Logging Requests

Request Logs

Request logs are a record of the requests that the server has processed. There is one entry per request received, and commonly in the standard NCSA format so they can be conveniently analysed by tools like webalizer.

A standard request log entry includes the client IP, date, method, URL, result, size, referrer and user agent. eg:

```
123.4.5.6 - - [27/Aug/2004:10:16:17 +0000]
 "GET /jetty/tut/XmlConfiguration.html
HTTP/1.1"
 200 76793
"http://localhost:8080/jetty/tut/logging.htm
l"
 "Mozilla/5.0 (X11; U; Linux i686; en-US;
rv:1.6) Gecko/20040614 Firefox/0.8"
```

Jetty provides an implementation called NCSARequestLog which supports the NCSA format in files that can be rolled over on a daily basis.

The logback project offers another implementation of RequestLog interface providing very rich and powerful HTTP-access log functionality,

Alternatively, if neither of these options suits you, you can implement a custom request logger by implementing Jetty's RequestLog.java interface and plugging it in in similar fashion to the NCSARequestLog, as shown below.

Configuring a Request Log for a Jetty Server

To configure a single request log for the entire Jetty Server instance:

```
<Set name="handler">
      <New id="Handlers"
class="org.mortbay.jetty.handler.HandlerColl
ection">
        <Set name="handlers">
         <Array
type="org.mortbay.jetty.Handler">
```

```
            <Item>
              <New id="Contexts"
class="org.mortbay.jetty.handler.ContextHand
lerCollection"/>
            </Item>
            <Item>
              <New id="DefaultHandler"
class="org.mortbay.jetty.handler.DefaultHand
ler"/>
            </Item>
            <Item>
              <New id="RequestLog"
class="org.mortbay.jetty.handler.RequestLogH
andler"/>
            </Item>
          </Array>
        </Set>
      </New>
    </Set>


    <Ref id="RequestLog">
      <Set name="requestLog">
        <New id="RequestLogImpl"
class="org.mortbay.jetty.NCSARequestLog">
          <Arg><SystemProperty
name="jetty.logs"
default="./logs"/>/yyyy_mm_dd.request.log</A
rg>
          <Set name="retainDays">90</Set>
          <Set name="append">true</Set>
```

```
<Set name="extended">false</Set>
<Set name="LogTimeZone">GMT</Set>
```

```
        </New>
      </Set>
    </Ref>
```

The equivalent code is:

```
HandlerCollection handlers = new
HandlerCollection();
        ContextHandlerCollection contexts =
new ContextHandlerCollection();
        RequestLogHandler requestLogHandler
= new RequestLogHandler();
        handlers.setHandlers(new
Handler[]{contexts,new
DefaultHandler(),requestLogHandler});
        server.setHandler(handlers);

        NCSARequestLog requestLog = new
NCSARequestLog("./logs/jetty-yyyy_mm_dd.requ
est.log");
        requestLog.setRetainDays(90);
        requestLog.setAppend(true);
        requestLog.setExtended(false);
        requestLog.setLogTimeZone("GMT");

requestLogHandler.setRequestLog(requestLog);
```

This configures a request log in $JETTY_HOME/logs with filenames including the date. Old log files are kept for 90 days before being deleted. Existing log files are appended to and the extended NCSA format is used in the GMT timezone.

There are many more configuration options available - see http://jetty.mortbay.org/apidocs/org/mortbay/jetty/NCSARequestLog.html

Configuring a Request Log per webapp

```
<Configure
class="org.mortbay.jetty.webapp.WebAppContex
t">

  ...

  <Call name="addHandler">
    <Arg>
    <New
class="org.mortbay.jetty.handler.RequestLogH
andler">
      <Set name="requestLog">
        <New id="RequestLogImpl"
class="org.mortbay.jetty.NCSARequestLog">
          <Arg><SystemProperty
name="jetty.logs"
default="./logs"/>/yyyy_mm_dd.test.request.l
og</Arg>
          <Set name="retainDays">90</Set>
          <Set name="append">true</Set>
          <Set name="extended">false</Set>
          <Set name="LogTimeZone">GMT</Set>
        </New>
      </Set>
    </New>
    </Arg>
  </Call>

  ...

</Configure>
```