

Using the Model 1000 as an Interface for a 4-Axis Robotic Arm

Eason Products Used:

Two Model 1000-M01s

Complimentary Products:

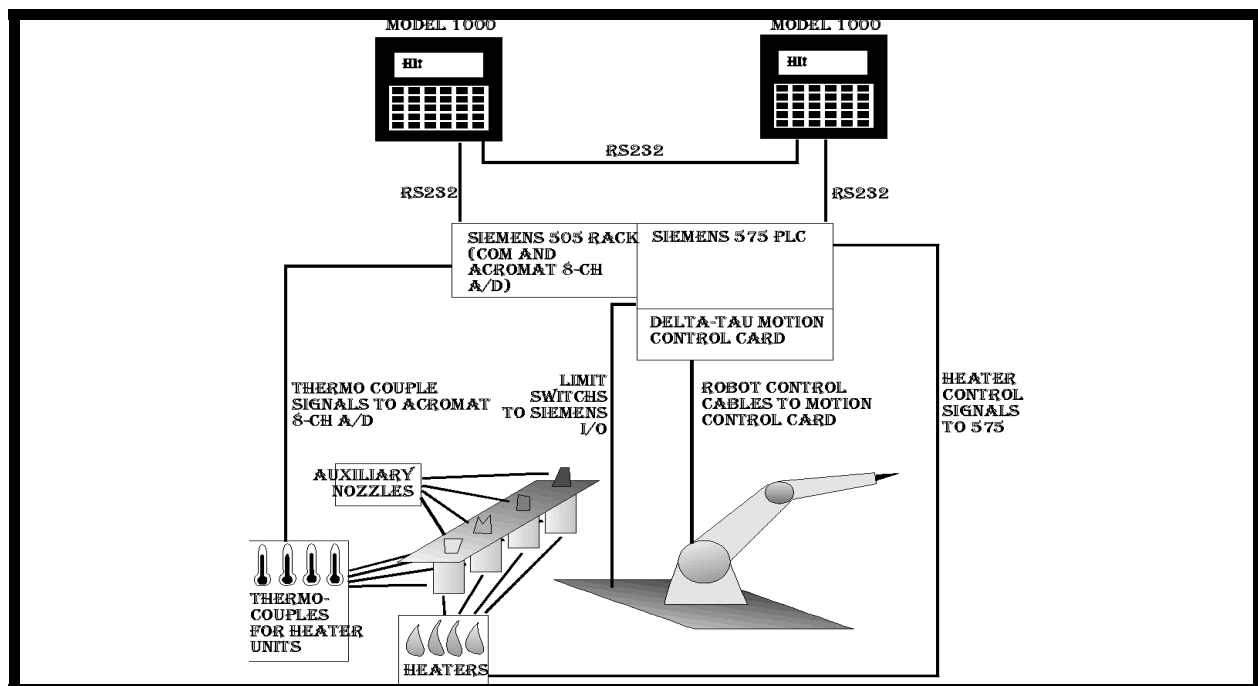
- Seimens 575 PLC
- Delta Tau motion control card
- Acromag 8 channel A/D card

Application Background:

The customer wants to automate an injection process. A number of heated nozzles are used, each having different temperature and placement requirements. Due to the hot temperatures (400° C), the process needs to be controlled from a safe and remote location.

Machine Objectives & Motion Requirements:

- Coordinate user input with machine motion.
- Monitor and adjust heater temperatures.
- Provide an easy to understand Operator Interface.



Eason Solution:

One Model 1000 is used to gather the operator's requests for motion. This Model 1000 takes a setup number from the operator and translates it into Siemens 575 PLC commands for the selection of the proper nozzle and motion path. The PLC, in conjunction with a Delta-Tau motion control card, controls the actual movement. A number of safety limit switches and safeguards are used to stop the arm if it moves out of range or if the operator moves away from the Model 1000. The second Eason Model 1000 is used to monitor and adjust the temperature of the auxiliary nozzles. This unit downloads a temperature ramp to the 575 at either the request of the user or the other Eason Model 1000. It then monitors the temperature of the nozzles. This monitoring is done via a 505 rack (a slave of the 575 PLC) containing an auxiliary comport and an Acromag 8 channel A/D card.

Eason Benefits:

Both the size and cost of the Eason solution were less than the Siemens alternative.

Submitted by:

Name withheld by request.