



# HTML Frames

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Taught by the author of *Core Servlets and JSP*, *More Servlets and JSP*, and this tutorial. Available at public venues, or customized versions can be held on-site at your organization. Contact [hall@coreservlets.com](mailto:hall@coreservlets.com) for details.

## 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

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## 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

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## 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

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## Frame Template

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Frameset//EN">
<HTML>
<HEAD><TITLE>Document Title</TITLE></HEAD>

<FRAMESET ...>
  <!-- FRAME and Nested FRAMESET Entries -->
  <NOFRAMES>
    <BODY>
      <!-- Stuff for non-Frames browsers -->
    </BODY>
  </NOFRAMES>
</FRAMESET>
</HTML>
```

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# 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

```
<FRAMESET ROWS="50,10%,*,2*">
```

```
...
```

```
</FRAMESET>
```

---

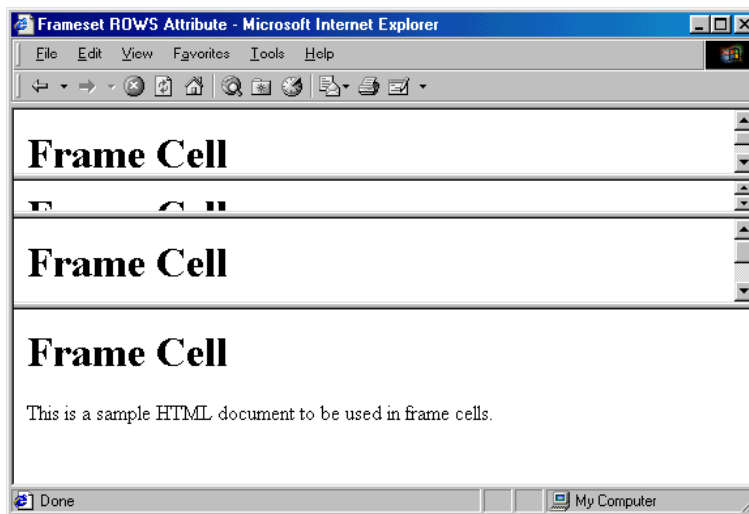
```
<FRAMESET COLS="25%,*,*">
```

```
...
```

```
</FRAMESET>
```

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# FRAMESET ROWS, Example



```
<FRAMESET ROWS="50,10%,*,2*">
```

```
...
```

```
</FRAMESET>
```

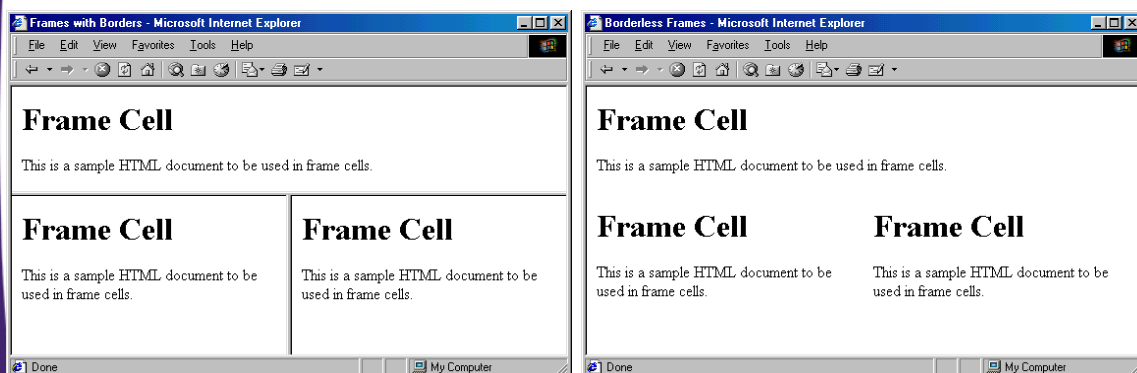
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# FRAMESET Attributes (Continued)

- **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

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# Frame Border, Examples



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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

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## Frame Example 1

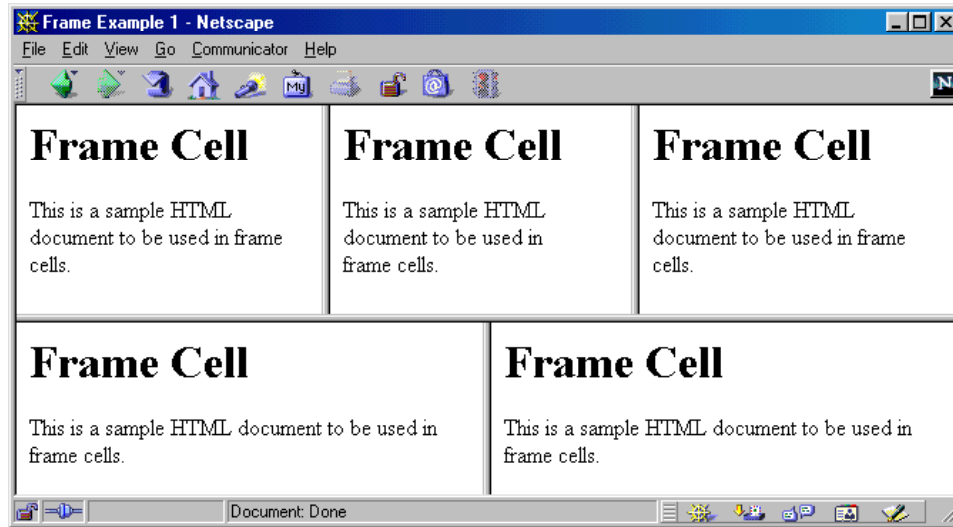
```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Frameset//EN">
<HTML>
<HEAD><TITLE>Frame Example 1</TITLE></HEAD>
<FRAMESET ROWS="55%,45%">
  <FRAMESET COLS="*,*,*">
    <FRAME SRC="Frame-Cell.html">
    <FRAME SRC="Frame-Cell.html">
    <FRAME SRC="Frame-Cell.html">
  </FRAMESET>

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

<NOFRAMES>
  <BODY>
    Your browser does not support frames. Please see
    <A HREF="Frame-Cell.html">non-frames version</A>.
  </BODY>
</NOFRAMES>
</FRAMESET>
</HTML>
```

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# Frame Example 1, Result



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# Frame Example 2

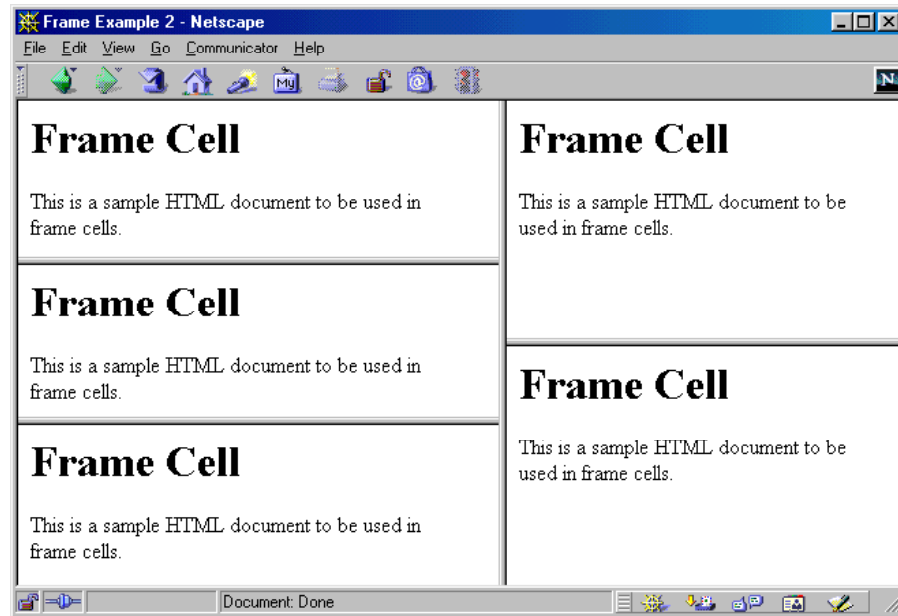
```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Frameset//EN">
<HTML>
<HEAD><TITLE>Frame Example 2</TITLE></HEAD>

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

  <FRAMESET 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>
```

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## Frame Example 2, Result



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## 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">
```

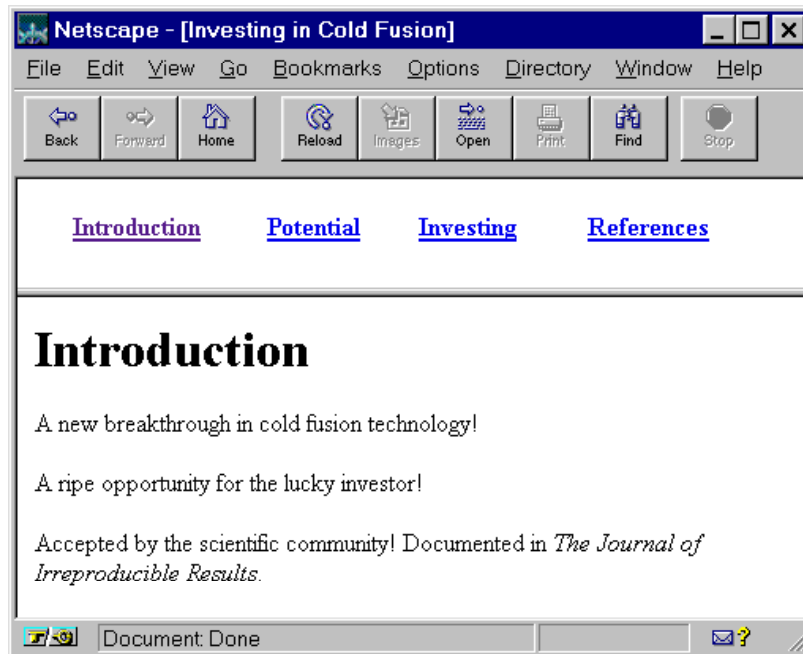
- The TARGET Attribute of A HREF

```
<A HREF="..." TARGET="cellName">
```

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# Targeting Example



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# Cold-Fusion.html

```
<!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>
```

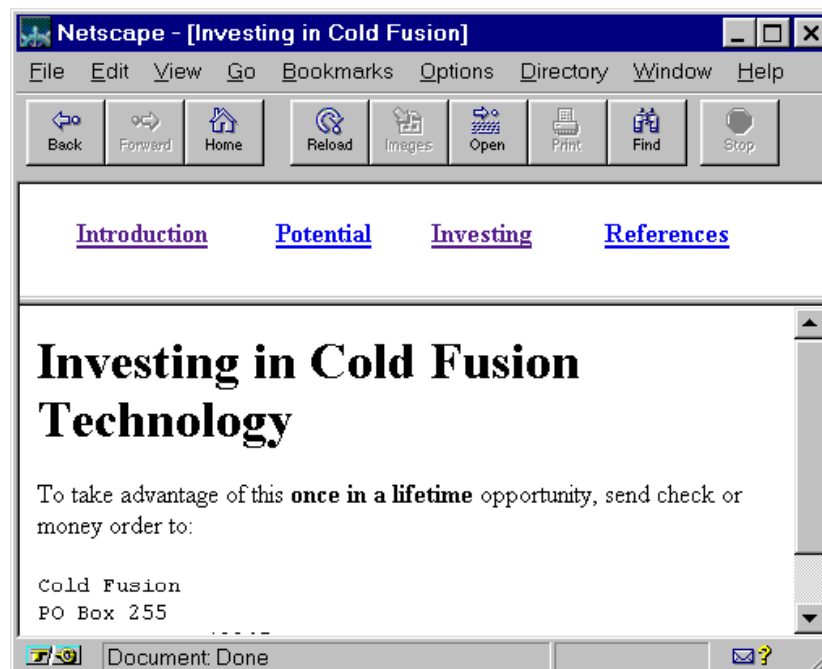
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# TOC.html

```
<!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>
```

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# Targeting Example, Results



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## 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

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## 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

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# Questions?

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