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| Neusoft |
| Jetty |
| Jetty 中部署Web应用 |

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## 前言

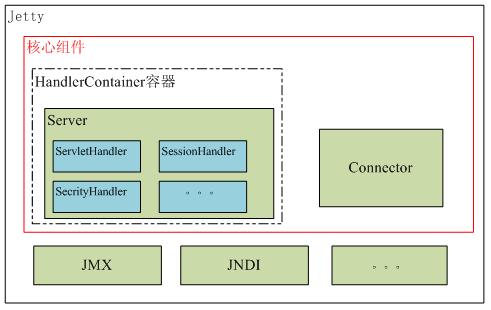
**Jetty 的基本架构**

Jetty 目前的是一个比较被看好的 Servlet 引擎，它的架构比较简单，也是一个可扩展性和非常灵活的应用服务器，它有一个基本数据模型，这个数据模型就是 Handler，所有可以被扩展的组件都可以作为一个 Handler，添加到 Server 中，Jetty 就是帮你管理这些 Handler。

**Jetty 的基本架构**

下图是 Jetty 的基本架构图，整个 Jetty 的核心组件由 Server 和 Connector 两个组件构成，整个 Server 组件是基于 Handler 容器工作的，它类似与 Tomcat 的 Container 容器，Jetty 与 Tomcat 的比较在后面详细介绍。Jetty 中另外一个比不可少的组件是 Connector，它负责接受客户端的连接请求，并将请求分配给一个处理队列去执行。

**图 1. Jetty 的基本架构**



Jetty 中还有一些可有可无的组件，我们可以在它上做扩展。如 JMX，我们可以定义一些 Mbean 把它加到 Server 中，当 Server 启动的时候，这些 Bean 就会一起工作。

Jetty文件说明

启动文件目录： {jetty\_home}/bin/jetty.sh

启动命令： ./jetty.sh start [stop|restart]

端口配置文件：{jetty\_home}/start.d/http.ini

部署文件： {jetty\_home}/etc/jetty-deploy.xml

Maven Jetty Plugin

首先添加 webdefault.xml (文件放在resources目录下，可以手动设置目录)

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| <?xml version="1.0" encoding="UTF-8"?>  <!-- ===================================================================== -->  <!-- This file contains the default descriptor for web applications. -->  <!-- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -  - -->  <!-- The intent of this descriptor is to include jetty specific or common -->  <!-- configuration for all webapps. If a context has a webdefault.xml -->  <!-- descriptor, it is applied before the contexts own web.xml file -->  <!-- -->  <!-- A context may be assigned a default descriptor by: -->  <!-- + Calling WebApplicationContext.setDefaultsDescriptor -->  <!-- + Passed an arg to addWebApplications -->  <!-- -->  <!-- This file is used both as the resource within the jetty.jar (which is -->  <!-- used as the default if no explicit defaults descriptor is set) and it -->  <!-- is copied to the etc directory of the Jetty distro and explicitly -->  <!-- by the jetty.xml file. -->  <!-- -->  <!-- ===================================================================== -->  <web-app xmlns="http://java.sun.com/xml/ns/javaee" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  xsi:schemaLocation="http://java.sun.com/xml/ns/javaee http://java.sun.com/xml/ns/javaee/web-app\_3\_0.xsd"  metadata-complete="true" version="3.0">  <description>  Default web.xml file.  This file is applied to a Web application before it's own WEB\_INF/web.xml file  </description>  <!-- ==================================================================== -->  <!-- Context params to control Session Cookies -->  <!-- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -->  <!-- UNCOMMENT TO ACTIVATE <context-param> <param-name>org.eclipse.jetty.servlet.SessionDomain</param-name>  <param-value>127.0.0.1</param-value> </context-param> <context-param> <param-name>org.eclipse.jetty.servlet.SessionPath</param-name>  <param-value>/</param-value> </context-param> <context-param> <param-name>org.eclipse.jetty.servlet.MaxAge</param-name>  <param-value>-1</param-value> </context-param> -->  <!-- ==================================================================== -->  <!-- The default servlet. -->  <!-- This servlet, normally mapped to /, provides the handling for static -->  <!-- content, OPTIONS and TRACE methods for the context. -->  <!-- The following initParameters are supported: -->  <!-- -->  <!-- acceptRanges If true, range requests and responses are -->  <!-- supported -->  <!-- -->  <!-- dirAllowed If true, directory listings are returned if no -->  <!-- welcome file is found. Else 403 Forbidden. -->  <!-- -->  <!-- welcomeServlets If true, attempt to dispatch to welcome files -->  <!-- that are servlets, if no matching static -->  <!-- resources can be found. -->  <!-- -->  <!-- redirectWelcome If true, redirect welcome file requests -->  <!-- else use request dispatcher forwards -->  <!-- -->  <!-- gzip If set to true, then static content will be served -->  <!-- as gzip content encoded if a matching resource is -->  <!-- found ending with ".gz" -->  <!-- -->  <!-- resoureBase Can be set to replace the context resource base -->  <!-- -->  <!-- relativeResourceBase -->  <!-- Set with a pathname relative to the base of the -->  <!-- servlet context root. Useful for only serving -->  <!-- static content from only specific subdirectories. -->  <!-- -->  <!-- useFileMappedBuffer -->  <!-- If set to true (the default), a memory mapped -->  <!-- file buffer will be used to serve static content -->  <!-- when using an NIO connector. Setting this value -->  <!-- to false means that a direct buffer will be used -->  <!-- instead. If you are having trouble with Windows -->  <!-- file locking, set this to false. -->  <!-- -->  <!-- cacheControl If set, all static content will have this value -->  <!-- set as the cache-control header. -->  <!-- -->  <!-- maxCacheSize Maximum size of the static resource cache -->  <!-- -->  <!-- maxCachedFileSize Maximum size of any single file in the cache -->  <!-- -->  <!-- maxCachedFiles Maximum number of files in the cache -->  <!-- -->  <!-- cacheType "nio", "bio" or "both" to determine the type(s) -->  <!-- of resource cache. A bio cached buffer may be used -->  <!-- by nio but is not as efficient as a nio buffer. -->  <!-- An nio cached buffer may not be used by bio. -->  <!-- -->  <!-- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -->  <servlet>  <servlet-name>default</servlet-name>  <servlet-class>org.eclipse.jetty.servlet.DefaultServlet</servlet-class>  <init-param>  <param-name>acceptRanges</param-name>  <param-value>true</param-value>  </init-param>  <init-param>  <param-name>dirAllowed</param-name>  <param-value>true</param-value>  </init-param>  <init-param>  <param-name>welcomeServlets</param-name>  <param-value>false</param-value>  </init-param>  <init-param>  <param-name>redirectWelcome</param-name>  <param-value>false</param-value>  </init-param>  <init-param>  <param-name>maxCacheSize</param-name>  <param-value>256000000</param-value>  </init-param>  <init-param>  <param-name>maxCachedFileSize</param-name>  <param-value>10000000</param-value>  </init-param>  <init-param>  <param-name>maxCachedFiles</param-name>  <param-value>1000</param-value>  </init-param>  <init-param>  <param-name>cacheType</param-name>  <param-value>both</param-value>  </init-param>  <init-param>  <param-name>gzip</param-name>  <param-value>true</param-value>  </init-param>  <init-param>  <param-name>useFileMappedBuffer</param-name>  <param-value>true</param-value>  </init-param>  <!-- <init-param> <param-name>cacheControl</param-name> <param-value>max-age=3600,public</param-value>  </init-param> -->  <load-on-startup>0</load-on-startup>  </servlet>  <servlet-mapping>  <servlet-name>default</servlet-name>  <url-pattern>/</url-pattern>  </servlet-mapping>  <!-- ==================================================================== -->  <!-- JSP Servlet -->  <!-- This is the jasper JSP servlet from the jakarta project -->  <!-- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -->  <!-- The JSP page compiler and execution servlet, which is the mechanism -->  <!-- used by Glassfish to support JSP pages. Traditionally, this servlet -->  <!-- is mapped to URL patterh "\*.jsp". This servlet supports the -->  <!-- following initialization parameters (default values are in square -->  <!-- brackets): -->  <!-- -->  <!-- checkInterval If development is false and reloading is true, -->  <!-- background compiles are enabled. checkInterval -->  <!-- is the time in seconds between checks to see -->  <!-- if a JSP page needs to be recompiled. [300] -->  <!-- -->  <!-- compiler Which compiler Ant should use to compile JSP -->  <!-- pages. See the Ant documenation for more -->  <!-- information. [javac] -->  <!-- -->  <!-- classdebuginfo Should the class file be compiled with -->  <!-- debugging information? [true] -->  <!-- -->  <!-- classpath What class path should I use while compiling -->  <!-- generated servlets? [Created dynamically -->  <!-- based on the current web application] -->  <!-- Set to ? to make the container explicitly set -->  <!-- this parameter. -->  <!-- -->  <!-- development Is Jasper used in development mode (will check -->  <!-- for JSP modification on every access)? [true] -->  <!-- -->  <!-- enablePooling Determines whether tag handler pooling is -->  <!-- enabled [true] -->  <!-- -->  <!-- fork Tell Ant to fork compiles of JSP pages so that -->  <!-- a separate JVM is used for JSP page compiles -->  <!-- from the one Tomcat is running in. [true] -->  <!-- -->  <!-- ieClassId The class-id value to be sent to Internet -->  <!-- Explorer when using <jsp:plugin> tags. -->  <!-- [clsid:8AD9C840-044E-11D1-B3E9-00805F499D93] -->  <!-- -->  <!-- javaEncoding Java file encoding to use for generating java -->  <!-- source files. [UTF-8] -->  <!-- -->  <!-- keepgenerated Should we keep the generated Java source code -->  <!-- for each page instead of deleting it? [true] -->  <!-- -->  <!-- logVerbosityLevel The level of detailed messages to be produced -->  <!-- by this servlet. Increasing levels cause the -->  <!-- generation of more messages. Valid values are -->  <!-- FATAL, ERROR, WARNING, INFORMATION, and DEBUG. -->  <!-- [WARNING] -->  <!-- -->  <!-- mappedfile Should we generate static content with one -->  <!-- print statement per input line, to ease -->  <!-- debugging? [false] -->  <!-- -->  <!-- -->  <!-- reloading Should Jasper check for modified JSPs? [true] -->  <!-- -->  <!-- suppressSmap Should the generation of SMAP info for JSR45 -->  <!-- debugging be suppressed? [false] -->  <!-- -->  <!-- dumpSmap Should the SMAP info for JSR45 debugging be -->  <!-- dumped to a file? [false] -->  <!-- False if suppressSmap is true -->  <!-- -->  <!-- scratchdir What scratch directory should we use when -->  <!-- compiling JSP pages? [default work directory -->  <!-- for the current web application] -->  <!-- -->  <!-- tagpoolMaxSize The maximum tag handler pool size [5] -->  <!-- -->  <!-- xpoweredBy Determines whether X-Powered-By response -->  <!-- header is added by generated servlet [false] -->  <!-- -->  <!-- If you wish to use Jikes to compile JSP pages: -->  <!-- Set the init parameter "compiler" to "jikes". Define -->  <!-- the property "-Dbuild.compiler.emacs=true" when starting Jetty -->  <!-- to cause Jikes to emit error messages in a format compatible with -->  <!-- Jasper. -->  <!-- If you get an error reporting that jikes can't use UTF-8 encoding, -->  <!-- try setting the init parameter "javaEncoding" to "ISO-8859-1". -->  <!-- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -->  <servlet id="jsp">  <servlet-name>jsp</servlet-name>  <servlet-class>org.apache.jasper.servlet.JspServlet</servlet-class>  <init-param>  <param-name>logVerbosityLevel</param-name>  <param-value>DEBUG</param-value>  </init-param>  <init-param>  <param-name>fork</param-name>  <param-value>false</param-value>  </init-param>  <init-param>  <param-name>xpoweredBy</param-name>  <param-value>false</param-value>  </init-param>  <!-- <init-param> <param-name>classpath</param-name> <param-value>?</param-value>  </init-param> -->  <load-on-startup>0</load-on-startup>  </servlet>  <servlet-mapping>  <servlet-name>jsp</servlet-name>  <url-pattern>\*.jsp</url-pattern>  <url-pattern>\*.jspf</url-pattern>  <url-pattern>\*.jspx</url-pattern>  <url-pattern>\*.xsp</url-pattern>  <url-pattern>\*.JSP</url-pattern>  <url-pattern>\*.JSPF</url-pattern>  <url-pattern>\*.JSPX</url-pattern>  <url-pattern>\*.XSP</url-pattern>  </servlet-mapping>  <!-- ==================================================================== -->  <!-- Dynamic Servlet Invoker. -->  <!-- This servlet invokes anonymous servlets that have not been defined -->  <!-- in the web.xml or by other means. The first element of the pathInfo -->  <!-- of a request passed to the envoker is treated as a servlet name for -->  <!-- an existing servlet, or as a class name of a new servlet. -->  <!-- This servlet is normally mapped to /servlet/\*\* -->  <!-- This servlet support the following initParams: -->  <!-- -->  <!-- nonContextServlets If false, the invoker can only load -->  <!-- servlets from the contexts classloader. -->  <!-- This is false by default and setting this -->  <!-- to true may have security implications. -->  <!-- -->  <!-- verbose If true, log dynamic loads -->  <!-- -->  <!-- \* All other parameters are copied to the -->  <!-- each dynamic servlet as init parameters -->  <!-- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -->  <!-- Uncomment for dynamic invocation <servlet> <servlet-name>invoker</servlet-name>  <servlet-class>org.eclipse.jetty.servlet.Invoker</servlet-class> <init-param>  <param-name>verbose</param-name> <param-value>false</param-value> </init-param>  <init-param> <param-name>nonContextServlets</param-name> <param-value>false</param-value>  </init-param> <init-param> <param-name>dynamicParam</param-name> <param-value>anyValue</param-value>  </init-param> <load-on-startup>0</load-on-startup> </servlet> <servlet-mapping>  <servlet-name>invoker</servlet-name> <url-pattern>/servlet/\*\*</url-pattern>  </servlet-mapping> -->  <!-- ==================================================================== -->  <session-config>  <session-timeout>30</session-timeout>  </session-config>  <!-- ==================================================================== -->  <!-- Default MIME mappings -->  <!-- The default MIME mappings are provided by the mime.properties -->  <!-- resource in the org.eclipse.jetty.server.jar file. Additional or modified -->  <!-- mappings may be specified here -->  <!-- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -->  <!-- UNCOMMENT TO ACTIVATE <mime-mapping> <extension>mysuffix</extension>  <mime-type>mymime/type</mime-type> </mime-mapping> -->  <!-- ==================================================================== -->  <welcome-file-list>  <welcome-file>index.html</welcome-file>  <welcome-file>index.htm</welcome-file>  <welcome-file>index.jsp</welcome-file>  </welcome-file-list>  <!-- ==================================================================== -->  <locale-encoding-mapping-list>  <locale-encoding-mapping>  <locale>ar</locale>  <encoding>ISO-8859-6</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>be</locale>  <encoding>ISO-8859-5</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>bg</locale>  <encoding>ISO-8859-5</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>ca</locale>  <encoding>ISO-8859-1</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>cs</locale>  <encoding>ISO-8859-2</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>da</locale>  <encoding>ISO-8859-1</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>de</locale>  <encoding>ISO-8859-1</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>el</locale>  <encoding>ISO-8859-7</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>en</locale>  <encoding>ISO-8859-1</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>es</locale>  <encoding>ISO-8859-1</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>et</locale>  <encoding>ISO-8859-1</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>fi</locale>  <encoding>ISO-8859-1</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>fr</locale>  <encoding>ISO-8859-1</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>hr</locale>  <encoding>ISO-8859-2</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>hu</locale>  <encoding>ISO-8859-2</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>is</locale>  <encoding>ISO-8859-1</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>it</locale>  <encoding>ISO-8859-1</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>iw</locale>  <encoding>ISO-8859-8</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>ja</locale>  <encoding>Shift\_JIS</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>ko</locale>  <encoding>EUC-KR</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>lt</locale>  <encoding>ISO-8859-2</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>lv</locale>  <encoding>ISO-8859-2</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>mk</locale>  <encoding>ISO-8859-5</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>nl</locale>  <encoding>ISO-8859-1</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>no</locale>  <encoding>ISO-8859-1</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>pl</locale>  <encoding>ISO-8859-2</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>pt</locale>  <encoding>ISO-8859-1</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>ro</locale>  <encoding>ISO-8859-2</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>ru</locale>  <encoding>ISO-8859-5</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>sh</locale>  <encoding>ISO-8859-5</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>sk</locale>  <encoding>ISO-8859-2</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>sl</locale>  <encoding>ISO-8859-2</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>sq</locale>  <encoding>ISO-8859-2</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>sr</locale>  <encoding>ISO-8859-5</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>sv</locale>  <encoding>ISO-8859-1</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>tr</locale>  <encoding>ISO-8859-9</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>uk</locale>  <encoding>ISO-8859-5</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>zh</locale>  <encoding>GB2312</encoding>  </locale-encoding-mapping>  <locale-encoding-mapping>  <locale>zh\_TW</locale>  <encoding>Big5</encoding>  </locale-encoding-mapping>  </locale-encoding-mapping-list>  <security-constraint>  <web-resource-collection>  <web-resource-name>Disable TRACE</web-resource-name>  <url-pattern>/</url-pattern>  <http-method>TRACE</http-method>  </web-resource-collection>  <auth-constraint />  </security-constraint>  </web-app> |

添加maven 依赖

|  |
| --- |
| <!-- Jetty Plugin -->  <plugin>  <groupId>org.mortbay.jetty</groupId>  <artifactId>jetty-maven-plugin</artifactId>  <version>8.1.16.v20140903</version>  <configuration>  <stopKey>stop</stopKey>  <stopPort>5599</stopPort>  <webAppConfig>  <contextPath>${project.build.context}</contextPath>  <!-- 默认文件org/eclipse/jetty/webapp/webdefault.xml -->  <defaultsDescriptor>src/main/resources/config/webdefault.xml</defaultsDescriptor>  </webAppConfig>  <scanIntervalSeconds>0</scanIntervalSeconds>  <connectors>  <connector implementation="org.eclipse.jetty.server.nio.SelectChannelConnector">  <port>8080</port>  <maxIdleTime>60000</maxIdleTime>  </connector>  </connectors>  </configuration>  </plugin> |

Jetty 部署 web应用

1、Jetty安装

将jetty-6.1.25.zip解压至指定目录，假定为E: \jetty-6.1.25，目录说明如下：

|  |  |
| --- | --- |
| 目录 | 说明 |
| bin | Jetty命令，可以将Jetty配置成系统服务 |
| contexts | 存入Web应用的部署文件，Jetty会自动加载这个目录下的所用部署文件对应的Web应用 |
| ect | Jetty自身的配置文件 |
| lib | Jetty的JAR文件 |
| logs | Jetty运行时的日志文件 |
| webapps | 存放Web应用，Jetty会自动加载这个目录下的所有Web应用 |
| start.jar | Jetty的启动文件。在命令行环境下以 java -jar start.jar 来启动Jetty |

2、Jetty部署

若需注册自启服务，可参考2.2-2.4节

2.1修改端口

修改E:\jetty-6.1.25\etc\ jetty.xml文件中的如下代码，将8080改为相应的端口号即可

<Call name="addConnector">  
       <Arg>  
          <New class="org.mortbay.jetty.nio.SelectChannelConnector">  
            <Set name="host"><SystemProperty name="jetty.host" /></Set>  
            <Set name="port"><SystemProperty name="jetty.port" default="8080"/></Set>  
            <Set name="maxIdleTime">30000</Set>  
            <Set name="Acceptors">2</Set>  
            <Set name="statsOn">false</Set>  
            <Set name="confidentialPort">8443</Set>  
            <Set name="lowResourcesConnections">5000</Set>  
            <Set name="lowResourcesMaxIdleTime">5000</Set>  
          </New>  
       </Arg>  
     </Call>

2.2 修改自启服务名称（默认为Jetty6-Service）

修改E:\jetty-6.1.25\bin\ jetty-service.conf文件中的如下代码，即可修改服务名称及展示名称

wrapper.ntservice.name=Jetty  
      wrapper.ntservice.displayname=Jetty6-Service

2.3 注册自启服务

打开命令行，执行命令：

cd  /d  E:\jetty-6.1.25\bin

   然后执行如下命令：

Jetty -Service.exe -i

   即可安装成功，以后该服务将随系统启动而启动。

2.4 注销自启服务

打开命令行，执行命令：

cd  /d  E:\jetty-6.1.25\bin

   然后执行如下命令：

Jetty -Service.exe -r

2.5 启动服务

    若已经注册自启服务，可直接从服务程序中启动，否则可以直接双击E:\jetty-6.1.25\bin\下的Jetty-Service.exe启动。

2.6 部署服务

    将项目WAR包解压到E:\jetty-6.1.25\webapps目录下即可。

2.7 设置内存大小

修改E:\jetty-6.1.25\bin\ jetty-service.conf文件中的如下代码，即可重设内存大小。  
     wrapper.java.maxmemory=64

常见问题记录：

1. linux 默认对tmp路径自动清理功能，建议将tmp路径执行另外路径。修改jetty.sh

#TMPDIR=${TMPDIR:-/tmp}

TMPDIR=${TMPDIR:-/var/local/webdata/console}