WebDAV Servers

0.1 Documentation

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1. Apache 1

Download the Apache Web Server and WebDAV module source code from the Apache website, e.g. `apache_1.3.24.tar.gz` and `mod_dav-1.0.3-1.3.6.tar.gz`. Configure and compile mod_dav:

```
wget http://www.webdav.org/mod_dav/mod_dav-1.0.3-1.3.6.tar.gz
cd /home/michiii/src/mod_dav-1.0.3-1.3.6
./configure --with-apache=/home/michiii/src/apache_1.3.24
make
make install
cd /home/michiii/src/apache_1.3.24
find . -name "*dav*" -print
./configure --prefix=/usr/local/apache --activate-module=src/modules/dav/libdav.a
(./configure --prefix=/usr/local/apache --enable-module=proxy --activate-module=src/mod
make
su
make install
/usr/local/apache/bin/httpd -l
```

You need to reconfigure `httpd.conf`, e.g.:

```
DAVLockDB /home/michiii/build/apache/logs/DavLock
<Directory "/home/michiii/build/apache/htdocs">
Dav On
```

To see the files open "Konqueror" and type `webdav://127.0.0.1:8080`.

More info on `mod_dav` can be found at

- http://www.webdav.org/mod_dav/
- Apache and DAV with LDAP and SSL

2. Apache 2

Download the Apache Web Server source code from the Apache website, e.g. `httpd-2.0.46.tar.gz`. The mod_dav module is inlcuded with the Apache 2 distribution. Configure and compile Apache:

```
./configure --prefix=/home/michiii/build/apache2 --with-dav --enable-dav
make
make install
/home/michiii/build/apache2/bin/httpd -l | grep dav
```

You need to reconfigure Apache:

```
DAVLockDB /home/michiii/build/apache2/logs/DavLock
<Directory "/home/michiii/build/apache2/htdocs">
Dav On
</Directory>
```

More info on `mod_dav` can be found at

* http://apacheworld.org/ty24/site.chapter13.html
* http://httpd.apache.org/docs-2.0/mod/mod_dav.html
* Apache and DAV

3. Tomcat

Point your WebDAV client to `http://127.0.0.1:8080/webdav/`. The webdav context is DAV enabled, but has been set up in read-only mode for safety reasons. It can be put in read-write mode by editing the web application descriptor file `/webapps/webdav/WEB-INF/web.xml`.

```
<!-- Uncomment this to enable read and write access -->
<init-param>
  <param-name>readonly</param-name>
  <param-value>false</param-value>
</init-param>
```

4. Apache Jakarta Slide

Point your WebDAV client to `http://127.0.0.1:8080/slide/`. One needs to configure `Domain.xml`

```
<contentstore classname="slidestore.reference.FileContentStore">
  <parameter name="rootpath">/home/michiii/build/jakarta-tomcat-4.1.21-LE-jdk14/webapps
  ...
```

5. Monitoring the WebDAV exchange

```
cd /home/michiii/build/axis-1_1RC2
java -cp lib/axis.jar org.apache.axis.utils.tcpmon

Enter "Listen Port# 3333" for instance

Select "Act as a... Listener"

Enter "Target Hostname 195.226.6.70" for instance
Enter "Target Port# 8080" for instance

Click "Add" and a new tab saying "3333" should show up

Click on this new tab to view the requests and responses

Enter within your browser "http://127.0.0.1:3333/lenya/index.html"
```

6. PROPFIND

The WebDAV client will first send a PROPFIND with Depth = 0. Depending on the response (collection or resource) the WebDAV client will send another PROPFIND with Depth = 1 (collection) or a GET (resource).

Collection:

```
Request
=======

PROPFIND /lenya/blog/authoring/entries/2003/08/24/peanuts/ HTTP/1.1
Pragma: no-cache
Cache-control: no-cache
Accept: text/*, image/jpeg, image/png, image/*, */*
Accept-Encoding: x-gzip, gzip, identity
Accept-Charset: iso-8859-1, utf-8;q=0.5, *;q=0.5
Accept-Language: en
Host: 127.0.0.1
Depth: 0


Response
```

```
========

HTTP/1.1 207 Multi-Status
X-Cocoon-Version: 2.1
Set-Cookie: JSESSIONID=320E3B1395B867B5BC42B5FC93457C36; Path=/lenya
Content-Type: text/xml
Transfer-Encoding: chunked
Date: Mon, 25 Aug 2003 14:27:12 GMT
Server: Apache Coyote/1.0


<?xml version="1.0" encoding="UTF-8"?>
<D:multistatus xmlns:D="DAV:">

<D:response xmlns:lp1="DAV:" xmlns:lp2="http://apache.org/dav/props/">
<D:href>/lenya/blog/authoring/entries/2003/08/24/peanuts/</D:href>
<D:propstat>
<D:prop>
<lp1:resourcetype><D:collection/></lp1:resourcetype>
<D:getcontenttype>httpd/unix-directory</D:getcontenttype>
</D:prop>
<D:status>HTTP/1.1 200 OK</D:status>
</D:propstat>
</D:response>

</D:multistatus>


Request
=======

PROPFIND /lenya/blog/authoring/entries/2003/08/24/peanuts/ HTTP/1.1
Pragma: no-cache
Cache-control: no-cache
Accept: text/*, image/jpeg, image/png, image/*, */*
Accept-Encoding: x-gzip, gzip, identity
Accept-Charset: iso-8859-1, utf-8;q=0.5, *;q=0.5
Accept-Language: en
Host: 127.0.0.1
Depth: 1


Response
========

HTTP/1.1 207 Multi-Status
X-Cocoon-Version: 2.1
Set-Cookie: JSESSIONID=5A87A774B7B29D04DEDBDECC54477E5B; Path=/lenya
Content-Type: text/xml
Transfer-Encoding: chunked
Date: Mon, 25 Aug 2003 14:27:12 GMT
Server: Apache Coyote/1.0
```

```
<?xml version="1.0" encoding="UTF-8"?>
<D:multistatus xmlns:D="DAV:">

<D:response xmlns:lp1="DAV:" xmlns:lp2="http://apache.org/dav/props/">
<D:href>/lenya/blog/webdav/entries/2003/08/24/peanuts/index.html</D:href>
<D:propstat>
<D:prop>
<lp1:resourcetype/>
<D:getcontenttype>text/html</D:getcontenttype>
</D:prop>
<D:status>HTTP/1.1 200 OK</D:status>
</D:propstat>
</D:response>

<D:response xmlns:lp1="DAV:" xmlns:lp2="http://apache.org/dav/props/">
<D:href>/lenya/blog/webdav/entries/2003/08/24/peanuts/charlie.xml</D:href>
<D:propstat>
<D:prop>
<lp1:resourcetype/>
<lp1:creationdate>2003-07-21T13:04:23Z</lp1:creationdate>
<lp1:getcontentlength>3845</lp1:getcontentlength>
<D:getcontenttype>text/xml</D:getcontenttype>
</D:prop>
<D:status>HTTP/1.1 200 OK</D:status>
</D:propstat>
</D:response>

</D:multistatus>
```

7. PUT

The WebDAV client will send a PUT in order to copy a document onto the server.

```
Request
=======

PUT /lenya/blog/webdav/entries/2003/08/29/levi/index.xml HTTP/1.1
Host: 127.0.0.1
User-Agent: Mozilla/5.0 (X11; U; Linux i686; en-US; rv:1.4b) Gecko/20030507
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8
Accept-Language: en-us,en;q=0.5
Accept-Encoding: gzip,deflate
Accept-Charset: ISO-8859-1,utf-8;q=0.7,*;q=0.7
Keep-Alive: 300
Connection: keep-alive
Content-Type: text/xml
Content-Length: 1641
Cookie: JSESSIONID=1CF7F4C27B737E3603FFC2D4D4C137CE
```

```
<?xml version="1.0" encoding="UTF-8"?>
<echo:entry xmlns:echo="http://example.com/newformat#" xmlns:ent="http://www.purl.org/N
    <echo:title>Lenya</echo:title>

    <echo:created>2003-08-29T01:46:45</echo:created>
    <echo:issued>2003-08-29T01:46:45</echo:issued>
    <echo:modified>2003-08-29T01:46:45</echo:modified>

    <echo:content mode="escaped" type="text/plain" lang="en-us">
      Plain Text
    </echo:content>

    <ent:topic id="introductory">Hello</ent:topic>
</echo:entry>



Response
========

HTTP/1.1 204 No Content
Date: Mon, 18 Aug 2003 14:22:47 GMT
Server: Apache/2.0.46 (Unix) DAV/2
Content-Length: 0
Keep-Alive: timeout=15, max=100
Connection: Keep-Alive
Content-Type: text/xml
```