

MEMORY ACCESS POPULARITY STATISTICS METHOD AND RELATED APPARATUS AND DEVICE

ABSTRACT

A memory access popularity statistics method, a controller, a chip, a memory, a mainboard,
5 and a computer device are disclosed, and relate to the computer field. The method includes:
collecting, based on an operation performed on a memory by an application program run by a
processor, statistics about access frequency of accessing a data block in the memory by the
processor, and determining access popularity of the data block based on the access frequency. The
access frequency represents frequency of accessing the data block by the application program.
10 Accessing the data block for more times by the application program indicates that the data block
is accessed more frequently by the application program, and the access popularity of the data block
is higher. Accessing the data block for fewer times by the application program indicates that the
data block is accessed less frequently by the application program, and the access popularity of the
data block is lower. In this way, hot data is migrated to a near memory, and cold data is migrated
15 to a far memory, so that the processor may obtain frequently accessed data from the near memory
as quickly as possible. This improves a data processing speed of a system, reduces a data
processing delay, and significantly improves access performance of the system.

Fig. 2

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