

White Paper on TRAQ Manager Positioning

The computer systems for managing and tracking paper production in a paper mill can be classified under two categories: Roll Tracking Systems (RTS) and Production Management Systems (PMS). TRAQ Manager is Wrapmation's Roll Tracking System.

This document intends to distinguish these two kinds of systems and explain the TRAQ Manager's position in the market place.

Why do I want a Roll Tracking System?

RTS plans and tracks paper production. The system typically tracks paper from the customer's order to the shipment of the paper.

Along the way the system collects manufacturing and quality data from the various processes. The sources of this manufacturing and quality data are DCS, gauging systems, labs and other systems that contain pertinent data.

Workstation computers are placed on the desks of customer service reps and clerks. These workstations are used to manage the customers' orders, to plan production, manage shipping, to make informed decisions based on what is happening on the factory floor and to provide customers with product quality and up-to-date delivery information.

The system accepts the customers' orders along with any special quality, finishing and delivery requirements.

To track the production of paper, we place workstations at strategic locations throughout the mill. These workstations let operators view production plans and product requirements and enter production information as the paper is produced and converted. We eliminate all manual logging throughout the production, storage and shipping cycle.

The system produces barcode tags and product labels that allow automated tracking of the products during finishing and in the warehouse. The barcodes help you and your customers accurately track the paper and report defects back to the

mill. Barcodes also facilitate the implementation of Electronic Data Interchange (EDI) with trading partners.

By collecting production data during paper production and tracking information about paper damage during the finishing and converting process, we know exactly how the orders are running. This provides accurate information on order shipments or on every roll of paper in a shipment, allowing the issue of a quality certificate for every shipment.

An RTS or PMS is the only system that can relate paper rolls back to the manufacturing process and the jumbo reels from where the paper was cut. This is because these systems produce the patterns for cutting rolls from the jumbo reel.

Because all this information is in the computer, it can be made available on the Internet for customers with the appropriate passwords.

RTS and PMS will reduce the labor costs and add value to your product.

What is in a Production Management System?

RTS functions are usually a subset of PMS. In other words a PMS system covers the functionality of RTS and does even more.

Typically RTS covers order entry, production planning (trim), jumbo reel production, quality requirements and tracking, cutting of sets of papers, finishing room conversion processes such as rewinders and coaters, wrapping, labeling, warehousing and shipping.

PMS normally includes all these functions and adds corporate order entry, raw material requirements, block scheduling, projection, invoicing, financial functions, multi-mill functionality and much more.

PMS functions tend to be more comprehensive and focused on enterprise-wide coverage. This level of information empowers you to make better business decisions.

Typically, PMS vendors also sell Distributed Control Systems (DCS) and paper gauging equipment for a tighter integration with their own systems. When your DCS is from a different vendor than the PMS vendor, tight integration of systems may not happen.

RTS focuses on the number of rolls (or tons or square footage) required by a customer and on how paper is produced or assigned and shipped to fill the customers' orders.

PMS focuses on the same issues, plus it incorporates millwide functionality such as financial, raw material, grade recipes, sales and marketing, transportation and more depending on the scope and the budget of the project.

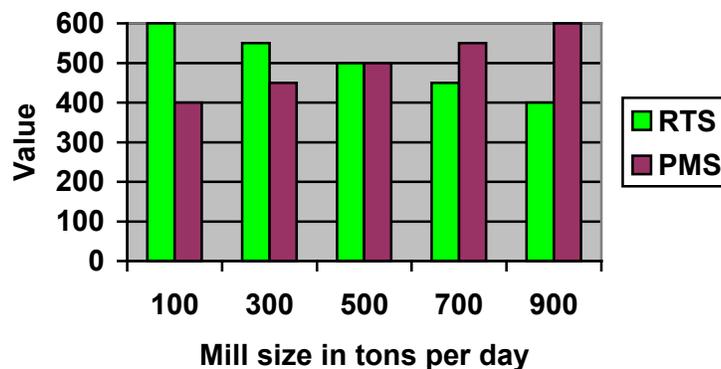
Paper production is a repetitive process. In a paper mill, rolls are continuously produced. Typically mills produces one roll every 10 to 60 seconds.

For larger mills with a high volume of rolls, it is often easier to justify a higher level of automation since every step automated in the process means greater savings.

In smaller operations, however, the cost of more automation could be more difficult to justify. If we divide system functionality into three categories: “must

RTS provides better Return on Investment (ROI) for the smaller mills whereas PMS is more cost effective in larger mills

The value of high functionality



have”, “nice to have”, and “not really needed”, you can weigh your real needs against the costs and savings. Consider what kind of mill you have and what the system provider is offering and then calculate how much more it will cost to have those “*nice to have*” functions.

The results will usually show that the cost of a lot of functions cannot be justified in a smaller mill.

What ERP packages cannot be used to track production in a paper mill?

To date, enterprise resources planning (ERP) packages such as SAP and Baan do not handle plant floor production management for paper mills.

TRAQ Manager provides the ERP packages with plant floor management functions for paper mills. TRAQ Manager provides functionality from entering customers' orders to shipping them.

TRAQ Manager does not do finances, human resources, supply chain management or equipment maintenance because we believe that these functions are better managed by the ERP systems.

Working in conjunction with ERP packages, TRAQ Manager can be a source of informational transactions from the manufacturing process to let ERP systems determine costs of operations including production efficiency, product inventory and product movement costs and forecasting on-time delivery.

TRAQ Manager can be looked at as a third-party module in an ERP project.

This is one of two philosophies used to purchase systems. Known as “*Best of Breed*” it lets a paper mill pick and choose from various vendors who offer packages from suppliers who focus on specific system functionality.

PMS tends to support another philosophy – a “*single vendor solution*”. In this solution, one vendor provides a package that handles most or all functionality of the mill’s IS requirements. It is easier to hold the vendor accountable for getting the whole system working.

Because TRAQ Manager does not try to be the corporate order entry system, the cost of the system is lower and there is less overlap in functionality and data between various systems. This creates a clear line of jurisdiction on where functions belong.

PMS systems tend to compete with ERP systems for the same business functionality. Often there is overlap and redundancy in functions when you have both ERP and PMS. Well-defined lines of jurisdiction and clear responsibilities are pre-requisites to designing a system and selecting a vendor.

Why does TRAQ Manager need to have order entry when we have our own order entry system?

TRAQ Manager is a production system that executes the customer’s orders. The system needs the customer order information to determine what needs to be made and how it is to be finished.

TRAQ Manager always comes with an integral order entry function. The TRAQ Manager order entry has two primary purposes:

1. It lets you enter data that is not available on the ERP or corporate order entry system. For example customer quality requirements, special winder notes, customer desired loading patterns are not normally available in the corporate systems.

This information is important to TRAQ Manager but is not necessarily interesting to corporate users or sales representatives and thus should not clutter the corporate order entry system.

2. If the link to the corporate system is down, then the TRAQ Manager order entry system can be used to enter the orders required to keep the mill running.

The TRAQ Manager system is probably one of the most reliable computer systems in the mill. Since TRAQ Manager contains all manufacturing instructions and inventory, it is critical to the manufacturing loop. It must run 24 hours a day.

The TRAQ Manager order entry program is usually the slave or mini-order entry system. The TRAQ Manager order entry module does not replace the corporate order entry functionality.

Why does TRAQ Manager not handle financial information?

The TRAQ Manager system handles very minimal financial information. With TRAQ Manager financial information is kept on the corporate order entry or accounting system.

Financial information is not needed in TRAQ Manager because it is only interested in the quantity of a product to be made whether it is rolls, pallets, sheets, pounds or square feet.

When a shipment is made, TRAQ Manager sends a shipment transaction to the corporate accounting package. This transaction includes the order number, quantity of paper actually shipped and other information required to invoice the client. This way any price changes and currency fluctuations do not involve TRAQ Manager.

What services are provided with the purchase of a TRAQ Manager system?

Wrapmation provides a turnkey system. With the TRAQ Manager system, Wrapmation provides:

Detailed Design

A detailed design study is purchased before you buy a TRAQ Manager system. In the detailed design, we work with mill personnel to define the specifications and scope for the system. With the detailed design we provide a fixed price for the system.

Hardware

Wrapmation quotes the system with hardware. This provides the customer with a complete price for the system. Our price includes computers, servers, printers and any special equipment such as barcode scanners and custom interfaces. Not included are network components that the mill normally hires a local contractor to install.

The customer does have the option to purchase the equipment directly. However, a 15 percent integration charge becomes payable to Wrapmation to cover system integration. This gives the mill flexibility in hardware selection and in having homogenous hardware leasing and service contracts throughout the mill.

Training

Wrapmation trains your operators using the “train-the-trainer” method. Training your operators to train the operators is cost effective and encourages buy-in by the operators.

Software

TRAQ Manager consists of the TRAQ Manager software as well as the required off-the-shelf software such as Windows, WinFax, PC Anywhere.

Start-up Assistance

Wrapmation staff will be on site to help you start up the system.

7-day / 24-hour On-Call Support

Wrapmation recognizes the importance of 7-day/24-hour support. Wrapmation’s support structure is second to none. Our technical employees all carry cell phones and/or pagers and spare batteries.

The client has a single phone number to dial and the 24-hour operator handles the call. The client only has to declare an emergency, and the operator will contact Wrapmation employees who will promptly respond.

Travel and living expenses are billed to the customer at cost.

Hardware Platform

The type of computers used depends on the platform for which the system is developed. Typically PMS are built on more powerful mini-computers and RTS work on PC networks.

Peripheral devices tend to be similar in both systems. These peripherals include barcode scanners, printers, stencillers and laser printers. For instance most PMS and RTS providers use Printronix and Zebra printers.



Some interface options may be different. Mini-computer-based systems tend to use serial or proprietary network connections whereas PC-based systems tend to use serial, parallel or industry-standard network connections.

TRAQ Manager runs on IBM PC-compatible computers on Windows NT on PC-based networks. TRAQ Manager co-resides with the mill's network. This gives everyone with a PC on the mill network native Windows access to the information in the RTS.

Although the TRAQ Manager software runs best on Windows NT, it can also run on Windows 95, Windows 98 and Windows for Workgroups platform. TRAQ Manager also runs on Novell Networks.

Desktop Access

Mini-computers or mainframes are accessed using proprietary terminals. Clerks had terminals on their desks to allow them to access mainframe data. As PCs became popular, clerks would have a terminal and a PC on their desk. Luckily mini and mainframe vendors saw how ridiculous this was and developed terminal emulation software for PCs. Now a clerk could access the mainframe from the PC and eliminated the terminals.

However, terminal emulation did not give PC applications such as Excel or Word access to the data on the mainframe. To counter this, PMS vendors replicated or copied the data from the mini / mainframe to the PC at regular intervals such as every 2 hours or maybe once a day. This obviously caused a lag in the data from what is currently happening.

This works fine for production reports since we are usually interested in a previous day's production report. But in the case of inventory or floor status or order status, the information is just never up-to-date.

PC-based systems do not suffer from this since the RTS software is native to the PC and as soon as an event happened it is known throughout the PC network.

Summary

There are many advantages to each type of system.

We have focused on the pros and cons for each system. In general, smaller mills will choose RTS, and larger mills will go with PMS.

Obviously, the existing computer infrastructure and the future plans of the operation will also influence a mill's selection process.

Wrapmation

Wrapmation is a pioneer of RTS and PMS. Our staff has experience in over 60 installations worldwide since 1979. We brought this technology to the standard PC environment in 1993 – long before other vendors. Our company's focus is exclusively on automation products for the finishing departments of papermills.

For more information about TRAQ Manager and Wrapmation, contact WRAPMATION at (514) 846 9727 or email to: sales@wrapmation.com. Information can also be found on our web site <http://www.wrapmation.com>

© 1998, Wrapmation Inc, All rights reserved.

This White Paper is for information purposes only. Wrapmation makes no warranties, expressed or implied in this document.

TRAQ Manager and TRAQ Internet are trademarks of Wrapmation Inc. Other product or company names mentioned in this document might be trademarks of their respective owners.

Wrapmation Inc. ♦ 4207 St. Catherine Street West ♦ Westmount, Quebec Canada H3Z 1P6