

2.1 Source Install Guide

- [Introduction](#)
- [Requirements](#)
- [Building the Tool](#)
 - [Checkout the Sources](#)
 - [Checkout the Sources for Development](#)
 - [Build the Projects](#)
 - [Modify Assembly pom.xml Direct Project Stock Version](#)
 - [Build the Projects and Assemblies](#)
 - [Build Individual Projects](#)
- [Add Tool Apt Repository](#)
- [Install Tool Package](#)
- [Configure the Environment](#)
- [Configure Tomcat](#)
- [Configure Direct DNS Services](#)
- [Configure ApacheDS](#)
- [Further Steps](#)

Introduction

This guide details the process for installing the Direct Certificate Discovery Tool (DCDT, or the *Tool*) from a version of the source code.

Requirements

See the [2.1 System Requirements Install Guide](#) for instructions on how to prepare your system prior to installation of the *Tool*.

Building the Tool

Checkout the Sources

Use the Subversion CLI to checkout the desired version. Typically, the latest stable release tag should be used for deployments. To checkout this tag, run the following:

```
svn co http://direct-certificate-discovery-tool.googlecode.com/svn/tags/direct-certificate-discovery-tool-2.1-RELEASE ~/direct-certificate-discovery-tool
```

To checkout the trunk, run the following:

```
svn co http://direct-certificate-discovery-tool.googlecode.com/svn/trunk ~/direct-certificate-discovery-tool
```

Checkout the Sources for Development

To checkout the trunk for development (project membership required), run the following:

```
svn co --user=<user> https://direct-certificate-discovery-tool.googlecode.com/svn/trunk ~/direct-certificate-discovery-tool
```

Upon checkin, you will be prompted to enter your password. This is not your Google account password, but a string that Google Code has generated for you. It can be retrieved from your Google Code profile.

Build the Projects

Modify Assembly pom.xml Direct Project Stock Version

Before the project can be built, a small change must be made to `~/direct-certificate-discovery-tool/assembly/pom.xml` file due to the fact that the dependency was removed after the DCDT release tag was created. Open that file in a text editor, search for the string "2.1-SNAPSHOT", and replace with the string "3.0.1". The direct-project-stock dependency should now look like this:

```
<artifactItem>
  <groupId>org.nhind</groupId>
  <artifactId>direct-project-stock</artifactId>
  <version>3.0.1</version>
  <type>tar.gz</type>
  <includes>direct/apache-james-3.0-*/**,direct/apache-tomcat-*/webapps/*.war,direct/DirectDNSServices/**,direct
/tools/**</includes>
  <!--<excludes>direct/apache-tomcat-*/bin,direct/apache-tomcat-*/conf,direct/apache-tomcat-*/lib,direct/apache-
tomcat-*/logs,direct/apache-tomcat-*/temp,direct/apache-tomcat-*/**,direct/james-*</excludes>-->
  <outputDirectory>${project.build.directory}/direct-project-stock-tmp</outputDirectory>
</artifactItem>
```

Build the Projects and Assemblies

To build all of the Maven projects that comprise the *Tool* and generate assemblies, run the following:

```
cd ~/direct-certificate-discovery-tool/assembly
mvn clean compile package install
```

Build Individual Projects

To build all of the Maven projects that comprise the *Tool* without generating assemblies, run the following:

```
mvn clean compile package install
```

An [aggregate Maven project](#) exists in the parent directory of all of the Maven modules (*direct-cert-discovery-all*).

Running the previously mentioned command while in this directory will build all of the modules. In order to build individual modules, simply change your current directory to that of the module.

Note: Except for *direct-cert-discovery-all* and *direct-cert-discovery-assembly*, all other modules require that any dependency modules specific to the *Tool* are installed in the local Maven repository prior to the start of the build. Thus, it is usually preferable to build using the *direct-cert-discovery-all* module, as it will apply any goals recursively.

Add Tool Apt Repository

In order to resolve some dependent packages, you will need to add the *Tool*'s Apt repository:

```
sudo add-apt-repository http://packages.direct-test.com/ubuntu/
sudo apt-get update
```

Install Tool Package

To install the tool package run:

```
sudo dpkg -i ~/direct-certificate-discovery-tool/assembly/target/direct-cert-discovery-tool-assembly-*.deb
```

Configure the Environment

Append the following lines to the global environment configuration file, */etc/environment*:

```
DIRECT_HOME="/usr/share/direct"
DIRECT_VAR="/var/lib/direct"
```

Source and export the variables in the global environment configuration file by running:

```
. /etc/environment
export DIRECT_HOME DIRECT_VAR
```

Configure Tomcat

Stop the Tomcat 7 service by running:

```
sudo service tomcat7 stop
```

Modify the HTTP connector port by running:

```
sudo /usr/share/direct/direct-cert-discovery-tool-utils/bin/tomcat7-setport.sh
```

Append the following lines to the file */etc/default/tomcat7*:

```
JAVA_HOME="/usr/lib/jvm/java-7-oracle"
JAVA_OPTS="-Djava.awt.headless=true -Xms512m -Xmx1536m -XX:+UseConcMarkSweepGC"
```

If the file `/usr/share/tomcat7/bin/setenv.sh` does not exist, create it by running:

```
sudo touch /usr/share/tomcat7/bin/setenv.sh
```

Append the following lines to the file `/usr/share/tomcat7/bin/setenv.sh`:

```
CATALINA_OPTS="$CATALINA_OPTS -XX:MaxPermSize=512m"
CATALINA_OPTS="$CATALINA_OPTS -Dderby.stream.error.file=$CATALINA_BASE/logs/derby.log"
CATALINA_OPTS="$CATALINA_OPTS -Ddcdt.config.dir=/var/lib/direct/direct-cert-discovery-tool/config"
CATALINA_OPTS="$CATALINA_OPTS -Ddcdt.log.dir=$CATALINA_BASE/logs"
```

Start the Tomcat 7 service by running:

```
sudo service tomcat7 start
```

Configure Direct DNS Services

Start the Direct DNS Server service by running:

```
sudo service DirectDNSServer start
```

Configure ApacheDS

Stop the ApacheDS default instance service by running:

```
sudo service apacheds-2.0.0-M10-default stop
```

Create the ApacheDS domain2ldap1 instance data by running:

```
sudo mkdir -p /var/lib/apacheds-2.0.0-M10/domain2ldap1/run
sudo cp -r /var/lib/apacheds-2.0.0-M10/default/conf/ /var/lib/apacheds-2.0.0-M10/domain2ldap1/conf/
sudo sed -i -r 's/^(ads\-\systemport: )10(389|636)$/\111\2/g' /var/lib/apacheds-2.0.0-M10/domain2ldap1/conf/config.ldif
sudo chown -R apacheds:apacheds /var/lib/apacheds-2.0.0-M10/domain2ldap1
```

Create the ApacheDS domain2ldap1 instance service by running:

```
sudo cp /etc/init.d/apacheds-2.0.0-M10-default /etc/init.d/apacheds-2.0.0-M10-domain2ldap1
sudo sed -i -r 's/(apacheds \$1 )default/\1domain2ldap1/' /etc/init.d/apacheds-2.0.0-M10-domain2ldap1
```

Start both ApacheDS instance services by running:

```
sudo service apacheds-2.0.0-M10-default start
sudo service apacheds-2.0.0-M10-domain2ldap1 start
```

Further Steps

At this point the system contains all of the *Tool's* software components, but has not yet been made deployment domain-specific. To finalize the configuration, please follow the instructions in the [Configuration Guide](#).