

Using OJB With JCS

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This page will explain you in 4 steps how to configure [Apache JCS](#) as Object Cache for OJB in Cocoon.

Prerequisites

- You have already OJBBlock

Facts

- Object Cache helps to improve the database performance.
- OJB is able to use different Object Cache Implementations.
- The default OJB Object Cache Implementation is fast, but has [some drawbacks](#).
- Since Cocoon 2.1.5 the default cache implementation is based on Apache JCS.
- Apache JCS is a distributed caching system for server-side java applications. It is far more powerful.

Platform

I think it works in any configuration, but just in case, here is the tested platform:

- Linux Fedora Core 2
- J2SDK 1.4.2_04
- Apache Tomcat 5.0.24
- Cocoon 2.1.5

Steps

Let your servlet breathe calm

My first attempt to setup this configuration failed because of a `OutOfMemoryError`. The problem showed to be that the servlet does not have enough memory to run. ie: add this lines in `catalina.sh`:

```
# Set Java Options
JAVA_OPTS='-Xms32m -Xmx128m'
if [ -r "$JAVA_OPTS"/bin/setenv.sh ]; then
  . "$JAVA_OPTS"/bin/setenv.sh
fi
```

Tell OJB to use JCS

In your `OJB.properties` file, find the **Object Cache** section. Comment the line where is `ObjectCacheDefaultImpl` and uncomment the line where is `ObjectCacheJCSPerClassImpl`. ie:

```
#-----
# Object cache
#-----
...
#ObjectCacheClass=org.apache.ojb.broker.cache.ObjectCacheDefaultImpl
...
ObjectCacheClass=org.apache.ojb.broker.cache.ObjectCacheJCSPerClassImpl
```

Tell Cocoon that OJB will use JCS

Cocoon is shipped with a default JCS configuration. Cocoon allow to define new cache regions for JCS via `cocoon.xconf`. We need to configure the default region used by the JCS `ObjectCache` implementation for OJB. Search `<store>` and add this parameters:

```
<store logger="core.store">
  <parameter name="maxobjects" value="10000"/>
  <parameter name="use-cache-directory" value="true"/>
  <parameter name="jcs.region.objDefault" value="DC"/>
  <parameter name="jcs.region.objDefault.cacheattributes"
    value="org.apache.jcs.engine.CompositeCacheAttributes"/>
  <parameter name="jcs.region.objDefault.cacheattributes.MaxObjects" value="1000"/>
  <parameter name="jcs.region.objDefault.cacheattributes.MemoryCacheName"
    value="org.apache.jcs.engine.memory.lru.LRUMemoryCache"/>
</store>
```

The last 4 parameters (starting with **jcs.region.objDefault**) define the cache region that OJB will use. You can tell JCS how many OJB Object will be able to cache by changing the value of the parameter `jcs.region.objDefault.cacheattributes.MaxObjects`

That is all!

Now restart Tomcat and start to use JCS. You will notice a performance improvement. Good Luck!

More info:

- [Cocoon Store](#) - What are the stores in Cocoon?
- [JCSLogging](#) - How to redirect the JCS messages to a file (very easy too!)

– [AntonioGallardo](#)