

Oracle® Application Access Controls Governor
Installation Guide
Release 8.0

March 2008

Oracle Application Access Controls Governor Installation Guide

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Contents

1 Introduction

Supported Operating Systems.....	1-1
Prerequisites	1-2

2 Installing AACG

Creating an AACG Schema.....	2-1
Downloading Files	2-1
Performing the Installation.....	2-4

Introduction

Application Access Controls Governor (AACG) regulates access to duties assigned in business-management applications. By default it controls access to Oracle E-Business Suite and PeopleSoft Enterprise, and it may be configured to work with other business-management applications as well. It implements “access policies,” which identify duties that are considered to conflict with one another because their assignment to individual users would breach corporate controls.

Version 8.0 of AACG is one component of the Governance, Risk, and Compliance Controls Suite, and it runs in its own platform. It may run independently of, or in concert with, other Controls Suite components. These include version 7.2.2.3 of Transaction Controls Governor and Preventive Controls Governor, and version 5.1.1.1 of Configuration Controls Governor. For information on installing these components, see version 7.2.2.3 of the *Governance, Risk, and Compliance Controls Suite Installation Guide*, and version 5.1.1.1 of the *Configuration Controls Governor Installation Guide*.

Broadly, to install Application Access Controls Governor, you complete the following steps:

- Install an Oracle database and other prerequisite software.
- Download AACG installation files as well as other open-architecture files.
- Perform the AACG installation.
- Configure connections to business-management applications over which access policies created in AACG will exercise control.

Supported Operating Systems

Application Access Controls Governor runs on a server with, by preference, a Linux operating system. Solaris and Windows Server are also supported. For detailed information about supported operating systems, see the *Oracle Governance, Risk, and Compliance Controls Suite Compatibility Matrix*.

Prerequisites

Before installing Application Access Controls Governor, ensure that the following is installed on the server:

- Oracle 9i or 10g database.
- Sun Java Development Kit 1.5 or higher. (GNU Java Development Kit will not work.)

Note that AACG must have its own dedicated Java container. It was not designed to coexist with other web applications (even other applications in the Governance, Risk, and Compliance Controls Suite) in the same container.

- Tomcat Application Server version 5.5
- Any of the following web browsers:
 - FireFox
 - Microsoft Internet Explorer 6 or 7, with the Adobe SVG plugin available from <http://www.adobe.com/svg/viewer/install/mainframed.html>.

Installing AACG

In broad terms, installation of Application Access Controls Governor involves these steps:

1. Create an AACG schema in the Oracle database.
2. Download files to the AACG server and prepare them for use.
3. Install and configure the files.

Creating an AACG Schema

To begin, create a schema for Application Access Controls Governor in the Oracle 9i or 10g database that will store its data. Assume, for example, that the schema (user) name and password are `ag_access/ag_access`.

The following is an example for creating the schema in an Oracle 9i database:

```
create user ag_access identified by ag_access;  
grant connect, resource to ag_access;
```

The following is an example for creating the schema in an Oracle 10g database:

```
create user ag_access identified by ag_access;  
grant connect, resource to ag_access;  
grant create view to ag_access;
```

Downloading Files

Before downloading files, create a staging directory on the Active Access Controls Governor server. By convention, this directory is known as `ACG_STAGE_DIR`. When this directory is created, complete the following steps:

1. Locate the Governance, Risk, and Compliance Controls Suite Disk 1 in your Oracle media pack. In its `dist` directory, locate the file `acg_80.zip`, copy the file to your staging directory, and extract its contents there. This should create two subdirectories of the staging directory — `lib_stage` and `res`. It also deposits three files in the staging directory — `ags.war`, `preinstall.bat`, and `preinstall.sh`.

2. Certain open-architecture files are required. Download the files from the following sites to the lib_stage subdirectory of your staging directory.

wSDL4j-1.6.1.jar

Allows the creation, representation, and manipulation of WSDL documents

License:

<http://sourceforge.net/projects/wsd14j>

Download:

http://downloads.sourceforge.net/wsd14j/wsd14j-bin-1.6.1.zip?modtime=1159287453&big_mirror=0

hibernate-3.2.1.ga.jar

An object/relational persistence and query service

License:

<http://sourceforge.net/projects/hibernate>

Download:

http://downloads.sourceforge.net/hibernate/hibernate-3.2.1.ga.zip?modtime=1163747006&big_mirror=1

hibernate-annotations-3.2.1.ga.jar

An object/relational persistence and query service

License:

<http://sourceforge.net/projects/hibernate>

Download:

http://downloads.sourceforge.net/hibernate/hibernate-annotations-3.2.1.GA.zip?modtime=1165606774&big_mirror=1

hibernate-entitymanager-3.2.1.ga.jar

An object/relational persistence and query service

License:

<http://sourceforge.net/projects/hibernate/>

Download:

http://downloads.sourceforge.net/hibernate/hibernate-entitymanager-3.2.1.GA.zip?modtime=1165606463&big_mirror=1

jboss-archive-browsing-5.0.0alpha-200607201-119.jar

Hibernate dependency

License:

As part of hibernate-entitymanager-3.2.1.GA.zip

Download:

As part of hibernate-entitymanager-3.2.1.GA.zip

javassist-3.3.ga.jar

Hibernate dependency

License:

As part of hibernate-entitymanager-3.2.1.GA.zip

Download:

As part of hibernate-entitymanager-3.2.1.GA.zip

junit-3.8.1.jar

Hibernate dependency

License:

As part of hibernate-3.2.1.ga.zip

Download:

As part of hibernate-3.2.1.ga.zip

jasperreports-1.3.2.jar

A Java reporting system

License:

http://www.jasperforge.org/index.php?option=com_content&task=view&id=81&Itemid=89

Download:

http://downloads.sourceforge.net/jasperreports/jasperreports-1.3.2.jar?modtime=1175286670&big_mirror=0

kettle-2.5.jar

A metadata-driven ETL tool

License:

<http://community.pentaho.com/faq/kettle.php>

Download:

http://sourceforge.net/project/downloading.php?groupname=pentaho&filename=Kettle-2.5.0.zip&use_mirror=superb-east

common-2.5.jar

Kettle dependency

License:

As part of Kettle-2.5.0.zip

Download:

As part of Kettle-2.5.0.zip

edtFTPj-1.5.3.jar

Kettle dependency

License:

<http://www.enterprisedt.com/products/edtftpj>

Download:

<http://www.enterprisedt.com/products/edtftpj/download/edtftpj-1.5.3.zip>

cache-2.5.jar

Kettle dependency

License:

As part of Kettle-2.5.0.zip

Download:

As part of Kettle-2.5.0.zip

jxl-2.5.jar

Kettle dependency

License:

As part of Kettle-2.5.0.zip

Download:

As part of Kettle-2.5.0.zip

javadb-2.5.jar

Kettle dependency

License:

As part of Kettle-2.5.0.zip

Download:

As part of Kettle-2.5.0.zip

js-2.5.jar

Kettle dependency

License:

As part of Kettle-2.5.0.zip

Download:

As part of Kettle-2.5.0.zip

openrdf-model-2.0.jar

An open source RDF framework with support for RDF Schema inferencing and querying.

License:

<http://www.openrdf.org/license.jsp>

Download:

http://downloads.sourceforge.net/sesame/openrdf-sesame-2.0-onejar.jar?modtime=1198152725&big_mirror=0

xpp3_min-1.1.3.4.O.jar

A streaming pull XML parser

License:

<http://www.extreme.indiana.edu/viewcvs/~checkout~/XPP3/java/LICENSE.txt>

Download:

http://www.extreme.indiana.edu/dist/java-repository/xpp3/jars/xpp3_min-1.1.3.4.O.jar

Performing the Installation

When the necessary files are downloaded, complete these steps:

1. Run one of the preinstall scripts, located in your staging directory:
 - If you are installing on a Linux or Solaris server, change the permissions on `preinstall.sh` to execute, and run the file from the commandline.
 - If you are installing on a Windows server, run `preinstall.bat` from the command prompt.
2. Create a directory for a Report Repository, which stores AACG report history — copies of reports that AACG users schedule to be run. The Repository can reside on an NFS mount or any valid directory to which the user running Tomcat has full permissions. (If the Report Repository is deleted, then report history is lost.) Make a note of the path you create to the Report Repository, as you will need to supply it later as a configuration value.
3. Copy the file `ags.war` from your staging directory to the `webapps` directory located beneath the parent directory of Tomcat 5.5.
4. Start the Tomcat application server.
5. Open a web browser and, in its address field, enter the following:

```
http://host:tomcat_port/ags
```

Replace *host* with the fully qualified domain name (FQDN) of your Application Access Controls Governor server, and replace *tomcat_port* with 8080 (if you accepted the default value when you installed Tomcat) or your configured value (if you changed the default during installation).

6. A Configure Application screen appears. In it, supply the following information about the Application Access Controls Governor database :

- `ag.connection.driver_class`

Supply the following value, which is appropriate for an Oracle database:
`oracle.jdbc.driver.OracleDriver`

- `ag.connection.url`

Supply the connect string that AACG will use to connect to its database. Use the following. In place of *Host*, supply the actual FQDN of the database server. In place of *Port* and *SID*, supply the port number at which the database server communicates with other applications, and its service identifier.

`jdbc:oracle:thin:@Host:Port:SID`

- `ag.connection.username`

Supply the user name for the AACG database.

- `ag.connection.password`

Supply the password for the AACG database.

- `ag.connection.port`

Supply the same port number as you did for the `ag.connection.url` parameter.

- `ag.connection.server`

Supply the same host name as you did for the `ag.connection.url` parameter.

- `ag.connection.sid`

Supply the same SID as you did for the `ag.connection.url` parameter.

- `ag.hibernate.dialect`

Always supply the following value:

`org.hibernate.dialect.OracleDialect`

- `ag.report.repository.path`

Supply the full path to the Report Repository directory you created in step 2.

- `ag.report.output.path`

Supply the following value, in which *TomcatHome* is replaced by the full path to the highest-level directory in which Tomcat components are installed:

`TomcatHome/webapps/ags/temp`

- `ag.etl.home.path`

Supply the following value, in which *TomcatHome* is replaced by the full path to the highest-level directory in which Tomcat components are installed:

`TomcatHome/webapps/ags/WEB-INF/classes/META-INF/etl`

7. Shut down the Tomcat application server.

8. Modify Tomcat settings.

- If you are installing on a Linux or Solaris server, locate the `startup.sh` file in the `bin` subdirectory of the Tomcat home directory. Add the following lines

to the file, replacing *TomcatHome* with the full path to the highest-level directory in which Tomcat components are installed:

```
CATALINA_OPTS="-
Djava.security.auth.login.config=TomcatHome/
webapps/ags/WEB-INF/jaas.config -Xms2048M -Xmx2048M
-Djava.awt.headless=true"
export CATALINA_OPTS
```

- If you are installing on a Windows server, complete these steps:
 - a** From Windows Start, click on Programs/Tomcat/Tomcat Configuration.
 - b** An Apache Tomcat Properties window opens. In it, select the Java tab.
 - c** A Java Options field displays several lines of text that define parameters. Add the following lines, in the last of which *TomcatHome* is replaced by the full path to the highest-level directory in which Tomcat components are installed. (You may insert them anywhere among the lines that are already present.)

```
-Xms2048m
-Xmx2048m
-Djava.security.auth.login.config=TomcatHome\webapps\
ags\WEB-INF\jaas.config
```
 - d** Set the Initial Memory Pool field to 2048.
 - e** Set the Maximum Memory Pool field to 2048.
 - f** Click on the OK button.

9. Navigate to *TomcatHome/webapps/ags/WEB-INF/classes/log4j.properties*, open the file, locate a property called *log4j.appender.file.File*, and set it equal to *TomcatHome/logs/accessanalysis_ags.log*. Once again, in this step, replace the placeholder *TomcatHome* with the path to the highest-level directory in which Tomcat components are installed.

10. Start the Tomcat application server.

11. Open a web browser and, in its address field, enter the following:

```
http://host:tomcat_port/ags
```

Replace *host* with the FQDN of your Application Access Controls Governor server, and replace *tomcat_port* with 8080 (if you accepted the default value when you installed Tomcat) or your configured value (if you changed the default during installation).

12. Wait two minutes.
13. Shut down the Tomcat application server, and then restart it.
14. Configure data sources — establish connectivity between Application Access Controls Governor and the business-management applications in which it will implement access policies, and run a synchronization process against each. For procedures on doing so, the “Data Administration” chapter of the *Application Access Controls Governor User’s Guide*.