

Valor MSS Material Management Just-in-Time Logistical Materials Flow to Production

PCB Manufacturing

D A T A S H E E T



Valor MSS Material Management aggregates pull signals based on actual materials consumed, machine cycle times, and the completion status of the current and future work orders in real time, ensuring materials get to the right machine at the right time, avoiding material starvation. This optimizes the material flow from the warehouse to the factory floor.

Overview

Material management inside the factory occurs in different places and levels, requiring different types of support to efficiently keep track of your inventory. The Valor® MSS Material Management solution address this need, provides just-in-time technology to manage a consistent material flow to the production lines based on the actual demand. It offers four stages of material management, aimed to provide you with a flexible solution to address your specific production needs, helping you significantly reduce inventory, and ensure a smooth manufacturing flow.

Eliminate buffer stocks and guesswork by using a tight machine integration and precise inventory management. With Valor Material Management, the actual number of parts remaining on every carrier is constantly accurate and up-to-date by taking into account actual parts used in process through consumption and waste. The advanced just-in-time technology anticipates order completion, feeder exhaust points, upcoming changeovers, and supports operational constraints, eliminating bottlenecks and unexpected delays.

Tight Integration to the Shop Floor with Basic Material Management

The basic Valor MSS Material Management module uses MSS machine connections to gathers real-time performance information (e.g., program name, placements, dropped parts/waste, cycle time, wait time, and low-level warning data) for each material position. This information allows the material management solution to have an accurate view of the inventory down to the single-carrier level, and all data is stored in the MSS database and used by various parts of the material management software. The solution applies for all material consuming stations in the factory, including SMT, THT/odd-form placement, manual assembly, and system assembly as well as process points like screenprinter, dispenser, and coating.

MAJOR BENEFITS

- Enables a smooth and continuous flow of materials between warehouse and shop floor
- Optimizes changeover time, reduces need for material counting
- Optimizes material usage for higher material turnover
- Removes excess material WIP from the shop floor
- Improves quality with MSD and AVL management
- Maintains inventory accuracy
- Enables accurate MRP ordering and planning

Material Manage | Component Verifier

valor

Click Here To Switch To Verifier Mode

Pick List
CPL022220002

Close Pick List

Please Enter/Scan Reel Information
Please Enter/Scan Reel Information
Reel is not part of current Pick List
Please Enter/Scan Reel Information

Reel ID: 00008907 Quantity: 10000 Part Number: 512517-002

Pick List	Time	Group	Validated	Part No	MC Name	Station	Slot	Amount	Reel ID
CPL022220...	25-02-2009...	Line 22		512362-101	Line 22	1	27	10000	
CPL022220...	25-02-2009...	Line 21		512362-203	Line 22	2	7	10000	
CPL022220...	25-02-2009...	Line 4		512821-130	Line 22	1	37	5000	
				523126-003	Line 22	1	45	3000	
				512517-002	Line 22	2	9	10000	00008907
				512807-014	Line 22	2	13	5000	00008905
				512819-100	Line 22	2	16	10000	00008906

Setup Groups Reprint Pick List

Verify each new pick list to ensure the correct part numbers and quantity for needed materials on a specific machine in advance to avoid errors, bottlenecks, and line stops.

Material Manage|Config&Test [ID: 905] 11.1.X (23308 d)

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Group Setup Reel Picking Setup Additional Settings

Material Manage|Attribute Configuration 11.1.X (23308 d)

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Group Config Attribute Config Storage Config

Attribute Group "Group 1"

Group Name
Group1

☐ Must Select At Least One Attribute
☒ Only Allow Single Attribute Select

Attributes for Group

☒ VP
☒ IP
☐ Taxed
☐ Non-Taxed
☐ Expensive
☐ Non-Expensive
☐ MSD

Delete

CPL022220007

Printed: 05-03-2009 12:56
Target: Line 4
Type: Automatic
Picked By: _____

MC Name	Station	Slot	Amount	Reel No	Need Time	
304	1	5	4000	1	14.17	
304	1	9	10000	1	13.16	
304	1	11	10000	1	13.27	
303	1	11	10000	1	13.62	
302	1	11	10000	1	13.16	
302	1	8	10000	1	14.08	
302	1	12	10000	1	14.28	
303	1	9	10000	1	15.02	
305	1	7	7500	1	13.25	
513029-005	305	1	14	2500	1	14.41
513452-002	305	1	5	3300	1	14.28
513458-003	305	1	8	10000	1	14.10
513508-001	305	1	11	7000	1	14.08
513508-001	305	1	12	7000	1	14.15
523077-028	305	1	10	3000	1	13.40

Intuitive configuration dialogs allow setting up groups to evaluate the "cost" of the pick list. Material selection is made with cost rules in mind, along with attribute such as FIFO, MSD storage, or previous allocations.

Advanced verification ensures that all the correct materials (and tools) are set up before assembly, improving your efficiency and quality. It also provides you with maximal flexibility by supporting functions such as alternate parts, AVL, free feeder positioning, dynamic alternate positions, blocked material, safe splicing, etc. Valor Material Management also supports customer-defined material attributes (e.g., LED class, material consignment, etc.), along with dynamic BOM verification for LED light classes. It also supports barcode identification and smart feeders and splicing sensors, enhancing your productivity during the verification process.

Valor Material Management provides an automatic warning on PDA, along with a machine screen and dashboard when materials are running low, to help you stay updated at all times.

Additionally, Valor Material Management includes MSD management, with auto-alarms for any materials in any environment. Moisture-sensitive materials are identified at the material registration, and machine operations can be forced to stop if any materials expire. MSD management includes dry-store and oven-baking processes.

Improve Line and Operator Efficiency with Advanced Material Management

By eliminating downtime caused by delivery of the wrong parts or by waiting for materials to arrive, the Valor Material Management Advanced option improves manufacturing asset utilization. Just-in-time material delivery helps minimize WIP by keeping only the required materials on the shop floor. It automatically generates pick lists at the warehouse, based on the actual machine consumption and upcoming work orders. It presages the exhaust point of every material position and then aggregates each machine included in the supported region of the factory. Lines are easily divided into sections of the factory and can be supported by one master stockroom or separate stockrooms.

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

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