

Overview to URLs and Web Protocols

Uniform Resource Locator (URL)

`protocol://servername.domain/directory/subdirectory/file.type`

Example

`http://www.durhamcollege.ca/depts/bitm/home.html`

Data Transfer Protocols

- Data transfer protocols are standardized formats used to package data for transmission/transference between two devices over a network
- The Internet communicates using numerous data transfer protocols, some of the most often used are:
 - HTTP - Hyper Text Transfer Protocol
 - HTTPS - Hyper Text Transfer Protocol (Secure)
 - SMTP - Simple Mail Transfer Protocol
 - FTP - File Transfer Protocol
 - RTP - Real-time Transport Protocol

Server Name.Domain

- After the `://` of the data transfer protocol until the next `/` is the host name (or server name) of the computer that you are visiting
- The last several characters after the last period indicates the type of institute or organization displaying the information
- Original top-level domains
 - .com** **commercial institution**
 - .org** **not-for-profit organization**
 - .net** **network/commercial institution (addition to .com)**
 - .int** **International organizations**
 - .edu** **educational institution**
 - .gov** **U.S. national and state government institution**
 - .mil** **U.S. military**
- **NOTE: part of the original every recognized country has their own two-character domain identifier**
 - e.g. Canada - **.ca**, United Kingdom - **.uk**, Germany - **.de** ...
- Popular domains (not originally top-level)
 - .biz** **.info** **.online** **.news**

`directory/sub-directory/file.type`

- Once you are to the web server, you must navigate to the proper file location of the resource requested
- This is similar to dialing a phone number for a large company/organization and then having to dial a phone extension to get a specific person
- Default file name in web server directories is `index.html`
- **NOTE:** you can map any file name as a default that is opened when no file.type is given explicitly, it makes your web site more portable to leave it as the default `index.html`

Absolute URL

- Provides every part of a URL
- To be used when you are referring to files/webpages on a remote server (i.e. not the server the file currently resides on).
- Analogy: Giving an exact mailing address that works no matter where you are: street address, city, province, postal code, country
- e.g. <http://www.google.ca>
 - If you are on a server other than the Google server this will still access the Google site

Relative URL

- Provides a path relative to the current position of the file
- To be used when you are referring to files/webpages on the same server (either in the current directory or a different one).
- Analogy: giving someone directions relative to where you are currently located: two block east, take a left, it is the second building on your right
- e.g. `../pages/example.html`
 - relative to the current page, go up into the parent directory (`../`), from there go into the directory named “pages” and access a file named “test.html”.
- To refer to the current directory: `./`
- To refer to the parent directory: `../`
- To refer to sub-directories: give the directory name