Omnis: Lack of Virtual Memory Limits Large Database Sorting

This article last reviewed: 8 September 1989

TOPIC ----------

A have a huge (1.5-million record) Omnis database that they need to sort using a Macintosh II with 8MB of RAM.

The system is running under Finder, and the system has been stripped of all INITs, extra fonts, even the RAM cache is off. I am able to sort up to 1.2 million records, but shortly thereafter, Omnis returns an error message that the system is out of memory.

Part of the problem lies with Apple's operating system, and the fact that it only addresses 8MB of RAM. The other part of the problem is with Blyth, and the fact that they do the complete sort in RAM.

It has been suggested that I add some of the new 4MB SIMM strips that are available for the Macintosh II, but this will cost upwards of $5,000 to $10,000 just to test, and might not even work.

What should I do?

DISCUSSION ----------

We contacted Blyth Software, and they confirmed that their sort routines bring all of the information they need into RAM. Their sort routines do not write anything out to disk to allow for larger amounts of information to be sorted.

Omnis has a line at the bottom of the sort window that tells you how many records it can sort. This number is calculated according to how much memory you have available at the time. This information can, at least, can help you to determine if the sort will be complete or not before you run the sort.

We are not aware of any workaround for this problem. Adding 4MB SIMMs will not work. The Macintosh OS only addresses a maximum of 8MB of memory. It is possible that with System Software 7.0 and virtual memory, there will be enough addressable memory for this sort to work, but that obviously is not a solution now.

This is not a hardware limitation, but rather a software limitation. It is

possible to write software that will write information to disk as it is sorting, so that such a large amount of RAM is not needed. FoxBase+/Mac, for example, writes information to a temporary file when it is sorting. It requires that you have twice as much disk space available as the information that you want to sort. A possible solution would be to change databases; however, we realize that with a custom database already written and all of the data in it that this is not a trivial thing to do.

Keywords: <None>

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19960215 11:05:19.00
Tech Info Library Article Number: 4392