



# Wspug, version 3.2

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## Overview

Wsplug is a demonstration program, which runs over windows sockets (winsock.dll), and implements a general purpose server/client model. Some usefull functions are provided.



WEB SERVER. The GET command (HTTP/1.0) is recognized by the server (using port 80). As an http server Wsplug has been successfully tested with a netscape client, 25 channels are available. Wsplug includes a CGI facility, which can be used to launch a 16 bit program thru an URL and then to send data back to the client.

An other Wsplug usefull feature, is the recording of answers to html forms (HTTP/1.0) as an html page (typically named mailbox.htm).



CHAT mode. You can communicate from pc to pc, thru the Internet network, by using one Wsplug as a "standard" server and the other as a "standard" client, (on port 1234 for example).



PROXY. Wsplug offers a proxy facility which records data exchange between a client and a server (e.g smtp[port 25], telnet [port 23], ftp [port 21], popup3 [port 110] ...). This can be used for tracing or debugging purposes.



PING. A ping function is included



HTTP Client. Wsplug allows you to save HTML documents and included images as files, and then to display them again with your favourite web browser.

Futhermore Wsplug is able to query each html link found in an html page, this is called an N\_Order URL.

### Wsplug as a Server.



When used as a server , Wsplug is waiting for connections on the Server Port. By default Wsplug is configured as an http server.



Received characters are echoed according to the Echo\_Received\_Data flag. If Mode\_Text is set on, data is displayed as text, otherwise the hexadecimal format is used (x00 to xFF).



Incoming commands are processed if the Text\_Mode and Execute\_Received\_Commands options are set on. In this case the only recognized command is "GET filename" (defined by HTTP/1.0). The filename file must be located in the directory specified by Server\_Dir, when'ever it doesn't exist the file stder.htm is sent.



When Send\_And\_Close is selected, Wsplug closes the connection after the completion of a GET command.



The Show\_Received\_Commands option displays an incoming command line, before its interpretation.



The Duplex\_Mode flag is used to prevent the processing of any incoming data, while executing a command. This flag should be set on for this version of Wsplug.



Each character written to the Wsplug windows, can be recorded in a log file, according to the LogFile flag.



If the Echo\_Keyboard\_to\_Client flag is set on, each pressed key is echoed to the server client (a usefull function to communicate thru the network).If you type \$ followed by two hexadecimal digits (for example \$00,\$01,\$0A,\$48,\$FF), data is sent in hexadecimal format.

### Wsplug as a Proxy Server.



When this facility is activated, Wsplug establishes a connection between the Wsplug client (connected to ServerPort) and a port (ProxyPort), located at the address ProxyHost. In this case Wsplug acts as an active relay between the client an the ProxyHost.



Data sent and received can be showed on the Wsplug window, according to the Show\_Received\_data and Text\_Mode flags. A log file can be produced if LogFile option is set on.



All other functions (excepted Echo\_Keyboard\_to\_Client), are invalidated in this case (i.e no command processing is available).

### Wsplug as a Local Client.



A local client performs a connection to a port of a remote host, which acts as a server.



Received characters are echoed according to the Echo\_Received\_Data flag. If Mode\_Text is set on, data is displayed as text, otherwise the hexadecimal format is used (x00 to xFF).



If the Echo\_Keyboard\_to\_Client flag is set on, each character entered on the keyboard is echoed to the server client (a usefull function to communicate thru the network). To send data in an hexadecimal format type \$ followed by two hexadecimal digits (for example \$00,\$01,\$0A,\$48,\$FF).



According to the Enable\_Log\_File flag, a log file can record all characters which appear on the Wsplug window.



The flags Send\_And\_Close, Show\_Received\_Command, and Execute\_Received\_Commands, are interpreted as in the Server case. Their use are not recommended.

### **Timeout.**



Wsplug manages up to 25 channels (a channel is defined as a potential connection between Wsplug and on other Internet agent), each of them is identified by a number between 0 and 24. A channel is associated with a state, for security reason a busy channel can't stay in a given state more than a fixed amount of time. Six states are defined.



Free State.

The channel is not connected. No timeout is associated to this state.



Pre Waiting State.

A connection is in progress, but the channel is not yet connected.

A Pre\_Waiting timeout is associated to this state.



Waiting State.

The channel is connected, and waiting or receiving data. A Waiting\_Timeout is associated to this state which is ignored if Enable\_Timeout is reset.



Sending State.

The channel is connected, and due to a previous command, is sending a file to a remote client. A Sending\_Timeout is associated to this state, which is ignored if Enable\_Timeout is reset.



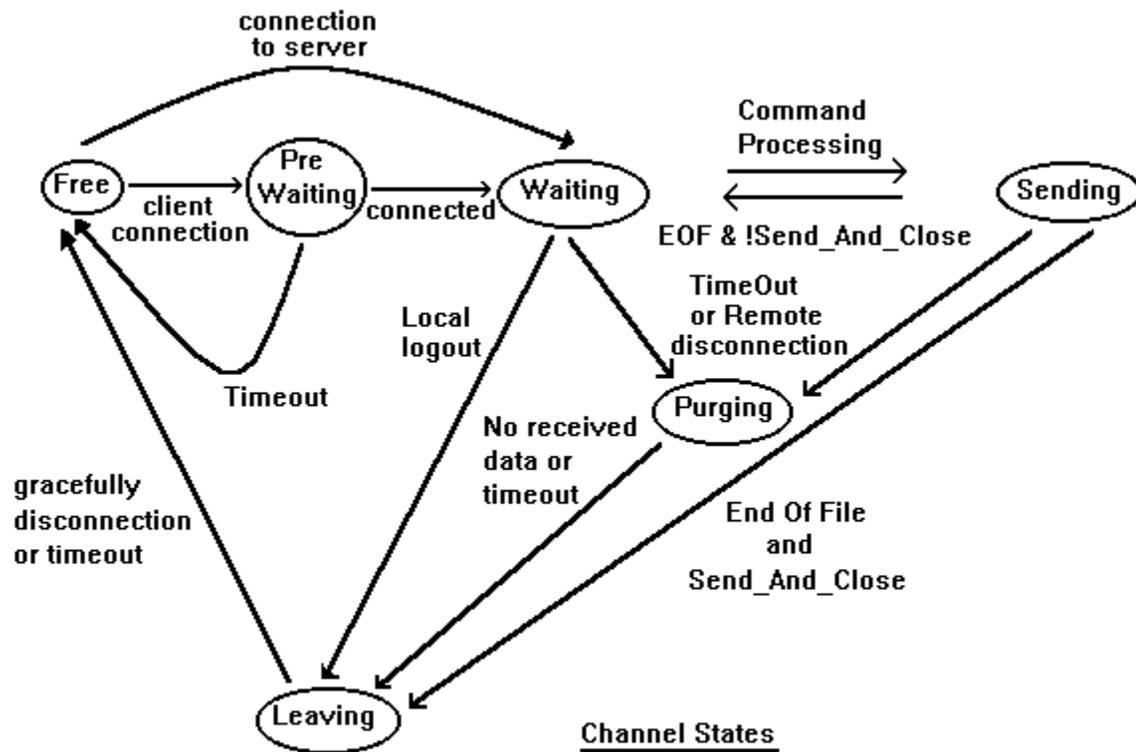
Leaving State.

The channel is either in the process of disconnecting or disconnected. The Leaving\_Timeout allows a "gracefull" disconnection, before entering the free state.



Purging State.

The channel has been informed of the disconnection of the remote end. The Purging\_State\_Timeout allows the channel to perform sanity check, to avoid the loss of previously received data. If there is no data to save, the channel enters the Leaving State before the timeout occurrence .



Sending Timeout: Maximum time to send a file.

## **Wsplug, version 3.2**

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**Pascal Urien,Dominique Bolignano**

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This program may be distributed freely,  
for any non commercial purposes.

Please, register if you use Wsplug more than 30 days,  
by registering Wsplug you are ensuring continued  
development and support of Wsplug.

You will receive a personal license number  
to confirm your registration.

Fee: 10\$

Special licences are available  
for educational purposes.

For commercial use,  
please mail to [100604.3324@compuserve.com](mailto:100604.3324@compuserve.com)  
For more information or suggestion,  
please mail to [100666.2766@compuserve.com](mailto:100666.2766@compuserve.com).

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**Configuration**

<input checked="" type="checkbox"/> <b>Send And Close</b>	<input type="checkbox"/> <b>Binary Mode</b>
<input checked="" type="checkbox"/> <b>Show Received Data</b>	<input type="checkbox"/> <b>Show Received Commands</b>
<input type="checkbox"/> <b>Echo Keyboard to Clients</b>	<input checked="" type="checkbox"/> <b>Execute Received Commands</b>
<input checked="" type="checkbox"/> <b>Text Mode</b>	<input checked="" type="checkbox"/> <b>Mode Duplex</b>
<input checked="" type="checkbox"/> <b>Enable Timeout</b>	<b>Max. Clients for server</b> <input type="text" value="9"/>
<b>Waiting Timeout</b> <input type="text" value="60"/>	<b>Leaving Timeout</b> <input type="text" value="2"/>
<b>Sending Timeout</b> <input type="text" value="60"/>	<b>Purging Timeout</b> <input type="text" value="60"/>
<b>Connection Timeout</b> <input type="text" value="120"/>	<b>PreWaitingTimeout</b> <input type="text" value="30"/>
<input type="button" value="CANCEL"/>	<input type="button" value="OK"/>



**SERVERS MODELS**

HTTP SERVER, http model

Send\_And\_Close: On  
 Show\_Received\_Data: On  
 Echo\_Keyboard\_to\_Clients: Off  
 Text\_Mode: On  
 Enable\_Timeout: On

Binary\_Mode: Off  
 Show\_Received\_Commands: Off  
 Execute\_Received\_Commands: On  
 Mode\_Duplex: On

PROXY SERVER, proxy model.

Send\_And\_Close: Off  
 Show\_Received\_Data: On  
 Echo\_Keyboard\_to\_Clients: Off  
 Text\_Mode: On  
 Enable\_Timeout: Off

Binary\_Mode: Off  
 Show\_Received\_Commands: Off  
 Execute\_Received\_Commands: Off  
 Mode\_Duplex: On

STANDARD SERVER, standard model.

Send\_And\_Close: Off  
 Show\_Received\_Data: On  
 Echo\_Keyboard\_to\_Clients: On  
 Text\_Mode: On  
 Enable\_Timeout: Off

Binary\_Mode: Off  
 Show\_Received\_Commands: Off  
 Execute\_Received\_Commands: Off  
 Mode\_Duplex: On



**CLIENT MODELS**

STANDARD CLIENT, standard model.

Send\_And\_Close: Off  
 Show\_Received\_Data: On  
 Echo\_Keyboard\_to\_Clients: On  
 Text\_Mode: On

Binary\_Mode: Off  
 Show\_Received\_Commands: Off  
 Execute\_Received\_Commands: Off  
 Mode\_Duplex: On

Enable\_Timeout: Off

HTTP TEXT CLIENT, http text model

Send\_And\_Close: Off

Binary\_Mode: Off

Show\_Received\_Data: On

Show\_Received\_Commands: Off

Echo\_Keyboard\_to\_Clients: On

Execute\_Received\_Commands: Off

Text\_Mode: On

Mode\_Duplex: On

Enable\_Timeout: Off

HTTP BINARY CLIENT, http binary model

Send\_And\_Close: Off

Binary\_Mode: On

Show\_Received\_Data: Off

Show\_Received\_Commands: Off

Echo\_Keyboard\_to\_Clients: On

Execute\_Received\_Commands: Off

Text\_Mode: Off

Mode\_Duplex: On

Enable\_Timeout: Off

Waiting Timeout : maximum time for receiving or waiting data.

Connection Timeout : maximum duration of a connection.

Leaving Timeout: Maximum time for gracefully disconnection.

Purging Timeout: maximum time to check that no data is waiting in the receive buffer, after a disconnection.

PreWaiting Timeout : Maximum time for a client, to perform a connection to a server.



## Server

Server

Configuration Model

Http HTTP 1.0 ↓

Panel  Proxy  Std

ServerDir wsplug

Server Port 80

Mailbox name mailbox

LogFile wsplug\server.log

ServerProxy

ProxyPort 80

ProxyHost me

Open Close Cancel

First you must define a server configuration model.

- Http for Http ("Web") server
- Proxy for proxy server
- Std for standard server
- Panel for using the configuration menu setting

If the Http mode is set you can select the Http standard reference (either 0.9 or 1.0). The recommended value is 1.0.

A server directory is required (home directory, where files are located).

The server port must be indicated (a number, between 0 and 65335).

If Http model is selected, a mailbox name (mailbox for example) has to be defined.

The production of a LogFile is enabled by setting on the LogFile flag.

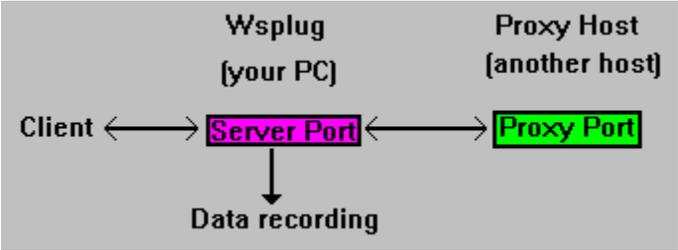
The ServerProxy function is enabled by setting on the ServerProxy flag, you have to define in this case a proxy port and a proxy host.

The connection is opened, by pressing the open button.

### About proxy ...

Proxy function acts as an active relay between a client and a server. Client is connected on Wsplug Server Port, while Wsplug is connected to the Proxy Port of the Proxy Host. Data exchanged between

the client and the Proxy Host can be recorded in a file by Wsplug.





## Client

Client

Configuration Model

Std  HttpText  HttpBinary

Panel

Log File

Port   Enable Log File

Connect to host

OPEN CLOSE CANCEL

A configuration model has to be defined.

Std, a standard client.

Http Text, an http client, incoming documents are echoed to the screen.

Http Binary, an http client, incoming documents are memorised in the LogFile.

Panel, the configuration menu is used.

The production of a LogFile is enable by setting on the Enable\_Log\_File

The port used for connection (0...65535) has to be defined.

A target host must be specified.

Connection is opened by pressing the open button.

### How to get an HTML document.

Select the HttpText if you want to see the document in a text format, or HttpBinary to save it in a file.

#### Manual method

To execute an URL like `http://kuhttp.cc.ukans.edu/lynx_help/HTML_quick.html`, perform the following operations:

Connect to host `kuhttp.cc.ukans.edu`.

Wait for the "Login" message

Using the command item of `wsplug` menu, type :

`GET /lynx_help/HTML_quick.html`.

Then press the OK button.

Use the statistics box to monitor the transfer.

#### Automatic method.

[Use the URL dialog box.](#)



## Statistics

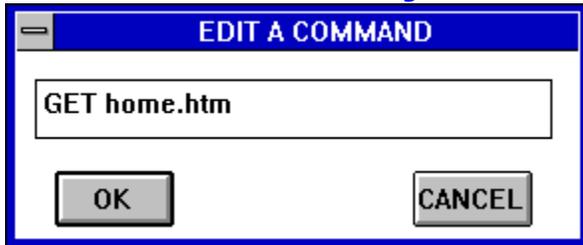
Statistics						
Mon 6/11/95 - 19:05:18						
0 Channels are used						
9 Channels are free						
Ch.	State	.tCNX.	Time.	Rx Bytes.	Tx Bytes.	Connected to
0	free	0	0	0	0	0 0.0.0.0:0
1	free	0	0	0	0	0 0.0.0.0:0
2	free	0	0	0	0	0 0.0.0.0:0
3	free	0	0	0	0	0 0.0.0.0:0
4	free	0	0	0	0	0 0.0.0.0:0
5	free	0	0	0	0	0 0.0.0.0:0
6	free	0	0	0	0	0 0.0.0.0:0
7	free	0	0	0	0	0 0.0.0.0:0
8	free	0	0	0	0	0 0.0.0.0:0

### The statistics box displays :

- the state of all the available channel (State)
- the duration of the current connection (tCNX)
- the duration of the current state (Time)
  - the number of Rx bytes
- the number of Tx bytes
  - the IP address of the remote connection side
  - the Port number of the remote connection side



## Command Facility

A dialog box titled "EDIT A COMMAND" with a blue header bar. It contains a text input field with the text "GET home.htm" and two buttons labeled "OK" and "CANCEL" at the bottom.

EDIT A COMMAND

GET home.htm

OK CANCEL

This box is used to type a command, which can be echoed to the remote connection side, according to the Echo\_Keyboard\_To\_Clients flag.



## URL - Page Fetcher



This box is used to send an http request to a remote server.

InText mode the received document is displayed in the Wsplug window.

In Binary mode the document is saved in a pre-defined directory.

The "connectionTimeout" parameter specifies the maximum time allocated to perform this operation.

It may be necessary to adjust the value of the PreWaitingTimeout (maximum time for connecting Wsplug to a server, default value = 60 seconds).

### Html page renaming

Wsplug includes two options for renaming the html pages, "AutoNameFile" and "UsePrefix".

- With "AutoNameFile" wsplug tries to find a dos name similar to the original page name, and adds an index yz to this name.

- With "UsePrefix" all files are named as PREFIXyz.ext, PREFIX\*.\* defines in this case all the documents found in a N\_Order research.

- The (yz) index field is used by wsplug fo renaming html pages. It is a two characters field, each character has a value between 0,1,2,...8,9 or a,b,c,...,x,y,z

### URL encoding

The 'http://' prefix is implicit, you only need to enter the other URL part (something like www.host.edu/home.html ...).

If the destination port is not equal to 80, it is encoded as :port, for example www.host.edu:6732/home.htm).

### HTTP Version

The oldest HTTP version is known as 0.9. When selecting this mode wsplug uses a "Simple Request". Upon receiving a "Simple Request" a server sends the requested document without adding any header. The new HTTP version (1.0 or later) supports "Full Request". Upon receiving a "Full Request" a server adds additionnal information (which includes in particular the data length) to the requested document.

### Directory

The directory where all incoming files are saved

### (Url) Browser

This button is used to select and Url included in a file (whose name typically ends by .htm), located somewhere on your disk.

### ProxyHost

For security reason, you may use a proxy server if your PC is connected to an ethernet network. Enter the proxy IP address or name in this case.

### Port

The port number associated to a ProxyHost, if a proxy host is used.

### Text-Binary

Binary mode is the normal option for this Wsplug function. Text mode can be used for test purposes.

### URL-Max

This is the maximum number of Http (.html) documents than you can get.

### Images-Max

This is the maximum number of images (typically .gif files) than you can get .

### OK Button

When this key is pressed an http request is sent to a remote server.

### OK+IMG Button

This feature is available only in binary mode. The http document and all associated images

(typically .gif files) are saved as DOS files in the selected directory. You can use your favourite browser to display the html document.

### Bookmark - The Directory Page - WSDIR.HTM

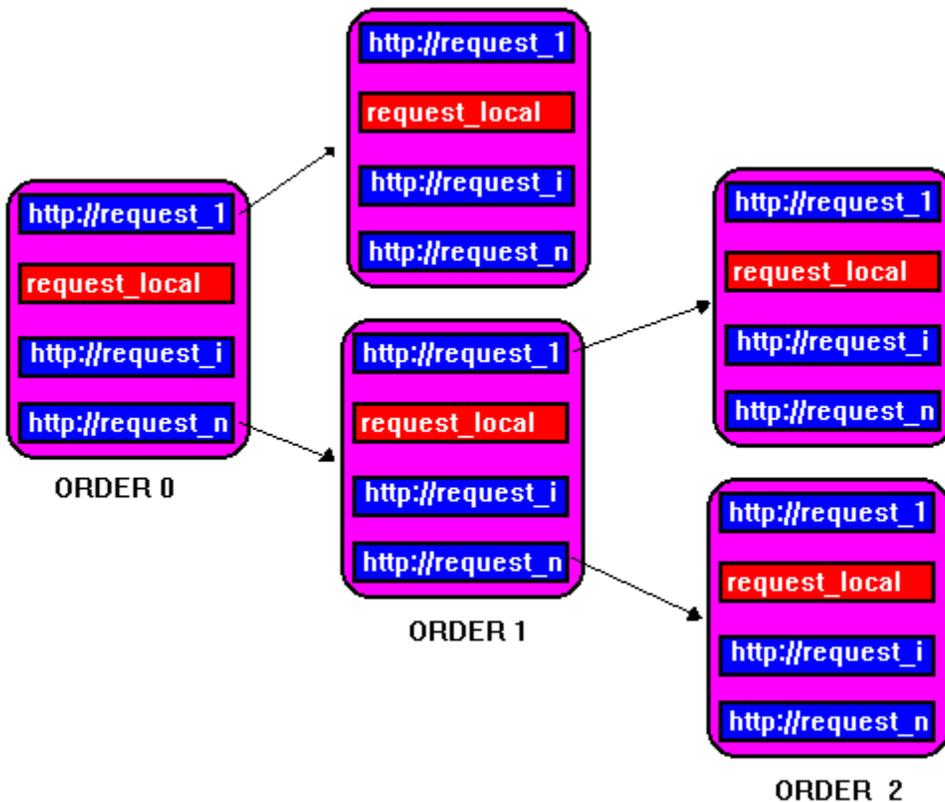
All wsplug requests are recorded in an html page typically named wsdir.htm and located in the directory specified in the Url dialog box. This document can be used by your favorite web browser, or by the wsplug url browser. You will find in this page useful information like original url, file name on your disk, file length and operation status.

#### Level N

**This powerful feature allows you to get a set of html documents. By definition the order of a first html document is 0, all the html pages pointed by this document are called first order pages, and so on...**

**If the host name part of URL (http://host/...) is equal to 2mypc, then the first html page is located on your PC (http://2mypc/path/file.htm is an alias of the local file c:\path\file.htm).**

See the "2mypc" topic, for more details.



A level\_N request with N=1, will give you all the html pages pointed by your first URL. You can restrict your research to the 'local html' pages references (LocalOnly / All switch, relative\_URL). You can select an order between 1 and 99.

The http documents and all associated images (typically .gif files) are saved as DOS files in the selected directory. You can use your favourite browser to display again these html documents.

#### Local-All-SamePath-DownPath

When "All" is selected all html documents pointed by an html page are requested.

With "Local" only the documents located on the same host are requested.

With "SamePath" only the documents located on the same host with the same path are requested.

With "DownPath" only the documents located on the same host with a same or down path are

requested.

**Check Html Header.**

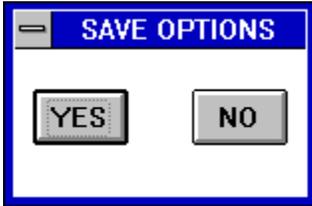
Checks that the incoming document is an html page, before browsing (only with http 1.0)

**Add Page Trailer.**

Adds a trailer to each html pages, for registered version only (value is on for unregistered version).



## Save Options



This dialog box save all the parameters used by Wsplug in the wsplug.ini file.



## Ping

Host

Data

Show Echo    Timeout     RetryNumber

Mon 15/01/96 - 15:59:14 , Pinging 129.182.51.227, ICMP\_length=24

129.182.51.227 is alive (0330 ms) Checksum= OK, Length=24, Seq=00007

Sent: 3, Received: 3, Lost: 00%, Time\_Average 0346 ms

Ping tells you if a host is alive in the internet network.

**Futhermore the blinking message "Alive" or "Timeout" is displayed under the Wsplug icon, when "Ping Auto" has been selected. This allows for example the user of an ethernet network to easily check that its gateway is alive. To activate this facility you shall press "PING Auto", then "QUIT" and then you shall reduce the Wsplug window.**

### Host

The host name or Ip address that you want to reach.

### Data

You can add some ASCII data in your ping packet.

### Show Echo

This option gives you more information about ping packets.

### Timeout

The maximum time that wsplug will wait for an answer to a previous ping packet.

### Retry Number

The maximum number of retries (usefull only when "PING Once" has been selected).

### Ping Once

A maximum of Retry\_Number ping packets will be sent to the destination host.

### Ping Auto

Non stop ping process.

### Stop

Ping process is stopped

### Quit

The ping dialog box is closed, but if selected the ping process is alive.

The host name that you want to ping.

You can add some ASCII data in your ping packet.

This Flag gives more information about ping packets.

The maximum time that wsplug will wait for an answer to a previous ping packet.

The maximum number of retries (usefull only when "PING Once" has been selected).

A maximum of `Retry_Number` ping packets will be sent to the destination host.

Non stop ping process.

Ping process is stopped

The ping dialog box is closed, but if selected the ping process is alive.

An http request.

The proxy port, if a proxy is used.

The directory where all incoming files are saved.

The proxy name, or IP address, if you need a proxy server.

The maximum amount of time to get a file.

Maximum time, for sanity check, while disconnecting.

Maximum time for gracefully disconnection.

The maximum number of http pages, than you can get (Order N).

The maximum number of images than you can get (Order N).

Get a document, without the associated images.

Get an http document and the associated images.

Http document is displayed on screen (for test only).

Http document is saved as a file.

This button cancels a request in progress.

Quit this dialog box.

This button is used to get a set of http documents.

The order of http documents research.

This option will get only the local (referring to the same host) url included in http documents.

This option will get all the URL included in an http document.

Send a file, then close the connection.

All incoming data are displayed.

Each key pressed is echoed to remote client(s).

Text mode is selected.

Binary mode is selected.

Incoming commands are displayed.

Incoming commands are executed (only GET is recognized).

Duplex mode is enabled (always set).

To enable all timeout values.

Maximum number of clients, connected to a server.  
A value between 1 and 25.



## 2mypc facility.

**<http://2mypc/path/file.htm>**

**To experiment this facility, try  
<http://2mypc/wsplug/sockprog.htm>**

This facility allows you to use a local html page (a .htm file), as a starting point for a N\_Order research (N\_Order = 1, 2, ...).

The local file is described by the URL <http://2mypc/path/page.htm>, where path is the complete description of the file page.htm, located in your hard drive (c:)

In page.htm only the absolute\_URL(s) (encoded as < A HREF="http://host/path/file.htm">) will be requested by Wsplug.

### **Remarks.**

**a- the switch local/all, must be set to all**

**b- a particular field located in wsplug.ini ([Url], file:=) defines the disk name (default value is file:///c/).**

### **Examples**

If a file start.htm is located in the directory c:\rep1\rep2, the URL : <http://2mypc/rep1/rep2/start.htm> (with Order\_N = 1) will perform the following operations:

- The file start.htm is copied in the directory used by wsplug (tmp), and will be typically renamed 01start.htm (relative URL may be modified, in order to keep local link(s)).
- If the file contain two absolute URLs, then Wsplug will perform two requests, in order to get the two missing http pages.

A relative URL, refers a document located on the same host.  
It's encoded as `<A HREF="/path/file.htm">a name </A>`.

An absolute URL refers an external html pages, which is not located on the same host.  
It's encoded as `<A HREF="http://host/path/file.htm"> a name </A>`

## How to register



You can register through Compuserve's SWREG forum,  
GO SWREG, Registration ID: 9874  
Program Name: WSPLUG Version 2.0



Mail to 100666.2766@compuserve.com if you can't reach Compuserve's forum.



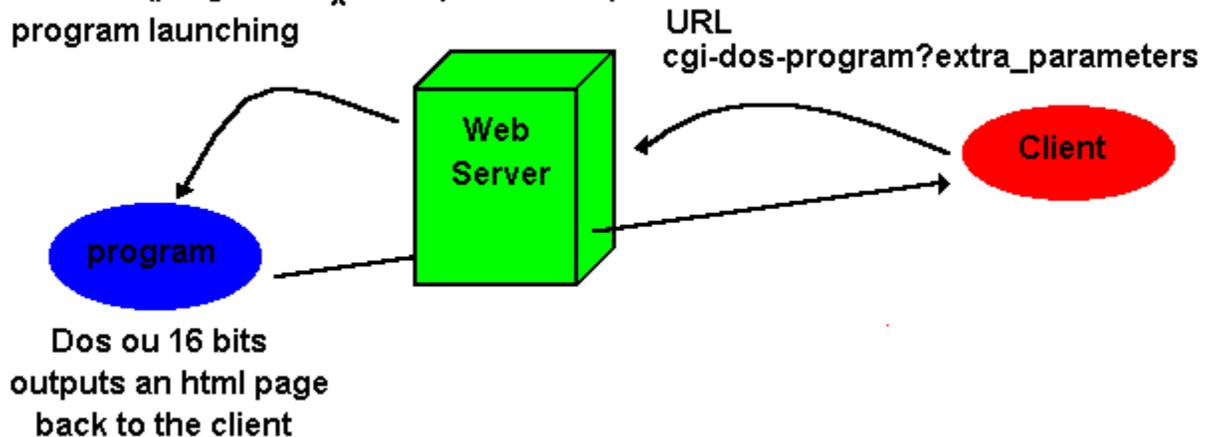
By registering you will get a personal license number.



## What is CGI ?

CGI (common Gateway Interface) is a way of running programs from a web server. A client sends an URL that causes the server to launch a program, which outputs data (html page in fact) back to the client.

**WinExec(program ch<sub>x</sub> extra parameters)**  
program launching



As a web server Wsplug is able to launch any 16 bits program, to wait for its completion, and then to send its data back to the remote client.



## CGI parameters in wsplug.ini

Two parameters specifies how wsplug works with CGI (section =[CGI])

CGIMax (1...25) is the maximum number of CGI programs simultaneously working.

CGISynchro (0=no, 1=yes) specifies if a channel waits for the completion of a CGI program.

When CGIMax=1 and CGISynchro=1 only one CGI program can run at the same time.



## How to launch a program thru CGI

### The CGI-DOS.map file.

The first step is to describe the CGI program in the file CGI-DOS.map.

- A line which begins by the star (\*) character is a comment line.
- A line which doesn't begin by (\*) is a definition line associated with a CGI program.

The first word of a definition line is the alias name (from the client side) of the CGI program, an alias name always begins by the prefix cgi-dos.

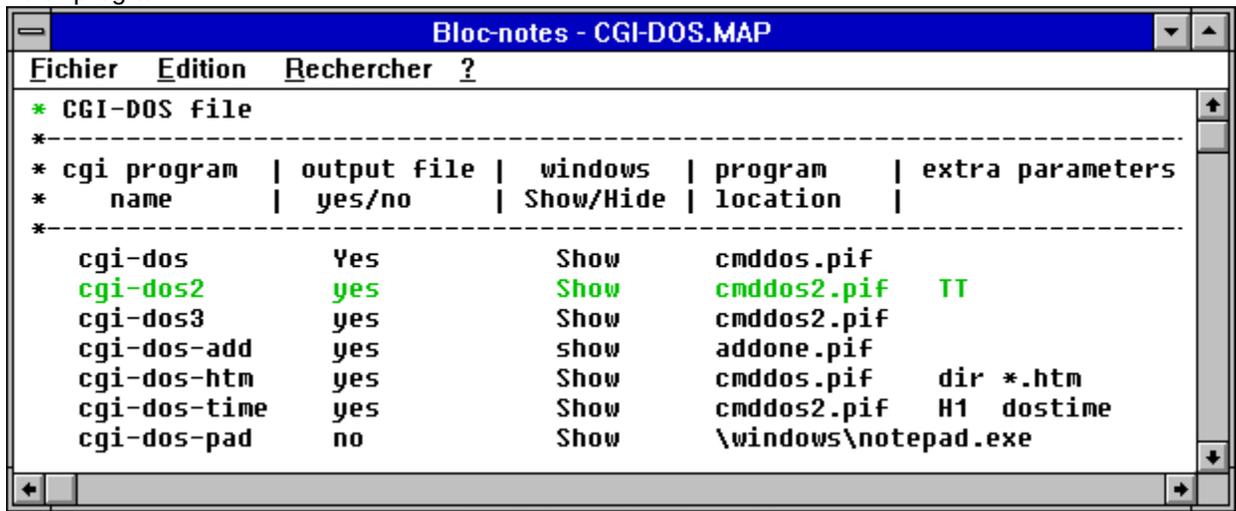
The second word (yes or no) of a definition line stipulates if the CGI program outputs data back to the client. For example the program cgi-dos2 sends back an html page, while the program notepad.exe sends nothing back to the client.

The third word (yes or no) of a definition line stipulates if the system shows the working window of the CGI program, it should be usually set to "yes" (for security reason).

The fourth word is the complete path and name of the CGI program in your PC (for example

windows\note-pad.exe). In this Wsplug version the CGI program is launched by the WinExec API.

The other (optional) words in the definition line defines an extra\_parameters\_list used for running the CGI program.



* cgi program name	output file yes/no	windows Show/Hide	program location	extra parameters
cgi-dos	Yes	Show	cmdos.pif	
cgi-dos2	yes	Show	cmdos2.pif	TT
cgi-dos3	yes	Show	cmdos2.pif	
cgi-dos-add	yes	show	addone.pif	
cgi-dos-htm	yes	Show	cmdos.pif	dir *.htm
cgi-dos-time	yes	Show	cmdos2.pif	H1 dostime
cgi-dos-pad	no	Show	\windows\notepad.exe	



## How the CGI program is launched. chx\_yz file, chx\_yz.url file, chx\_yz.tok file

The CGI program is launched with the following command line:

`program_name chx_yz extra_parameters_list remote_parameters_list`

where:

\* program\_name is the CGI program name, as defined in the definition line.

\* chx (x=0,1,...,25) is the name of the (http) calling channel, yz is a number between 00 and 99. The file chx\_yz can be used by the CGI program to output its data (wsplug creates a file chx\_yz, with a null length). The CGI program must write in the file chx\_yz.tok (created by wsplug with a null length) the name of the file which will be sent by the web server to the remote client. The use of the program vcopy.exe (included in wsplug.zip package) is strongly recommended to write the CGI output file name in the chx\_yz.tok file (for example vcopy ch0\_57 ch0\_57.tok, if ch0\_57 is the output file used by the CGI program). chx\_yz is omitted in the command line when the CGI program outputs no data back to the client.

\* The extra\_parameters\_list is an optional parameter list defined in the definition line.

\* The remote\_parameters\_list is the list of parameters defined by the remote client (typically by the mean of an html form).

**The complete client request is saved by wsplug in a file named chx\_yz.url, which can be used for specific purposes.**



## Rules for running DOS programs

A- If you are using windows 3.1, the share utility must be installed.

B- The name of the CGI program output file must be written in the chx\_yz.tok file by the mean of

vcopy.exe (included in the [wsplug.zip](#) package).

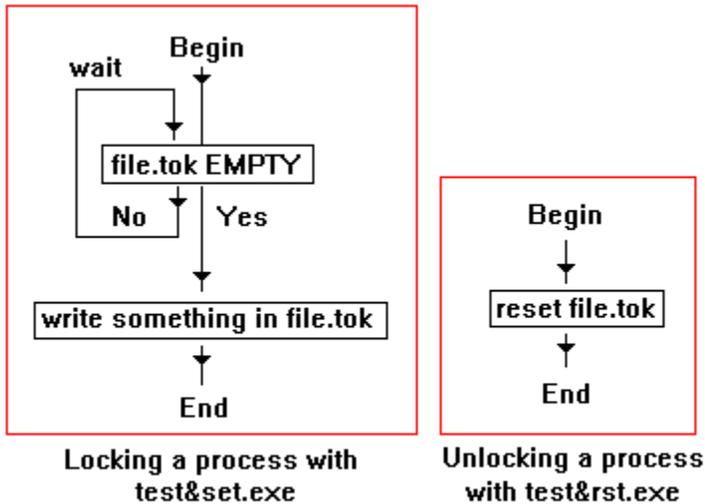
C- If the CGI program modifies an html file (.htm) which can be accessed by other (web) clients, this file must be modified by scopy.exe (included in the [wsplug.zip](#) package).

D- If multiple instances of a CGI program use the same file, the file accesses must be locked (and unlocked) by test&set.exe and test&rst.exe (included in the [wsplug.zip](#) package).

Suppose that your CGI program increments a counter, located in the file count.txt. You can use a file named count.tok to lock the accesses to count.txt.

If the file count.tok is empty the command "test&set count.tok busy" will lock further access to count.txt by writing the word busy in the file count.tok. If the file count.tok contains something test&set.exe will wait.

When the count.txt file has been modified, test&rst.exe resets the count.tok file.



## An example, CGI-DOS-ADD

As shown by the cgi-dos.map file, cgi-dos-add is the alias name of the CGI program addone.pif. This program outputs data back to the client, and [wsplug](#) shows its working window. This program is launched thru an URL like [http://your\\_host\\_name/cgi-dos-add?](http://your_host_name/cgi-dos-add?).

Addone.pif is a way to run a DOS program under windows, the dos program name is addone.bat.

addone.bat is a batch file which performs the following operations :

\* line 1: test&set count.tok busy

The file count.tok is used as a lock. the string "busy" is written in count.tok by test&set.exe if this file is empty.

\* line 2: addoneto count.txt

The program addoneto.exe adds one to the content of the file count.txt.

\* line 3 : copy count.beg+count.txt+count.end %1

This line builds an html page named chx\_yz (%1)

\* line 4 : scopy %1 count.htm

The content of the file chx\_yz (%1) is moved in count.htm, using scopy.exe

\* line 5 : vcopy count.htm %1.tok

The string count.htm is written (by vcopy.exe) in the file chx\_yz, which contains the name of the file to send back to the remote client (count.htm).

\* line 6 : test&rst count.tok

test&rst.exe reset the count.tok file which is used as a lock.

\* line 7 : exit

end of the dos program.

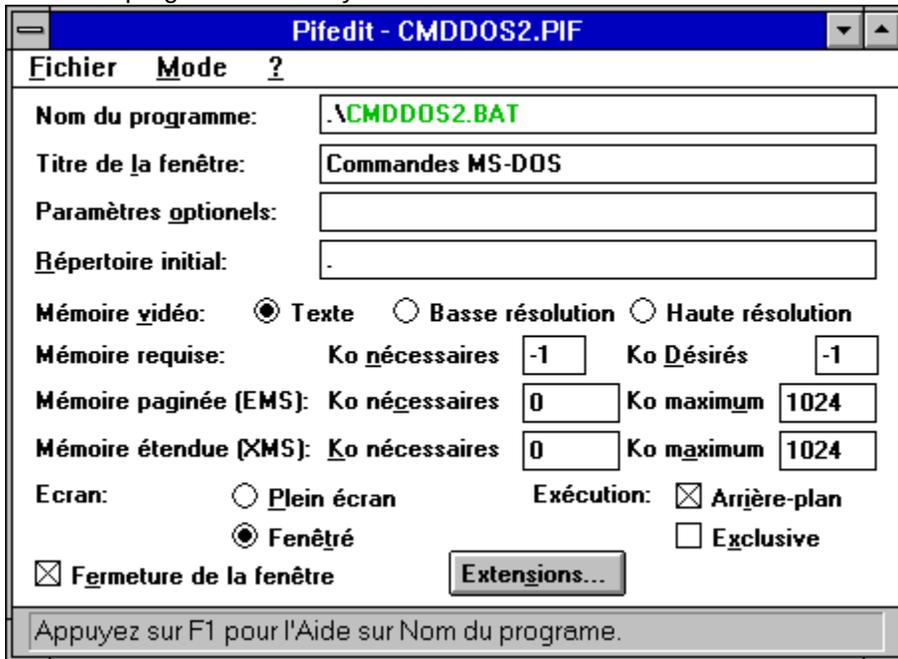
A line which begins by \* is a comment line

The CGI Program alias name.

Does the CGI program output some data ?

Do you want to show or hide the CGI Program working window ?

The CGI program name on your PC.



Pifedit - CMDDOS2.PIF

Fichier Mode ?

Nom du programme:

Titre de la fenêtre:

Paramètres optionels:

Répertoire initial:

Mémoire vidéo:  Texte  Basse résolution  Haute résolution

Mémoire requise: Ko nécessaires  Ko Désirés

Mémoire paginée (EMS): Ko nécessaires  Ko maximum

Mémoire étendue (XMS): Ko nécessaires  Ko maximum

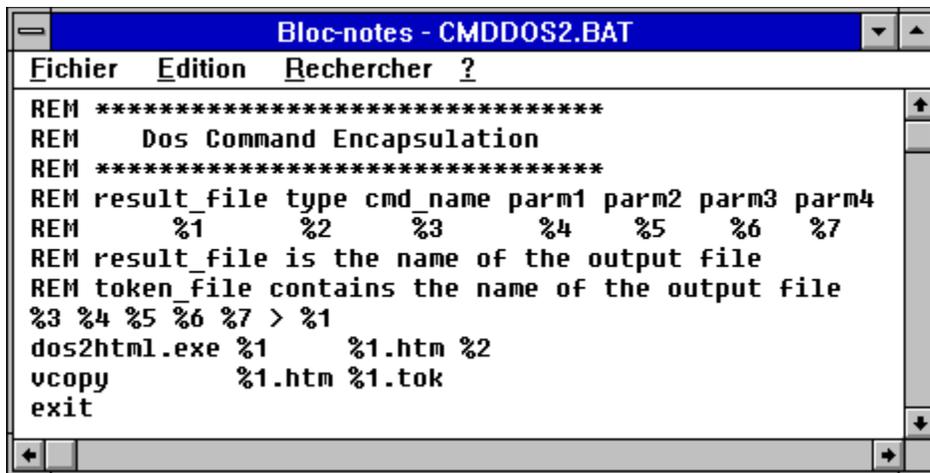
Ecran:  Plein écran  Fenêtré

Exécution:  Arrière-plan  Exclusive

Fermeture de la fenêtre

Appuyez sur F1 pour l'Aide sur Nom du programme.

Extra parameters (TT in this case)



```
Fichier  Edition  Recherche  ?
REM *****
REM   Dos Command Encapsulation
REM *****
REM result_file type cmd_name parm1 parm2 parm3 parm4
REM   %1      %2      %3      %4      %5      %6      %7
REM result_file is the name of the output file
REM token_file contains the name of the output file
%3 %4 %5 %6 %7 > %1
dos2html.exe %1      %1.htm %2
vcopy      %1.htm %1.tok
exit
```

lines 1 to 7 : comment lines

line 8 :

The dos program (%3) is launched with the parameters %4 %5 %6 %7. The program output datas are written in the file %1 (chx\_yz).

line 9:

dos2html.exe builds an html page (chx\_yz.htm) from the file chx\_yz, %2 defines the paragraph used in this document (H1, H2 ...)

line 10:

the name of the output file (chx\_yz.htm) which is sent back to the client is written in chx\_yz.tok.

line 11:

End of the dos program.

The number of retries (0...).

This option only gets the html pages with the same host and the same path.

This option gets html pages with the same host and same or down path.

With this option wsplug automatically renames html pages.

With this option wspug uses a prefix (max size = six letters) to rename html pages.

## **Wsplug command line.**

### **Syntax:**

**wsplug -option1 -option2 value2 ...option n**

### **Options:**

**-s, -ping, -server, -u, -ud, -n, -a, -p, -o, -t, -all, -local, -samepath, -downpath, -http, -sdir, -udir, -ubook, -sport**

### **Option list**

-s, shows the Wsplug working window.

-ping hostname, starts the ping function.

-server, starts the server function.

-u url, starts the url function, with an url (url == http://hostname/path/file.html).

-ud url, same as the -u function, but for debugging purposes.

-http 0 or 1, selects the http standard (0 <=> 0.9, 1 <=> 1.0)

-n dosfilename, this option is used with the -u option to start an url and then to save the result in a dos file (name == dosfilename).

-retry value, set the number of retries to value (0..).

-a, this option selects the autaname mode for the url function.

-p prefixvalue, this option selects the prefix mode for the url function.

-o value, this function sets the order value for the url function (0=html page+images, 1=order one ...).

-t value, this option sets the connection timeout for the url function.

-all, this option selects the "all mode" for the url function.

-local, this option selects the "local mode" for the url function.

-samepath, this option selects the "samepath" mode for the url function.

-downpath, this option selects the "downpath" mode for the url function.

-sdir, the server directory.

-sport, the server port.

-udir, the Url directory.

-ubook, the bookmark file name, generated in the Url directory (-udir)

### **Examples**



**wsplug -u http://hostname/path/file.html -n dosfile.htm -t 600**

This command gets the file.html page and saves it in the file dosfile.htm, with a timeout value of 600 seconds.



**wsplug -server -http 1 -sport 80 -sdir \wsplug**

This command starts the server function using http 1.0, on the port 80, the directory \wsplug is used (-sdir \wsplug).



**wsplug -ping hostname**

This command starts the ping function.



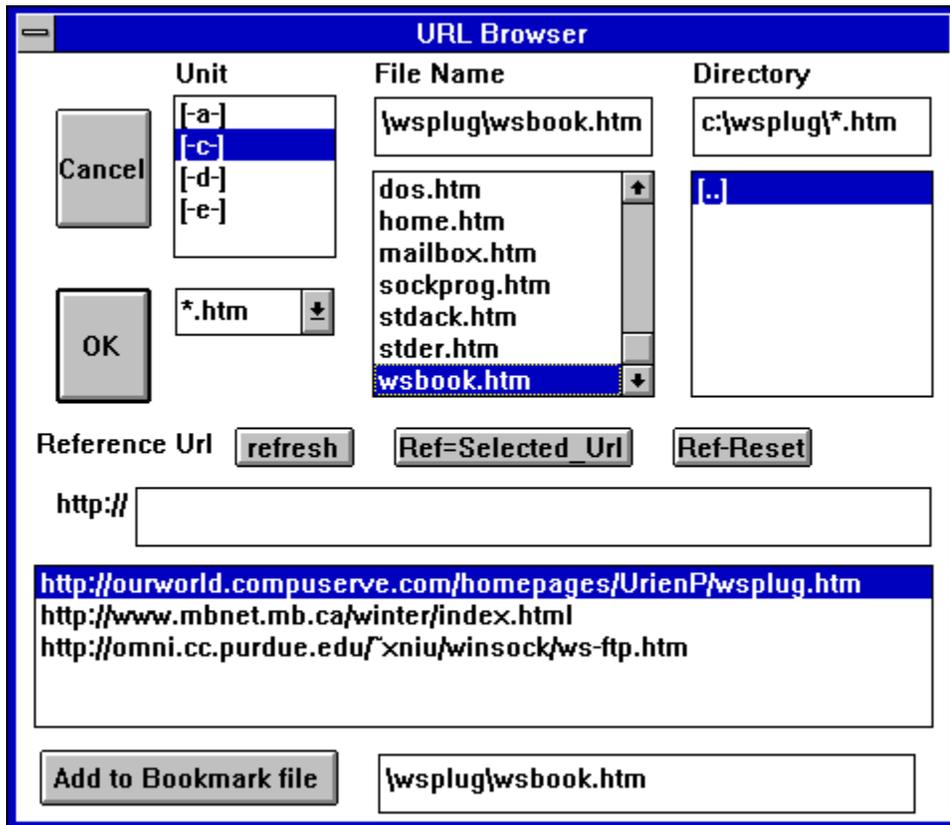
**wsplug -u http://hostname/path/file.html -http 1 -o 1 -p test -downpath -retry 5 -t 600 -udir \tmp -ubook book.htm**

This command starts the url function (url == http://hostname/path/file.html), uses http 1.0 (-http 1), sets order to one (-o 1), uses the prefix test (-p test), selects the downpath mode (-downpath), enables five retries (-retry 5), with a connection timeout value of 600 seconds (-t 600). The directory \tmp (-udir \tmp) is used to store the requested documents, a bookmark book.htm (-ubook book.htm) is generated with this request.

This button resets the url field.



## Url Browser



This dialog box is used to select an Url included in a file located somewhere in your system. If you enter the Url used to get this html page (<http://www.host.com/path/file.htm> for example) then the relative\_URL are displayed (press the refresh button if necessary), otherwise only the absolute\_URL are shown.

refresh button: updates the Url Browser using the reference Url.

Ref=Selected\_Url button : uses the current selected Url as reference Url

Ref-Reset button : resets the reference Url

Add-to-Bookmark-file : adds the selected Url to a particular html page (wsbook.htm for example).

A two character string used for html pages renaming.

The http version used (0.9 first version, or 1.0)



## Content Type.

In HTTP/1.0 a web server adds a header to the requested document.

Example:

Server: Wsplug/3.2

MIME-Version: 1.0

Content-Type: text/html

Content-Length: 883

->empty line

<html> -> 883 bytes of information.

</html>

The field "Content-Type:" specifies the document type (for example file.html is associated to Content-Type: text/html, text is the Type and html the Subtype)

The associations between file extension and Content-Type are defined in wsplug.ini, in the [Mime] section. Extensions .htm, .html, .gif, .jpg, .jpeg are processed by wsplug itself.

Example:

[Mime]

txt=text/plain

bat=text/plain

exe=application/octet-stream

com=application/octet-stream

tar=application/x-tar

zip=application/x-zip-compressed

gz=application/x-gzip

z=application/x-compress

js=application/x-javascript

ls=application/x-javascript

ps=application/x-postscript

bmp=image/x-MS-bmp

tif=image/tiff

avi=video/x-msvideo

mov=video/quicktime

qt=video/quicktime

mpg=video/mpeg

wav=audio/x-wav

aif=audio/x-aiff

au=audio/basic

snd=audio/basic

This button enables/disables the addition of a trailer to html pages.  
For registered version only.

Checks that an incoming document is an html page before browsing.  
(http 1.0 only).

The file which records all requested Urls



