

Oracle Manufacturing Cloud – R13



EFFICIENTLY MANAGE YOUR SHOP FLOOR IN THE CLOUD

KEY BUSINESS BENEFITS

- Increase margin/revenue
- Reduce cost of ownership
- Rapidly implement using quick set up
- Manage and execute your production process, both internal and contract manufacturing.
- Reduce inventory, drive down costs, improve on-time deliveries

The Oracle Manufacturing Cloud solution helps firms compete in today's global market by providing new and better tools to run their shop floor. With margins for products eroding and customer demands increasing, manufacturers must adopt modern best practices to increase business agility, enable insightful decision-making, and achieve more, with fewer resources. Built on a modern cloud platform, this solution provides manufacturing and supply chain materials management with integrated quality, embedded analytics and '2-click' ease of use, enabling outstanding user productivity and excellent return on investment. Cloud, desktop, tablet, mobile, scanning and social technologies are combined to provide the state of the art solution for manufacturing companies - whether you do in-house manufacturing or contract manufacturing - it can transform your business.

MANUFACTURING SOLUTION IN THE CLOUD

The Oracle Manufacturing Cloud is designed to achieve manufacturing excellence in the industrial manufacturing and high technology industries without expensive hardware and system management overhead costs.

Visually Design Your Production Process

In the Oracle Manufacturing Cloud, engineers can quickly define the necessary data for their plant hierarchy and process standards, working calendars, work areas, work centers resources, calendars and standard operations. They can visually design the production process on an object called a work definition – which combines the item structure and routing into a single view. They create their operations, and then drag and drop resources and components to the process to complete the flow – determining shop floor controls on the way (such as which components must be manually issued, vs. automatically backflushed.) In addition, they can collaborate with colleagues through real-time conversations and stay connected with updates to work definitions using Oracle Social Network

KEY FEATURES

- Optimized end-to-end supply chain business flows
- Discrete manufacturing on the cloud, including contract manufacturing, configure to order, and drop shipment
- Ease of use with 2-click work order execution
- Flexible work order costing
- Embedded analytics driven navigation and real-time views into work orders with serialized enabled manufacturing
- Advanced graphical editing tool- visually design the work definition
- Embedded Social Collaboration

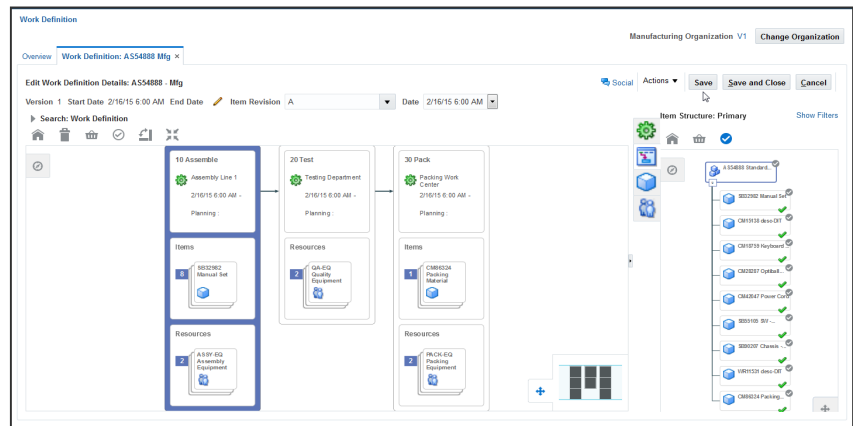
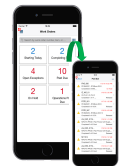


Figure 1. Work Definition - Visually design a work definition representing the discrete manufacturing operations, materials, and resources to make a standard or configure-to-order (CTO) product

Efficiently Manage Your Shop Floor While On the Go

The Production Supervisor starts on a landing page that gives them a quick look at critical information about how their work area or work centers are running. They can view and resolve exceptions with-one click access to drill into the details and take action, print travelers, generate parts list and view production and quality history. Work orders are also socially enabled to collaborate on problems, and Oracle Transactional Business Intelligence gives you quick and easy reporting capabilities. All designed for use on a tablet and / or smartphone, so the supervisor can take action on the go.



You can also prioritize work orders for release to execution based on a material availability check. After you identify material shortages and view expected supplies to determine which work orders are ready to start, you can initiate a pick for all the components that are required in the next few hours, schedule the pick action to run automatically, or initiate a pick as you release a work order to the shop floor. The picking list generation is similar to those for a shipment, or other warehouse movement and based on pre-determined rules.

To execute production, the operator is provided with a simple, intuitive, easy to use dispatch list with two clicks required to issue materials, charge resources, complete a job, log a manufacturing exception, enforce serialized or lot transactions, report orderless completions, rejections and scrap, record elapsed cycle times, and print production documents and labels...again optimized for the tablet.

Work Execution Manufacturing Organization: V1 [Change Organization](#)

Overview [Review Dispatch List](#)

Review Dispatch List

Search Saved Search Application Default

Actions View

Quantity	UOM	Status	Work Order	Item	Work Center	Operation Name	Completion Date	Materials	Resources
3	Each	Ready	1130 - 30	AS54888	Packing Work ...	Pack	8:00 PM	Materials	Resources
2	Each	Ready	1128 - 30	V296320	Packing Work ...	Final Pack	8:43 PM	Materials	Resources
2	Each	Ready	1133 - 30	AS54888	Packing Work ...	Pack	9:00 PM	Materials	Resources
2	Each	Ready	1134 - 30	V296320	Packing Work ...	Final Pack	9:10 PM	Materials	Resources
3	Each	Ready	1135 - 30	AS54888	Packing Work ...	Pack	9:30 PM	Materials	Resources
1	Each	Ready	1136 - 30	V296320	Packing Work ...	Final Pack	9:51 PM	Materials	Resources

Columns Hidden: 4

Figure 2. Review dispatch list, execute and complete work orders

When used with Oracle Quality Management, the system can require operators to perform a quality inspection at key points in the production process. If a part fails inspection, the system automatically requires both immediate disposition on the shop floor and alerts a quality engineer to review for possible permanent corrective action.

Quick Complete: SP53-1001-20: Inspect Inspection Plan: AS96020 [Save and Close](#) [Cancel](#)

Item: VAS96020 [Inspection Details](#)

Serials	Pending	Accepted	Rejected	Scrap	Inspection Quantity	Disposition	Inspection Level
2	2	0	0	0	2 Each	PENDING	100%

Serials: Scan [Reset](#)

SP531018: Inspection Results [Clear All](#)

Sequence	Characteristic	Specifications	Result	Result Date
10	Power Up	Yes	Yes	8/24/16 10:23 AM
20	Voltage	100-150 V	120	8/24/16 10:23 AM
30	Current	4.5-5.5 AMP	5.2	8/24/16 10:23 AM

Figure 3: Inspection results are entered as part of the manufacturing process

Real-Time Visibility Into Contract Manufacturing

Automate and orchestrate the end to end contract manufacturing process for both Make-to-Stock and Make-to-Order scenarios. Enable a touchless execution of your contract manufacturing process spanning your raw material supplier, contract manufacturer, customer and the enterprise. Contract manufacturing provides real-time visibility into the production progress that occurs at the contract manufacturer site, and can also monitor components that an original equipment manufacturer (OEM) supplies to the contract manufacturer's site. A contract manufacturing work definition defines what product will be manufactured, and the operations that require production reporting from the contract manufacturer. A contract manufacturing work order is created for

each purchase, to track production progress and capture costs that are occurring at the contract manufacturing site - improving supply chain inventory and costing visibility.

- Plan for the finished goods as well as OEM owned components at the contract manufacturer.
- Create purchase requisitions and orders that instruct your contract manufacturer to direct ship the goods to your customer or back to your warehouse.
- Create a tracking work order in reference to the purchase order to track progress.
- Adjust to supply and demand changes, and give your supply chain manager the ability to re-source the supply.

Seamlessly Integrate With Your Outside Processing Supplier

Automate the process of managing both your internal manufacturing operations and supplier operations of a work order. Streamline and effectively manage your extended supply chain to reduce cost, improve on-time delivery, and improve visibility.

RELATED SOLUTIONS

Oracle Planning Central Cloud

provides a complete manufacturing planning solution in one unified and multi-dimensional analytics platform.

Oracle Supply Planning Cloud

minimizes inventory risk and cost through review of supply and demand changes and simulated actions

Oracle Inventory & Cost Management

Cloud manages the inbound, outbound and internal flow of goods.

Oracle Quality Management enables you to define, test and analyze the quality of your items.

- Plan, execute and monitor supplier operations.
- Create work orders with the supplier operation services included
- Create shipping documentation and receive the partially finished assembly.
- Create and manage purchasing documents for the service.
- Update demand and supply changes

Streamline Configure-To-Order

In today's business environment, customers are demanding products that are tailored to their unique specifications. Successful companies must provide customized versions of products with shortened lead times. With Oracle's configure-to-order features, you can streamline configuration management and deploy an efficient build-or-purchase-to-customer-demand solution with the shortest possible fulfillment cycle times. Capture a configured customer order and automatically create and reserve a work order, purchase order or transfer order, or simply reserve to a matching, on-hand configuration. The system manages changes to supply and demand automatically, and alerts you to exceptions when they occur.

If the configuration will be made, the system creates a reserved work order to build the item based on the selected options. The configured item work definition is created on demand during planning collections and work order creation, using the base ATO Model work definition, selected options and transactional item attributes along with the applicability rules. This design reduces item proliferation and replication of data, improves item management and on-time order fulfillment.

Effectively Plan and Track Manufacturing Costs

Oracle has a robust cost management solution, supporting the planning, costing and analysis of your manufacturing costs. Flexible work order costing supports all costing methods – standard, actual, FIFO – or even multiple simultaneous costs - one for your official external reporting, and one for your internal management reporting. There are flexible, user defined account defaulting rules and valuation policies using cost profiles. Manufacturing cost analysis is displayed through a hierarchical view of buy item standard parts and very intuitive, visual reporting of cost variances.

There is a unified view of all work order related costs. Costing calculates the cost of work orders based on material (including landed costs), resource transactions and overheads. Partial completion costs are calculated according to user defined method and entries adjusted to actual, when the work order is closed. Costing analyzes WIP balances, total cost incurred, scrap and variances for work orders.

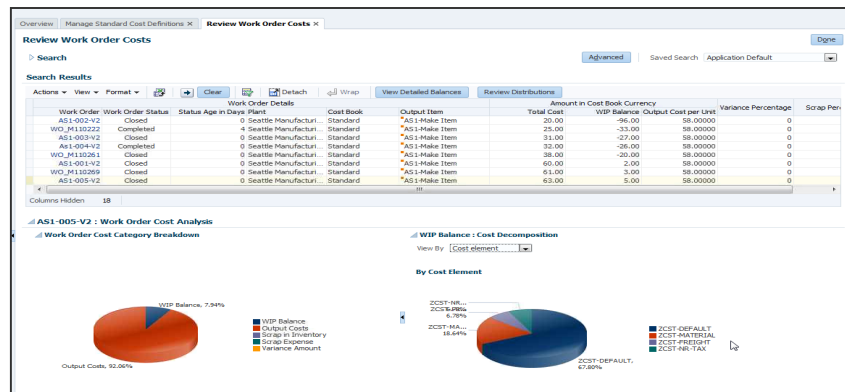


Figure 4. Review and Analyze Work Order Costs

Graphically Track and Trace Items Throughout Their Lifecycle

In many industries, there is an ever-increasing need to provide inclusive lot and serial tracking from supplier through production and shipment in order to support quality containment and recall events. If you have a product failure, the Oracle Product Genealogy solution enables you trace the entire history of any serial or lot to determine possible sources of the failure, understand where the problem product is at the moment, where the other potentially impacted items are, and then investigate if the failure has been corrected or if it's ongoing. Quickly and easily retrieve genealogy and component information detailing manufacturing and inventory transactions and either display 2 levels of relationships or every transaction in the item lifecycle.



Figure 5. View Item Relationships in Product Genealogy

Execute Closed-Loop Quality Management

In today's fast paced manufacturing environments, delays and errors in reporting quality results and detecting quality problems can lead to defective products, downstream failures, and delayed product shipments. Oracle enables quality visibility, collaboration, and execution through quality control techniques and closed-loop quality management. Inspection – related capabilities assure inspections occur at critical points throughout supply chain execution. . You can also capture issues as they occur and then guide users through the corrective and preventative action process.

Comply with Regulations for Electronic Signature and Electronic Reports

In 1997, the United States Food and Drug Administration (FDA) enacted a regulation, called 21 CFR Part 11, describing the requirements for regulated industries manage critical records electronically. It establishes a uniform, enforceable, baseline standard for electronic records equivalent to paper records and electronic signatures equivalent to handwritten records and signatures. Oracle has create a solution for the Oracle SCM Cloud for common Good Manufacturing Practices (cGMP) critical records, enabling regulated industries to electronically comply with the 21 CFR Part 11.

Figure 6. Mandatory Capture of Signer ID, Password, Reason for Signing

Oracle Transactional Business Intelligence for Discrete Manufacturing

Companies today need the ability to analyze transactional data from their manufacturing facilities to improve supply chain visibility. They need visibility into production, inventory, quality and cost information to reduce waste and increase profits. Oracle Transactional Business Intelligence provides quick and easy access into the transactional system. Sliced and analyze your data by transactions across business processes for your, discrete manufacturing, contract manufacturing, configure-to-order, back to back, drop ship and internal material transfers.

Organization	Work Order	Item Name	Operation Sequence	Item Name	Material Issued Quantity	Transaction UOM	Transaction Date
V1	100SR11MFG_1087	FS-LPTB-1000	10	DBICC	5	Ea	7/6/2015
			20	NA2	4	Ea	7/6/2015
			30	NA3	4	Ea	7/6/2015
			40	RRL_RP_Inn123	4	Ea	7/6/2015
			50	RRL_RP_Inn124	4	Ea	7/6/2015
	100SR11MFG_1099	MDA0001	10	DBICC	5	Ea	7/6/2015
			20	NA2	5	Ea	7/6/2015
			30	NA3	5	Ea	7/6/2015
			40	RRL_RP_Inn123	5	Ea	7/6/2015
			50	RRL_RP_Inn124	5	Ea	7/6/2015
	100SR11MFG_1100	MDG0001	10	DBICC	5	Ea	7/6/2015
			20	NA2	5	Ea	7/6/2015
			30	NA3	5	Ea	7/6/2015
			40	RRL_RP_Inn123	5	Ea	7/6/2015
			50	RRL_RP_Inn124	5	Ea	7/6/2015
	100SR11MFG_1101	CMG0336	10	DBICC	5	Ea	7/6/2015
			20	NA2	5	Ea	7/6/2015
			30	NA3	5	Ea	7/6/2015
			40	RRL_RP_Inn123	5	Ea	7/6/2015
			50	RRL_RP_Inn124	5	Ea	7/6/2015
	100SR11MFG_1102	FS-LPTB-1000	10	DBICC	5	Ea	7/6/2015
			20	NA2	5	Ea	7/6/2015

Figure 7. Oracle Transactional Business Intelligence - real time, self service reporting

Users can view and analyze four discrete manufacturing areas--work order performance, material usage, resource usage and actual production. Reports and charts can be embedded into the Fusion applications.

Seamlessly Integrate Between External Systems

You can integrate the Oracle Manufacturing Cloud application with other enterprise systems and extensions running on Oracle's Platform as a Service (PaaS) using REST services. From any external application, you can use the Get / Update actions for work area, work center, work order header, work order details, material / resource/ operation transactions, quality inspections and dispatch list.. There are also inventory services such as reserve, replenish, internal transfer and receipt advice to support your supply chain flows.

Oracle Cloud Applications

The Oracle Cloud offers self-service business applications delivered on an integrated development and deployment platform with tools to rapidly extend and create new services. The Oracle Cloud is ideal for customers seeking subscription-based access to leading Oracle applications, middleware and database services, all hosted and expertly managed by Oracle. The application services are designed for ease-of-use, enabling business users to manage the solution directly with no IT involvement.



CONTACT US

For more information about [insert product name], visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.

CONNECT WITH US



blogs.oracle.com/oracle



facebook.com/oracle



twitter.com/oracle



oracle.com

Integrated Cloud Applications & Platform Services

Copyright © 2018, Oracle and/or its affiliates. All rights reserved. This document is provided for information purposes only, and the contents hereof are subject to change without notice. This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document, and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group. 0318



Oracle is committed to developing practices and products that help protect the environment