

2007 NOTES

This article was originally published in 2003 as Chapter 12 of [Learning Web Design](#), 2nd edition.

Since the time of its publication, frames have become all but extinct, particularly for professional web sites. Although this article provides a good background on how frames work, it should not be taken as an endorsement of this antiquated approach to web design. In general, frames should be avoided, although exceptions do exist.

Frames

Have you ever seen a web page with content that scrolls while the navigation toolbar or an ad stays in the same place? Pages like these are created using a web design feature called [frames](#). Frames divide the browser window into mini-windows, each displaying a different HTML document ([Figure 1](#)).

The primary advantage of frames is the ability to have one portion of the window always visible while others scroll through longer content. Frames open up navigational possibilities, and they can be used to unify information from several sites onto one page.

However, frames have been controversial since their introduction in Netscape Navigator 2.0. They cause as many navigational problems as they solve, because some users find it difficult to click through them. It is also difficult for content in frames to be bookmarked or found by search engines. And because each framed page is comprised of several HTML documents, this means more work for developers and a heavier load for the server.

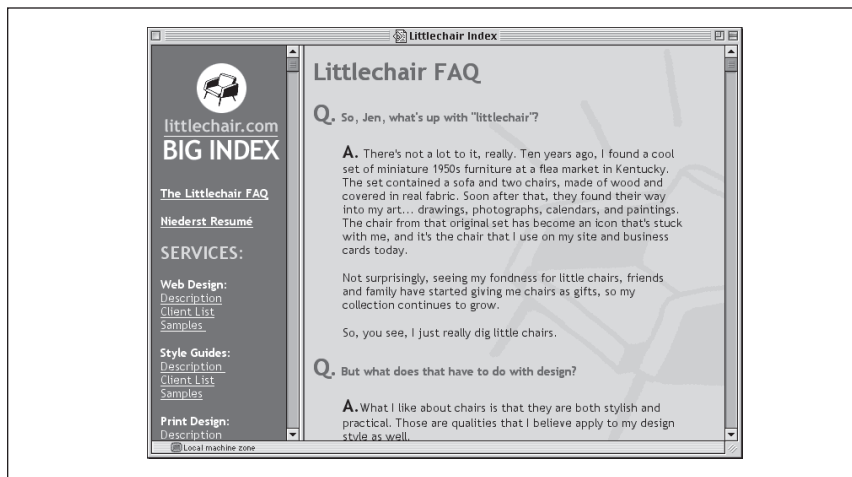


Figure 1. Frames divide the browser into separate windows, each displaying its own web page. The windows can scroll independently.

In this chapter

How frameset documents are different from other web documents

Setting up a frameset document

Controlling frame appearance and functionality

Targeting frames

Providing content for users without frames

As a result of their numerous disadvantages, frames have become an unspoken “no-no” for big commercial sites.

As a result of their numerous disadvantages, frames have become an unspoken “no-no” for big commercial sites. Don’t be surprised if your client declares “no frames” at the very first meeting. But like most things, frames are neither all good nor all bad, so feel free to play around with them and decide for yourself. If you do use frames, make sure that you think the navigation and site structure through and don’t let the frame structure get too complicated.

How Frames Work

When you view a framed page in a browser, you are actually looking at several HTML documents at once (Figure 2). The key to making the page display in frames is the `frameset` document, which is an HTML document containing instructions for how each frame is drawn and which HTML document is displayed in each frame.

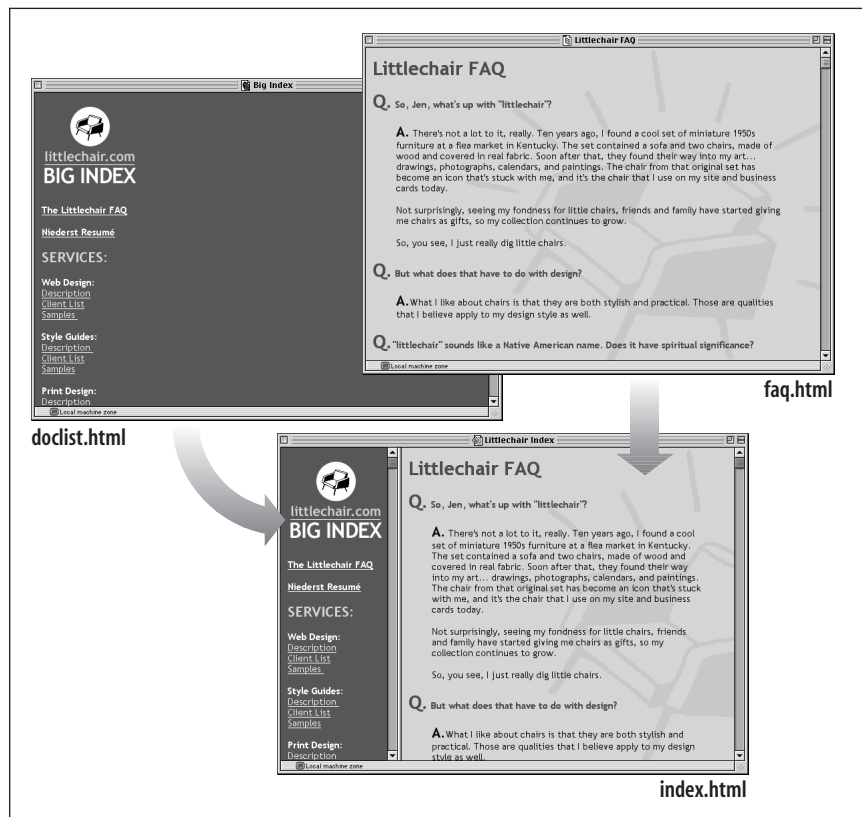


Figure 2. This framed document is actually displaying two separate external documents at the same time.

The primary function of the frameset document is to set up a structure for the page. Let's take a peek at the HTML source for our example framed page (Figure 3).

```

<html>
<head>
<title>Littlechair Index</title>
</head>
❶ <frameset cols="175,*">
❷   <frame src="doc_list.html">
     <frame src="faq.html">
</frameset>
❸ <noframes>
    You need a frames-enabled browser to view this page.
</noframes>
</html>

```

Figure 3. This is the HTML source for the frameset document *index.html* in our example.

❶ <frameset>

We'll talk about creating frameset documents in more detail in the next section, but for now I want to highlight a few points of interest. First, notice that the frameset document uses the <head> structural element, but it does *not* have a <body>. It uses the <frameset> structural element instead. This sets framesets apart from all other web pages.

The `cols` attribute in the frameset tag divides the window into two frame columns, one 175 pixels wide and the second filling whatever space is remaining (indicated by the asterisk).

❷ <frame>

Within the <frameset> container element, we see a <frame> element for each frame on the page. The primary job of the <frame> element is to specify which HTML document to display; however, you can control other features of a frame, as we'll see later in this chapter.

❸ <noframes>

Finally, there's some minimal content within the <noframes> element. This is what will display if the frames do not work (for instance, if the user is using an ancient browser). It is similar to the alternative text provided in image elements. We'll talk more about "noframes" content at the end of this chapter.

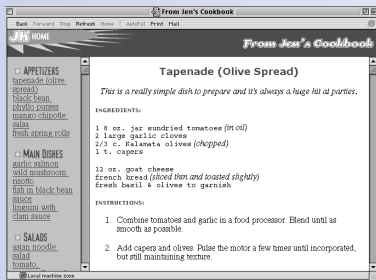
When the browser sees that this is a frameset document, it draws out the frames as instructed in the document and then pulls the separate HTML documents into the page.

NOTE (2007)

There is actually a separate Frameset DTD for the frameset document that should be listed in the DOCTYPE declaration. See Chapter 10 of *Learning Web Design, 3e* for more information on DTDs and DOCTYPE declarations.

The Finished Product

The frame demonstration in this section walks you through the creation of this three-framed “Jen’s Kitchen” page, shown here.



Setting Up a Frameset Document

I’m going to create a framed interface for a recipe site. In this section, I’ll walk you step by step through the process of writing the HTML for framed documents.

As with any HTML document, the first step is to create the document structure. Let’s do that for our new framed document; remember that it will use the `<frameset>` element instead of `<body>` (Figure 4).



Figure 4. I begin by adding basic structural tags to a new document using the `<frameset>` element.

Now we can decide how many rows and/or columns we want the page to have and what size each should be. These settings are all made within the `<frameset>` element.

TRY IT

Exercise 1: Setting Up a Framed Page

All of the HTML and graphics files that appear in the figures throughout this chapter are provided on the CD and online at www.learningwebdesign.com/materials. Copy the directory *chap12* to your hard drive to begin.

The step-by-step nature of the chapter will make it easy to follow along. Look for the “Try It” sidebars at critical points in the frameset development.

STEP 1: Open a new document in an HTML editor or Notepad. Type the structure of the frameset as shown in Figure 4. Name the document *frameset.html* and make sure that you save it in the *chap12* directory with the other files to ensure the pathnames are correct.

If you want to divide the page into vertical frames (columns), use the `cols` attribute and specify the width measurement for each column, separated by commas (Figure 5, left). The number of measurements you provide specifies the number of vertical frames you'll create. Similarly, if you want to create horizontal frames (rows), use the `rows` attribute, followed by the height measurement for each row (Figure 5, right).

When it comes to specifying the measurements, you have some options, as the next section explains.

The number of measurements you provide specifies the number of frames you'll create.

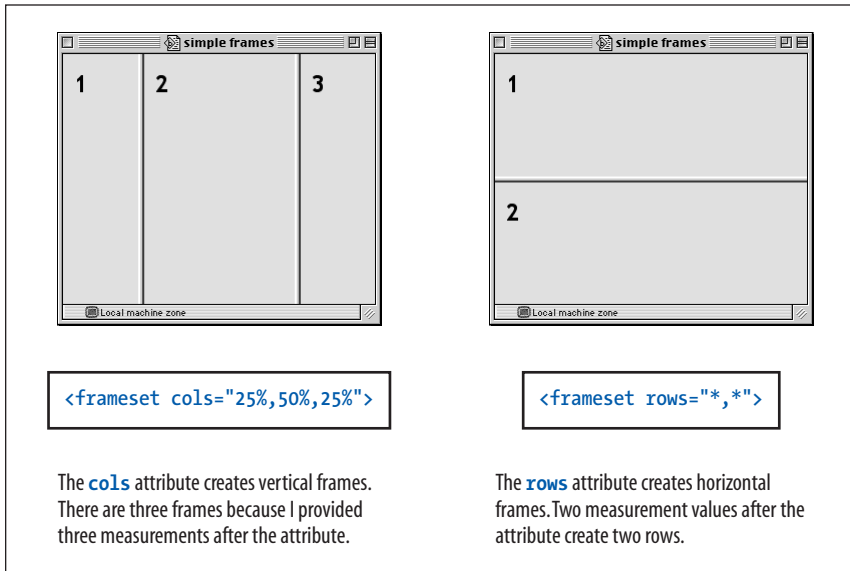


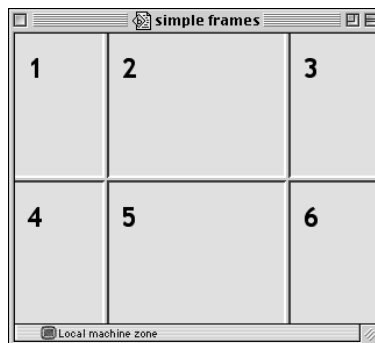
Figure 5. Creating framesets using the `rows` and `cols` attributes.

HTML TIP

Gridlock

You can combine rows and columns to make a grid of frames. The frames will be filled from left to right, top to bottom. This method gives you less flexibility than others described in this chapter.

```
<frameset rows="*,*"
  cols="25%,50%,25%">
  <frame src="1.html">
  <frame src="2.html">
  <frame src="3.html">
  <frame src="4.html">
  <frame src="5.html">
  <frame src="6.html">
</frameset>
```



Frame measurements can be specified in pixels, percentages, or relative values.

Frame measurements

There are three ways to specify sizes for frames:

Absolute pixel values. To make a frame a specific pixel size, enter the number of pixels after the `rows` or `cols` attribute. The frameset `<frameset rows="100,400">` creates two horizontal frames, one exactly 100 pixels high, the other exactly 400 pixels high. If the browser window is larger than the combined 500 pixels high, it will enlarge each frame proportionally to fill the window.

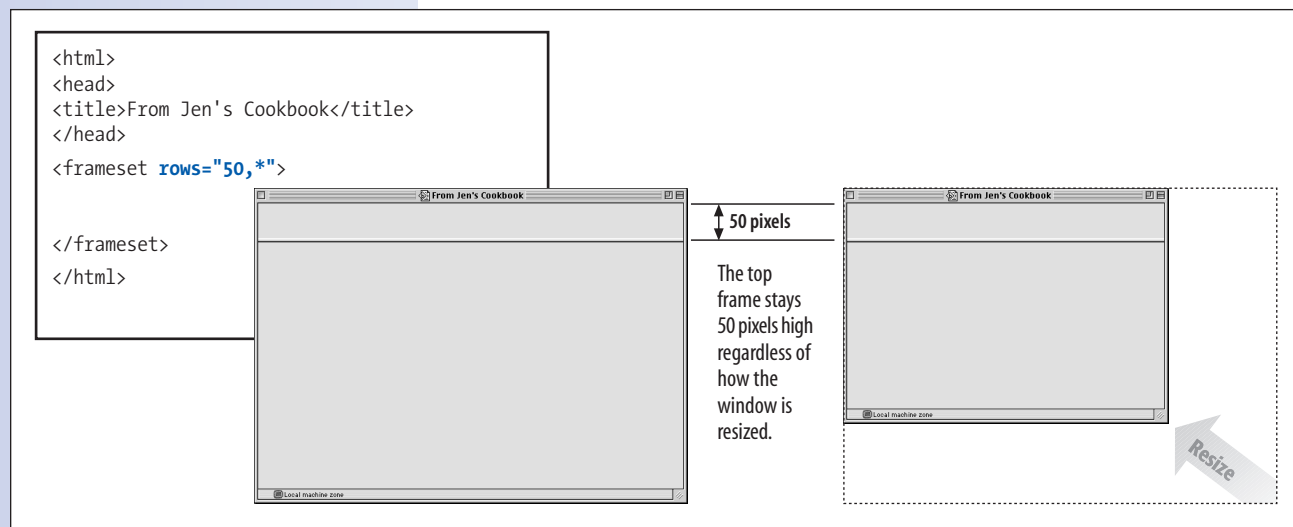
Percentages. You can also specify sizes as percentages of the browser window. The frameset `<frameset cols="25%,50%,25%">` creates three columns: the left and right columns always take up 25% of the browser width, and the middle column takes up 50%, regardless of how the window is resized.

Relative values. There's another system that uses asterisks to specify relative values. The best way to explain this is with an example. The frameset `<frameset cols="100,*">` creates two columns: the left column is exactly 100 pixels wide, and the right column fills whatever portion of the window is left. This combination of fixed width and flexible width is one of my personal favorites.

You can also specify relative values in multiples, as in `<frameset cols="100,2*,*">`, which creates a 100-pixel-wide column on the left of the page, then the remainder of the page is divided into two frames; the middle column is always twice the width of the right column.

That said, let's start designing the frames for our new page. I'm going to start with two frames, a narrow one at the top for a banner and the remainder of the page for my content (Figure 6).

Figure 6. I'm designing my cookbook page to have two rows, a narrow one at the top (50 pixels high) for top-level navigation, and a frame that fills the remainder of the window for content.



Adding and nesting frames

Now I need to enter the frame information for each row. Frames are added by inserting `<frame>` elements within the `<frameset>` (Figure 7). Within each `<frame>` element, the `src` attribute specifies the URL of the document to load into that frame.

```
<html>
<head>
<title>From Jen's Cookbook</title>
</head>
<frameset rows="50,*">
  <frame src="header.html">
  <frame src="tapenade.html">
</frameset>
</html>
```

Figure 7. For each frame, I've added a `<frame>` tag that tells the browser which HTML document to display in that frame.

Wait, I just had an idea. I'd like to take that large bottom frame and divide it into two vertical frames. I can do this by nesting a second frameset inside my current frameset. Nesting is done by replacing a `<frame>` element with a complete frameset (a `<frameset>` element with its `<frame>` elements).

In Figure 8, I've swapped out my bottom `<frame>` for a `<frameset>` containing two vertical frames.

```
<html>
<head>
<title>From Jen's Cookbook</title>
</head>
<frameset rows="50,*">
  <frame src="header.html">
  <frameset cols="150,*">
    <frame src="links.html">
    <frame src="tapenade.html">
  </frameset>
</frameset>
</html>
```

Diagram labels: **Frameset** (points to the outer `<frameset>`), **Nested Frameset** (points to the inner `<frameset>`).

Figure 8. To nest frames (fill one frame with another frameset), simply replace a `<frame>` with a complete `<frameset>`. You can do this as many levels deep as you like. Just make sure you close your `<frameset>` tags properly.

TRY IT

Exercise 1 (continued)

STEP 2: Add two rows to the frameset as shown in Figure 7. Save the file and take a look in a browser. If pages aren't showing up, make sure that the frameset document is saved in the same directory as the other files.

TRY IT

Exercise 1 (continued)

STEP 3: Replace the bottom frame with a two-column frameset as shown in Figure 8. Save and view the frameset in a browser.

I've already created the HTML documents (*header.html*, *links.html*, and *tapenade.html*) that will be displayed in each frame. Let's take a look at the framed cookbook page in a browser, as it stands so far (Figure 9).

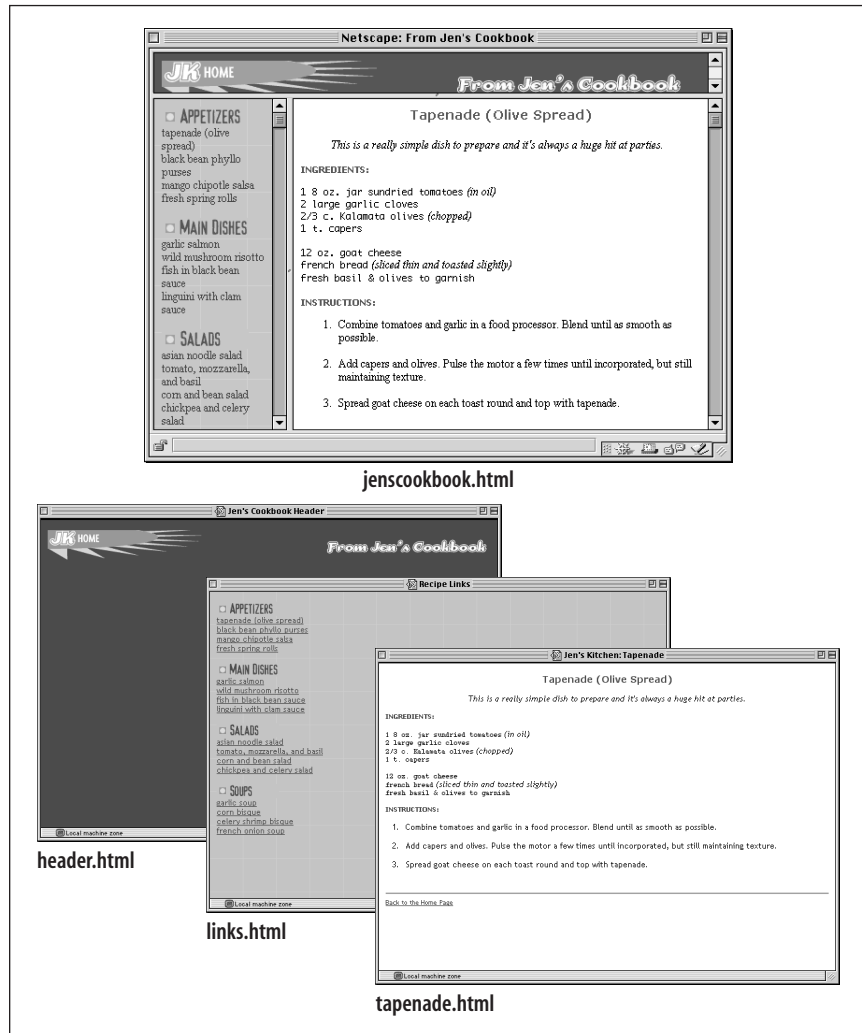


Figure 9. My framed cookbook page as it looks in the browser. Below you can see the separate HTML documents that are held together by the frameset.

This is a good start, but I can make some adjustments to make the page less clunky.

Borders

The last decision I can make at the frameset level (i.e., within the `<frameset>` element) is whether I want borders to appear around my frames. If you don't specify otherwise, frames will be divided by thick 3-D bars (as shown in Figure 9). To control borders for the entire frameset, use the `frameborder` and `border` attributes in the `<frameset>` element.*

To turn off the borders completely, making a smooth transition between frames, simply set the `border` attribute to `0`. This works for Netscape Navigator and Microsoft Internet Explorer, Versions 4 and higher.

You might want to control just the thickness of the borders. If this is the case, set `frameborder` to `1` (“on”) and use the `border` attribute to specify a pixel thickness.

I definitely don't want borders around my frames, so I'm turning them off at the frameset level (Figure 10).

We've done everything we can do with the whole frameset. Now let's see the kinds of things we can tweak within each frame.

You can choose whether to have 3-D borders display around your frames.

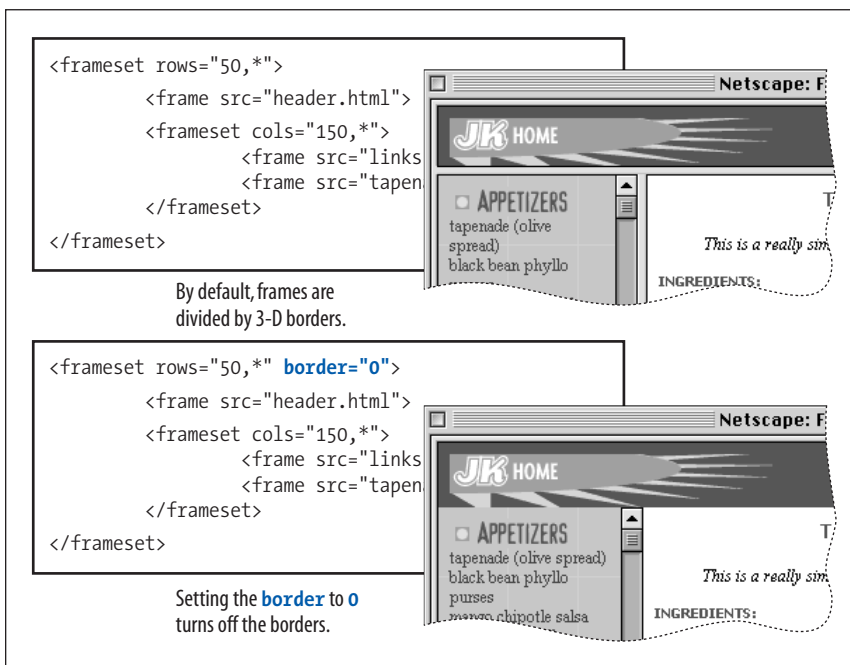


Figure 10. Adjusting borders at the frameset level.

TRY IT

Exercise 1 (continued)

STEP 4: Turn off the borders for the frameset using the `border` attribute. Save and view.

* The `border` attribute is not part of the standard HTML specification, but it works fine in the current versions of the major browsers.

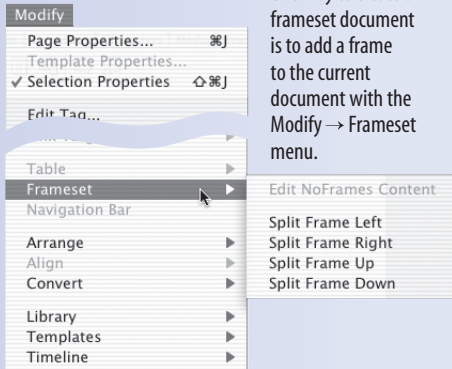
NOTE (2007)

The software demonstrated in this Tool Tip is not the most current. Dreamweaver is now offered by Adobe as part of Creative Suite 3. Adobe GoLive is now in version 9. Microsoft no longer offers FrontPage, in favor of its much improved Microsoft Expression Web.

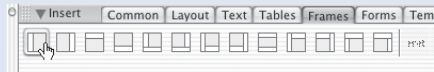
Creating a Frameset

Here's how you create a new frameset in three of the more popular authoring programs.

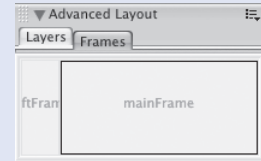
Dreamweaver MX



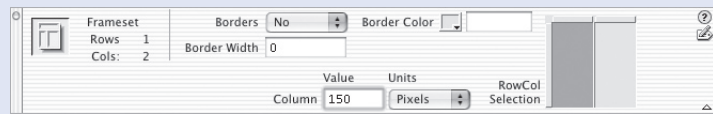
1 One way to create a frameset document is to add a frame to the current document with the Modify → Frameset menu.



2 Alternatively, you can click on a predefined frame icon from the Frames panel of the Object window.



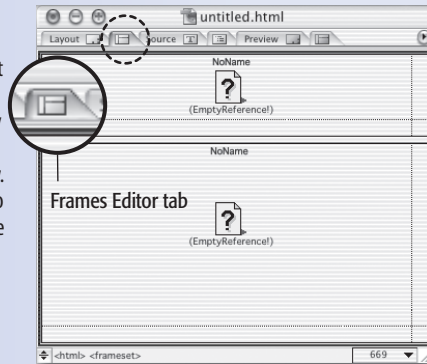
3 The Frames window (accessed from the Windows menu) is used to manage the frameset and its settings.



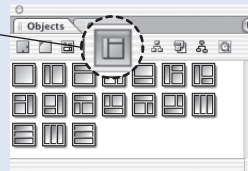
4 When you select the whole frameset in the Frames window, you can make frame-level settings in the Properties window.

GoLive 6

1 First, select the Frame Editor tab at the top of the document window to switch to the Frames Editor view. This view is used to set up and organize the framed document.

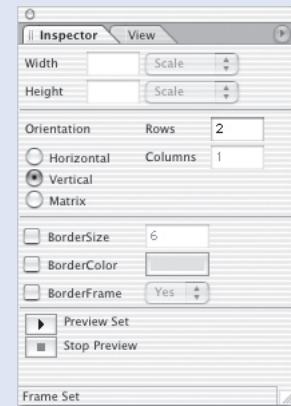


Frames tab

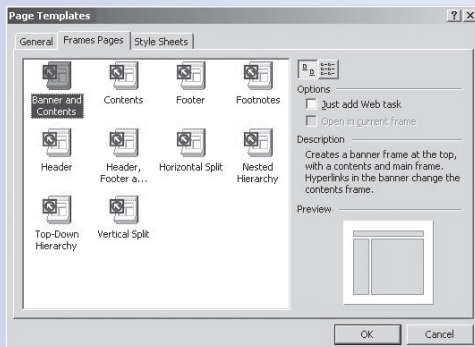


2 From the Frames tab of the Palette, drag a frame configuration into your document window.

3 Select the frameset by clicking on any border (you can drag the border to resize the frame) and make your frameset settings in the Inspector palette.

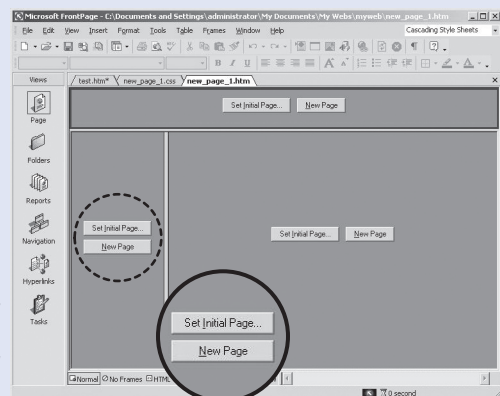


FrontPage 2002



1 Create a new document and select the Frames Pages tab. There are a variety of frame templates, each with a short description of suggested use. Choose the frameset closest to the layout you want.

Pages can then be set or created for each frame. The frames can be modified by moving the frame borders.



Frame Appearance and Function

At the frame level (that is, within each `<frame>` element), you can specify three attributes for the frame: whether it has a scrollbar, the margin width, and whether users can resize the frame.

This doesn't seem like much, but remember, everything you see in the frame—the background color or text alignment, for example—is part of the HTML document that is filling the frame. The frameset document itself only has instructions for the frame layout and functionality.

Scrolling

You control whether the frame has a scrollbar with the `scrolling` attribute in the `<frame>` element. There are three options:

- The default value is `auto`, which means that scrollbars will appear only if the content of the frame is too big to entirely fit in the window.
- If you want to make sure that a scrollbar is always available, regardless of the content, set the `scrolling` value to `yes`.
- If you want to make sure that scrollbars never appear to clutter up your frameset, set the value to `no`. Be careful with this one, particularly if your frame contains text. If the fonts are set too large on a viewer's browser, there will be no way for her to access content that runs out of the frame without a scrollbar.

On my frameset, I'd like the top frame to never scroll, because I'm just using it for a banner (Figure 11). My other frames contain content that could potentially run out of the user's available browser space, so I'll allow them to have scrollbars on an as-needed basis. Because scrolling is set to `auto` by default, I don't need to add any markup to achieve this effect.

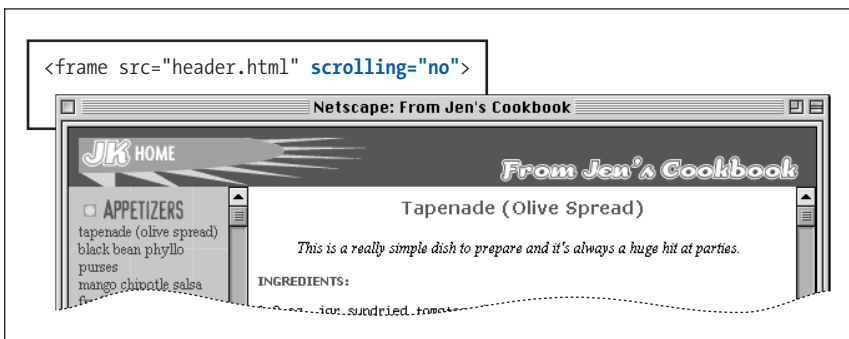


Figure 11. I've removed the scrollbar from my top frame by setting the `scrolling` attribute to `no` in the `<frame>` element.

DESIGN TIP

Space for Scrollbars

When scrollbars are visible, they take up some of the width of the frame. So be sure to figure in the width of a scrollbar when calculating frame sizes in precise pixel measurements. On a Macintosh, scrollbars are 15 pixels wide; on a PC, they're 12 pixels wide.

TRY IT

Exercise 1 (continued)

STEP 5: Turn off scrolling in the top frame as shown in Figure 11. Save and view.

BUG ALERT

Margins Bug in Navigator

There's a weird bug in Netscape Navigator Versions 4.0 and earlier that leaves a 1-pixel margin even if the `marginheight` and `marginwidth` attributes are set to 0. There's not much you can do except camouflage it with a matching background color or image. Netscape 6.0 seems to have corrected the problem.

TRY IT

Exercise 1 (continued)

STEP 6: Set the margins to 0 in the top frame as shown in Figure 13. Save and view.

Setting margins

Browsers automatically add a little space between the edge of the frame and its contents, just as they do for a web page in the browser. You can control the margin amount inside each frame by adding extra space or setting the contents flush to the frame's edge.

The `marginheight` attribute controls the pixel width of the margin at the top and bottom edges of the frame. The `marginwidth` attribute controls the space on the left and right edges. Figure 12 shows examples of these attributes.

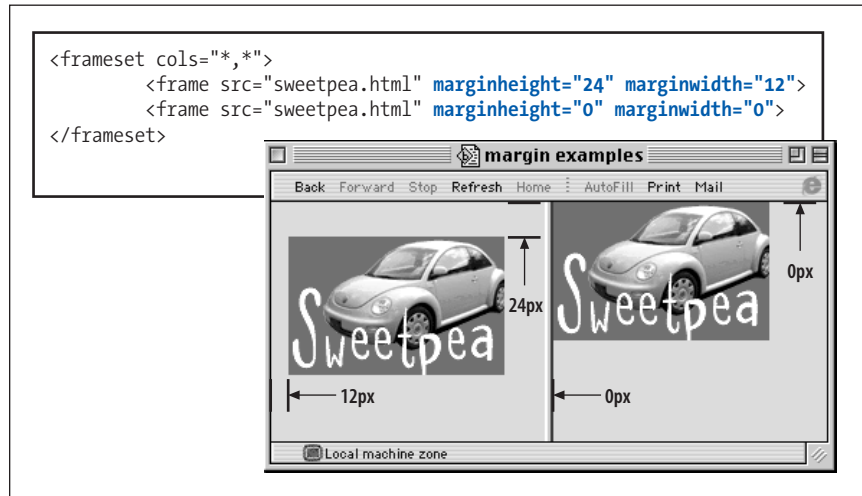


Figure 12. The `marginheight` attribute controls the amount of space between the top and bottom edges of the frame and its contents. `marginwidth` controls the space on the left and right edges.

I'm going to set both margins to 0 in my top frame, to nestle my banner graphic as close as possible into the top-left corner (Figure 13).

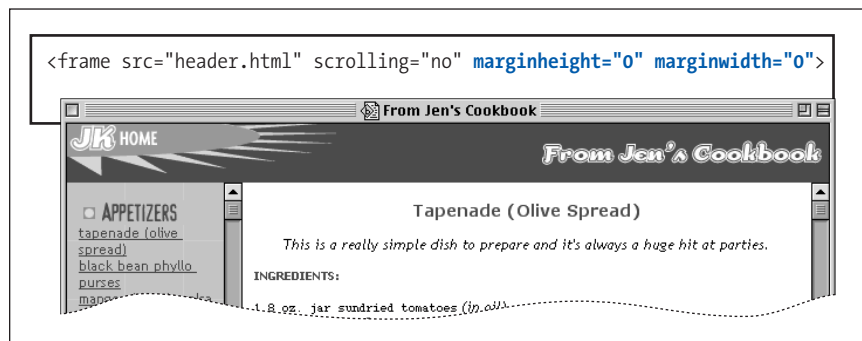
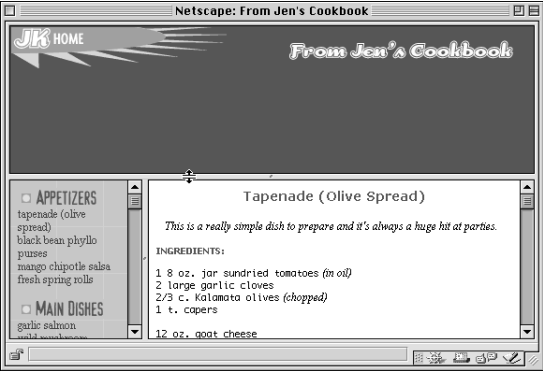


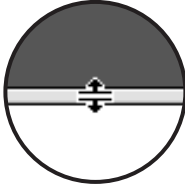
Figure 13. With `marginwidth` and `marginheight` set to 0, my graphic is positioned flush to the top-left corner of the frame, with no extra space.

Frame resizing

By default, users can resize your frames, overriding your careful size settings, simply by clicking on and dragging the border between frames. You can prevent them from doing this by plopping the `noresize` attribute in the `<frame>` element. I'd like to make that top frame stay put, so I will add the `noresize` attribute there (Figure 14). (I had to temporarily turn on my frame borders to demonstrate the `noresize` trick; I'll turn them off again for the final product.)



By default, when the frame borders are visible, users can drag the borders and resize the frames.



Exercise 1 (continued)

STEP 7: Add the `noresize` attribute to the top frame as shown in Figure 14. Save and view.

```

<frameset rows="50,*">
  <frame src="header.html" noresize scrolling="no" marginheight="0"
        marginwidth="0">
  <frameset cols="150,*">
    <frame src="links.html">
    <frame src="tapenade.html">
  </frameset>
</frameset>
  
```

To keep this from happening, add `noresize` to the `<frame>` tag of every frame you want to preserve.

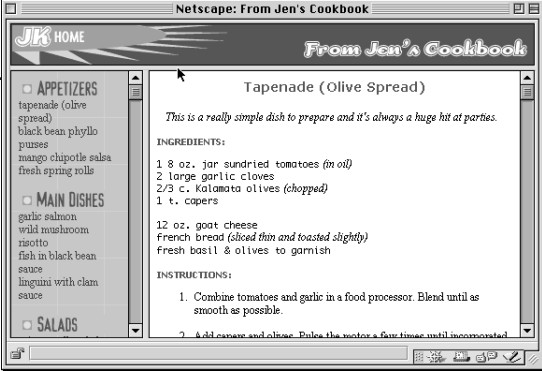


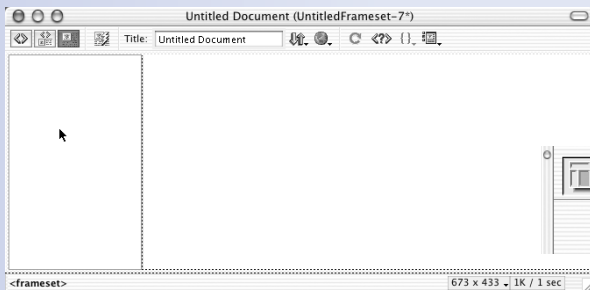
Figure 14. Frames are resizable by default. The `noresize` attribute prevents this behavior.

Before you go setting all your frames to `noresize`, consider whether there might be a good reason to allow resizing (such as to view more text in the screen). In my example, users aren't gaining anything by resizing that top frame, so I restricted the ability to change it.

Formatting Frames

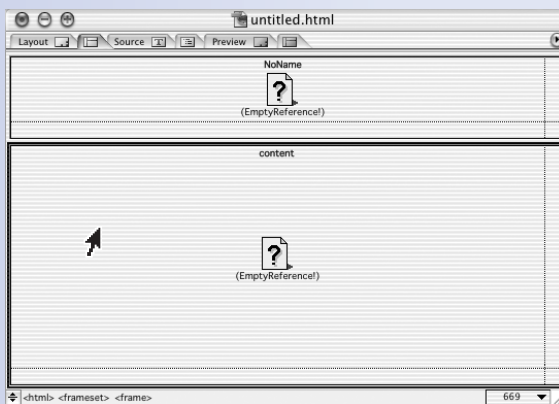
Here's how you format individual frames in three of the more popular authoring programs.

Dreamweaver MX

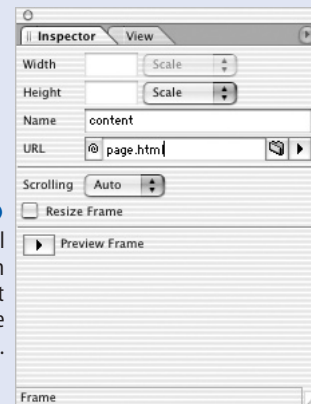


To select a frame, Alt-Click (Windows) or Shift-Option-Click (Mac). When the frame is selected, the Properties palette will display all the frame-level options.

GoLive 6

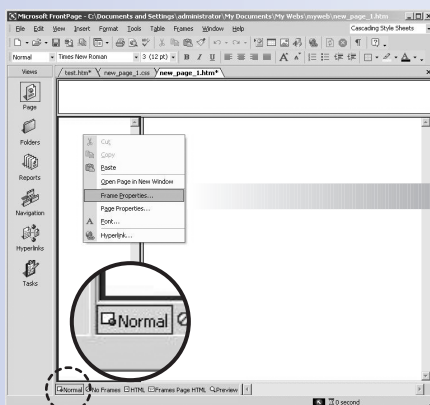


1 While in Frames Editor view, place the cursor in a frame.



2 You can then control all the frame-level settings in the Frame Inspector. You can also preview your HTML document within the frame by clicking on the Preview button.

FrontPage 2002

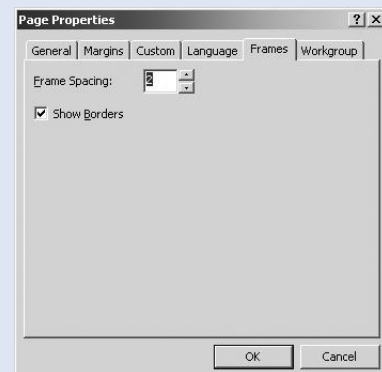


1 Open the frames page you want to modify, and click the Normal tab.

2 Place the cursor in the frame to be modified and right-click to bring up a shortcut menu. Go to Frame Properties and specify the settings to control the look of the frame.



3 To set the border, click the Frames Page button (this window can also be accessed from File → Properties → Frames tab).



Targeting Frames

Now that you've gotten the hang of setting up framed documents, it's time to tackle one last aspect of frames: making sure linked documents load into the correct frame.

When you click on a link in an ordinary browser window, the new page replaces the current one in the browser window. The same thing happens by default within a frame. When you click on a link in a frame, the linked document will load in that same frame (after all, a frame is just a mini-browser window).

In many cases, however, you want the linked document to load in a different frame, such as when you have a list of links in one frame and your content in another. In these instances, you need to tell the link which frame to use—in other words, you need to **target** a specific frame.

Naming the frame

Before you can target a frame, you need to give it a name using the `name` attribute in the `<frame>` element ❶ (Figure 15, following page). I'd like to load my content documents into the main frame on the page, so I've given that frame the name "main".

```
<frame src="salmon.html" name="main">
```

Targeting the frame

Now I can point to that frame from any link ❷. My left frame contains a document (*links.html*) with a list of links. Within *links.html*, I add the `target` attribute to each of my links and set the value to "main". When someone clicks on that link, the browser will load the new document in the frame called "main":

```
<a href="risotto.html" target="main">wild mushroom risotto</a><br>
```

Reserved target names

There are four standardized target names for specific targeting actions. Note that they all begin with an underscore (`_`). You should avoid giving frames names that begin with an underscore because they will be ignored by the browser. The reserved target names are:

`_top`

When you set the target to `_top`, the new document is loaded in the top level of the browser window, replacing all the frames with a single window. A document that is linked using `target="_top"` breaks out of its frameset and is displayed in the full browser window.

Setting the Target for a Whole Document

If you want all the links on a page to point to the same window, you can specify the target in the header of the document using the `<base>` element, as follows:

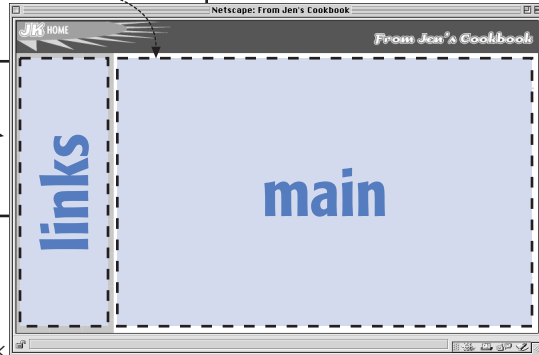
```
<head>
<base target="main">
</head>
```

With this specification in the head of the document, all the links on that page will automatically load in the "main" frame (unless specified otherwise in the link). This technique saves extra typing and keeps the file size down.

```
<frameset rows="50,*" border="0">
  <frame src="header.html" scrolling="no" marginheight="0" marginwidth="0">
  <frameset cols="150,*">
    <frame src="links.html" name="links" >
    <frame src="salmon.html" name="main" >
  </frameset>
</frameset>
```

jenscookbook.html

1 First, give the frame a name so you can refer to it later.



```
<p>
<br>
<a href="salmon.html" target="main">garlic salmon</a><br>
<a href="risotto.html" target="main">wild mushroom risotto</a>
<a href="blackbean.html" target="main">fish in black bean sauce</a><br>
<a href="clamsauce.html" target="main">linguini with clam sauce</a><br>
</p>
```

links.html

- 2 Then, in the **html** document that contains the link, use the **target** attribute in the anchor tag (**<a>**) to call the frame by name.



Now, when a user clicks on that link, the linked document will open in the specified frame.

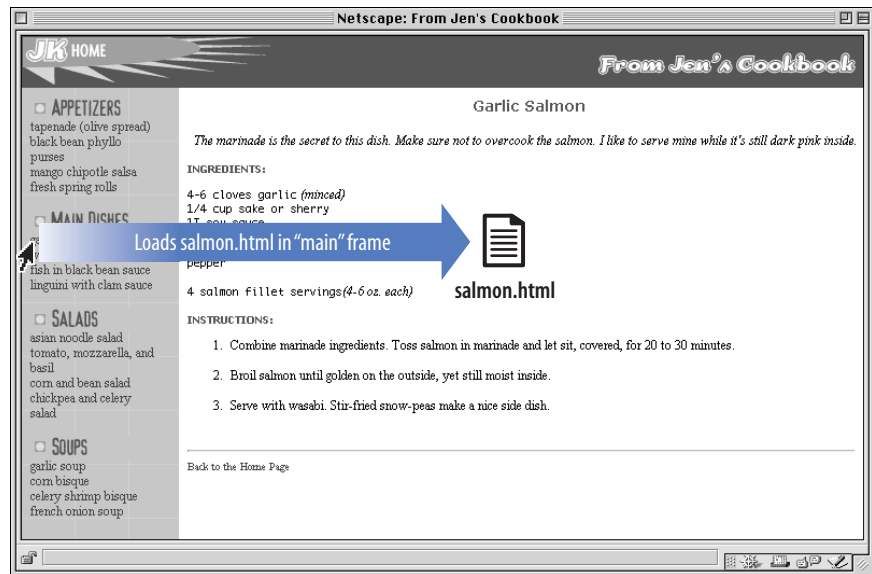


Figure 15. Naming a frame allows you to target your links to a specific frame.

`_parent`

This target name causes the linked document to load into the parent frame (the frameset that is one step up in the nested frame hierarchy). This causes some breaking out as well, but only to the next frame level.

`_self`

This causes the document to load in the same frame. Since this action is the default for all frames, you generally don't need to specify it. However, it might be useful if you need to override a target set with the `<base>` element introduced earlier.

`_blank`

A link with `target="_blank"` opens a new browser window to display the linked document. This is not necessarily a frame-related value—you can use it from any web page. Bear in mind, however, that each time a link that targets `_blank` is clicked, the browser launches a new window, potentially leaving the user with a mess of open browser windows. By contrast, when a target window is given a specific name (such as `sample` or `new`), it will be reused by all links that specify that name.

I'm going to need to take advantage of the `_top` value in my documents. The top frame contains a graphic link to the home page. If I leave it as it is, the home page will load in that little sliver of a frame. To break out of the frames and get back to a normal browser window, I'll target the top level in that link (Figure 16).

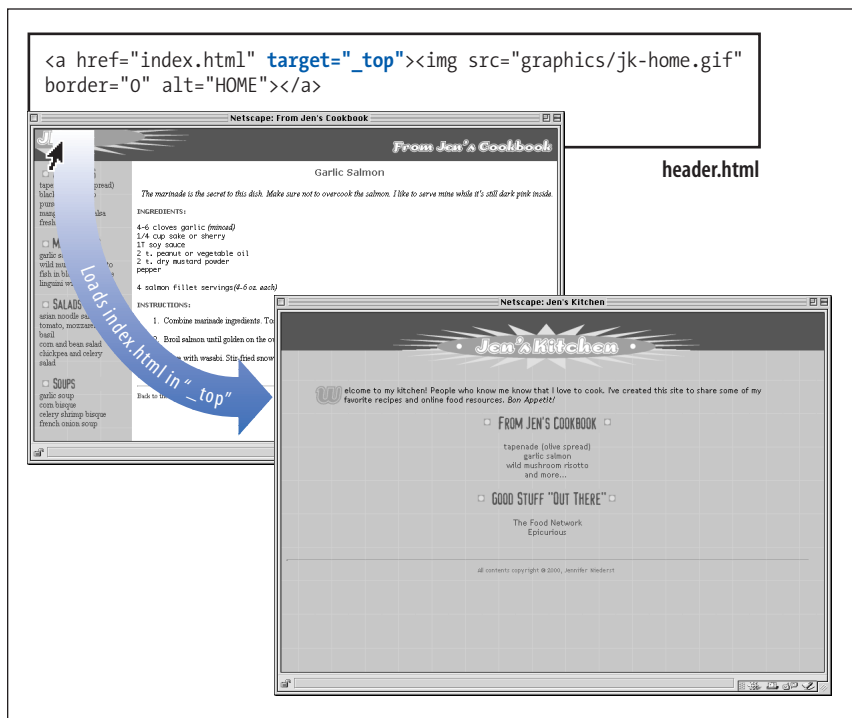


Figure 16. The `_top` target value makes the home page break out of the frames and load in the top level of the browser window.

TIP

Linking between frames can be tricky. Pay attention to what you're doing and test all of your links in a browser to make sure they're behaving the way you intend.

TRY IT

Exercise 1 (continued)

STEP 8: Name each of the frames as shown in Figure 15.

STEP 9: Set the appropriate targets for the links so the frameset functions properly:

- In *header.html*, make sure that the home graphic links to the top level of the browser window (Figure 16).
- In *links.html*, use the `<base>` element in the `<head>` of the document to make all of the links on the page link to the main window.

Save and view the frameset in the browser. Test the links to be sure that they load in the proper frames (a few recipe files have been provided for testing). Be sure the links back to the home page on each recipe page load in the top frame.

Note that this is only an exercise and not a fully designed and functioning site. In the files provided there is no way to get back to the frameset from the sample home page document.

noframes content prevents your framed document from becoming a dead end to search engines and users without frames-enabled browsers.

TRY IT

Exercise 1 (continued)

STEP 10: Add minimal `<noframes>` content to the frameset document. Make sure that it is useful for users who don't have frames.

Content for Users Without Frames

The last thing you should add to your frameset document is some content that will display for users without frames-enabled browsers. This benefits users who have older browsers (or text-only browsers) that don't support frames, as well as users who have turned off frames support in their browser preferences. You place your alternative content between `<noframes>` tags.

Many people simply use a message such as "You need a frames-enabled browser to view this page." While this is acceptable, it is preferable to put a full page of content, including links to deeper pages of your site, within the `<noframes>` tags. For one thing, this provides actual content and navigation to users who are using non-frames-enabled browsers (they may be using them for a good reason). In addition, it gives major search engines something to index on your page as well as access to content linked to that page. If there are only frameset and frame tags on the page, the page will be ignored.

Between the `<noframes>` tags, add everything you would put in an ordinary non-framed document. This includes the `<body>` tag with its attributes for setting background tiles and colors. Figure 17 shows the `<noframes>` content I've provided for my "From Jen's Cookbook" frameset.

```
<html>
<head>
<title>From Jen's Cookbook</title>
</head>
<frameset rows="50,*" border="0" frameborder="0" frameborder="no">
  <frame src="header.html" marginwidth="0" marginheight="0" scrolling="no">
  <frameset cols="150,*">
    <frame src="links.html">
    <frame src="tapenade.html" name="main">
  </frameset>
</frameset>
```

```
<noframes>
<body background="graphics/bkgd-grid.gif">
<center>

<p>[NOTE: This page is best viewed with a frames-enabled browse
<p>
<br>
<a href="tapenade.html" target="main">tapenade (olive spread)</a>
<a href="purses.html" target="main">black bean phyllo purses</a>
<a href="mangosalsa.html" target="main">mango chipotle salsa</a>
<a href="springroll.html" target="main">fresh spring rolls</a>
```

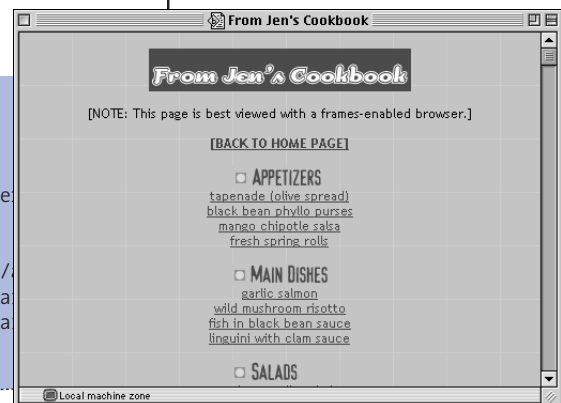


Figure 17. The content I've provided within `<noframes>` tags will appear in any browser that does not support frames. My "noframes" content provides similar functionality and a similar look to the framed document.

Test Yourself

Answers to these frames questions can be found in the [Appendix](#).

1. What makes frameset documents different from all other HTML documents?
2. What are the disadvantages of frames that have made them unpopular in the the industry?
3. In the space on the right, sketch the frameset that results from the following code:
 - a. `<frameset cols="*,*,*">`
 - b. `<frameset rows="*,3*">`
 - c. `<frameset rows="*,*" cols="50%,50%">`
4. How do you make a linked document appear in the top level of the browser, instead of within the frame?
5. Write the code for the frameset shown in [Figure 18](#). Place a document called *empty.html* in each frame. Your column and row measurements can be approximate.

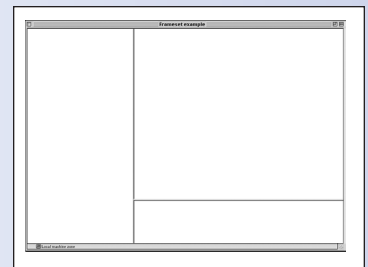


Figure 18. A simple frameset.

HTML Review: Frame Elements

The following is a summary of the elements and attributes we covered in this chapter:

Tag and attributes	Function
<code><frameset></code>	Indicates the body of a framed document
<code>border="number"</code>	Border thickness in pixels when border is on
<code>cols="measurements"</code>	Number of columns (vertical frames)
<code>frameborder="1 0"</code>	Specifies whether borders appear between the frames (1 is yes; 0 is no)
<code>rows="measurements"</code>	Number of rows (horizontal frames)
<code><frame></code>	Adds a frame to a framed document
<code>marginwidth="number"</code>	Pixel space held on the left edge of the frame
<code>marginheight="number"</code>	Pixel space held on the top edge of the frame
<code>name="text"</code>	Name of the frame (for targeting)
<code>scrolling="yes no auto"</code>	Specifies whether scrollbars appear in the frame
<code>src="url"</code>	Name of the file to load in the frame
<code><noframes></code>	Content that will display in a non-frames browser