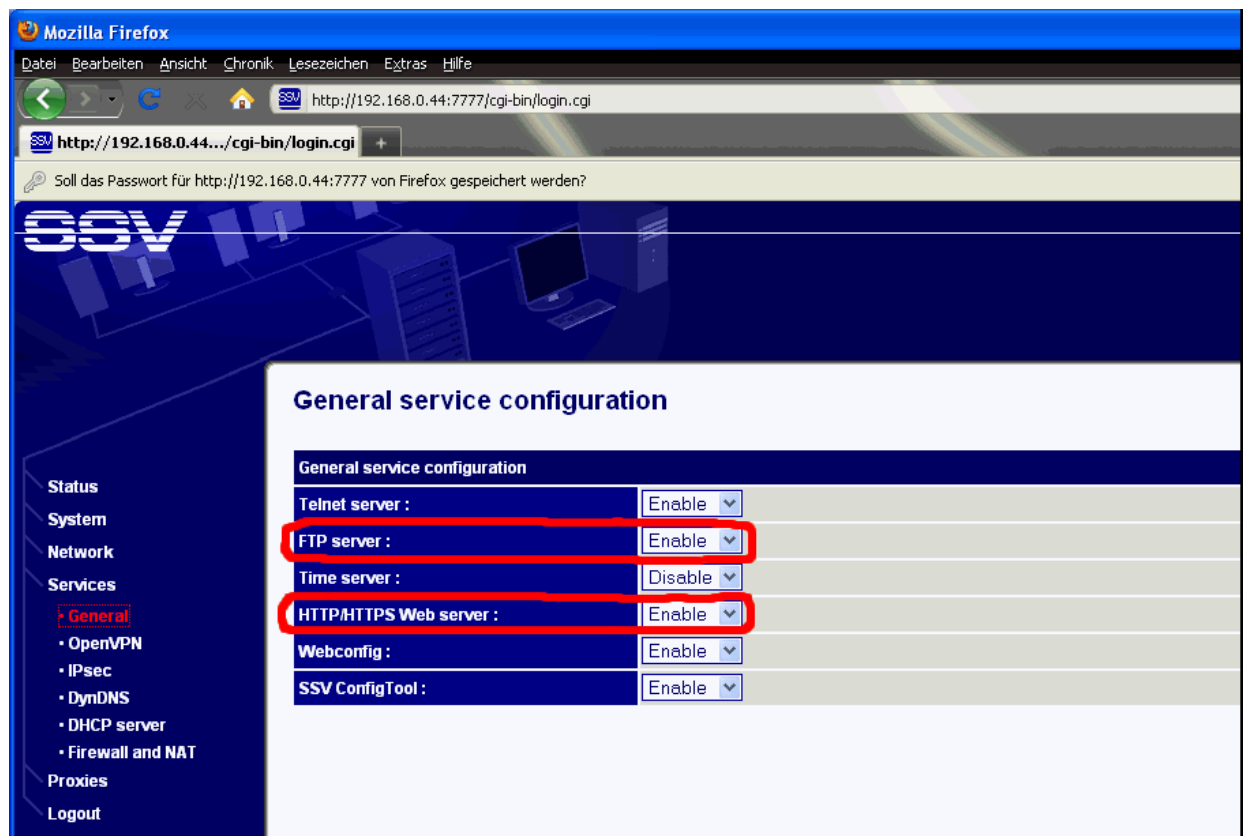


How to write your first CGI program for the IGW/922 user web server

The software of the VPN Remote Access Gateway IGW/922 offers two different embedded web servers. One is available over TCP port 7777. This so called *configuration web server* works in HTTP mode only and is reserved for IGW/922 web-based configuration interface. Please see also the document *Web ConfigTool – User manual*. The other web server is accessible over TCP port 80 in HTTP mode or TCP port 443 in HTTPS mode. This so called *user web server* can be used for user applications.

This document describes how to write a simple CGI shell script program, download the program file to the user web server default CGI file space, and how to access this CGI application program over a web browser.

- **1. Step:** Use the IGW/922 web-based configuration interface and make sure that the FTP server is running and that the HTTP/HTTPS web server is also enabled. This server is the *user web server*.



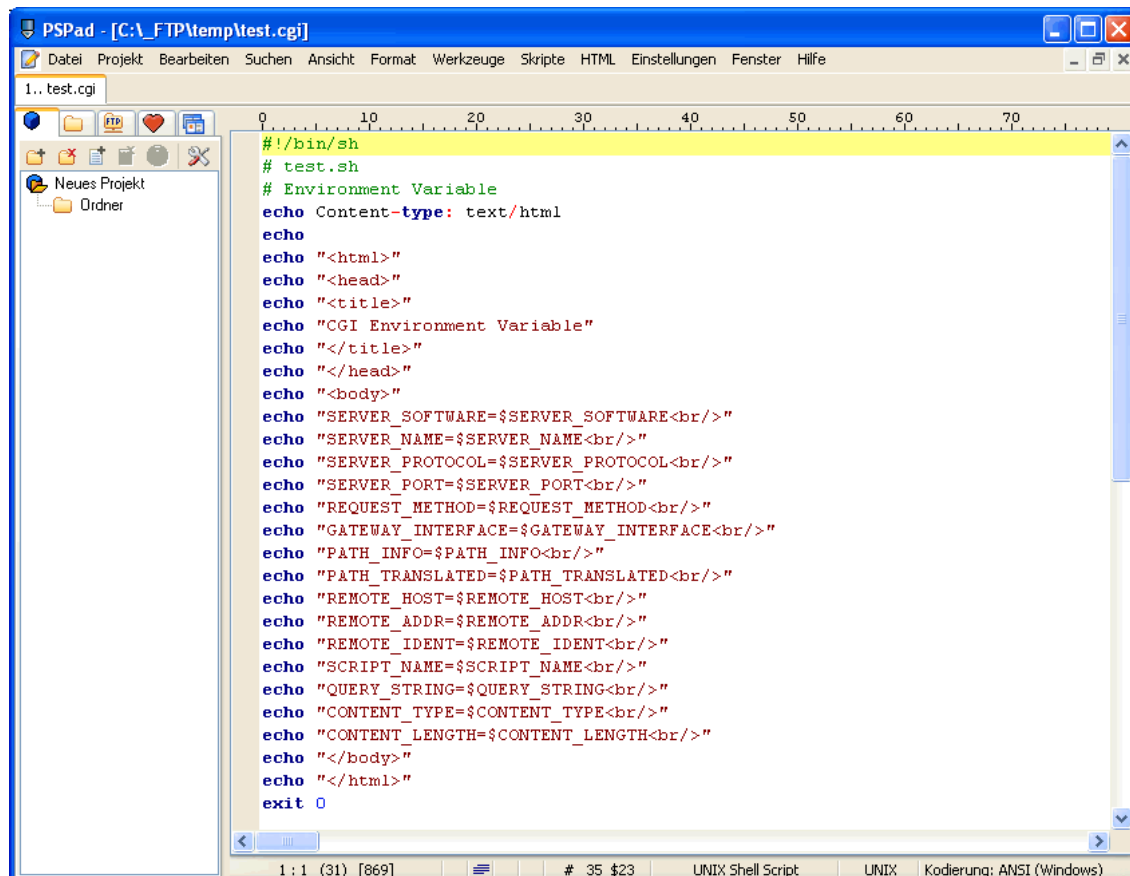
- **2. Step:** Run a editor with HTML and shell script support on your PC (see mHTigw922-2.pdf *How to download and install a HTML editor* for more details) and enter the following code lines:

```
#!/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

```



The screenshot shows the PSPad editor window with the following code in the main editing area:

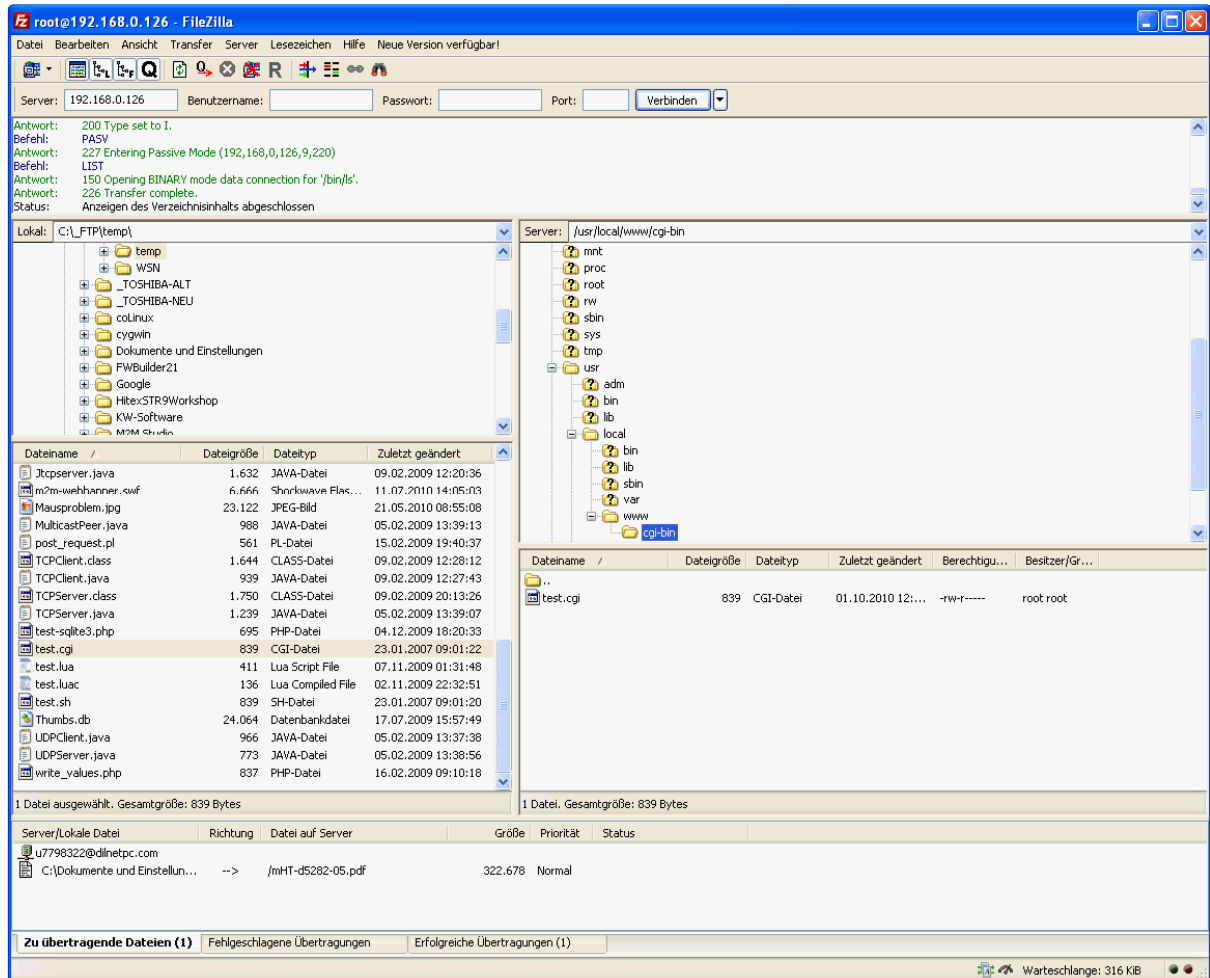
```

#!/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

```

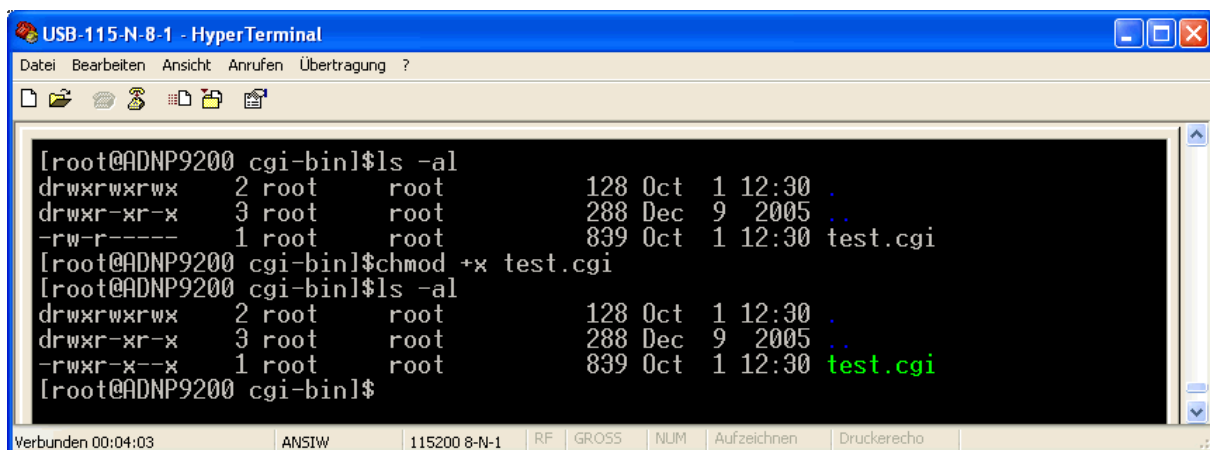
The status bar at the bottom of the window indicates: 1:1 (31) [869] # 35 \$23 UNIX Shell Script UNIX Kodierung: ANSI (Windows)

- **3. Step:** Save the code lines to a file with the name *test.cgi* in a Unix file format. Then transfer this file from your PC to the IGW/922 directory */usr/local/www/cgi-bin* within the IGW/922 file system. Please use a FTP session for the file transfer. The default IGW/922 FTP user name is *root*. The default password for this user is also *root*.



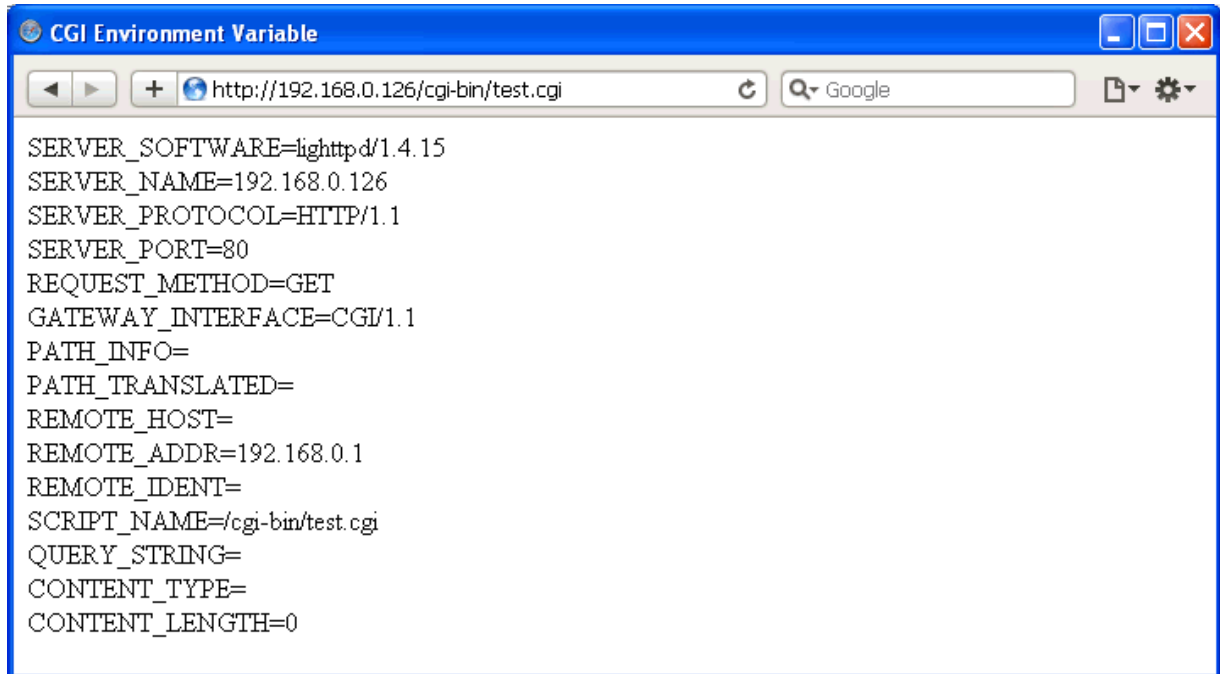
- **4. Step:** Run a Telnet or serial console session with administrator rights and change the *test.cgi* file attributes to executable:

```
chmod +x test.cgi
```



- **5. Step:** Run your web browser and access the new CGI program over the IGW/922 user web server. Use the following URL:

`http://192.168.0.126/cgi-bin/test.cgi`



The screenshot shows a web browser window titled "CGI Environment Variable". The address bar contains the URL "http://192.168.0.126/cgi-bin/test.cgi". The main content area displays the following environment variables:

```
SERVER_SOFTWARE=lighttpd/1.4.15
SERVER_NAME=192.168.0.126
SERVER_PROTOCOL=HTTP/1.1
SERVER_PORT=80
REQUEST_METHOD=GET
GATEWAY_INTERFACE=CGI/1.1
PATH_INFO=
PATH_TRANSLATED=
REMOTE_HOST=
REMOTE_ADDR=192.168.0.1
REMOTE_IDENT=
SCRIPT_NAME=/cgi-bin/test.cgi
QUERY_STRING=
CONTENT_TYPE=
CONTENT_LENGTH=0
```

Please note: `/usr/local/www/cgi-bin` is a RAM disk directory. After the next reboot the file `test.cgi` is removed from this directory. Please see also `mHTigw922-5.pdf`: *How to use non-volatile storage space for your HTML pages.*

That's all.