"Wherever you, go, there you are."
—Buckaroo Banzai

Navigation

take me to your leader

Creating navigation for a web site is one of the most complex undertakings of web publishing. As much as image and HTML editor manufacturers like to tout "easy-to-author-web-pages/graphics" products, there is no easy way to design or execute navigation. This is one of the uncharted frontiers of web publishing, and you will likely find it the most challenging aspect of creating any new site.

You are faced with many decisions when you are creating site navigation. For example: Will your audience have current web browsers? If not, how will you ensure that visitors with older browsers can easily maneuver your site? Should you make two versions of your site, such as a frames and a no-frames version? Do you want to rely on graphical icons or text to describe categories? Have you included measures that make it possible to access the rest of your site from all areas of your site? Do you have "back" buttons on all your pages? Have you given thought to integrating the style of your site with navigational buttons and graphics?

This chapter gives us the opportunity to share the graphics and programming techniques we used for designing the navigation for the Ducks In A Row site.

Frames

Netscape introduced the concept of frames with version 2 of the Navigator browser to satisfy designers' needs for more sophisticated navigation. The initial implementation left much to be desired, and in some ways even made navigation harder; but by the time version 3 came along, most of the deficiencies had been addressed, and frames were here to stay. Now frames are part of the HTML 4 specification. The basic frames specification works with Netscape Navigator versions 2+ and Microsoft Internet Explorer versions 3+, and is being incorporated into the latest WYSIWYG editors and site-management systems.

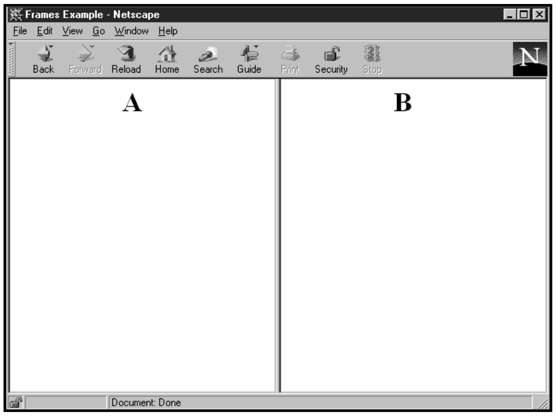
Frames are considered by many to be a navigational godsend, and by others, a navigational nightmare. The principle behind frames is that they offer the ability to have regions of a web page change, while other regions remain stationary. Before frames, every page of HTML had to be separate. If you had a navigation bar at the bottom of each page on your site, clicking it would cause the entire screen to redraw, loading a completely new page. Frames offer the ability to have a fixed navigation bar that never refreshes. Clicking a frames-based navigation bar can launch other documents on your screen while the navigation bar itself remains unchanged.

Many people hate frames, with good reason. It's hard to bookmark a page within a framed site, because the location that the browser bookmarks is that of the framed site, not of the individual pages. Also, it's confusing to print a page that's nested inside frames. There are workarounds for all these problems, but they require extra effort from your end viewer.

On the other hand, there are times when you have a lot of information to display or simply a lot of different pages on a similar topic in your site, and you want your main navigational elements to remain available to your users. Being able to keep one or more parts of the screen still while the user scrolls through other parts is a technique long available to designers of multimedia, but only recently available on the web.

How Frames Work

The basic model of HTML frames revolves around the concept of framesets. A **frameset** is a container for frames, which are really just windows into other HTML documents. You can think of each frame as almost a separate browser, which shares common buttons and controls with the main window. Let's take a look at a simple example; then we'll get into all the bells and whistles a little later. This document is in the chap14 folder of the <chd2> CD-ROM as frames1.html.


Frames Example - Netscape
File Edit View Go Window Help
Back Forward Reload Home Search Guide Print Security Stop
A
B
Document: Done

frames1.html: A simple document with frames. a.html is in the left frame, and b.html is in the right frame.

```
1. <HTML>
   <HEAD>
   <TITLE> Frames Example </TITLE>
   </HEAD>

2. <FRAMESET COLS="*,*">
3.  <FRAME SRC="a.html">
   <FRAME SRC="b.html">
4. </FRAMESET>

   </HTML>
```

1. The outside container of the document is still the HTML element, just like in any other HTML.

2. The FRAMESET container is an element that goes after the HEAD element, and is still inside of the HTML container. The COLS attribute specifies the number of columns (vertical divisions) and the widths of those columns (more about this later). The asterisks (*) mean to evenly divide the space. This value ("*,*") means to use two equally spaced columns. Use ROWS instead of columns to get horizontally divided frames.

3. The actual FRAME tags go within the FRAMESET container. These define the frames themselves. The SRC attribute specifies the HTML document to display inside the frame. In our example, a.html and b.html are the two HTML documents, one of which appears in each frame.

4. The FRAMESET element must be terminated with the </FRAMESET> tag, or your page will not load.

The file a.html (in the chap14 folder of the <chd2> CD-ROM) looks like this:

```
<BODY BGCOLOR=White>
<H1 ALIGN=CENTER> A </H1>
</BODY>
```

And b.html (surprise!) looks like this:

```
<BODY BGCOLOR=White>
<H1 ALIGN=CENTER> B </H1>
</BODY>
```

We will use several files like this as we explain the capabilities of frames in this chapter.

note

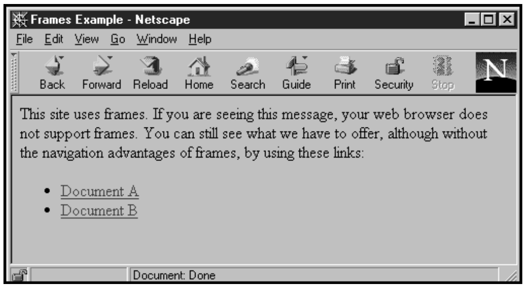
Support for Older Browsers

Because there is no BODY in a frames document, and in fact, there is no content at all outside of the FRAMESET and FRAME tags, a browser that doesn't understand frames will see nothing but a blank screen!

The solution to this is to use the special NOFRAMES element. Any content within NOFRAMES will not be displayed on frames-supporting browsers, but will be displayed on older browsers.

```
<HTML>
<HEAD>
<TITLE> Frames Example </TITLE>
</HEAD>

<FRAMESET COLS="*,*">
   <FRAME SRC="a.html">
   <FRAME SRC="b.html">
</FRAMESET>

<NOFRAMES>
  <P>
  This site uses frames. If you are
  seeing this message, your web
  browser does not support frames.
  You can still see what we have to
  offer, although without the navi-
  gation advantages of frames, by
  using these links:

  <UL>
    <LI> <A HREF="a.html">Document
    A</A>
    <LI> <A HREF="b.html">Document
    B</A>
  </UL>

</NOFRAMES>
</HTML>
```

The content within the NOFRAMES element will be displayed by browsers that don't understand frames, so they will know what to do. The file to the left is available in the chap14 folder of the <chd2> CD-ROM as frames1a.html.


Frames Example - Netscape
File Edit View Go Window Help
Back Forward Reload Home Search Guide Print Security Stop
Document: Done

This site uses frames. If you are seeing this message, your web browser does not support frames. You can still see what we have to offer, although without the navigation advantages of frames, by using these links:

- Document A
- Document B

What browsers without frames capability will see.

Of course, you could instead display an entire web page with alternate content for frames-challenged browsers.

(…Frames (…Within Frames))

"Well now," you may ask. "If a frame is just a window with another HTML document in it, what prevents me from (place wild idea here)?" And we answer, "Absolutely anything you can do with a normal HTML document can be done in a frame." In fact, a frame can even have more frames inside of it!

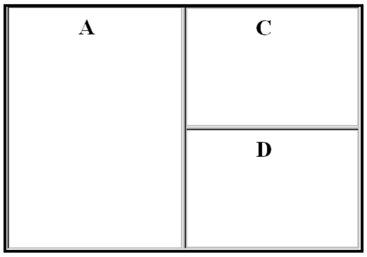
If we take the previous example and use a frames document in place of b.html, we get more frames in our "**B**" frame:

frames2.html:

```
<HTML>
<HEAD>
<TITLE> Frames Example </TITLE>
</HEAD>

<FRAMESET COLS="*,*" >
  <FRAME SRC="a.html">
  <FRAME SRC="b2.html">
</FRAMESET>

</HTML>
```

b2.html:

```
<FRAMESET ROWS="*,*">
   <FRAME SRC="c.html">
   <FRAME SRC="d.html">
</FRAMESET>
```

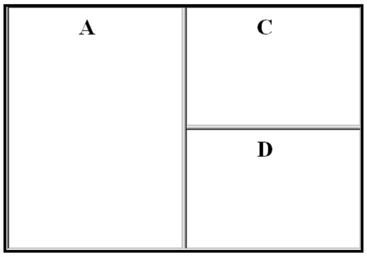


frames2.html: The right-side document is another frameset.

There is, however, an easier way to accomplish this same task. You can nest another FRAMESET within your existing FRAMESET. When you nest frames like this, it's a good idea to put comments in the code so that you can keep track of which frame is which:

frames3.html:

```
<HTML>
<HEAD>
<TITLE> Frames Example </TITLE>
</HEAD>

<!— cols for vertical divisions —>
<FRAMESET COLS="*,*" >

  <!— left frame —>
  <FRAME SRC="a.html">

  <!— right frame is another frameset
  —>
  <!— rows for horizontal divisions —>
  <FRAMESET ROWS="*,*">
     <!— top frame —>
     <FRAME SRC="c.html">
     <!— bottom frame —>
     <FRAME SRC="d.html">
  </FRAMESET>

</FRAMESET>

</HTML>
```



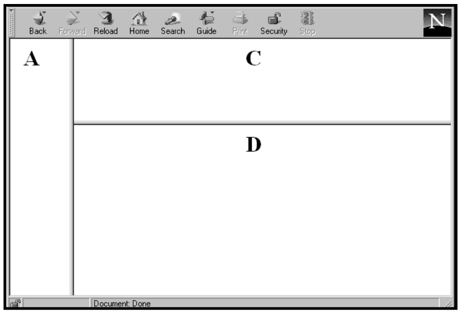
frames3.html: Looks just like the last one!

This example accomplishes exactly the same thing as frames2.html, but it does so with one less file. This is the preferred way to nest frames. This version also uses comments to explain what each FRAME and FRAMESET is for. Using comments makes it easier to figure out what you did when you come back and look at your code sometime later.

Adjusting the Size of Frames

As you learned earlier, the ROWS and COLS attributes to the FRAMESET tag take values that define the size of the frame. So far, we have been using the default sizes, "*,*".

You can adjust the sizes of the frames by using values instead of the asterisks, and the values can be either numbers (for the number of pixels) or percentages (for a percentage of the remaining space). In this example, the leftmost frame is 90 pixels wide, and the top right frame is 33% of the height of the screen. The bottom right frame fills out the remaining space.



frames4.html: These frames are specific sizes.

frames4.html:

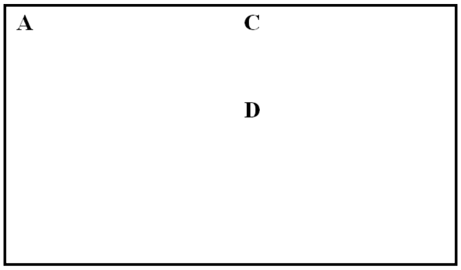
```
   <HTML>
   <HEAD>
   <TITLE> Frames Example </TITLE>
   </HEAD>

   <!— cols for vertical divisions —>
1. <FRAMESET COLS="90,*" >

     <!— left frame —>
     <FRAME SRC="a.html">

     <!— right frame is another
     frameset —>
     <!— rows for horizontal divisions
     —>
2. <FRAMESET ROWS="33%,*">
         <!— top frame —>
         <FRAME SRC="c.html">
         <!— bottom frame —>
         <FRAME SRC="d.html">
       </FRAMESET>

   </FRAMESET>

   </HTML>
```

1. In this first frameset, the COLS attribute specifies a number, instead of the default asterisk, for the first column. When you use a plain number, this indicates pixels. The asterisk for the second column means "use the rest of the available space."
2. The inner frameset specifies ROWS, and the first number is expressed as a percentage. This means "use 33% of the available space."

As you design your site, keep in mind that percentage values will change as the browser is resized, and pixel values will not. If you have a frame that holds a single graphic (like a title bar or an imagemap), you will probably want to use a specific pixel size for that frame so that it doesn't change size when the user changes the size of his or her browser. If a frame is going to hold text or other variable-size information, you may prefer to use a percentage, or even the asterisk. We'll show examples from DIAR later in this chapter.

Borderless Frames

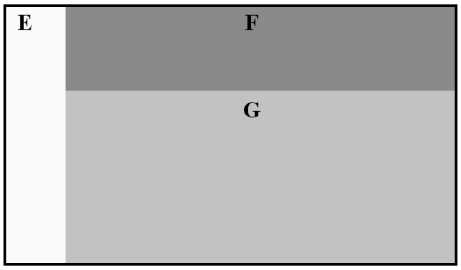
You can remove the borders from your frames by simply adding the attribute BORDER=0 to your outermost FRAMESET tag.



frames5.html: Borders: Be gone!

```
   <!— cols for vertical divisions —>
1. <FRAMESET COLS="90,*" BORDER=0>

     <!— left frame —>
     <FRAME SRC="a.html">

     <!— right frame is another frame-
     set —>
     <!— rows for horizontal divisions
     —>
     <FRAMESET ROWS="33%,*">
        <!— top frame —>
        <FRAME SRC="c.html">
        <!— bottom frame —>
        <FRAME SRC="b.html">
     </FRAMESET>

   </FRAMESET>
```

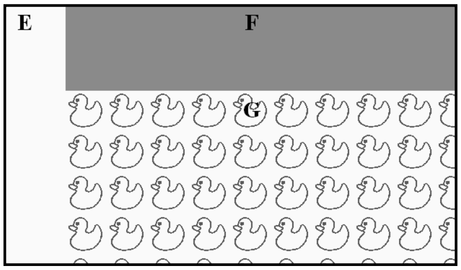
1. The BORDER=0 attribute is used with the outermost FRAMESET tag to turn off the borders for all the frames on the page. With the borders off and the BGCOLOR of all the frames the same, it becomes impossible to tell where one frame starts and the next frame ends. That can be a nice effect for some purposes, but you may want to have a distinction without the borders.



frames6.html: Different colors for each frame.

An effective way to distinguish between frames is using a different BGCOLOR for adjacent frames. In this example, we have used three different HTML files. This technique often creates a nicer aesthetic than the borders, and it gives you more flexible use of your space.

You can also use a background tile in any of your frames by using the BACKGROUND attribute in the BODY tag of the frame's HTML document. In the next example, we used a background tile for the lower-right frame.



frames7.html: A tiled background in g-tile.html is displayed in the lower-right frame.

In this interesting case, the color of the left frame and the background color of the tile used in the lower-right frame blend such that the tile appears to run out of ducks on the left!

Navigating Frames

Frames can be a wonderful tool for helping your visitors navigate your site. Using frames, you can put your menus and imagemaps in fixed areas of the screen, keeping them from moving and scrolling as the content of the other frames changes.

When using frames for navigation, you need to create links in one frame that cause documents to load in another frame. These are called **targeted links**.

To create a targeted link, you must first make up a name for your frame, and assign that name to the frame using the NAME attribute in the FRAME tag. This is the name that you will use later to identify the frame in the TARGET attribute of an anchor tag.

frames8.html:

```
   <HTML>
   <HEAD>
   <TITLE> Frames Example </TITLE>
   </HEAD>

   <!— cols for vertical divisions —>
   <FRAMESET COLS="90,*" BORDER=0>

     <!— left frame —>
1. <FRAME SRC="menu.html" NAME=left>

     <!— right frame is another frameset —>
     <!— rows for horizontal divisions —>
     <FRAMESET ROWS="33%,*">
        <!— top frame —>
2. <FRAME SRC="f.html" NAME=upper>
         <!— bottom frame —>
3. <FRAME SRC="g.html" NAME=lower>
     </FRAMESET>

   </FRAMESET>

   </HTML>
```

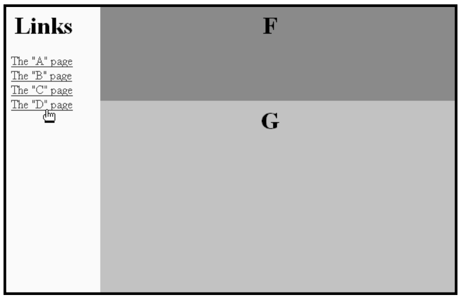
1/2/3 Notice the NAME attributes in the FRAME tags. This allows you to assign a name to each of your frames so you can target the frames in your links. The name can be anything you want it to be, but it's best to stick to letters and numbers to avoid compatibility problems with future browsers. To target a particular frame, use the TARGET attribute in the anchor tag when you create your link. For example, this link would load a new page in the frame named "lower":

```
<A HREF="a.html" TARGET="lower"> The "A" page</A>
```

As an example, we'll load this page in the left frame:

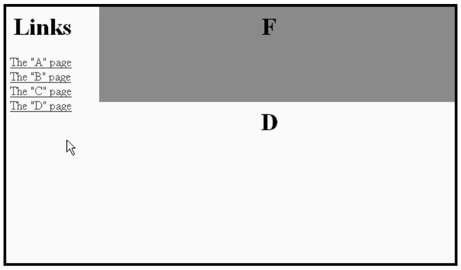
links1.html:

```
<BODY BGCOLOR="#FFFFCC">
<H1 ALIGN=CENTER> Links </H1>

<A HREF="a.html" TARGET="lower"> The "A" page</A><BR>
<A HREF="b.html" TARGET="lower"> The "B" page</A><BR>
<A HREF="c.html" TARGET="lower"> The "C" page</A><BR>
<A HREF="d.html" TARGET="lower"> The "D" page</A><BR>

</BODY>
```



frames8.html with links1.html loaded in the left frame.

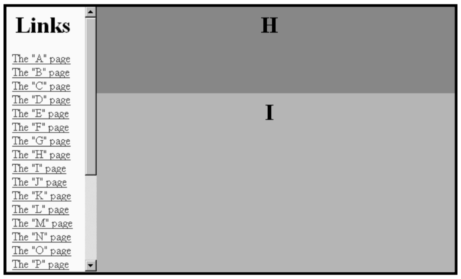
The target frame is the frame named "lower," which is the frame with the g.html file in it. Now, we'll click on a link, and the new file will replace the lower frame:



After clicking on the D link, the d.html file will replace the lower frame.

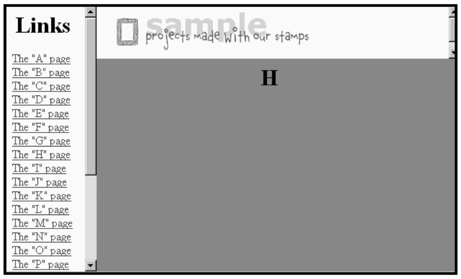
Scrollbars in Frames

When the content of a frame becomes larger than the size of the frame—either because the content is too long or the users have shrunk their browser window—scrollbars appear to allow the user to access all the content of the frame.



frames9.html with links2.html, a longer list of links loaded in the left-hand frame.

There may be times when you don't want a scrollbar to appear, even if the content is too large for the frame. For example, consider this screen:



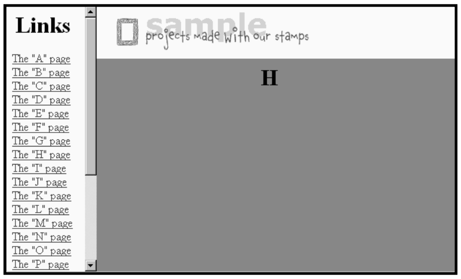
frames10.html: The image at the top is too big for its frame.

In this case we have a titleish image in the top frame, which extends beyond the bottom of the frame. The image actually looks fine in the frame, but the scrollbar on the right is really unnecessary.

We can get rid of that scrollbar by using the SCROLLING=NO attribute to the FRAME tag:

```
    <HTML>
    <HEAD>
    <TITLE> Frames Example </TITLE>
    </HEAD>

    <!— cols for vertical divisions —>
    <FRAMESET COLS="130,*" BORDER=0>

    <!— left frame —>
    <FRAME SRC="links2.html" NAME=left>

    <!— right frame is another frameset
    —>
    <!— rows for horizontal divisions —>
    <FRAMESET ROWS="75,*">
       <!— top frame —>
1.   <FRAME SRC="titlebar.html"
    NAME=titlebar SCROLLING=NO>
         <!— bottom frame —>
         <FRAME SRC="h.html" NAME=lower>
      </FRAMESET>

    </FRAMESET>

    </HTML>
```

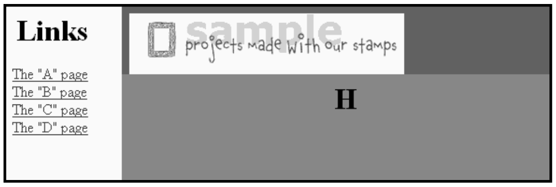
1. The SCROLLING=NO attribute forces the frame to keep the scrollbar off at all times, even if the content is too big for the frame.



frames10a.html: Voilà! Zee scrollbar ees vamoose!

Margins in Frames

Because your frames will sometimes consist of only one graphic, it can be convenient to position the graphic right up against the edge of the frame. Normally, there are both vertical and horizontal margins on the frames. If we temporarily use a contrasting color for the background of the title bar, you can see the margins around the window:

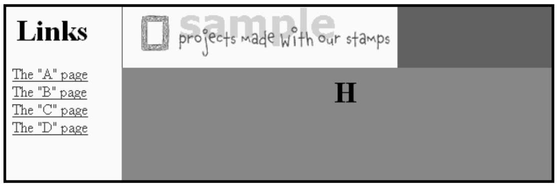


frames11.html with titlebar2.html: There is an unwanted margin around the image.

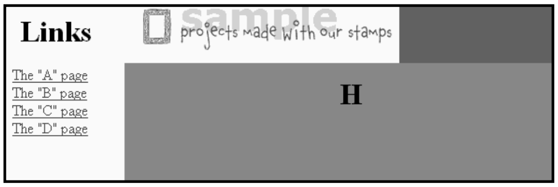
You can remove the margins with the MARGINHEIGHT and MARGINWIDTH attributes from the FRAME tag:

```
<HTML>
<HEAD>
<TITLE> Frames Example </TITLE>
</HEAD>

<!— cols for vertical divisions —>
<FRAMESET COLS="130,*" BORDER=0>

  <!— left frame —>
  <FRAME SRC="links1.html"
  NAME=left>

  <!— right frame is another frame-
  set —>
  <!— rows for horizontal divisions
  —>
  <FRAMESET ROWS="67,*">
     <!— top frame —>
     <FRAME SRC="titlebar2.html"
     NAME=titlebar
       SCROLLING=NO
1.     MARGINHEIGHT=0 MARGINWIDTH=0>
     <!— bottom frame —>
     <FRAME SRC="h.html" NAME=lower>
  </FRAMESET>

</FRAMESET>

</HTML>
```

1. The MARGINHEIGHT and MARGINWIDTH attributes adjust the margins in the frame. Setting them to zero should remove the margins entirely, but Netscape Navigator (versions 3 and 4) always leaves one pixel.

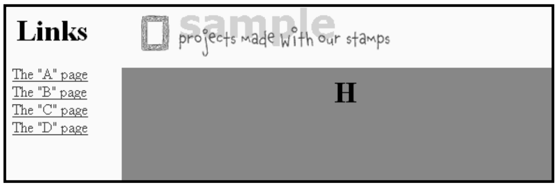


frames11a.html: With the contrasting background, you can clearly see the one-pixel margin Netscape leaves behind.



frames11a.html: Microsoft Internet Explorer 4.0 and later do not reserve the one-pixel margin.

Of course, the extra pixel of margin is not critical, because your page will still look right when you match the background color.



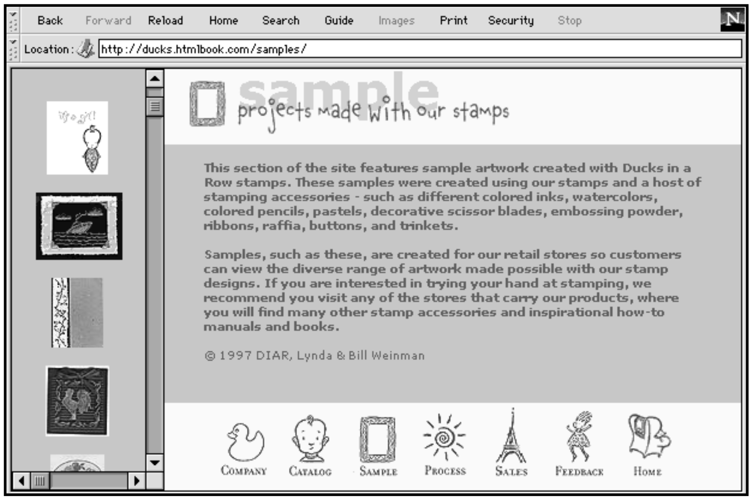
titlebar.html: The top frame looks great even in Netscape with the matching seamless BGCOLOR.

Aesthetics of Frames

We used frames extensively in the Catalog and Sample areas of the DIAR site because we had a lot of images to display. Frames worked well as a navigation device to load thumbnail previews that create a visual directory to our larger image libraries. (A section called “Making Thumbnails and Small Graphics” follows later in this chapter.)

One disadvantage to using frames is that it divides the real estate on your web page into smaller pieces. Many web publishers and visitors are already frustrated by small screen space, so dividing the screen into smaller sections runs the risk of being more of an irritant than an enhancement to a site.

In order to make our frames feel less confining, we worked with color relationships that unified the page. Even though this page is divided into four separate frame regions, it feels like one page instead of four disjointed parts pieced together. We paid a great deal of attention to visual continuity as well as color. We matched the icons and type used inside the frames to the aesthetics of the rest of the site. All of these factors made our use of frames less annoying than other examples we see on the web.



This section of the site features sample artwork created with Ducks in a Row stamps. These samples were created using our stamps and a host of stamping accessories - such as different colored inks, watercolors, colored pencils, pastels, decorative scissor blades, embossing powder, ribbons, raffia, buttons, and trinkets.

Samples, such as these, are created for our retail stores so customers can view the diverse range of artwork made possible with our stamp designs. If you are interested in trying your hand at stamping, we recommend you visit any of the stores that carry our products, where you will find many other stamp accessories and inspirational how-to manuals and books.

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Working with color relationships and visual continuity make our web page feel unified.

note

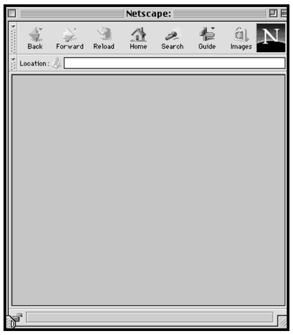
Do People Scroll?

Lynda once visited the offices of HotWired (http://www.hotwired.com) to meet with her friend Mike Kuniavsky, who heads their research efforts for interface design. There, he set up a video camera to tape the response of test users who had never navigated the HotWired site before. One of the most startling results of his videotaped studies was that the test users almost never scrolled beyond the initial screen that appeared, even if the screen contained essential navigation information lower on the page. Many respondents didn't even realize there was more to the page than what they saw, despite the vertical scrollbars. Moral of the story? Be careful with key navigational graphics. Don't make the end users work hard to figure out the navigation to your site. Make it easy for them to know where they are and how to get where they want to go, and make key navigation text and/or graphics appear within their browser windows without requiring scrolling.

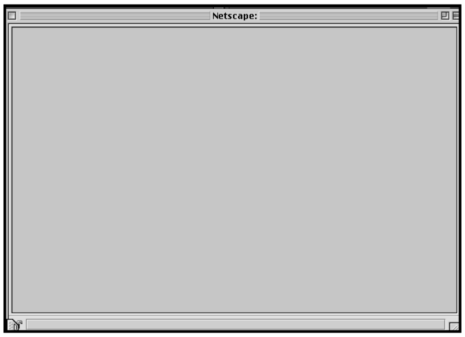
Size Considerations

When you're developing your web site, it's important to think about the size of the browser window and the resulting size relationships of images. The starting point is to establish who your audience is, and from what size displays you think they will be viewing the web. While many designers have large monitors, most average web visitors have smaller displays. The most common monitor size is 13" or 14". Most people who have average size displays have them set to 800×600.

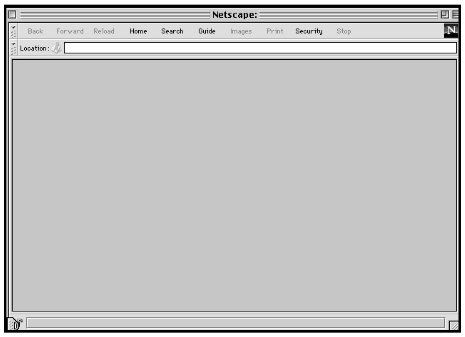
Netscape Navigator and Microsoft Internet Explorer open in a narrow window on Macintoshes, and fill the screen on Windows. If a web page is bigger than the browser window on which it is displayed, scrollbars automatically appear to signal to the end user that the page is larger than what is visible. Here are some sample browser configurations on a standard 640×480 display.



Macintosh Default: In Netscape Navigator with large icons turned on, the default size is 382× 324 pixels.



Macintosh Maximized: If you turn off the icons in Netscape Navigator and maximize the browser window to its fullest, the available space for your web page will be 624× 400 pixels.



Macintosh with Small Icons: This is how Lynda typically conforms her Netscape Navigator browser, which yields available space of 634× 324 pixels.

What happens on a 640×480 display if you make a graphic that is 800 pixels wide? It will require the end user to scroll horizontally to see the graphic. What happens if you make a graphic that is longer than the browser window? Vertical scrollbars will appear.

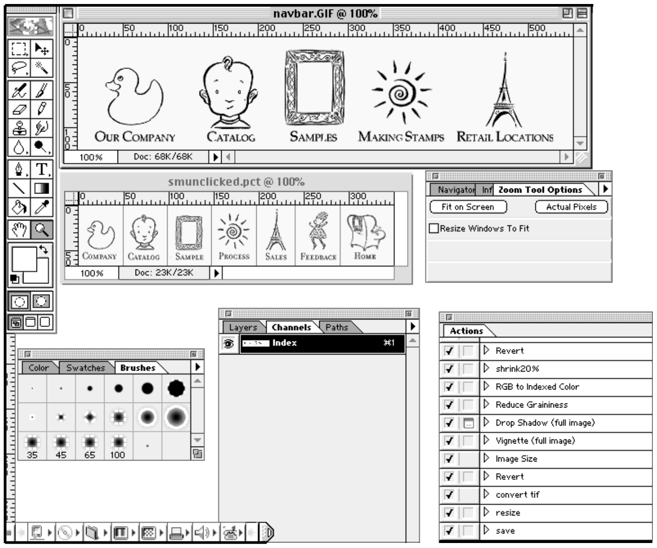
There are no standard guidelines for the size of navigational graphics, only educated guesses about what is practical and what isn't. We believe it's prudent to create essential navigation elements so they can be seen within 800×600 displays, and for some audiences 640×480 displays, without requiring the end viewer to scroll his or her browser window.

This directive is easier said than done. If you're designing for an audience that still uses 800×600 browsers, it's a good idea to set your monitor to 800×600 before you begin creating navigation graphics. This will ensure that there will be a one-to-one size relationship between your artwork as it is created and as it will be viewed. In the case of frames, it can be helpful to mock up the navigation artwork in a Photoshop document that matches the size of the browser window. We recommend that if you are designing for an 800×600 audience, you set up your graphic template so it's no wider than 780 and no higher than 450 pixels. We have set up an empty Photoshop template of that size for you as browser.psd, located in the chap14 folder of the <chd2> CD-ROM. This empty document should be a good starting point for designing navigational graphics, to ensure that your graphics don't end up too big for a 640×480 display.

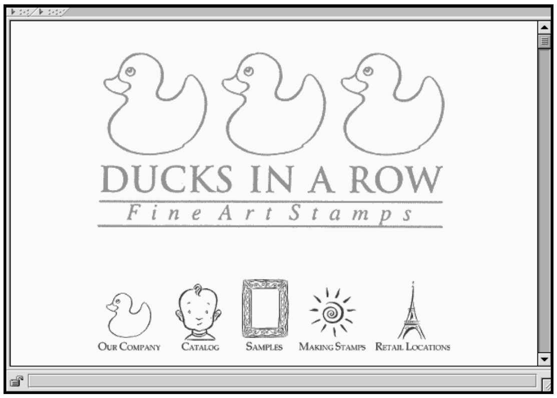
Size Considerations Navbars/Frames

Now that you've seen the different size browser windows, let's look at some of the size issues inherent in our Ducks In A Row site design. Lynda uses a 17" monitor on her Macintosh system, which is a fairly typical size setup for many professional designers. Since the majority of the web audience will be on 13" monitors, however, Lynda's setup gave her a false sense of size security that proved wrong when we went live with the DIAR site. Mistakes are best when they're someone else's, so you get to benefit from our hard lessons by understanding where we went awry.

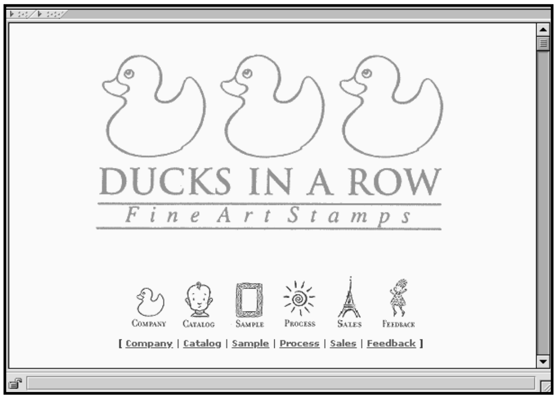
The first navbar we made was constructed while we were writing earlier chapters of this book. It was good enough to show as an example for learning about imagemaps, but the example we made was taken out of context of its true home on our site. Because of this, Lynda made the navbar without thinking about future size constraints.



On Lynda's 17" monitor, the navbar.gif shown at the top of this screen seemed like a reasonable size.



At 640×480 this bottom navbar looks like it's a transplant from the Land of the Giants site.

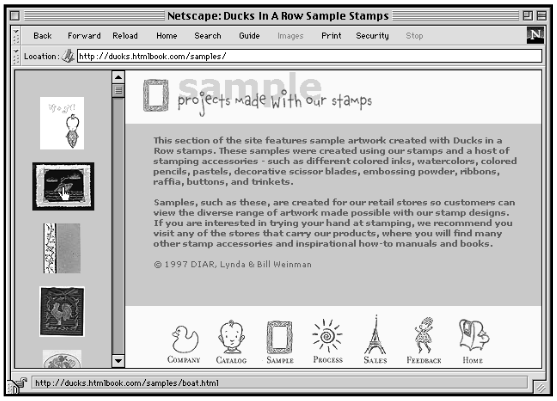


After Lynda reduced the bottom navbar, it fit much better in scale to the 640×480 window.

By switching her monitor to 640×480, it was obvious that the top navbar was way too large for our target audience of viewers, whom we suspected would be surfing on systems set to 640×480 pixels. The lower navbar shows the corrected file, and the next screen shot shows it in context of the frames.

After Lynda got the size of the navbar corrected, it was time to design our framesets for the Sample and Catalog sections of our site. This time, Lynda and Bill readjusted their monitor's resolutions to 640×480 in order to previsualize how the target web audience would view the site.

Moral of the story? Design at the resolution you're planning to publish for. If you want your site to look good at 640×480, for a better reality check switch your monitor to that resolution while you're designing graphics for the site.


Netscape: Ducks In A Row Sample Stamps
Back
Forward
Reload
Home
Search
Guide
Images
Print
Security
Stop
Location: http://ducks.htmlbook.com/samples/
sample
projects made with our stamps
Company
Catalog
Sample
Process
Sales
Feedback
Home
http://ducks.htmlbook.com/samples/boat.html

This section of the site features sample artwork created with Ducks in a Row stamps. These samples were created using our stamps and a host of stamping accessories - such as different colored inks, watercolors, colored pencils, pastels, decorative scissor blades, embossing powder, ribbons, raffia, buttons, and trinkets.

Samples, such as these, are created for our retail stores so customers can view the diverse range of artwork made possible with our stamp designs. If you are interested in trying your hand at stamping, we recommend you visit any of the stores that carry our products, where you will find many other stamp accessories and inspirational how-to manuals and books.

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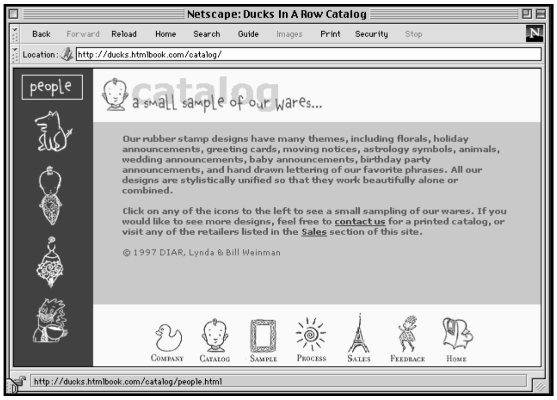
This example looked great on a 640×480 display.

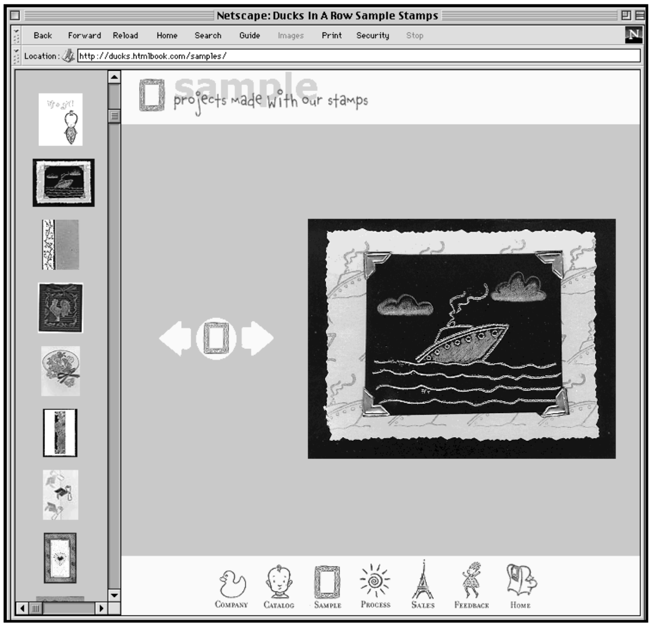

Netscape: Ducks In A Row Catalog
Back
Forward
Reload
Home
Search
Guide
Images
Print
Security
Stop
Location: http://ducks.htmlbook.com/catalog/
people
catalog
a small sample of our wares...
Company
Catalog
Sample
Process
Sales
Feedback
Home
http://ducks.htmlbook.com/catalog/people.html

Our rubber stamp designs have many themes, including florals, holiday announcements, greeting cards, moving notices, astrology symbols, animals, wedding announcements, baby announcements, birthday party announcements, and hand drawn lettering of our favorite phrases. All our designs are stylistically unified so that they work beautifully alone or combined.

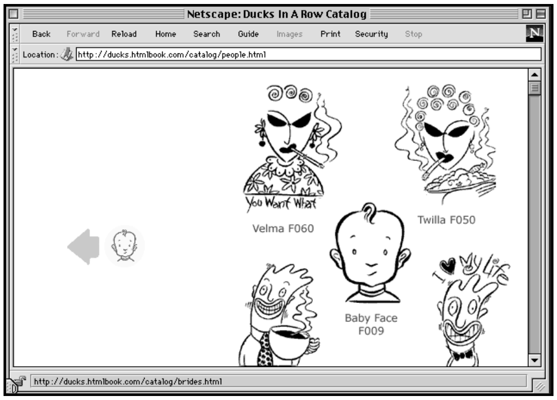
Click on any of the icons to the left to see a small sampling of our wares. If you would like to see more designs, feel free to contact us for a printed catalog, or visit any of the retailers listed in the Sales section of this site.

© 1997 DIAR, Lynda & Bill Weinman

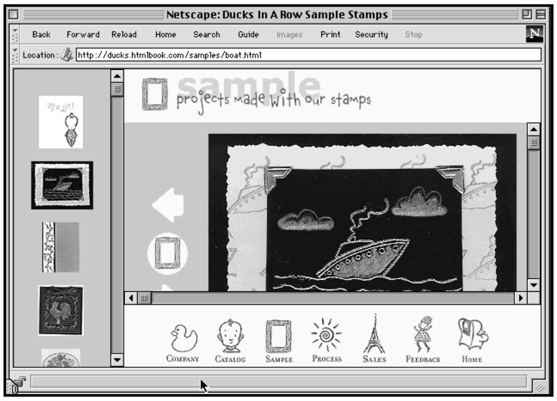
In our Catalog section, we chose a different frames navigation technique. The opening page looks similar to the opening screen of the Sample section.


Netscape: Ducks In A Row Sample Stamps
Back
Forward
Reload
Home
Search
Guide
Images
Print
Security
Stop
Location: http://ducks.htmlbook.com/samples/
sample
projects made with our stamps
Company
Catalog
Sample
Process
Sales
Feedback
Home

Once a thumbnail is clicked inside the left scrolling frame, it loads the larger version of the sample into the middle frame of the right frameset. Notice how scrollbars appear on the right that weren't there before?


Netscape: Ducks In A Row Catalog
Back Forward Reload Home Search Guide Images Print Security Stop
Location: http://ducks.htmlbook.com/catalog/people.html
You Want What
Velma F060
Twilla F050
Baby Face F009
I ♥ My Life
http://ducks.htmlbook.com/catalog/brides.html

The difference is that after you click a thumbnail in the left frame, a new window appears with the result, rather than the artwork loading into the middle frame, as in the Sample section of the site. This was accomplished in the HTML with `TARGET=_top` in the anchor tag.

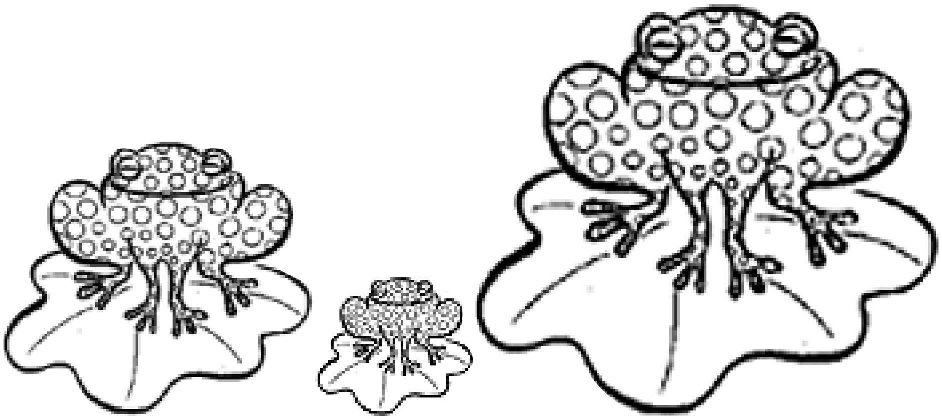

Netscape: Ducks In A Row Sample Stamps
Back Forward Reload Home Search Guide Images Print Security Stop
Location: http://ducks.htmlbook.com/samples/boat.html
sample
projects made with our stamps
Company Catalog Sample Process Sales Feedback Home

On a larger monitor, the scrollbars on the right would not appear. Bill created the HTML to ensure that the top, left, and bottom frames were fixed sizes. The right middle frame was set to asterisk (*), which fills the remaining size of the browser window on any size monitor, large or small.

Making Thumbnails and Small Graphics

If you've never heard the term "thumbnail" before, in web-speak it refers to a small graphic that links to a larger graphic. Using thumbnails is common practice on web sites, because graphics that are small in dimensions and file size typically load much faster than graphics that are large in dimensions and file size. We created a lot of thumbnail graphics that link to larger graphics in the Catalog and Sample sections of the DIAR web site.

It's actually a lot trickier to create small graphics than large ones. You'll find that you will resize your artwork over and over in Photoshop, and that quality management will be critical. A good rule of thumb is to save master documents of key graphics, preferably in large sizes, so you can work from copies instead of originals. It will always yield higher quality to shrink a computer image than to enlarge it. The moral of the story? Scan large and reduce—never enlarge raster images such as scans or GIFs or JPEGs.



The original scanned image (to the left) is 100%, and it looks fine. The same image (in the middle) is reduced 50% and sharpened with the Photoshop Sharpen filter. The same image again (to the right) is enlarged 150% and even with sharpening filters, this image is soft and lacks good quality.

Fragments

One final navigation technique that's effective when you have lots of information on one page is the HTML fragment. An HTML **fragment** is a separately addressable section of a web page that you access with a special URL part called a fragment.

To create a fragment on a web page, you enclose a section of your page in an anchor element (the A tag) using a NAME attribute to assign a name to it. As an example, we have a text version of the list of retail outlets for the Ducks In A Row rubber stamps at http://ducks.htmlbook. com/sales/locations.html on the DIAR web site. We fragmented the file based on individual states. Here's the entry for Texas:

```
<A NAME="TX">
<H2>TX</H2> [  <A HREF="#top">Top</A> ]

    <P><STRONG>Stamp De Ville</STRONG>
    <BR>1014 S. Broadway Suite 100
    <BR>Carrollton TX
    <STRONG>75006</STRONG>

    <P><STRONG>Stamp Asylum</STRONG>
    <BR>201 Coit Rd. #165
    <BR>Plano TX <STRONG>75075</STRONG>

    <P><STRONG>Imprints</STRONG>
    <BR>4912 Camp Boyle Blvd.
    <BR>Fort Worth TX
<STRONG>76107</STRONG>

    <P><STRONG>Iconography</STRONG>
    <BR>P.O. Box 130090
    <BR>Houston TX
<STRONG>77219</STRONG>

</A>
```

Now that you have the fragment set aside, you will want a way to link directly to it. For that purpose, you can use a special extension to the URL called the fragment.

tip

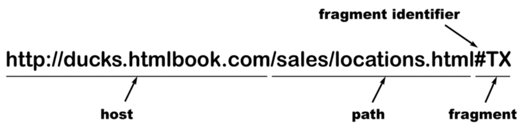
Frames Resources

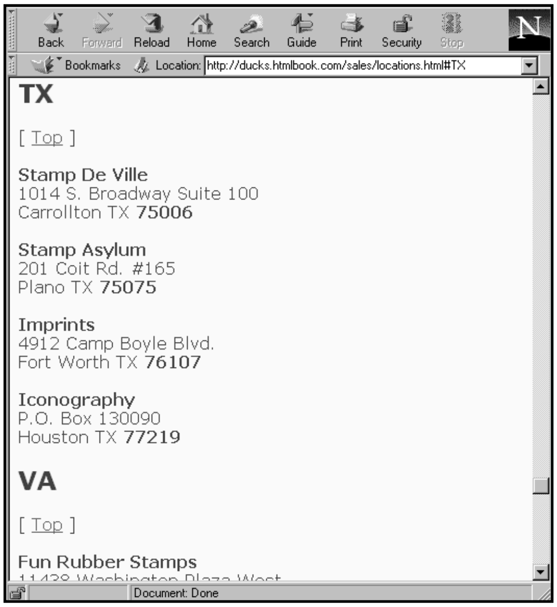
Netscape's Basic Frames Tutorial
http://home.netscape.com/assist/net_sites/frames.html

Bruce Heavin's Portfolio
http://www.stink.com/bruce/

A URL with a Fragment

The fragment part of the URL identifies a fragment of a page. So, if you wanted to link to the TX fragment that we just created, you would use the URL http://ducks.htmlbook.com/sales/locations.htlm#TX. This will cause a browser to display the page starting with the top of the fragment.





TX

[Top]

Stamp De Ville
1014 S. Broadway Suite 100
Carrollton TX 75006

Stamp Asylum
201 Coit Rd. #165
Plano TX 75075

Imprints
4912 Camp Boyle Blvd.
Fort Worth TX 76107

Iconography
P.O. Box 130090
Houston TX 77219

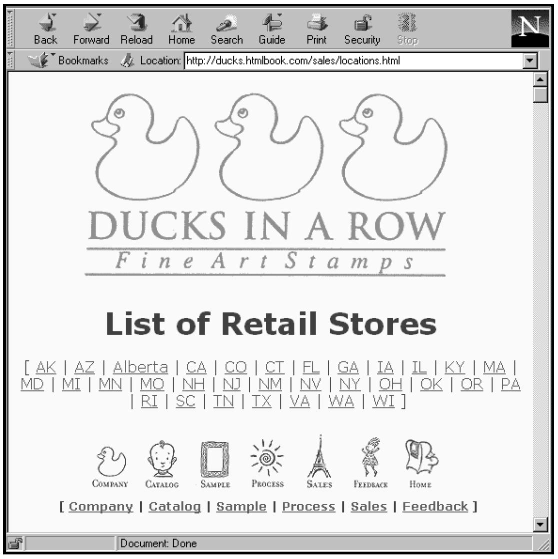
VA

[Top]

Fun Rubber Stamps
11438 Washington Plaza West

The TX **fragment of the** locations.html **file.**

At the top of our locations page, we have a list of states with a link to a fragment of the page for each state.



List of Retail Stores

[AK | AZ | Alberta | CA | CO | CT | FL | GA | IA | IL | KY | MA | MD | MI | MN | MO | NH | NJ | NM | NV | NY | OH | OK | OR | PA | RI | SC | TN | TX | VA | WA | WI]

[Company | Catalog | Sample | Process | Sales | Feedback]

Links to each of the state fragments.

Just as you can use a relative URL to link to another file on the same web site, you can link to a fragment by itself when it's in the same file.

In this case, we used fragment links in the HREF attributes to our anchor tags to link to each U.S. state (or Canadian province) where a customer can find a store that sells DIAR's rubber stamps.

```
<P> [
<A HREF="#AK">AK</A>   |
<A HREF="#AZ">AZ</A>   |
<A HREF="#Alberta">Alberta</A>   |
<A HREF="#CA">CA</A>   |
<A HREF="#CO">CO</A>   |
<A HREF="#CT">CT</A>   |
<A HREF="#FL">FL</A>   |
<A HREF="#GA">GA</A>   |
<A HREF="#IA">IA</A>   |
<A HREF="#IL">IL</A>   |
<A HREF="#KY">KY</A>   |
<A HREF="#MA">MA</A>   |
<A HREF="#MD">MD</A>   |
<A HREF="#MI">MI</A>   |
<A HREF="#MN">MN</A>   |
<A HREF="#MO">MO</A>   |
<A HREF="#NH">NH</A>   |
<A HREF="#NJ">NJ</A>   |
<A HREF="#NM">NM</A>   |
<A HREF="#NV">NV</A>   |
<A HREF="#NY">NY</A>   |
<A HREF="#OH">OH</A>   |
<A HREF="#OK">OK</A>   |
<A HREF="#OR">OR</A>   |
<A HREF="#PA">PA</A>   |
<A HREF="#RI">RI</A>   |
<A HREF="#SC">SC</A>   |
<A HREF="#TN">TN</A>   |
<A HREF="#TX">TX</A>   |
<A HREF="#VA">VA</A>   |
<A HREF="#WA">WA</A>   |
<A HREF="#WI">WI</A>   ]
```

Finally, one important navigational detail: Whenever you have a long page, it's very important to have a link back to the top of the page. This page lists over 130 different retail outlets, so a user could easily get lost in it all.

To accomplish this, we created a fragment at the top of the page, and we called it top:

```
<A NAME="top">
<!— Logo —>
<IMG SRC="/images/ylogo1.gif"
   ALT="Ducks in a Row Logo"
   BORDER=0
   WIDTH=419 HEIGHT=219>
<H1>List of Retail Stores</H1>
</A>
```

Then, next to every individual state heading, we inserted a link back to #top.

```
<H2>TX</H2> [  <A HREF="#top">Top</A> ]
```

This makes it easy for a user to get back to the top of the page—like a little electronic trail of bread crumbs. Now the users can find their way home!

chapter fourteen summary

Navigation

In print, no one gives much thought to navigation issues, though they are present there, too. Most people intuitively know how to flip pages, use a table of contents, or find a reference in an index. The web has an unspoken navigation language that is still being defined, and since hyperlinks can transport your end users without them even knowing where they're going, it's a huge challenge to design intuitive navigation.

Frames and fragments are among many navigational devices (including hyperlinks, imagemaps, rollovers, button graphics, and others) that can either enhance or detract from the navigability of your site. Now that you've studied these two new techniques, your navigation design choices are wider. Given how difficult navigation issues are, it's best to understand when and why to use techniques like frames and fragments. We've covered the nuances of both navigation methods, and filled you in on the design decisions related to choosing one, the other, or none of the above!