

## World Wide Web Primer

### Beginnings

- Tim Berners-Lee
  - Created the first workable hyperlink system for the Internet.
  - System was designed so that Physicists could share research papers.
- Berners-Lee set the groundwork for three universal technologies:
  - HTTP the universal communications language (how transmitted)
  - URL the directions to information (where)
  - HTML the mark-up language (how displayed)

### HTTP

- Hypertext Transfer Protocol
- The common highway information travels on
- Describes *how* data is communicated

### URL

- Universal Resource Locator
- The directions pointing to *where* information is stored
- Syntax:
  - `http://www.domainname.com/directory/filename.html`
- Allows you to go anywhere at anytime
- Information no longer limited by geography
- IP Addresses and Domain Names
  - Each computer on the Internet has a unique IP
  - Domain names shield the end-user from IP addresses
  - When you type in a name, a computer translates it into an IP address

## HTML

### Hypertext Markup Language

- Provides a common, open, simple, text-based and standards-based language for displaying information.
- Based on previous technologies (SGML) from the print world.
- By design, HTML is a *structural* language, not a *visual* language.
- HTML Hyper-linking allows for stream-of-conciseness browsing, where one interest leads to the next, which leads to the next and so on.
- Base items:
  - **Tag**
  - **Attribute**
  - **Value**
- Together, they are collectively called an **element**.
- Example element:

```
<h1 class="bodytext">
```

tag	attribute	value

## Tags

- Tags are commands that tell a browser *what* you want to control.
- They are either full words ( `<title>` ) or abbreviations ( `<p>` is for Paragraph, `<img>` is for Image ).
- Tags usually appear in pairs. Most require a closing tag, which is denoted by a slash ( `/` ) inside brackets.
- Examples:

```
<head></head>
<body></body>
<p></p>
<img>
<a></a>
```

## Attributes

- Attributes tell the browser *what part* of the tag you're going to alter.
- Examples:

```
bgcolor
src
size
width
alt
href
```

## Values

- Values tell the browser exactly *how* to alter the attribute specified in the tag.
- Examples:

```
= "white"
= "images/home.gif"
= "13"
= "left"
= "bicycle.html"
```

## Elements:

- A collection of tags, attributes and values.

```
<body bgcolor="#ffffff" text="#000000" alink="#6699FF">
<p align="left">Hello World</p>

<a href="bicycle.html" target="_blank"></a>
```

## A Basic HTML Page

```
<html>
  <head>
    <title>Page Title</title>
  </head>
  <body bgcolor="#ffffff" text="#000000">
    <p>Hello World</p>
  </body>
</html>
```

## What to learn more? View the Source...