

>> AISC's MTR Manager

AISC's software for digitally managing and exchanging Material Test Reports (MTR) saves time and effort for steel mills, service centers, fabricators and designers.

■ Business Challenge

The mission of the American Institute of Steel Construction, Inc. (AISC) is to make structural steel the material of choice for the construction industry. As part of the activities to achieve this goal, AISC developed the Advance Shipping Notice (ASN) Standard as part of its eCommerce initiative. The ASN Standard is an XML-based schema that allows suppliers and customers to exchange information about the steel parts being supplied. Part of the information that an ASN can include are the Material Test Reports (MTR) of the parts, which describe their physical and chemical properties. Typically, MTRs were being exchanged as paper documents that had to be filed in cabinets.

When AISC approached Scio, the ability to send ASNs that contained digital MTRs existed. However, there was no available mechanism to receive, store, index, recall, separate, extract or transmit MTR data. In order to facilitate the full implementation of AISC's eCommerce initiative, it was necessary to build a software application to enable steel fabricators and builders to exchange and manage digital MTR data effectively.

■ Solution

AISC brought their requirements to Scio and asked for an application that could be easily distributed to end users and that provided an easy to use interface to enable users to import, index, store, and retrieve MTR data efficiently. Since the objective was to create an application that would become an industry standard, it was also important that the system handled MTR data with accuracy and integrity, so that it was seen as a reliable tool that facilitates the exchange of information.

In response Scio developed the MTR Manager, a Windows-based application, which provides a local database for managing MTR data. The application provides a flexible indexing process to allow each shop to index MTR data according to their own needs. Also, in addition to handling XML-based documents, the application has the ability to work with scanned images of paper MTRs, which can be manually indexed. The MTR Manager integrates seamlessly with the peripherals and communication tools of the computer system where the software is installed, so that it can use printers, network connections, and e-mail programs. Scio provided services in requirements validation, software design, programming and testing. Additionally, Scio developed an accompanying user guide to help users install the system and start working with digital MTR data.

The application was developed on the .NET framework with C#, using an MDB (Access) database for storing MTR data. The application was optimized for footprint; the installation package is only 1.4 MB in size and is available for download to registered members from AISC's website (www.aisc.org).

EXECUTIVE SUMMARY

Customer Name

The American Institute of Steel Construction

Industry

Steel Construction

■ Business Challenge

- Transform the existing paper-based exchange and filing of Material Test Reports for steel parts to a digital format
- Promote the use of AISC's XML standards for exchanging steel part information
- Provide a flexible filing system for indexing data according to the needs of each user organization

■ Solution

- Developed a Windows-based application with a local database that provides a "virtual cabinet" for filing MTR data
- The application enables filing both digital (XML) data as well as scanned images of paper documents
- The application was optimized for size to allow easy distribution over the Internet

■ Business Value

- AISC's tool helps expand use of its digital standards
- Users save time and effort in filing and retrieving MTR data
- AISC position as an industry leader is consolidated

■ Business Value

The development of the MTR Manager allowed AISC to offer the members of the steel construction industry a simple, yet robust and effective tool to foster the exchange of MTR data in digital format. This, in turn, is helping to expand the use of the digital standards of AISC's eCommerce initiative across the industry, positioning AISC as an industry leader.

To the users of MTR Manager at steel mills, service centers, steel fabricators and design shops, the application saves them time and effort in filing and retrieving MTR data, allowing them to concentrate on their core functions.

Quotes from AISC:

"Instead of having boxes and boxes of these MTRs, this allows users to store them electronically," explained Luke Faulkner, AISC's Director of Technology Initiatives. "Plus it's pretty simple to use. Users can easily sort by a wide variety of fields, such as heat number, weight, section size, etc. There's a field to index by no matter how your shop is organized."

"There's a jungle of paper out there," stated Rex I. Lewis, vice president of Puma Steel in Cheyenne, Wyo. and chair of AISC's Information Technology Committee. "We continue to regenerate the same paper. The steel mill produces it in triplicate and sends it to the service center which then regenerates it to all the customers who buys from that heat and then the fabricator reproduces it for each job file using that heat. The paperwork keeps multiplying. Our ability to put that in a digital file system that allows us to generate the paperwork on demand is easier and less expensive. It allows us to get the information as required and in time will give us the option to forward the data in a paperless format to the consumer of this information - that is, the owner or designer."

■ Next Steps

As a partner in this effort with the customer, Scio will be involved in maintenance of the application as well as ongoing enhancements over the long term.

For More Information

- Scio Development Center
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