Tech Info Library

Apple Monitors: Why Screen Flickers When Image Is Dragged

This article last reviewed: 26 September 1989

TOPIC ---

There seems to be a flicker in the Apple High-Resolution Monochrome Monitor and
AppleColor High-Resolution RGB Monitor.

To produce the flicker, use MacPaint to create a black box approximately
1 inch by .5 inch. Then select the black box and move it from left to
right. In one area of the screen (approximately the bottom one third), you
will notice the black box flickering or breaking up as you move it.

This flicker also happens on some Macintosh SE screens (approximately the
top one third).

What causes this?

DISCUSSION ------------------------------------

The flicker is a result of non-synchronous timing between drawing the bitmap to
the screen and refreshing the screen. It is a difficult programming task to
synchronize the drawing of the image to the screen refresh rate. When this
anomaly affects only the moving of selected images, the synchronization is
often not implemented. When smooth animation is vital to the application's
function, the problem generally does not occur.

The flicker can be seen with most bitmapped-based graphic applications
(HyperCard, SuperPaint, MacPaint, FullPaint) that select an image and then
directly drag the image. In applications like MacDraw, where only an
outline of the image is moved, the flicker is not as evident.

The flicker has been reproduced with several combinations of applications
and Macintosh models, and with a variety of monitors. Different combinations
demonstrate the effect more prominently than others. We have unable to
determine the exact reason certain areas of certain screens display this
effect more than others. Timing issues play a large part in this anomaly.
Copyright 1989 Apple Computer, Inc.

Keywords: <None>

===

19960215 11:05:19.00

Tech Info Library Article Number: 4544