

# Building Forrest within Eclipse

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## 1. Audience

Persons who wish to invoke Apache- [Forrest's Ant](#) tasks from [Eclipse](#)".

## 2. Purpose

To run, within Eclipse, [Ant](#) builds that include [Forrest](#) tasks.

## 3. Prerequisites

- [Forrest](#) v. 0.7.0, downloaded from the CVS repository `/usr/local/cvsrep/third-party/apache`
- Environment variable `FORREST_HOME` set to the root of the `Forrest` installation (for 0.7; for 0.6 it was the `/src/core` directory within `Forrest`), per `Forrest` upgrade [docs](#).
- [Configure Oxygen](#) to find `Forrest's` DTDs [this is not, strictly speaking, a prerequisite, but it is a mighty convenience]

## 4. Running Forrest Builds from Eclipse

Calling `Forrest's` Ant tasks from within Eclipse requires some initial set-up, and proper calling syntax. The `Forrest` team's description of [invocation from Ant](#) is available on the [Forrest](#) site; however, the simple descriptions below might prove more useful.

### 4.1. Add catalog entity resolver to Ant runtime classpath

In Eclipse, the Ant runtime classpath can be set from navigating to **Ant : Runtime** in the **Preferences** dialog.

Under **Global Entries** in the **Classpath** pane, add the JAR file `forrest/lib/core/xml-commons-resolver-1.1.jar` (i.e., the jar file `xml-commons-resolver-1.1.jar` located in the `/lib/core` directory of your `Forrest` installation).

### 4.2. Invoke Forrest targets from Ant

The following is an example of a target that invokes `Forrest` from within Ant. This invocation will run from within Eclipse. It is assumed that the property `forrest.home` has been set to the value of `FORREST_HOME` as described in the [Prerequisites](#) section, above.

```
<target name="forrest-site" description="Generates static HTML documentation">
```

```
<ant antfile="${forrest.home}/forrest.build.xml" target="site"/>
</target>
```

### 4.3. Specify plugin version numbers

As of June 2007 (post-release of forrest version 0.8), it is necessary to specify the version numbers of plugins used by Forrest if forrest 0.7 is being used. For example, the default pdf plugin as of this date (0.2) is incompatible with Forrest 0.7. This specification must occur in the `forrest.properties` file of each forrest project (whether built from Eclipse or from the command-line).

A good place to start is to specify the `input.projectInfo` and `output.pdf` plugins at v. 0.1 for each, as shown below.

```
# The names of plugins that are required to build the project
# comma separated list (no spaces)
# [...]
project.required.plugins=org.apache.forrest.plugin.input.projectInfo-0.1,org.apache.for
```

In general, using older plugins than are current is described in one of the forrest FAQs [How to use older versions of specific plugins?](#).

### 4.4. Plugin-download errors

In Forrest's [documentation](#) on running builds within Ant, there is a warning regarding a bug in the plugin downloader. If this error occurs, two options may resolve it:

- specify the plugin version number in `forrest.properties`, as described in the [documentation](#)
- the first time you run Forrest on the tree, run it from the command line, e.g., `forrest site` (where `$FORREST_HOME/bin` is on the path)

Note that following the instruction given in the prior section of this [HowTo](#), [Specify plugin version numbers](#) may eliminate the errors described here before they ever occur...