GS1 Australia

The Global Language of Business

AUSTRALASIAN RAILWAY ASSOCIATION

Project i-TRACE
Let's get moving!
Overview

Background

Project i-TRACE, The Australian Rail Industry has a massive task to ensure the optimum quality of Maintenance Repair and Overhaul (MRO) processes. Efficiency is heavily reliant on effective supply chain management practices to assure material availability of the right quantity, the right quality, at the right place and time with minimum effort and cost.

Today, our industry is far from best practice when it comes to inventory management and stock control; manufacturers, operators and contractors alike agree that a collaborative industry approach to improving the inbound materials supply chain to the rail industry will have significant, positive bottom-line effects for individual organisations and for the industry as a whole.

Since January 2015, the Australasian Rail Association (ARA) has been driving an industry initiative in partnership with GS1 Australia to standardise the way objects in the rail industry supply chain are identified and marked. This will help all stakeholders to effectively identify products, electronically capture information about them and then share that information with relevant parties. The ability to do this at optimal cost relies on open global standards that all parties in the rail industry value chain can leverage.

The objective of this project is to set an industry standard for those organisations who wish to implement automatic data capture (barcoding and/or tagging) in their organisations and value chains. It's not compulsory to do so.

Parts and Components Identification

Standardising the way parts and components in the rail industry supply chain are identified and marked will bring industry wide efficiencies including:

- Reduced inventory write-offs and waste; optimal inventory management

- Improved maintenance and repair operations

- Improved traceability and warranty management fundamental for lifecycle tracking

- Reduced costs through fewer transaction errors and better quality data

- Elimination of non-value added tasks by enabling automation of manual processes.

The objective is to be able to follow an asset or component throughout its lifecycle (including maintenance) from procurement to disposal.

The ARA has worked with GS1 (who manage open global standards) to develop an industry guideline to assist members to implement the agreed standards. Download the guideline at www.gs1au.org/rail-aidc-guideline

A snapshot

The guideline tells you why and how you should go about adopting industry agreed standards for identifying and marking parts and components.

The materials to be identified include:
- Consumables
- Capital Equipment
- Rotables
- Non-rotables

GS1 has a broad range of identification standards which capture information on a barcode or RFID tag.

"We saw the opportunity to leverage the OneSteel product tagging technology and implement it in our incoming processes, removing considerable amounts of paperwork, reducing processing time by 90% and error free receipting of inbound materials."

Pat Mahony
Plant Manager, Pandrol Australia

"Working with GS1, we began a project to standardise how we do our product identification across our operations and it's been a very successful exercise."

David McNeil
eCommerce Manager, InfraBuild (formerly OneSteel)

As per industries such as retail and healthcare, adoption of a common language offers consistency, cost savings and lays a solid foundation for the automation of the rail industry supply chain.

The primary identification elements that have been agreed by industry are:

- Locations
- Trade Items
- Assets
- Logistics and Transport Units

Additional information such as serial numbers, batch and lot numbers, production dates, expiry dates and other relevant information can be captured within a consistent framework. This means that information can be more easily exchanged regardless of different stakeholder computer systems.

In the past 40 years, over 2 million companies across the world have implemented GS1 standards for item identification including all major consumer brands.

Standardising the way materials in the rail industry supply chain are identified and marked will bring industry wide efficiencies.

Major rail suppliers have implemented GS1 standards

Why would I want to implement standards?

Rail and network operators will have a universal baseline for identifying parts and components when they are received from suppliers – this will enable improved inventory management which will translate into lower cost of doing business and better quality asset management practices.

Manufacturers will have a common, agreed industry standard to work with in relation to barcoding and tagging their parts and components. This will eliminate ambiguity of requirements from customer to customer providing certainty of a ROI as it can be leveraged across multiple stakeholders.

Contractors will be better placed to capture and provide accurate maintenance history of assets to both customers and suppliers; an agreed standard will enable information upstream and downstream much easier to get and to provide.

Systems Integrators and solution providers will have clear direction as to the industry's requirements in relation to identification codes and data capture technologies to aid successful implementations.

The industry as a whole will benefit by lowering its overall cost base making the industry more competitive and more profitable. Removing unnecessary cost and waste in the way it manages materials and assets, is critical to the long term health of the Australian Rail Industry.
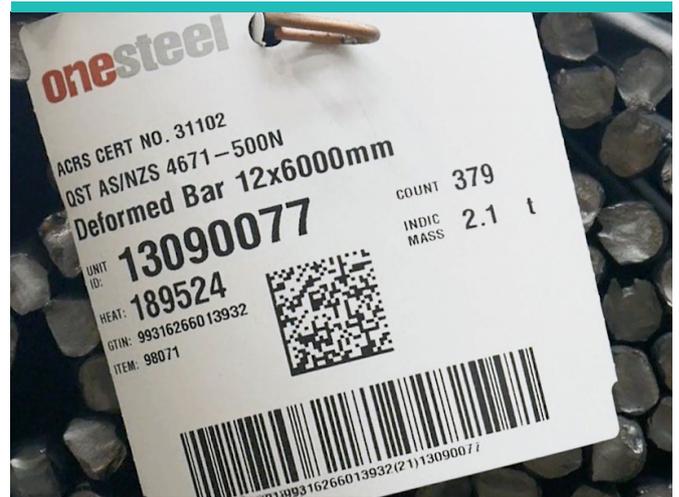
Bundles of steel labelled with GS1 standards

FAQs

Why should my company be involved?
This initiative will deliver better control of inventory, saving your organisation time and money. It will also allow for automation and an improved customer focus.

What does this mean about the electronic system I already have in place?
GS1 standards are technology agnostic and therefore not dependent on any specific software platform. While changes may be needed to your system they are likely to be cost comparable to changes you would be making to your system anyhow. Major software vendors such as SAP, Oracle and Microsoft have built in support of GS1 standards in their solutions. Any changes required will depend on your specific circumstances.

How does this link to master data and transaction data?
Master and transaction data is often riddled with errors adding cost to operational processes. Most companies have challenges around maintaining the integrity of material master data across the supply chain; unit of measure alignment is a typical example of discrepancies which impact the accuracy of transactional outcomes. Having consistency in how information is interpreted will result in better quality data for all parties and particularly critical for effective system to system integration efforts.

Why did the rail industry choose GS1 standards?

GS1 standards are the most comprehensive and widely used supply chain standards in the world. They are open, global, industry and technology neutral providing wide choice of available technologies and confidence that any investment based on GS1 standards will be scalable and future proof.

My company uses AAR standards. How can I also use GS1 standards?

GS1 standards will fill specific supply chain process requirements; they can also co-exist with AAR standards where necessary.

What support does GS1 provide?

GS1 is a global organisation with direct representation in 112 countries. The national GS1 office has 156 staff based in Melbourne and Sydney supporting multiple industries including the rail sector. It provides a range of services to assist industry with their GS1 related projects. For more information please visit
www.gs1au.org/for-your-industry/rail

What do I have to do?

The guideline will help you, however, the first step is to get your unique Global ID company code by joining GS1. Visit
www.gs1au.org/how-to-get-started

Looking to the future

Laying the correct foundations for the industry will mean that more advanced supply chain and asset management processes will be easier and more cost effective to achieve. Simplifying the identification of parts and components will enable tracking and asset management systems to more easily integrate information across organisational boundaries – **connecting the end to end value chain** for the benefit of the entire industry.

Increasing the opportunity for automation in:

• Procurement to payment processes

• Life cycle management of components

• Warranty management

• Inwards goods receipt

• Advanced warehousing processes

• Transport management processes

Global project

For asset owners, Global standards will be a critical enabler to effective asset management and the implementation of ISO 55000, supporting your AMS with improved data quality. This Australian initiative is aligned with a parallel EU program with rail operators and network managers, including Deutsche Bahn, SBB, Network Rail and SNCF, as well as multinational equipment manufacturers – Siemens, Alstom and Knorr-Bremse.

Who has been involved?

A wide range of ARA members including operators, track managers, contractors, suppliers and manufacturers have been involved in the industry work group. These include those organisations listed below who have also noted their contribution to the industry guideline:

Supported by

ABB   ARTC   BHP   Downer   KiwiRail

KNORR-BREMSE   InfraBuild   METRO   MINERAL RESOURCES

PANDROL   Public Transport Authority   QueenslandRail   SIEMENS

Transport Sydney Trains   UGL   UGL UNIPART   V/Line

For more information contact:

Bonnie Ryan
Director
Freight, Logistics and Industrial Sectors
GS1 Australia
E bonnie.ryan@gs1au.org

Australasian Railway Association (ARA)
T (02) 6270 4501 **E** ara@ara.net.au

CONNECT WITH US

9 312345 024292 >