HTTP – HyperText Transfer Protocol

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HTTP stands for **Hypertext Transfer Protocol**. It's the network protocol used to deliver virtually all files and other data (collectively called *resources*) on the World Wide Web, whether they're HTML files, image files, query results, or anything else. Usually, HTTP takes place through TCP/IP sockets (and this tutorial ignores other possibilities).

A browser is an *HTTP client* because it sends requests to an *HTTP server* (Web server), which then sends responses back to the client. The standard (and default) port for HTTP servers to listen on is 80, though they can use any port.

HTTP is used to transmit *resources*, not just files. A resource is some chunk of information that can be identified by a URL (it's the **R** in **URL**). The most common kind of resource is a file, but a resource may also be a dynamically-generated query result, the output of a CGI script, a document that is available in several languages, or something else.

To retrieve the file at the URL

http://www.somehost.com/path/file.html

first open a socket to the host **www.somehost.com**, port 80 (use the default port of 80 because none is specified in the URL). Then, send something like the following through the socket:

GET /path/file.html HTTP/1.0

From: someuser@jmarshall.com

User-Agent: HTTPTool/1.0

[blank line here]

The server should respond with something like the following, sent back through the same socket:

HTTP/1.0 200 OK

Date: Fri, 31 Dec 1999 23:59:59 GMT

Content-Type: text/html

Content-Length: 1354

# Sample :

<html>

<body>

<h1>Happy New Millennium!</h1>

(more file contents)

.

.

.

</body>

</html>

After sending the response, the server closes the socket.

To familiarize yourself with requests and responses, [manually experiment](https://www.jmarshall.com/easy/http/http_footnotes.html#manually) with HTTP using telnet.

Resource:

* HTTP Made Really EasyA Practical Guide to Writing Clients and Servers
  + https://www.jmarshall.com/easy/http/