15 Absolute URLs

**Absolute URLs**

An absolute URL represents a unique address on the Internet for any piece of digital media (resource).

Absolute URL syntax involves two parts, described in some textbooks as "scheme" and "scheme\_specific\_part", which must be separated by a colon and described in this manner (NO SPACES):

scheme:scheme\_specific\_part

This description, while technically correct, is hardly illuminating. Allow me to explain this to you using ordinary English.

When creating an absolute URL, you must specify what type of absolute URL you want, called the "scheme". Is this a web address? Is this an ftp address? Is this a telnet address? These are the questions that are resolved by stating the "scheme". You will be normally be using only two schemes, which are probably the most common types of absolute URLs on the Web:

**http** (Web address)  
**mailto** (email address)

There are two more schemes which you are likely to see, although we will not be using them in this class specifically:

**ftp** (ftp site address for transfer of files)  
**file** (file address on a hard disk or server)

**Web Addresses (http)**

Let us talk specifically of Web addresses (http), since we are most interested in that type of absolute URL. Let us begin by looking at the "scheme\_specific\_part".

Here is the address for the main server at Yahoo, the Web's most prominent search engine:

www.yahoo.com

"com" is the domain name.  
"yahoo" is the sub-domain name (which is commonly called the domain name).  
"www" is the name of the server in the "yahoo.com" domain.

There may be more than one server in a domain.

A server is a computer which delivers, or "serves", resources to any computer which requests them. A server which serves resources to computers via an http scheme is called a web server.

There are many different types of domains, as well:

"com" stands for "company"  
"org" stands for "organization"  
"edu" stands for "educational institution"  
"gov" stands for "government"  
etc...

The "scheme" for a Web address is "http", which stands for "hyper-text transfer protocol". This "scheme" is followed by a colon, then two slashes which form the beginning of the "scheme\_specific\_part". Thus, web addresses always begin with the following code:

http://

The absolute URL for the main server at Yahoo, then, would look like this:

http://www.yahoo.com/

"http" is the "scheme".  
":" separates the "scheme" from the "scheme\_specific\_part".  
"//" is the required prefix for an absolute web address.  
"www.yahoo.com" represents the server, the sub-domain, and the domain name.  
"/" is a reference to the root directory on the server. The root directory is the main web folder on the specified server for that domain; there is nothing outside of the root directory which may be served via the Web.

The above absolute URL points to the default or index HTML page on the Yahoo site. Thus:

http://www.yahoo.com/

is a shorthand for the following:

http://www.yahoo.com/index.html

Remember that when you use a URL, you are invoking a resource, which has to be some sort of digital file. Since the first shorthand example didn't explicitly state any text, graphic, animation, or sound resource, the web server at Yahoo had to guess what type of resource was desired. With the http scheme, web servers automatically assume that you are looking for an HTML text resource, namely, an HTML page.

Web servers are configured to serve a default HTML page when none is specified. The server software for the web server at Yahoo has been set to serve "**index.html**" as the default page for any directory on the server.

Thus, any sub-directory on Yahoo will automatically serve "**index.html**" if no other page is specified. The Arts area at Yahoo, therefore, could be expressed as either one of the following addresses:

http://dir.yahoo.com/Arts/ http://dir.yahoo.com/Arts/index.html

**"Arts"** is a sub-directory inside the root directory of the "dir" server at "yahoo.com". The index.html page specified here is inside the Arts sub-directory. To put this another way, index.html is an HTML page inside the Arts folder inside the main web folder on the "dir" server at Yahoo.

Not every server on the Web has been configured to serve "index.html" as the default page. The three most common default page names are:

index.html  
default.html  
welcome.html

(Note: If NO page in a particular directory has the default page name AND a user invokes an absolute URL to that directory without specifying a page name, the web server will usually deliver an index of ALL of the files in that particular directory to the user.)

**A Special Case**

With the URL, http://hills.ccsf.org/~dadams01, we have a web address which is located on a Unix time-share server. ~dadams01 essentially tells the browser to look for a directory, called public\_html, in the home directory of userid dadams01, and display a file called index.html.

**Case-Sensitivity and URLs**

Remember that URLs are case-sensitive. That means that the following URLs are NOT identical:

http://www.pge.com/greed/ http://www.pge.com/GREED/

The following URLs are NOT identical:

http://www.pge.com/greed/suffer.html http://www.pge.com/greed/Suffer.html

You MUST match case when you type out URLs, which means spelling your URLs with the exact same upper-and-lower-case combinations that appear in the original file or directory name.

**Email Addresses**

Absolute URLs for email addresses involve using the "mailto" scheme mentioned above. The format is simple: "mailto", followed by a colon, followed by the email address desired (NO SPACES!). This would be a mailto URL for my email address:

mailto:srubin45@comcast.net

If you type this URL into the location bar of your web browser, you will get a new email message with the appropriate email address pre-typed into the address area.

Here are more examples:

mailto:csadmin@digidesign.com mailto:somebody\_important@apple.com mailto:jobs@lavamind.com

mailto URLs are normally used to create automatic email messages from a hyper-text link on an HTML page. We will discuss creating hyper-text links later in this module.