

A METHOD AND SYSTEM FOR MANAGING
A RAID STORAGE SYSTEM WITH CACHE

ABSTRACT

A computer system (10) has a host computer (12) that runs applications requiring data objects from a storage system (14). The storage system (14) has a storage device (18), and a cache memory (30). Data objects frequently used by the host computer (12) are stored in the cache memory (30). The data objects are also stored in the storage device (18) logically arranged in segments of data objects, and groups of segments. The cache memory (30) is logically partitioned into a segment cache and a group cache. Data of a small granular nature are stored in the segment cache. Data of a larger granular nature, is stored in the group cache. When the host computer (12) requests accesses to read or write data objects, groups of segments are staged or destaged between the storage device (18) and the group cache, with at least one segment of each staged group containing one of the requested data objects.

FIG 1

