



PROJECT PROFILE

System Support & Maintenance

QSC Audio

Client background

QSC Audio is a globally recognized leader in the design, engineering, and manufacturing of high-performance audio/video products. QSC's 51,000 sq-ft facility in Costa Mesa includes an 850-foot live roller conveyor line. The conveyor moves products between manufacturing, testing, repair, and shipping cells throughout the facility.

Project background

The original conveyor control system was configured and installed by FloStor in the early 2000s and leveraged cutting edge Honeywell SDS I/O bus technology to network over 470 smart I/O. The system also uses traditional Modbus RTU over RS-232 to bring in data from 30 RFID scanners.

EA was originally hired to make logic changes and upgrade the Think & Do 4.4 PC-based control system, which was originally installed on two computers running Microsoft Windows NT 4.0.

EA solution

EA provided specifications for new computers with high-fidelity solid-state drives, Honeywell SDS PC cards, UPSs, and the latest Windows operating system.

The two control system computers operate independently but share key data across an Ethernet network connection, which was isolated from QSC's business network. This required a constant heartbeat and timely back-end communications to sync RFID information and I/O status. EA implemented multiple communications cards to accommodate this requirement.

Since this project, EA has maintained QSC's conveyor control system for over a decade and assisted with hardware and software upgrades, intersection and scanner troubleshooting, and staff training.

Project Manager



Michael
McKenney

Project Technical Lead



Kevin
Adcock

Key Insights:

- High-uptime requirement
- Conducted reverse engineering and documentation of an existing system

Key Technologies:

- Think&Do
- High-speed remote I/O polling
- RFID scanners
- SDS Bus Smart I/O
- Motor starters