

YO994-007

RAID LEVEL 5 WITH FREE BLOCKS PARITY CACHE

ABSTRACT OF THE DISCLOSURE

5 A system for writing data to a disk array includes a cache
memory coupled to the disk array for storing data indicative of
locations on the disk array and parity blocks associated with
parity groups including the locations. Each of the parity blocks
includes an identifier indicative of locations within a particular
parity group which are protected by the parity data. Write logic
10 reads the identifier from the parity block, and based thereon,
determines whether a disk location is not protected by the parity
data. The write logic also writes to the location and updates the
parity data and the identifier associated with the parity block to
include the location of the data block to indicate that the
location is protected.

