

PLASTIC PART INJECTION INDUSTRIALIZATION

HIGH TECH



Shorten Ramp up Time and Maximize Productivity

DELMIA's Plastic Part Injection Industrialization solution for the High Tech Industry delivers a 3D experience to make manufacturing processes more predictable, while quickly ramping up productions to the targeted volume & quality.

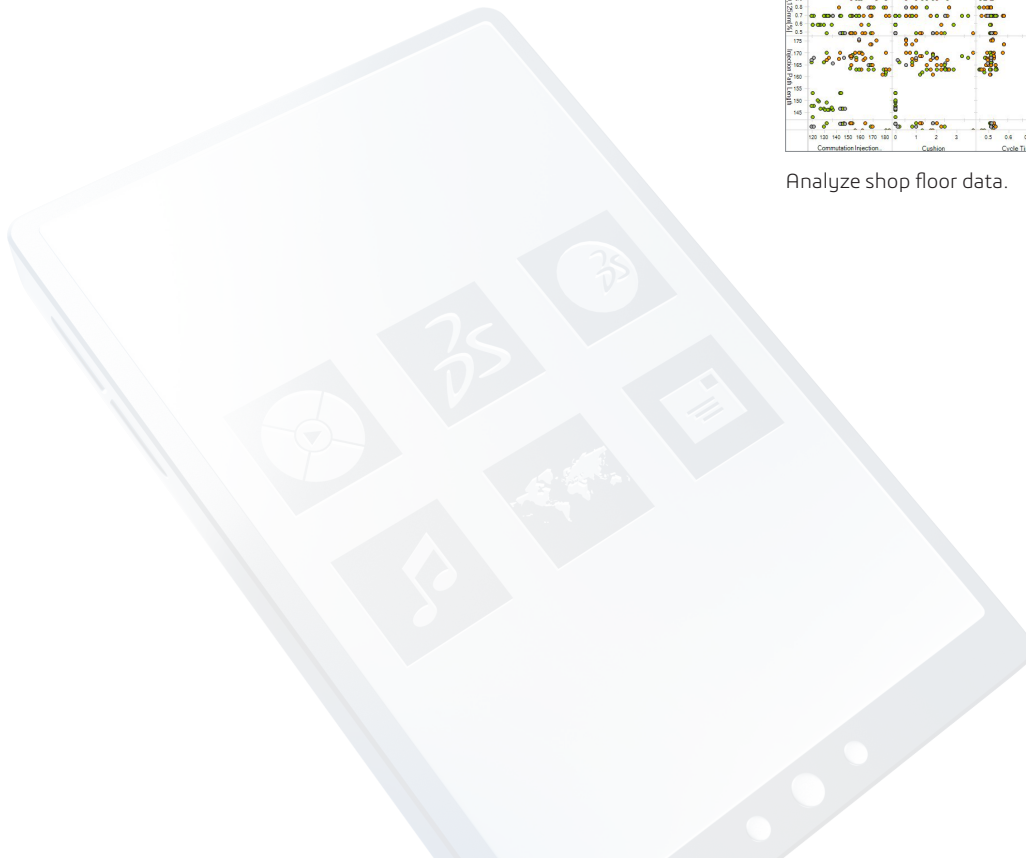
DELMIA's High Tech Plastic Part Injection Industrialization connects production process and quality data. Contract manufacturers receive instant explanations about deviations or any unexplained defect during ramp up or daily production.

Explanations of root causes are extracted automatically from the production data and proposed to quality engineers as rules combining process parameters. Rules capture best practices in natural language. They are used to quickly find perfect parameter settings and give clear recommendations to shop floor workers during real-time execution.

DELMIA High Tech Plastic Part Injection Industrialization is a proven and scalable production intelligence solution that enables contract manufacturers to formalize manufacturing knowledge across the extended enterprise, to optimize their shop floor processes and product quality for plastic injection.



Analyze shop floor data.

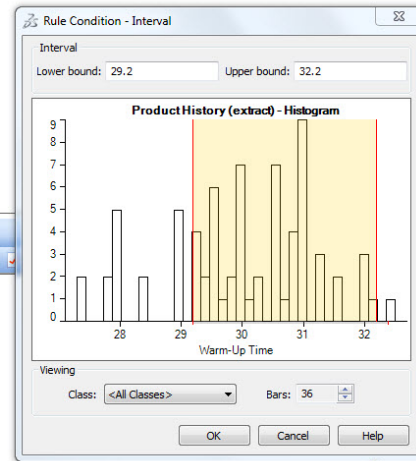
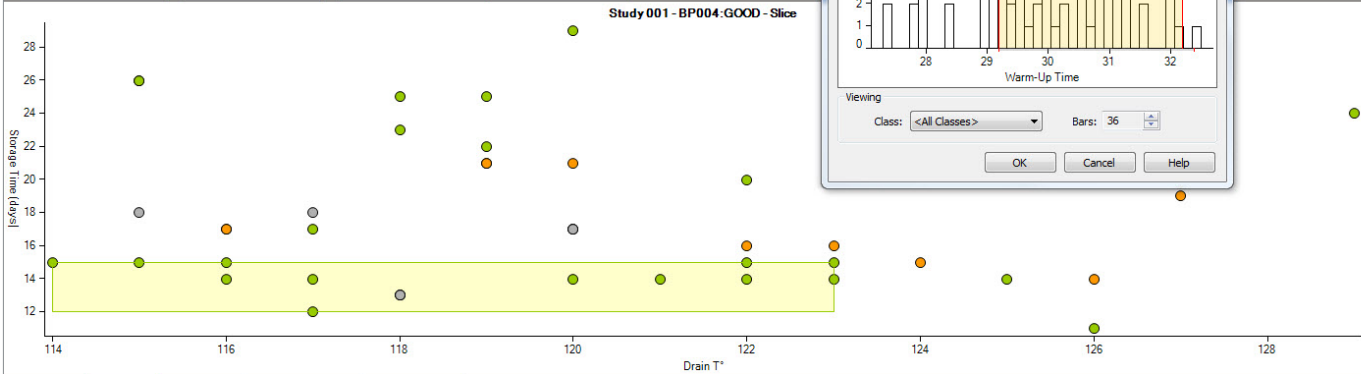


BP004:GOOD		Size: 15	GOOD: 93.3%		Unknown: 6.7%	BAD: 0%
Interest	Purity	Adjusted purity	Performance	Relative size	Safety margin	Complexity
58.9%	100%	89.1%	0.807	36.8%	-	4

		Unit		Role	Purity loss	Safety marg	Coverage	Size gain	Missing
If	Warm-Up Time	in	[29.2; 32.2]		22.2%	-	76.4%	4	0%
and	Storage Time (days)	in	[12; 15]		16.7%	-	33.3%	21	0%
and	Drain T*	in	[114; 123]		11.8%	-	77.8%	3	0%
and	Supplier Reference	=	64L or 68L or 69L or 70L		6.7%	-	79.2%	1	0%
then	Surface Quality Level	=	GOOD						

Rule Slice

X: Drain T* Y: Storage Time (days) Z: Surface Quality Level <None>



Discover hidden root causes of previously unexplained defects.

INDUSTRY CHALLENGES

- How to rapidly develop new production technology to build increasingly complex products?
- How to meet aggressive production launch dates and volume ramp-ups?
- How to understand and prevent process control difficulties that result in variable product quality and rework?

SOLUTION HIGHLIGHTS

- Connect to process and quality data
- Analyze collected data without a degree in statistics
- Extract rules, in natural language, from the production data that explain the reasons for defects
- Patented rule generation algorithm and user interface allows discovery of hidden relationships between production data records

SOLUTION VALUES

- Ramp up production quickly by finding perfect parameter settings for a complex production process
- Remove unpredictability by analyzing shop floor data to discover hidden root causes of previously unexplained defects
- Formalize manufacturing knowledge by capturing best practices in natural language rules for clear recommendations to shop floor workers during real-time execution
- Scale-up production volume by monitoring shop floor data to quantify the risk of defects and proactively prevent scrap and rework

USERS

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