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| Case | Application of Delta's AC Servo System in Gantry Synchronization Control | | | | |
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| Applicable to | Delta ASDA-A2 series AC servo motors and drives | | | | |

The gantry crane is usually used for large-scale CNC machine center. With the development of large-size LCD display panel, bilateral drive technology of gantry synchronization control is used gradually and widely on the applications of electronic industries. The unilateral drive technology has also come into wide use in accordance with the maturity of bilateral drive technology of gantry synchronization control. Delta's ASDA-A2 series servo system offers gantry synchronization control function which is provided in the host (external) controller to greatly simplify the communication type structure in the past and reduce the system cost.

The two axes of the gantry have to move in constant speed. If the moving speeds of these two axes are quite different, the mechanical system may be damaged.

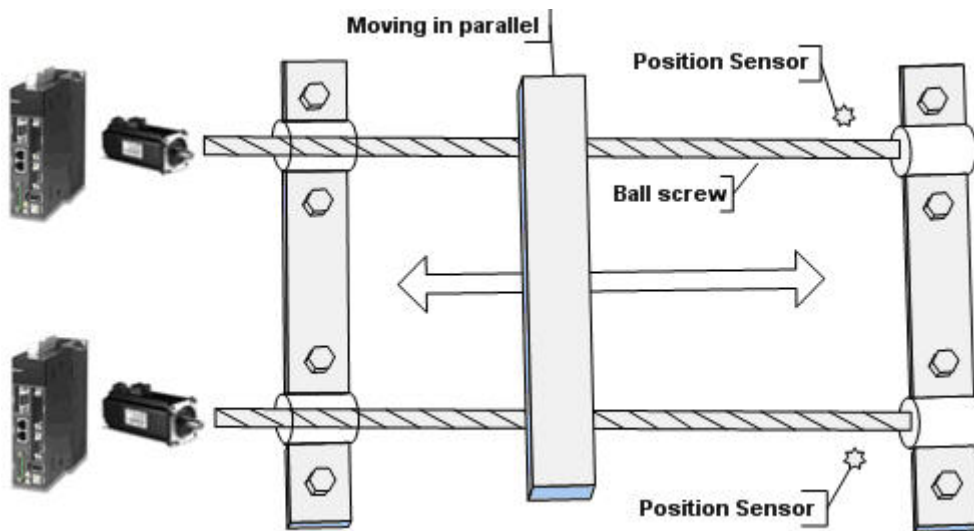


Figure 1: System Structure

The arithmetic operation of built-in gantry synchronization control function provided by Delta's ASDA-A2 series servo system lets the users easily complete gantry synchronization operation through the pulse signal from one axis of the host (external) controller. The two-axis controller will execute synchronization tracking by itself. When the position deviation error exceeds the allowable value in the specifications, the alarm will occur and stop the system operation.

In terms of Japanese brand of servo system, the gantry synchronization control function is provided within the PLC. Therefore, when the gantry synchronization control function is required, the users need to buy a complete set of PLC and servo system. Comparing with Japanese brand of servo system, Delta's ASDA-A2 series servo system is easy-to-use and more cost-effective.

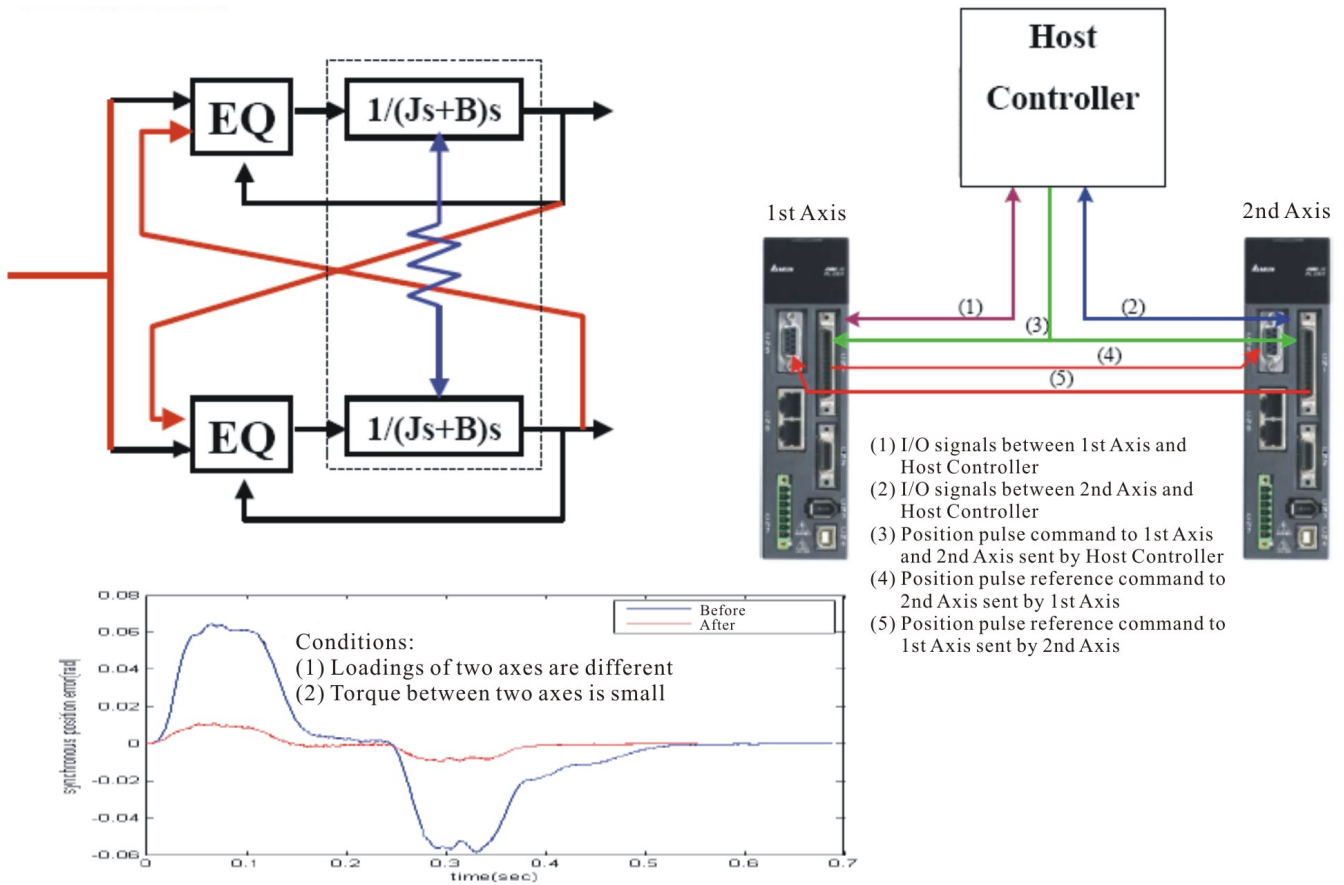


Figure 2: Wiring Diagram between PLC and Delta's ASDA-A2 Servo System

More information on Delta's ASDA-A2 series AC servo motors and drives, visit our website at http://www.delta.com.tw/product/em/motion/motion_servo/motion_servo_product.asp?pid=2&cid=1&itid=5