United States Patent [19]

DiGiulio et al.

[54] **MULTIPLE CHANNEL SERVO CONFIGURATION**

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[57] **ABSTRACT**

The multiple channel servo system engages in bus communication with a micro-controller, motor driver for driving a plurality of motors and motor servo for providing servo information for selected ones of the motors. The micro-controller generates respective motion command profile information for each of the selected motors. RAM is provided for receiving and storing the motion command profile information from the micro-controller for the selected motors. The servo system sequentially compares the respective servo information with the respective motor command information and generating respective motor control information for the respective motor for causing the motor driver to cause the respective motor to closely track the respective motor command profile. RAM memory is also provided for receiving and storing microcode for each of the selected motors. The arithmetic logic unit (ALU) of the servo system can be selectively configurable for the selected motors in accordance with the microcode such that the arithmetic logic unit can be reconfigured to sequentially generate respective motor control information for the selected motors.

12 Claims, 4 Drawing Sheets