

FEED-FORWARD COMPENSATION OF CAGE FREQUENCY
USING A REFERENCE HEAD IN A SERVO-WRITER

Abstract of the Disclosure

5 A system, modules, means, and computer readable media for and a method of
compensating disturbances that cause track shape irregularities on a disc in a disc drive
during a disc servo-writing process performed by a servo-writer are disclosed. The
disturbances substantially attributable to a nonrepeatable runout (NRRO) are present during
the servo-writing process. A substantial component of the NRRO is a cage frequency
10 generated by a spindle motor mechanism in the disc drive. A reference cage frequency is
determined during a servo-writing process by using a position sensor. Then a feed-forward
input signal is determined based at least on the reference cage frequency during the servo-
writing process. In addition, the feed-forward input signal is feed-forwardly transmitted to
the servo-writer. In the servo-writer, the feed-forward input signal is utilized to substantially
15 reject disturbances that cause the track shape irregularities while the servo-writing head
electrically connected to the servo-writer is writing servo patterns on a user track during the
servo-writing process.

Figure 8