



SequoiaEtc

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Product Development Process Assessment Overview

December 2007



Product Development Process Assessment

Objectives:

- Understand and be able to describe back your current Product Development Process.
- Highlight 2 – 4 current Product Development Process challenges.
- Identify 3 – 5 opportunities and areas of potential improvement.
- Provide insight into possible solutions and approach, highlighting both quantitative & qualitative benefits.



Agenda



- What is a Product Development Process Assessment?
- How are they conducted?
- What is required from your organization?
- What are the deliverables?



What is a Product Development Process Assessment



A one day (6-8 Hours) holistic assessment of your current Product Development Process.



Overview of the Product Development Process Assessment

Interviews

PTC Value Roadmap



PDPA Questionnaire

Product Development Process Assessment

Product Development Assessment - English, EN

Source: Questionnaire

Name: _____ Company: _____

1. Customer Satisfaction

What are the major reasons behind customer satisfaction/dissatisfaction or other factors in relationship with "customer" regarding "supplier" activity? (Please list down the reasons with "customer" or "supplier" activity and do not include customer needs and product requirements. Just list down the reasons regarding delivery of design, customer reply on the process, customer payment, etc.)

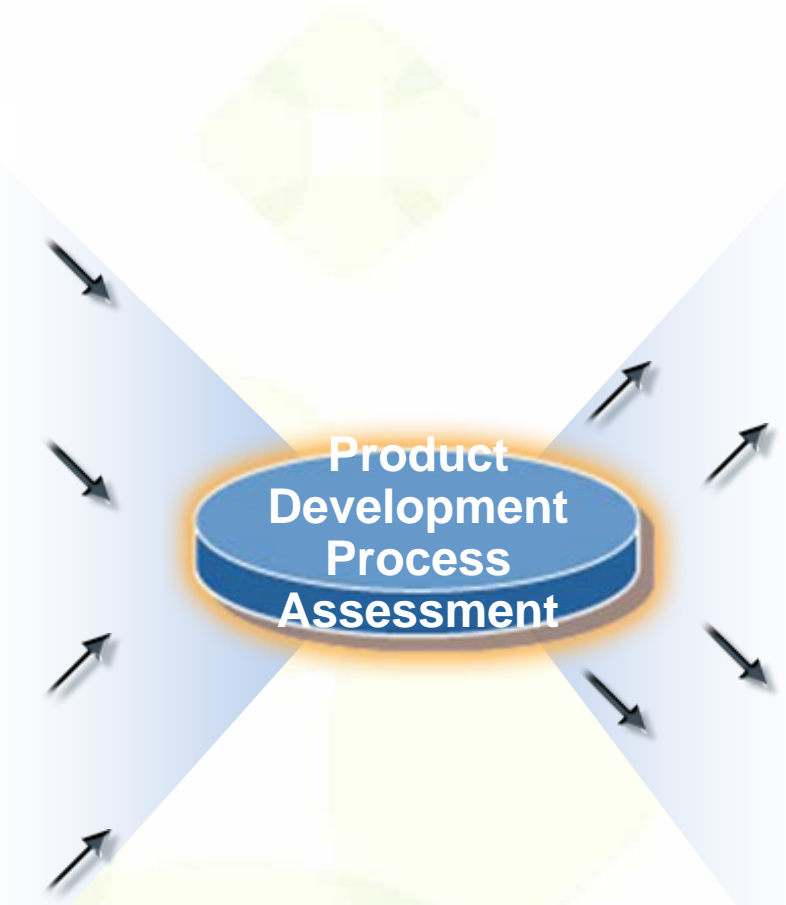
2. Design Information Access

Who normally has access to the digital/technical product? (by engineering)

- Does each user of the design have access to the information?
- Does each user have the right to use the information as per their need?

3. Supply Information

- Does each supply have complete access?
- Is the stock or order by the user?
- Does each user supply have complete access to the information as a manufacturing user?



Product Development Challenges

Identifying the key challenges

Control of data	One user can overwrite another user's work. Files are not versioned, and often need to be restored from backup. "Our problem is data control". Users can save data locally or at another location. Access required to latest released version.
Mould management	Purchasing need access to 3D model for understanding and estimating. File conversion required for suppliers. Notification of revisions required.
Part release process	"First Sample" check not formally applied. Not always able to find drawings for "First Sample" check. Don't know if physical sample has been received.
Configuration management	Configuration tables on drawings cannot be queried electronically. New versions of parts take over when old stock is used up. Parts may be interchangeable, and used dependent on stock qty.
Design traceability	Need to trace between ProENGINEER model and derived part. Need to trace between ProENGINEER model and Mould. Need to trace to Sample Check form. Need to trace to product Technical Specification.

Recommendations

Design traceability

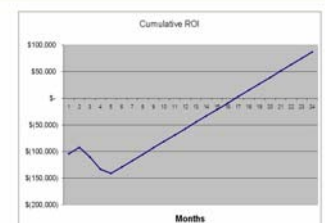


Need to trace between ProENGINEER model and derived part. Need to trace between ProENGINEER model and Mould. Related parts: easy navigation to derived parts and CAD models. Note: No SAP integration in the Pilot. Need to trace to Sample Check form. Need to trace to product Technical Specification. Related documents: easy navigation to related parts.

Benefits

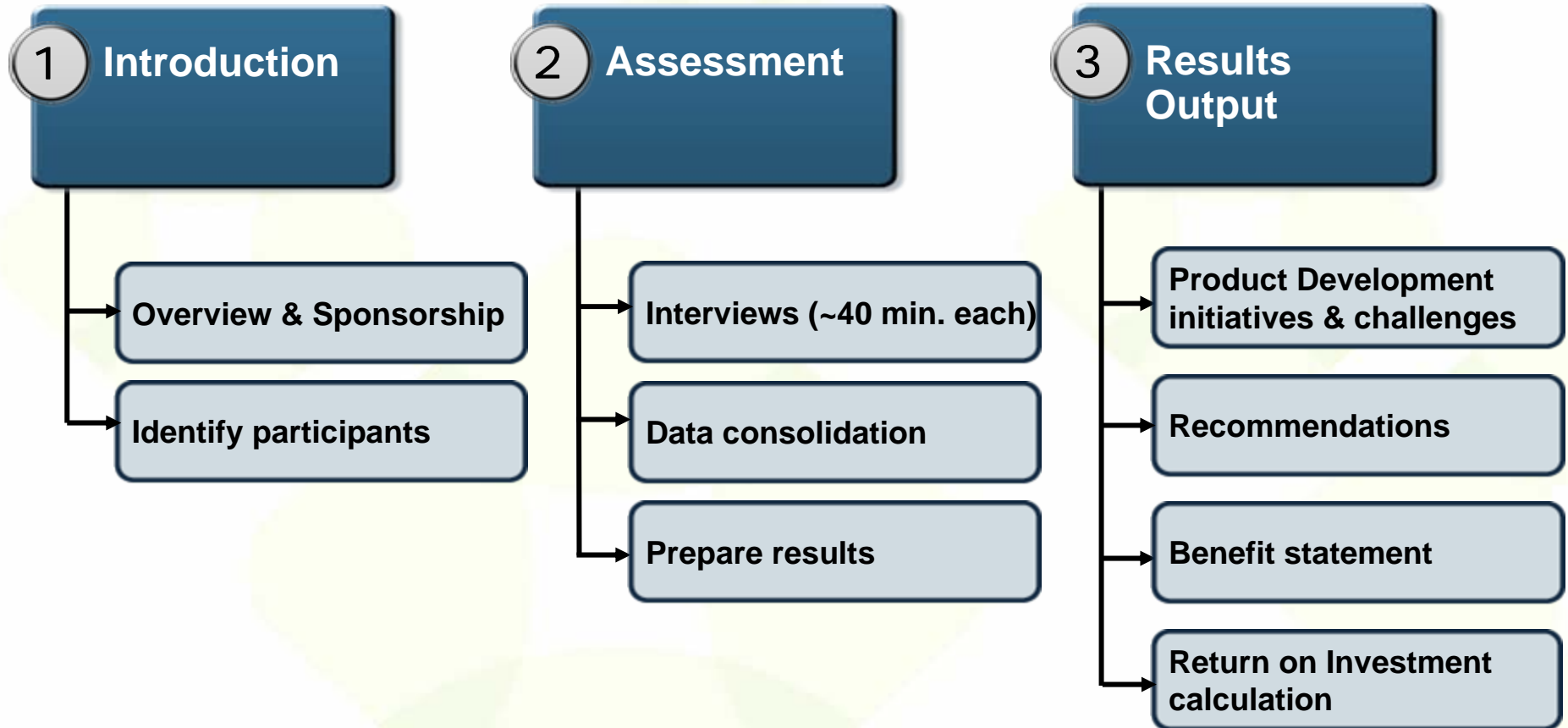
Benefits

- Drawing Library
 - One place to look for engineering information
 - "One truth"
 - Self-service, local, real time
- ROI Estimation
 - Current reliance on fall
 - Labour intensive - red
- Electronic Vault
 - Security and integrity
 - Easily extendable into



Discuss "As is" Process and Challenges

Overview of Product Development Process Assessment by Major Steps





What happens in the Product Development Process Assessment?



- During the PDP Assessment, we will:
 - Interview Product Development Process stakeholders:
 - Engineering (Mechanical, Electrical, Software – as appropriate)
 - Manufacturing & Manufacturing Engineering
 - Operations & Quality
 - Purchasing & Sub Contract
 - Information Technology
 - Customer Support/Technical Documentation
 - Sales, Marketing & Finance
 - Consolidate results
 - Calculate Return on Investment (ROI)
 - Present findings and recommendations to sponsor & management



What is required from your Organization?

- ◆ We request your organization to provide the following:
 - Commitment to an agreed interview schedule.
 - Plant tour with product overviews.
 - Current Product Development Process documentation.
 - Access to management for final presentation.



“Example” Schedule

- 🌿 08:00 – 08:45 General Introduction and Engagement Process Kickoff + Q&A (all participants)
- 🌿 08:45 – 09:30 Interview <Sponsor>
- 🌿 09:30 – 10:15 Interview <Interviewee #1>
- 🌿 10:15 – 10:30 Break
- 🌿 10:30 – 11:15 Interview <Interviewee #2>
- 🌿 11:15 – 12:00 Interview <Interviewee #3>
- 🌿 12:00 – 13:00 Lunch and site walk around/tour
- 🌿 13:00 – 13:45 Interview <Interviewee #4>
- 🌿 13:45 – 14:30 Interview <Interviewee #5>
- 🌿 14:30 – 14:45 Break
- 🌿 14:45 – 15:30 Interview <Interviewee #6>
- 🌿 15:30 – 16:15 Interview <Interviewee #7>
- 🌿 16:30 – 17:00 Sponsor Debriefing

What Are The Deliverables

- Management Presentation
 - Current Process Challenges
 - Recommendations
 - Process improvements
 - Technology enablers
 - Next Steps
 - Tentative approach and timetable
 - Benefits
 - Potential Financial Impact
 - Quantifiable savings/benefit areas
 - High level investment outline

What we Found at Company xxx: Challenge - Control of Product Data

Observations

- Making progress on digital model definition – all new prototypes are digital 3D, model is the master, starting to simulate digitally
- Product data is server
- Little explicit as
- All drawings and changes have to
- Drawing revision
- Scrap, rework, managing all of

Enabling Control of All Product Related Data

Data Vault: all product data is held securely in one location and associated to the product lifecycle application

Version Control: check out parts and associated documents, make them, then check them back to make data accurate, record data modifications, have a global history, multiple revisions, version, and by control

Benefits of Optimizing Product Development

Companies that use product development to fuel growth emerge as leaders with:

- 20% more revenue growth
- Doubled earnings

40%+ new products

Savings/Investment Analysis – Collaboration and Control Owned/Operated

Software	Price (USD)
PTC® PDM & Product Lifecycle Manager (PLM)	44,125
Product Lifecycle Manager	
Software Total	44,125

Implementation Item	Cost
PTC® PDM & Product Lifecycle Implementation	15,000
Training	30,000
Estimated Travel and Living Expenses	750
Implementation Services Total	45,750

Total Solution Year 1 Investment: \$8,125

Cumulative PDI

Line graph showing Cumulative PDI over Months. The Y-axis ranges from \$0 to \$100,000. The X-axis shows Months. The line starts at \$0, dips slightly, then rises steadily to approximately \$100,000 by the end of the period.



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Questions?