



OPERATIONS INTELLIGENCE FOR TIRE & RUBBER

INDUSTRIAL EQUIPMENT



From Production "Art" to Production Science

DELMIA's Industrial Equipment Operations Intelligence for Tire and Rubber solution enables users to extract risk patterns from production history that resulted in both high- and poorquality tire and rubber. Complex processes such as tire manufacturing are difficult to scale-up because they are highly sensitive to material characteristics, cycle times and process variables. Early identification of the causes of lower quality is key to reducing the time required to achieve full production volume.

Collection and analysis of tire plant floor data starting from the very first prototype enables the earliest possible detection of Risk patterns with a fact-based approach supported by actual data. From this analysis, Best Practices rules are identified that will improve the quality and reduce deviations and defects. Once the rules have been deployed in production, real-time tire plant floor information is monitored and analyzed so operations are alerted of potential issues while there is still time to correct the situation. The level of risk is quantified based on identified Best Practices rules and preventative or rectifying actions are proposed to the users.



Discover hidden root causes of previously unexplained defects.





Analyze shop floor data.

INDUSTRY CHALLENGES

- How to understand patterns of production parameters that most often result in deviations or defects?
- How to gain real-time visibility on the tire plant floor to monitor progress and collaboratively solve production problems?
- How to communicate preventative or rectifying actions quickly to the shop floor team?
- How to avoid long and costly process re-engineering while capitalizing on process understanding for future processes?

SOLUTION HIGHLIGHTS

- Faster discovery of SOPs (Standard Operating Procedures) for even the most complex rubber parts
- · Formalize this knowledge by automatic creation of rules
- Evaluate the risk of failure early for subsequent process corrections
- Edit process rules based on expertise and performance indicators
- Track and report in real-time on critical operations

SOLUTION VALUES

- Remove unpredictability by discovering hidden root causes of tire defects
- · Capture best practices in natural language rules
- Monitor tire production data to quantify risks of defects
- Reduce tire and rubber quality defects with fact-based answers

USERS

- Quality Engineers
- Shop Floor Operators



Delivering Best-in-Class Products

S CATIA

3S SOLIDWORKS 3D Design

35 SIMULIA

Realistic Simulation

Digital Manufacturing and Production

35 enovia

Collaborative Innovation

About Dassault Systèmes

SGEOVIA Model and Simulate our Planet

SEXALEAD Information Intelligence

inonination intelligence

Dashboard Intelligence

Social Innovation

3D Communication

Dassault Systèmes, the **3D**EXPERIENCE Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 150,000 customers of all sizes, in all industries, in more than 140 countries. For more information, visit www.3ds.com.

CATIA, SOLIDWORKS, SIMULIA, DELMIA, ENOVIA, GEOVIA, EXALEAD, NETVIBES, 3DSWYM and 3DVIA are registered trademarks of Dassault Systèmes or its subsidiaries in the US and/or other countries.

Europe/Middle East/Africa

Dassault Systèmes 10, rue Marcel Dassault CS 40501 78946 Vélizy-Villacoublay Cedex France

Visit us at

3DS.COM/DELMIA

Asia-Pacific

Dassault Systèmes Pier City Shibaura Bldg 10F 3-18-1 Kaigan, Minato-Ku Tokyo 108-002 Japan Americas

Dassault Systèmes 175 Wyman Street Waltham, Massachusetts 02451-1223 USA



Item: 3DS.WP.TRI.2012x.0417