Oracle Shop Floor Management Product/ Functional Overview

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Purpose:
This document provides an overview of features and enhancements included in Release 12. It is intended solely to help you assess the business benefits of upgrading to Release 12.

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Agenda

- Product Review/Positioning
  - Market Drivers
  - Target Customers
  - SMB Leadership
- Oracle Solution
  - Core Features
  - Delta Summary
- Potential Customer Demo Scenarios
- Brief Competition Overview
- Q&A
- Appendix
Product Review/Positioning
- Market Drivers
Manufacturers face 2 types of Challenges

- Traditional Manufacturing Challenges
- New Emerging Challenges

A Smart E-Business Strategy can not only enable Manufacturers achieve excellence in traditional issues but also excel in new emerging challenges at negligible incremental investments.
Achieve Manufacturing excellence through focus on efficiency in

- Capital,
- Labor and
- Materials

Speed  Flexibility  Efficiency  Precision
Emerging New Manufacturing Challenges

- Industry Becoming More Customer Centric
- Managing Real Time Information Across Business Processes
- Global Contract Manufacturing
- Product Defect Tracking, Liabilities and Recall Management
- Regulatory Compliances

How can I leverage my technology investment to meet these new challenges?
OSFM e-Business Platform Meets New Emerging Manufacturing Challenges

- Real Time
- Architected for “plug-in” Capacity
- Leverage Visibility into Customer Service
- Evolve into Virtual Supply Chain
- Conform to Expanded Standards
- Regulatory Compliances
- Customer Focus...
Product Review/Positioning
- Target Customers/Industries
Semiconductor Industry Leadership

Oracle is the only ERP vendor to provide such comprehensive Shop Floor Management capabilities for the Semiconductor Industry.
Several Semiconductor Companies Have Partnered With Oracle To Make OSFM ideal for the Industry
Key Manufacturing Needs Addressed…

Target Customers need to be manufacturing Lot or Lot/serial controlled end items

Typical Examples:

Semiconductor chips, consumer electronics like DVD players etc, Bicycle Helmets, Medical Devices, rolled metal products. Etc etc – see detailed list in appendix

Essentially if the end product being sold by a prospect has a lot or lot/serial number, OSFM is a potential fit.
OSFM capabilities makes it very attractive for many Industries ...

- Medical Devices
- Metal Rolling and Fabrication
- Automotive Components
- Plastic Injection Moulding
- Optical lens Manufacturing
- Fiber Optics
- Jewelry Making Industry
- Engineer to Order Products
- And more ...

Many Medical Device, Metal and Automotive companies are OSFM customers today!
Recent OSFM Customers in Non-Semiconductor Industry!
Product Review/Positioning
- SMB Leadership
Oracle’s Value Proposition

1. Required Functionality

- Real-Time Shop Floor Visibility
- Configure to Order
- Supplier Collaboration & VMI
- Inventory/Postponement Optimization
- Customer Commerce
- Collaborative Planning
- Advanced WIP & Yield Mgmt
- Planned Stopping Points
- End Item Substitution
- Allocated ATP
- Lead to Quote to Order Mgmt
- Waterfall Analysis
- Service Contracts
- Integrated Service Mgmt

2. Deep Industry Commitment

- Advanced Product Catalog
- RosettaNet Transactions
- Consigned Inventory
- WIP Serial Tracking
- Partner Program Mgmt
- 3rd Party PLM Data Import
- Outsourcing Support for Multilayer Configurations
- Advanced Configuration Management
- Resource-Centric Scheduling Workbench
- Integrated Maintenance and Production Planning
- Quote & Proposal Mgmt
- Transportation/Planning
- Sales & Operations Planning
- Inventory Optimization Analytics
- Service Parts Planning
- Distribution Planning
- Option-Dependent Inventory
- Procurement Contracts
- International Drop Shipment
- Customer Consigned Inventory
- Special Pricing/Ship & Date
- Automated Spare Part Return and Repair Processes
- RFID Transaction Support
- Partner Fund Management
- Trade Planning and Exec.
- Deal Registration

3. Decreased TCO

4. Minimal Risk
Why Oracle?

- Functional Fit and Predictable Delivery Approach
- Oracle has extensively demonstrated the required functionality across all High Tech sub segments
- Many Oracle Partners have also designed a systematic approach to achieve the functionality over 4 months for SMB customers

- Deep Industry Commitment
- Oracle’s fabless semicon customers are the largest community by far, helping Oracle produce the best solution, and working together as a community: Oracle fabless semicon customers receive very high value

- Minimal TCO
- ~50% TCO advantage over the competition over a 5-year period

- Lowest Risk
- Oracle’s solution is much more extensively tested in the market vs. the competition
- Oracle’s Lowest Risk Plan ensures customers realize benefits with minimal risk
SMB Leadership
OSFM spans all Customer Sizes
The Only “Early Stage to Titan” Enabler
How Oracle Delivers
OSFM Core Features
Shop Floor Management Overview

Extends Your Existing Investments
- Multiple MES feed data through OSFM to ERP; single point of integration
- Highly scalable regardless of internal or external feeds
- Global repository & process management
- Eliminate batch, synchronization, and maintenance headaches
- Enables the real-time enterprise
Product Genealogy Tracking

Trace Product Defects to Their Root Cause

- Trace a customer shipment back to the original source
- Trace a lot backwards and forwards, through all sectors of manufacturing, across all organizations
Lot-Based Manufacturing

Rel 12 extends this to Lot/serial manufacturing as well..

- Model Flexible Processes with network routing infrastructure
- Manage WIP Lot Movement by enforcing Network Routing
- Split, Merge or Translate released lots to another end item
- View Lot Genealogy forward and backward
- Compute True Operation Cost based on reverse cumulative yield
- Define Co-Products, distribution splits and yields
Rel 12 Delta Summary
R12 Additions to OSFM Functionalities
Leads to granular and effective control on shop floor

- Lot/Serial and Attributes Management support
- Granular and Enhanced Shop Floor Modeling
- Actual Data Capture and Enhanced Shop Floor Visibility
- Introduced Dispatch Lists and Lot Travelers
- Deeper Execution capabilities and Pro-active Alerts
- Support for Sales Order Reservations
Support for Lot/Serial Controlled Assemblies

- **Functionality before Release 12:**
  - OSFM Supported Jobs with Lot Controlled Assemblies only

- **Functionality in Release 12:**
  - OSFM Supports Jobs with
    - Lot Controlled Assemblies
    - Lot and Serial controlled Assemblies
  - Support provided in forms as well as in HTML UI
  - Detailed Functionalities describes in Part II presentation
Shop Floor Modeling, Configuration Capabilities

- **Functionality before Release 12:**
  - Limited Modeling/Configuration Capabilities

- **Functionality in Release 12:**
  - OSFM supports
    - Responsibility Configuration
    - Dispatch Lists Configuration
    - Low Yield Trigger Definitions
    - Reason Codes for Scrap, Bonus etc.
  - Lot Travelers
Shop Floor Planning Enhancements

Planning Enhancements

- ASCP takes actual job start dates for planning
  - Calculates the portion of the job completed prior to plan start date
  - Schedule only portion of the job yet to be completed as of plan start date
- ASCP support for BOM components
  - Plans for components that are consumed on Lot-basis
- Support for sequence dependent set-ups
  - Grouping of activities of same setup type
  - Schedule sequence dependent setup resources to resource-instance level
Planning Enhancements (contd..)

- Enhanced Gantt chart capabilities
  - Plan shop floor activities in a much detailed manner
  - Better view of the shop floor information thru enhanced Planners’ workbench
- Integration with Production Scheduling (PS)
  - Representation of OSFM Network Routing in PS
    - Item Routing
    - Work Order (Job) Routing
  - Representation of the OSFM Network Routing in Strategic Network Optimization (SNO)
  - Representation of OSFM Lot Based Job (PS Only)
    - Co-Products, Operation Yields
Enhanced Shop Floor Execution

OSFM Supports

• Dispatch List
• Move In, Move Out, Move to Next Op
• Capturing Actual Job Data During Execution
• Alerts for Low Yields
• Shop Floor Resources: Status Update, Event Log
• Electronic Lot Traveler
• Attributes Management
• Partial Job Move Transactions
Attributes Management for Lot/Serial Controlled Assemblies

• **Functionality before Release 12:**
  • Support for Lot Attributes in Forms (R10) for:
    • Material Receipt, Job Creation, Lot Creation, Move Transactions, WIP Lot Transactions

• **Functionality in Release 12:**
  • OSFM provides
    • Support for Serial Attributes in Forms for:
      • Job Creation, Lot Creation, Move Transactions, WIP Lot Transactions
    • Support for Lot Attributes in HTML UI for:
      • Job Move Transactions, WIP Lot Transactions
    • Support for Lot Attributes in Forms for:
      • Inventory Lot Transactions
Other Enhancements

• Withdrawal of Option-I (Applicable for existing OSFM customers only)
• Sales Order Reservation for Lot-Based Jobs
• Exchange Shop Floor Information with Partners
Product Demonstrations/Hands on
Potential Customer Demo Scenarios
Potential Customer Demo Scenarios

Increased manufacturing Flexibility and responsiveness

- How can I make my shop floor nimble and efficient?
  - Demo flexible routings and WIP lot Txns to show how decisions can be implemented real time

- How can I know about any waste generation at the shop floor as soon as it happens?
  - Demo reduced wastage through Operation yield alerts

- How do I proactively know about any Mfg defects and correct them?
  - Demo real time visibility on mfg history to locate/resolve mfg defects

- How do I streamline data entry and handling of jobs on the shop floor?
  - Demo dispatch lists and lot travelers

- What is the best way to salvage off-specs materials at the shop floor?
  - Demo Salvaging of materials by downgrading through update assemblies
Potential Customer Demo Scenarios

Manufacturing New Products

As I manufacture new products, how do I have flexibility in mfg process?

How do I capture important mfg information to analyze it later on?

Demo flexible routings and WIP lot Txns to show how decisions can be implemented real time

Demo attributes management and also Quality collection plans

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Potential Customer Demo Scenarios
Demand Variability, Resource Optimization, Outsourced Manufacturing & Regulatory Compliances

- How can I minimize the impact of late and incorrect multi-channel forecasts?
  - Leverage flexible routings/update assemblies etc to adjust mfg with demand variability

- How can I maximize my resource utilization?
  - Demo resource visibility, down codes and also integration with PS

- How can I adapt my processes to reduce costs through global outsourcing?
  - Show outsourced manufacturing flow incase resources on shop floor are overloaded.

- Can I manage regulatory compliances through OSFM
  - Demo lot travelers and attributes along with genealogy and how XML publisher can be used to print reports

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Potential Customer Demo Scenarios

Customer Response

- Can I have real time visibility to my customer’s orders on shop floor?
  - Demo Real time WIP tracking and Genealogy

- Can I change work order specs based on customer requests?
  - Demo changes in work orders based on flexible rtgs and update assemblies

- Can I investigate sources of defects if a customer reports one?
  - Show genealogy and manufacturing lot history
Brief Competition Overview
The Shop Floor Management Market Place

**Suite Vendors:** Offer integrated suite

**Niche Players:** Mostly localized, but claim “best-of-breed”, and require large integration efforts

Consilium /
# How Shop Floor Mgmt Solutions Stack Up…

<table>
<thead>
<tr>
<th>Capability</th>
<th>Oracle</th>
<th>SAP</th>
<th>Camstar</th>
<th>PRI</th>
<th>Brooks</th>
<th>Consilium</th>
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<td>Advanced Shop Transactions</td>
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Notes: + = Good, O = Neutral, - = Poor/NA, ? = Unknown
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Appendix

OSFM Potential Customers beyond its leadership in High Tech Industry
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<tbody>
<tr>
<td>1.1</td>
<td>Industrial Manufacturing</td>
<td>Compressor</td>
<td>Air Compressor</td>
<td>Serial</td>
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<td>1.2</td>
<td>Pumps &amp; Motors</td>
<td>Fluid Pumps</td>
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<td>Lot/Serial</td>
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<td>1.3</td>
<td>Flow Controls</td>
<td>Industrial Valves</td>
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<tr>
<td>2.1</td>
<td>Auto Parts &amp; Equipments</td>
<td>Auto Ancillaries</td>
<td>Spark plug</td>
<td>Lot/Serial</td>
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<td>2.2</td>
<td>Bearings</td>
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<td>Ball Bearing</td>
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<tr>
<td>2.3</td>
<td>Battery</td>
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<td>Automotive Battery</td>
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<td>2.4</td>
<td>Auto Parts &amp; Equipments</td>
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<td>2.5</td>
<td>Auto parts</td>
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<td>2.6</td>
<td>Tires &amp; Rubber</td>
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<td>3.1</td>
<td>Household Appliances</td>
<td>Air Conditioner</td>
<td>Window Air Conditioner</td>
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<td>3.2</td>
<td>Fans</td>
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<td>Lightings</td>
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<td>Leisure Equipment &amp; Products</td>
<td>Sport Goods</td>
<td>Bi Cycle</td>
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<td>4.3</td>
<td>Photographic products</td>
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<td>Apparel, Accessories &amp; Luxury Goods</td>
<td>Jewelry</td>
<td>Necklace</td>
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<td>Personal Accessories</td>
<td>Watches</td>
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<td>5.3</td>
<td>Personal Accessories</td>
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<td>Medical Devices</td>
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<td>6.3</td>
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<td>Measuring Instruments</td>
<td>Pressure Gauge</td>
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Questions & Answers