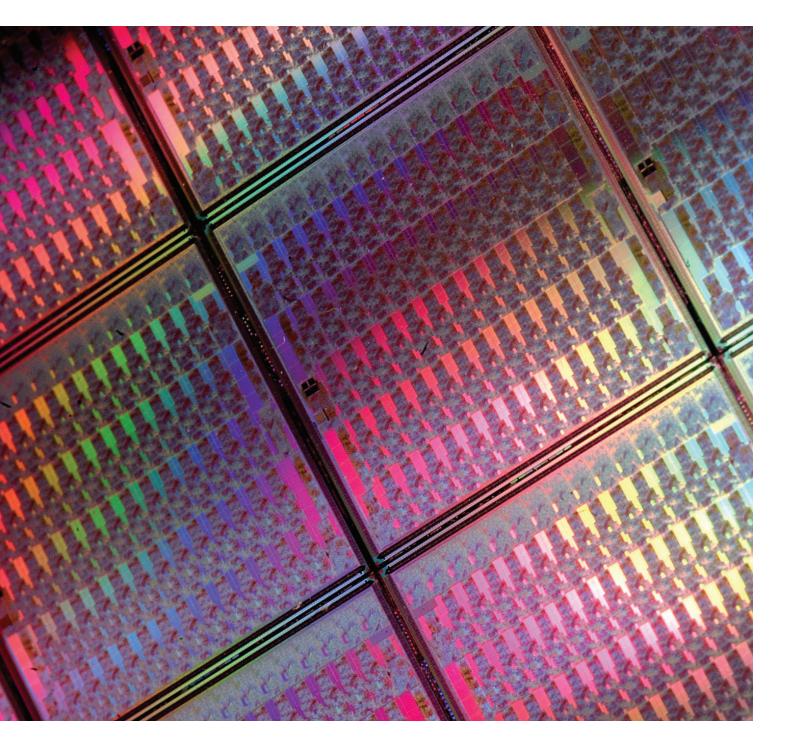




## **YIELD ENGINEERING IN SEMICONDUCTORS**

HIGH TECH

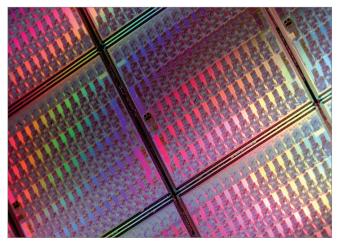


# Maximize Initial Yield

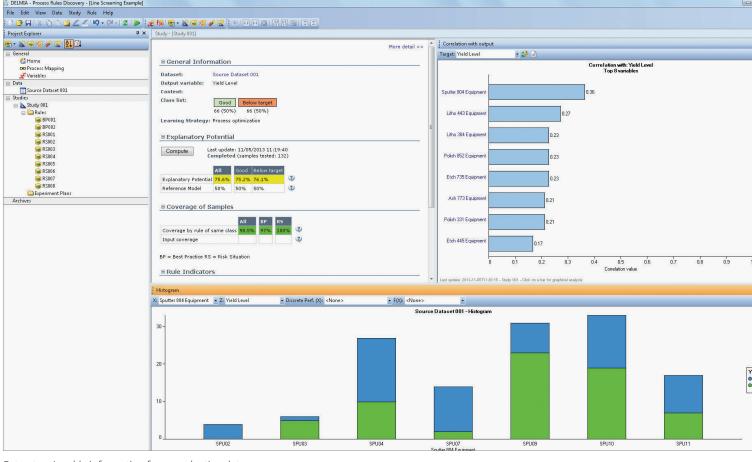
DELMIA's Yield Engineering in Semiconductors solution for the High Tech Industry enables Integrated Device Manufacturers (IDM) and Foundry companies to optimize their shop floor processes and product quality. DELMIA High Tech Yield Engineering in Semiconductors is an innovative solution for yield analysis, process optimization and Design of Experiments (DOE) for engineering and manufacturing communities in the semiconductor industry.

Rules explaining the reasons for yield excursions are extracted using a patented algorithm that can discover hidden relationships in production. Data can be intuitively analyzed. This information can be used to alert the production team and stop reproducing known defects.

With this solution, semiconductor companies are able to ramp up new products faster, optimize yield and capture best practices for equipment selection and parameter adjustments.



Maximize initial yield when introducing new products in the wafer fab.



Extract actionable information from production data.

## **INDUSTRY CHALLENGES**

- How to understand and prevent manufacturing defects and increase production yield?
- How to speed-up yield learning when introducing new products in the wafer fab?
- How to improve process understanding and capture manufacturing knowledge?

## **SOLUTION HIGHLIGHTS**

- Extract rules for high and low yield from production data
- Evaluate and understand the influence of equipment selection and sequence
- · Identify key process parameter reducing yield
- Develop and optimize the testing process and detect defect dies early
- Increase understanding of interactions between process parameters including machine routes, process measurements, PT and EWS electrical tests
- · Define natural language rules

## **SOLUTION VALUES**

- Troubleshoot yield excursions for products in production
- Maximize initial yield when introducing new products in the wafer fab
- Extract actionable information from production data and capture best practices

### **USERS**

· Yield Engineer



## **Delivering Best-in-Class Products**



Virtual Products



3D Desigr



Realistic Simulation



Digital Manufacturing and Production



Collaborative Innovation



Model and Simulate our Planet



Information Intelligence



Dashboard Intelligence



Social Innovation



3D Communication

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