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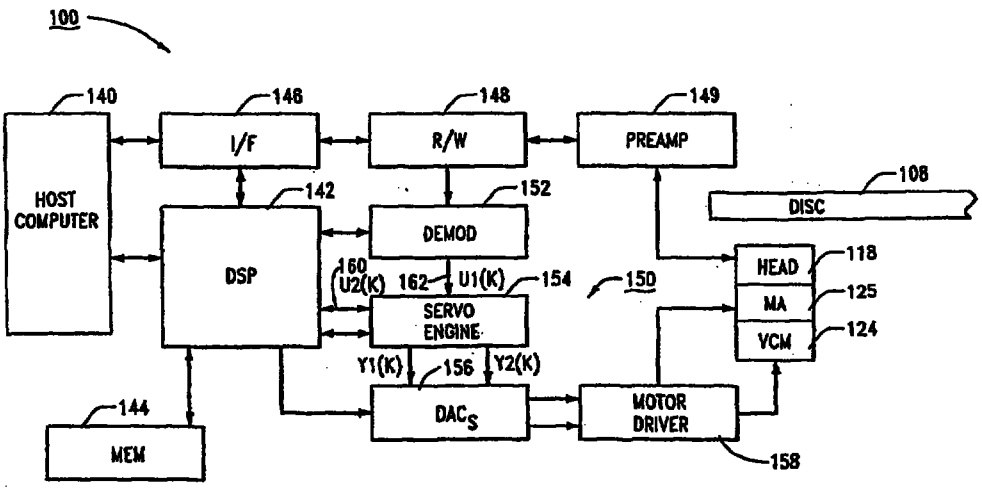
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(54) Title: ADAPTIVE H-INFINITY HARDWARE CONTROLLER FOR DISC DRIVE ACTUATOR CONTROL




(57) Abstract

Apparatus and method for providing servo control in a disc drive (100). An actuator (110) supports an array of heads (118) adjacent a corresponding array of discs (108). A voice coil motor, VCM (124) provides coarse actuator positional control and a microactuator, MA (125) provides fine positional control. A servo engine 154, characterized as an h-infinity hardware input/output controller, generates control signals Y1(K) and Y2(K) for the respective VCM, MA to cause a selected head to follow a desired track on the corresponding disc surface. The servo engine utilizes coefficients adapted for each head/disc combination, and which are selected by obtaining an output response for each head (216), selecting the coefficients in relation to the output respoNSe for each head (218), and storing the coefficients in nonvolatile memory (220). The appropriate coefficients are thereafter loaded into volatile memory (176, 194) of the servo engine as each head is selected in turn (238).