About the Palette Manager and System 7.0

The **Palette Manager** monitors the color needs of the graphics environment. The **Palette Manager** can track the combined color and gray-scale requirements of the Operating System, your application, and other applications, and it can do so across multiple screens. You can use the **Palette Manager** to ensure that a set of colors is available whenever one of your application's windows is active.

System software versions 6.0.5 and later, or those using the 32-Bit **QuickDraw** system extension, incorporate the revised and expanded **Palette Manager**.

You need to read topics from the **Palette Manager** if your application uses **Color QuickDraw**'s color system, rather than the eight-color system supplied with the original **QuickDraw**, or no color at all.

You should be familiar with the **Graphics Overview** and **Color QuickDraw**.

Your application should use **Palette Manager** routines if it needs to

- set up and maintain collections of colors or grays
- manage shared color resources
- provide exact colors for displaying images
- initiate color table animation

Your application can specify a color as an RGB value, and **Color QuickDraw** and the **Color Manager** determine the closest match available on the hardware at the time the color is needed. On direct hardware, the match is virtually exact; on indexed hardware, the match depends both on the capabilities of the video device and on the color needs of the Operating System and other applications. By creating a palette of colors for your application, you ensure that appropriate colors are available when its window becomes frontmost.

The **Palette Manager** acts as intermediary between the palettes you create for your application's windows and the color look-up tables (CLUTs) that contain the colors an indexed device can display. When your window is opened or brought to the front, the **Palette Manager** checks your palette's colors against those in the color tables of all devices the window touches. The **Palette Manager** then loads colors into the color tables as needed, taking into account the sizes of the color tables and the importance you have placed on various colors in your palette.

You create palettes as resources of type 'pltt'. In the palette resource you specify the RGB colors your application needs. You can also indicate whether each color needs to be matched exactly and, if not, how close a match is required. You can tailor your palettes to different possible video devices-indicating, for example, that certain colors in the palette should be used with 4-bit pixel depths, that a different set should be used with 8-bit pixel depths, and that neither set should be used with gray-scale devices. Palettes can also be created from color tables.

The **Palette Manager** can handle different screen depths across multiple devices. If the user moves your application window so that it overlaps one gray-scale, one indexed-pixel, and one direct-pixel screen, the **Palette Manager** chooses appropriate grays and colors for all three.

The **Palette Manager** has access to all palettes used by all windows throughout the system. A set of default color tables for devices of various depths ensures that the **Palette Manager** always returns to a known set of colors when an application terminates, and, when your application begins executing, it executes in an environment equipped with as broad a range of colors or grays as the hardware allows.