



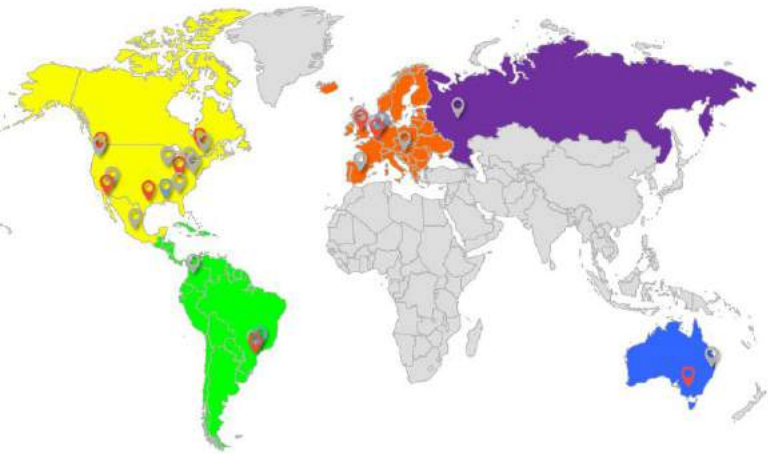
A ROLLER COASTER RIDE

TO TOOLING MANAGEMENT IN WINDCHILL

Navika Wadhwa
Engineering Systems Project Manager, PACCAR

6/12/2019

PACCAR OVERVIEW



9

Truck Assembly Plants



3

Engine Assembly Plants

PACCAR ENGINES

17

Distribution Centers
PACCAR PARTS

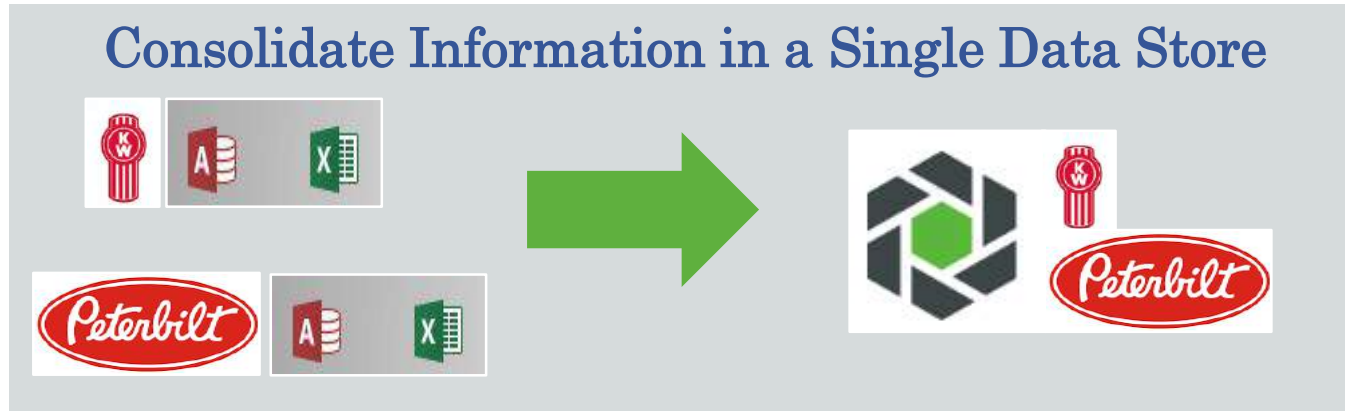
- 115 Years in Business
- Fortune 250 Company
- 28,000 Employees
- 2018 Results
 - +190K Trucks Delivered
 - \$23.5B Revenue
 - \$2.2B Profit
- 80 Consecutive Years of Profit

PROJECT GOALS, SCOPE AND ROI



- Goals
 - ✓ Improve **Tooling Data Integrity**
 - ✓ Improve **Engineering Efficiency**
- Scope
 - ✓ **MANAGE** \$550 Million of **Tooling Assets**
 - ✓ **REPLACE** duplicate Tooling **Access** Databases
 - ✓ **INTEGRATE** Tooling Authorization creation **sans manual** entry
 - ✓ **AUTOMATE** Tooling Authorization Savings **calculations**
 - ✓ **ASSOCIATE** tool **links** to part design
 - ✓ **PROVIDE** integrated **workflows** for approving, purchasing and managing tools
- ROI - **\$826,424**

INITIAL VS TARGET STATE



CHALLENGES

- 6+ Migration Rehearsals
- Data Quality Issues
- Geographically Distributed Teams

FEATURE 2

INITIAL VS TARGET STATE



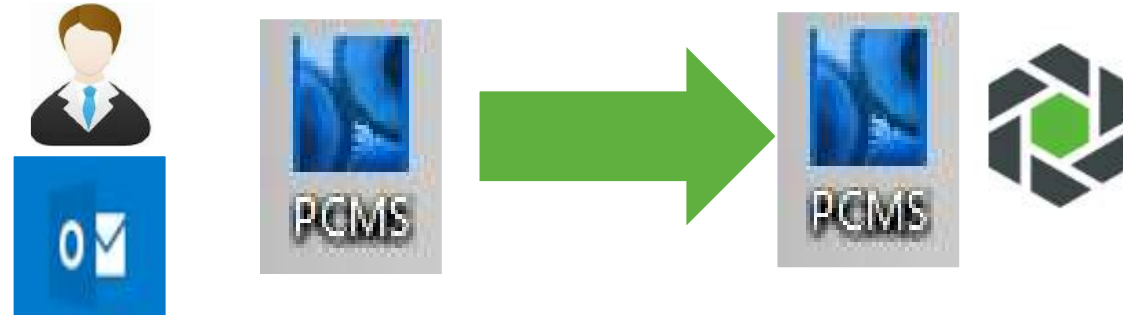
CHALLENGES

- Change Management (Trusting the Process)
 - Controlled Workflows
 - Data Mapping
 - Fixed Approval Routings vs Ad Hoc Approval Process
 - User Training

FEATURE 3

INITIAL VS TARGET STATE

PCMS Integration for Tooling Authorization Creation



CHALLENGES

- Integration Issues
 - Security Certification Issues
 - Resource Constraints
- Duplicate TPO's

FEATURE 4

INITIAL VS TARGET STATE



Response
Rate from 400
Surveys was
50% in 2017



Integrated Survey Process

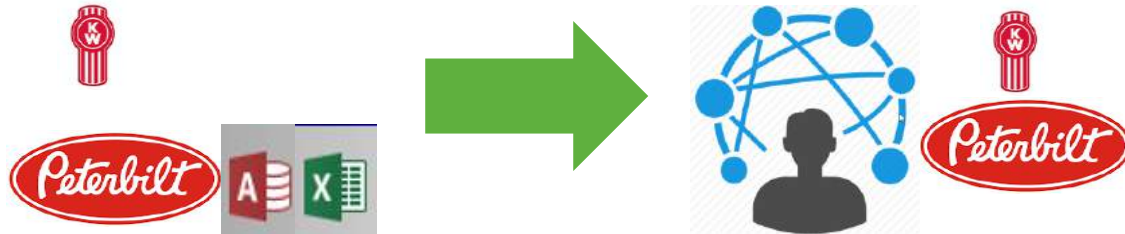


CHALLENGES

- Online Surveys could not be implemented on time for 2018 Annual Surveys
- Supplier Utilities failed as many suppliers tooling manager contacts were missing

NEW PROCESS

Consolidate Information in a single data store

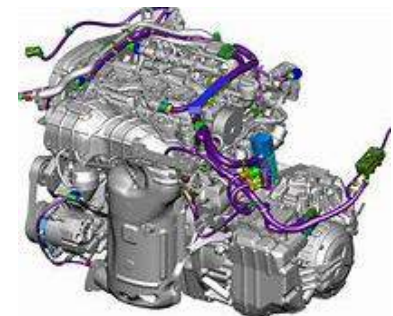


Traceable automated Surveys Update Tool Condition & Eliminate 200 man hours



- Reduced 2100 man hours in Invoicing – 81% more efficient process
- Tooling delays down by 2 weeks
- Eliminated manual entry, calculation errors & rework

Tools & Parts Design Linked



Shared Tooling Record for 16,000+ tools

TOTAL ANNUAL SAVINGS \$826,424

KEY TAKEAWAYS

- ◇ Automation and linkage of engineering (CAD) and tooling data helped achieve engineering efficiency and data integrity
- ◇ Advanced workflow management capabilities within Windchill made cross department implementation a success.
- ◇ It takes a village (Enterprise-wide system integrations) to enhance a product lifecycle management tool.

QUESTIONS?

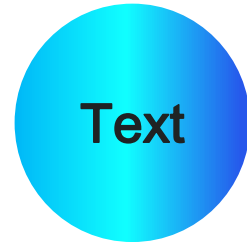
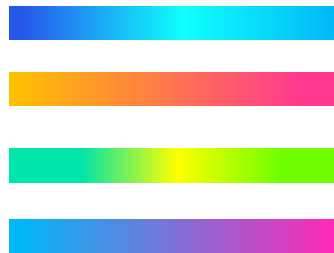


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EXTRA COLORS

gradients



26%

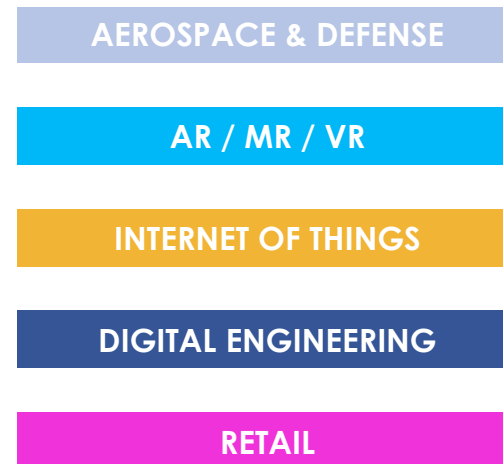


74%

extra color

R: 239
G: 50
B: 217

color blocks



outline blocks

