

Kollmorgen

Automatic tests promote quality assurance, comprehensive documentation and enormous time savings - down from several days of testing to less than half an hour.

Kollmorgen has been developing automation solutions for more than half a century. Many people remember the company under its previous name, NDC, which in 2001 became part of the Danaher Group. One of the areas in which Kollmorgen leads the competition is in the development of systems for AGVs or Automated Guided Vehicles.

"Today our developers are working with the ninth generation of AGVs," relates David Lundqvist, who is responsible for software quality assurance. "We are highly competitive, not least when it comes to the vehicles' navigation, where we excel at all the relevant technologies: embedded loop, magnetic points, laser and Natural Navigation."

Kollmorgen handles product lifecycles of 10 years or more, which imposes extreme demands on both function and compatibility. Tests are a crucial part of the development process and also one of the most difficult aspects. "The tester is under pressure from two directions," explains David Lundqvist. "The developer wants to delay freezing the code as long as possible, while the salesman wants to get out onto the market as quickly as possible.



And at the same time, our systems keep growing and all the software must be quality-assured".

David's solution was to initiate development of a new test framework. Together with rt-labs a system was built for automated testing, based on standard components and the open-source model. Compared with what is available for purchase off the shelf, Kollmorgen was able to acquire five test stations instead of one, and at a fraction of the price. An additional bonus was that both handling and processes were far simpler.

"We save an incredible amount of time," reveals David Lundqvist. "We have examples of 25 minutes of automatic testing replacing several days of traditional tests. Compared with the manual option we can test so many more operational cases and since it is all entirely automatic, we can carry out our tests thousands of times if necessary. What is more, everything is logged and all the parameters are documented."

The next stage in development is to roll out this test method to system integration and customer products. Interest in test development has also spread within the Group. "Tests become a much more integrated part of development in this way. We can begin much earlier and we know what we are doing in an entirely different way compared with manual procedures. So the time gain gets us out onto the market more quickly, and the security of knowing that we are delivering properly vetted functions boosts our competitiveness," concludes David Lundqvist.