

Warehouse Management System at Western Port

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A Warehouse Management System (WMS) has been successfully implemented in the Despatch Warehouse at Western Port. The project was envisaged and managed by the Supply Chain & Processing Development Group in collaboration with the Site and IS personnel.

All coils produced at Western Port pass through the Warehouse either for despatch to customer or as feed for the Paint lines. Coils enter via the Warehouse primarily via the Pack line conveyor and leave via road, rail or coil transporter. Three overhead cranes are used, one of them fitted with a coil magnet. The WMS software was provided by 3tn, a German supplier who specialize in material management software for integrated steel mills. 3tn systems are used by Thyssen Krupp, Salzgitter and other European steelmakers. Unlike systems used in common warehousing applications this is specifically designed for the management of steel products (slab, coil, sheet etc) through integration with production systems and equipment such as conveyors, cranes (inc. automated), mobile equipment, guided vehicles and the like. The project was delivered on time and budget in September 2014 and has increased warehouse storage capacity (~7kt or more depending on product mix) by allowing safe two high stacking. It has also reduced labour inputs, streamlined coil receipt, storage and despatch.

The WMS receives information from BSL systems by tapping into existing messages and returns precise, real time coil location information. The receipt and despatch of coils used to be a manual process with operators spending a lot of time in the coil fields, locating, marking-up or looking for coils. This exposed them to various hazards.

Now the WMS provides coil placement instructions to the crane operators as coils come off the Pack line. When trucks, coil transporters or trains arrive for loading these are registered by tablet PC at the Dock. The WMS then provides loading instructions to the

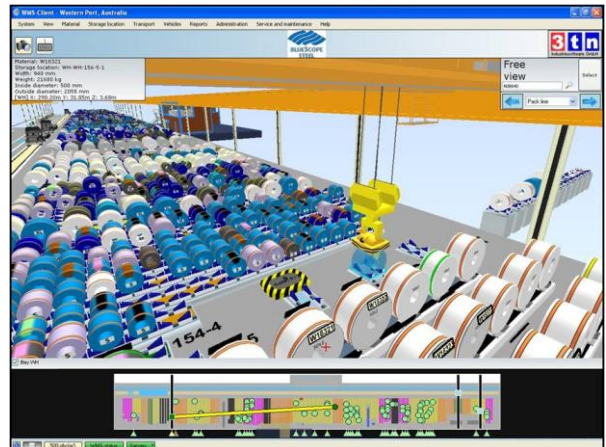
crane operators. Coil management is easily customized and optimized by coil attributes.

The system is user friendly with excellent graphics, reports and key information available on demand. The WMS is accessed in the cranes (by Noax industrial PC's), at the dock (by HP tablets) and is also installed on various PC's.

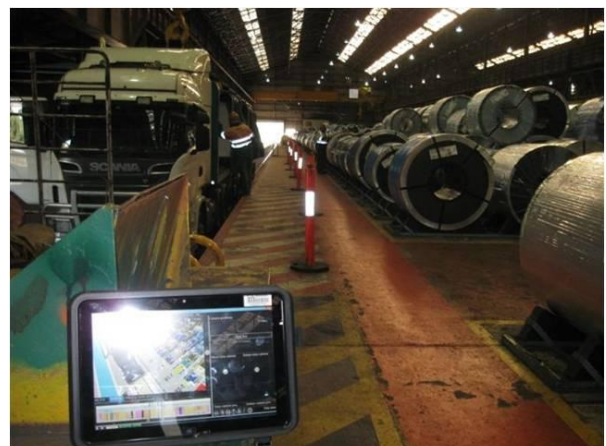
Furthermore it is scalable and can be extended to other parts of the Site without the need for additional messaging work. It is currently being considered for other BSL sites, such as Service Centers and Logistics Terminals.



Picture 1 - WMS terminal in crane cabin



Picture 2 - Screen shot from the WMS



Picture 3 - Tablet PC used for mobile access to the WMS