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PowerBook 160, 180, Duo: 120MB Drive Partitioning Cautions 3/93

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TOPIC -----

Users may experience startup problems (the blinking "?") with a PowerBook 160, PowerBook 180, PowerBook Duo 210, or PowerBook Duo 230 that has a 120MB hard drive. This is not a hardware problem with the drive; it is strictly a software issue. The problem appears when a user selects the Partition feature in HD SC Setup, and attempts to make maximum utilization of the 120MB hard drive.

Performa 600 Note. The problem described here should have no effect on the Performa 600 with a 120MB drive. The Performa 600 uses a different hard drive mechanism, which has 125,033.5KB capacity (the partition size that Apple HD SC Setup automatically installs). The problem happens only when the drive range is set between 122,688.0KB and 122,943.5KB. The only way to get the Performa 600 to fail is to partition it for less.

DISCUSSION -----

The problem is very closely related to the physical size of the HFS partition that gets created when the drive is initialized. That is why it has been seen almost exclusively in PowerBooks and Duos with the 120MB hard drive. The problem does not occur with the partition size that Apple HD SC Setup automatically installs, but it does occur when a user does "Custom" partitioning of the drive and installs a maximum (122,832KB) partition.

Workaround

The suggested workaround for users with a PowerBook 160 or 180, or Duo 210 or 230 -- and a 120MB drive -- is to return to the "normal" factory partitioning. In other words, use the Initialize button within HD SC Setup.

Questions & Answers

Q. I have a Performa 600 with a 120MB hard drive. Can I custom partition this drive without encountering the "Blinking ?" problem?

A. The Performa 600 uses a 120MB drive mechanism with a capacity of 125033.5 KB. This number is automatically set during the initialization process under HD SC Setup. If a custom partition is done on this drive, the capacity in KB would increase. The problem only occurs when a drive range is set between 122943.5 KB and 122688.0 KB. As you can see, the 120MB drive in the Performa 600 is set higher than this range.

Q. Why does this "Blinking ?" problem occur only on 120MB drives in the PowerBooks and Duos?

A. The PowerBooks and Duos use a different 120MB drive that has a slightly different capacity.

The PowerBooks', Duos', and Performas' 120MB drives are automatically initialized at the factory using the standard installation with HD SC Setup. The capacity of the PowerBook/Duo configuration is lower than the drive range where the problem will occur. The capacity of the Performa configuration is higher than the drive range where the problem will occur.

If a custom partition is performed on the PowerBook or Duo 120MB configurations, the capacity range will then be set to a number within this range. But if a custom partition is performed on the Performa 120MB configuration, the number will still be higher.

Q. If I mistakenly Custom Partition my 120MB hard drive within the range that causes the "Blinking ?" problem, how do I recover?

A. If you suspect that your system may be operating with a partition within the "danger zone", you should back up your data immediately and then restore the drive to the standard partition.

Remember, do not just re-partition the drive, as this initializes the drive and your data will be lost.

If the system has failed with the "Blinking ?", you will need to obtain a data recovery or utility program such as Norton Utilities to recover your data. Then, the drive must be re-partitioned (reinitialized) with HD SC Setup. DO NOT CUSTOM PARTITION THE DRIVE.

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