

Simplihost 4.3.0 documentation

fossilfishhooks2

Introduction

Simplihost web server is a lightweight server application designed to serve web content over HTTP. It is built using C++. The server is intended to be simple and easy to use, making it suitable for various web development and testing purposes. As of now it is restricted to Windows.

Asynchronous Response

Simplihost now supports asynchronous responses. This means it can process multiple requests simultaneously.

File Transfer

Simplihost supports only HTTP. The file specified (see filemap and configuration) is loaded. The header is sent, including the calculated file size. The file is sent in one go, and the program waits a time specified in the config for this to execute.

Filemap and Configuration

Simplihost 4.2.0 is the update in which the config file was added. This is forced to be simplihost.cfg. As of now, it may have up to 4 elements (minimum 0, all have a default). These are PTT, PRT, MPS, and MHS. PTT is the time in milliseconds the program will wait after sending a file. MHS is the maximum size for an HTTP header. MPS is the maximum URL length and maximum file path length. PRT is the port to use for hosting. This is by default 80.

The config file structure is very specific. A line may only contain one of the three factors mentioned above, followed by a singular space, and then its value. See the default simplihost.cfg included in Release 4.2.0 for an example. The default value for PTT is 2000. MHS and MPS default to 16384.

The file_map.txt is the only way simplihost knows which file corresponds to which requested link. Each block in said file is exactly four lines. They are as follows, in order

1. Requested URL extension (ex. /index)
2. HTTP header to send (complete except for content-length)
3. File to send (ex. index.html)
4. Command to execute (ex. Run.bat)

Reading file_map.txt

Simplihost matches the requested URL to every fourth line in file_map.txt. If it isn't found, it skips to sending 404 (see 404s). If it is found, the specified command will be executed. Then the following HTTP header will be sent, along with a content-length line which is calculated from the file specified in line 4. This order is to allow the command to modify file_map.txt or the designated file before it is sent.

404s

Should a requested URL extension not be found in file_map.txt, simplihost will execute 404.bat (in local directory) with the first argument being the requested URL. It will then send a soft 404 message using a 200 OK header and simplihost_defaults//404.html. 404.bat may modify 404.html to change it to a useful webpage.

Files

Simplihost doesn't need many helper files, but some must be present for proper execution.

In root directory:

simplihost.exe

file_map.txt

404.bat

simplihost_defaults (folder)

In //simplihost_defaults:

404.html

Recommended files:

simplihost.cfg

index.html

404.bat.log

Installation

There should not be anything to do other than download the latest release. Make sure simplihost is on the local disk, as it doesn't run correctly on network paths.

Usage

Start simplihost by double clicking it. Make sure it is allowed to access your network! It should automatically begin hosting based on file_map.txt.

Example

A good example for static and dynamic content hosting with simplihost is the Chattr chat console. It is available alongside simplihost source code on GitHub.

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