

Turbo charging the supply chain

Without a doubt the steel industry in Australia and New Zealand is currently experiencing some of its toughest trading conditions. Never before has the need to work together been more important to develop and implement industry-wide solutions to help us all reduce our costs of doing business and at the same time lift the performance levels of our value chain both in terms of services and traceability.

To that end, under the auspices of ASI National Manager – Industry Development, **Ian Cairns**, we have recently reformed the ASI Steel IT Systems Group with a specific charter to assist the Australian and New Zealand steel industries through the development and application of open architecture electronic trading solutions across the entire industry base.

Originally formed in 2004 to look at supply chain improvements with a priority on standardising B2B/e-Commerce standards for the industry, the group was responsible for the successful development and implementation of the ASI B2B Open Standard Protocols for purchase orders, advance shipping notifications, test certificates and invoices.

Not content to rest on its laurels, the Group comprising IT and supply chain specialists from the major steel manufacturers, distributors and roll-formers on both sides of the Tasman are currently focussing on four broad areas for improvement, namely:

- Utilising and promoting existing B2B protocols to facilitate efficient transactions within the industry
- Identifying and actioning opportunities to improve industry efficiency and cost reduction opportunities for the industry
- Promoting Australian and New Zealand fabricated steel in terms of quality and traceability

Specifically, this translates into:

1. Lift the profile of work undertaken through case studies and good news stories so that the B2B protocols are more widely adopted across the industry and the benefits shared
2. Investigate opportunities to improve visibility of order status (and unlock other efficiencies) by initiating B2B with transport providers utilising standard protocols
3. Review, update and endorse common barcoding standards for the industry to promote consistency in the presentation of information and facilitate efficiencies through scanning technology. In the longer-term, support and provide opportunities for applying smart phone technology from manufacturing right through to delivery to building sites.
4. Continue to support the ASI B2B open protocols on a sustainable basis though the establishment of a dedicated resource section on the ASI website (<http://steel.org.au/asi-committees/steel-it-systems-group>)
5. Work with the ASI to understand and advise on emerging developments in the engineering and construction industry, specifically the application of Building Information Modelling (BIM)

To help us in these endeavours we will look to widen the membership of the Group particularly from fabricators.

As a first step, and recognising that GS1 standards form the 'backbone' to our B2B protocols we have invited Industry Manager – Trade & Transport from the organisation authorised to administer GS1 Barcodes in Australia, **Bonnie Ryan** to join the group. Her participation will help us on a number of fronts of common interest and brings to the table the global resources of GS1.

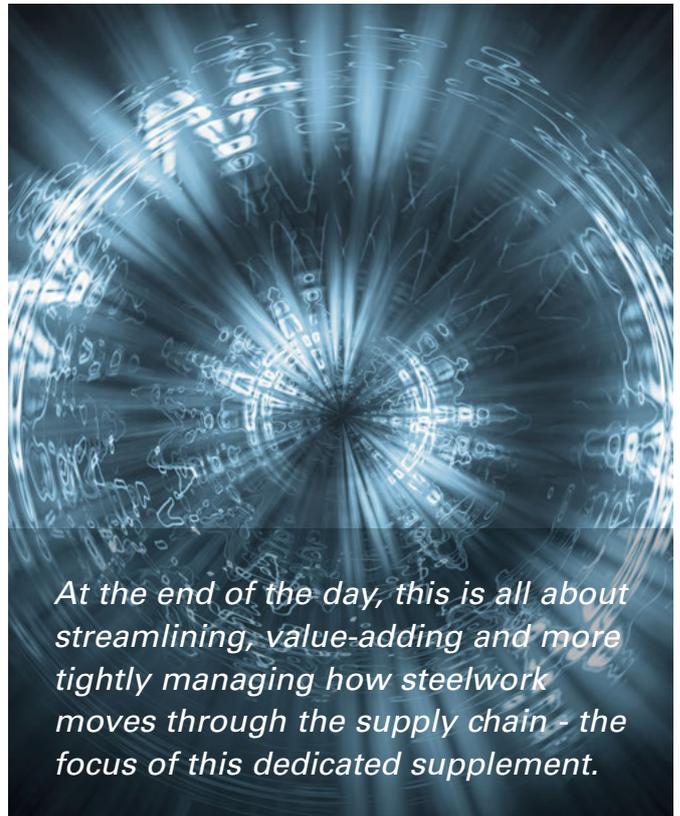
Furthermore, through our involvement with the Australian Logistics Council Intermodal Interoperability Work Group we have a seat at the table in establishing common B2B standards for the transport of our products.

The following pages provide updates on key B2B initiatives being undertaken across the supply chain with the likes of CMC Coil Steels, Fletcher Easysteel NZ, OneSteel and Southern Steel. And from the next edition, B2B Steel IT Systems will be a regular feature in this magazine.

At the end of the day, this is all about streamlining, value-adding and more tightly managing how steelwork moves through the supply chain - the focus of this dedicated supplement.

I hope that this helps provide inspiration for your own business improvements moving forward.

David McNeil
Chairman
ASI Steel IT Systems Group



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OneSteel praises CMC upgrade to purely paperless purchasing

A joint project that has seen CMC Coil Steels successfully migrate to fully electronic trading has earned the company a nomination in the 2012 Outstanding Service to Customer Awards (the OSCAs) from OneSteel.

The joint project has allowed OneSteel to accommodate additional order volumes from CMC Coil Steels after being appointed national ASI distributors for OneSteel Rod & Bar and Australian Tube Mills (ATM) businesses without it having to hire additional staff to service customer fulfilment or in other parts of the business.

Equally, CMC Coil Steels has attained efficiencies across its business as staff who would otherwise have been engaged in non-value adding tasks of entering data have been freed up within the CMC business. By way of example, in a typical month CMC Coil Steels would place 130 purchase orders with OneSteel Rod & Bar which equates to around 300 purchase order acknowledgements (POA).

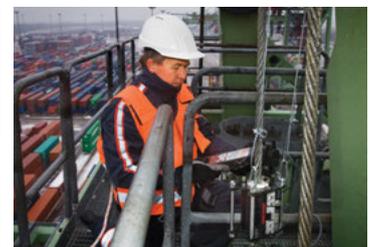
In turn this results in 200 Advanced Shipping Notifications (ASN) comprising 1000 bundles (3000 tonnes), 200 Invoices and adjustments with 900 lines of information. All of this information is now being handled electronically. OneSteel Manufacturing's Market Offer Execution Manager in Sales and Marketing, **David McNeil** said the successful completion of this project clearly demonstrated that his company can successfully develop and implement a robust B2B

solution that delivers real value to its trading partners, such as CC. "By working to the ASI B2B protocols we not only unlocked value for our customers in dealing with OneSteel by reducing the cost to service, we also assisted our customers to attain greater savings by rolling out these B2B solutions with other trading partners such as BlueScope Steel," he said.

The project team comprising CMC Coil Steels Applications Support Manager, **Richard Wilson**; Business Systems Analyst - E-Trading with IS Corporate, **Mick Stoneman** and OneSteel Australian Tube Mills (ATM) Demand Manager, **Chris Kwan** worked closely through the development phases over 12 months.

The team started by ensuring they were thoroughly across each other's systems and business capabilities and then went about aligning master data, market offers and ordering processes. Next was identifying a suitable pilot site and establishing connectivity in a test and production environment before nationally rolling out the system. All of this work was accompanied by regular team meetings where plans and tasks were monitored. This included go-live meetings and review of key metrics post go-live including monitoring the number of documents being processed both manually and electronically.

Overflow



Cranes operating in Australia are required to undergo Assessment for Continued Safe Use when the Design Work Period (DWP) has expired or based on the calendar periods stipulated by AS 2550.1 2011 if the DWP cannot be adequately ascertained. Konecranes "Crane Reliability Survey" (TM) Inspection program provides cost effective solutions, ranging from Third Party Inspections and Major Assessments to Major Inspections, with added benefit of Engineering Conditional Recertification and NATA Accreditation.

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Keeping track of test certificates

By Sublime Group Regional Account Manager, SHANE WILLS,
Fletcher Steel Group IS&T Manager, ROBIN WATTS and
Easysteel National Business Development Manager, NEIL WATSON

New technologies of document scanning and matching partnered with ASI Electronic Data Interchange (EDI) standards are now delivering benefits to New Zealand's Easysteel and their customers whilst helping build confidence in a market that demands ever more rigorous traceability and documentation of steel products.

When a steel mill manufactures products that are likely to be used in the construction industry, those products are usually subject to rigorous testing to ensure their structural integrity. These results are typically recorded on a test certificate.

The specific items that are used to identify test certificates and the composition of the physical steel itself can be different for different mills globally. In New Zealand and Australia they must meet local standards.

Most test certificates contain a 'Heat' number which represents a batch of steel that should have uniform chemical and mechanical properties. A Heat may be manufactured into different products with different geometric properties and is usually assigned when steel is removed from the ladle at the mill.

A heat number is similar to a lot number used to identify production runs of any other product for quality control purposes and is the most consistent identification used in the steel industry.

A test certificate for a rolled steel product documents uniform chemical, mechanical and geometric properties. There may be multiple bundle/lot/identity numbers associated with a test certificate.

The traceability requirements for structural steel are being tightened and extended, partly as a result of the Christchurch earthquake and partly due to increased awareness within the New Zealand and Australian markets which now expect a test certificate will be required soon for all deliveries of structural steel.

For a reseller such as Easysteel in New Zealand, this can get complicated as steel can be brought from mills directly, or in some cases via a trader/broker. Each mill can have a different test certificate system with some emailing a copy of the certificate to the purchaser, some hosting an online portal for retrieval and others providing a paper certificate that arrives with the shipping documents. If acquiring steel through a broker or trader this adds another level of complexity.

Easysteel had no easy way to aggregate test certificates from these various sources and then provide an archive and retrieval system for their customers. Customer service and sales staff were spending hours searching for test certificates which could be in with the shipping documents, in a staff member's email, scanned into a document management system or needing to be retrieved from the producing mill's website, depending on how the steel product was purchased.

An Auckland-based IT solutions company, the Sublime Group was asked by Easysteel to review the process to see if they could develop a concept to streamline the workflow and give better product assurance for the business and its customers.



The first phase of the project has been implemented with Sublime developing a web-based system that archives test certificates received via email or scanned in as paper copies and scraping the metadata from these to match against the purchase order (PO) item data from the Easysteel business system. The process of matching test certificates to PO items for test certificates received by email or paper is manually completed by the buying team within the solutions workflow engine.

Considerable time can be saved if the test certificate is sent by EDI as this can include both the test certificate as an embedded PDF as well as all the data needed to make a positive match to the PO and item.

Within the solution portal, Easysteel buying staff can now see all products that they have bought and the test certificate has been provided and matched to the purchased product. Sales staff can search for a test certificate by the heat number or PO number and either print or email the test certificate to their customer.

Work is underway at Easysteel to alter parts of the warehousing workflow to enable matching of the stock item number to the heat number when an item is picked for dispatch. Once this is completed Sublime provides data feedback to Easysteel, allowing hard and soft copies of the certificate to be generated for the customer's record when the order is dispatched.

In Australia, OneSteel has offered just such a certificate based on the ASI's EDI standards. This has enabled automatic matching with big time savings and a high level of accuracy.

OneSteel Laverton leads way in product ID scanning

Balancing the sometimes conflicting needs of operational efficiency, inventory accuracy and superlative product traceability is a challenge that all manufacturing businesses in Australia and New Zealand face every day.

How OneSteel's Laverton Steel Mill in Melbourne, Victoria met this challenge over the past few years in an innovative and effective manner is worth examining and provides a benchmark for other operations to replicate.

With an annual output of around 600,000 tonnes of steel, OneSteel Laverton is producing around 250,000 bundles and coils of steel, each requiring a unique identification. In the words of Manager Laverton Rolling Mills, **Brian O'Connell** that typically translates into 1700 daily transactions (150 for Cycle counting, 1500 load despatch for Coil and Bar, 50 for transfers) each requiring recording and data entry.

"If this work is done manually then processing this information introduces capture and transcribing errors as well as data keying errors and can result in undesirable data integrity issues," Mr O'Connell said.

To address this issue Laverton has developed and installed a comprehensive barcode scanning solution across its entire operations comprising a wireless network across the work site coupled with dedicated mobile radio frequency (RF) scanners interfaced with the JDE ERP systems used at Laverton.

As described by Logistics and Reprocessing Superintendent, **Alan Tiley** these mobile units are essentially putting a computer terminal into the hands of the warehouse personnel out on the shop floor, whether that is picking product for loading onto the back of a truck, right through to carrying out inventory stocktakes with 24/7 coverage anywhere on site.

"Having this sort of mobility and efficiency at hand also allows for online bundle status validation making it virtually impossible to load a bundle that might be 'On Hold,'" he said.

"We've estimated that having the scanning solution saves us 10 minutes for every truckload by eliminating writing down bundle and item numbers," Mr O'Connell commented.

"Once you multiply that out over a 12-month period you're looking at savings up to \$200,000."

In July Laverton also became the first operational site in OneSteel Manufacturing to implement the new standard product tag – 'OneTag'.

According to Manager Business Development OneSteel Mills, **Peter Dawson** the new tag is applied once and completes the full lifecycle right through to the final end customer.

"We want our customers to get as much efficiency from our barcodes as does our Laverton operations."

"In developing the new tag, our IT Manager at Laverton, **Tanyol Halil** worked very closely with GS1 Australia and Zebra Printers to come up with a tag that incorporates the latest thinking with both a GS1-128 barcode and a GS1-DataMatrix.

"By working with GS1, off-the-shelf equipment should be able to read the tags and via use of the DataMatrix smartphones can also read the tags and unlock the stored product information.

"Furthermore, by combining the material number (GTIN-14) and the unit identification into the one string in the barcode we've not only uniquely identified the material, we're also nicely positioned to look at the adoption of RFID technology sometime in the future."

"The steps forward that OneSteel has been making in the identification of their products is quite amazing and has the potential to help revolutionise the industry," said Senior Advisor - Industry Engagement at GS1 Australia **Catherine Koetz**.



A warehouse operator at Laverton scans a coil of 12mm deformed reinforcing bar using the mobile scanning device. The 'OneTag' label clearly shows all the relevant product information and two barcodes being printed – the GS1-128 barcode and the GS1-DataMatrix with clear reference to ACRS Certification.