Back to the Beginning

by Rob Gentry, President

The Denver CAMUS Conference was our introduction to SSA Global Technologies, the new owners of MANMAN, and their basic philosophy of on-going enhancement and support. It was clearly stated that MANMAN is not going to die soon. SSA thinks MANMAN will be around for many years to come and they fully intend to support it.

We agree, as evidenced by our theme for the CAMUS Conference in Denver last May. The big banner in our booth said, "It's Not Time Yet." We explained that phrase by adding "to move to a new system." It is, however, time to reflect upon what you have and how you are using it, and to review and return to the "basics" of your system.

Re-implementation was discussed in my last article. The foundation of any system is the users' understanding of the basic principles of business and manufacturing and how to apply the system to support attaining the company's goals. With that in mind, let me ask when was the last time someone spent 20 or 30 minutes reviewing with employees how a specific function within the organization works and how MANMAN facilitates it? It's surprising how many users don't know what many of you probably consider trivial or obvious. Let's discuss an example.

One of the issues appearing in recent inquiries to our support desk is related to the assembly process of the product, specifically, the accuracy of the routings. Analysis

How to Fix Broken Shipment Transactions

by David H. Floyd, Mgr. of Support Services

One of the most common errors I have been dealing with in MANMAN over the last few months concerns broken shipping transactions. It seems the TR,210, and (less frequently) the TR,300 transactions in OMAR have a tendency to "break", especially when a network crash or the closing of a terminal emulation application abruptly terminates the session. These half-transactions can seriously mess up Sales Orders, Inventory detail, Transaction Logs, or Shipment records. While not necessarily painless to fix, the corrections are usually simple enough.

Discovery of the problem usually occurs with the admission of the user who

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What are your Company's Core Competencies?

Are we having fun yet? As the economy continues to deteriorate, finally impacting consumer and manufacturer purchasing indexes, pressure to reduce costs is becoming intense in some companies and even entire industries. Mr. Greenspan says productivity is the key to our economy's health, but he also points out that as manufacturers use technology to increase efficiency and effectiveness in their processes, wringing out every penny of waste and expense, the tradeoff may be higher unemployment.

In our attempts to reduce costs, we are all trying to accomplish more with fewer people and are succeeding in the manufacturing management area, thanks primarily to software technology. What to do during a downturn? I learned a long time ago that the answer

From Shaggy's Desk

will not run this issue because she was back in the hospital at press time. Our love and prayers are with you, Shaggy. Hang in there, girl!

Come to HP World 2002 in Los Angeles

by David H. Floyd, Mgr. of Support Services

The HP World Conference & Expo is the largest solutions-oriented annual gathering of HP IT professionals. Produced by HP customers, the five-day event will focus on training seminars, sessions, tutorials, panels, and networking opportunities covering HP-UX, Linux, Windows, MPE, Storage Management, Security, .Net, OpenView, IT Management, High Availability, e3000 Migration, Disaster Recovery, Mobility and Internet Solutions. The renowned expo will feature more than 150 exhibitors, presenting the products and solutions shaping the HP marketplace. HP World runs from Monday, September 23 through Friday, September 27 at the Convention Center in Los Angeles, CA.

Most importantly for us MANMAN folks, HP World will feature the ongoing MANMAN-focused SIGs FORTRAN and ERP. SIG FORTRAN, scheduled for Wednesday, September 25, focuses on the product life of the HP FORTRAN compilers and usually has a majority of MAN-MAN users in attendance. SIG ERP is preparing for its third meeting and is trying to get the word out about ERP migration from the HP e3000 to other HP platforms. These are two sessions oriented toward the MANMAN community, but boundless information and opportunities to network are available at the rest of the show.

I hope HP World is in your plans and your budgets. And I sincerely hope that we will get a chance to meet and talk at the show. Please look us up when you get there. ❖

> **HP World runs from Monday, September 23 through Friday, September 27 at the Los Angeles Convention Center**

Trust is in Short Supply These Days

by Chuck Combs, VP Marketing & Business Development

In the aftermath of the Internet.com bust, the continued reports of accounting irregularities, and the conflicts of interest on Wall Street, trust is in short supply these days. Despite all the yammering about managing customer relationships, we sometimes overlook something simple but profound—people want to do business with those they trust.

According to the dictionary, trust means, "firm reliance on the integrity, ability, or character of a person" or in our case, a company. For example, I don't trust my cellular phone company because I have to find out about the new rates myself. They never bother to tell me I'm overpaying or could get a better deal. On the other hand, I do trust Southwest Airlines because they don't take advantage of me when I need a last-minute booking, and I can trust them to leave and arrive on time. Result: I go out of my way to fly Southwest Airlines.

To build a trustworthy organization, we must focus on the people: customers, employees, partners, and other stakeholders. You can't build a customer-centric culture simply by nailing a "Customer is King" plaque on the wall. Trust must be earned. That's why we try to earn your trust every day by giving you honest answers about the products, service and support you need to run your business. You can rest assured that our expertise is here to serve your best interests. ❖

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revealed that in most of these cases the problem was inaccurate data in the file and a lack of understanding of how the individual elements affect the system. The Routing, a "bill of labor" if you will, is used in MANMAN to support product costing with times and rates, and to schedule the shop floor. It is a critical part of manufacturing process definition that crosses functional boundaries of the organization, i.e. accounting, shop floor, and process engineering.

Among the basics of MANMAN routings is the ability to create alternative routing processes. Each routing is a set of operation sequences through work centers. The key is that each routing record contains a primary code that identifies alternative routings as opposed to the primary routing. MANMAN allows manufactured parts to have several alternate routings, but each part MUST have a primary process that is identified with a primary code of 1. It is used for costing the product and it is hard coded in the system to use only primary code "1" in the cost roll-up process. Any of the sets of routings, including the primary, can be used for scheduling purposes.

The Routing Detail File (RTFIL) contains fields to record and calculate hours in two separate and mutually exclusive environments. These environments are for a labor- or a machine-intensive process. Each environment can store two setup and run times with two separate process functions. The first is the standard times, for setting up the costing function, and the other is elapsed times, for scheduling the shop floor. One reason for this difference is to permit changes to any routing that will affect how the shop floor is actually scheduled (elapsed hours) between periodic standard cost roll-up (standard hours) events.

The routing file contains additional fields that affect the scheduling of the manufacturing process for "make" parts. Transit time is defined as "an allowance that is assumed on any given order for the physical movement of material" between operations on the routing. Transit time affects lead times and scheduling. Outside processing fields are available to record data associated with work performed on a work order by an external source. There is also a method to note the effective and obsolete time frame for a specific record. These become critical when updating processes in association with the activation of new manufacturing process projects on the factory floor.

Consumables are an optional feature in MANMAN, tying component parts to routing operations, eliminating the kitting step. A consumable is a part that is automatically issued from WIP locations to the work order operation at which it is scheduled to be used, and occurs upon completion of that sequence. The setup and use of this feature must include specific field definition for WIP inventory locations, the bill of material for the assembly, and the work center where the consumable is to be consumed.

Master routings are another option in MANMAN and permit one master copy of the routing, defined for a specific part, to be used as the routing for other like parts in the same product family. It permits an easier process of routing file maintenance; you change one routing and it affects all parts tied to the master, and also saves disc space.

Work center definition is a critical element of using routing as it defines the rates, both direct and indirect, used to determine the labor and overhead cost of the specific operations. In relation to capabilities discussed earlier, the Work Center file contains fields that define labor- or machine-intensive work centers and identifies the WIP inventory location for any consumable parts used there.

The major point of this exercise is to note what the basic system does or is capable of doing, and how it can vary the output of the manufacturing function. It mandates that the record accuracy is as high as can be attained. Oliver Wight proposed an accuracy level of at least 95% for routings and bills in order to get the best out of a system. The more accurate your data is, the better the system works. Even 98% accuracy still leaves two errors per hundred and makes planning that much more difficult.

Do you want to lower your costs of doing business? When your people understand MANMAN's methods and the files they work with down to the individual data elements, they can make better decisions that promote data integrity, the user's responsibility in any system. This in turn will reduce, if not eliminate, many of those "challenging opportunities" that make more work for others and cause inefficiencies that cost your company time and money. Get back to the basics of MANMAN. ❖

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is, "You can never re-visit the basics too often." I tell myself, "It's the fundamentals, stupid." As we all try to reduce costs, we need to return to the fundamentals. Now is not the time for frivolous or experimental IT projects. ROI is king again! (Pun intended.)

Manufacturing companies everywhere are focusing on the things that define their business and give them a unique advantage with their customers. It is really a re-focusing on fundamentals. What they are finding is that it's not always their products or services that differentiate them from their competitors; it is their people and internal processes. "What makes it easy to do business with us?" We usually focus on technology around tSGi, telling you that integration is the key. But this time I'm going to talk about human relations issues.

All of this focusing and re-focusing finally gets back around to "core competencies." How do you determine what you should be doing yourself and what you should be outsourcing? What is a competency anyway? Ultimately it is a group of human behaviors. A competency is not a product or a service or the ability to put parts together and ship them; it is what makes your people able to consistently perform beyond expectations in unusual situations. It can be described in your procedures, which define acceptable behaviors, but goes deeper than written documentation. Sometimes we call it "corporate culture."

Your employees' various competencies are defined by terms like verbal and written communications skills, flexibility, problem-solving abilities, sensitivity, persuasion skills, and teamwork. How can such "squishy stuff" be related to putting products out the door? I'll admit that the connection is not intuitive. How can we apply technology to scientifically approach these human capital issues? Competency is about people, their feelings, their education and training. It's more about what they do with their software than how it works.

What defines a "core" competency? How does it define your company's "culture"? Did that culture start when your company was founded? Is it evident in the beliefs of the founders? Is it something that everyone in your company knows? Is it something you look for in potential new hires? Is it something every new employee is trained to understand? Is it something everyone does every day? A core competency is all of these and more, and it is not something that can be bought or installed.

If your company is a global Fortune 2000 company, there are programs in place to continually reinforce the "values of the company." The job of instilling culture is not something that can happen automatically at the annual company picnic or Christmas party. Large companies have programs in place to make sure core competencies are drilled into everyone every day. They establish a company language that allows communications of philosophies that equate to values that define behaviors. Doesn't sound like your grandfather's manufacturing environment, does it?

Simply put, defining your core competencies allows your employees to understand the big picture. To be truly empowered to act, everyone needs to be able to react to new situations in consistent ways. Those employees who were traditionally "groomed" for management gained experience across departmental boundaries through cross training and transfers to jobs in areas with which they were not always knowledgeable or comfortable. Now, all employees need and even expect this "grooming" treatment because it works to build a corporate culture based on fundamental competencies every employee must have in common with every other employee.

Competencies transcend physical location and localization issues to focus your efforts toward attaining the overall mission of the company. Have you read your company's mission statement lately? Do you think you and all of your co-workers are doing everything you can toward those goals?

So what is the linkage between core competencies and decisions about outsourcing? Managers in your own company must find ways to specifically determine how to help your company translate your mission statement into daily tasks that are a series of small steps all going in the same direction. How can you insure that your employees are doing the very best job in every function they perform? How can your company have the very best expertise in every single function, but use fewer and fewer employees? How can you keep up with the blinding pace of technological change? In an environment where change is the only constant, outsourcing to the right partners is the only answer.

For Those Who Are Not Migrating

by Donnie Poston, Account Manager

I attended the HP3000 roundtable at CAMUS in May and it was a very lively session. A lot of hostility was directed at HP in a very heated discussion over the decision to kill the 3000 in 2003. One thing is for sure—HP3000 users love their machines. Unfortunately, since the 3000 is such a reliable platform, no one has replaced their hardware very often. This contributed to the demise of the HP3000.

How long have you used your HP3000 with few or no serious problems? If you haven't experienced any major problems with your 3000, you aren't inclined to replace it. Instead of thinking about replacing your 3000, think of it in terms of an upgrade. Upgrading will give you more of a future on the same platform and applications. The end of the line for the 3000 is a good reason to upgrade to an A or N class e3000. If your current 3000 is 5 years old and you plan on running MANMAN for another 5-10 years, you're looking at 10-15 year old hardware. Why not upgrade and have not only a longer hardware outlook, but also much faster processing? I'm confident that support for the 3000 will continue via third party providers beyond HP's cutoff. In my opinion, the increase of A and N sales after HP's announcement in November indicates how many people are electing to continue using the 3000 despite HP's plans to end support in 2006.

If you are not already in the process of migrating to another solution to replace your MANMAN/3000 platform, you have a long way to go. Now is the best time to justify a new A or N class system for the continuing use of MPE and MANMAN. Several users at CAMUS are up and running on their new 3000's, and they were my best sales tool. They wanted to tell everyone how much faster their new boxes are.

If you're not migrating, you DEFINITELY should look at a new A or N class system. And don't forget we offer all of HP's products, new or refurbished. We can get you deals on printer cartridges, tape drives, DDT drives, disk drives and arrays, software, 3000's, 9000's, NT servers and more. Call me at 800-798-9862 for a quote to take to your management. ❖

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Note that I am not talking about selecting a manufacturing process to turn over to a subcontract vendor. Strategic outsourcing means you are going outside your own company for expertise and competencies that you do not have, cannot attain quickly, or just cannot afford to develop. These outsiders replace or back up your own employees and may directly impact or touch your customers, and yet your company still expects to communicate its own culture to those humans you are selling to. In this light, outsourcing decisions are more important than ever. In summary, you must outsource to be able to do more with fewer people, but you don't want to outsource what makes your company special.

Take HP, for example, a large company by any measurement. They tell their customers (your company and mine), "…To operate with efficiency and excellence while continuing to innovate… means focusing on operational excellence and customer intimacy as your products become more commoditized…Outsourcing can improve costs, efficiency, and the expertise available to you." Sounds like their advice is that you should focus on your customers and your own processes while gaining access to experience without having to create it.

In these times of nightly news stories about "corporate responsibility", core competencies cut to the heart of your employees' feelings about your company and what defines "acceptable behaviors". Core competencies are about ethics and integrity and the image your customers have about your company. If your goal is to serve your customers, your managers and your outsourcing partners will (must) behave much differently than if your goal is to increase your company's stock price. The difference is your company's ability to develop and communicate your core competencies and find partners who understand and share your values as well as your vision.
—Terry H. Floyd, Chairman❖

> Every business is different, so computing solutions need to be tailored to their varying needs. No one has a monopoly on the right answer because there is no single answer. The customer-centric model recognizes the need for options so solutions can be customized to a particular business's requirements.
> —Jean Luc Meyer, the new HP

broke the transaction. Occasionally another user reconciling Sales Order detail to Shipment detail discovers it. Regardless of how the problem is discovered, the first step in correcting it isto determine where the transaction broke.

The normal series of database updates done in modern versions of the OMAR TR,210 is SODFIL, BILMAS, SOEFIL, INVFIL, IM, the TLOG, SHIPFIL, and SHDFIL. This means that the Sales Order is updated to reflect the shipment, the Inventory records are updated to reflect the depletion, the Transaction Log is updated to show the shipment record against Inventory, and the Shipment records are written.

Therefore, the easiest way to determine where the transaction broke is to work backwards: check for shipment records on an OMAR LI,701, check for TLOG records with an MFG UT,801, examine the Inventory records with an MFG LI,160, and examine the Sales Order Line detail with an OMAR LI,700 or LI,701.

Usually, the transaction will have finished writing TLOG records but will not have written any Shipment records to the OMAR History database.

Once the "break" has been found the correction can be made. As a rule of thumb, the method of correction is based on whether or not the TLOG records have been written. Because it is very difficult to manually update, add, or delete TLOG records, if they are already written by the transaction they should be manually finished by adding Shipment records to the database with QUERY. If the TLOG records have not yet been written, it is easier to manually delete the already written database entries, in effect "backing out" the transaction.

It is actually easier to complete the transaction than to "back out". Althrough QUERY (or, if you haven't found it yet, the optimized QUERYNM.PUB.SYS), records will be added to the HISDB's SHIPFIL and SHDFIL data sets. One SHIPFIL record needs to be added for each shipment, because SHIPFIL records represent the Shipment Header. One SHDFIL record needs to be added for each shipped Sales Order Line, because SHDFIL records represent the Shipment Line detail. It is a good idea to keep your

HP QUERY/iX manual and your MANMAN OMAR Database Guide close at hand while you are working on this.

Backing out requires more steps. Records are deleted from the OMAR and MFG databases, again using QUERY. It is necessary to update the INVFIL records involved, in effect putting the inventory back. The Item Master usually must be updated as well because the QOH field should match the nettable quantity found in the INVFIL. A cycle count of the parts and locations involved is recommended to ensure that Inventory data has been successfully corrected. Then all affected SODFIL (Sales Order Line Detail) records must be modified to reflect that the quantity has not been shipped. And finally, if the Sales Order was closed by the shipment, the SOEFIL (Sales Order Header) record must be "reopened" by the changing of flags. These steps will make it appear that a TR,210 shipment transaction was never attempted.

If this all makes sense to you and you can fill in the gaps of data item names and QUERY syntax that I have left out, you are probably more than ready to repair a broken shipment transaction. If you understand the process, but the idea of using QUERY to change your MANMAN data worries you, as it does all of us, call 800-798-9862 or email me at dfloyd@supgrp.com to discuss the details in greater depth. I'm here to discuss these minute details of MANMAN data and MPE tool syntax with you any time; that's a big part of what the Support Group is all about. ❖

This issue of *Those Support People* completes eight years of continuous quarterly publication! Although we think there has always been real value in our communications in this periodical, we've noticed our newsletter has slipped into being more of a marketing vehicle than a way to help you use MANMAN and provide basic information on the fundamentals of manufacturing management. We intend to rectify that imbalance and hope you see the difference in this issue. Thank you all for eight great years.

INTEGRATION INTERCHANGE NEWS

Why do your Customers Insist on EDI/B2B?

Procurement Drives EDI/B2B
by Terry Floyd, President

I've worked with interfacing MANMAN to X12 EDI for over 17 years and one thing has not changed: receiving parts into inventory is driving most of the supply chain information interchange project attempts in manufacturing. Every time I've talked with individuals or groups about EDI, I've explained my belief that implementation of the X12 856 ASN (Advance Shipment Notice) was the principle driver behind the entire process.

Here's my reasoning, for those of you who have not already heard it: Large customers purchase huge quantities of parts from hundreds of suppliers (we still call them "vendors" in MANMAN). There is a tremendous amount of effort and inefficiency in the process of unloading pallet after pallet from trucks, optionally breaking them down into boxes, identifying the parts, and putting them away in inventory locations or taking them directly to the factory floor. There's a lot of room for error in this common process and there is hardly ever a chance to fully train employees in the importance of procedures. Electronic data describing exactly what is in each truck can streamline not only the data entry of all of the information about every individual part on a shipment, but should also assist unloading and putaway operations.

Here's how ASN's (essentially, "electronic packing slips") can save time and money while increasing inventory accuracy. Before a truck arrives, receiving personnel can print out a list of receipts expected during the next shift, sorted by a Truck Number identifier. Before even seeing the truck, receiving dock and inventory control people can figure out how much space they'll need for staging and exactly where each pallet, box, or part will be routed or stored. All data entry for receiving POs into your customer's ERP system can be done with the entry of one piece of information, the Shipment ID Number.

With that single data element, a predefined putaway plan can be executed which updates everything in their ERP system concerning the receipt. Even if you shipped them a truckload with 24 pallets containing 300 different parts, your ASN-enabled customer can update the status of their PO, flagging each line item's quantities and updating their receipt history, Accounts Payable, and inventory location data. They don't even really need an invoice from you if they are using automatic pay-on-receipt.

As a manufacturer and supplier of parts, you probably already know that your customers are aware of the potential savings to be captured by using ASN's and intend to force all of their suppliers into compliance with their methods. Isn't it ironic that the impetus for EDI interfaces for your OMAR system is driven by a project in another company that will enhance their inventory control and procurement processes?

Your company is also interested in decreasing costs in purchasing and receiving. Yet, it is the reaction to "market influences" of the managers in your own Sales and Customer Service departments that usually cause them to be the first to decry MANMAN's lack of EDI capabilities. That's because your customers are insisting that you use barcode labels and send accurate ASN's. To be proactive in seizing the cost savings inherent in eCommerce, the managers in your own procurement, logistics, and material control areas must "do to your suppliers what your customers are doing to you."

Whether eCommerce is defined as B2B or EDI, to have the accurate shipping information needed to support sending ASN's to your customers, telling what is in each box of each pallet in each truck, you must begin by receiving PO's directly into OMAR. In "EDI- speak," that's called an Inbound X12 850 Purchase Order. If PO's must be transmitted to suppliers (like your customer's PO's that get loaded into OMAR as Sales Orders), your own Purchase Orders must be sent to your own suppliers. Until everyone does this, the entire Supply/Demand Chain cannot be optimized. What are you waiting for? Think MANMAN can't handle it? If that's what is holding your company back, I hope you'll give us a chance to prove you wrong.

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