

## Chapter 2

# Creating Basic Icons & Cursors

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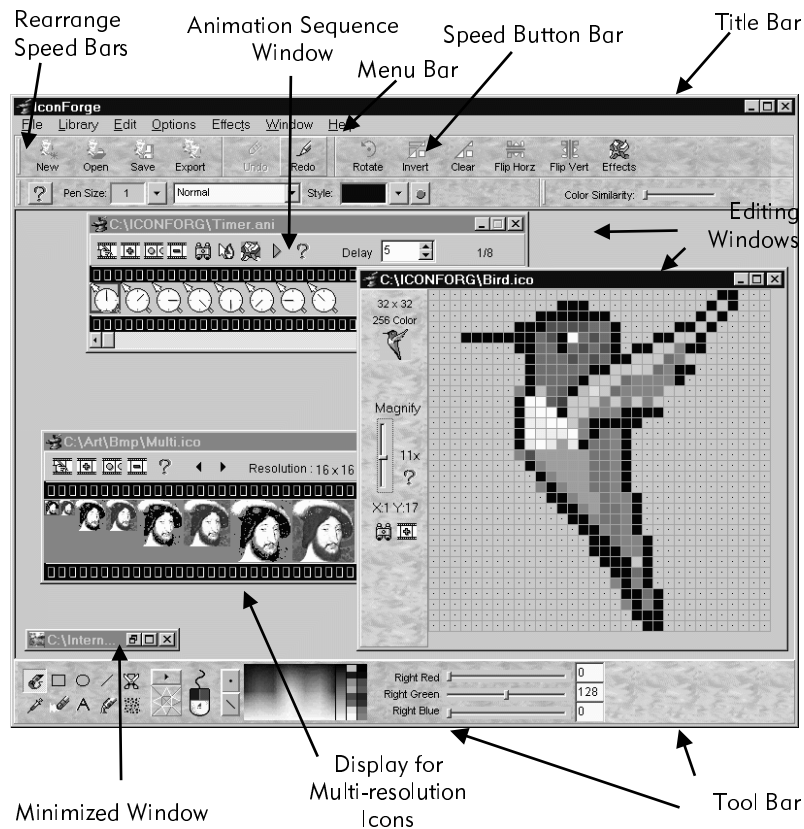
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IconForge is a graphics utility which is optimized for creating icons, cursors or small images which can be used in other projects (such as images to be used as background wallpaper tiles). Some of the features described in this handbook may vary slightly or be unavailable, depending on which *IconForge* and Windows versions you use (e.g., 16-bit or 32-bit).

## Opening a New Editing Window

To edit an existing icon or cursor, or to import an image from another file, use the *Open* function from the *File* menu.

To create a new icon or cursor, first select the *New* function from the *File* menu and then click on the *New Icon* option. You will be asked to select a size for the new image. Common Windows icon sizes



include 16x16, 32x32, 48x48, 64x64 and 72x72. The icons can use 2 colors, 16 colors, 256 colors or 16-million colors, although 16 colors and 256 colors are standard for most uses. The standard size for Windows cursors and animated cursors is 32x32. If you want a smaller sized cursor, fill the unused area with transparent pixels.

Icons, and other bitmap images are measured in “pixels.” A pixel is equivalent to a single dot on your screen. A pixel is the smallest unit used for the screen resolution being displayed.

Once you have selected the existing icon or chosen the size for a new icon, an editing window will be

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displayed on your screen, along with a bar at the bottom of *IconForge* which contains painting tools and color controls (*see illustration next page*).

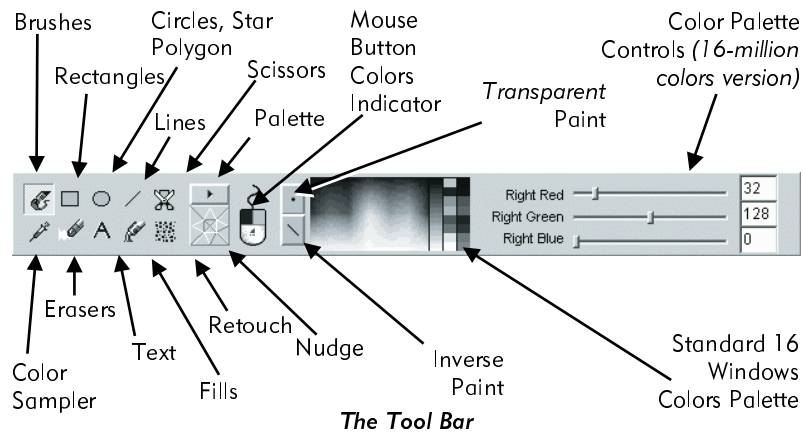
- ⇒ **Notes:** Some Windows versions do not properly display icons or cursors which contain more than 256 colors, so you should avoid saving 16-million color icons unless you are certain that this resolution is supported by the version of Windows on which it will be used. Also, the final display size is determined by the user's Windows settings or by the program in which it is used. Windows will stretch non-standard sized icons to fit the size specified in the user's settings. For most Windows versions, the icon size is set by going to the Windows *Control Panel*, selecting the *Display* icon, going to its *Appearance* tab, then selecting *Icon* from the *Item* list.

Cursors can contain a "Hot Spot" on the image which activates items when clicked (e.g., on an arrow-shaped cursor, the point of the arrow is usually the hot spot). By default, this is set to the upper/left corner. However, you can designate any pixel as the hot spot either by clicking on the *Options* menu and choosing *Set Cursor Hot Spot*, or by clicking twice on the *Color Sampler* tool and choosing the *Set Cursor Hot Spot* selector.

## Using the Tools

Creating or editing an icon is as easy as selecting a tool from the tool bar at the bottom of the editing screen, and then dragging that tool across the editing window to draw a line, select an area, etc.

Most tools have multiple options or variations. You can choose from among the options by clicking twice on the tool (e.g., clicking twice on the *Eraser* tool allows you to choose between a *normal* eraser, and an eraser which *replaces* one color with a second color).



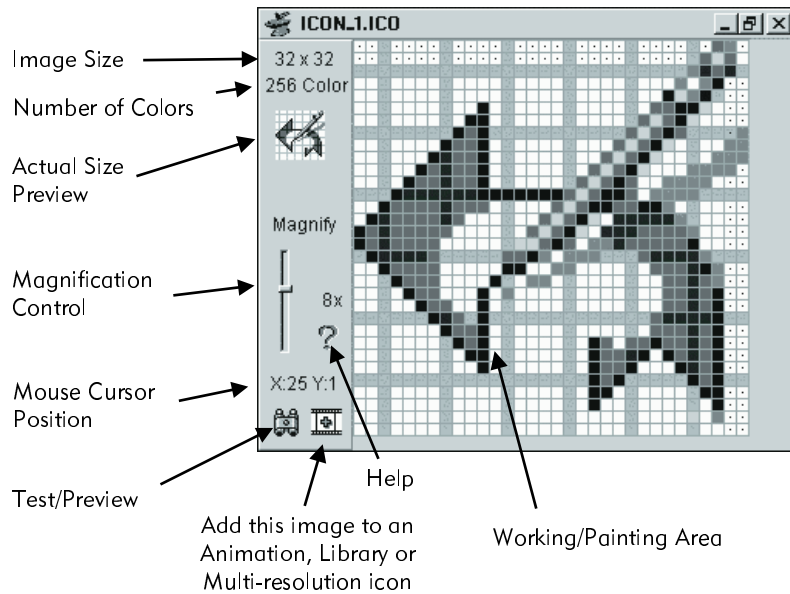
To select a region of your image, use the *Scissors* tool to surround the area. Once you have selected a region, it may be copied, dragged to another location (or moved with the *Nudge* tool), etc.

On the left side of the editing window, you will find an actual-size preview for the icon or cursor being edited, plus controls for magnifying the image to edit fine details, etc. If you have a question about what a particular control does, simply click on the “?” icon for an explanation from the *Help* file.

To select colors for with which to paint, simply click on a brush tool, click on a color from the *Color Palette*, then click or drag the tool across the editing area. You may load colors onto both the left and right mouse buttons simply by clicking on the *Color Palette* using those buttons.

### **Editing Windows**

Images are displayed within individual editing windows (*see illustration on next page*). You may copy and paste between these windows, or even open multiple copies of the same file.



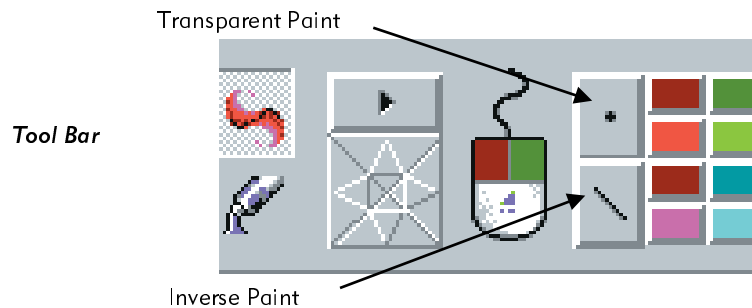
*Icon Editing Window*

On the left side of each editing window you will see a preview window which shows the icon or cursor at its actual size. Below this is a *Magnify* control which allows you to zoom in to edit fine details. Use the binoculars icon to *Test* your icon or cursor with a variety of backgrounds and controls. The green “+” icon is used to add the current image to any opened multi-resolution or animation window.

## **Making Transparent Areas**

Use your *Brush* or *Fill* tools to mark areas which will become transparent when the icon or cursor is displayed. To do this, first select the *Transparent Paint* button next to the tool bar’s *Color Palette*. When painting with *Transparent Paint*, each transparent pixel in the image will contain a small dot in the center.

You can also designate areas which will reverse the colors which lie under the icon or cursor. To do this,



first select the *Inverse Paint* from the palette. Each inverse pixel in the image will contain a slash through it. Inverse areas are very useful when designing cursors, since no matter what the background, you are assured that these areas of the cursor (or icon) will be shown using contrasting colors.

📌 **Notes:** To see the effects of your transparent and inverse areas, click on the *Test* button (the binoculars 🗞 icon) in the editing window.

The color underneath the transparent and inverse pixels is for display purposes. These colors are not present in the final icon or cursor. You may select another Preview color by going to the *Options* menu and selecting *Set Preferences*. You may wish to choose a color which is close to the color of the background on which the icon will usually be displayed. When saving an image as either .GIF or .PNG graphic formats, you will be given the option to designate all areas containing the *Transparent Preview Color* as transparent in these images.

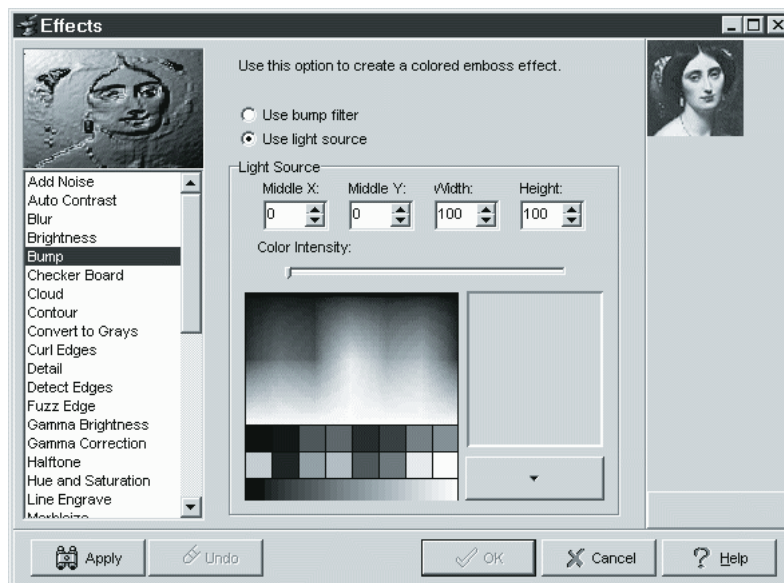
Improper display of transparent or inverse areas can be caused by the following:

— the icon is being scaled by Windows to a different size. This could be because your icon is not a standard 16x16 or 32x32 size, or because Windows is set to display icons at an odd size.

- the video driver for the display is bad. Visit the video card manufacturer's web site to see if an updated driver is available.
- the icon contains 16-million colors and is being shown on a Windows NT or 2000 system. There is a bug in these two Windows versions which can prevent the display of icons which contain more than 256 colors.
- the Windows icon cache is corrupted. To fix this, either go to the *Edit* menu and choose the *Rebuild Windows Icon Cache* option, or click on the *Edit/Change Windows System Icons* option to launch the *ActivIcons* utility (it has more options for repairing the cache).

## Applying Effects

*IconForge* contains an assortment of special *Effects* filters. To apply a filter, first use the Scissors tool to select an area of the image (you do not need to do this if you want the effect to be applied to the entire image). Next, go to the *Effects* menu and select the filter you wish to use.



On the left side of the *Effects* window, you will see a list of all available filters from which you may select. As you click on each filter, a preview at the top of the list will give you a rough idea of how the filter will affect your image.

In the center of the window are the controls for the filter being used. The right side of the window displays your image.

Once you have adjusted the controls for a filter, click the *Apply* button at the bottom of the window. This will update the image shown on the right side. If you are satisfied with the effect, click *OK* to return to editing. If you would like to make adjustment to the filter controls, click the *Undo* button to return the image to its previous state.

⇒ **Note:** Some special *Effects* need to blend adjacent pixels. The transparent or inverse properties may be blended away during these operations. You can use the *Fill* tools to restore these attributes should this occur.

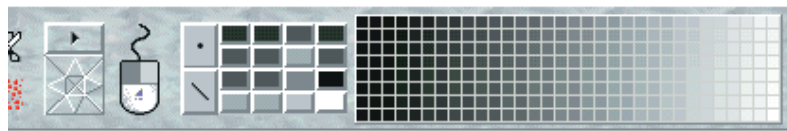
## About Color Palettes

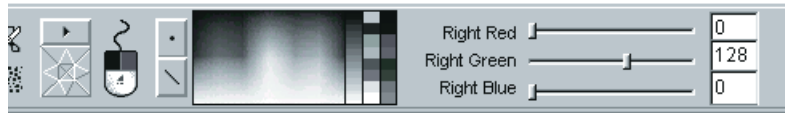
Most icons which you will create will have a limited “palette” of colors. Depending on which resolution you are using, the palette will contain either 2, 16 or 256 colors.

## Selecting Colors

The current palette of colors is displayed on the tool bar. You can click on the palette using either your

Palette: Icon Color Depth at 256 Colors





*Palette: Icon Color Depth at 16-million Colors*

left or right mouse button. This will load the color you selected onto that mouse button. You will now have 2 colors with which to paint, and you switch between colors simply by changing mouse buttons.

You can select a color directly from the image by using the *Color Sampler* (Syringe) tool to click on the color you want to use. You can also select a color while painting by holding down the *Alt* key and clicking on the color.

### **Color Depth**

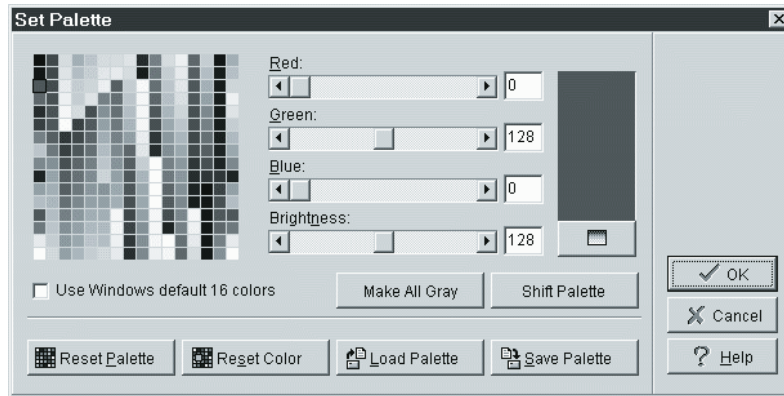
You may edit icons having up to 16-million colors. This will give you the smoothest gradients and blended areas.

However, because some versions of Windows have problems with icons which contain more than 256 colors, you will usually want to convert your final icon to either 16 colors or 256 colors before saving it. You can change the number of colors in the icon by going to the *Options* menu and choosing the *Color Depth* function.

### **Editing the Palette**

For images containing 16 or 256 colors, you can control the colors in the palette by going to the *Options* menu and selecting *Set Palette*. You may also adjust a single color by double-clicking on that color in the palette.

The *Set Palette* screen allows you to adjust the colors by sliding the control bars until you achieve the



#### *Change Colors / Load Palette*


shade you wish. You can also save the current palette of colors, or load a previously saved palette. *IconForge* will automatically adjust your image to reflect the new colors.

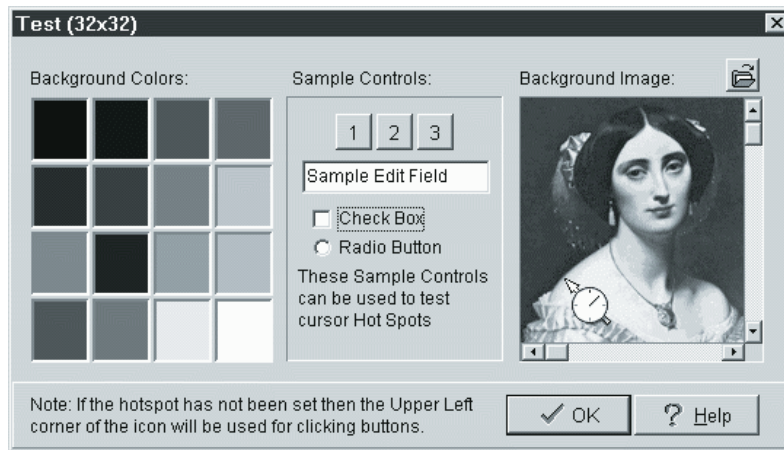
⇒ **Notes:** There are 16 colors which Windows considers “standard” and which we recommend that you use when creating either 16 color or 256 color icons. You may add these standard colors to your palette by checkmarking the *Use Windows default 16 colors* option.

Also note that if the user’s system is set to display either 16 or 256 colors, then Windows will only display your icons using 16 colors (if your icon contains 256 colors, then Windows will reduce the number of colors in order to display it). If the user’s system is configured in a High Color or True Color mode, then the full 256 colors will be displayed.

*See the following chapter for information about creating icons which contain multiple images, so that Windows can select the best icon for the user’s settings.*

## Testing the Icon or Cursor

Each editing window contains a *Test* button  located below the magnification control. Clicking this button will display a box in which you can move your icon or cursor over various backgrounds, click controls (to test a cursor's Hot Spot), etc. To load a custom background, use the folder button at the top of the *Background Image* panel.



## Saving Your Work

If you are editing an existing image, use the *Save* option from the *File* menu.

For a new icon or cursor, click the *File* menu and choose the *Save As* function from the list. You will then be asked to specify a file name for the new image. Use the *File Type* drop-down list to select the type of image to save (this will add the correct 3-letter extension to the file name).

➤ **Notes:** You may also choose a file name from the list if you would like to overwrite an existing file with the new

image. A message will be displayed which will ask you to confirm that you want the old image file to be replaced with the new material.

If you are using the standard *Windows-style File Selector* (this option is found under the *File* menu), you will need to type in the 3-letter extension manually.