

DEFINE IMAGE SIZE

Defining the size of an image on your Web page can help the Web page appear on a screen more quickly since Web browsers will not have to calculate the size of the image.

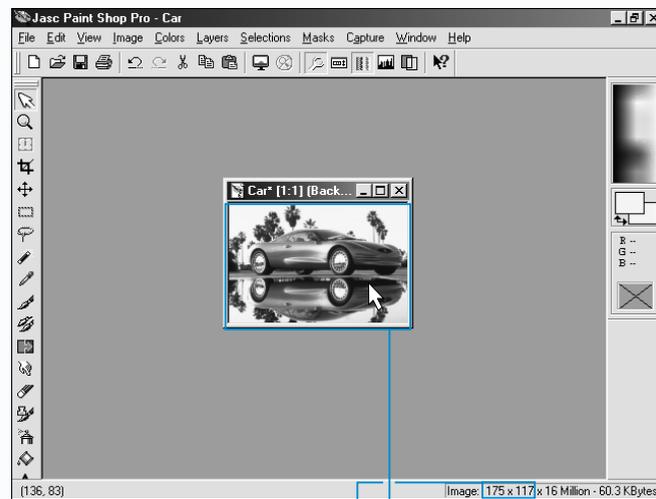
To define the size of an image, you must first determine the size of the image using an image editing program. Once you know the dimensions of the image in pixels, use the `WIDTH` and `HEIGHT` attributes to define the size of the image.

When you define the size of images on your Web page, Web browsers can determine how much

space the images will take up on your Web page before the images transfer to a computer. This prevents Web browsers from having to change the layout of your Web page each time a new image transfers. As a result, users can easily read the text on your Web page as your images transfer.

Defining the size of images also ensures that users who turn off the display of images will see your Web page with the layout you intended. A Web browser will leave a space for each image using the size you defined.

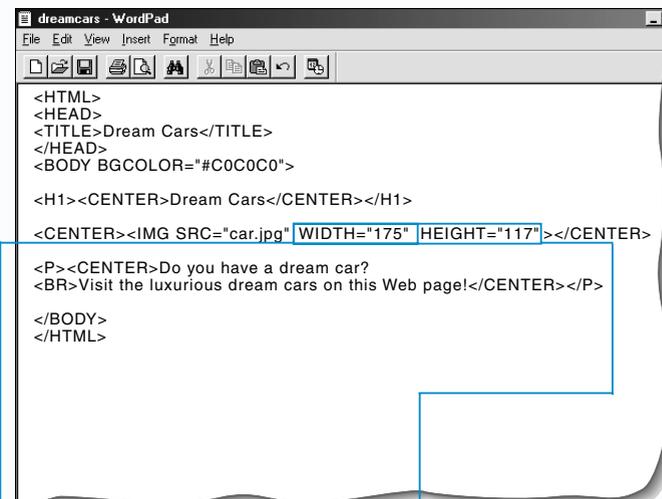
DEFINE IMAGE SIZE



DETERMINE IMAGE SIZE

- 1 Start your image editing program. In this example, we started Paint Shop Pro.
- 2 Open the image you want to determine the size of.

- 3 Position the mouse anywhere over the image.
 - This area displays the width and height of the image in pixels.
- 4 Write down the width and height values on a piece of paper.



DEFINE IMAGE SIZE

- 1 In the `` tag for the image, type `WIDTH="?"` replacing ? with the width of the image in pixels. Then add a blank space.

- 2 Type `HEIGHT="?"` replacing ? with the height of the image in pixels.

INCREASE IMAGE SIZE

The `WIDTH` and `HEIGHT` attributes allow you to increase the size of an image on your Web page without increasing the file size of the image. This lets you include a large image on your Web page without increasing the time it takes for the Web page to transfer to a computer.

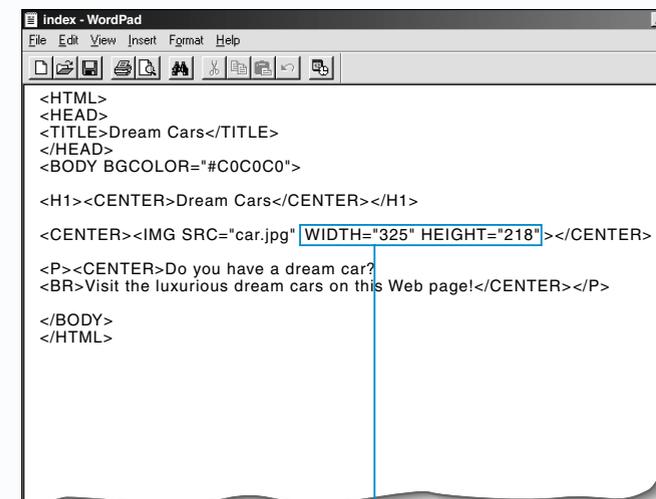
When increasing the size of an image, specify a new size for the image in pixels or as a percentage of the Web browser window. Avoid making the image too large, since the image may appear grainy.

When specifying a new size for an image in pixels, use both the `WIDTH` and `HEIGHT` attributes. To

avoid distorting the image, keep the width and height values proportional. When specifying a new size as a percentage of the Web browser window, you do not need to specify both a width and a height. A Web browser will automatically calculate the other percentage to ensure the image will not be distorted.

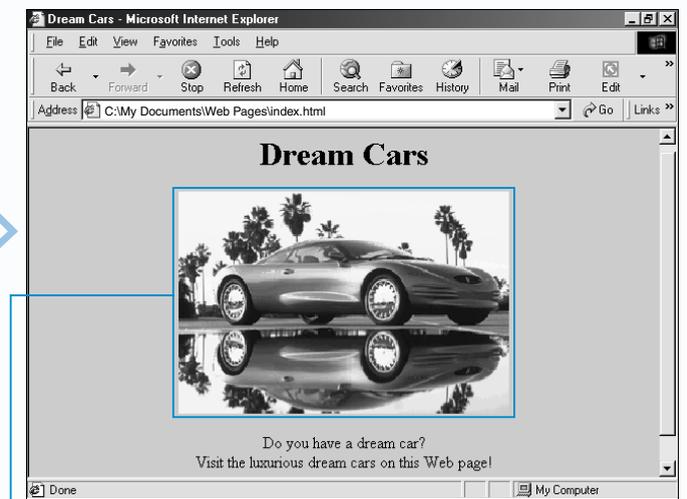
While the `WIDTH` and `HEIGHT` attributes can also be used to reduce the size of an image, using an image editing program is more effective. For more information, see page 60.

INCREASE IMAGE SIZE



- 1 Define the size of the image you want to change. To define the size of an image, see page 58.

- 2 Replace the `WIDTH` and `HEIGHT` values with the new width and height you want to use in pixels.
 - You can also specify a `WIDTH` or `HEIGHT` value as a percentage of the Web browser window (example: 30%).



- The Web browser displays the image with the new size.

REDUCE IMAGE SIZE

You may want to reduce the size of a large image so that it will take up less space on your Web page. Reducing the size of an image decreases the file size of the image. This allows the image to transfer faster and appear on a user's screen more quickly.

You should use an image editing program such as Jasc Paint Shop Pro or Adobe Photoshop to reduce the size of an image.

Most image editing programs allow you to specify a new size for an image in pixels. When

you specify a new width for an image in Paint Shop Pro, the program will automatically calculate the height for you to keep the image in proportion.

After reducing the size of an image, you should save your changes in a new file rather than replacing the original image. This lets you keep the original image on your computer in case you need the image at a later time. For example, you may want to use the original image for creating *thumbnail images*. For information on thumbnail images, see the top of page 61.

Extra

Paint Shop Pro also allows you to specify a new size for an image as a percentage of its original size. In the Resize dialog box, click the Percentage of Original option (○ changes to ●). Then type the percentage you want to use in the Width area.

Many people reduce the size of images to create thumbnail images. A thumbnail image is a small version of an image that users can select to display the larger image. This lets users decide if they want to wait for the larger image to transfer to their computer. Create a thumbnail image by linking the smaller image to the larger version.

Example:

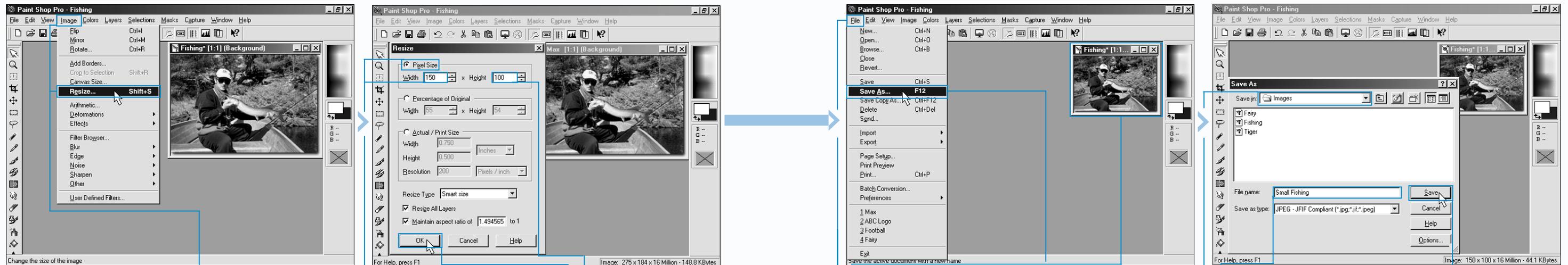
```
<A HREF="largeimage.jpg"><IMG SRC="smallimage.jpg"></A>
```

If you do not have an image editing program, use the WIDTH and HEIGHT attributes to reduce the size of an image. This will reduce the amount of space the image takes up on your Web page, but will not reduce the file size of the image. In the tag for the image, type **WIDTH="?" HEIGHT="?"** replacing ? with a new width and height for the image in pixels.

Example:

```
<IMG SRC="photo.jpg" WIDTH="120" HEIGHT="60">
```

REDUCE IMAGE SIZE



- 1 Start your image editing program. In this example, we started Paint Shop Pro.
- 2 Open the image you want to resize.

- 3 Click Image.
- 4 Click Resize.
 - The Resize dialog box appears.

- 5 Click Pixel Size (○ changes to ●).
- 6 Type a new width for the image in this area.

- 7 The program automatically calculates the height for you to keep the image in proportion.
- 7 Click OK to confirm your change.

- 1 The image appears in the new size.

SAVE CHANGES

- 1 To create a new file that will store the image with your changes, click File.

- 2 Click Save As.
 - The Save As dialog box appears.

- 3 Type a name for the new image.
 - This area shows the location where the program will store the image. To change the location, click this area.
- 4 Click Save.

CROP AN IMAGE

Cropping an image lets you remove parts of the image that you do not need. This is useful when you want to focus a user's attention on an important part of an image.

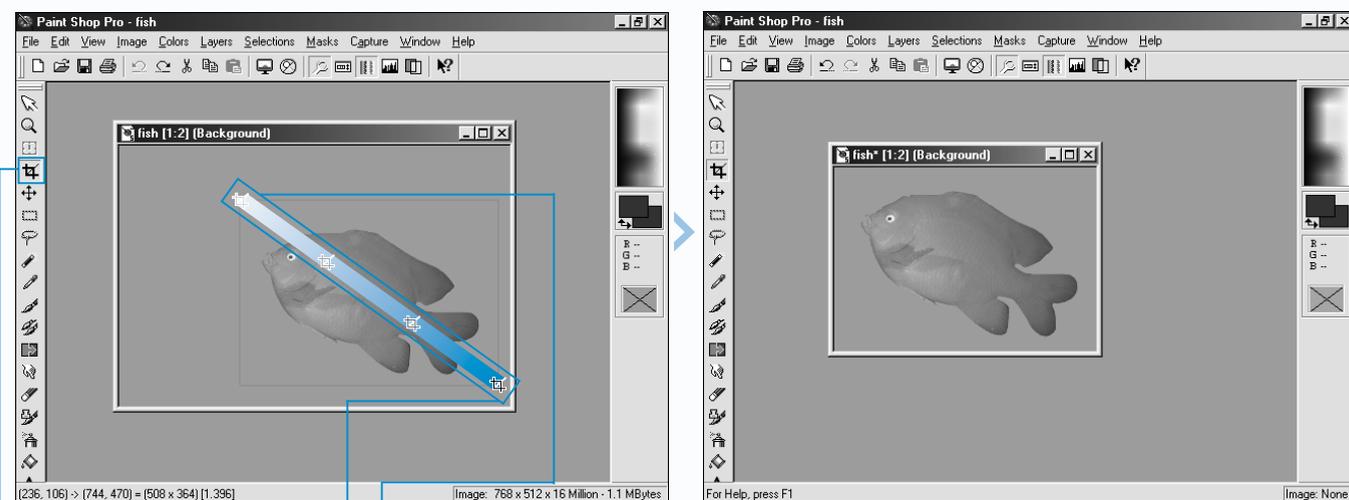
When you crop an image, the file size of the image is reduced. This allows the image to transfer faster and appear on a screen more quickly.

Many image editing programs, such as Jasc Paint Shop Pro and Adobe Photoshop, have a tool you can use to crop an image. If your image editing program does not have a cropping tool, you may be able to crop the image using a different method.

Refer to the documentation that came with your image editing program for more information.

After cropping an image, you should save your changes in a new file rather than replacing the original image on your computer in case you need the image at a later time. Saving the original image on your computer also allows you to crop the image again later if you are unsatisfied with the results.

CROP AN IMAGE



1 Start your image editing program. In this example, we started Paint Shop Pro.

2 Open the image you want to crop.

3 Click .

4 Position the mouse  over the top left corner of the image area you want to keep.

5 Drag the mouse  over the image area you want to keep.

6 Double-click within the area you selected.

■ The areas of the image you did not select disappear.

7 To create a new file that will store the cropped image, perform steps 1 to 4 on page 61.

REDUCE IMAGE RESOLUTION

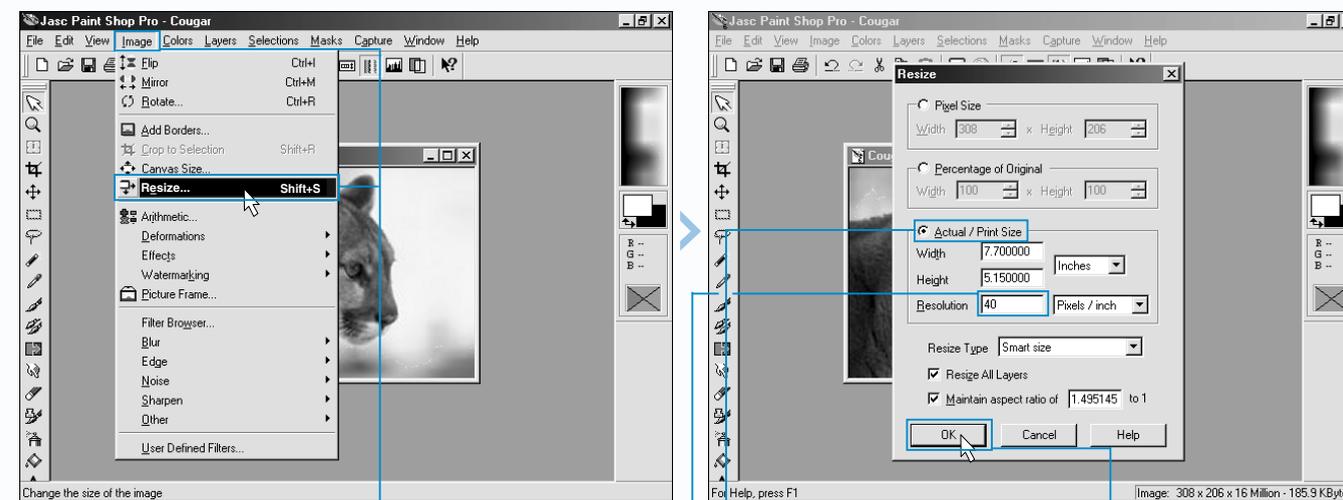
Reducing the resolution of an image will decrease the file size of the image. This will allow the image to transfer faster and appear on a user's screen more quickly.

The resolution of an image refers to the clarity of the image. Higher resolution images are sharper and more detailed. Most computer monitors display images at a resolution of 72 dots per inch (dpi). Images you include on your Web pages do not need to display a resolution higher than 72 dpi unless users will be printing the images.

To reduce the resolution of an image you will need an image editing program such as Jasc Paint Shop Pro or Adobe Photoshop.

After reducing the resolution of an image, you should save your changes in a new file rather than replacing the original image. This allows you to keep both a low resolution and a high resolution version of the image on your computer. You will need to use both versions if you want your Web page to display the low resolution version of the image while the higher resolution image transfers. For more information, see page 64.

REDUCE IMAGE RESOLUTION



1 Start your image editing program. In this example, we started Paint Shop Pro.

2 Open the image you want to change.

3 Click Image.

4 Click Resize.

■ The Resize dialog box appears.

5 Click Actual / Print Size ( changes to ).

6 Type a new resolution for the image in this area.

7 Click OK to confirm your change.

8 To create a new file that will store the lower resolution image, perform steps 1 to 4 on page 61.

USE LOW RESOLUTION IMAGES

Use the `LOWSRC` attribute to have a low resolution version of an image appear on a user's screen while the higher resolution version of the image transfers to the user's computer.

Before you can use the `LOWSRC` attribute, you must create a low resolution version of your image as shown on page 63. The low resolution version of the image will have a smaller file size, allowing it to transfer quickly over the Internet.

The low resolution version of an image may have smaller dimensions than the

high resolution version. Use the `WIDTH` and `HEIGHT` attributes to specify the width and height of the high resolution version of your image in pixels. If you do not specify a width and height, both images may display the dimensions of the low resolution image. To determine the width and height of an image, see page 58.

The `LOWSRC` attribute is not part of the HTML standard and is not supported by many Web browsers. Web browsers that do not support the `LOWSRC` attribute will only display the high resolution image.

Extra

The image you add using the `LOWSRC` attribute does not need to be a low resolution version of the image you add using the `SRC` attribute. Specifying a different image can create an animated effect, with the image you specify for the `LOWSRC` attribute changing to the image you specify for the `SRC` attribute.

Example:

```
<IMG SRC="cat.gif" LOWSRC="dog.gif"
WIDTH="300" HEIGHT="200">
```

If you want to use only a low resolution version of an image without having the high resolution version appear later, do not use the `LOWSRC` attribute. Add the low resolution version of the image using the `SRC` attribute. Using only low resolution images can decrease the file size of your Web pages.

Example:

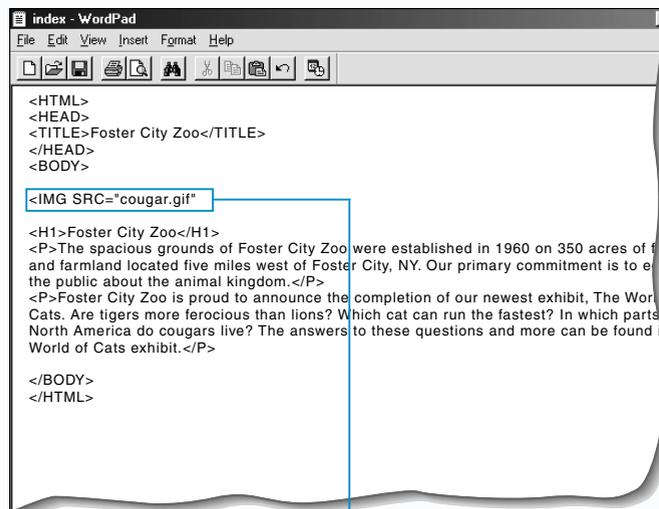
```
<IMG SRC="images/lowresolution.gif"
WIDTH="200" HEIGHT="135">
```

You should use the `ALT` attribute each time you add an image to your Web page to provide text that will appear for users who do not see images. Some users have Web browsers that cannot display images, while others turn off the display of images to browse the Web more quickly. These users will see neither the high nor low resolution version of an image on your Web page.

Example:

```
<IMG SRC="car.gif" LOWSRC="car_lowres.gif"
WIDTH="240" HEIGHT="200" ALT="Image of
corvette">
```

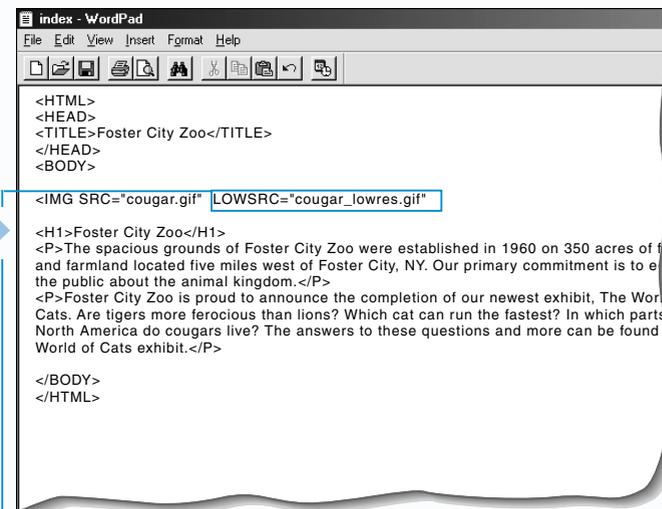
USE LOW RESOLUTION IMAGES



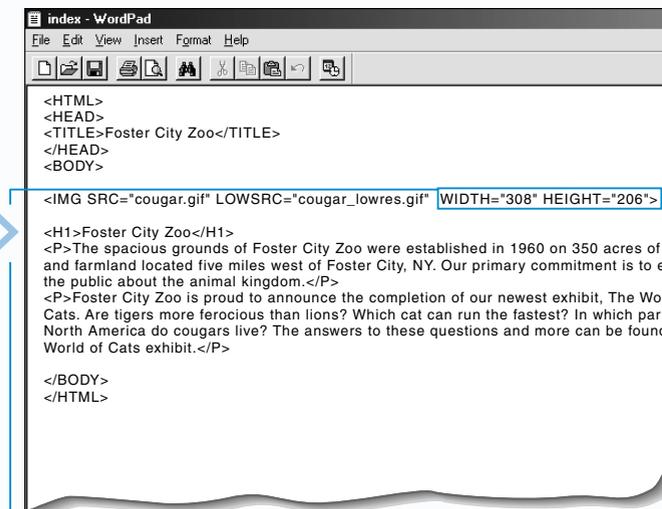
1 Create a low resolution version of the image you want to include on your Web page as shown on page 63.

2 Type `<IMG SRC="?"` where you want the image to appear, replacing `?` with the location and name of the high resolution image on your computer. Then add a blank space.

Note: For information on specifying the location and name of an image, see the top of page 45.

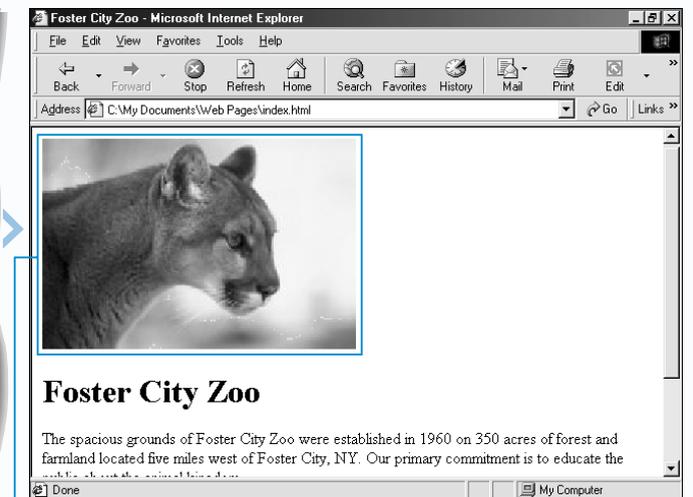


3 Type `LOWSRC="?"` replacing `?` with the location and name of the low resolution image on your computer. Then add a blank space.



4 To ensure that both versions of the image display the proper size, type `WIDTH="?" HEIGHT="?"` replacing `?` with the width and height of the high resolution image in pixels.

Note: To determine the width and height of an image, see page 58.



The Web browser displays the low resolution image while the high resolution version transfers to a user's computer.

The high resolution image will replace the low resolution version when it transfers to a user's computer.

REDUCE COLORS IN AN IMAGE

Although a GIF image can contain up to 256 colors, many simple images can be accurately displayed with fewer colors. Reducing the number of colors in a GIF image will decrease the file size of the image, allowing the image to transfer more quickly over the Internet.

To reduce the number of colors in an image, you need an image editing program such as Jasc Paint Shop Pro or Adobe Photoshop.

After you reduce the number of colors in an image, you can view the image with the new

number of colors. If you are satisfied with the results, save your changes in a new file. If the quality of the image has been significantly affected, do not save your changes. Try reducing the number of colors in the original image again, choosing a slightly higher number of colors.

Do not reduce the number of colors in a JPEG image. The JPEG format was specifically designed to store images containing millions of colors using small file sizes. In many cases, reducing the number of colors in a JPEG image will increase the file size of the image.

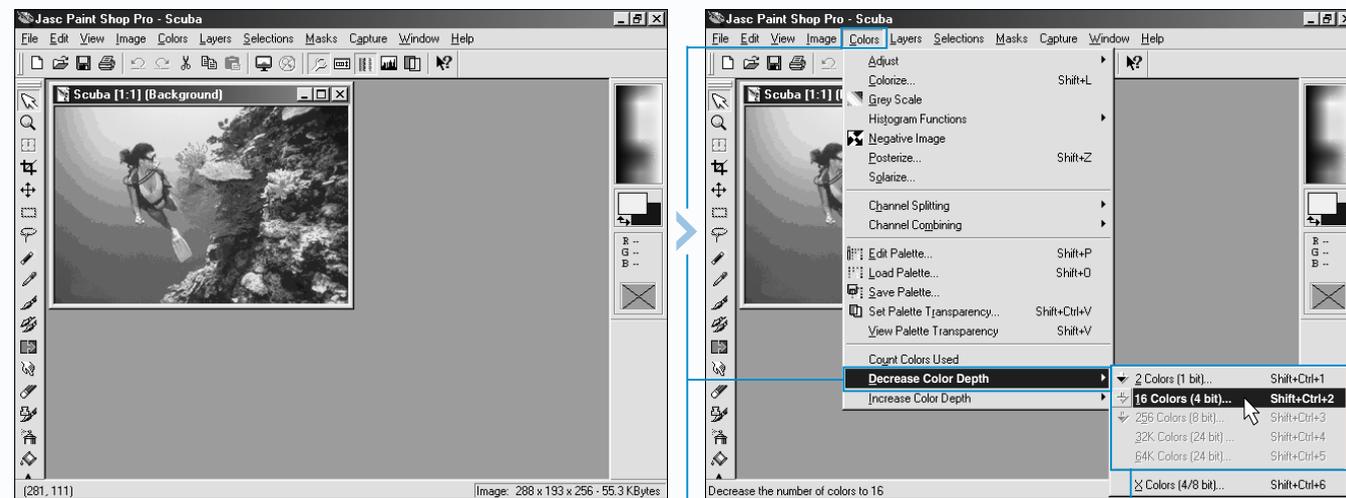
Extra

Paint Shop Pro allows you to view the number of colors an image contains. This can help you determine whether you should reduce the number of colors in the image. Open the image you want to view the number of colors for, select the Colors menu and then click Count Colors Used.

If an image contains 16 or more colors, Paint Shop Pro allows you to specify the maximum number of colors you want the image to contain. Perform steps 1 to 5 below, except select the X Colors option in step 5. In the Palette area of the dialog box that appears, type the maximum number of colors you want the image to contain.

The available options for reducing the number of colors in an image depend on the image editing program you use. For example, some image editing programs allow you to choose the colors you want an image to keep. Other programs may reduce the number of colors in an image by combining colors. Consult the documentation that came with your image editing program to determine which options your program offers.

REDUCE COLORS IN AN IMAGE



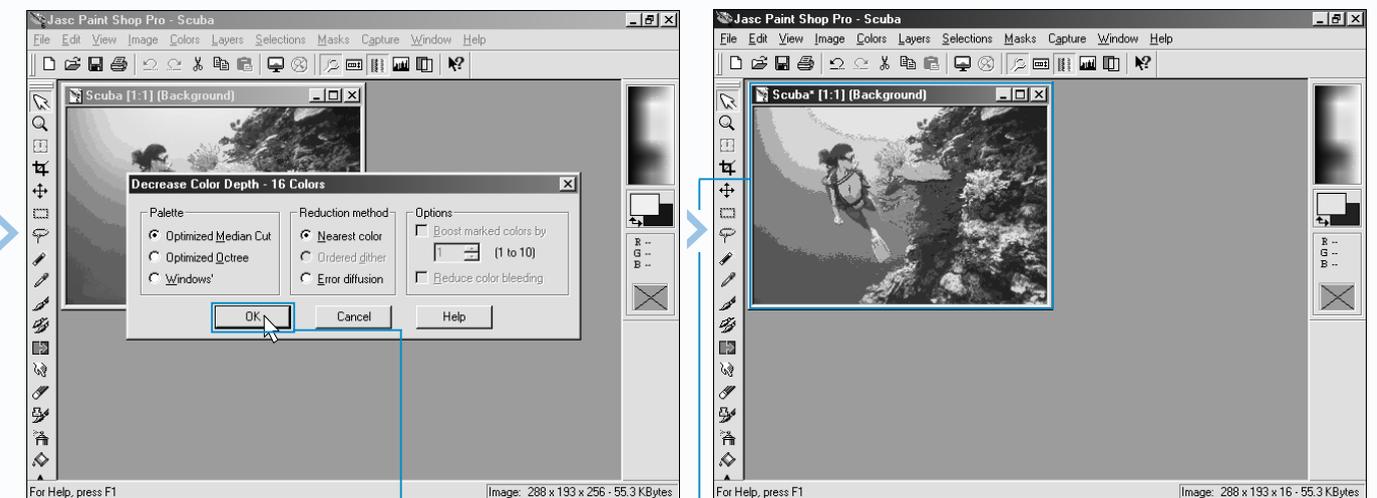
1 Start your image editing program. In this example, we started Paint Shop Pro.

2 Open the image you want to change.

3 Click Colors.

4 Click Decrease Color Depth.

5 Click the number of colors you want the image to contain.



6 The Decrease Color Depth dialog box appears.

7 Click OK to confirm your change.

The image displays the new number of colors.

8 To create a new file that will store the image with the new number of colors, perform steps 1 to 4 on page 61.

Note: The dialog box that appears on your screen may offer different options.

MAKE IMAGE BACKGROUND TRANSPARENT

You may want to make the background of a GIF image transparent so the background will blend into your Web page.

You need an image editing program such as Jasc Paint Shop Pro or Adobe Photoshop to make the background of a GIF image transparent.

In order to make the background of a GIF image transparent, the entire background must contain only one color. Your image editing program will make each pixel that contains the color transparent. If the background of an image is multicolored, only the pixels that contain the color you specify will

become transparent, giving the image background a speckled look.

In some cases, an image background you want to make transparent may appear to be one color when it actually contains several colors. This is due to a process called dithering. Dithering combines several colors within a pixel of an image to simulate another color.

The image you use should be saved in GIF version 89a rather than version 87a. GIF version 89a is a more recent GIF version that supports advanced features such as transparency. To save an image in GIF version 89a, see the top of page 71.

Extra

If the background of a GIF image is multicolored, change the background to one color before making the background transparent. Open the image in Paint Shop Pro and then click . Hold down the Shift key and click the background until a dotted line appears around the entire background. Then press the Delete key to change the background to one color. If you have difficulty changing the background to one color using this method, try using a paint tool to manually color the background.

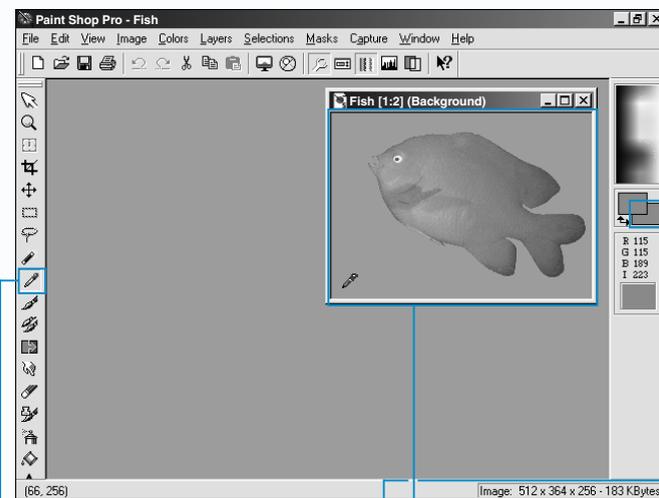
When making the background of an image transparent, make sure the background color does not appear in the image itself. When you make the background of an image transparent, every pixel in the image that contains the same color as the background will also become transparent.

If you have used an image on your Web page for a link, you may want to remove the colored border that remains even after you make the background of the image transparent. To remove the border from an image link, type **BORDER="0"** in the tag for the image.

Example:

```
<A HREF="http://www.bakery.com">
<IMG SRC="cake.jpg" BORDER="0"></A>
```

MAKE IMAGE BACKGROUND TRANSPARENT



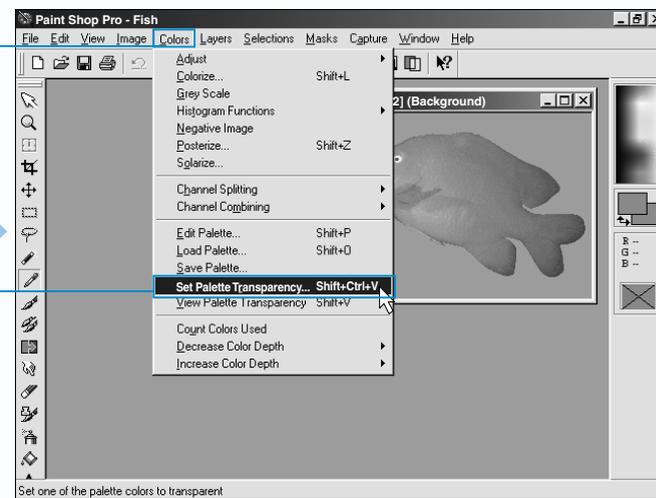
1 Start your image editing program. In this example, we started Paint Shop Pro.

2 Open the GIF image you want to change.

3 Click .

4 Right-click the background area of the image.

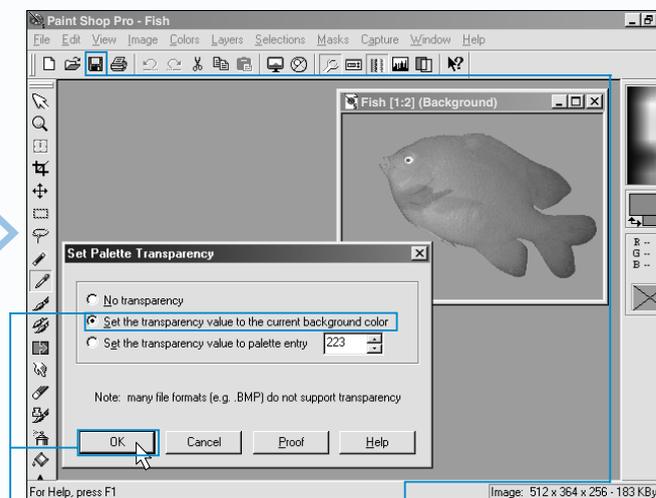
This area displays the color you selected.



5 Click Colors.

6 Click Set Palette Transparency.

The Set Palette Transparency dialog box appears.

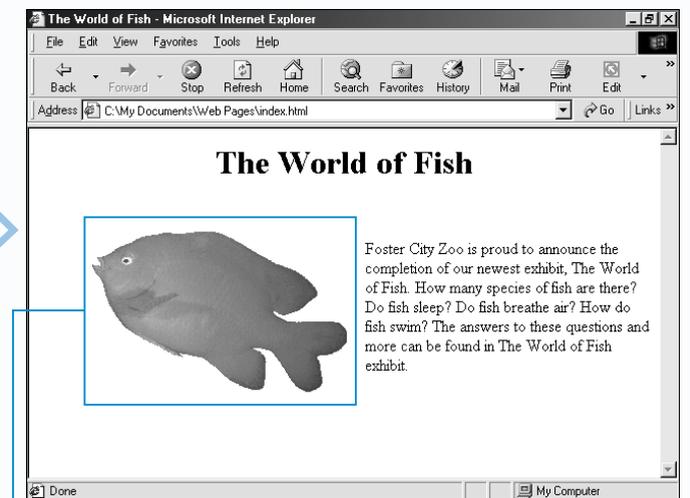


7 Click this option (changes to .

8 Click OK to confirm your selection.

9 Click  to save your change.

The background of the image does not appear transparent in the image editing program but will appear transparent on a Web page.



The Web browser displays the image with a transparent background.

If you no longer want to display the image with a transparent background, repeat steps 1 to 9, selecting No transparency in step 7.

INTERLACE A GIF IMAGE

Interlacing a GIF image allows the entire image to appear on a screen as it transfers to a computer.

A noninterlaced GIF image transfers to a computer one row at a time, from the top of the image to the bottom. Users must wait until the image fully transfers to see the entire image. An interlaced GIF image transfers to a computer by skipping alternate rows. This allows users to quickly see the entire image. The image will first appear blurry and then gradually sharpen as it transfers.

To interlace a GIF image, you need an image editing program such as Jasc Paint Shop Pro or Adobe Photoshop.

Interlacing GIF images is particularly useful when you use large images or have many images on your Web page. Since users can see the images as they transfer, they will have a better idea of what the final Web page will look like.

Some older Web browsers do not support interlaced GIF images. If a Web browser does not support interlacing, the images will appear on a screen as though they were noninterlaced GIF images.

Extra

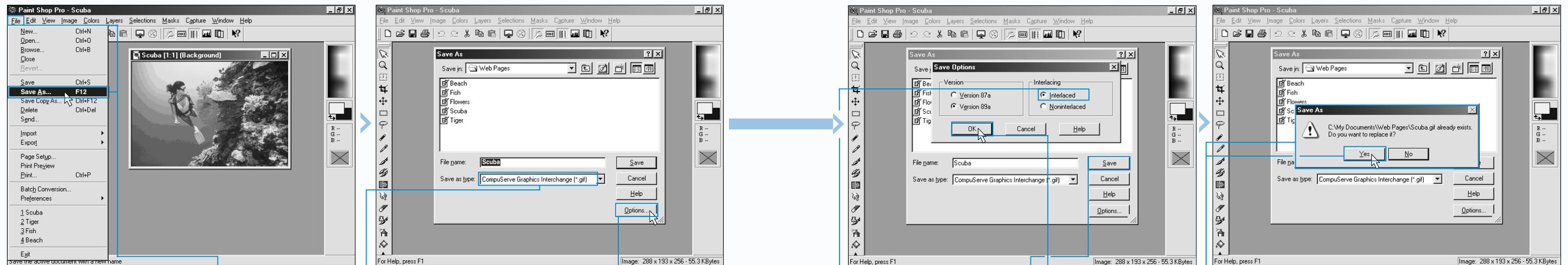
To remove the interlacing from an image, repeat steps 1 to 9 below, except select the Noninterlaced option in step 6 (changes to .

In Paint Shop Pro, the Save Options dialog box allows you to select the GIF version you want to use to save your image. GIF version 87a was the first version developed. While saving a GIF image in version 87a may result in a slightly smaller file size, using the more recent version 89a will allow you to take advantage of advanced features such as *animation* and *transparency*.

Many image editing programs allow you to change your default settings so that all new GIF images you create will automatically be interlaced. Refer to the documentation that came with your image editing program for more information.

If you want a JPEG image on your Web page to appear on a screen as it transfers, make the image a progressive JPEG image. Like an interlaced GIF image, a progressive JPEG image will initially appear blurry and then gradually sharpen as it transfers to a computer. To make a JPEG image progressive, perform steps 1 to 9 below, except select the Progressive encoding option in step 6 (changes to .

INTERLACE A GIF IMAGE



1 Start your image editing program. In this example, we started Paint Shop Pro.

2 Open the GIF image you want to interlace.

3 Click File.

4 Click Save As.

The Save As dialog box appears.

This area displays the image type. Make sure the image is a GIF image.

5 Click Options.

The Save Options dialog box appears.

6 Click Interlaced (changes to .

7 Click OK to confirm your change.

8 Click Save to save your change.

A dialog box appears, stating that you will replace the original image.

9 Click Yes to replace the original image.

The image is now interlaced.

CONVERT IMAGE TO WEB BROWSER SAFE COLORS

Converting an image to Web browser safe colors helps ensure that the image will appear the way you expect when displayed in a Web browser.

Web browser safe colors are a set of 216 colors that can be accurately displayed on computers that display only 256 colors. The remaining 40 colors are used to display toolbars and other screen elements.

When a user with a computer that displays only 256 colors views your Web page, the user's Web

browser will attempt to simulate colors that are not in the set of Web browser safe colors by dithering. Dithering is a process in which colors are combined to produce another color. This can cause an image to appear grainy. Converting an image to Web browser safe colors can help ensure that you will be satisfied with the way your image appears on a user's computer.

To convert an image to Web browser safe colors, you need an image editing program such as Jasc Paint Shop Pro or Adobe Photoshop.

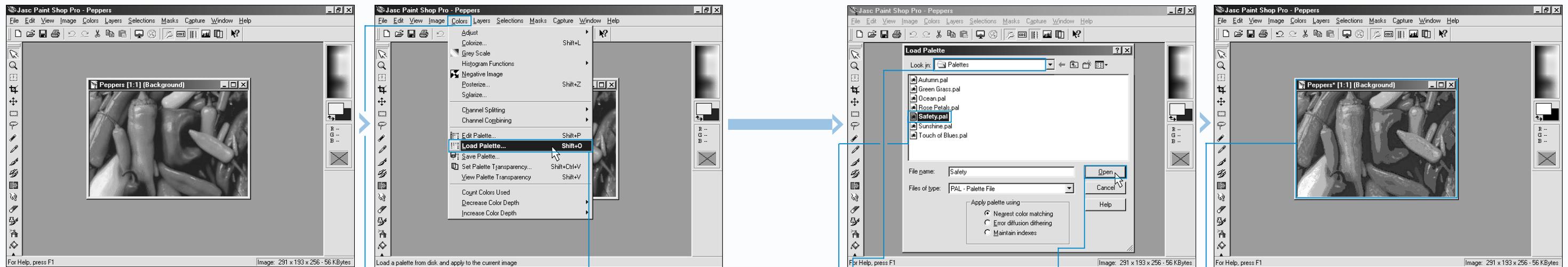
Extra

Do not convert a JPEG image to Web browser safe colors. JPEG images usually contain millions of colors. When you convert a JPEG image to Web browser safe colors, your image editing program has to simulate so many colors that the quality of the image is usually significantly reduced. By leaving the image the way it is, you can ensure that the image will at least appear properly on computers that display more than 256 colors.

If your image editing program does not include a file with Web browser safe colors, such as the Safety.pal file in Paint Shop Pro, try searching for a file on the program manufacturer's Web site. Refer to the documentation that came with your image editing program to find the Web site address.

Some image editing programs may not prevent dithering when you convert an image to Web browser safe colors. If areas of your image appear grainy after you convert the image to Web browser safe colors, consider leaving the image the way it is. You may want to refer to the documentation that came with your image editing program to determine if it is possible to turn off dithering for the program.

CONVERT IMAGE TO WEB BROWSER SAFE COLORS



1 Start your image editing program. In this example, we started Paint Shop Pro.

2 Open the image you want to convert to Web browser safe colors.

Note: Do not convert a JPEG image to Web browser safe colors. For more information, see the top of page 73.

3 Click Colors.

4 Click Load Palette.
■ The Load Palette dialog box appears.

5 This area shows the location of the displayed files.
6 Click the Safety.pal file. This file contains the Web browser safe colors.

Note: The Safety.pal file is located in the Palettes folder.
7 Click Open to open the file.

The program converts the image to Web browser safe colors.

7 To create a new file that will store the image with the Web browser safe colors, perform steps 1 to 4 on page 61.