



T2T

OUR VISION IS TO PROVIDE THE TIER ONE & TWO SUPPLIERS WITH THE IDEAL BUSINESS SOLUTION TO MANAGE A DYNAMIC, EVER CHANGING SUPPLY CHAIN. WITH THE MANAGEMENT OF THE OEM'S ELECTRONIC SIGNALS, T2T WILL BE ABLE TO LOCATE ERRORS IN OEM FORECASTS AND OEM PRODUCTION PLANS. THE ADVANTAGE OF T2T'S DEMAND AND SUPPLY MANAGEMENT AND REAL TIME PRODUCT TRACKING SAVES TIME AND PROVIDES THE TOOLS TO OPTIMIZE YOUR BUSINESS.

Tier2Tier (T2T) was created from the ethos of using innovative technology to produce business driven solutions.

It was developed to address the complexities and challenges present in managing an extended supply chain, its very name reflecting the respective tiers (levels) in the supply chain of the motor manufacturing industry.

The need for T2T originated from the main component suppliers (the so called tier one suppliers) of the motor manufacturing industry. These suppliers need to be able to:

- > Understand, interpret and analyse the demand forecast released by the motor manufacturers (original equipment manufacturers - OEM).
- > Translate and project the OEM demand into the upstream supply chain of the OEM's supplier(s) and
- > Manage the supplier's upstream supply chain.



INTEGRATED TECHNOLOGY

Technical Overview

T2T is a multi-tier client server architecture that runs on a 2000 / 2005 SQL Server platform using the operating systems - Windows 2000, XP, Vista.

One of the major distinguishing characteristics of T2T is its level of integration. Data duplication is eliminated, allowing for a relatively small database providing extensive functionality. No functional or modular boundaries exist within T2T. It is entirely a real-time product, with detailed drill down ability to the source of all information.

T2T has an exceptional Windows based graphical user interface with on-line prompt, messages and guidance, comprising of on-line help for functions and fields.

Built-in checks and balances ensure a high level of data-integrity and require reduced levels of computer skills and user training, despite the sophisticated nature of the functionality.

The security layers as well as its additional settings govern access to the different tools and data in T2T. A full transaction history, which can be specified per table, is available.

Comprehensive information extraction (needed for queries and/or management reports etc.) is made possible with extensive end-user computability via Microsoft Excel, Data Analyzer, Analysis Server, Office web components and Microsoft Access or any ODBC-compliant tool. This solution interacts natively with the various Microsoft products such as Exchange and Word.



ERP Platform

T2T is a fully integrated real-time system, based on an ERP platform. It has comprehensive functionality that supports all business processes:

Engineering Management

T2T offers excellent control of the engineering data, spanning the total life cycle of parts and products and incorporating item identification, status accounting and excellent change control.

MRP

The T2T MRP engine plans for inventory availability and possesses a comprehensive range of planned orders, action messages and exception messages, but will in addition, perform on-line real-time runs with almost instant availability of information that supports the decision making process. MRP settings are predefined per Customer/Supplier. Incorporated into T2T's MRP is the levelling of Customer's (OEM) forecasted demand as well as levelling of lower bill of material level supply. An Additional MRP functionality option is to keep a level of safety stock by pulling supply forward.

Inventory Management

T2T offers excellent functionality to analyse, classify, control and move inventory and provides a simplified user interface, despite the sophisticated functionality, which includes real-time journals for all movements as well as built-in controls and disposition rules for all variations of stock status and ownership. Customer Furnished Items (CFI's) and subcontract orders are catered for in any level of the BOM. T2T manages Earlier Generation Stock CKD stock with various production consumption

Multi-tier inventory is managed with configuration settings, accommodating selective post deduct/flow rack management and automated Kanban processing.

Production

T2T enables you to effectively manage production activities. Production's seamless integration with all related business functions ensures that the planning, scheduling and application of manufacturing resources to produce, modify, maintain or repair finished goods or equipment remains focused on the inventory supply and demand requirements and other stated objectives for product development, projects, inventory- and/or quality management.

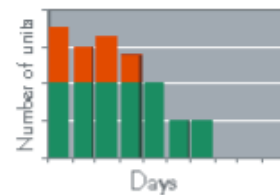
It incorporates planned order releases, stock picking, scrap and progress reporting and ultimately the management of extended order fulfilment lifecycle.



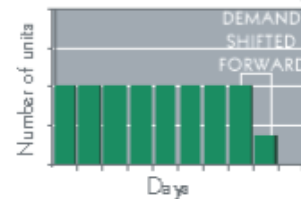


T2T offers self-billing with, and automated interface to the Customer (OEM). Intervention is only by exception, for non-reconciling items

EXAMPLE: OEM'S UNLEVELED FORECAST with backlog quantity's demand per day per part



EXAMPLE: T2T'S LEVELED FORECAST with OEM's constraint of 200 final assemblies per day maximum



Part	Mode	Difference	Week 2 2002/07/14	Actual	Difference	Week 3 NONE	Actual	Difference	Week 4 2002/07/28	Actual
6915195	CUMMULATIVE	0	0	0	0	2	2	0	4	2
	PER WEEK	-56	0	28	-28	0	14	-14	8	22
	CUMMULATIVE	-56	0	28	-28	0	96	-96	8	120
7025705	PER WEEK	0	0	0	0	0	0	0	0	0
	CUMMULATIVE	0	0	0	0	0	0	0	0	0
7025706	PER WEEK	0	0	0	0	0	0	0	0	0
	CUMMULATIVE	0	0	0	0	0	0	0	0	0
7025709	PER WEEK	0	0	0	0	0	0	0	1	0
	CUMMULATIVE	0	0	0	0	0	0	0	1	0
7025710	PER WEEK	0	0	0	0	0	0	0	1	0
	CUMMULATIVE	0	0	0	0	0	0	0	1	0
7025715	PER WEEK	0	0	0	0	0	0	0	1	0
	CUMMULATIVE	0	0	0	0	0	0	0	1	0
7025716	PER WEEK	0	0	0	0	0	0	0	1	0
	CUMMULATIVE	0	0	0	0	0	0	0	1	0
7036645	PER WEEK	13	99	0	53	7	0	0	31	0
	CUMMULATIVE	13	173	0	226	7	0	0	325	38
7036646	PER WEEK	-103	80	0	40	5	0	0	50	42
	CUMMULATIVE	-103	160	0	200	5	0	0	200	42

Multidimensional System Configuration

T2T allows for central definition and maintenance of company wide data - such as External Organisations (suppliers/customers), Part Masters and decentralised business rule options that will apply to company, division or cost centre levels. These options govern the flow and execution of business processes. More business rule options can be defined on product, project or employee level.

Financial Management

T2T excels in the area of Financial Management since, other than providing the ability to plan and analyse budgets and/or to manage the general ledger, accounts payable, accounts receivable etc, all journals are real-time thus providing instant availability of all financial information and eliminating tedious month and year end reconciliation.

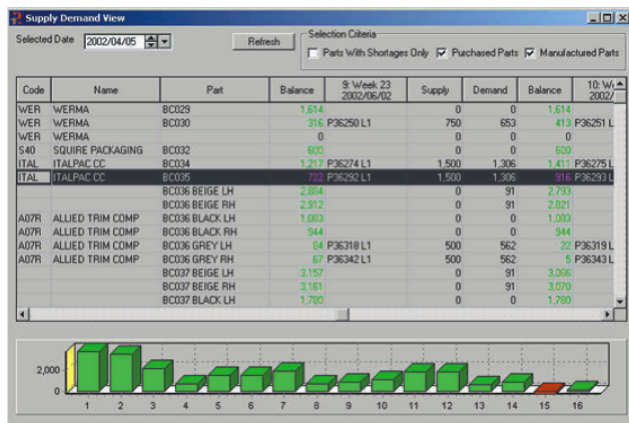


MANAGEMENT OF SUPPLY PROCESS

Demand

Demand from the OEM is typically received in the form of a medium term forecast (nine to ten months), a short term production plan (five to ten days), and call-off signals (JIT-Signals) as individual motor vehicles pass through trigger points on the production line (from this point in time the supplier typically has between one and two hours to pick components, assemble the part and deliver the product to the appropriate process on the production line).

T2T provides for the utilities to import the various types of demand, to analyse the demand and to plan according to the OEM's demand, and to react timeously on individual part call offs.



T2T has various settings to level forecasted demand to the Customer's OEM's) maximum daily production ability.

T2T's facility to analyse previous to date demand and supply variation, substantiate recoverable expediting cost from responsible party. (i.e. OEM demand variance, supplier non-performance and incorrect stock supply from freight forwarding agent).

Demand verification in respect of end item consistency (e.g. Left/Right, Front/Rear by derivative) is facilitated by T2T.

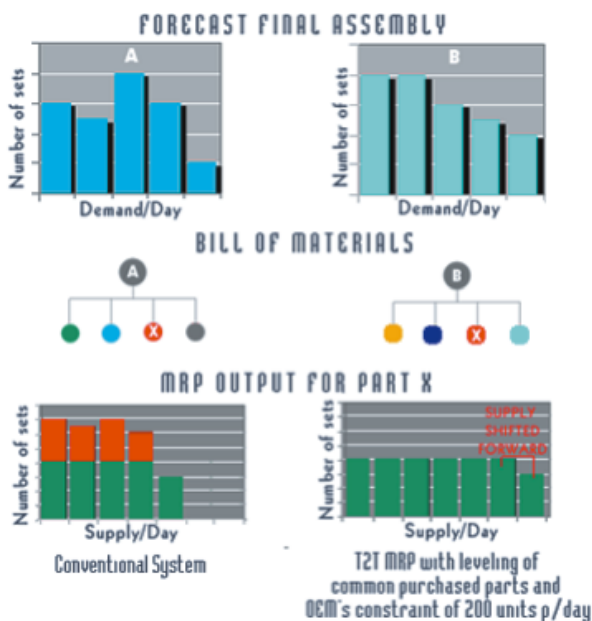
Real time analysis of previous to date trends is supported in user-friendly interfaces, incorporating the graphical representation of the data. Event driven notification of invalid/inconsistency in forecasts, production plans and call offs is therefore exposed to the tier one and tier two suppliers.

Internal Operations

Inventory and the internal operations are managed by means of integrated mobile scanning devices (operating on a radio frequency network) and serial scanning devices. This allows for real time product tracking throughout the production process and in the warehouses, ensuring hundred percent accurate and real time inventory data.

The internal operations are also simplified by the utilization of custom user interfaces, for example the shipment of a part can be performed by scanning a single bar code on a label that is affixed to the particular assembled part. In addition, work instructions are generated and printed automatically in the form of user-defined labels, with the unique entities appearing as bar codes to enable real time scanner tracking.

The stock take/cycle counting process facilitates the real time counting of stock (by means of mobile scanning devices) – manual counting is also permitted, and also allows for the rapid conclusion of stock take results (automated stock adjustments as per authorised user decision).



A detailed audit trail of the stock counted/ scanned as well as the subsequent conclusion of the results is available (up to end user/part number level).

With T2T's flexible and transparent order fulfilment tracking, operator intervention is only needed by exception and swift response to the dynamic demand variation is possible, by expediting the appropriate activity within the supply chain.

It is thus possible to prevent inventory shortages, minimize transportation cost and minimize plant stock.

Supply

The T2T MRP (material requirements planning) engine uses the demand, existing inventory, planned replenishments and the MRP configuration settings to manage the supply of purchased and manufactured parts. The purchase order schedule functionality allows the user to track the progress of a purchase order from release of the order, until the goods are received into stock.

T2T offers levelling of lower bill of material level supply. The supply of components that are used in more than one lower level bill of material may be levelled to the max combined consumption of top end products governed by the Customer's max daily capacity. It will still order sufficient stock for any product combination called on the forecast.

Extended Supply Chain Management

T2T's supply chain objective is to make every contributor in the supply chain an active participant and to vest data ownership in supply chain participants.

The latter will result in data integrity via single point data capturing and no data redundancy within the order fulfilment lifecycle. Personalised views and templates for every supply chain event are available to each participant in the supply chain.

Real-time Product Tracking

Another T2T main advantage is real-time product tracking. Product tracking is done by means of radio frequency (mobile) and serial scanners. Each transaction performed by a scanner is directly processed on the database.