Ehcache Installation Guide

Version 2.10.1

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EHCACHE

This document applies to Ehcache Version 2.10.1 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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Installing Ehcache for General-Purpose Caching

1. Download Ehcache from http://ehcache.org/downloads.

   Beginning with Ehcache 1.7.1, Ehcache depends on SLF4J (http://www.slf4j.org) for logging. SLF4J is a logging framework with a choice of concrete logging implementations. For configuration details, see "Logging" in the *Ehcache Operations Guide*.
2. Use Java 1.5 or 1.6.
3. Place the Ehcache jar into your classpath.
4. Configure ehcache.xml and place it in your classpath. For additional information about the ehcache.xml file, see "XML Configuration" in the *Ehcache Configuration Guide*.
5. Optionally, configure an appropriate logging level, as described in "Logging" in the *Ehcache Operations Guide*.
6. To get started, see the *Ehcache Developer Guide*.

Installing Ehcache for Specific Technologies

Hibernate

1. Perform the same steps as for general-purpose caching (see "Installing Ehcache for General-Purpose Caching" on page 6).
2. Create caches in ehcache.xml.

For more information, see "Using Ehcache with Hibernate" in the *Integrations* book.

Caching with Java EE Servlet

1. Perform the same steps as for general-purpose caching (see "Installing Ehcache for General-Purpose Caching" on page 6).
2. Configure a cache for your web page in ehcache.xml.
   - To cache an entire web page, either use SimplePageCachingFilter or create your own subclass of CachingFilter.
   - To cache a jsp:Include or anything callable from a RequestDispatcher, either use SimplePageFragmentCachingFilter or create a subclass of PageFragmentCachingFilter.
3. Configure the web.xml. Declare the filters created above and create filter mapping associating the filter with a URL.

For more information, see the *Ehcache Web Cache User Guide*.

RESTful and SOAP Caching with the Cache Server

1. Download the ehcache-standalone-server from https://sourceforge.net/projects/ehcache/files/ehcache-server
2. `cd` to the bin directory.
3. Type `startup.sh` to start the server with the log in the foreground. By default it will listen on port 8080, will have both RESTful and SOAP web services enabled, and will use a sample Ehcache configuration from the WAR module
4. See "RESTful Code Samples" in the *Ehcache Cache Server User Guide*. You can use Java or any other programming language with the Cache Server.

JCache Style Caching

Ehcache contains an early draft implementation of JCache contained in the net.sf.ehcache.jcache package. For usage details, see the *Integrations* book.

Spring, Cocoon, Acegi and Other Frameworks

Usually, with these, you are using Ehcache without even realizing it. The first steps in getting more control over what is happening are:

1. Discover the cache names used by the framework.
2. Create your own ehcache.xml with settings for the caches and place it in the application classpath.

Building Ehcache from Source

This page is intended for users who want to create their own Ehcache or distributed Ehcache build, rather than use the packed kit.

These instructions work for each of the Ehcache modules, except for ehcache-jmsreplication, which requires installation of a message queue. For details, see "Replicated Caching Using JMS" in the *Ehcache Replication Guide*.

Building an Ehcache Distribution From Source

To build Ehcache from source, perform the following steps.

1. Check the source out from the Subversion repository http://svn.terracotta.org/svn/ehcache/.
2. Ensure that you have a valid JDK and Maven installation.
3. From within the ehcache/core directory, type `mvn -Dmaven.test.skip=true install`.

Running Tests for Ehcache

To run the test suite for Ehcache, perform the following steps.

1. Check the source out from the subversion repository.
2. Ensure you have a valid JDK and Maven 2 installation.
3. From within the ehcache/core directory, type `mvn test`.
4. If some performance tests fail, add a `-D net.sf.ehcache.speedAdjustmentFactor=x` system property to your command line, where *x* is how many times your machine is slower than the reference machine. Try setting it to 5 for a start.

Java Requirements

- Current Ehcache releases require Java 1.5 and 1.6 at runtime.
- Ehcache 1.5 requires Java 1.4. Java 1.4 is not supported with Terracotta distributed Ehcache.
- The ehcache-monitor module, which provides management and monitoring, will work with Ehcache 1.2.3 but only for Java 1.5 or higher.

Mandatory Dependencies

- Ehcache core 1.6 through to 1.7.0 has no dependencies.
- Ehcache core 1.7.1 depends on SLF4J (), an increasingly commonly used logging framework which provides a choice of concrete logging implementation. For configuration details, see "Logging" in the *Ehcache Operations Guide*.

Other modules have dependencies as specified in their maven POMs.

Maven Snippet

To include Ehcache in your project, use:

```
<dependency>
  <groupId>net.sf.ehcache</groupId>
  <artifactId>ehcache</artifactId>
  <version>2.3.1</version>
  <type>pom</type>
</dependency>
```

Note: Be sure to substitute the version number above with the version number of Ehcache that you want to use.

If using Terracotta Distributed Ehcache, also add:

```
<dependency>
  <groupId>org.terracotta</groupId>
  <artifactId>terracotta-toolkit-1.4-runtime</artifactId>
  <version>4.0.0</version>
</dependency>
<repositories>
  <repository>
```

```
    <id>terracotta-repository</id>
    <url>http://www.terracotta.org/download/reflector/releases</url>
    <releases>
      <enabled>true</enabled>
    </releases>
  </repository>
</repositories>
```

Be sure to check the dependency versions for compatibility. Versions released in a single kit are guaranteed compatible.