

ARRAY CONTROLLER, SOLID STATE DISK, AND METHOD FOR CONTROLLING SOLID STATE DISK TO WRITE DATA

ABSTRACT

Embodiments of the present invention provide an array controller, including a communications
5 interface and a processor. The communications interface is configured to communicate with a solid
state disk. The processor is configured to receive information about a logical block sent by the solid
state disk, where the information about the logical block includes a size of the logical block and
indication information of the logical block, and the logical block includes one or more blocks. The
processor is further configured to send multiple write data requests to the solid state disk, where
10 each write data request carries target data, each write data request is used to instruct the solid state
disk to write the target data into the logical block indicated by the indication information of the
logical block, and a sum of lengths of the target data carried in the multiple write data requests is
equal to the size of the logical block. The logical block may be filled after the solid state disk writes
each piece of target data to the logical block, which can reduce write amplification when the solid
15 state disk performs a garbage collection operation.

Figure 7