

Applying Product Context to Manufacturing using RtPM and ProcessPoint

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D I S C O V E R Y O U R P O R T A L T O P E R F O R M A N C E

Outline

- ProcessPoint and RtPM
- Demonstration
- Summary



What is ProcessPoint

- Pre-Process information
 - How the process should run
- The complete record of a product
 - Specifications
 - Bills of material and raw materials
 - Standard operating procedures
 - Process targets and limits
 - Quality tests and limits
- Controls and distributes product information
 - To PI applications
 - To users
 - To other systems



ProcessPoint role within RtPM

- Real-time
 - Being able to evaluate information
 - Quickly
 - Over any timeframe
 - ProcessPoint supports current and historical intent
- Performance
 - Actual vs. intent
 - PI supplies the actual
 - ProcessPoint supplies the intent
- Management
 - Actionable data
 - Put into context, data can easily drive decisions, action
 - ProcessPoint supplies context of “what should happen”

ProcessPoint and RtPM

- Primarily for product oriented companies
 - Pulp and Paper
 - Chemicals
 - Oil and Gas
 - Pharmaceuticals
 - Consumer Goods
 - Food and Beverage
- Benefits are:
 - Improved Change Management
 - Quicker time to manufacturing
 - Reduced waste
 - Reduced product variability
 - Higher quality and increased customer satisfaction
 - Ability to analyze and improve manufacturing

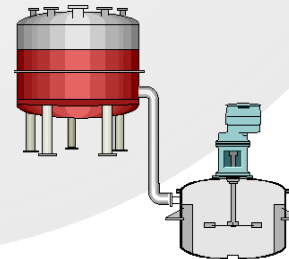




Research & Development
Product specification
Specify process targets
Quality limits



Material Receipt
Check raw materials
Check specified properties



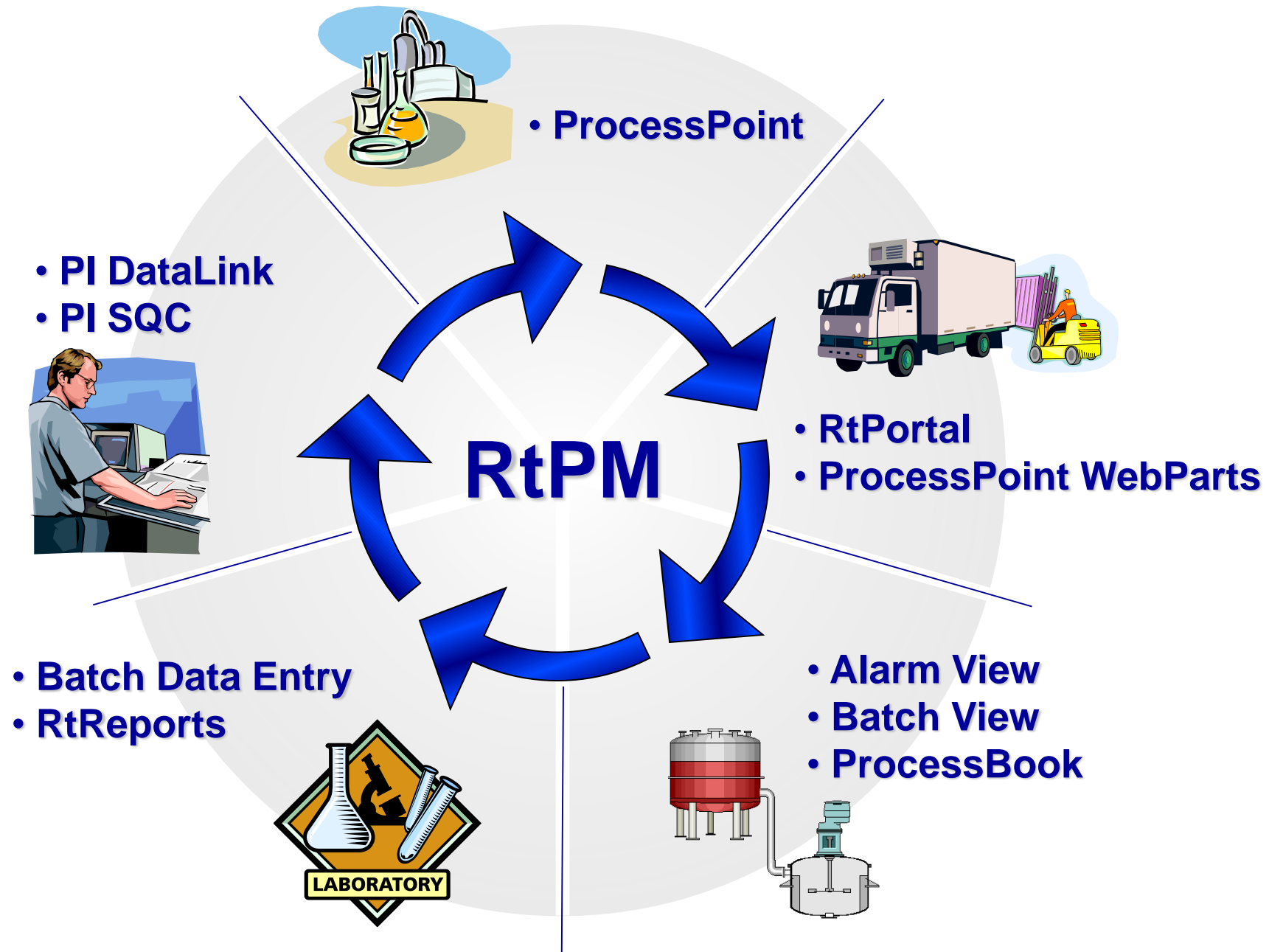
Manufacturing
Monitor process
Respond to alarms



Quality Assurance
Enter quality values
Check specifications
Release batches

Process Engineering
Analyze process
Recommend Improvements





R&D creating a specification

Research & Development

- Product Specification
- Specify Process Targets
- Quality Limits



- Description
 - Different industries want to capture different data
 - Must be able to specify information unambiguously
 - Distribute information to PI clients, users, applications
- Value
 - ProcessPoint stores the complete product
 - Like PI, stores this forever and allow use in meaningful ways

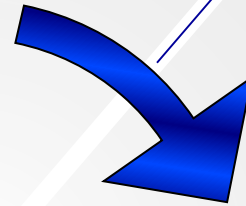


Research & Development

Product specification

Specify process targets

Quality limits



Material Receipt

Check raw materials

Check specified properties

Material Receipt

Material Receipt

- Check Raw Materials
- Check Specified Properties



- Description
 - Easy access to part of specification
 - Example is material receiving
 - Receiving may check suppliers quality information
- Value
 - ProcessPoint can format information in a role-based manner
 - Are the raw materials within *the suppliers* limits?
 - Are the raw materials within *our* limits?

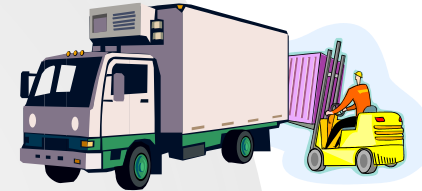


Research & Development

Product specification

Specify process targets

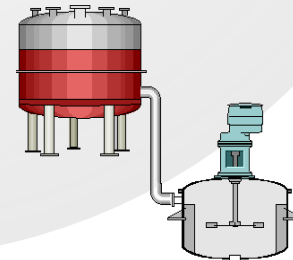
Quality limits



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Manufacturing

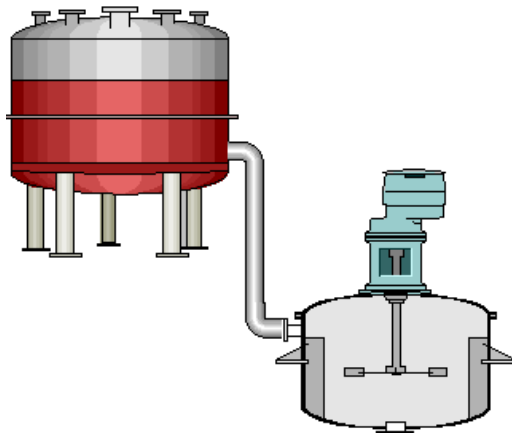
Monitor process

Respond to alarms

Manufacturing

Manufacturing

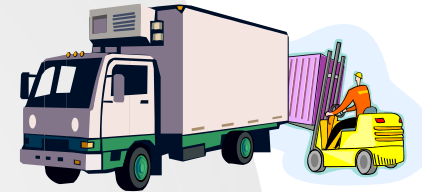
- Monitor Process
- Respond to Alarms



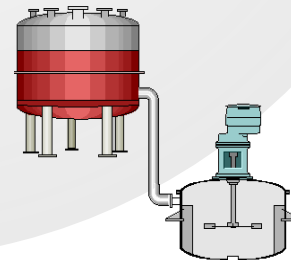
- Description
 - When is the process having problems?
 - What step is the batch system at?
 - What limits, targets do I change when I make a new product?
- Value
 - Process is compared against current product specification being manufactured
 - Alarms are generated according to actual product specifications



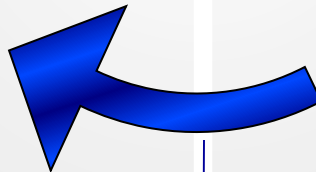
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Quality Assurance
Enter quality values
Check specifications
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Quality Assurance

Quality Assurance

- Test Products
- Enter Quality Values
- Check against Specifications
- Release batches



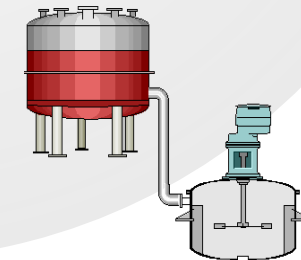
- Description
 - Many values may not come directly from interfaces
 - Quality Values
 - In Process Values
 - Batch Release involves comparing actual vs. intended process
- Value
 - Allows entry of data with respect product limits
 - Produce a compliant report to facilitate batch release



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Process Engineering
Analyze process
Recommend Improvements



Process Engineering

Process Engineering

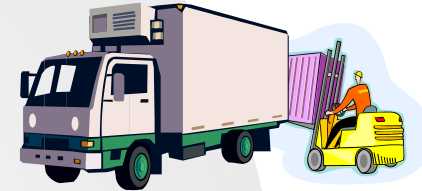
- **Analyze Process**
- **Recommend Improvements**



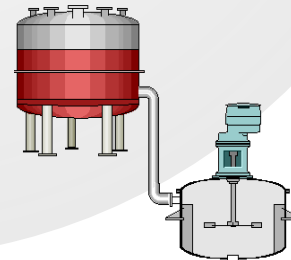
- **Description**
 - PI has extremely powerful tools for post-analysis of your process
 - ProcessPoint allows comparisons with intended process
 - PI SQC can provide insight into appropriate limits
- **Value**
 - This analysis can help create better specifications
 - These can be captured in ProcessPoint
 - And automatically made available



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Research and Development

Research & Development

- Updating based upon history
- Versioning
- Approving



- Description
 - Need tight control of the intended process
 - Versioning
 - Approvals
 - Security
 - Audit Trail
- Value
 - All users guaranteed to use the “one version of the truth”
 - Approvals control when clients use updated specifications:
 - RtReports, AlarmView, ProcessBook, etc.

Regulatory Compliance and Six-Sigma

- ProcessPoint can store ALL Pre-Process information:
 - Product Specifications
 - Quality Limits
 - Bills of material
 - Standard Operating Procedures
 - Work Instructions
 - Process Limits
 - Equipment Requirements
 - References to Required Training
 - Cleaning Requirements
- With suitable data management controls
 - Versioning
 - Security
 - Audit Trail
 - Routing and approvals
 - Comparison



Summary

- ProcessPoint adds product context to RtPM
 - With RtReports: Batch Release Pre-Process information
 - With Manual Entry: Quality system
 - With AlarmView, ProcessBook: Product oriented alarming
 - Standalone: Specification, recipe management
- More Information:
 - Demo room: Tuesday until 6:00 PM
 - Doug Ladish, Dow Reichhold: Wednesday 10:00 AM

