

Install and Configure



Mandatory Requirements

The [Mandatory Requirements](#) must be met before proceeding with the instructions on this page.

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Java Memory and Socket Timeout Parameters

We recommend the following Sun Java Memory and Socket Timeout Parameters to override the default values:

```
-Xms256m -Xmx512m -XX:MaxPermSize=128m -Dsun.net.client.defaultReadTimeout=30000 -Dsun.net.client.defaultConnectTimeout=8000
```

Download the Transferology Connector

You can acquire the latest release from the [Connector Downloads](#) page.



Transferology Connector Distribution Filenames

To assist schools, CollegeSource currently provides three variations of the Transferology Connector release that are based on the different application server treatment of the log4j logging framework and Xerces XML parser.

The Transferology Connector release filename follows one of these patterns:

ceg44-tomcat-xx.war - **Tomcat** distribution includes: *log4j.jar* and *log4j.properties*

ceg44-gf-xx.war - **Glassfish** distribution includes: *log4j.jar* and *log4j.properties*

ceg44-jboss-xx.war - **JBoss** distribution does NOT include: *log4j.jar* or *log4j.properties*

ceg44-oas-xx.war - **Oracle Application Server** distribution includes: *log4j.jar* but does NOT include: *log4j.properties*, *xercesImpl-2.0.2.jar* and *xml-apis-1.0.b2.jar*

ceg44-weblogic-xx.war - **Weblogic Server** distribution

xx is an internal build number

Once the file is downloaded, we suggest you rename it to **ceg4.war** or **ceg44.war** before deploying it to your application server.

Logging Framework and Necessary Files

The Connector relies on the **log4j framework** for logging. This framework depends on the **log4j.properties** file for its configuration. Each application server requires different instructions to enable logging for the Connector.



Overview of Included Logging Files for Each Connector Distribution

- Tomcat - Distribution includes **log4j.properties** and **log4j-1.2.12.jar**, pre-configured with default logging to stdout only. No further downloads required.
- GlassFish - Distribution includes **log4j.properties** and **log4j-1.2.12.jar**, pre-configured with default logging to stdout only. No further downloads required.
- JBoss - Distribution does NOT include any log4j files since JBoss already provides a log4j service. No further downloads required.
- OAS - Distribution includes only **log4j-1.2.12.jar**, **you must download the log4j.properties** file from here: <http://clients.collegesource.com/home/download/attachments/56951841/log4j.properties>
- Weblogic - Distribution includes **log4j.properties** and **log4j-1.2.12.jar**. No further downloads required.

Identify CollegeSource Audit Daemon

If you are not using the Degree Audit functionality, you can proceed to the next section: [Create cas4.properties](#)

The Transferology Connector uses the CollegeSource **job_queue_list** table to exchange audit requests and results with a degree audit daemon. For this to work successfully, the Transferology Connector must be configured with the correct value from the daemon's **server_name** property.

Be sure to follow the correct instructions based on your degree audit implementation: [DARwin](#) or [uAchieve](#)

DARwin daemon.cfg

For example, assume your DARwin daemon.cfg has the following daemon entry:

```
[connector]

### Database Connection Parameters
jdbc_driver = oracle.jdbc.driver.OracleDriver
jdbc_url = jdbc:oracle:thin:@prod.osu.edu:1525:DARSDB
server_user = darsdbuser
server_pass = darsdbpassword
reconn_tries = 20
reconn_wait = 60

### Database Environment Parameters
# server_name must match xservice.darwinDaemonServerName in cas4.properties for audits to be processed by DARS
engine
server_name = osu_prod
delete_jobq = N
db_multi_wc = %
db_single_wc = _

### Daemon Environment Parameters
working_dir = D:\DARS\DARNT358\DARNT358_connector\DARwin\bin
darsql_dir = D:\DARS\DARNT358\DARNT358_connector\DARwin\bin
data_dir = D:\DARS\DARNT358\DARNT358_connector\DARwin\bin\data
env_file = daemon.env
end_script =
debug_mode = N
### socket_port = -1

### Daemon Performance Parameters
max_jobs = 5
wait_time = 5
auto_batch = N
auto_batch_lim = 1
```



server_name

Make a note of the above line with:

```
server_name = osu_prod
```

The value **osu_prod** is the correct value for you to specify for the **xservice.darwinDaemonServerName** property in the **cas4.properties**. Proceed to [Create cas4.properties](#).

uAchieve daemonContext.xml

The minimum uAchieve version is 4.0.14. The default configuration for uAchieve will not produce audits for Transferology. You must add a **uachieve.daemon.RequestHandler** for the Transferology audits. *The RequestHandler for Transferology must only process audits for Transferology.* See [daemonContext.xml](#) for complete information on the uAchieve RequestHandler. The key points for the new RequestHandler are as follows:

1. Specify the appropriate comKey property
2. Specify a unique **serverName** property
3. Enable text report audit output
4. Disable loading local student data
5. Disable loading SIS student data
6. Disable student data mutators

The following is an example **RequestHandler** that you can add into the uAchieve **daemonContext.xml**:

```
<!-- *** begin copy *** -->
<bean id="tfoHandler" class="uachieve.daemon.RequestHandler" scope="prototype">

    <!-- ***** -->
    <!-- *** Edit the "value" elements of these proper- *** -->
    <!-- *** ties as appropriate for your institution *** -->
    <!-- ***** -->

    <property name="comKey">
        <value>ONL</value>
    </property>

    <property name="serverName">
        <value>USEL</value>
    </property>

    <property name="sleepTime">
        <value>3</value>
    </property>

    <!--
        The Transferology Connector 5.0.x, supports "HTM" and "PDF" report types.
        If you're using the Connector 5.0.x or later and want to provide those
        report types for audits requested from Transferology, add either or both as additional
        entry elements in the enabledReports map:
        <entry key="HTM" value="TRUE" />
        <entry key="PDF" value="TRUE" />
    -->
    <property name="enabledReports">
        <util:map>
            <entry key="TXT" value="TRUE" />
        </util:map>
    </property>

    <!-- true/false -->
    <property name="deleteRequest">
        <value>>false</value>
    </property>

    <property name="loadLocalStudentData">
        <value>>false</value>
    </property>
    <property name="loadSISStudentData">
```

```

        <value>false</value>
</property>

<!-- name of file in the ../config directory -->
<property name="fileNameIncludeTextTop">
    <value></value>
</property>

<!-- name of file in the ../config directory -->
<property name="fileNameIncludeTextBottom">
    <value></value>
</property>

<!-- Valid Options are:
      OneFile, SepFiles, Database, OneFileAndDatabase, SepFilesAndDatabase
      default (if blank) is Database
-->
<property name="reportSaveOptions">
    <value>Database</value>
</property>
<!-- Path to save reports to File System
      default (if blank) is ../reports
-->
<property name="reportSavePath">
    <value></value>
</property>

<!-- If left blank, defaults to its standard location of /logs -->
<property name="logSavePath">
    <value></value>
</property>

<lookup-method name="createAuditProcessor" bean="auditProcessor"/>
<!-- ***** -->
<!-- *** end of editable property values *** -->
<!-- ***** -->

<!-- ***** -->
<!-- *** Do not edit the properties below here *** -->
<!-- *** (unless you really know what you're doing) *** -->
<!-- ***** -->
<property name="auditService"><ref bean="uachieve-slayer.auditService"/></property>
<property name="supportService"><ref bean="uachieve-slayer.supportService"/></property>
<property name="requestQueue"><ref bean="jobRequestQueue"/></property>
<property name="performanceMonitor" ref="performanceMonitor"/>
<!-- ***** -->
<!-- *** End of non-editable properties *** -->
<!-- ***** -->

</bean>
<!-- *** end copy *** -->

```



server_name

Make a note of the above line with:

```
<value>USEL</value>
```

The value **USEL** is the correct value for you to specify for the **xservice.darwinDaemonServerName** property in the **cas4.properties**. Proceed to [Create cas4.properties](#).

Create cas4.properties

The **cas4.properties** is required for the Transferology Connector, several properties must be defined for your school's specific environment.

Define the CollegeSource audit/equivalency product you are using with the **daversion** property of the **cas4.properties** file.

DARwin

Correct value for DARwin

```
daversion=darwin
```

uAchieve

Correct Value for uAchieve

```
daversion=uachieve
```

Hibernate Dialect

Please specify the correct **db.dialect** property based on your database server.

Oracle

Oracle dialect

```
db.dialect=org.hibernate.dialect.Oracle10gDialect
```

SQL Server

SQL Server dialect

```
db.dialect=org.hibernate.dialect.SQLServerDialect
```

DB2

DB2 dialect

```
db.dialect=org.hibernate.dialect.DB2Dialect
```

Enable or Disable Connector's Degree Audit Integration

Schools that **DO NOT** want to use the **Degree Audit** functionality of the Transferology Connector need the following line in their **cas4.properties**:

```
# disable audit polling  
xservice.pollingEnabled=false
```

Schools that **DO** want to use the **Degree Audit** functionality of the Transferology Connector need the following line in their **cas4.properties**:

```
# enable audit polling
xservice.pollingEnabled=true
```

Schools that **DO** want to use the **Degree Audit** functionality of the Transferology Connector must have the **xservice.darwinDaemonServerName** property. It must equal the **server_name** value that was identified above in the [Identify CollegeSource daemon](#) section.



Max Size of xservice.darwinDaemonServerName

The **xservice.darwinDaemonServerName** property defines the value that will be inserted into the **job_queue_list** table's **servername** column. That column has a max size of 10 characters, meaning **you cannot use a value that is longer than 10 characters!**

Equivalency Properties

Schools that want to use the **Equivalency** functionality of the Transferology Connector must define additional information.

- Schools that want to provide equivalencies for **only one school** define several additional properties in the **cas4.properties** file
- Schools that want to provide equivalencies for **more than one school** must define and use a **ceg-model.xml** file

Connector Provides Equivalencies for a Single Target School

Equivalencies **for a single school** must define the following properties:

- **ceg.webPrefix** - The correct protocol for links to your Transferology Connector
- **ceg.domainName** - The correct domain for links to your Transferology Connector
- **ceg.serverPort** - The correct server port for links to your Transferology Connector
- **ceg.cgiPath** - The correct web context for links to your Transferology Connector
- **ceg.uniq** - The Transferology UNIQ for your school
- **ceg.defaultUniq** - The Transferology UNIQ for your school
- **ceg.instFullName** - The full name of your school
- **ceg.instd** - Your DARwin instid value
- **ceg.instdq** - Your DARwin instidq value
- **ceg.instdc** - Your DARwin instcd value
- **ceg.zip** - The zip code for your school's main address
- **ceg.state** - The state abbreviation for your school's main address

Using Ohio State University and the above DARwin daemon.cfg as an example, below is what their **cas4.properties** would look like:

```
# Required for audits
xservice.darwinDaemonServerName=osu_prod
# Required for equivalencies, single target school
ceg.webPrefix=http://
ceg.domainName=dars.osu.edu
ceg.serverPort=80
ceg.cgiPath=/ceg44
ceg.defaultUniq=OSU
ceg.uniq=OSU
ceg.instdq=72
ceg.instd=1592
ceg.instdc=
ceg.instFullName=Ohio State University
ceg.state=OH
ceg.zip=43210
```

Connector Provides Equivalencies for Multiple Target Schools

Equivalencies **for multiple target schools** must define the following property:

- **xservice.model** - Instructs the Connector to use the **ceg-model.xml** file

Assuming that Ohio State hosts a Connector with target equivalencies for all Ohio schools and the above DARwin daemon.cfg as an example, below what their **cas4.properties** would look like:

```
# Required for audits
xservice.darwinDaemonServerName=osu_prod
# Required for equivalencies, multiple target schools
xservice.model=model
```

Using the ceg-model.xml

Only use **ceg-model.xml** when equivalencies will be shown for **more than one target school**.

The ceg-model.xml needs to be in the same directory as the **cas4.properties**; the correct directory depends upon your application server and is identified in the install application server-specific install instructions. Keep the following in mind regarding the **id** attributes:

- The **cas:server id attribute MUST be "cegServer"**
- Any values can be used for the cas:institution id attributes, although they must be unique within the file

The following is an example of the **ceg-model.xml** for more than one school. The descriptions of the cas:server and cas:institution attributes are the same as in the previous section's **ceg.** prefixed properties.

```
<beans xmlns="http://www.springframework.org/schema/beans"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:util="http://www.springframework.org/schema/util"
  xmlns:cas="http://www.transfer.org/schema/cas"
  xsi:schemaLocation="http://www.springframework.org/schema/beans
    http://www.springframework.org/schema/beans/spring-beans-2.0.xsd
    http://www.springframework.org/schema/util
    http://www.springframework.org/schema/util/spring-util-2.0.xsd
    http://www.transfer.org/schema/cas
    http://www.transfer.org/schema/cas/cas.xsd">

  <cas:server id="cegServer" webPrefix="http://" domainName="dars.osu.edu" cgiPath="/ceg44" serverPort="80"
    defaultUniq="OSU" >

    <cas:institution id="i1" uniq="OSU" instidq="72" instid="1592" instcd=" " instFullName="Ohio State
    University"
      state="OH" zip="43210" defTimeout="6000" />

    <cas:institution id="i2" uniq="CSCC" instidq="73" instid="006867" instcd=" " instFullName="Columbus State
    Community College"
      state="OH" zip="43216" defTimeout="6000" />

  </cas:server>
</beans>
```

Install on your Application Server

Follow the instructions below that are specific to your application server:

- [Install Connector on Tomcat](#)
- [Install Connector on JBoss](#)
- [Install Connector on OAS](#)
- [Install Connector on Weblogic](#)

View Home page

Use your Web browser to view the Connector's home page. Using the above OSU example, the correct URL is: <http://dars.osu.edu/ceg44/cegHome.htm>

If everything is configured correctly, you should see a page that shows some of the information defined by your **cas4.properties** file.

