

Writing Compatible Graphics Applications

Over the years, some developers have written applications that modify the **QuickDraw** data structures directly, rather than using the routines provided for that purpose. Then, when engineers at Apple improve **QuickDraw**, the applications break. As **QuickDraw**, graphics applications, and cards such as graphics accelerators grow more complex, the problem becomes acute. This section points to new routines you can use to signal **QuickDraw** when your application modifies certain data structures directly so that **QuickDraw** can take note and act accordingly.

Applications should not directly change fields in graphics data structures, but should use the following routines instead:

<u>AddComp</u>	<u>MakeRGBPat</u>	<u>SetClip</u>
<u>AddSearch</u>	<u>Move</u>	<u>SetCursor</u>
<u>BackColor</u>	<u>MovePortTo</u>	<u>SetDeviceAttribute</u>
<u>BackPat</u>	<u>MoveTo</u>	<u>SetGDevice</u>
<u>BackPixPat</u>	<u>ObscureCursor</u>	<u>SetOrigin</u>
<u>CharExtra</u>	<u>OpColor</u>	<u>SetPenState</u>
<u>ClipRect</u>	<u>PenMode</u>	<u>SetPort</u>
<u>ColorBit</u>	<u>PenNormal</u>	<u>SetPortBits</u>
<u>CopyPixPat</u>	<u>PenPat</u>	<u>SetPortPix</u>
<u>DelComp</u>	<u>PenPixPat</u>	<u>ShowCursor</u>
<u>DelSearch</u>	<u>PenSize</u>	<u>ShowPen</u>
<u>ForeColor</u>	<u>PortSize</u>	<u>SpaceExtra</u>
<u>GrafDevice</u>	<u>RGBBackColor</u>	<u>TextFace</u>
<u>HideCursor</u>	<u>RGBForeColor</u>	<u>TextFont</u>
<u>HidePen</u>	<u>SetCCursor</u>	<u>TextMode</u>
<u>HiliteColor</u>	<u>SetClientID</u>	<u>TextSize</u>

Using these routines rather than directly modifying the data structures ensures that your application will fully benefit from any future improvements to **QuickDraw**. In particular, the off-screen graphics world routines described in the **Graphics Devices Manager** remove much of the need for directly modifying graphics data structures.

Apple strongly recommends that new applications follow these guidelines; asynchronously operating graphics cards especially need close cooperation with **QuickDraw**.

It is possible to make existing applications more compatible by calling one of

the following procedures after directly changing a **QuickDraw** data structure and before calling any other **QuickDraw** routine:

CTabChanged

PixPatChanged

PortChanged

GDeviceChanged

These procedures inform **QuickDraw** that a direct modification has occurred so it can update its tracking of the graphics environment.