

US chemical company justifies upgrade with Parts Fingerprint Parts Fingerprint improves lifecycle management, reduces risk

With a comprehensive analysis of product lifecycle, customer spare parts and local ABB parts availability provided through the ABB Parts Fingerprint, a chemical company in Louisiana, USA had the information needed to make a sound decision on upgrading their control system to ensure high production availability

This chemical plant in Baton Rouge, Louisiana makes products used in agriculture, cosmetics, food and pharmaceutical industries. Plant managers knew that to ensure maximum production, they needed optimum availability of their ABB MOD 300 control system. To ensure system availability, they needed to make sure that all critical system parts were available when needed. So it was important to have complete knowledge of their existing system parts inventory, as well as a list of parts that needed to be stocked on-site, with regular reports on availability. Plant managers particularly wanted to know if gaps existed between critical high-risk spares that might be needed, and their actual on-site availability, so that they could mitigate risk of unplanned downtime.

Plant managers had an additional concern: they wanted to make an informed decision about whether to upgrade their aging MOD 300 control system. To make this decision, they wanted details on present and future availability of the existing system's spare parts.

Customer challenge



This chemical plant in Baton Rouge, Louisiana, USA, along the banks of the Mississippi River, makes products used in agriculture, cosmetics, food and pharmaceutical industries.

- Assess spare parts replacement risks
- Develop business justification to upgrade the control system
- Maximize production availability
- Ensure parts availability
- Optimize parts costs

ABB solution

The plant contracted with ABB to conduct an ABB Parts Fingerprint. ABB performs the Parts Fingerprint using the ABB ServicePro Service Management System, a software and web-based tool that significantly increases management visibility into service and maintenance activities, including parts availability and multiple risk assessment levels comprising risk to process, risk of replacement and risk of obsolescence.

The ABB Parts Fingerprint helped the customer to achieve their two main goals: gaining a thorough understanding of their control system parts situation, and reaching a decision on whether to upgrade their control system.

Parts Fingerprint

The ABB Parts Fingerprint evaluates the customer's parts management processes, including inventory, procurement and storage. The Parts Fingerprint reviews the plant's management process from initial purchase to replenishment and identifies potential parts gaps that might result in costly unplanned downtime if the gap is not closed.

The Fingerprint also identifies cost reduction opportunities.

Parts Fingerprint identifies gaps

Customers receive a detailed analysis of recommended part stocking levels customized for each operation.

System upgrade

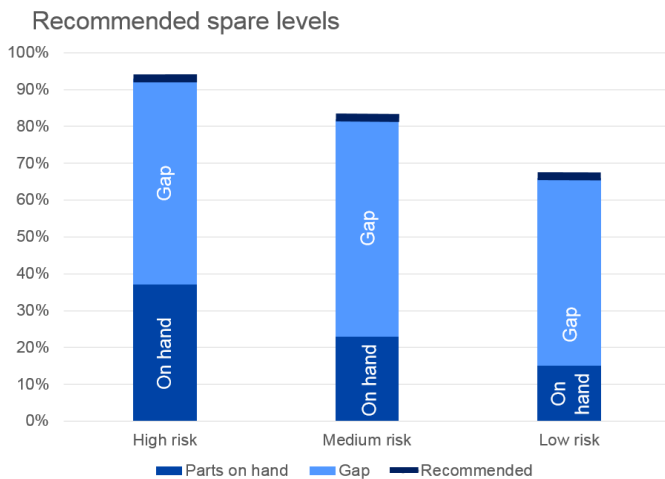
The plant was equipped with an ABB MOD 300 Distributed Control System. Although this system had been a steady performer for more than 20 years, it was aging, and system reliability problems were leading plant managers to assess whether it was time to evolve to a current technology platform such as ABB System 800xA. Managers knew that to make an informed upgrade decision, they would need accurate information about whether they could obtain critical parts for the MOD 300 System, for which obsolescence notifications were first issued in the mid-1990s.

The Parts Fingerprint provided plant personnel with the information they needed about the availability of critical system spares. This assessment showed that parts replacement could be problematic by identifying critical high-risk parts that would be difficult to source.

In addition to helping to justify a control system replacement,



To achieve continuous plant productivity, ABB has comprehensive evolution solutions for ABB heritage control systems such as the MOD 300 to the latest process control technology such as the ABB System 800xA. ABB helps customers develop evolution roadmaps by identifying potential obsolescence, cost and performance issues with the existing technology. Through services such as the ABB Parts Fingerprint, ABB develops financial justification for new investments that will increase plant efficiency and productivity.



An ABB Parts Fingerprint analyzes a customer's spare parts inventory and identifies potential gaps in inventory levels that might increase the risk of control system (and production) downtime. Spares are ranked by criticality to the operation and compared to recommended availability levels. This ServicePro Service Management System display shows how the parts are categorized into high-, medium- and low-risk groups. This information helped the plant to justify an investment in spare parts that closed gaps in inventory levels and thus reduced the risk of unplanned downtime.

the Parts Fingerprint laid the foundation for improved parts management by supplying a complete parts inventory, and listing all current spares along with information about their condition. ABB found that a large portion of existing spares were open, untested or needed repair, and recommended actions to rectify the site inventory.

The Parts Fingerprint additionally identified and evaluated the plant's gaps in spare parts coverage, and categorized the gaps into high-, medium- and low-risk groups to facilitate planning. The Fingerprint identified 48 parts where gaps existed; most were high-risk spares that should be stocked on-site for fast access. ABB provided information on costs and sourcing, including refurbished and third-party sourcing, to eliminate gaps and bring inventory to recommended levels.

Results

Customer benefits

With the ABB Parts Fingerprint, plant managers received the information they needed to optimize parts management. The plant mitigated immediate risk by eliminating parts gaps identified by ABB and by stocking critical parts on-site. Managers could also plan the repairs that would keep inventory in good condition.

Most importantly, using the Parts Fingerprint's comprehensive information on parts availability, managers made an informed decision about upgrading their control system. They have chosen to replace the aging ABB MOD 300 System with the latest technology.

The ABB MOD 300 System upgrade at had been an eight-year consideration that finally gained solid business justification after plant management asked ABB to perform the Parts Fingerprint.

The Parts Fingerprint proved to be so important that a plant manager said, "ABB vastly exceeded my expectations. This is now my parts document of record, and was exactly what I needed to justify the upgrade project."

Customer benefits

- Confidence in the ability to achieve high availability
- Critical information for capital decision-making
- Maximized system and process performance
- Reduced risk of unplanned downtime
- Optimized parts costs

Contact us

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