

Manufacturing

NDT Technologies



EPLAN passes the test

EPLAN brings structure, quality to documentation

Without the non-destructive testing systems manufactured by NDT Technologies Inc, the world might be a more dangerous and dirtier place. Non-destructive testing is used by steel mills and other casting industries to check new rails and wheels for railways, pipes for pipelines, engine blocks for automobiles and more for defects or imperfections invisible to the naked eye that could cause premature wear or worse, a catastrophic failure. Non-destructive testing, including laser profiling, hardness tests and magnetic particle inspection, is highly efficient and far more cost-effective than any other testing

Testing equipment efficient means of flaw detection

NDT Technologies, located just west of Montreal, has been a leading supplier of integrated, automated non-destructive testing and measuring systems since 1981. The Canadian company's testing systems are primarily custom-made and fully automated, employing ultrasonic, eddy current, electromagnetic, digital optical vision and laser technologies. Many of its systems feature fully integrated robotic materials handling and real-time analysis. The company's products tend to be very large. Michel Laberge, director of the electrical/automation department, invites a visitor to consider the length of the NDT production hall. Its largest testing systems, he points out, are as long as the building and contain



PROCESS CONSULTING

ENGINEERING SOFTWARE

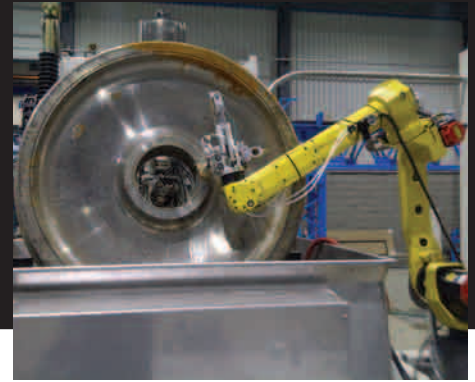
IMPLEMENTATION

GLOBAL SUPPORT

FRIEDHELM LOH GROUP

Manufacturing

High quality documentation makes big difference



several control panels, making each quite an engineering undertaking. Customization is a cornerstone of NDT's philosophy, but it also places added responsibility on the engineering phase of order fulfillment. "Whatever you want as a design we will make it happen," says Laberge. "Others build a machine first and sell it after. We do the opposite."

EPLAN brought professional documentation, with translation

That makes the documentation for each system a unique and often extensive package. There were many potential benefits for NDT in adopting EPLAN Electric P8 in 2008, but the single biggest reason, says Laberge, was it gave NDT the ability to improve the quality of its documentation packages. NDT's customers in over 15 countries expect accurate, well-structured, high quality documentation, and the company wasn't able to deliver that using a combination of AutoCAD and AutoCAD Electrical. In fact, the company's experience with that AutoCAD combination was "a complete disaster", says Laberge, the lead engineer on each project, in charge of three other EPLAN users. One of NDT's biggest

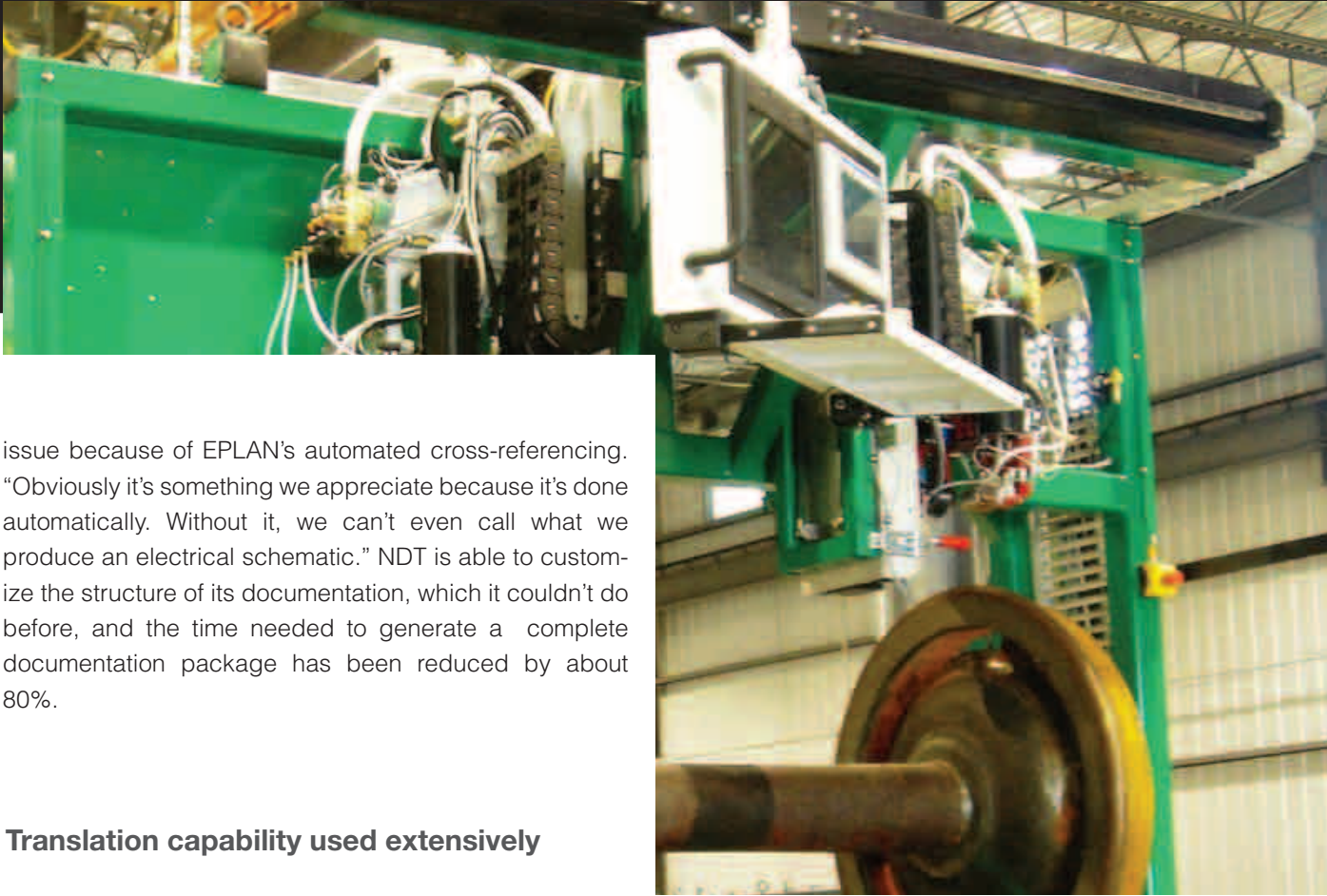
"It was very bad quality (using AutoCAD). You don't look professional when you give something to a customer that contains mistakes and stuff like that. We are building professional machines, our customers expect professional documentation. When you build large systems like ours and you have, let's say a relay, every time you put in a contact you need to relate it to the same page. (With AutoCAD) it was impossible to do a big schematic and not make mistakes in the cross-referencing."

Automated cross-referencing makes enormous difference

EPLAN, which Laberge discovered via a demonstration CD, brought about a 180-degree improvement in documentation quality. Most of NDT's products are sold to customers overseas. The credibility of documentation now is assured by some of the features Laberge and his crew appreciate the most. Errors in cross-referencing data no longer represent an

PROCESS CONSULTING

ENGINEERING SOFTWARE



issue because of EPLAN's automated cross-referencing. "Obviously it's something we appreciate because it's done automatically. Without it, we can't even call what we produce an electrical schematic." NDT is able to customize the structure of its documentation, which it couldn't do before, and the time needed to generate a complete documentation package has been reduced by about 80%.

Translation capability used extensively

NDT is also making extensive use of Electric P8's foreign language translation capability to provide overseas customers with documentation in their own language, like Russian and Czech. "We use that all the time, it's very important for us," says Laberge. Schematics are translated automatically in a single process as are lists like Bills of Materials. This gives NDT the capacity to output mono- or multilingual schematics in 17 supported languages.

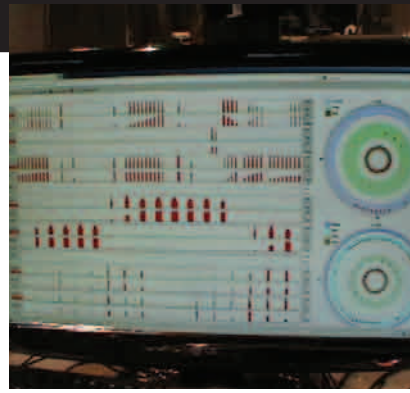
Creating the schematics for most projects can take 1-2 months. Over time, switching to EPLAN has reduced total design time by as much as 50% compared to what it used to require using AutoCAD as a primary tool, and the quality is better, too. "If we tried to do a project in AutoCAD in the same time we do it in EPLAN now, the quality would be

pretty poor." Revisions are faster, and with EPLAN's automated report-generating capability, there is no longer a need to compile individual reports and lists in Excel after creating the schematics, another major time-saver factoring into that 50% overall reduction.

EPLAN also is used to manage the company's component database. "I really like the parts management system," says Laberge. "I had our IT department make a small application that allows us to access the database in EPLAN. So now we have thousands of parts listed there. I think it's up to 12,000 now. All the parts we use." That, in turn, has created a 30% improvement in purchasing efficiency and has made it easy for Laberge's staff to produce reports like spare parts lists for customers.

Manufacturing

Summary NDT Technologies



NDT wanted better documentation, got it from EPLAN

NDT Technologies felt a strong need to upgrade what it considered substandard documentation it was generating with AutoCAD for its custom-built, non-destructive testing systems. Manual cross-referencing was a particular source of errors. NDT turned to EPLAN in part to get the customizable reporting capability (with automated cross-referencing) it needed. Thanks to EPLAN, it now is generating highly accurate, high quality reports, and doing it in just a fraction of the time. It uses EPLAN's foreign language translation capability to convert the package into the languages of its overseas customers. With these and other EPLAN features, NDT has realized an approximate 50% reduction in total engineering time per project and has enabled the company to improve its parts management by centralizing its parts database – some 12,000 components – in EPLAN.

Find out more about NDT Technologies Inc at www.ndt.ca

EPLAN Canada
5430, rue J.A. Bombardier, 2 ième étage,
St-Hubert, QC J3Z 1H1, Canada
Phone: +1-450-462 3582 FAX: +1-450-462 3582
Email: info@eplancanada.com

EPLAN Software & Service GmbH & Co. KG
An der alten Ziegelei 2 · D-40789 Monheim am Rhein
Phone: + 49(0)2173 3964-0 · Fax: + 49(0)2173 3964-25
E-Mail: info@eplan.de · www.eplan.de



ePLAN

PROCESS CONSULTING

ENGINEERING SOFTWARE

IMPLEMENTATION

GLOBAL SUPPORT

FRIEDHELM LOH GROUP