eDataLyzer
Advanced Data Analytics

Advanced Data Analytics Platform Improves Yield and Quality with Quick and Accurate Root Cause Analysis

Traditional yield analysis is a labor intensive, time consuming process. Often engineers take days and weeks to find the root cause of issues that negatively impact yield and productivity. In addition, today's manufacturing organizations involve many users with diverse responsibilities all utilizing different, and specialized data analysis tools and databases. This creates an immensely scattered environment making data acquisition, management, and analysis a challenge for engineers and a costly proposition for their organizations.

Now, with BISTel eDataLyzer, the advanced analytics platform, engineers quickly perform root cause analysis, and identify the issues that impact yield. eDataLyzer supports a broad range of data analysis tools configured to support a variety of customer needs. With eDataLyzer, engineers enjoy the freedom to access data from any source, using any tools without ever worrying about compatibility, including databases or files (structured or unstructured) offering customers user-defined, high performance analytical processing.

eDataLyzer's Unique Drill Down Sequence Pinpoints Root Cause Quickly and Accurately

eDataLyzer is an advanced analytics platform comprising three main data analysis tools: Map Analyzer, IntelliMine and Trace Analyzer. Map Analyzer sorts yield variations from wafer to wafer or lot to lot and quickly classifies and maps wafer patterns. IntelliMine is an advanced data mining tool capable of analyzing and correlating a high volume of data to uncover insights and root causes. Third, Trace Analyzer is critical for identifying tool or process issues at the parameter level that impact yield. This includes drift, spikes, glitches and ramp rates changes. These three tools provide engineers with unique drill down sequence that is highly effective in identifying issues that impact yield and quality.

Intelligent Manufacturing

BISTel's intelligent manufacturing solutions are shaping the factory of the future, improving costs, operational efficiencies, and quality across factories by connecting the manufacturing ecosystem to better detect, analyze, predict, and adapt real-time to changing manufacturing conditions. BISTel solutions collect, manage, and analyze data, monitor the health of machines and equipment, optimize process flows, and identify root cause failures to mitigate risk in manufacturing. The release of BISTel's intelligent manufacturing solution includes advanced machine learning, industry leading analytics, predictive, and continuous improvement applications that accelerate the road to smart manufacturing.

Markets Served

Semiconductor Manufacturing
Semiconductor Equipment Manufacturers
Flat Panel Display Manufacturing
Steel Manufacturing
LED Manufacturing
PCB/SMT | Automotive | Biotech

Key Benefits

- Easy access of all types of production data to quickly setup comprehensive analysis
- Greatly simplifies the analysis process resulting in fewer engineering resources required
- Shorten the root cause analysis process from weeks or months to hours

Key Features

- Automatic wafer map failure pattern recognition and correlation
- Intelligent mining of very large datasets
- AI-driven trace analytics to pinpoint exact root cause
- Intelligent and autonomous root cause analysis based on user-defined objectives

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Single Point Data Access

Easy integration of all data types allows eDataLyzer to be the most comprehensive root cause analysis platform available for manufacturing

eDataLyzer

YMS DB | FDC DB | EPT/OEE DB | PPM DB | MES System | Files | Wafer Maps
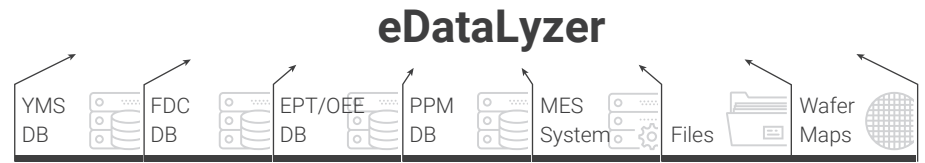
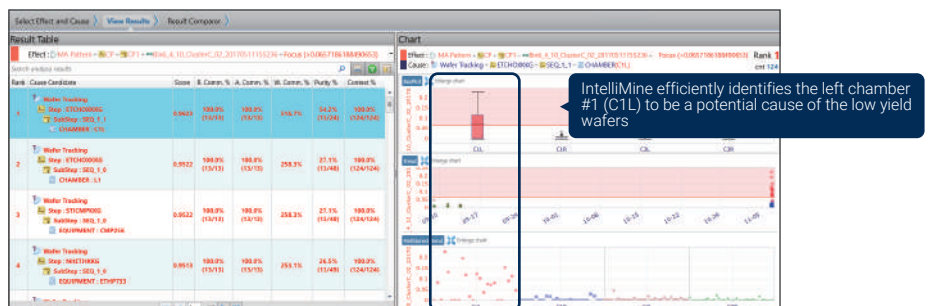## Best-In-Class Root Cause Analysis Applications

Map Analyzer (MA)

- Automatically detect and classify systematic wafer map patterns
- Easily correlate spatial data between any type of wafer maps
- Cross-product pattern recognition regardless of wafer die sizes
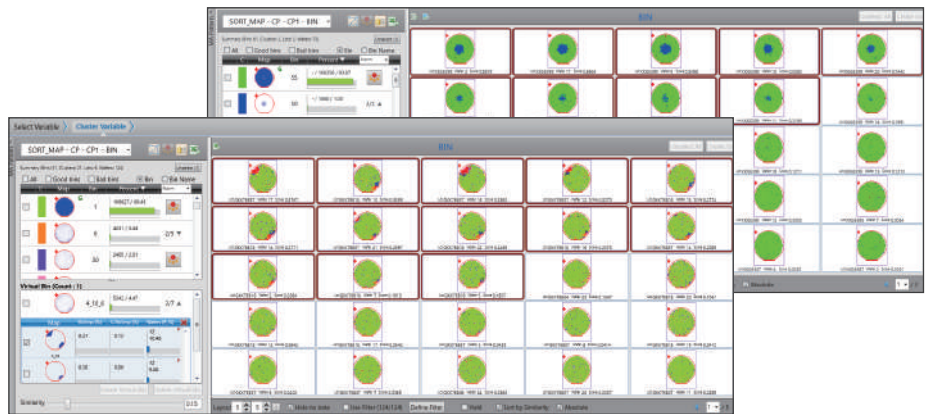
IntelliMine (IM)

- Effortless mining of large datasets of various types
- Quickly identify yield impacting equipment or chamber

IntelliMine efficiently identifies the left chamber #1 (C1L) to be a potential cause of the low yield wafers

Trace Analyzer (TA)

- In-depth root cause analysis utilizing full sensor trace
- Accurately pinpoint issues down to parameter and recipe step level

Advanced trace analysis allows Trace Analyzer to pinpoint root causes down to parameter and recipe step level