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MISys

Manufacturing Software for Small Business



WHAT YOU NEED TO KNOW!



MISys Manufacturing for Small Business: A Quarter-century of Experience and Knowledge

Manufacturing Information Systems, Inc., makers of the award-winning MISys SAE Manufacturing System, introduces MISys Small Business Manufacturing; software designed specifically for smaller-sized manufacturing firms. MISys Small Business Manufacturing (MISys SBM) is based on the proven functionality of the MISys SAE system, originally released in 1982 and used by over 7,000 manufacturing firms in 48 countries around the world.

Like other software developed by Manufacturing Information Systems, MISys SBM offers all the functionality a small manufacturing firm needs today, with plenty of room to grow in the future. Start with the basic inventory control module, with multi-level bills of material and revisions control. Whenever you're ready, add advanced purchasing, bin tracking, production control, master production scheduling, shop floor control, serial/lot tracking, labor tracking, or bar-coding.

Quick and Easy to Learn

While the functionality of MISys SBM may be familiar to some, its underlying technology is brand new. MISys SBM uses leading-edge technology to insure that users have quick access to the information they need, when they need it, wherever they are. Its familiar Microsoft Office look and feel means your staff won't have to develop a whole new set of navigation skills. Anyone who knows their way around email or word-processing programs will quickly feel at home with MISys Small Business Manufacturing.

Critical Data at Your Fingertips

Using a unique system of alerts, you'll configure MISys SBM to notify you when certain conditions are met or events occur within your manufacturing system. Gone is the risk of not having the information you need to take immediate corrective actions. Hundreds of standard reports, and the ability to add your own custom reports, puts at your fingertips the information you need to run your manufacturing operation effectively.

Run Stand-alone or Fully Integrated

MISys SBM can be run either stand-alone or integrated with many of the accounting software systems to form a complete manufacturing business management system. By communicating directly with your accounting software, time-consuming and error-prone exporting and importing is eliminated. Your CFO will smile when your company financials finally reflect manufacturing activities.

Built-in Power and Scalability

For maximum performance and scalability, MISys SBM is built on the industry-standard Microsoft SQL database engine, a 5-user version of which is included in the purchase price. For larger firms, MISys SBM supports hundreds of concurrent users on Microsoft SQL Server 2000 and other ANSI-compliant SQL databases.

Flexible Deployment Options

Depending on the flexibility you need, MISys SBM can be installed on a desktop PC, shared across a company intranet, or deployed over the Internet. However your users need their manufacturing data delivered, no matter where they are located, MISys SBM lives up to the task.

Low Total Cost of Ownership

MISys SBM is one of the most affordable manufacturing software systems available, not just because of its low purchase price, but because the unexpected expenses that can escalate the total cost of owning software has been eliminated in the design. With MISys SBM there are no surprises, no obsolescence; total cost of ownership is never a gamble. **The design of MISys SBM is certain to give companies greater value for their investment than any other manufacturing system available.**

MISys SBM Advanced Purchasing

Many people find that the basic capabilities provided by their accounting/bookkeeping software are sufficient to meet their purchasing needs. If you need purchasing that is fully integrated with your manufacturing inventory control functions, upgrade with Advanced Purchasing. Manufacturers who need purchasing capabilities that are integrated with their manufacturing operations may elect to license the Advanced Purchasing module of MISys Small Business Manufacturing. These capabilities included:

- Create, print and track formal purchase orders.
- Establish quantity-based price breaks for each item and supplier.
- Calculate tax due for taxable items by supplier.
- Instantly update raw materials inventory from purchase order receipts.
- Define and apply additional cost for accurate landed cost tracking.

MISys SBM Advanced Production

Manufacturer who build custom modifications of standard products, or custom job shops will appreciate the capabilities of the MISys SBM Advanced Production module.

The extra-cost Advanced Production module for MISys Small Business Manufacturing enhances the software with a Manufacturing Order subsystem. Manufacturing Orders add critical functionality for any manufacturer that builds one-offs or variations of standard products, including custom job shops. Manufacturing Orders serve to document all the components required to build a sub-assembly or finished good.

The Advanced Production module provides the following capabilities:

- Declare provisional items that may not be completely defined, or are unknown at the time.
- Create Manufacturing Orders either from a standard bill of materials or from scratch without any previously defined components.
- Create and print cost estimates based off the unit cost of known components and the estimated cost of provisional items.
- Compare projected manufacturing cost with the actual manufacturing cost for accurate analysis of productivity and profitability.



MISys SBM Shop Floor Control

Clear definition of each production operation is the key to effective manufacturing business management. MISys SBM Shop Floor Control delivers the ultimate solution to running a manufacturing plant profitably by **1) allowing you to accurately predict production costs based on estimated material, labor, and overhead, and 2) by allowing you to capture, track and analyze actual material, labor, and overhead costs.**

Tool Management

Shop Floor Control keeps track of the tools you use in production, ready to alert you to the need to perform maintenance on any tool, or the need to replace it. Optionally, a tool can be linked to an inventoried item, so that replacing a tool makes the appropriate inventory adjustment.

Work Center Management

MISys SBM defines a work center as an area of your plant where a specific activity takes place. The Shop Floor Control module allows you to define **1) how fast a work center can perform its work, 2) when the work center of open for business, and 3) the material, labor, and overhead resources needed to run the work center.**

Once work centers are defined, they can be applied to bills of material and manufacturing orders as routing details. The routing details document the steps that must be performed in the production process. Because MISys SBM knows the cost of operating each work center, the routing details provide costing information to the bill of material more accurately than ever before possible.

Job Operations Management

By posting actual time and materials used in selected shop operations during the production process, MISys SBM can deliver more accurate actual costs than every before possible. When unfavorable variance is recorded, MISys SBM can provide a detailed analysis showing exactly which work centers contributed to the variance.

Capacity Management

The routing details of bills of material and manufacturing orders help define the rate at which items can be produced. Work centers have limited capacity. The program can evaluate the current production load or a particular work center, or across all work centers at once. Capacity constraints can be easily identified and resolved using an innovative drag-and-drop planning tool.

Manufacturers who need to compute the true cost of their production activities may elect to license the Shop Floor Control module of MISys Small Business Manufacturing. These capabilities include:

- Track the use and maintenance of production tools.
- Establish work centers for all production activities.
- Define rates at which each work center can process its work.
- Define days of the week when each work center is open.
- Define required material, labor, and overhead for each work center.
- Create routing details for bills of material and manufacturing orders.
- Estimate assembly times for any production quantity.
- Predict start date for given completion date.

- Predict completion date for given start date.
- Accurately estimate manufacturing costs based on combined material, labor, and overhead.
- Post shop operations to individual production operations.
- Compare actual to estimated manufacturing costs.
- Analyze production efficiency for each manufacturing order operation.
- View work center loading for any range of dates.
- Analyze all work center conflicts for any range of dates.
- Resolve conflicts quickly and easily using drag and drop.

MISys SBM Bin Tracking

Although MISys Small Business Manufacturing supports an unlimited number of warehouse locations, special requirements are imposed by manufacturers who store the same inventory item at several physical locations.

For some manufacturers, these physical locations consist of inventory bins; for others, they may be containers, bales, barrels, or bolts. Regardless of their size or shape, they all contain the same item. Yet it is important to know 1) how many bins, containers, bales, barrels, or bolts exist and 2) what quantity of the inventoried item is available in each container. This is the task handled adeptly by the MISys SBM Bin Tracking module.

Typical Applications

Acme Filter Corporation makes furnace filters consisting of a number of component parts including Grade 2 Cellulose Fiber which is supplied in 3x4-foot bales and delivered by railcar. Because the fiber is inventoried and used by the pound, the bales are weighed on delivery – however, no two bales weigh the same. In the production process, fiber can be removed from any available bale, but the quantity of fiber remaining in each bale must be carefully tracked and instantly known to production managers.

World Wide Weaving Company weaves cotton and polyester fabrics on 56-inch looms. Production workers periodically off-load the looms onto 4-inch cardboard tubes, wrapping somewhere between 100 and 150 yards of fabric on each. As a bolt is placed on the shelf, the quantity of material contained therein is recorded on a paper tag and in www's computer system. Later, when a particular number of yards of fabric are sold, factory workers will select certain whole bolts, and cut and re-roll partial bolts to complete the order.

Transnational Lubricants purchases several grades of lubricating oils and blends them for special applications in the machine tool industry. The raw materials are purchased and inventoried by the gallon, but are delivered and stored in 50-gallon barrels. Likewise, Transnational's finished product, once blended, is inventoried and shipped in 55-gallon drums. In the

production process, factory workers follow strict blending orders, but are free to use raw oils from any available barrel. Depending on the size of the order, the contents of entire and partial barrels are consumed. If a barrel is emptied, the barrel is retired and recycled to the supplier. Partial barrels are relabeled with their approximate remaining quantity.

In each of these applications, it is critical to know the exact quantity represented by each container even though the entire inventory consists of several, sometimes hundreds, of individual containers.

Most inventory control systems track the entire quantity in stock, but are incapable of determining the breakdown based on bins, boxes, containers, bales, barrels, or bolts. That's where the MISys SBM Bin Tracking module steps in.

An extra-cost option for the MISys Small Business Manufacturing, Bin Tracking creates what is in effect an unlimited number of sub-locations for each inventory location. These sub-locations are referred to as Bin locations.

When Bin Tracking is enabled in the MISys SBM Options notebook, the Location Master notebook takes on additional capabilities with the addition of a Bin tab. This tab has a dual purpose: 1) the creation of new Bins and 2) instant inquiry into the inventory status of existing Bins.

A new Bin may be unassigned, or pre-assigned to a specific Item. Once assigned, it cannot be used to contain any other Item unless it is first emptied and re-assigned. An unassigned Bin is automatically assigned the moment it is used in an inventory transaction.

Bin-sensitive Transactions

With Bin Tracking enabled, some subtle (and other not so subtle) changes occur in many MISys SBM functions.

For example, most stock transfer windows which require the entry of a Location number now have an additional Bin number field. The Receive on Purchase Order function requires the entry of a corresponding Bin number.

In some transactions, such as Manufacturing Order transactions, the corresponding Bin number is not immediately known, and it would be bothersome to stop and ask for a Bin number for every inventory transaction during a complex back-flushing operation. For this reason, MISys offers special "deferred" and "automatic" assign modes.

Deferred Bin Assignment

In the deferred bin assignment mode, MISys SBM records bin-sensitive inventory transactions in an Assignment Log. The log shows all bin-sensitive transactions for which Bin assignments have not been made, allowing the user to record corresponding Bin numbers at a convenient time – after the transaction actually occurs. As the assignments are made, the transactions disappear from the log.

Automatic Bin Assignment

In the automatic mode, MISys SBM assigns Bin numbers to bin-sensitive inventory transactions based on a priority number which can be optionally assigned to each Bin. This priority number indicates the order in which the Bins should be used. When a Bin is empty, MISys automatically switches to the next Bin in sequence.

Bin History Logging

Every Bin-related transaction is automatically logged in the MISys SBM Master Transaction Log. A perpetual history of Bin transactions will be maintained until the log is selectively purged.

Bin Tracking Reports

An array of Bin tracking reports is provided to help analyze Bin activity, identify active Bins, and print bar-coded Bin labels (the MISys SBM Bar-coding module is required).

MISys SBM Serial/Lot Tracking

MISys SBM Serial/Lot Tracking is a computer program designed specifically for users of the MISys Small Business Manufacturing System who need to track the serial number or lot number of the items they use or build.

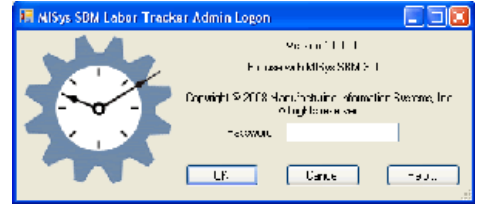
Serial/Lot Tracking is particularly important to manufacturers of food products, medical instrumentation, pharmaceuticals, and other specialized products. It is also useful to manufacturers who use containerized raw materials, such as barrels of oil, bolts of cloth, rolls or sheets of material, and who wish to monitor the quantity available in each barrel, bolt, roll, or sheet.

- How much of a serial or lot-tracked item do I have in stock?
- Which assembly contains these tracked items as components?
- Which tracked items were used as components in this assembly?
- Where did the finished good I assembled go?

Other, vastly more complex and difficult-to-use manufacturing systems track the serial and/or lot numbers of items as they move from station to station within the manufacturing facility. This places a tremendous burden on data entry personnel.

Ultimately, the work is abandoned and the effort fails.

By adopting a relatively simplistic view of serial/lot tracking, the developers of the MISys Small Business Manufacturing System have provided a system that is easy to maintain, yet provides the answers most manufacturers need. Success is virtually assured.



Whether you have one serialized component in the products you make, or whether every finished good item

you produce requires a detailed component history, MISys SBM Serial/Lot Tracking will provide the information you need.

MISys SBM Serial/Lot Tracking is not a stand-alone product. It operates in conjunction with the MISys Small Business Manufacturing System software, adding capabilities that were not previously available in MISys SBM.

MISys SBM Labor Tracking

MISys SBM Labor Tracker is a utility program designed to work in conjunction with MISys Small Business Manufacturing. It is intended to capture the elapsed time employees spend working on specific jobs and production orders.

Labor Tracker can be installed on any compatible PC running Microsoft Windows XP or Vista (with Microsoft .NET 2.0 or above).

MISys SBM Labor Tracker can be installed and run from multiple PCs as long the same data file is specified in the Labor Tracker Administration tab.

Communication

MISys SBM Labor Tracker communicates directly with the MISys SBM Server module. There is no requirement that the MISys SBM Client module be installed on the same computer. The setup of Labor Tracker connects the application to the MISys SBM database whether MISys SBM is running on the same PC, on another networked computer, or on a computer accessible via the Internet.

If MISys SBM Labor Tracker is installed and set for local PC operation, then a functional MISys SBM Client must exist on the same PC.

The administrative user of Labor Tracker only needs to connect to SBM once to pick up all Resource Items, Locations, Jobs and Mfg. orders for the specified SBM company database. Users can then launch and use Labor Tracker to record employee activity from any PC without requiring a reconnection to SBM

until the Admin user is ready to Post the entries to SBM or if the Admin user desires to update the list of Jobs or Mfg. Orders as new ones are created in SBM.

Resource-type Items

Labor Tracker depends on one or more Resource-type items being set up in the MISys SBM Item master to represent various labor rates available to your employees. Labor Tracker will also look to the MISys SBM Item master for optional overtime labor rates.

As you may know, MISys SBM never attempts to maintain an inventory for a Resource-type item, but each item carries a cost, and the program allows you to charge the cost of the Item to a specified Job or Manufacturing Order.

Labor Tracker collects the labor expended on a selected Job or Manufacturing Order as the quantity of any Resource-type labor items and ultimately posts that quantity against the Job or Manufacturing Order.

Employees

The program allows you to establish a list of Employees whose work you wish to track. These Employees do not have to be entered in the MISys SBM User master.

At your option, you may associate each Employee with a specific rate, and a specific location where he/she performs the work you wish to track. Or, you may allow an Employee to use any available labor rate -- or to perform the work at any valid Location.

Employees can be configured individually to be require authentication. If this option is enabled, the Employee will be prompted to enter their employee ID each time the want to perform an action using the Labor Timer.

Labor Timers

MISys SBM Labor Tracker allows you to launch a timer window for any specified Employee. Each timer will record the elapsed time for the specified Employee/Labor Item/Location. You may pause the timer and restart the timer at will, and you may enter a comment which will be recorded on the Time Sheet when you close the timer window.

Overtime

By enabling the Compute Overtime option and establishing an alternative labor item for specific employees, Labor Tracker will automatically switch to the alternate labor item (overtime rate) after a specified number of timed hours, or the manually at user command.

The Administrative user can also apply overtime for one or more employees over multiple Employee log entries.

Time Sheet Entries

Transactions resulting from timers being launched and subsequently closed for specific Employee/Labor Item/ Locations are accumulated in Labor Tracker. Unless the Auto-approve option is enabled, these entries are held in a state called "Submitted" where they may be edited by anyone logged into the Labor Tracker Administration console.

Approval

Unless the Auto-approve option is enabled, Time Sheet entries in the Submitted state must be approved by an Administrator before they can be posted to the corresponding Job or Manufacturing Order in MISys SBM.

When Time Sheet entries are approved, the Posting log is automatically updated to reflect the new accumulated un-posted labor hours for each Job or Manufacturing Order in MISys SBM.

Enabling the Auto-approve option make the approval process unnecessary, but it does mean that Time Sheet entries cannot be edited before they are posted.

Posting

When Time Sheet entries are approved, they are moved to a Posting log where they wait pending action by the administrative user. When Posting log entries are posted to MISys SBM, the Posting log posted and un-posted hours columns are updated for each Job or Manufacturing Order. Posting to MISys SBM causes the following:

1. For Job-related entries, posting causes Labor Tracker to tell MISys SBM to perform the equivalent of a Dispense of the specified resource Item from the specified Location against the specified Job.
2. For Manufacturing Order-related entries, posting causes Labor Tracker to tell MISys SBM to perform the equivalent of a Dispense of the specified resource Item from the material details of the specified Manufacturing Order. If the material details do not include the specified resource Item, it will be added to the material details for the Manufacturing Order.

History

After being posted to the Job or Manufacturing Order, the Labor Tracker Employee and Posting Logs may be cleared. In this process, the Time Sheet entries are archived in a date-named data file deposited in the Labor Tracker data folder.

Export/Import

Labor Tracker includes the ability to export Time Sheet entries to an external file, or import them from a similar file.

MISys SBM Bar Coding

Tedious and error-prone data entry can be significantly eliminated with the implementation of an effective bar coding system.

The MISys SBM Bar Coding System is a turn-key solution including the hardware and software required to print and collect bar coded data in a manufacturing environment.

MISys Bar Coding System is an extra-cost option for the MISys SBM Manufacturing System.

The hardware component of the MISys Bar Coding System is a hand-held, battery-powered, portable collection device (PCD) featuring an elastomeric keypad, 2-line LCD display, voice synthesis response, attached bar code scanner, and cabling required to dock the PCD with the host computer.

The software component of the MISys Bar Coding System provides for communication between the PCD and the host computer, printing of bar code labels and reports, and seamless integration with the MISys SBM inventory functions.

The Bar Code System comes pre-programmed for physical inventory and stock transfer applications, but can be re-programmed for virtually any desired application.

Physical Inventory

One of the primary applications for bar coding in a manufacturing environment is the collection of physical inventory count data.

Using the MISys SBM Bar Coding System with its hand-held PCD, you can collect physical inventory counts by scanning a bar coded shelf label, then entering the actual count on the PCD's keypad. The PCD is programmed to accept Item number/ Stock count transactions until all Items have been counted. With the PCD docked to the host computer, the built-in software uploads the count data and deposits it in a selected Physical Inventory Batch, ready for posting. Nothing could be simpler or more secure.

The Physical Inventory functions of MISys SBM Manufacturing include a button on the Physical Inventory and Stock Transfer Batch windows which deposits the bar coded data in the batch. The interface is completely seamless to the user.

Stock Transfers

Users wishing to use the MISys SBM Bar Coding System to record shop floor transactions will discover that the PCD has been pre-programmed to accept all MISys Stock Transfer Batch entries.

In portable mode, the PCD can be used on the show floor to record stock transfers (such as stock dispense/return and assembly/disassembly transactions) as they occur. In non-

portable mode, the PCD can be used in the stockroom to accurately record data from bar coded Item labels.

Label Printing

The MISys SBM Bar Coding System includes a selection of Crystal Report definition files which can be used to print various bar code labels on standard Avery label stock. These report definition files can be used as is, or custom modified using the extra-cost Crystal report writer.

Report Printing

The MISys SBM Bar Coding System installs a selection of reports, such as new a Physical Inventory Worksheet and Pick Lists, which are "bar code enabled," further enhancing the usefulness of the software.

Sample Bar Code Font

The MISys SBM Bar Coding System installs a sample Code 39 bar code font for use with labels and other reports. Reports, including purchase orders and manufacturing orders, which do not currently display bar coded data, can be modified using the Crystal report writer, specifying the bar code font wherever this information is required.

Features of the MISys SBM Bar Coding System

- **Easy to implement bar code collection system.**
- **Seamless integration with Existing MISys SBM database.**
- **Includes batter-powered portable collection device (PCD) with hand-held scanner.**
- **PCD is user-programmable for virtually any application.**
- **PCD pre-programmed for physical inventory and stock transaction applications.**
- **Used in portable mode for remote data collection.**
- **Used in non-portable mode for bar-code entry of MISys SBM transactions.**
- **Prints a selection of bar coded labels on standard Avery label stock.**
- **Installs a selection of new bar code enabled reports. Includes sample Code 39 TrueType font for use with labels and reports.**

For additional information on how your organization can save time and money by implementing

**MISys Small Business
Manufacturing Software**

call us for a free one-on-one consultation.

WHO WE ARE

Asyma Systems Ltd. is comprised of management and technology consultants who are committed to helping your business and organization succeed. We help you succeed by providing innovative, sound and proactive professional advice, products and services to enhance the financial well-being of your organization. We provide this using available technology, management procedures, and processes to your benefit at all times.

We believe in a win/win relationship on all projects. If the benefit to you cannot be shown to outweigh the cost we will not proceed.

We are based in southern Alberta and offer a wide variety of solutions and services for businesses and organizations. Some of these include:

- **M**anagement procedures and process review;
- **B**usiness needs analysis, review and recommendations;
- **D**esign and implementation of management solutions;
- **D**esign and implementation of technology solutions;
- **D**etailed computer system and management training;
- **O**ngoing computer system and management support.

OUR TEAM

Together, we have accumulated more than 60 years in this industry. Each member of our team is a highly trained professional. Asyma Systems ensures that all staff are experts by promoting continued professional development in new management techniques and technology systems. Our belief? *The more we know - the more you know.* In our business, this is the recipe for success.

WHAT WE DO

Simply stated, at **Asyma Systems** we assist businesses in achieving optimal success. As management and computer software consultants, Asyma Systems is unwavering in its dedication to being the entrepreneurial conscience of our clients. To this end, our team of highly skilled professionals work with our clients to create and implement end-to-end customized business, accounting and technological systems to increase their competitive edge in the market place. Technological advances have changed the landscape of business. At **Asyma Systems** we want to assist you in building your business to achieve the best possible results.