



## Nidec-Avtron - Project Overview

The Nidec-Avtron Automation Corporation, located in Independence, Ohio, brings systems and product expertise to the industrial automation market. Nidec-Avtron delivers value to its customers through automation services that thrive in heavy industrial applications where uptime and throughput are critical.

Nidec-Avtron manufactures alternating-current (AC), direct-current (DC), and switched-reluctance (SR) drive systems and encoders for applications in the industrial light-duty through heavy-duty markets, as well as the extreme-conditions market. The company offers diagnostic and productivity software in addition to encoders and drives, increasing their clients' productivity and profitability. They provide totally new systems or methods that upgrade legacy systems into greater performance for their clients.

### The Challenge: To Create an Efficient On-Line Configurator that Improves Customer Service for Ordering Parts and to Reduce Nidec-Avtron Overhead

Nidec-Avtron's encoders provide motor speed and position control for industrial motors such as those found in large cranes and windmills. They have approximately 50 encoder types, but within each type of encoder there may be thousands of permutations possible for specific industrial applications and customer preferences. The options for each encoder product are logically identified with numeric sequences to specify any desired compatible features, with the overall parts architecture being known as a "smart parts" system. A smart parts system is common in industrial manufacturing applications for products like encoders, motors, valves, and pumps.

Nidec-Avtron saves time and money and improves its customer service through the use of an on-line configurator for their encoders' smart parts. A configurator uses a set of rules — a rules engine — to allow clients to order specific encoders from within the larger set of allowable product features.

Nidec-Avtron reduces staff time while receiving orders and reduces errors because the desired encoder features do not have to be manually captured during a sales phone call. The configurator also keeps a potential client from ordering any incompatible features within a product being quoted. For example, a product made out of dissimilar metals needs to be avoided because premature corrosion would be the likely result.

Nidec-Avtron's legacy rules engine and encoder quoting program was organized in an Excel spreadsheet with more than 50 tabs and 800,000 cells. A third-party vendor then

manipulated the spreadsheet into an on-line configurator on the company's website; during this process some key functions of the Excel document were lost in translation. This resulted in excessive staff time to debug the system. Also, core knowledge of the conversion process was limited to one employee.

### The Solution: Adatasol's On-Line Configurator for Nidec-Avtron Motor Encoders

The system installed by Adatasol uses a "rules engine" to refine a customer's desired encoder features. As each customer selects individual features, the available encoder features remaining are continually filtered so that only the viable choices remain throughout the ordering process.

The Adatasol configurator is a web-based database product available on Nidec-Avtron's website, so there is no need to translate it from another media like a spreadsheet into an on-line configurator.

The Adatasol configurator allows for pricing adjustments based on a particular client and the order volume, which would be cumbersome for other configurators to accommodate.

The Adatasol system reduces a complicated smart parts ordering system into a clean method to define product features and obtain price quotes.

### Conclusions

The Adatasol system allows Nidec-Avtron to present a highly efficient, cost effective "smart-parts" configurator on their website without a cumbersome and error-fraught Excel conversion process. Errors are reduced because orders taken over a phone call are reduced.

Awareness and knowledge of the Adatasol configurator is spread throughout the Nidec-Avtron staff. The core knowledge of the system and process is not limited to one staff member as was the case with the legacy system.

The Adatasol on-line configurator does not require Nidec-Avtron to pay a fee per hit. This reduces overhead because potential customers that configure, but then do not order an encoder, will no longer trigger a fee.

Nidec-Avtron owns their configurator software and the data within it, so there is no concern about losing their customers or their data to an outside vendor.