

Valor MSS Asset Utilization

Manage Productivity in Real Time

Manufacturing

D A T A S H E E T



MSS Asset Utilization module provides real time status of events from assembly machines including working status and error information. Captures exact cycle time for each product as it is being produced by the machine, including change-over times between jobs and the identification of the bottleneck station in the line. Information is displayed locally at machine or globally via network clients for one machine or the entire factory.

MAJOR BENEFITS:

- Maximizes utilization of capital equipment
- Maximizes inventory turns by identifying suboptimal machine performance
- Improves delivery performance by quickly identifying machine issues
- Provides real-time view of production status
- Access accurate information about production cycle times
- Identify machines requiring preventative maintenance
- Proven and robust connections to hundreds of machine models
- Flexible platform allowing solution to be used on exotic and very new machines out of the box
- Tight integration with material verification and material traceability modules ensuring the highest quality production and information

Overview

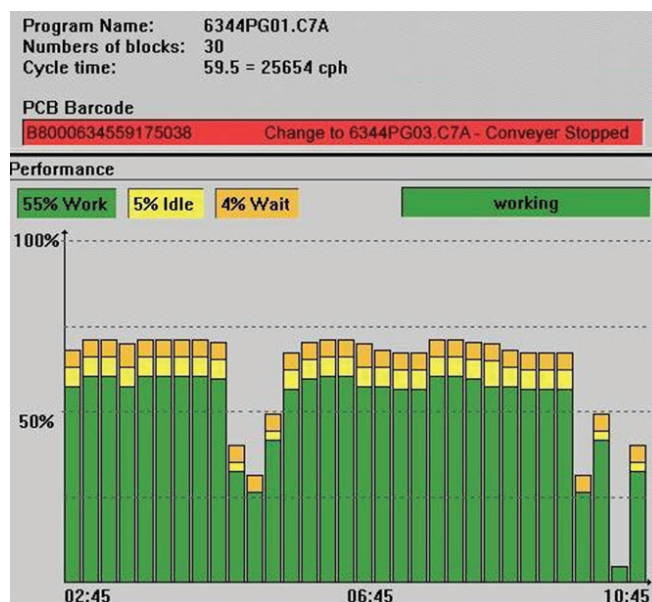
Valor MSS Asset Utilization module provides accurate real-time station performance data for SMT machines and screen printers. The amount of time spent in different production modes is displayed, along with current production program data. All production information is shown in easy-to-understand windows, providing both key performance reporting for senior management and tactical level reporting for those on the shop floor. Feeders need to perform at their best for optimal machine performance therefore this module also provides real-time feeder performance data by identifying feeders with high pick-up error rates. An alternative feeder can then be used so that production can continue with fewer pick-up errors. Multiple production line performance can also be displayed and line rebalancing can be performed based on actual production data. Bottleneck machines are identified and action can then be taken to increase the factory's overall equipment effectiveness (OEE) and utilization.

Advanced Interface

The Advanced Interface includes full support for status monitoring, feeder performance and machine/line performance via serial or LAN connection to the host machine. The interface detects the actual program (recipe) on the machine and includes the program name in the display and captures real-time status-events (working, load-board, wait, stop, etc.) from the machine, saving them in the common database.

Key Features

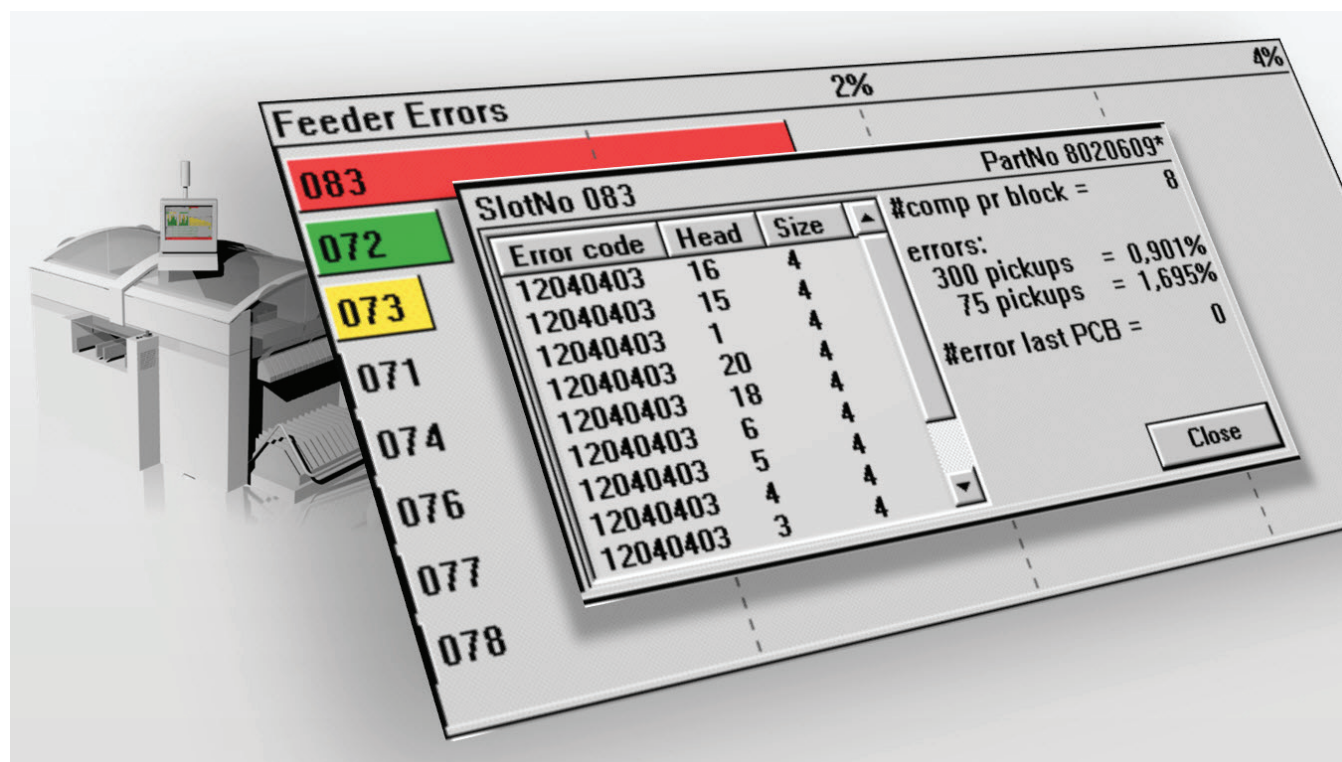
- Provides machine performance display in real-time
- Captures real-time status events
- Detects actual program
- Provides board and block count
- Captures pick-up errors from the machine
- User defined list of alternate "stop" reasons (i.e. maintenance, prototype production) can be setup by the administrator
- Measures and saves the cycle-time for each board produced, on each machine/module.
- Enables feeder (slot) performance display in real-time



The machine interface gathers and displays machine performance in real time.

Production Monitor

The line performance graphical display shows the actual performance compared to the possible performance. This is done in real-time for a period selected by the user. It is



The Machine Interface gathers and displays the performance of each feeder on the machine and shows feeder errors and dropped parts. The worse performing feeders are shown in a graphical histogram analysis.

even possible to specify user-defined production line overviews. The line performance is calculated as the performance of the bottleneck machine, since the bottleneck machine is the machine that limits line throughput. The bottleneck machine is continuously recalculated to reflect the actual situation in the line.

Two types of bottleneck machines are displayed to the operator. A) The current bottleneck machine calculated from the cycle time only (the machine that is the bottleneck if all machines are running without error stops). B) The current bottleneck machine calculated from the cycle time and stop time (the one that is the real bottleneck because it often stops with errors)

The current status (working, error, wait next and wait previous) is shown for all machines in the line.



Global production monitor display keeps tabs on line and factory performance

WIP Point

The WIP Point option provides a stand-alone means for logging a unit as it moves through an operation process and then stores this information for analysis, reporting and use in the Enforced Routing option in the Valor MSS Foundation module.

Key Features

- Intranet-based Line Performance Monitor
- Shows real-time and historic line performance
- Shows real-time machine status
- Drill-down capability
- Indicated bottleneck machines
- Provides scheduled and on-demand reports (depends on installed options)
- Production reports
- Productivity reports

#	Status	Operation	Routing Control	Date	Loop Back	Max Loops
10	PASS	01.01.01 - Manual Registration	v	6/25/2011 6:23:00 PM		
20	—	01.07.09 - WIP Operation	v			
30	—	01.03.01 - Manual Soldering	v			
40	—	01.04.03 - Final QC	v		30	2

Stand Alone WIP Point logs each unit through a point in the process routing. Can be used as manual entry, hand held scanner, or conveyor mounted scanner for automatic logging. WIP Point data supports WIP tracking reports, and enforced routing options.

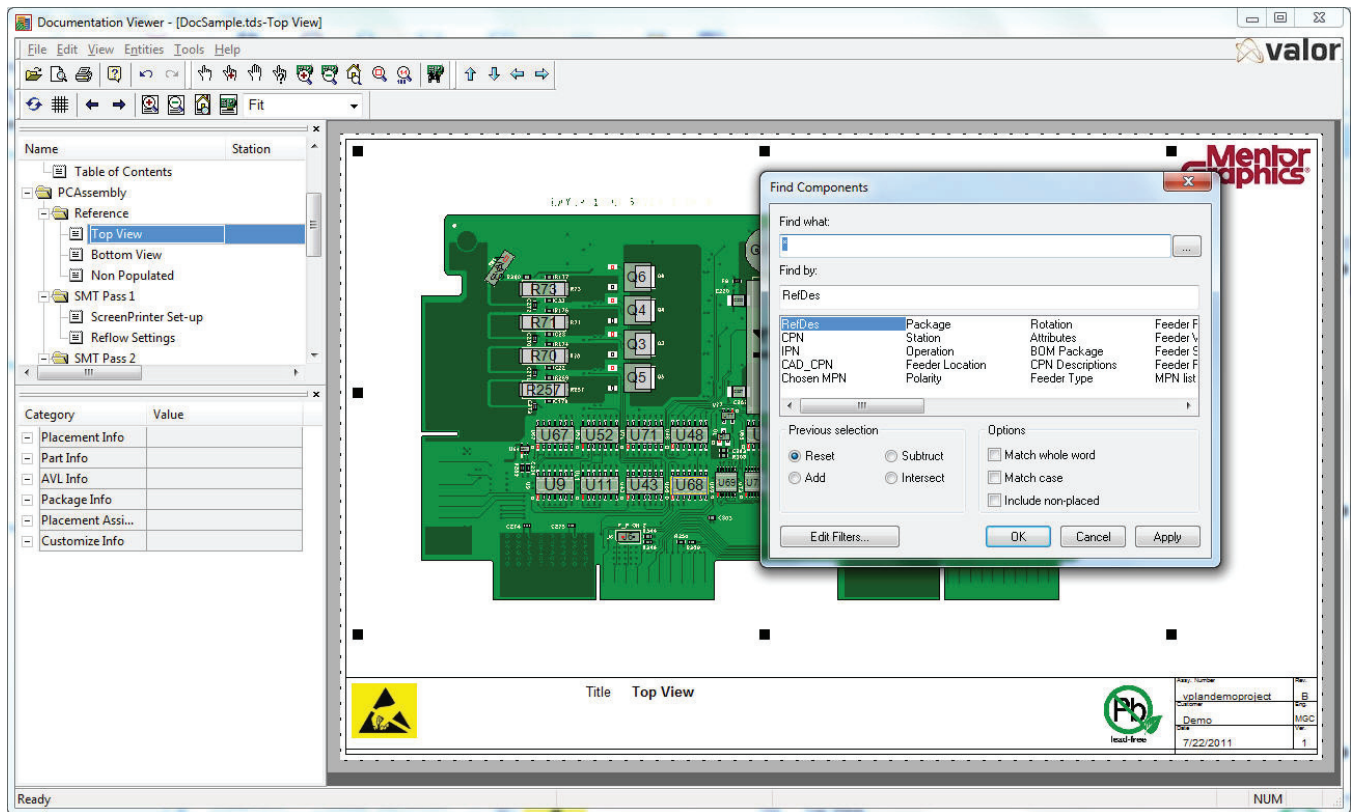
Key Features

- Manual WIP registration point
- Automatic (in-line) WIP registration point
- Supports enforced routing
- Can be configured to stop the panel in case of misread etc. (hardware needed)
- Automatically detects PCB removal (an extra sensor is needed)
- Mechanical PCB-stop can be provided (hardware needed)
- Supports most standard scanners/cameras

- Registers serial number (panel, block) location and time into the database
- Registers the panel to order number
- Both in-line and manual version can read and connect panel and block relation

Documentation Viewer

The Documentation Viewer is a stand-alone option for paperless viewing of assembly and test instructions created with the MSS Process Preparation documentation solution. Viewer is a dynamic tool that allows the user to



Stand Alone Documentation Viewer displays the correct interactive work instruction for the unit in process at the current work station.

For the latest product information, call us or visit: www.mentor.com/valor

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