

ENGINEERING DOCUMENTATION IN MANUFACTURING CASE STUDY



ABOUT THE CUSTOMER

Located in a southern state of the US, the customer is a recently constructed assembly plant. On three lines, each over a quarter of a mile long, over 1,000 employees assemble, dress and test industrial diesel engines.

BUSINESS CHALLENGE

When the plant was handed over to its operator all the CAD drawings were provided in a single large cardboard box containing about 100 DVDs from various equipment vendors and subcontractors. Production ramped up very quickly with over 50,000 engines produced in the first 18 months. In all this time the maintenance and engineering staff who were busy fine tuning the production were going to the box of DVDs to find reference drawings. From a quarter mile long line this often involved a long walk even before the tedious searching through poorly labeled DVDs. Also, drawings were being copied off and edited but there was no system to manage and record the changes. It was clear to management that urgent action was required to create order in the drawing archive.

SOLUTION

After reviewing EDMS systems on the market the plant's Manufacturing Engineering Manager selected Trix Organizer based on the breadth of its capabilities and the ease with which he saw it could be used by relatively unskilled line operators.

IMPLEMENTATION

In advance of Trix Systems' arrival on site the Engineering Manager appointed a quality assurance engineer to manage the implementation project internally. A three-person team from Trix Systems then spent an initial week on-site interviewing key personnel about their business processes and examining the existing CAD drawings.

It was determined that the most logical way to find drawings was to classify them by assembly station and then by process. In conjunction with the IT and Production departments it was decided that the easiest way to make the drawings available was to install Trix Organizer Web clients on the workstations that were already in use at each assembly station. The operators and maintenance staff were using a Browser based interface to access work orders so the Trix Organizer client would easily fit the existing paradigm.

The review of the DVDs showed that many of the vendor drawings contained consistent attributes in their title blocks. Trix Systems was able to capture these so that import of the drawings into the system automatically extracted this title block metadata.

Towards the end of the week a pilot installation was created and demonstrated. With some small changes the design was approved and the Trix team then spent the weekend configuring the system with descriptive metadata. On Monday the new system was loaded onto the company's existing SQL Server and the IT department was shown how to push install Trix Organizer clients to engineers and line stations.

Considerable attention was paid to CAD processes and the optimum method for loading documents into the system. The deliverable after 7 days on-site was a fully configured software system and a comprehensive implementation report that included detailed instructions for how data should be loaded by the in-house CAD operators assigned to this task. From this point on the in-house engineer assigned to the project managed the loading process so that it went live with high quality, trustworthy, data.

BENEFITS RESULTING FROM INSTALLING TRIX ORGANIZER

Drawings immediately and easily found

Users don't need to leave their stations. In their Web Browser client they drill down logical trees and apply simple filters to find and view their drawings and manuals.

Only the latest approved revision displayed

All prior versions are hidden from regular users. They are retained and available to higher level users.

Collaboration

The system's redlining tools enable users to contribute to and see the markups made in drawings and documents.

Warning that a file is being changed

Padlock icons indicate when a file is checked out for editing. Only one person can edit a file at a time.

No need for external viewer

The system's built-in viewer means that users do not have to open additional applications in order to view their drawings and documents.

History of changes for all who need to see it

All changes must be recorded and attributed so users have a reliable and complete history of changes made.

Rich Reporting

Document Controllers and Managers can print out or export detailed document status reports.

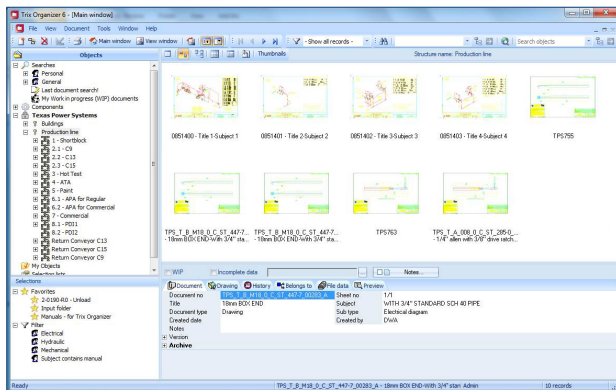
Automatic Attribute Extraction

Metadata is automatically collected from DWGS when vendors send in new files to be added to the system.

Strict Security

Given the proprietary nature of all the documentation the system absolutely protects from unsanctioned copying or improper user access.

For more information contact 978 256 4445 or sales@trixsystems.com.



"Even before the official roll out I was using it to find drawings because it was so simple to use."

Quality Engineer at Customer



GOTHENBURG | STOCKHOLM | BOSTON | LONDON

We deliver turnkey document management systems designed specifically for the robust requirements of the engineering world. Product development is in-house and we quickly respond to emerging needs, so our clients enjoy customized solutions with all the reliability and reasonable pricing of standardized software.