



MANUFACTURING CASE STUDY: Mining Equipment

Project Background

This client manufactures and repairs large mining equipment. The repair sector requires that spare parts are kept on-site. As a result, the environment is a combination of a standard warehouse and a complex manufacturing setting. The company's largest challenge is to manage the conflicting requirements of parts for its manufacturing business with demand from the repair and sales arm, particularly if there is a supply crunch on critical parts.

The manufacturing process is a particularly complex one, including intricate jobs with multiple sub-jobs, and jobs of long duration.

Translution™ Functionality

This project uses the full range of standard TransLution™ functionality as well as some custom validation and other features.

A scanner-based Purchase Order receiving process is in place, as well as the TransLution™ Label Printing application which generates labels for products that are supplied unlabelled. Scanner-based picking is also in place for jobs and sales orders. The ERP Goods in Transit (GIT) functionality with dispatch notes has been implemented and scanning events are used to allow TransLution™ to create dispatch notes. Scanner events also generate automatic job issues and job receipts directly to the ERP. Finally, the system performs on-going scanner-based cycle counting along with regular scanner-based stock takes.

This project also led to the development of the Work in Process (WIP) job viewer application, allowing the client to view all active jobs in the system along with the related Purchase orders. This function enables the client to manage the complexities of allocating time, stock and equipment to multiple jobs.

System Overview

TransLution™ databases were installed at two of the client's sites, which are about 50km apart, and communicate with the same ERP database. Fourteen wireless scanners were used in this implementation – 5 at one site and 9 at the other. A number of TransLution™ computers were installed at each site as well as barcode label printers in the receiving bays.

Benefits

The main benefit in the warehouse has been improved stock accuracy, which has directly led to improved operator performance. Where previously, users had to walk around the warehouse looking for items, the scanner can tell them where to find the items they require. This also improved user morale.

A common problem in many environments is that while the overall stock picture may appear to be correct, the details of individual warehouses and WIP are incorrect. This leads to stock being picked when it has already been earmarked for a different job. The system improves this control of jobs and job stock by allowing users to issue stock automatically to a job as it is picked.

The TransLution™ system not only provides users with the tools to do their jobs better, but also gives management the tools to measure operator performance and productivity.

Barcode Labels And Structures

Given the complexities in this company's business processes, the labels it uses are relatively simple, partly because raw material products do not have complex requirements such as lot or serial number tracking. Finished goods do have serialisation requirements but these are managed outside of the ERP, making the TransLution™ integration fairly simple.

One decision made early in the process was to align the system barcode with the ERP stock code. While there is no requirement to do this, it simplifies the system for users, and improves barcode accuracy.

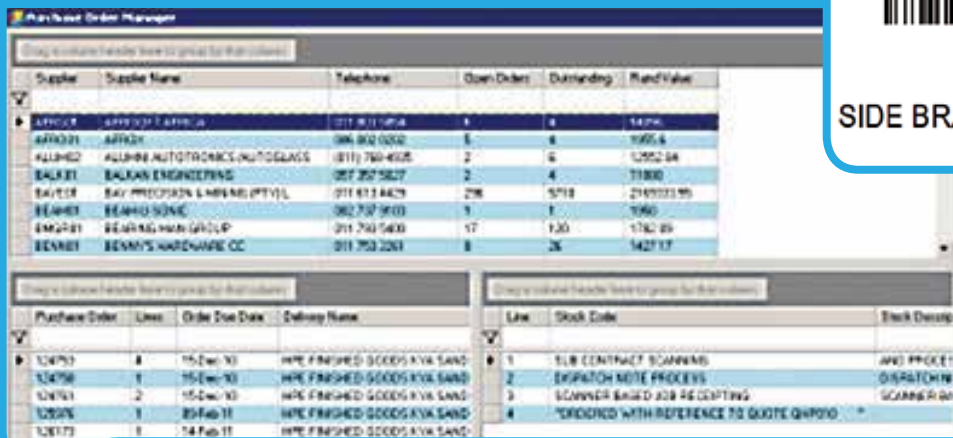
TransLution™ carriers have been used for Jobs, Purchase Orders and Sales Orders and these use simple barcode labels.

Critical to the project's success was client recognition that the company faced serious problems that TransLution™ could help solve. Thus implementation was phased. The first phase – Purchase order put away — was simple but effective, offering the scanner users some immediate benefits. This, along with a scanner based stock take which took significantly less time and was much more accurate than previous stock takes, helped win user support early in the process.

Success Factors And Challenges

The complexity of the site posed significant challenges. The primary challenge was overcoming entrenched ways of working and to introduce change. Support from management was therefore required.

Purchase Order Manager



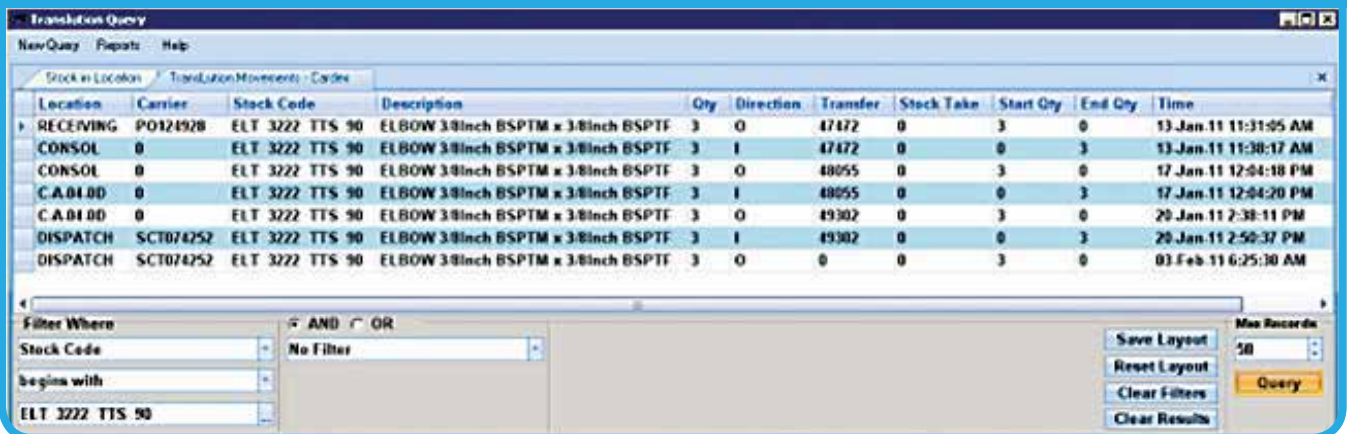
Supplier	Supplier Name	Telephone	Open Orders	Outstanding	Plant Value
AFRISOFT	AFRISOFT Africa	011 811 5864	1	0	14796
AFRISOFT	AFRISOFT	086 802 0000	5	0	9954
ALUMIN	ALUMIN AUTOTRONICS (AUTOGLASS)	(011) 760-6605	2	6	12552.84
BALKRIT	BALKRIT ENGINEERING	087 352 5827	2	4	71800
BAYTECH	BAYTECH DATA LINKS (PTY) LTD	011 813 4429	298	5718	2167000.95
BEARBIT	BEARBIT SONGE	082 737 9703	1	1	7960
BEENBIT	BEENBIT HIGH GROUP	011 740 5400	17	130	1782.89
BEENBIT	BEENBIT'S HARDWARE CC	011 753 2261	8	26	54271.7

Purchase Order	Lines	Order Due Date	Delivery Name	Line	Stock Code	Stock Descrpt
124793	1	15-Dec-10	HPE FINISHED GOODS KVA SAND	1	SLB CONTRACT SCANNING	AND PROCE
124798	1	15-Dec-10	HPE FINISHED GOODS KVA SAND	2	DISPATCH NOTE PROCESS	DISPATCH
124763	2	15-Dec-10	HPE FINISHED GOODS KVA SAND	3	SCANNER BASED JOB RECEIPTING	SCANNER
125076	1	29-Feb-11	HPE FINISHED GOODS KVA SAND	4	ORDERED WITH REFERENCE TO QUOTE Q6910	
126177	1	14-Feb-11	HPE FINISHED GOODS KVA SAND			
126342						

Product Label



Stock Movement Query



Location	Carrier	Stock Code	Description	Qty	Direction	Transfer	Stock Take	Start Qty	End Qty	Time
RECEIVING	PO124928	ELT 3222 TTS 90	ELBOW 3/8Inch BSPTM x 3/8Inch BSPTF	3	O	47472	0	3	0	13-Jan-11 11:31:05 AM
CONSOL	0	ELT 3222 TTS 90	ELBOW 3/8Inch BSPTM x 3/8Inch BSPTF	3	I	47472	0	0	3	13-Jan-11 11:38:17 AM
CONSOL	0	ELT 3222 TTS 90	ELBOW 3/8Inch BSPTM x 3/8Inch BSPTF	3	O	48055	0	3	0	17-Jan-11 12:04:18 PM
C.A.01.00	0	ELT 3222 TTS 90	ELBOW 3/8Inch BSPTM x 3/8Inch BSPTF	3	I	48055	0	0	3	17-Jan-11 12:04:20 PM
C.A.01.00	0	ELT 3222 TTS 90	ELBOW 3/8Inch BSPTM x 3/8Inch BSPTF	3	O	49302	0	3	0	20-Jan-11 2:38:11 PM
DISPATCH	SCT074252	ELT 3222 TTS 90	ELBOW 3/8Inch BSPTM x 3/8Inch BSPTF	3	I	49302	0	0	3	20-Jan-11 2:50:37 PM
DISPATCH	SCT074252	ELT 3222 TTS 90	ELBOW 3/8Inch BSPTM x 3/8Inch BSPTF	3	O	0	0	3	0	03-Feb-11 6:25:30 AM