

Airline Parts Warehouse Reduces Downtime and Improves Inventory Accuracy to 99% Through Partnership with Rockwell Automation

TechConnectSM Application Support agreement boosts engineering resources and expertise

Challenge

Increase knowledge of how to customize, program and troubleshoot new warehouse system.

Solution

TechConnect Application Support agreement

- Customized 24x7x365 technical support from engineers who troubleshoot issues quickly to reduce downtime and improve efficiency

Results

The Application Support agreement helped the parts warehouse:

- Improve inventory accuracy to 99 percent
- Save weeks of downtime annually
- Increase employee productivity while improving parts tracking



Background

An airline parts warehouse operates an automatic storage and retrieval system that drops parts into boxes for shipment on a conveyor belt. Processing more than 300 orders daily, the warehouse is responsible for on-time delivery of parts to aircrafts all over the world. At any moment, the warehouse could receive a rush order because a grounded aircraft with passengers onboard is waiting for a part. Lengthy delays can result in flight cancellations, so efficient operations and minimal downtime are crucial.

To improve efficiency, the warehouse upgraded its entire system, replacing legacy Allen-Bradley[®] PLC-2[®] controllers with ControlLogix[®] controllers and installed a new Ethernet network, FactoryTalk[®] View SE software for all seven operator stations and a SQL server database.

LISTEN.
THINK.
SOLVE.™

Challenge

Many times, outdated automation systems will be updated in an effort to increase productivity and drive profit. However, the need for technical expertise to support the new system may be overlooked.

The airline parts warehouse faced this challenge following installation of their new system. Without an in-house engineering staff, the warehouse lacked the expertise needed to customize, program and troubleshoot the system effectively, resulting in lengthy downtime and inefficient inventory control.

Solution

To fill the knowledge gap, the parts warehouse signed a Rockwell Automation™ TechConnect Application Support agreement. A team of Application Support engineers visited the site to gather knowledge, documentation and photos of the system, in addition to collecting backup files, user manuals, network drawings and original program code. Armed with this information, the team became very familiar with the site's operations, equipment and personnel, enabling them to support the warehouse knowledgeably and effectively.

New Safeguards Help Prevent Costly Shutdowns

When the warehouse's entire process line shut down, Application Support engineers traced the issue to a company-wide push of automatic software upgrades that resulted in an incompatibility between the upgraded software and the FactoryTalk View SE installed on the operator stations. Application Support engineers quickly restored one station into operation to get the system back up and running, preventing more than a week of downtime at the warehouse. In parallel, the Application Support engineers continued to work remotely to rebuild each of the workstations individually and implemented precautions to exclude the operator stations on the warehouse floor from future company-wide push upgrades.

Coding Improvements Improve Storage Tracking and Inventory Operations

The warehouse faced issues with parts storage on a weekly basis, making it difficult to locate and track individual parts. The crane responsible for picking and packing the parts is programmed to place only one part in each box for storage, but sometimes it would pack two. Internal staff would spend hours each week manually locating lost parts. Through a review of the storage procedure code, Application Support engineers corrected errors to resolve the immediate issue and also developed a report to search the warehouse's database to compare part numbers and rack locations. All parts are now accounted for, eliminating lost parts and improving employee productivity.

Results

Working with Rockwell Automation, the airline parts warehouse has significantly improved their production and operations. By partnering with Application Support engineers, the parts warehouse boosted throughput and gained engineering expertise. With the added support, they have reduced downtime by weeks each year, as knowledgeable Application Support engineers are able to troubleshoot issues quickly and remotely.

Moreover, in correcting parts storage code, Application Support engineers helped the warehouse to improve inventory accuracy to 99%, allowing personnel to focus on ensuring timely shipments rather than searching for lost inventory.

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