

# PROCESS RULES DISCOVERY

Datasheet



## DISCOVER SOLUTIONS FROM FACTS IN DATA:

DELMIA PROCESS RULES DISCOVERY IS A UNIQUE INTELLIGENCE TOOL FOR MANUFACTURING AND RESEARCH. IT USES HISTORICAL DATA TO FIND SIMPLE SOLUTIONS TO COMPLEX QUESTIONS.

As a production tool, DELMIA Process Rules Discovery (RDY) can improve yield and reduce rework by extracting best practices and risk situations from historical data. As a research tool, it has been used to improve design, analyze customer preferences, and predict maintenance needs.

## MAKE FACT-BASED DECISIONS

DELMIA Process Rules Discovery enables decision making based on facts and lessons found in data, rather than on opinions or complex models. Its patented algorithms extract, optimize – and allow editing of – rules that are easy to understand and communicate. This capability is of great value in many fields and disciplines beyond manufacturing – medical research, as an example, where it can help increase understanding of the relationship between genes and cancers.

## ISOLATE THE KEY FACTORS

DELMIA Process Rules Discovery uses its patented pattern-recognition technology to isolate the most important factors in any process and offer solutions. In manufacturing production, for example, when changing circumstances affect products already in production, DELMIA Process Rules Discovery lets users find the root cause of defective products. Even processes that are working well can be fine-tuned.

## SEE THE BIG PICTURE FROM DATA

Data can be imported from a variety of sources, even a simple Excel file. Classical analysis (correlations, statistics and graphics) prepares the data for rules discovery. The study dashboard displays the most significant information in histogram bars, scatter plots, box plots, and other formats. Users quickly visualize the impact of the most important variables.

## LET THE SOFTWARE SUGGEST REASONS FOR THE ISSUES

DELMIA Process Rules Discovery's learning algorithm brings users up to speed quickly. The software can suggest rules that are potential explanations for the discoveries it makes. The rules are easy for process experts to interpret because they are based on the variables of the process – not on complex formulas. All rules can be graphically edited to add or delete rule conditions and drag or edit rule boundaries. Rules are always checked against the data, with a set of key performance indicators.

## PRODUCT HIGHLIGHTS

- Easy-to-understand rule-based models
- A simple user interface for subject-matter experts
- The ability to inject expert knowledge into the model and check its pertinence with key performance indicators
- A wide range of graphic displays for exploratory analysis

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New experiment proposed in order to validate the rules discovered.



User interface – view shows a rule of Risk Situation discovered in the data.