the Apama Dashboard Server.

Installing 5.2 on Windows

Installation prerequisites for all installation options

To be able to install Apama on your system, you must have local Administrator privileges.

If you have an earlier release of Apama on your system it is recommended that you uninstall it. You cannot have two installed versions of the Apama Sentinel Agent running concurrently without changing default port settings.

The Release 5.2 installer on Windows provides for the stopping of Apama 5, Apama 4 or Apama 3 services.

Apama services must be stopped for the Release 5.2 installer to successfully start Release 5.2 services. However, if you choose not to stop older services, the Release 5.2 installer adds the new services but does not start them. You can start them at a later time.

To deploy web dashboards, you must provide a servlet container. For a list of supported servlet containers, see <https://empower.softwareag.com/Products/Documentation>.

Installation prerequisites on Windows

User installation requirements

User installations must satisfy the following requirements:

- 400MB free disk space.
- Each user system must have Dashboard Viewer 5.2 installed. Previous versions of Dashboard Studio Viewer cannot be used to access the Apama 5.2 Dashboard Server.

The hardware requirements for a User installation are much less than for a Server installation.

Installation prerequisites on Windows

Server installation requirements

Server installations must satisfy the following requirements:

- 750MB free disk space.
- The Apama Dashboard Server port (default 3278) must be accessible by Dashboard Viewer. If you are using Windows with the firewall enabled, you need to unblock network access for this port.
- If you are deploying Java applications, when you start the correlator and specify the `-j` option, the correlator starts a Java Virtual Machine. It uses the first JRE/JDK in the `PATH` environment variable. It is highly recommended that you use JRE 7.0, which is the version that Apama ships with.

Installation prerequisites on Windows

Developer installation requirements

Developer installations must satisfy the requirements of Server and User installations as well as a few other requirements. The complete list of prerequisites for Developer installations is as follows:

- 1.5 GB free disk space
- The Apama Dashboard Server port (default 3278) must be accessible by Dashboard Viewer.
- For development of Java applications:

While an Apama installation includes the Java Runtime Environment (JRE), it does not include a compiler or the `jar` utility. To write and compile Java applications, you must have installed the Oracle Java development kit (JDK) on your system. In particular, you need a Java compiler, such as `javac`, and the `jar` utility.

You can download these from the following location:

<http://www.oracle.com/technetwork/java/javase/downloads>

Apama includes Oracle JRE 7.0, and Software AG recommends that you use JRE or Oracle JDK 7.0 to develop, build, and test your applications. Use of any JRE other than the one that Apama ships with is discouraged.

- If you are deploying Java applications, when you start the correlator and specify the `-j` option, the correlator starts a Java Virtual Machine. It uses the first JRE/JDK in the `PATH` environment variable. It is highly recommended that you use JRE 7.0, which is the version that Apama ships with.

Note: Previous versions of Dashboard Studio Viewer cannot be used to access the Apama 5.2 Dashboard Server.

Caution: Administrative privileges are required to run the Apama installation script because Windows registry settings need to be set by the installer. The recommended installation folder is `Program Files`, which is a protected location on Microsoft Windows operating systems. These include the client operating systems Windows 7 and Windows 8.1, and the server operating systems Windows Server 2008 R2 and Windows 2012 R2. To write to the `Program Files` folder, you must have Administrative privileges. After Apama installation, if you want to add additional plug-ins to Eclipse, you can run the Eclipse plug-in installer or use the Eclipse Check for Updates facility but you must have Administrative privileges when you install the Eclipse plug-in. Lack of Administrative privileges might cause the plug-in installation to fail or become corrupt. Administrative privileges are required because Eclipse also installs its plug-ins in the protected `Program Files` folder. Alternatively, you can choose to install Apama in a non-recommended location outside the `Program Files` folder.

Installation prerequisites on Windows

Web client requirements

Web clients can access Apama dashboards through their web browser. No Apama installation is required for web clients but they must satisfy the following requirements:

- Microsoft Internet Explorer 8.0 or later. The Apama v5.2 Support Matrix is available from a link on the following web page: <https://empower.softwareag.com/Products/ProductAvailability/default.asp>.

- Oracle's Java plug-in (version 1.7.0_5 or higher) must be installed for dashboards deployed either as applets or through Java Web Start technology. There is no Java plug-in requirement for dashboards deployed with the Apama Dashboard Display Server.
- If you deploy client-side dashboards on a 32-bit JRE or JDK, these will only be able to address up to 2 GB of memory.
- Your browser must have cookies enabled for web pages served from the host where you are running your application server.
- If you have a pop-up blocker, be sure to set it to allow popups for web pages served from the host where you are running your application server.

[Installation prerequisites on Windows](#)

Apama 5.2 installation procedure on Windows

To install Apama 5.2 on Windows:

1. Run the installation executable. According to your machine, this will be either `apama_5.2.0.0_win_64.exe` or `apama_5.2.0.0_win_32.exe`.
2. **Introduction:** In the Setup Apama wizard, click Next to proceed with the installation.
3. **License Agreement:** You must accept the terms of the license agreement before you can install Apama, then click Next.
4. **Select Install and Work Folders:** Accept default folders for installing Apama and for your Apama work directory, or click Choose and select an alternate location, then click Next. If the work folder already exists, the installation script prompts you to indicate whether or not you want to overwrite it. If you do not want to overwrite it, click No and then click Choose in the Select Install and Work Folders dialog to specify an alternate location.
5. **Select Install Set:** Select one of the following install sets and then click Next.
 - **Developer (Full)** — Installs the Apama development environment. This includes Apama Studio as well as all development tools, the correlator, samples, and documentation.
 - **Server** — Installs the Apama server environment. This includes the correlator, dashboard servers, and other management tools.
 - **User** — Installs Apama Dashboard Viewer.
6. If you selected the User installation set, skip to Step 9. If you selected the Server installation set, go to Step 7. If you selected the Developer installation set, the Choose External Eclipse dialog appears. If you want the installation script to add the Apama plug-ins to an existing Eclipse installation then select **Integrate into an external eclipse** and then click Choose to specify the location of Eclipse into which you want the installation script to add the Apama plug-ins.
7. **Select Service:** If you selected the Developer or Server installation set, indicate whether you want to add the Apama Management & Monitoring Agent Service.
8. If the Developer or Server set is installed, you might see a dialog that prompts you to stop the Apama services.

Starting with Apama 4.0, you can have multiple versions of Apama installed. The only restriction is that you can have only one sentinel agent service running at one time.

If you click **No**, the script installs the 5.2 service but does not start it. You can start it after installation. The script does not stop older running services. Choose this option if you still have dependencies on the older services. For example, if you want to complete migration to Apama 5.2 at a later date.

You cannot use older services with Apama 5.2.

9. **Pre-Installation Summary:** Review the pre-installation summary and then click **Install** to complete the installation.

The installation wizard shows the progress of the installation. The progress bar does not necessarily reflect actual installation progress. The bar might not move for several minutes, but the installation is progressing.

10. **Install Complete:** When the installation is complete click **Next**.
11. **Adding the Apama License File:** For a Developer or Server installation, the installation wizard provides information about the Apama license file. Read it carefully and then click **Next**.
12. **Getting Started with Apama:** For a Developer or Server installation, the installation wizard prompts you to indicate whether you want to start Apama Studio and whether you want to open Apama documentation. Accept the defaults or unselect a checkbox and then click **Done**.

[Installing 5.2 on Windows](#)

Post-installation steps on Windows

After you install Apama 5.2, you must perform the required post-installation steps:

- ["Copy the license file" on page 16](#)
- ["Set up the environment" on page 16](#)
- ["Start Agent service if not already started" on page 17](#)

[Installing 5.2 on Windows](#)

Copy the license file

After installation, copy your license file to the `license` directory in your Apama work directory. If you accepted the default location of the Apama work directory, the path for the license file is something like the following:

```
C:\Users\jdoe\SoftwareAG\ApamaWork_5.2\license\license.txt
```

For details about Apama behavior when a license file expires, see ["Overview of Installing Apama" on page 9](#).

[Post-installation steps on Windows](#)

Set up the environment

After installation, to set up the Apama environment, open an Apama command prompt. Select:

Start > All Programs > Software AG > Apama 5.2 > Apama Command Prompt

Opening the Apama command prompt runs the `apama_env.bat` file, which sets up the Apama environment, including setting the following environment variables:

- `APAMA_HOME`
- `APAMA_WORK`
- `APAMA_JRE`

You can find `apama_env.bat` in the `bin` directory of the Apama installation directory. Of course, you can run the `apama_env.bat` script manually.

[Post-installation steps on Windows](#)

Start Agent service if not already started

During Developer and Server installation, the installer prompts you to indicate whether you want to start the Apama Management & Monitoring Agent Service.

If you did not start this service during installation, you can start it in any of the following ways:

- If you added the service during installation but it is not currently running, select Start > Settings > Control Panel > Administrative Tools > Services . In the **Services** dialog, select Apama 5.2 Sentinel Agent, and click Start, which appears to the left. To change a service property, double-click the service to display its properties dialog.
- Run the `apama_services.bat` file, which is in the `bin` directory of your Apama installation directory. You can use this script to do the following:
 - Add the service if you did not add it during installation
 - Start and stop the service
 - Perform other service management operations

Usage information is in the file.

- Run the executable for Agent service. If you installed Apama in the default location, the path for the Apama Management & Monitoring Agent Service executable is as follows:

```
C:\Program Files\SoftwareAG\Apama 5.2\bin\sentinel_agent.exe
```

[Post-installation steps on Windows](#)

What was installed on Windows

After installation, the contents of the Apama installation directory depend on whether you chose to install the Developer, Server or User installation set.

[Installing 5.2 on Windows](#)

Contents of Developer installation

After a Developer installation, the Apama installation directory contains the following top-level directories:

Table 1. Developer installation

Directory	Contents
adapters	Standard adapters provided with Apama. This includes ADBC (Apama Database Connector), File Transport, FilterCodec, NullCodec, StringCodec, and ODBC adapters. If you install additional adapters, the installation script puts them here.
bin	Executables and scripts.
catalogs	Standard blocks and functions used in scenarios. Also contains bundles to be added to projects in Apama Studio.
demos	Demonstration applications.
doc	User documentation in HTML and PDF.
etc	Configuration and properties files.
include	Header files.
install	Installation logs.
lib	Jar files.
monitors	Monitors that provide support for your applications.
samples	<p>Examples of correlator plug-ins, dashboards, client applications, EPL monitors, JMon monitors, and scenarios.</p> <p>Note: Apama Event Processing Language (EPL), is the newer name for Apama MonitorScript. Within the product, both EPL and MonitorScript are used and can be considered synonymous.</p>
studio	Apama Studio.
third_party	Eclipse, JRE.
tutorials	Apama skeleton and completed tutorials.
uninstall	Files for uninstalling Apama.
utilities	Python script for extracting information from a correlator replay log.

The ApamaWork directory

In addition, the installer creates the `ApamaWork_5.2` directory in the default location or in the location you specified. If you accepted the default, the path of the `ApamaWork_5.2` directory is something like the following:

C:\Users\jdoe\SoftwareAG\ApamaWork_5.2

Apama maintains your application projects, log files, preferences, and other user data in the `ApamaWork_5.2` directory.

What was installed on Windows

Contents of Server installation on Windows

After a Server installation, the Apama installation directory contains the following top-level directories:

Table 2. Server installation on Windows

Directory	Contents
<code>adapters</code>	Standard adapters provided with Apama. This includes ADBC (Apama Database Connector), File Transport, FilterCodec, NullCodec, StringCodec, and ODBC adapters. If you install additional adapters, the installation script puts them here.
<code>bin</code>	Executables and scripts.
<code>catalogs</code>	Standard blocks and functions used in scenarios.
<code>doc</code>	User documentation in HTML and PDF.
<code>etc</code>	Configuration and properties files.
<code>include</code>	Header files.
<code>install</code>	Installation logs.
<code>lib</code>	Jar files.
<code>monitors</code>	Monitors that provide support for your applications.
<code>samples</code>	Examples of correlator plug-ins, client applications, EPL monitors, and JMon monitors.
<code>third_party</code>	JRE
<code>uninstall</code>	Files for uninstalling Apama.
<code>utilities</code>	Utility for extracting information from a correlator replay log

In addition, the installer creates the Apama work directory in the default location or in the location you specified. If you accepted the default, the path of the Apama work directory is something like the following:

C:\Users\jsmith\SoftwareAG\ApamaWork_5.2

Apama maintains your application projects, preferences, and other user data in the Apama work directory. Log files can be found in the `logs` directory of the `ApamaWork_5.2` directory. For example:

```
C:\Users\jsmith\SoftwareAG\ApamaWork_5.2\logs
```

[What was installed on Windows](#)

Contents of user installation on Windows

After a user installation, the Apama installation directory contains the following top-level directories:

Table 3. User installation on Windows

Directory	Contents
<code>bin</code>	Executables and scripts.
<code>doc</code>	User documentation in HTML and PDF.
<code>etc</code>	Configuration and properties files.
<code>install</code>	Installation logs.
<code>lib</code>	Jar files.
<code>third_party</code>	JRE.
<code>uninstall</code>	Files for uninstalling Apama.

The Apama work directory

In addition, the installer creates the Apama work directory in the default location or in the location you specified. If you accepted the default, the path of the Apama work directory is something like the following:

```
C:\Users\jsmith\SoftwareAG\ApamaWork_5.2
```

Apama maintains the dashboard view log and preferences file in the `logs` directory of the Apama work directory. For example:

```
C:\Users\jsmith\SoftwareAG\ApamaWork_5.2\logs
```

[What was installed on Windows](#)

Uninstalling Apama on Windows

Before you uninstall Apama, ensure that all Apama components and applications are no longer running. It is not possible to uninstall a particular hotfix or service pack. When you select Uninstall, the Apama product is removed from your system.

To uninstall Apama:

1. Select Start > Settings > Control Panel.

2. In the **Control Panel** dialog, double-click Add or Remove Programs.
3. In the **Add or Remove Programs** dialog, click Apama 5.2 to expand it and click Change/Remove.
4. In the Apama uninstallation dialog, click Uninstall.
5. When the uninstallation script is done, click Done.
6. If part of the Apama 5.2 installation directory still remains, delete it. The default path of the Apama 5.2 installation directory is

```
C:\Program Files\SoftwareAG\Apama 5.2
```

7. You might also want to delete the Apama work directory. The default location of the Apama work directory is something like this:

```
C:\Users\jsmith\SoftwareAG\ApamaWork_5.2
```

Installation on Windows

Chapter 3: Installation on Linux

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This chapter provides information and instructions for installing a Server version of Apama Release 5.2 on Linux systems. You can download the installation package from Software AG's Software Download Center (SDC) in Empower at <https://empower.softwareag.com>. Installation of Apama 5.2 does not require previous installation of Apama 5.0. It does not matter whether you installed Apama 5.0.

The installation logs for the Apama Server installation can be found in the Apama installation's `logs` directory. For example, if you accepted the default installation location for Apama 5.2, the path is something like this:

```
/opt/SoftwareAG/Apama_5.2/install/Apama_5.2/logs
```

Installing 5.2 on Linux

Information and instructions for installing Apama 5.2 is in the following topics:

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[Installation on Linux](#)

Installation prerequisites on Linux

To install Apama on your system and also install the services, you need local Administrator privileges.

If you have an earlier release of Apama on your system it is highly recommended that you uninstall the previous version and then install Apama 5.2. In all cases, you cannot have two installed versions of the Apama Management & Monitoring Agent service (also called the Sentinel Agent) running concurrently without changing default port settings.

An Apama installation on Linux must satisfy the following requirements:

- 750MB free disk space.
- The Apama Dashboard Server port (default 3278) must be accessible by Dashboard Viewer. If you are using Linux with the firewall enabled, you need to unblock network access for this port.

- If you are deploying Java applications, when you start the correlator and specify the `-j` option, the correlator starts a Java Virtual Machine. It uses the first JRE/JDK in the `PATH` environment variable. It is highly recommended that you use JRE 7.0 update 5, which is the version that Apama ships with.
- To deploy web dashboards, you must provide a servlet container. For a list of supported servlet containers, see <https://empower.softwareag.com/Products/Documentation>.

Web clients can access Apama dashboards through any Apama host supported web browser. No Apama installation is required for web clients but they must satisfy the following requirements:

- Oracle's Java plug-in (version 1.7.0_5 or later) must be installed for dashboards deployed either as applets or through Java Web Start technology. There is no Java plug-in requirement for dashboards deployed with the Apama Dashboard Display Server.
- Your browser must have cookies enabled for web pages served from the host where you are running your application server.
- If you have a pop-up blocker, be sure to set it to allow popups for web pages served from the host where you are running your application server.

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Linux platform notes

Before installing Apama 5.2 on a Linux machine, consider the following:

- ["No support for Security Enhanced Linux" on page 23](#)
- ["Linux development and samples" on page 23](#)
- ["Linux root permissions" on page 24](#)
- ["Linux core file size setting" on page 24](#)

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No support for Security Enhanced Linux

Apama does not support Security Enhanced Linux (SELinux). This option should be turned off on Linux for Apama to run.

[Linux platform notes](#)

Linux development and samples

To build the samples and develop applications using the C/C++ API, development tools that are not present in the default installation of the supported platforms must be installed. On all supported Linux platforms the `gcc-c++` package and all its dependencies must be installed. These are all provided on the installation media provided with the distribution.

[Linux platform notes](#)

Linux root permissions

On Linux platforms if Apama is installed by the `root` user then the resulting `ApamaWork_5.2` directory will also be owned by `root`. This can cause problems for non-`root` users who run Apama tools; they may not be able to write to `ApamaWork_5.2`. To support non-`root` users in installations owned by `root` do one of the following:

- Change the permissions or owner of `ApamaWork_5.2` and its subdirectories to allow write access by users.
- Define the environment variable `APAMA_WORK` and set its value to an `ApamaWork_5.2` directory the users have write access to.

[Linux platform notes](#)

Linux core file size setting

Linux systems are often run with their core file size limit set to zero. A consequence of this is that in the unlikely event that the correlator or an adapter crashes, no core file is written, which hinders investigation of the cause of the crash. To avoid this situation, set the core file size to unlimited in the login configuration for each user who runs Apama components.

[Linux platform notes](#)

Apama 5.2 installation procedure on Linux

To install the Server version of Apama 5.2 on Linux, you can run the installation program either in an X Windows environment or in console mode. The X server does *not* need to be running on the same host as the installation program; remote X connections are fully supported. For a remote installation, check that the `DISPLAY` environment variable is set appropriately before starting the installer.

It is recommended that, for administration purposes, you create a separate user (for example, `apama`) for installing and running Apama components.

There are two installation options on Linux:

- ["Performing an Apama 5.2 GUI installation" on page 24](#)
- ["Performing an Apama 5.2 console installation" on page 25](#)

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Performing an Apama 5.2 GUI installation

To perform a GUI installation of Apama 5.2 on Linux machines:

1. If you intend the software to be used by a specific dedicated user account, such as `apama`, login as this user.
2. Use `gunzip` to uncompress the archive file.
3. Unpack the archive file to some temporary directory. Be sure to preserve directory names and structure. For example:

```
tar -xf apama_5.2.0.0_lnx_64_x86.tar .
```


Note: The name of the archive file will have the following format:

`APAMA_VERSION_PLATFORM_BITNESS_ARCHITECTURE.tar`

4. Run the installation file (`apama_5.2.0.0_lnx_64_x86.bin`) from the temporary directory. You can remove the temporary directory after installation is complete.
5. **Introduction:** Click Next to proceed with the Installation Wizard.
6. **License Agreement:** You must accept the terms of the license agreement before you can install. Click Next.
7. **Select Install and Work Directories:** Accept the default locations for installing Apama and for Apama's workspace or specify different locations. The user account performing the installation must have permission to write to the specified directories. Click Next.
8. **Select Install Set:** Confirm that you want to install the Apama Server set including the correlator, dashboard servers, and other management tools. Then click Next.

If the installation script cannot install the Apama service, it displays a message to indicate this and also displays the name of the script to run after installation. If necessary, make a note of this script, and run it after installation to add the Apama service.

9. **Pre-Installation Summary:** Review the pre-installation summary (click Previous to make any changes). Then click Install to complete the installation.

The installation wizard shows the progress of the installation. The progress bar does not necessarily reflect actual installation progress. The bar might not move for several minutes, but the installation is progressing.

10. **Install Complete:** When the installation is complete, click Next.

If the installation script detected a license file when it started the installation, it displays instructions for where to store the Apama license file. Be sure to follow these instructions.

[Apama 5.2 installation procedure on Linux](#)

Performing an Apama 5.2 console installation

To perform a console installation of the Server version of Apama 5.2 on Linux machines:

1. If you intend the software to be used by a specific dedicated user account, such as `apama`, log in as this user.
2. Use `gunzip` to uncompress the archive file.
3. Unpack the archive file to some temporary directory. Be sure to preserve directory names and structure. For example:

```
tar -xf apama_5.2.0.0_lnx_64_x86.tar .
```

Note: The name of the archive file will have the following format:

`APAMA_VERSION_PLATFORM_BITNESS_ARCHITECTURE.tar`

4. To run the installation executable, execute the following command from the temporary directory:

```
./apama_5.2.0.0_lnx_64_x86.bin -i console
```

You can remove the temporary directory once the installation is complete. This starts the Apama installation.

5. **Introduction:** Press Enter to continue.
6. **License Agreement:** You must accept the terms of the license agreement before you can install Apama. You can scroll and read through the entire agreement or you can skip to the end where you can indicate that you agree.

At the appropriate prompt, after scrolling through the license information or skipping to the end, enter Y.
7. **Select Install Directory:** Accept the default location or specify a different location for installing Apama. If you do not have permission to create the Apama installation directory in the default location or in the location you specify, the installation script informs you of this.
8. **Select Work Directory:** Accept the default location or specify a different location for the Apama work directory.
9. **Select Install Set:** Enter 1 to specify that you want to install the Server install set.

If you do not have permission to install the Apama service, the installation script displays a message to let you know. It also indicates that you can run the `SoftwareAG/Apama_5.2/bin/apama_services` script after installation to add the services.
10. **Pre-Installation Summary:** Review the pre-installation summary and press Enter to continue the installation.

The installation progresses. The progress bar does not necessarily reflect actual installation progress. The bar might stay at one spot for several minutes, but the installation is progressing.
11. The installation is complete. Press Enter.
12. The installation script provides information about where to put your Apama license file. Be sure to follow these instructions. Press Enter to exit the installer.

[Apama 5.2 installation procedure on Linux](#)

Post-installation steps on Linux

After you install Apama 5.2, you must perform the required post-installation steps.

- ["Copy the license file" on page 26](#)
- ["Set up the environment" on page 27](#)
- ["Start the Apama service if needed" on page 27](#)

[Installing 5.2 on Linux](#)

Copy the license file

After installation, copy your Apama license file to the `license` directory in your Apama work directory. If you accepted the default Apama work directory location then the path for your license file will be something like the following, where `~` indicates your home directory:

```
~/SoftwareAG/ApamaWork_5.2/license/license.txt
```

For details about Apama behavior when a license file expires, see ["Overview of Installing Apama" on page 9](#).

[Post-installation steps on Linux](#)

Set up the environment

After installation, source the `apama_env` file, which is in the `bin` directory of your Apama installation directory. This script sets up the Apama environment, including setting the following environment variables:

- `APAMA_HOME`
- `APAMA_WORK`
- `APAMA_JRE`

[Post-installation steps on Linux](#)

Start the Apama service if needed

During installation, the installer starts the Apama Management & Monitoring Agent service if it can. If you need to start or restart this service, do one of the following:

- Run the `apama_services` file, which is in the `bin` directory of your Apama installation directory. You can use this script to do the following:
 - Add the service if you did not add it during installation
 - Start and stop the service
 - Perform other service management operations

Usage information is in the file.

- Run the executable for the service. If you installed Apama in the default location, the path for the executable is `/opt/SoftwareAG/Apama_5.2/bin/sentinel_agent`.

[Post-installation steps on Linux](#)

What was installed on Linux

After installation on Linux, the Apama installation directory contains the following top-level directories:

Table 4. Linux installation

Directory	Contents
<code>adapters</code>	Standard adapters provided with Apama. This includes JDBC, JMS, and ODBC adapters. If you install additional adapters, the installation script puts them here.
<code>bin</code>	Executables and scripts.

Directory	Contents
catalogs	Standard blocks and functions used in scenarios.
doc	User documentation in HTML and PDF.
etc	Configuration and properties files.
include	Header files.
install	Installation logs.
lib	Jar files.
monitors	Monitors that provide support for your applications.
samples	Examples of correlator plug-ins, client applications, EPL monitors, JMon monitors, and simulators.
third_party	JRE
uninstall	Files for uninstalling Apama.
utilities	Utility for extracting information from correlator replay log

The ApamaWork directory

The installer creates the `ApamaWork` directory in the default location or in the location you specified. If you accepted the default, the path of the Apama work directory is something like the following, where `~` indicates your home directory:

```
~/SoftwareAG/ApamaWork_5.2
```

Apama maintains your deployed application files, preferences, and other user data files in the Apama work directory. You can find log files in the `logs` directory of the `ApamaWork_5.2` directory. For example:

```
~/SoftwareAG/ApamaWork_5.2/logs
```

[Installing 5.2 on Linux](#)

Uninstalling Apama on Linux

Before you uninstall Apama, ensure that all Apama components and applications are no longer running.

When Software AG makes a hotfix available, the hotfix is presented through Software AG's Fix Explorer, which can be accessed from Empower.

You can always install a new service pack or hotfix on top of your Apama 5.2 installation. However, you cannot install service packs or hotfixes that are older than the Apama 5.2 release.

To uninstall Apama:

1. Run the `uninstall_apama_5.2` utility, located in Apama's `uninstall` directory. The default location is `/opt/SoftwareAG/Apama_5.2/uninstall`. The default is that the graphical uninstallation wizard appears except when the system has no display. To explicitly uninstall from the console, the command is `uninstall_apama_5.2 -i console`.
2. The uninstall wizard opens or the uninstallation script starts.
3. Click **Uninstall** in the wizard or respond to the prompt to uninstall. The uninstall process proceeds.
4. After the uninstall process is complete, delete the Apama installation directory.
5. You might also want to delete the Apama work directory. The default location of the Apama work directory is something like this:

```
/users/devp/jdoe/SoftwareAG/ApamaWork_5.2
```

Installation on Linux