Value of Complete Product Definition & Case Studies

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Stories behind a couple of iconic products

High-Tech Firms' Operating Environment

- What is in common among Motorola and Apple?
- Microsoft's Xbox and Motorola's Razr?

- Competitive Operating Env. for High-Tech Firm's New Product Launch
  - Lead time vs. speed to market
  - Design anywhere & Build Anywhere
  - Quality
  - Mass Customization

PLM Service Value Position

- PLM as the mass customization process backbone
  - Product variants: market segment & reuse
  - Production capacity configuration: flexibility & quality
- Information coordination throughout product life cycles
  - Integrated Product Information configuration management across functions & partners
  - Choice between information quality and speed: PLM gives both

Complete Product Definition

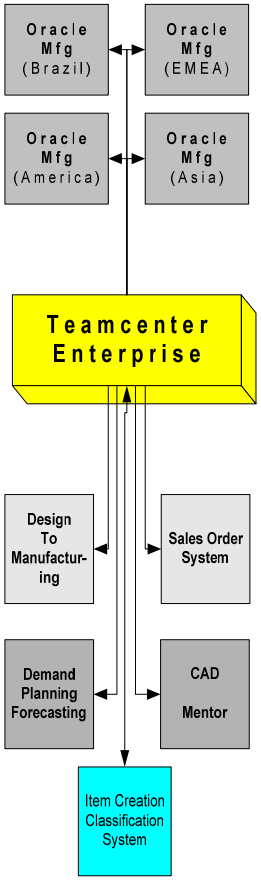
- By discipline -> granularity of data
  - Mechanical
  - Electrical
  - Software
- By function -> participants & responsibilities
  - Marketing
  - Engineering
  - Manufacturing
  - Distribution
  - Service
- By PLM phases -> repeatable process for mass customization

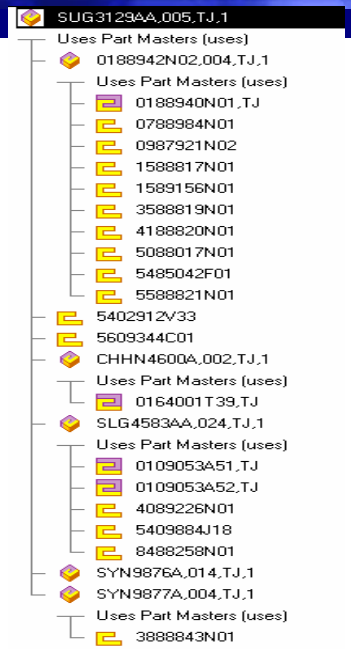
Product Information Definition
Past, Present, Future

- Paper
- Digitized Design Data
- Internet -> Limited Sharing
- Product Development Process Digitization
  - Granularity of data
  - Granularity of process

A Motorola Example (WIP)

Systems View

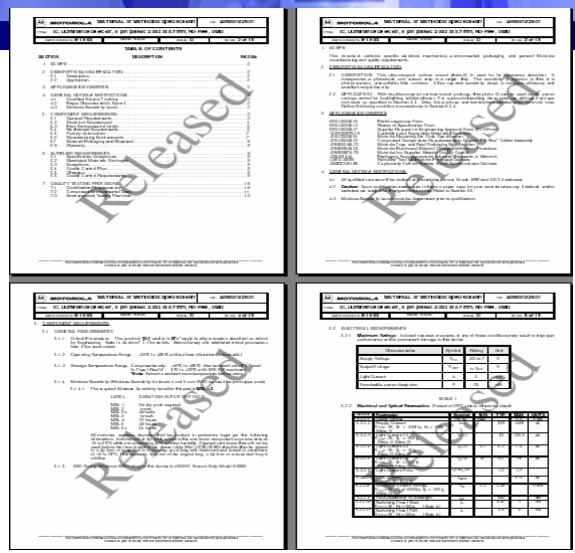




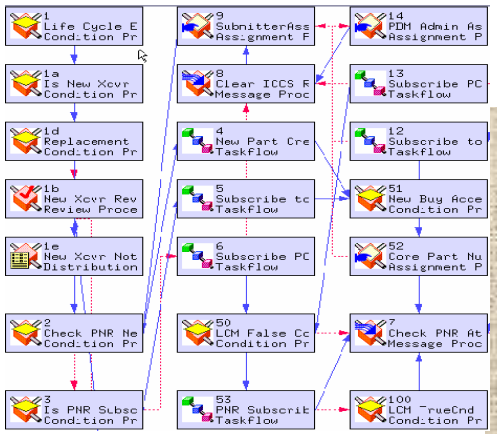
Teamcenter Features

BOM and Document Management
Flexible Lifecycle Routing
Seamless integrations with:

- Oracle ERP (4 regions)
- Item Classification & Control system
- Sales & Service Order Management
- Material Forecasting & Planning
- Design to Manufacturing

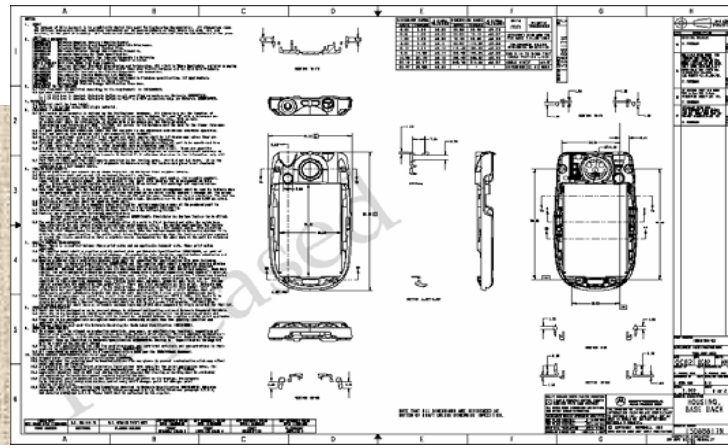


New Part Number Request

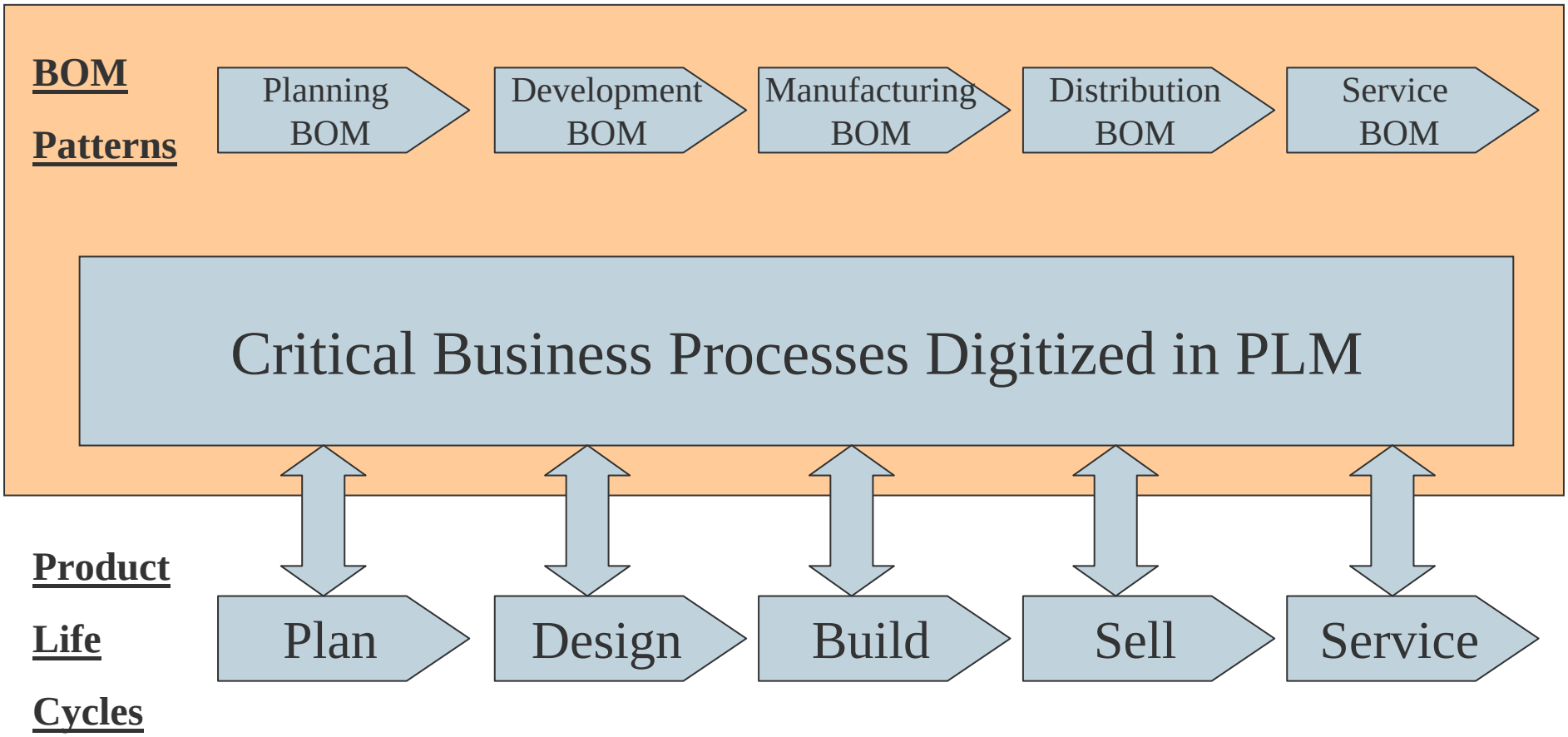


Important Part Attributes

Detailed part description
Planning attributes
Product Lifecycle state
Export Control Attributes
Accounting Attributes



Information & Process Kernel
In the context of New Product Introduction



Matrix View of the Kernels

life cycle / function	Concept & Plan	Develop	Build	Distribute	Service
Marketing	☑	☑	☑	☑	
Supply Chain	☑	☑	☑	☑	
Accessory		☑	☑	☑	☑
Engineering HW & SW		☑	☑	☑	☑
Test & Compliance		☑	☑	☑	
Customer Service				☑	☑

Case #1: RoHS Enablement

- What is RoHS?
- How is multi-form BOM utilized
- Data
- Process
- Reuse

Case #2: Inventory Planning

- Business drivers
  - Lead time
  - Uncertainty
  - Cost of over & under stocking
- Manufacturing
  - Key components vs. commodities
  - Penny wise vs. pound foolish type materials planning
- Post-sales Service Part
- Early identification of service parts
  - Joint planning between service ops and engineering
- How does Teamcenter Help: a simple matter of reuse and work flow

Case #3: Design anywhere & Build anywhere

- Rich mix of global sourcing decisions
  - Dynamic capacity configuration
  - Quality
  - Efficiency
- Within Motorola
- With sourcing partners
  - Component level
  - Product level
- Enables:
  - Common manufacturing technologies & processes
  - Structured data transfer
  - Common design tools and data
- How does Teamcenter help: elimination of redundancy in data reproduction and integration of critical information flows from design to manufacturing.

Q & A