System 7: 24-bit Addressing with More than 8MB of RAM

Article Created: 5 July 1991

Article Change History

08/21/92 - REVIEWED
- For technical accuracy; edited.

TOPIC ----------

How does the Macintosh operating system handle more than 8MB of physical RAM when it is not using 32-bit addressing?

DISCUSSION ----------

When a Macintosh is running in 24-bit mode (that is, when System 7's 32-bit Addressing is turned off or the Macintosh is running System 6.0.x) any physical memory over 8MB is allocated to the System, provided the Macintosh can see the memory in the first place, but it's not actually used. Even though the hardware can see all of the physical RAM, 24-bit addressing allows the use of only 8MB. You may see a large System allocation when checking "About this Macintosh" or "About the Finder" and think something is wrong, when in fact this is the way it should work.

System 7's 32-bit Addressing allows up to 1GB of total memory (including both physical and virtual memory).

Keywords: Sys7

==========

This information is from the Apple Technical Information Library.

19960215 11:05:19.00