

How to write a CGI shell script for the Apache Web server

The Com/PC Embedded Gateway Linux (EGL/2) operating system comes with a pre-installed Apache Web server. Please see also *mHT-CPC1L-07.pdf: How to use the Apache Web server* for more information. This server supports also CGI (Common Gateway Interface).

- **1. Step:** Create a Linux shell script file with the name *test.sh* on your development system. Use a simple text editor program for this job. The following code is a sample for a CGI shell script.

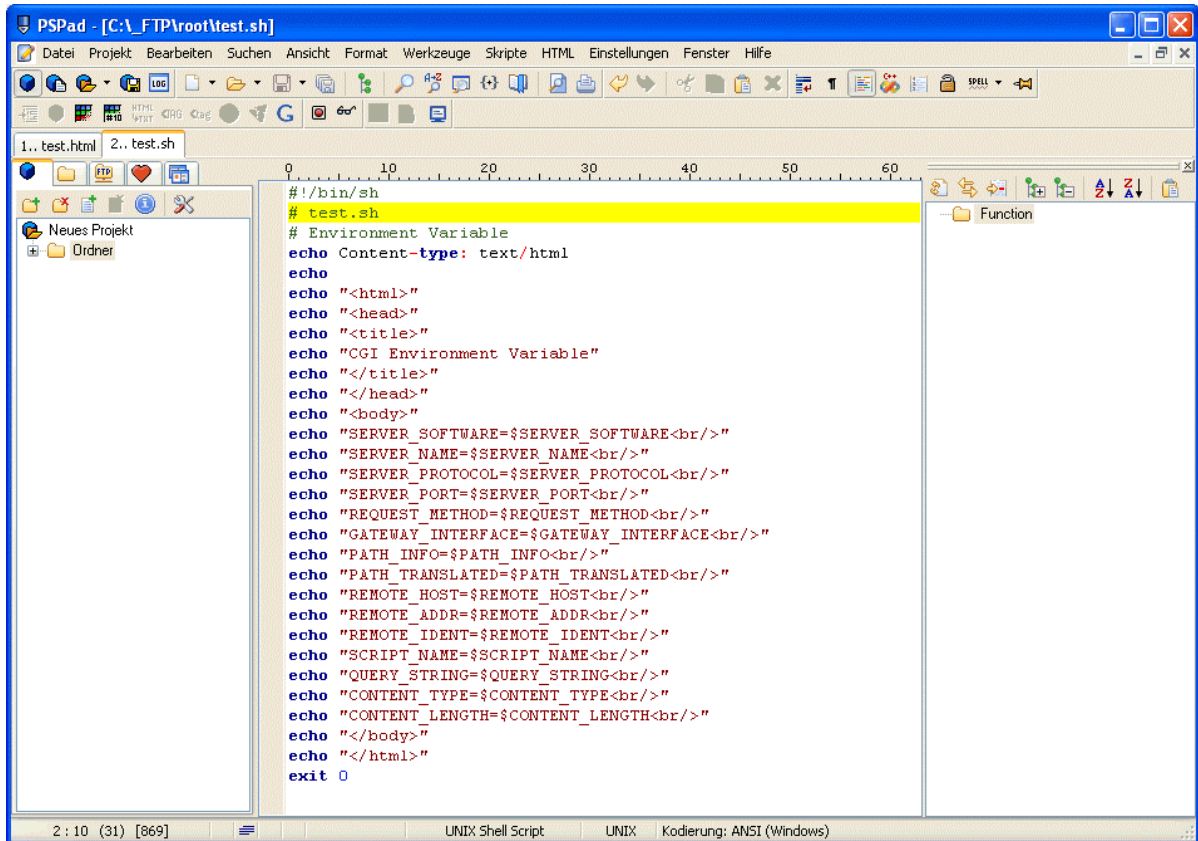
```
#!/bin/sh
# test.sh
# Environment Variable
echo Content-type: text/html
echo
echo "<html>"
echo "<head>"
echo "<title>"
echo "CGI Environment Variable"
echo "</title>"
echo "</head>"
echo "<body>"
echo "SERVER_SOFTWARE=$SERVER_SOFTWARE<br/>"
echo "SERVER_NAME=$SERVER_NAME<br/>"
echo "SERVER_PROTOCOL=$SERVER_PROTOCOL<br/>"
echo "SERVER_PORT=$SERVER_PORT<br/>"
echo "REQUEST_METHOD=$REQUEST_METHOD<br/>"
echo "GATEWAY_INTERFACE=$GATEWAY_INTERFACE<br/>"
echo "PATH_INFO=$PATH_INFO<br/>"
echo "PATH_TRANSLATED=$PATH_TRANSLATED<br/>"
echo "REMOTE_HOST=$REMOTE_HOST<br/>"
echo "REMOTE_ADDR=$REMOTE_ADDR<br/>"
echo "REMOTE_IDENT=$REMOTE_IDENT<br/>"
echo "SCRIPT_NAME=$SCRIPT_NAME<br/>"
echo "QUERY_STRING=$QUERY_STRING<br/>"
echo "CONTENT_TYPE=$CONTENT_TYPE<br/>"
echo "CONTENT_LENGTH=$CONTENT_LENGTH<br/>"
echo "</body>"
echo "</html>"
exit 0
```

- **2. Step:** If you edit shell script files for Linux systems on a Windows-based PC, it is necessary to convert the file with a DOS2UNIX tool before the download to the Com/PC with EGL/2.

Linux shell script files are simple text files. Windows is using the good old MS-DOS format for

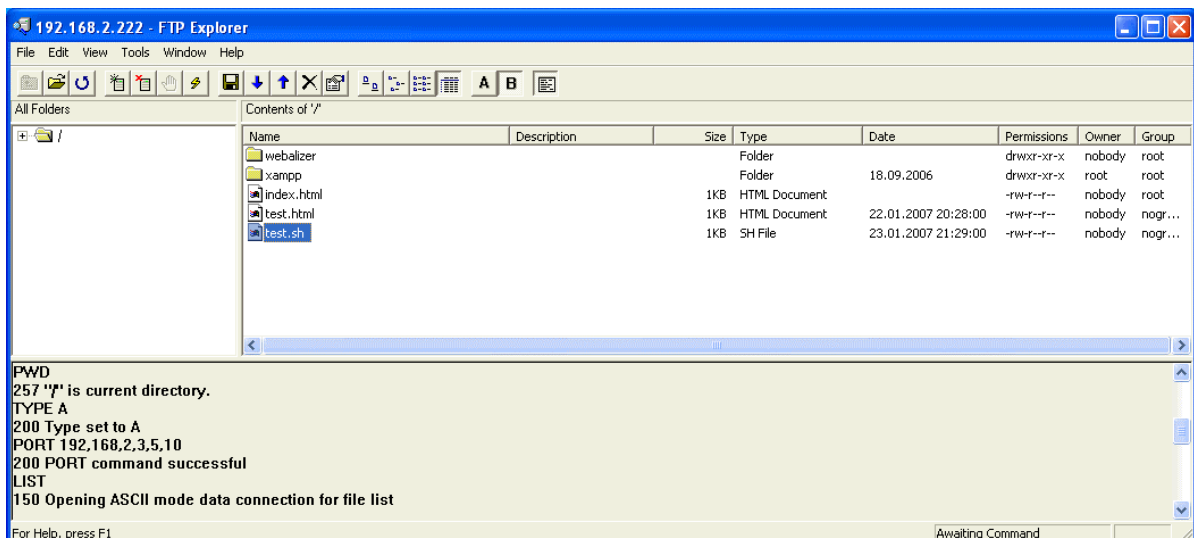
text files. MS-DOS and UNIX systems use different methods to identify end-of-line information in text files. MS-DOS, including Windows 9x/ME/NT/2000/XP, use a carriage return/linefeed pair (CR/LF), whilst UNIX only uses the LF character.

Some editors for Windows-based PCs (e.g. *PSPad*) allow you to edit text files directly within the UNIX file format. In this case, no conversion step is necessary.



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```

- **3. Step:** Now run a FTP session and upload *test.sh* to */rwnv/opt/lamp/htdocs* on the EGL/2 Compact Flash card.



Name	Description	Size	Type	Date	Permissions	Owner	Group
webalizer			Folder		drwxr-xr-x	nobody	root
xampp			Folder	18.09.2006	drwxr-xr-x	root	root
index.html		1KB	HTML Document		-rw-r--r--	nobody	root
test.html		1KB	HTML Document	22.01.2007 20:28:00	-rw-r--r--	nobody	nogr...
test.sh		1KB	SH File	23.01.2007 21:29:00	-rw-r--r--	nobody	nogr...

```
PWD
257 "/" is current directory.
TYPE A
200 Type set to A
PORT 192,168,2,3,5,10
200 PORT command successful
LIST
150 Opening ASCII mode data connection for file list
```

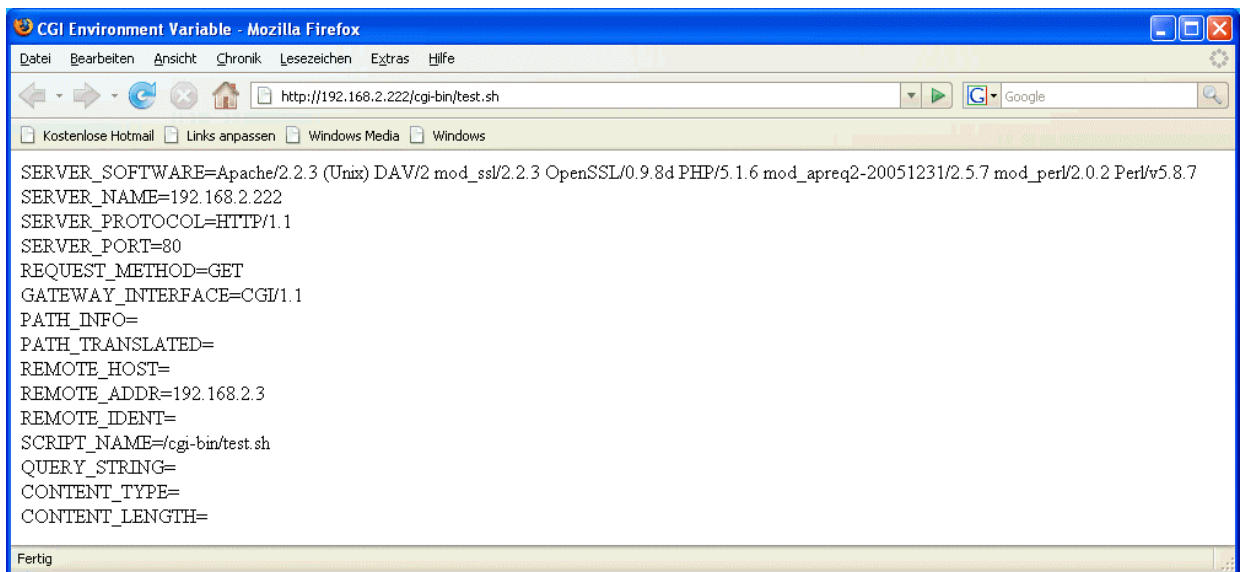
Please note: The standard configuration for the FTP server of the EGL/2 XAMPP services allows only the access to `/rwnv/opt/lamp/htdocs`. The default directory for CGI files is `/rwnv/opt/lamp/cgi-bin`.

- **4. Step:** Run a Telnet or SSH session and copy `test.sh` to `/rwnv/opt/lamp/cgi-bin`. Make sure, that `test.sh` on the Com/PC is equipped with readable and executable attributes. The following steps shows the details for your Telnet or SSH session.

```
cd /rwnv/opt/lampp/cgi-bin
mv /rwnv/opt/lampp/htdocs/test.sh test.sh
chmod +x test.sh
chmod +r test.sh
```

- **5. Step:** Access `test.sh` with your Web browser. The URL for this CGI shell script on the Com/PC is:

```
http://192.168.2.222/cgi-bin/test.sh
```



This URL assumes that your Com/PC is using the IP address `192.168.2.222`. Change this address if necessary.

That is all.