Tech Info Library

Macintosh: Tick Rates vs. Draw Rates

```
Revised:        6/24/92
Security:       Everyone
```

Macintosh: Tick Rates vs. Draw Rates

===

```
Article Created:   10 February 1988
Article Last Reviewed:  23 June 1992
Article Last Updated:
```

TOPIC ---

What's the difference between tick rates and draw rates?

DISCUSSION --

On all Macintosh computers, the tick rate is 60 ticks per second,
regardless of processor type or speed. Ticks are available to the
programmer to provide timing sequences that are constant, independent of
machine type or the application.

Two different applications, on the other hand, may draw objects on the
screen at varying rates, but this is due to the different drawing
algorithms the applications use -- not to varying tick rates.

And the same application may draw at different speeds on different
machines. For example, certain QuickDraw routines perform about 20 percent
faster on a Macintosh SE than they do on a Macintosh Plus, due to the way
memory is accessed. The Macintosh II, depending on video card settings,
performs QuickDraw routines two to four times faster than a Macintosh
Plus, because of its 68020 processor.

Some other factors that affect how fast a Macintosh draws an object on the
screen:
- INITs
- VBL tasks
- hardware interrupts
- software interrupts
- Time Manager calls
- QuickDraw overhead
- memory

Tech Info Library Article Number:2537