HTML Frames
Agenda

• Advantages and disadvantages of frames
• FRAME template
• Defining rows and cols in a FRAMESET
• Common FRAME and FRAMESET attributes
• Nested frames
• Targeting a document to a named FRAME cell
Frame Advantages

- Certain parts of the interface (e.g., a TOC) are always on the screen
- Can avoid retyping common sections of multiple Web pages
- Consistent use across a large site sometimes simplifies user navigation
- A convenient way to mix text-oriented HTML with Java applets
- Image maps are more convenient if the map image remains on screen and only the results section changes
Frame Disadvantages

• The meaning of the “Back” and “Forward” buttons can be confusing
• Poorly designed frames can get the user lost
• Hard to find real URL of a page you want
  – Printing problems!
• Hard to bookmark "configuration"
• Some very old browsers do not support frames
• Security
  – Hackers can insert frame cells into your pages in some circumstances, perhaps stealing information intended for your site
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Frameset//EN">
<html><head>
<title>Document Title</title>
</head>
<body>
<!-- Stuff for non-Frames browsers -->
</body>
</html>
FRAMESET Attributes

• COLS, ROWS
  – A comma-separated list of pixel values, percentages, and weighted remainders
  – FRAMESET entries should always specify at least two rows or columns. Netscape problems if not!
  – Examples
    ```html
    <FRAMESET ROWS="50,10%,*,2*">
      ...
    </FRAMESET>
    ```
    ```html
    <FRAMESET COLS="25%,*,*">
      ...
    </FRAMESET>
    ```
<FRAMESET ROWS="50,10%,*,2*">
  ...
</FRAMESET>
FRAMESET Attributes (Continued)

- **FRAMEBORDER**
  - Indicates whether borders will be drawn *between* frame cells
  - YES or 1 specifies borders; NO or 0 specifies no border
  - Can be overridden by FRAMEBORDER settings in individual FRAME entries
  - Often used in conjunction with BORDER=0 and FRAMESPACING=0

- **BORDER (Netscape), FRAMESPACING (IE)**
  - Specify the thickness of the border between cells
  - Apply to outermost FRAMESET only

- **BORDERCOLOR**
  - Sets the color of the border between cell, using either a hex RGB value or color name
Frame Border, Examples

### Frame Cell
This is a sample HTML document to be used in frame cells.

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FRAME: Specifying Content of Frame Cells

- **SRC**
  - URL of the document to place in the frame cell

- **NAME**
  - Supplies destination for TARGET attribute of hypertext links

- **FRAMEBORDER, BORDERCOLOR**

- **MARGINWIDTH, MARGINHEIGHT**
  - Specifies the left/right and top/bottom cell margins, respectively

- **SCROLLING**
  - Indicates whether cells should have scrollbars

- **NORESIZE**
  - Disables the ability to resize the frame cells
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Frameset//EN">
<html>
  <head><title>Frame Example 1</title></head>
  <frameset rows="55%,45%">
    <frameset cols="*,*,*">
      <frame src="Frame-Cell.html">
      <frame src="Frame-Cell.html">
      <frame src="Frame-Cell.html">
    </frameset>
    <frameset cols="*,*">
      <frame src="Frame-Cell.html">
      <frame src="Frame-Cell.html">
    </frameset>
  </frameset>
  <noframes>
    <body>
      Your browser does not support frames. Please see <a href="Frame-Cell.html">non-frames version</a>.
    </body>
  </noframes>
</html>
Frame Example 1, Result

Frame Cell

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Frame Cell

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Frame Cell

This is a sample HTML document to be used in frame cells.
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Frameset//EN">

<HTML>
<HEAD><TITLE>Frame Example 2</TITLE></HEAD>

<FRAMESET COLS="55%,45%">
   <FRAMESET ROWS="*,*,*,*">
      <FRAME SRC="Frame-Cell.html">
      <FRAME SRC="Frame-Cell.html">
      <FRAME SRC="Frame-Cell.html">
   </FRAMESET>
</FRAMESET>

<FRAMESET ROWS="*,*">
   <FRAME SRC="Frame-Cell.html">
   <FRAME SRC="Frame-Cell.html">
</FRAMESET>

<NOFrames>
   <BODY>
      Your browser does not support frames. Please see
      <A HREF="Frame-Cell.html">nonframes version</A>.
   </BODY>
</NOFRAMES>
</FRAMESET>
</HTML>
Frame Example 2, Result

Frame Cell
This is a sample HTML document to be used in frame cells.

Frame Cell
This is a sample HTML document to be used in frame cells.

Frame Cell
This is a sample HTML document to be used in frame cells.

Frame Cell
This is a sample HTML document to be used in frame cells.
Targeting Frame Cells

- Specify the cell in which to place a page referenced by a hyperlink

- The NAME Attribute of FRAME
  
  `<FRAME SRC="..." NAME="cellName">`

- The TARGET Attribute of A HREF
  
  `<A HREF="..." TARGET="cellName">`
**Introduction**

A new breakthrough in cold fusion technology!

A ripe opportunity for the lucky investor!

Accepted by the scientific community! Documented in *The Journal of Irreproducible Results*.
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Frameset//EN">
<html>
<head>
  <title>Investing in Cold Fusion</title>
</head>
<frameset rows="75, *">
  <frame src="TOC.html" name="TOC">
  <frame src="Introduction.html" name="Main">
  <noframes>
    <body>
      This page requires Frames. For a non-Frames version, <a href="Introduction.html">the introduction</a>.
    </body>
  </noframes>
</frameset>
</html>
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<html>
<head>
    <title>Table of Contents</title>
</head>
<body>
<table width="100%">
<tr><th><a href="Introduction.html" target="Main">Introduction</a></th>
    <th><a href="Potential.html" target="Main">Potential</a></th>
    <th><a href="Investing.html" target="Main">Investing</a></th>
    <th><a href="References.html" target="Main">References</a></th>
</tr>
</table>
</body>
</html>
Targeting Example, Results

Investing in Cold Fusion Technology

To take advantage of this once in a lifetime opportunity, send check or money order to:

Cold Fusion
PO Box 255
Predefined Frame Names

• _blank
  – Load document into a new browser window

• _top
  – Causes the linked document to take up the whole browser window
  – Document will not be contained in a frame cell

• _parent
  – Places document in the immediate FRAMESET parent
  – Same as _top if no nested frames

• _self
  – Place document in current cell
  – Only necessary to override a BASE entry
Summary

• Frames require a Frameset DOCTYPE for validation

• A FRAMESET can be divided either into columns or rows
  – To create both rows and columns use nested FRAMESETs

• By giving a FRAME a name, documents can be targeted to the named frame cell
  – <FRAME … NAME="…">  
  – <A HREF="…" TARGET="…">  

• There are four predefined frame names
  – _blank, _top, _parent, and _self