# Activating the Animated Logo

Windows 95 loads the file LOGO.SYS (if present) from the root directory of the boot drive. To install your own animated logo, copy it to the root directory of the boot drive. Then rename LOGO.SYS (if present) to LOGO.OLD, and rename your new logo to LOGO.SYS.

Note that the two screens that Windows 95 displays at shutdown are also "stretched" 320x400 bitmaps. You can use any bitmap that has been "right-sized" by LogoMania in place of either of these shutdown bitmaps. The shutdown bitmaps reside in the Windows 95 directory. The one that asks you to wait while Windows 95 shuts down is LOGOW.SYS; the one that informs you it's now safe to shut the computer off is LOGOS.SYS.

You now know the basics of using LogoMania. For detailed help on an individual page, press F1. For help with a particular control, click the question-icon on the title bar and then click the control. Or go straight to the help system's Contents by flipping to LogoMania's Help page and pressing the Help button.

Animated Background Generator Form
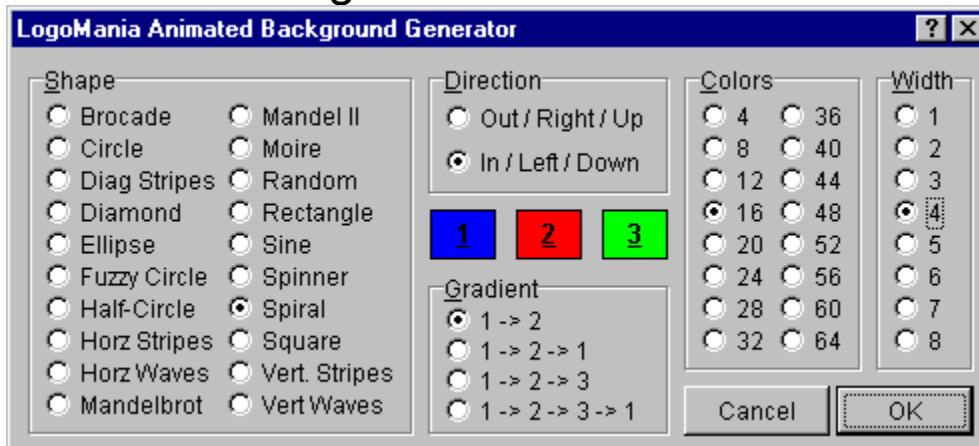
You can produce some truly cool animated logo bitmaps by letting LogoMania create the background for you and then "floating" a centered static bitmap (your picture? your company logo?) over the result.

To generate an animated background bitmap, you first choose the **shape** used for filling the bitmap's area, and the **direction** of the palette animation's apparent motion. For most of the shapes, choosing a **width** greater than the default of 1 will make the bitmap coarser, but will speed the apparent motion.

The **gradient** box, the three **color panels**, and the **number of colors** together define the color-gradient palette for the generated bitmap. To set the colors used in generating the background bitmap, double-click any of the three color panels, or press Alt+1, Alt+2, or Alt+3. LogoMania will generate a palette consisting of as many colors as specified in the Colors box. The choices in the Gradient box control how LogoMania calculates the colors. Suppose the color panels 1, 2, and 3 contain pure red, pure blue, and pure green, and the number of colors is set to 12.

This picture shows the four different gradient styles. The colors can shade smoothly a) from red to blue, b) from red to blue and back to red, c) from red to blue and then to green, or d) from red, to blue, to green, and back to red. In this example, the colors are quite distinct, because we chose to use only 12 colors. By setting a greater number of colors, you can get smoother shading.

If any of the options aren't clear to you, just give them a try! Make your choices and

press OK. If you don't like the result (as shown in the thumbnail view on the Animation bitmap page), you can press Generate... again and change your options. The bitmap created using this form is always stored as LogoMania_Gen.bmp, in the same directory as LogoMania itself. If you produce a totally awesome background that you want to save for future use, simply make a copy of LogoMania_Gen.bmp.

Animated Foreground or Background?

The animated logo supplied with Windows 95 is mostly a static image, with a narrow band of animation running along the bottom. However, the animated and static portions of the bitmap don't need to be separated like that. LogoMania gives you two ways to combine the animated portion and static portion of an animated logo, controlled by the Foreground check boxes on the <u>Animation bitmap page</u> and the <u>Static bitmap page</u>. Only one of these at a time can be checked; checking one automatically un-checks the other.

If you check the animation bitmap's foreground box, the color of the pixel in the bottom left corner of the animation bitmap will be treated as transparent. When the two bitmaps are merged, the static bitmap will show through the transparent areas. The animation portions will cycle through their colors against a static background. For example, a company logo might cycle through a set of brilliant colors, with a picture of the company headquarters in the background.

If you check the static bitmap's foreground box, then all pixels matching the pixel in the bottom left corner of the static bitmap will be treated as transparent. When the two bitmaps are merged, the animation bitmap will show through only in these transparent areas. For example, an set of red and yellow circles animating outward might show through transparent sun-rays in the static bitmap.

It's possible to create an animated logo bitmap using just the animation bitmap, with no static bitmap involved. In that case, the Foreground box on the Animation bitmap page controls whether or not the transparent color will be included in the set of animation colors. If you've centered a bitmap on a single-colored background, you'll want to check the Foreground box. Otherwise the background will flash wildly as the bitmap animates!

<u>Next Step</u>

Animation bitmap page
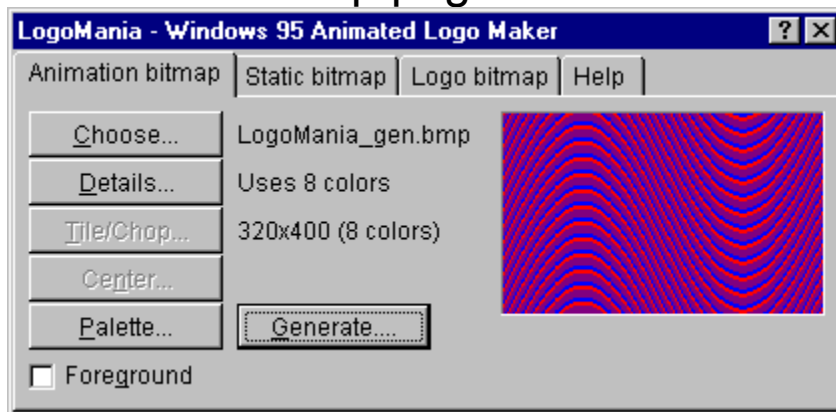
The animated portion of an animated logo bitmap uses one set of palette entries, and the static (non-animated) portion must use a different set. This isn't something that you can accomplish using most paint programs, including Windows Paint. LogoMania lets you create two separate bitmaps, one for the animation and one for the static areas. The Animation bitmap page is devoted to preparing an animation bitmap.

Press the **Choose button** to select a bitmap. It must be a 256-color bitmap, and it must have the standard extension .BMP. If the bitmap you want to use doesn't have 256 colors, load it into Windows Paint, select Save As, and save it as a 256-color bitmap. Once the bitmap is loaded, the **Details... button** is enabled - press this button for detailed information about the bitmap. A reduced-size thumbnail view of the bitmap will be displayed as well.

A LogoMania animation bitmap must be precisely 320x400 pixels in size - Windows 95 displays it stretched to 640x400. If the selected bitmap is not 320x400, LogoMania will enable the **Tile/Chop... button**. Press this button to save a new version of the bitmap, tiled or chopped to the correct size. If the selected bitmap is smaller than 640x400, the **Center... button** will also be enabled. Press this button to create a 320x400 bitmap with the existing bitmap centered horizontally and vertically. The area surrounding the central bitmap is set to olive green by default - use Windows Paint to change it if you wish. ≡ {button Technical Details,JI(`'',`Tech__How_LogoMania_resizes_bitmaps')}

If the loaded bitmap is 320x400, the Tile/Chop... and Center... buttons will be disabled. LogoMania will read all the pixels in the bitmap and determine how many of them are actually used. This figure is displayed under the bitmap name as "Uses ## colors", and it is reported in the Bitmap Information form as "Colors Present". At this time the **Palette... button** is also enabled. Pressing this button brings up the Palette Adjustment Form, which lets you change the colors associated with each in-use palette entry. ≡ {button Technical Details,JI(`'',`Tech__Adjusting_the_animation_palette')}

When an animation bitmap and static bitmap are merged to form an animated logo bitmap, the **Foreground box** determines which one is treated as being in front of the other. The color of the pixel in the bottom left corner of the foreground bitmap is treated

as transparent. Any pixels in the foreground bitmap that use this color will be replaced by corresponding pixels in the background bitmap when the two are merged. It's also possible to create an animated logo bitmap without using a static bitmap. In that case, if the foreground box is checked, pixels using the transparent color will not be animated; if not, they will be animated along with the rest.

Some truly amazing animation effects can be achieved with a bitmap whose palette colors smoothly shade from one hue to another. Instead of choosing an existing bitmap, you can press the **Generate... button** to have LogoMania <u>generate such a bitmap</u>.

Flip to the <u>Static bitmap page</u> if you wish to merge your animation bitmap with a static bitmap. Or go straight to the <u>Logo bitmap page</u>.

Bitmap Information Form

LogoMania Bitmap Technical Information   [?][X]

H:\PCMAG\logo\Pclogo.bmp

Bitmap Info Header Data

Width:	148
Height:	182
Image Size:	26,936
Colors Used (0 OK):	**0**
Colors Important:	0
Colors Present:	

[OK]

Bitmap File Header Data

File Size:	28,014
Pixel Data Offset:	**1,078**

Size Adjustment

LogoMania will double the image height and tile as necessary to make a 320x400 image.

This form presents detailed technical information about the selected bitmap. Where these details precisely match the attributes of a Windows 95 animated logo bitmap, they're shown in boldface. The Size Adjustment box reports what will happen if you press the Tile/Chop... button back on the Animation bitmap page.

Creating the Animated Logo

Once you have selected an animation bitmap and (optionally) a static bitmap, creating the animated logo bitmap is simple. Just flip to the Logo bitmap page and press the Create... button. The newly-created animated logo bitmap will appear immediately as a reduced-size thumbnail view. If it looks totally wrong, you may have put the wrong bitmap in the foreground - toggle the value of the Foreground check box on either the Animation bitmap page or the Static bitmap page and press Create... again.

If the Create... button is disabled, it means one of several things:

▸ No animation bitmap has been selected
▸ The animation bitmap is not 320x400
▸ The animation bitmap is 320x400, but the static bitmap is not
▸ Both the animation bitmap and the static bitmap are 320x400, but the total number of colors used by the two is greater than 256.

Correct the problem and try again.

Next Step

Creating the Animation Bitmap

The big problem with trying to create animated logo bitmaps using something like Windows Paint is that you need total control over the palette, and you don't get it. LogoMania lets you separate your animated logo into two separate bitmaps, one containing only the animation and (optionally) another containing static, non-animated colors. The first step in creating an animated logo bitmap is to select or generate the animation bitmap; LogoMania's Animation bitmap page contains the tools to do this. You have three main choices:

1. Let LogoMania generate an animated background for you by pressing the Generate... button
2. Choose an existing bitmap and, if necessary, force it into the size required by LogoMania
3. Use Windows Paint to create the animation bitmap. {button Technical Details,JI(`',`Tech__Using_Windows_Paint_to_create_LogoMania_bitmaps')}

The first two options are by far the easiest, and can produce striking results.

Next Step

Creating the Static Bitmap

The static bitmap is optional - if you omit it, LogoMania will simply produce a 100% animated logo bitmap. You can "float" a static bitmap in the foreground over an animated background. Possibilities for a foreground static bitmap include a company logo, a small centered image, or a bitmap consisting of text in a large font.

A static background bitmap can be virtually any bitmap you like; scanned photos work well, if their size isn't too different from 640x400. You can select a bitmap on the Static bitmap page and let LogoMania or chop the it to fit the required 320x400 size, or you can resize the image yourself using Windows Paint. Use the Stretch/Skew option from the Image menu to get the image close to 640x400, then set the Image Attributes to exactly 640x400. Now use Stretch/Skew one final time to reduce the bitmap's width 50%.

If you use a scanned photo, you may find that LogoMania insists that you save the image using fewer colors. Generally you'll accept the default number of colors proposed by LogoMania, but if you wish you can reduce the image to still fewer colors. On the other hand, if the resulting image is muddy or indistinct, try using an animation bitmap with fewer colors.

Next Step

Help Page

This page simply displays LogoMania's copyright information, and provides access to the help system via the Help button. Note that you can press F1 for help with the current page or form. You can also click the question-icon on the title bar and then click any button or other control for popup context-sensitive help.

Logo Bitmap Page
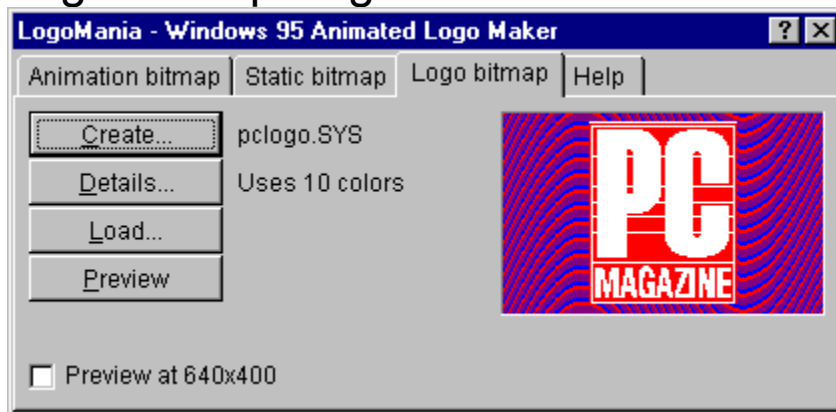
You can press the **Load... button** to load an existing animated logo bitmap into LogoMania. The bitmap to be loaded must have the extension .SYS, and it must be in the correct format for an animated logo bitmap. Once the bitmap is loaded, the **Details... button** is enabled - press this button for underlined information about the bitmap. A reduced-size thumbnail view of the animated logo bitmap will be displayed as well.

The **Create... button** is enabled when LogoMania is ready to create a new animated logo bitmap. "Ready" means one of two things. 1) A 320x400 bitmap has been loaded in the Animation bitmap page and no static bitmap has been loaded; 2) A 320x400 bitmap has been loaded in both the Animation bitmap page and the Static bitmap page, and the sum of the colors used in the two bitmaps is no greater than 256. When you press Create..., LogoMania will merge the two bitmaps, if both are present, or will modify the animation bitmap into an animated logo if just the one bitmap is present. {button Technical Details,JI(`',`Tech__Creating_the_Animated_Logo')}

If your system is running in 256-color mode, you can preview the logo animation by pressing the **Preview button**. Under other display modes, the Preview button will be disabled. You may also be able to preview the logo animation precisely as Windows 95 will display it by checking the **Preview at 640x400 box**. This box will be enabled only if your system will allow switching to 640x400 and back "on the fly". Laptop computers rarely support this mode switching. If the Preview at 640x400 box is not checked, the preview will be displayed in a 640x400 area centered on a blank black screen.

LogoMania Overview

When you start Windows 95, it displays a lovely logo - a picture of clouds with a floating Windows 95 logo. Across the bottom, an animated band of blue and gray color bars appears to move, so you won't think the computer is stuck. But why should you gaze at a Microsoft logo every time your computer starts? **LogoMania** lets you replace the standard logo with your own animated logo bitmap. You can float your company's logo over a hypnotic "expanding" circle, or put a color-changing company name in front of a soothing mountain landscape!

It's *possible* to create an animated logo bitmap without LogoMania, but you need an advanced paint program, a deep knowledge of Windows bitmap structure, and a utility that will tweak a few particular bytes within the bitmap file. LogoMania requires only the most rudimentary understanding of color palettes and palette animation, and you can pick up that knowledge as you use LogoMania.

The toughest part of creating an animated logo bitmap is controlling which parts are animated and which parts are not. LogoMania lets you use separate bitmaps for the animated and static portions of the image, and then merges them for you. LogoMania will take care of adjusting your input bitmaps to the correct size and correct number of colors, if necessary. It will even create wild or subtle animated backgrounds for you. And once you've created a Windows 95 animated logo bitmap, you can preview it without leaving LogoMania!

☞   LogoMania tutorial examples
☞   Steps to creating a Windows 95 animated logo
☞   Help with LogoMania's pages and forms
☞   Technical Details: for experts only

Palette Adjustment Form

This form is provided for advanced LogoMania users, to allow fine-tuning of the palette. It lists all of the palette entries that are actually used by one or more pixels in the animation bitmap. Its **palette display grid** shows the palette index of each used entry, along with its red, green, and blue values and an approximation of the color itself. You can use the **Red, Green, and Blue controls** to the right of the grid to adjust the red, green, and blue values for the highlighted entry. Any values that you change will be displayed in the grid in boldface text.

In some cases, it's useful to maintain a number of distinct palette entries that all have the same color value. For example, suppose you have ten circles spaced across your bitmap, each using a different palette entry. If you set nine of them to the same color as the background and one to a different color, the palette animation will give the impression of a circle moving across the bitmap. The **Copy from above button** exists to ease the process of setting a number of entries to the same value. Set one entry to the value you want, select the next entry, and then press Copy from above repeatedly.

When you're satisfied with the changes, press the **Change bitmap file button**. This will change the palette in the bitmap that was selected on the Animation bitmap page. You may wish to make a backup copy of the animation bitmap first. Of course you can press **Cancel** to close the form without making any changes.

Static bitmap page
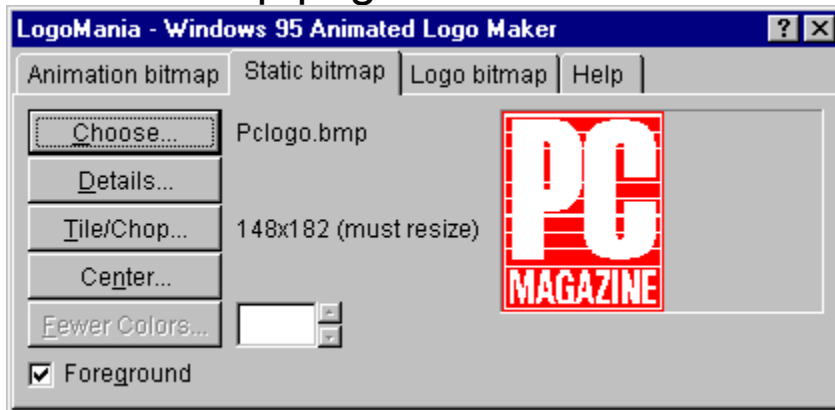
The static (non-animated) portion of an animated logo bitmap uses one set of palette entries, and the animated portion must use a different set. This isn't something that you can accomplish using most paint programs, including Windows Paint. LogoMania lets you create two separate bitmaps, one for the animation and one for the static areas. The Static bitmap page is devoted to preparing a static bitmap.

Press the **Choose button** to select a bitmap. It must be a 256-color bitmap, and it must have the standard extension .BMP. If the bitmap you want to use doesn't have 256 colors, load it into Windows Paint, select Save As, and save it as a 256-color bitmap. Once the bitmap is loaded, the **Details... button** is enabled - press this button for detailed information about the bitmap. A reduced-size thumbnail view of the bitmap will be displayed as well.

A LogoMania static bitmap must be precisely 320x400 pixels in size - Windows 95 displays it stretched to 640x400. If the selected bitmap is not 320x400, LogoMania will enable the **Tile/Chop... button**. Press this button to save a new version of the bitmap, tiled or chopped to the correct size. If the selected bitmap is smaller than 640x400, the **Center... button** will also be enabled. Press this button to create a 320x400 bitmap with the existing bitmap centered horizontally and vertically. The area surrounding the central bitmap is arbitrarily set to palette color number 4 by default - use Windows Paint to change it if you wish. _{button Technical Details,JI(`',`How_LogoMania_resizes_bitmaps')}

If the loaded bitmap is 320x400, the Tile/Chop... and Center... buttons will be disabled. LogoMania will read all the pixels in the bitmap and determine how many of them are actually used. This figure is reported in the Bitmap Information form as "Colors Present". If the total number of colors used by the animation bitmap and the static bitmap is greater than 256, the **Fewer colors... button** will be enabled, and the edit box next to it will display the maximum number of colors that can be allotted to the static bitmap. Adjust the number of colors, if you wish, and then press Fewer colors... to save the bitmap using fewer colors._{button Technical Details,JI(`',`Tech__How_LogoMania_resizes_bitmaps')}

When an animation bitmap and static bitmap are merged to form an animated logo bitmap, the Foreground box determines which one is treated as being in front of the other. The color of the pixel in the bottom left corner of the foreground bitmap is treated as transparent. Any pixels in the foreground bitmap that use this color will be replaced by corresponding pixels in the background bitmap when the two are merged.

If you haven't done so already, click on the Animation bitmap page and choose or generate an animation bitmap. When you have selected an animation bitmap and a static bitmap, flip to the Logo bitmap page to merge them.

Tech: Adjusting the animation palette

You can achieve some remarkable effects by creating an animation bitmap "by hand", using Windows Paint. During the creation process, you'll want to use highly contrasting colors, so you can clearly see which entry is used for each colored area. The best way to do this is to use the colors supplied in the color box in order. For ascending palette entry numbers, start with the top left color and go left to right and top to bottom. For descending numbers, do the opposite. Remember that the palette animation used by Windows 95 repeatedly sets each animation palette entry to the color of the next higher entry. As a result, the animation appears to "move" in the direction corresponding to descending palette numbers. An example will make this clearer. Suppose you place ten squares in a horizontal row on your bitmap, assigning their colors in ascending order (left to right). When this bitmap is animated, the colors will appear to move from right to left.

Once you've got the animation working, you may very well want to change the colors assigned to the palette entries. You use the Palette Adjustment Form for this purpose. You may wish to set the animation colors to a series of very slightly different values, such as the blues and grays used in the original Windows 95 "clouds" logo bitmap. If you set all but one to the same value, the one different color value will appear to move through the animated portions of the logo bitmap. And if the static background is the same color as the all-the-same animation palette entries, you can get the effect of an object moving around the screen.

Tech: Creating the Animated Logo

In order for Windows 95 to properly animate a logo bitmap, the animation colors must be stored at the "top" of the palette. That is, they must occupy the 255th entry, the 254th, 253rd, and so on. The static bitmap colors must be stored in the remaining entries. And the "biClrImportant" field in the bitmap file's BITMAPINFOHEADER must be set to the index of the first animation palette entry. LogoMania takes care of these tasks behind the scenes, so you don't have to worry about them.

LogoMania "packs" the palette entries used in the animation bitmap into the top of the palette. If a static bitmap is present, it "packs" the palette entries used by the static bitmap into the bottom of the palette. It carefully tracks the correspondence between the palette indices in each of the input bitmaps, and the new indices in the animated logo bitmap. Then it creates the animated logo bitmap's image by writing out the correct value for every pixel. If only an animation bitmap was selected, this process simply involves translating each line of pixels from the animation bitmap to use the appropriate palette index in the animated logo bitmap.

If both animation and static bitmaps were selected, LogoMania checks each pixel index in the foreground bitmap to see if it matches the transparent color. If so, it replaces that pixel index with the translated index of the corresponding pixel from the background bitmap. If not, it translates the pixel index from the foreground bitmap.

If only the animation bitmap was selected, LogoMania can still give special treatment to the pixel color found in the bottom left corner of the animation bitmap. When the Foreground box is checked, the transparent color will be included in the animation colors. When it is not checked, the transparent color will be treated as a static color. This is handy if you have created your animation bitmap by centering a smaller bitmap on a single-color background. If you don't check the Foreground box, the background will wildly flash all of the animation colors!

Tech: How LogoMania resizes bitmaps

A Windows 95 animated logo bitmap must be precisely 320x400 pixels in size. When Windows 95 displays the logo bitmap, it doubles each column of pixels to produce a 640x400 image. If the original image is loaded into Windows Paint, it will appear to be "squeezed" to half its normal width. Both the animation bitmap and the static bitmap are subject to this same requirement. That is, they must be precisely 320x400 pixels, and the image they represent must be "squeezed" to half its width.

When you load an animation bitmap or static bitmap, LogoMania checks its size. If it is already precisely 320x400, LogoMania assumes it is already in the correct format. For any other size, LogoMania enables the Tile/Chop... button. For other sizes smaller than 640x400, LogoMania also enables the Center... button.

Tiling and Chopping
When you press the Tile/Chop... button, LogoMania first determines just how it will accomplish the "squeezing" of the bitmap. If the width is 320 pixels or less and the height is 200 pixels or less, LogoMania doubles the bitmap's width; otherwise, it halves the bitmap's height. Then it copies the bitmap into a new 320x400 bitmap. It copies exactly 400 pixels per line, even if the original bitmap had more; if the original bitmap had fewer it simply repeats them until a total of 400. And it copies exactly 320 lines of pixels, even if the original bitmap had more; if the original bitmap had fewer it simply repeats lines to a total of 320.

Centering
To center a bitmap, LogoMania first "squeezes" it, just as for tiling and chopping. Then it creates a new 320x400 bitmap with the squeezed image centered both horizontally and vertically. There will, of course, be a border left over around the edges of the original bitmap. LogoMania fills that space with a little-used olive green color. You can use Windows Paint to change the border's color.

Note that you can also use Windows Paint to adjust an image's size.

Tech: Save with Fewer Colors

The total number of colors used in the animation bitmap and the static bitmap must be no more than 256. If the sum is greater than 256, LogoMania requires you to reduce the number of colors used in the static bitmap. If the reduction is very substantial, the result may be smudgy or off-color. In that case, consider using fewer colors in the animation bitmap.

LogoMania tries to reduce the number of colors needed while minimizing changes to the bitmap. It follows these steps repeatedly until the number of colors has been reduced to the specified value:
1. Find the palette color that is used by the smallest (but non-zero) number of pixels
2. Locate the in-use palette color that most closely matches this least-used color
3. Change all pixels of the least-used color to the color that matches it most closely

LogoMania checks the "distance" of each in-use palette entry from the least-used palette entry by summing the absolute value of the difference between the two red values, the two green values, and the two blue values. It then selects the palette entry for which the "distance" is smallest.

Tech: Using Windows Paint to create LogoMania bitmaps

Windows 95 doubles each column of pixels when it displays an animated logo bitmap, so the 320x400 bitmap is displayed as 640x400. To create a bitmap for use with LogoMania, start by setting the Image Attributes to 640x400 pixels. Design your image, then before saving it use the Image Stretch/Skew dialog to reduce its width to 50%.

To edit a bitmap that has already been processed into "squashed" 320x400 size, load it into paintbrush and use the use the Image Stretch/Skew dialog to stretch the width to 200%. Make your changes, then reduce the width before saving.

Creating an animation bitmap requires some special attention to palette colors. In almost all cases you'll want the palette colors to move through different regions of your animation bitmap in a particular sequence. The easiest way to get the sequencing correct is to simply use the colors from Paintbrush's palette in order, left-to-right across the top row and then left-to-right across the bottom row, or in reverse order.

Note that you cannot use Paintbrush to edit an animated logo bitmap. If you do, the animation effect will be lost!

Tutorial Four
Refine the animation of your name

1. Adjust the palette

▸ Using Explorer or a DOS box, copy MYNAME2.BMP to MYNAME3.BMP.

▸ Launch LogoMania.

▸ Press Choose on the Animation bitmap page and select MYNAME3.BMP.

▸ Press the Palette button to bring up the Palette Adjustment form.

▸ Scroll through the list of palette entries and note which of them represents white (the background color).

▸ If the first palette entry is *not* the background color, select it; otherwise, select the second palette entry.

▸ Set the color values for the selected entry to red=255, blue=0, green=0.

▸ If neither of the first two entries is the background color, select the second entry; otherwise, select the third entry.

▸ Set the color values for the selected entry to red=128, blue=0, blue=0.
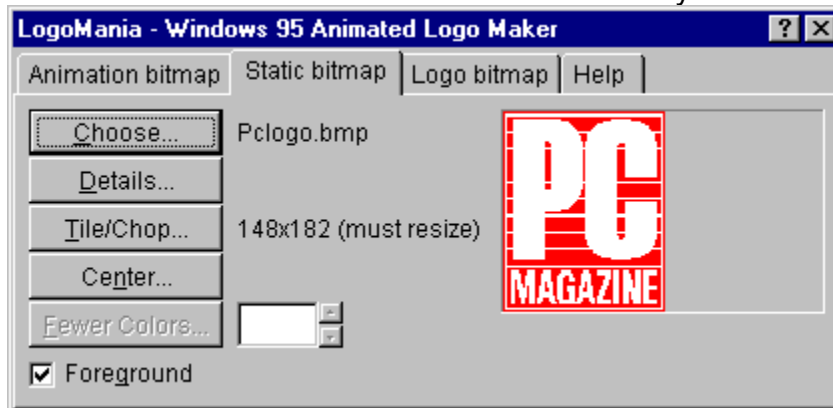
 Set the color values for each remaining palette entry to the same value, with the exception of the entry that represents the background.
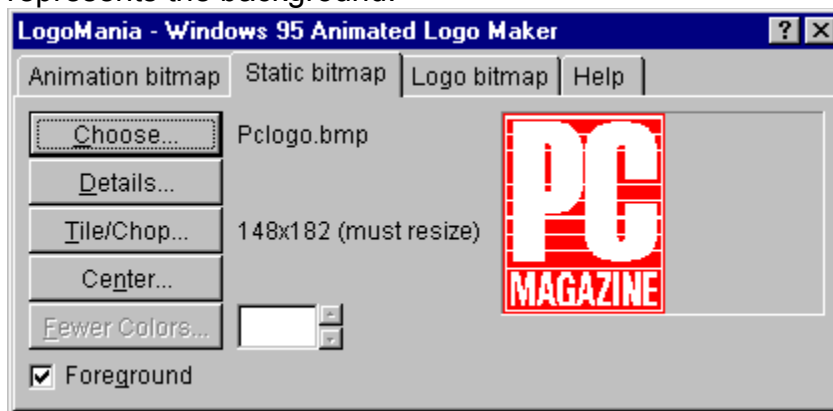
 Press the Change bitmap file button.

2. Clear the static background

Click on the Static bitmap page.
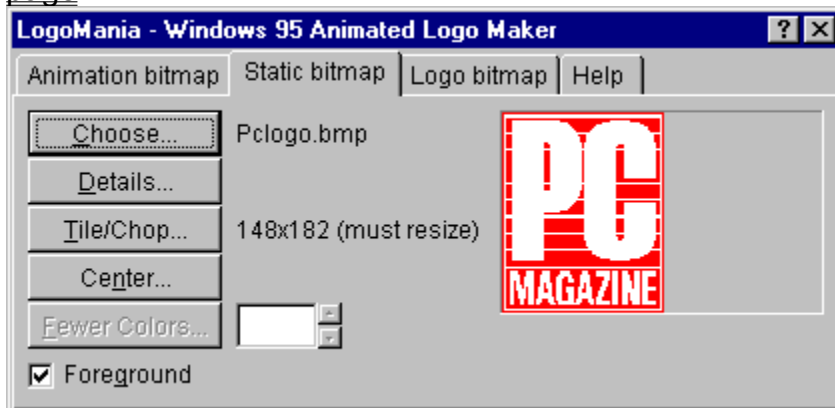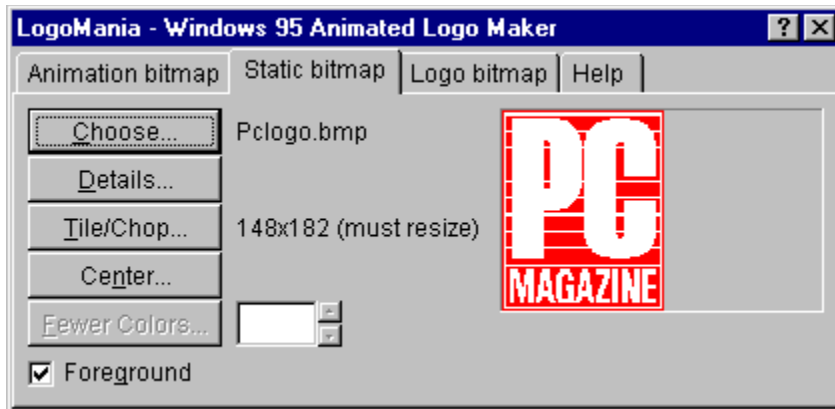
If a static bitmap is selected, press Choose and then press Cancel to clear it
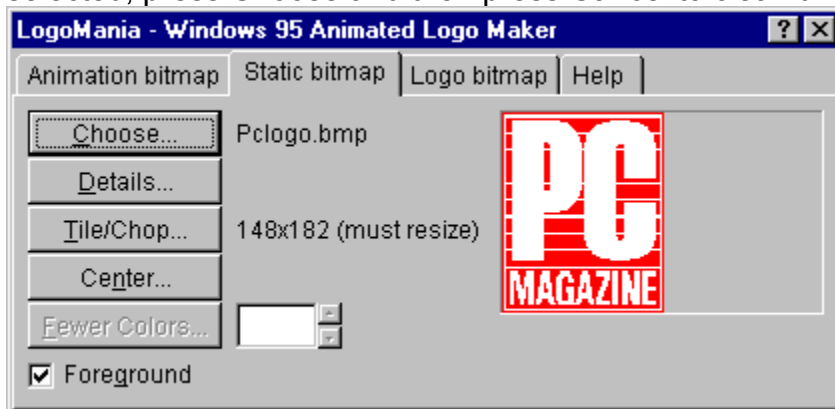
If the Foreground box on this page is checked, click it to remove the check

3. Create the logo bitmap
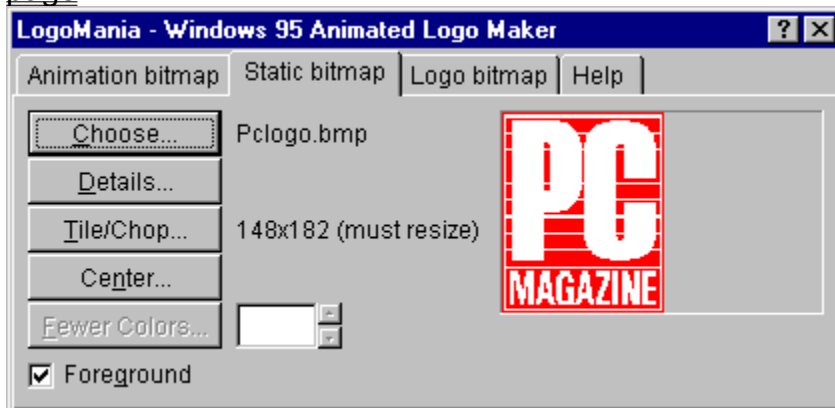
Click the Logo bitmap page.

Press the Create button.

Save the animated logo bitmap as MYNAME3.SYS.

LogoMania - Windows 95 Animated Logo Maker

| Animation bitmap | Static bitmap | Logo bitmap | Help |

Choose... Pclogo.bmp

Details...

Tile/Chop... 148x182 (must resize)

Center...

Fewer Colors...

☑ Foreground

PC MAGAZINE
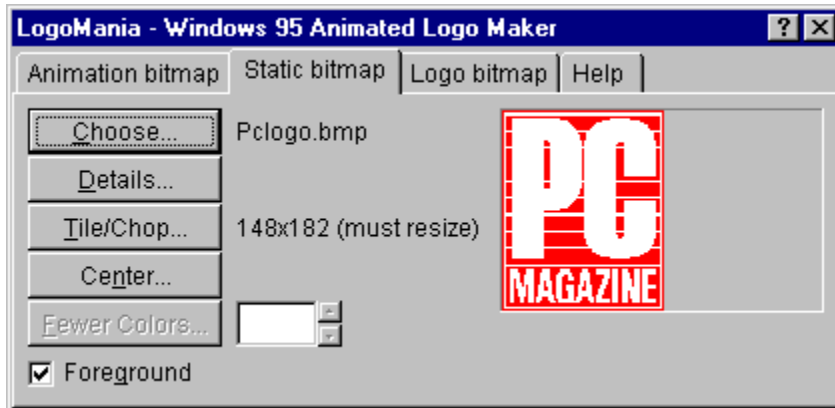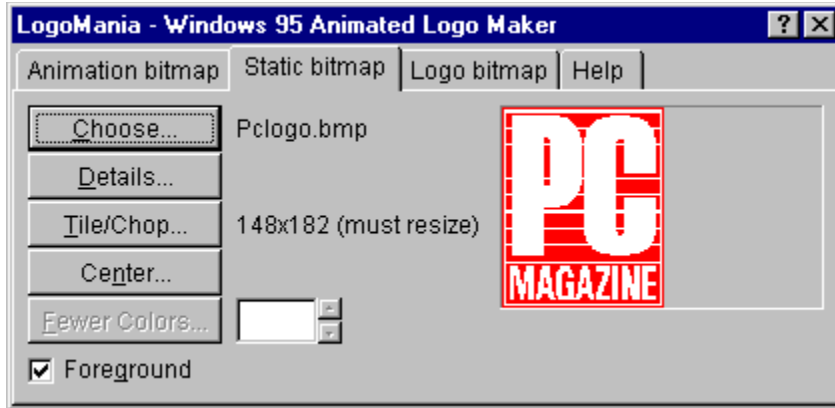
Press the Preview button. Note that now your name appears as dark red letters, with one letter at a time showing in bright red; the "brightness" seems to move from right to left.

Let's review

Tutorial One
Create a simple logo bitmap of your name floating over a moving background

1. Create the static bitmap
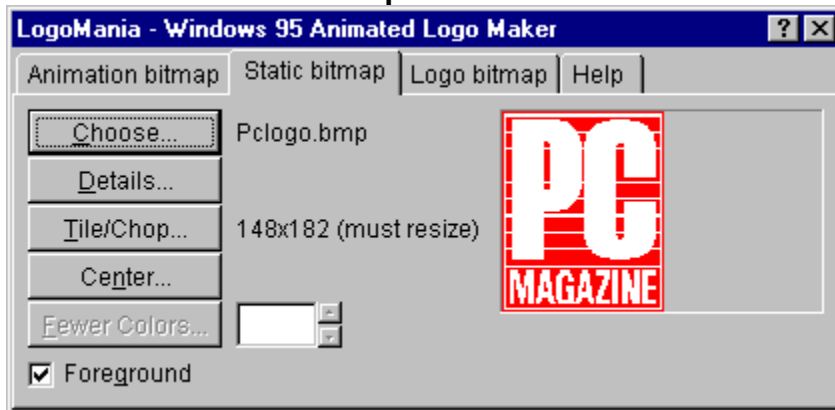
Launch the Windows Paint accessory.
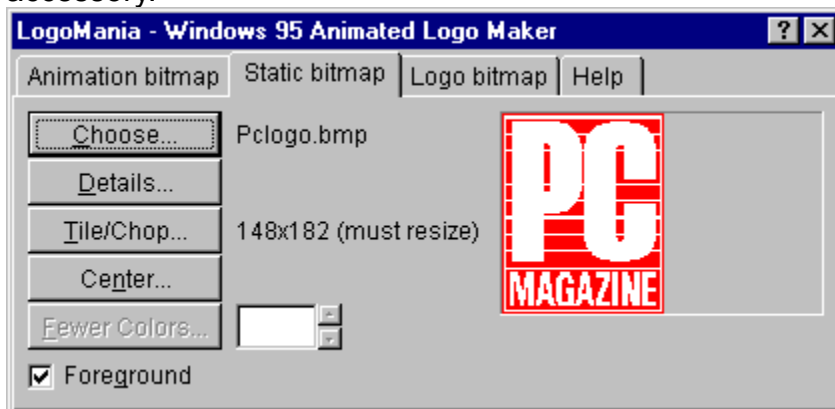
Select Attributes from the Image menu.
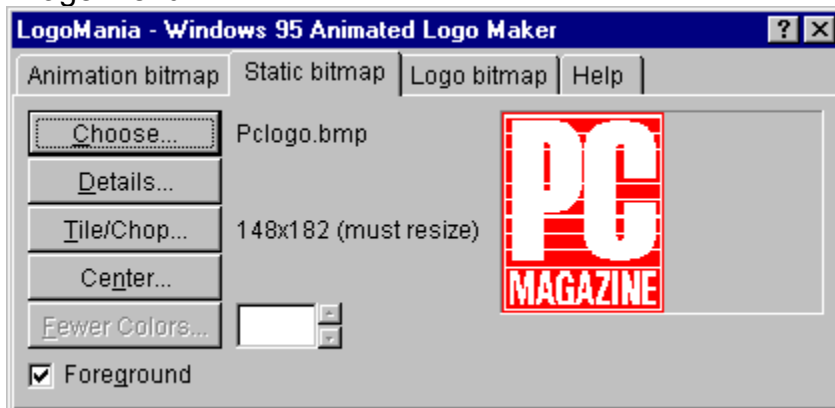
Set Width to 640 pixels ("Pels") and Height to 400 pixels.
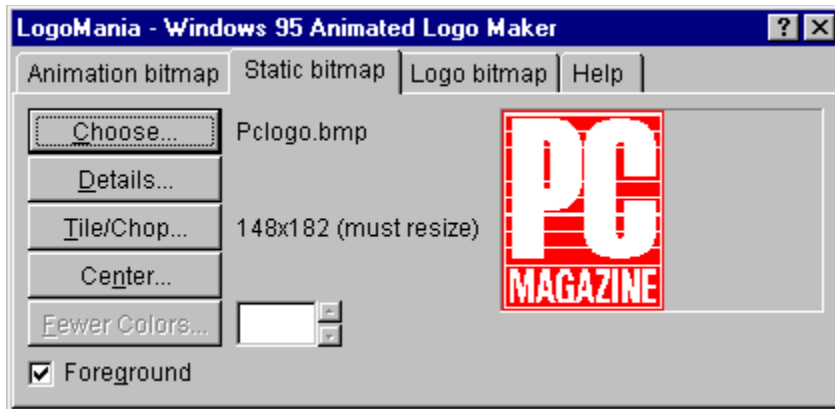
Select the Text tool by clicking the toolbox button marked with "A".
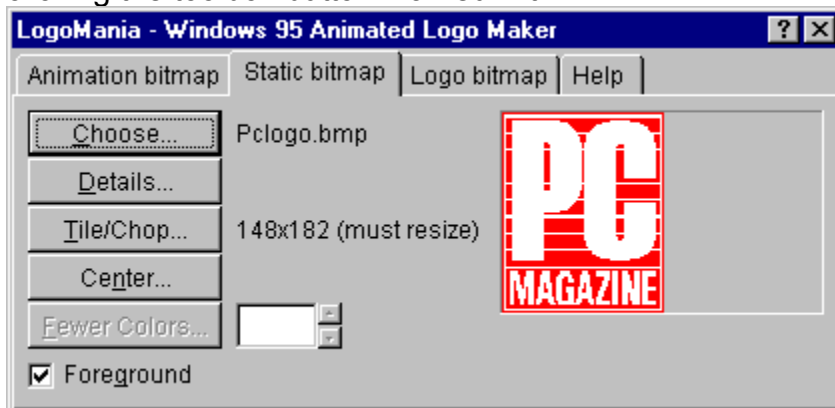
Drag a rectangle that fills most of the bitmap.
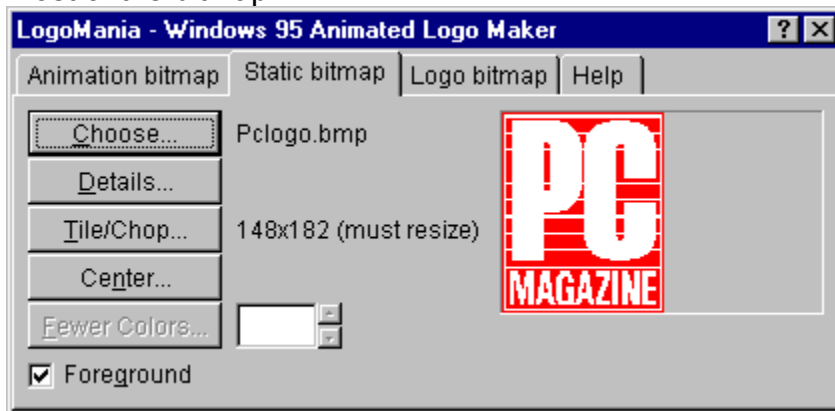
Type your name.
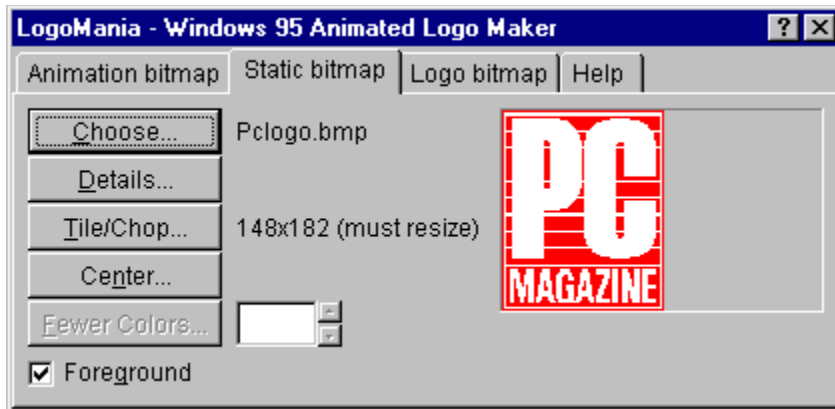
Adjust the typeface and font size until your name nearly fills the bitmap.
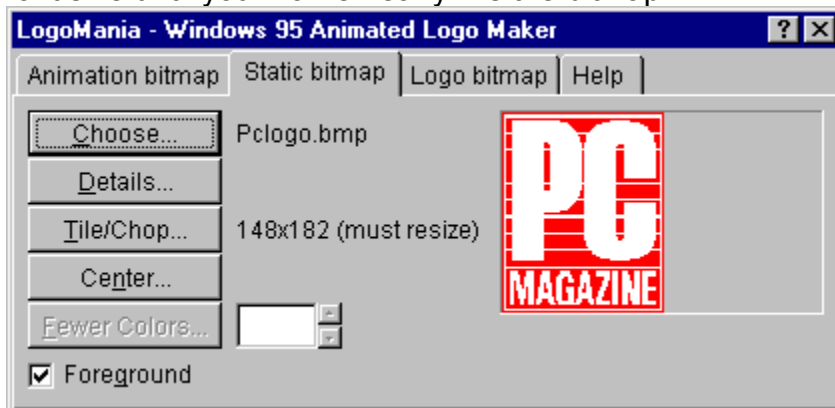
If necessary, use the Select tool (dotted rectangle button) to center your name.
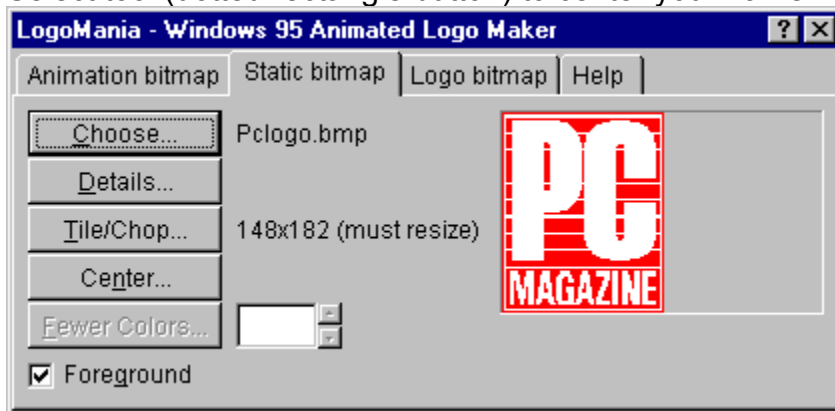
If you wish, change the color of some or all of the letters.
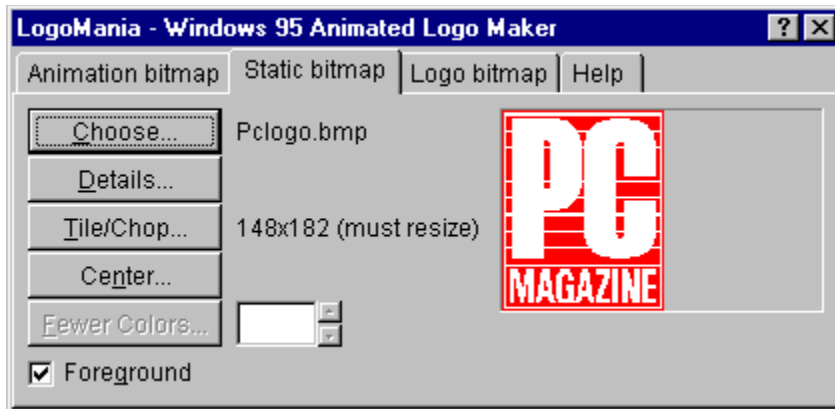
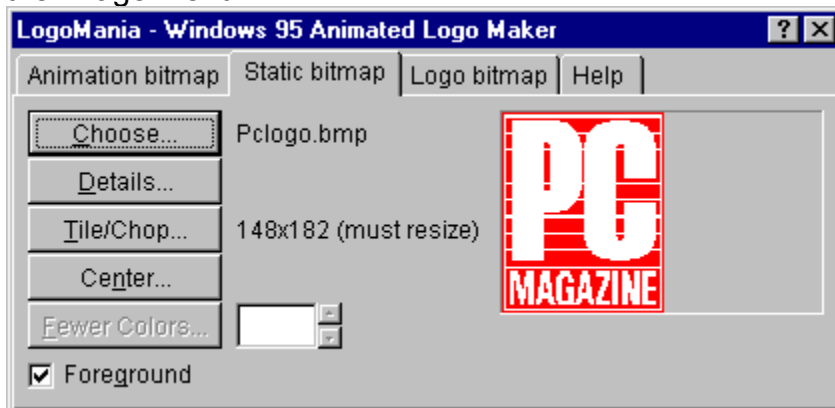Select Stretch/Skew from the Image menu.

Enter 50 in the Horizontal stretch box and press OK.
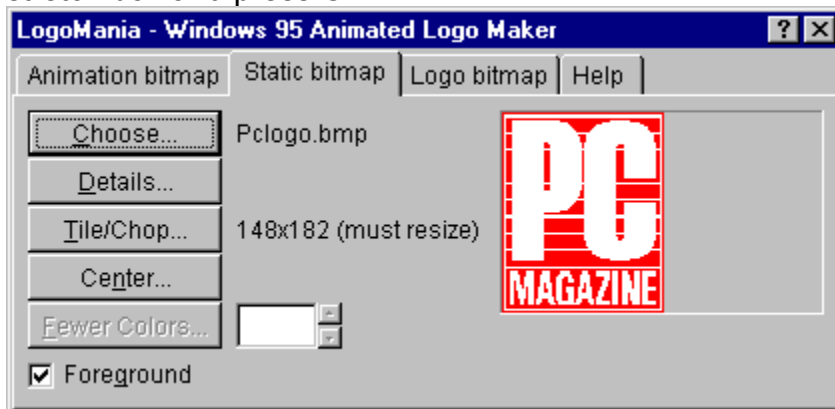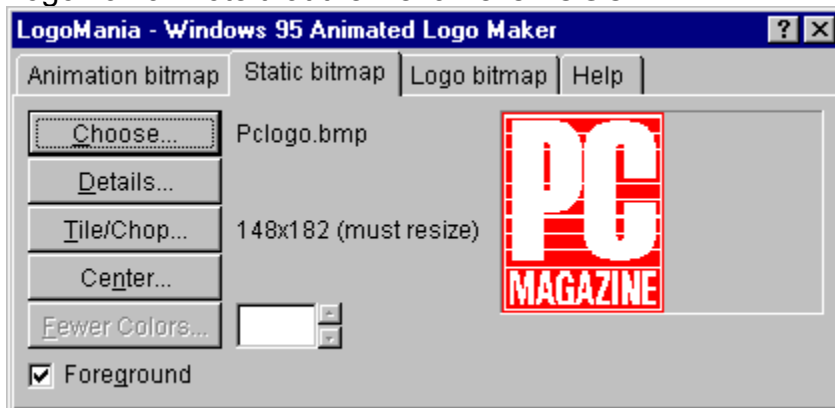

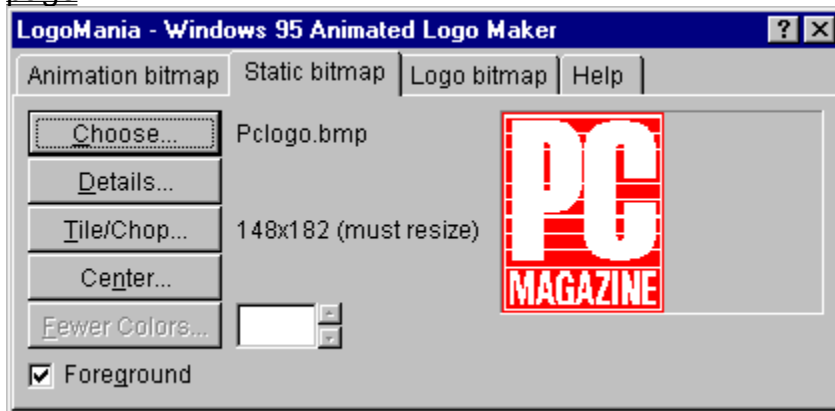Save this image as a 256-color bitmap with the name MYNAME.BMP.
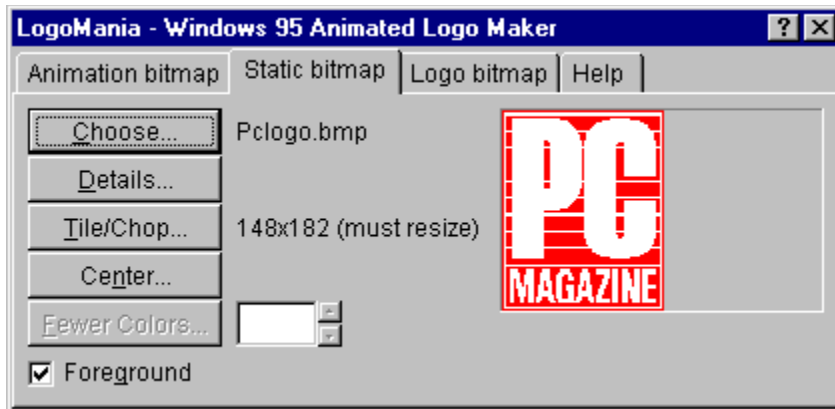
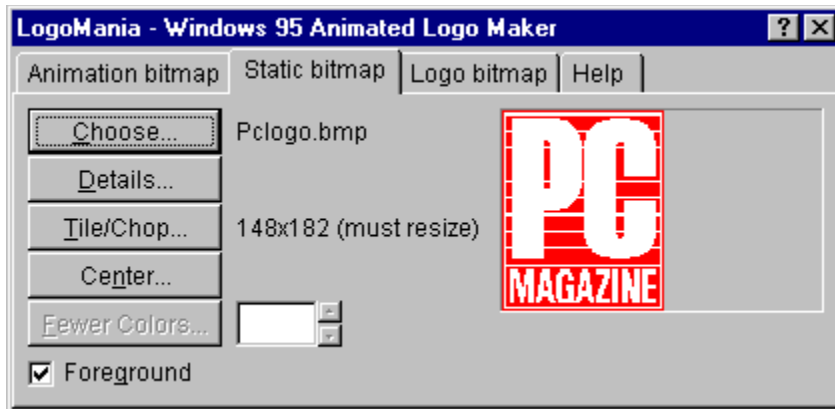Exit Paint and launch LogoMania. Note that the filename is LOGOMANI.EXE
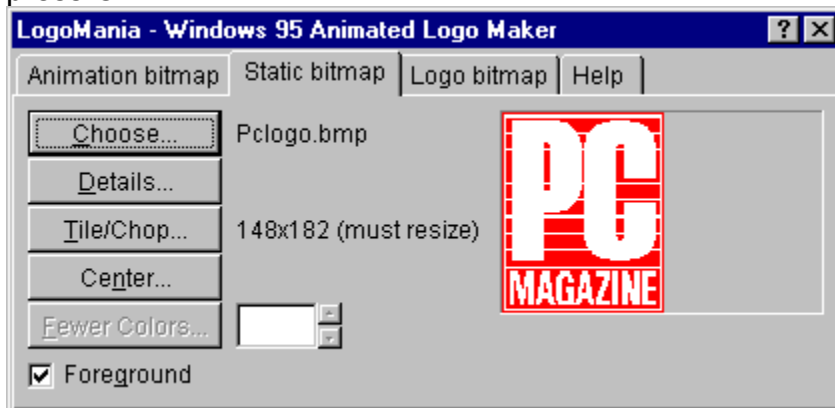

Click the Static bitmap page.

Press the Choose button.

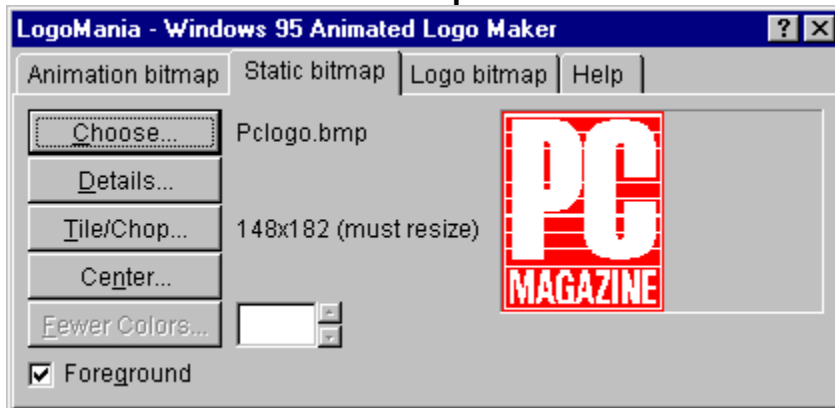Select MYNAME.BMP and press OK.

Check the Foreground box on this page.

2. Create the animation bitmap

Click the Animation bitmap page.

Press the Generate button to bring up the Animated Background Generator form.
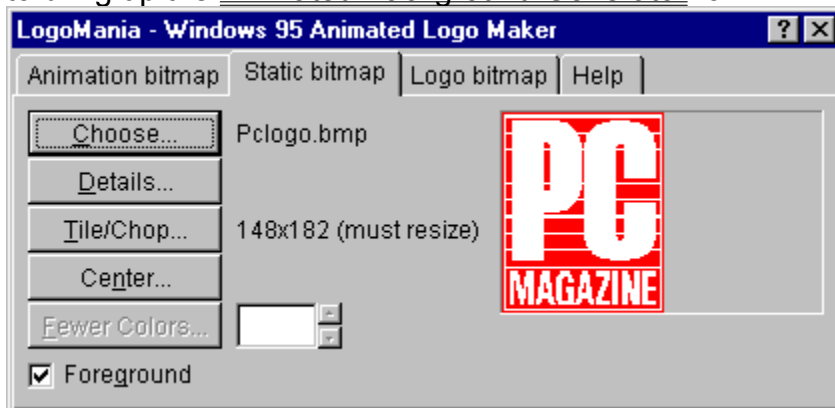
Choose any options you please, then press OK.
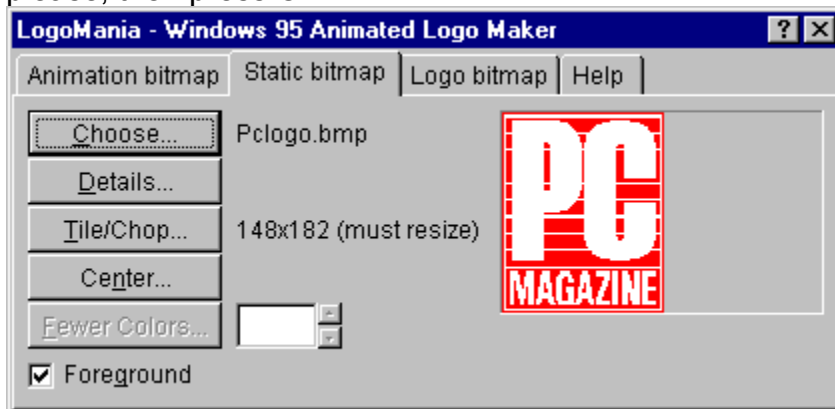
If you don't like the resulting bitmap, press Generate and tweak your options, then press OK again.

3. Create the logo bitmap

Click the Logo bitmap page.

Press the Create button.
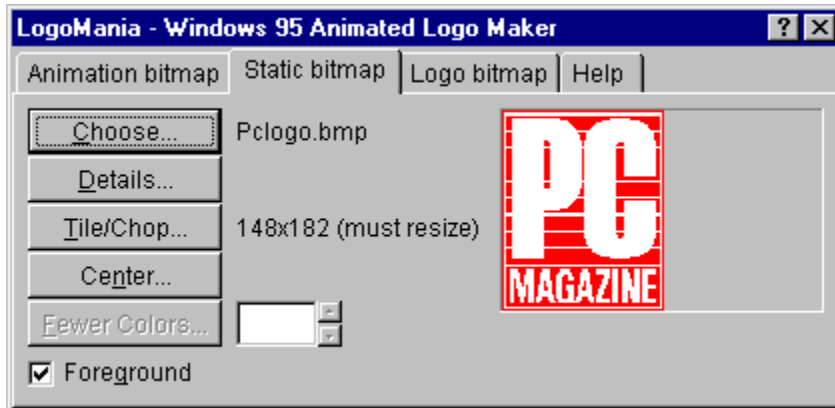
Save the animated logo bitmap as MYNAME.SYS.
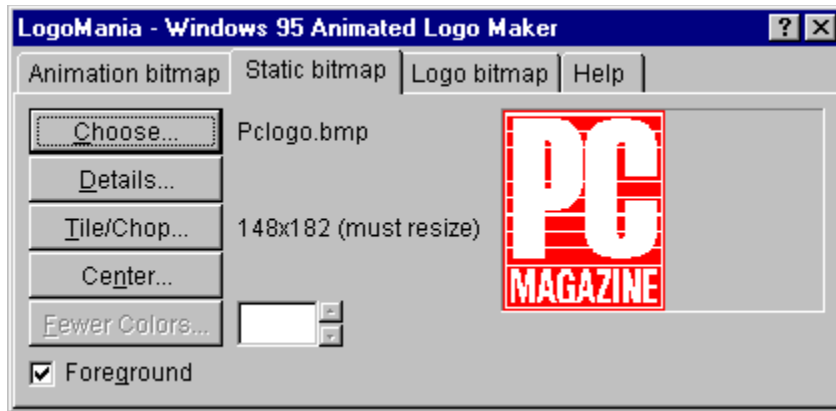
Press the Preview button to see the result.

Ready for another tutorial?

Tutorial Review

In the four tutorial exercises, you have used a number of different features of LogoMania. You have:

- created a bitmap sized for LogoMania using Windows Paint
- generated an animated background bitmap
- resized an existing 256-color bitmap to the size required by LogoMania
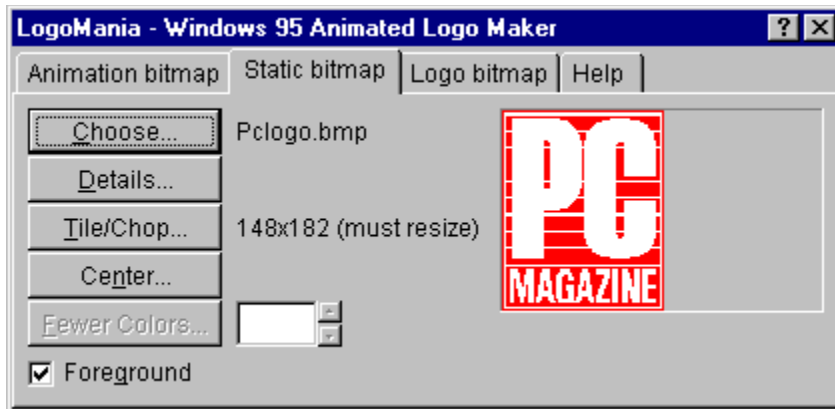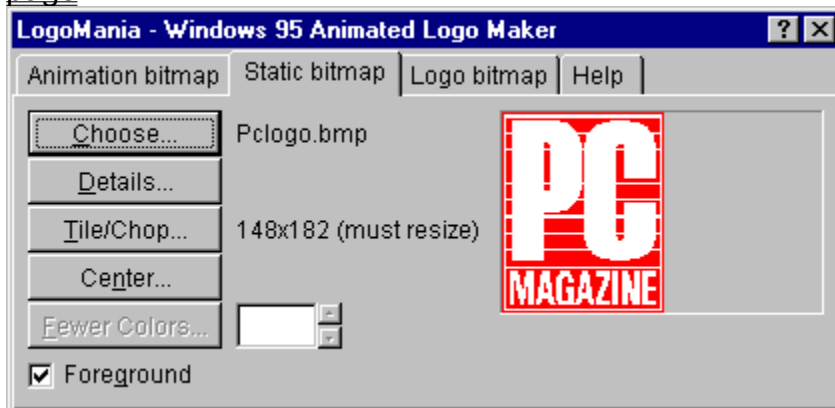- reduced the number of colors used by a selected bitmap
- adjusted the palette entries of an animation bitmap
- created an animated logo bitmap by merging an animation bitmap and a static bitmap
- created an animated logo bitmap using an animation bitmap but no static bitmap

As you can see, LogoMania isn't difficult to use, but its features go deeper than might be apparent at first. Remember that help is available for each page of the main form and for each helper form simply by pressing F1. Also, to get help for an individual component just click the help-icon on the title bar and then click the component.

Tutorial Three
Animate your name in front of the bitmap of your choice

1. Create the animation bitmap

▸ Load the MYNAME.BMP file (created in Tutorial One) into Windows Paint.
▸ Select the first (leftmost in top row) color in Paint's color box (usually black).
▸ Select the Fill With Color tool.
▸ Click on the first letter in your name to change its color.
▸ Select the next color in the color box (usually dark gray).
▸ Click on the second letter in your name to change its color.
▸ Repeat until each letter is a different color, using the colors from left to right and skipping white (the background color).
▸ Save the result as MYNAME2.BMP.

2. Load the bitmaps

▸ Launch LogoMania.
▸ Press Choose on the <u>Animation bitmap page</u> and select MYNAME2.BMP.
▸ Check the Foreground box on this page.
▸ Press Choose on the <u>Static bitmap page</u> and select MYBITMAP.BMP (created in Tutorial Two).
▸ If the words "Must reduce colors" appear below the static bitmap name, press the Fewer colors button and save the result as MYBMP2.BMP.

3. Create the animated logo bitmap

▸ Click the <u>Logo bitmap page</u>.
▸ Press the Create button and save the result as MYNAME2.SYS.
▸ Press the Preview button and observe that the colors seem to move through the letters of your name from right to left.

One more <u>tutorial</u>!

Tutorial Two
Turn the 256-color bitmap of your choice into a wild animated logo

1. Create the animation bitmap
- Launch LogoMania.
- Press the Choose button on the <u>Animation bitmap page</u>.
- Select any 256-color bitmap.
- Look at the size, shown below the bitmap name.
- If the size is other than 320x400, press the Tile/Chop button, and save the resized bitmap as MYBITMAP.BMP.

2. Create the logo bitmap
- Click on the <u>Logo bitmap page</u>.
- Press the Create button and save the animated logo bitmap as MYBITMAP.SYS.
- Check the "Preview at 640x400" button, if it is enabled.
- Press Preview. Wow!

Proceed to the <u>next tutorial</u>.

Windows Color Palettes

Don't panic! If this description of palette animation seems impenetrable, you can still make use of LogoMania. It may be easier to understand palette animation after you've seen it used in LogoMania for a while.

A Windows bitmap file defines a picture that can be displayed on your computer screen. It starts with a header that includes handy information like the picture's width and height in pixels, and it ends with a huge chunk of data that lists the color of every pixel in the picture. A 256-color bitmap has a **palette** in its header - a list of up to 256 colors, expressed   as combinations of red, green, and blue values from 0 to 255. Each pixel in the image is represented by a one-byte index into the palette. This way, a bitmap can include a wide variety of colors, yet still only require a single byte to store each pixel.

When Windows 95 animates a logo bitmap, it doesn't change the pixels at all. Instead, it changes the palette. Suppose palette entry 255 used to contain bright red, and we change that entry to bright green. All of the pixels that use entry number 255 will instantly change from red to green. Windows 95's logo animation simply involves "cycling" a set of adjacent palette entries, starting with the very last entry (number 255) and working down. For each "frame" of animation, Windows 95 moves the contents of each palette entry that's involved in animation into the next lower entry, and moves the contents of the lowest animation palette entry into the very last entry. This color cycling is what produces the animation effect.

Let's look at a simple example. Here are three circles containing pixels with the value 253, 254, and 255. To start with, those final three entries in the palette contain red/green/blue values representing yellow, green, and light blue. After the first frame of animation, entry 253 gets the color that was previously in entry 254, 254 gets the previous contents of 255, and 255 gets the previous contents of 253. Those same three slots now contain green, light blue, and yellow.   After the second frame of animation, the three slots contain light blue, yellow, and green. As this cycle repeats, it *looks* like the colors are moving from right to left. In truth, the palette index for each pixel stays the same, but the color occupying the corresponding palette entry changes.

Imagine, now, that instead of three adjacent circles you have three concentric circles, like a target. Suppose the innermost circle uses palette color 255, the next circle uses

color 254, and the outer circle uses color 253. When Windows 95 animates the bitmap, the colors will appear to move from the center outward.

That's all there is to it! All of the animation in a Windows 95 logo bitmap is produced by the fairly primitive technique of cycling colors in the palette.

Enabled only when a bitmap with width less than 640 pixels and height less than 400 pixels is selected. Creates a 320x400 bitmap with the selected bitmap centered horizontally and vertically. If the original bitmap was 320x200 or smaller, it doubles the height to correct the aspect ratio; otherwise, it halves the width. Background will be olive green - use Paint to change background.

Disabled until an animation bitmap has been selected. Press for details on the selected bitmap.

Only enabled if a bitmap of size other than 320x400 has been selected. Press it to save a 320x400 version (tiled or chopped as necessary) of the bitmap, with aspect ratio adjusted for use by LogoMania.

Press to close this form without making any changes to the bitmap's palette.

Close this form without generating a bitmap.

Press this button to apply any changes you have made to the actual palette stored in the bitmap file. If you are unsure whether to do this, consider making a backup copy of the bitmap first.

Press this button to choose a bitmap that will become the animated portion of a Windows 95 animated logo bitmap.

Replace the red, green, and blue values in the highlighted line with the values in the line above.

This button is only enabled when both animated and static bitmaps have been chosen, and the total colors used by the two is greater than 256. Press it to reduce the number of colors in the static bitmap and bring the total down to 256 or fewer.

Press to bring up the background generator form. This form will let you set options for generating an animated background bitmap. The resulting bitmap will be stored using the filename "LogoMania_gen.bmp".

Press this button to open the LogoMania help system.

Press this button to load an existing Windows 95 animated logo bitmap.

Disabled until a logo bitmap has been loaded or created. Press for details on the logo bitmap.

This button is enabled when a 320x400 animated bitmap has been selected and either NO static bitmap or a 320x400 static bitmap with the proper number of colors has been selected. Press it to create a Windows 95 animated logo bitmap from the input bitmaps.

Press this button after setting all generation options. The file "logomania_gen.bmp" will be created in LogoMania's own directory.

Press to change the palette of the animation bitmap.

Disabled when the system's display mode is not 256-color. Disabled unless a logo bitmap has been created or loaded. Press to get a simulation of Windows 95's palette animation.

Press to choose a bitmap that represents the non-animated portion of the logo bitmap.

Disabled until a static bitmap has been selected. Press for details on the selected bitmap.

Only enabled if a bitmap of size other than 320x400 has been selected. Press it to save a 320x400 version (tiled or chopped as necessary) of the bitmap, with aspect ratio adjusted for use by LogoMania.

Check to put the animated bitmap in the foreground when merging; all pixels matching the pixel in the lower left corner will be treated as transparent.

Check to preview in 640x400 mode. Disabled if system's display mode is not 256-color, since preview requires 256-color. Some systems, especially laptops, cannot display in 640x400 mode; on such a system this box will be disabled even if the display mode uses 256 colors.

Check to put the static bitmap in the foreground when merging; all pixels matching the pixel in the lower left corner will be treated as transparent.

Enter a new blue component for the palette color selected in the grid.

Enter a new green component for the palette color selected in the grid.

Lists the colors in the animation bitmap's palette that are actually used. Use the controls at the right to adjust the selected palette index's color.

Enabled only if the animation and static bitmaps use more than 256 colors total. Default value is the maximum that will bring the total below 256; you can enter a smaller number.

Enter a new red component for the palette color selected in the grid.

The information in this box comes from the bitmap's "file header" - the very first part of the bitmap file.

The information in this box comes from the bitmap info header, which is the second block of information in a bitmap file.   Note that "Colors used" field does not necessarily represent the number of different colors used in the bitmap, and that it may legitimately be set to zero.

Reports what steps (if any) LogoMania will take if you press the Resize button on the main form.

A reduced-size "thumbnail" view of the animation bitmap; colors may not be perfectly accurate.

A reduced-size "thumbnail" view of the logo bitmap; colors may not be perfectly accurate.

A reduced-size "thumbnail" view of the static bitmap; colors may not be perfectly accurate.

Select the number of different colors that will be used in building a color-gradient palette for the generated bitmap.

All of the shapes except Random will move in one direction or the other when animating; take your pick.

A color-gradient palette will be generated using the three colors displayed below this group box. Double-click each color to set its value, or press Alt+1, Alt+2, or Alt+3. Press F1 for details.

Select the shape used in filling the generated bitmap. Press F1 for details on the various shapes.

Select the line width to be used in the generated bitmap. Irrelevant in the Random, Mandelbrot, and Mandel II shapes.

Adjust the blue component of the palette color selected in the grid.

Adjust the number of colors to which the static bitmap's palette will be reduced. The maximum value is 256 minus the number of colors used by the animation bitmap.

Adjust the green component of the palette color selected in the grid.

Adjust the red component of the palette color selected in the grid.