



Wedge

PROCESS DATA INTELLIGENCE

Wedge Process Diagnostics is a powerful, easy to use tool for improving industrial plant efficiency. Wedge anticipates upcoming problems and quickly finds the original root causes. The solution is ready to run out of the box, without a lengthy and risky implementation project. Wedge is installed and simply connected to your data sources without the need for process modeling, programming or extensive training. With its unprecedented time-data relationship capabilities and virtually unlimited capacity, it is a powerful foundation for your Industry 4.0 architecture.

Prevent problems before they happen

With Wedge you can easily create views with early warning indicators and single-click functions for tackling problems that threaten your process productivity. No matter if the damage is one minute or one day away, Wedge will alert and guide your 24 by 7 team back on the right track.

Benchmark your performance

Best runs, batches and practices can be established and used to benchmark your current process performance in real-time. Your entire production organization can be engaged in continuous improvement.

Identify the root cause of problems and other behaviors

The reasons and root causes for process outage, quality deflection, equipment damage and other undesirable events are often well hidden far upstream the process. Therefore, they are hard to find using traditional methods. Wedge provides dedicated tools for scanning the variable history and quickly determines the "gang of suspects" for you to study further. This dramatically minimizes the down time, eliminates undesired process states and frees your organization to focus on problem solving and correction instead of spending hours locating the right data to examine.

Leverage your valuable process data asset

All Wedge needs to perform is your process data history and any other relevant data from Manufacturing Execution System, Laboratory Information System and spreadsheet files. Powered by patented statistical algorithms under the hood, it is intuitive for everyone from process operators, and managers to the most advanced R&D experts to use. Wedge's High Bandwidth database capabilities boost the capacity and performance of any data history.

Who Benefits?

- ▶ Pulp and Paper Mills
- ▶ Steel Mills
- ▶ Copper, Zinc and Other Metal Manufacturing Plants
- ▶ Fertilizer Plants
- ▶ Food & Beverage Plants
- ▶ Chemical Industry Plants
- ▶ Hydrocarbon Refineries
- ▶ All Manufacturing Industries with Continuous and Batch Processes
- ▶ Production Management
- ▶ Process and Product Development
- ▶ Quality Management
- ▶ Process Operators
- ▶ Mill Management
- ▶ Cement and Building Material



"After careful review of several systems, Wedge was chosen due to its flexibility and ability to assist in trouble shooting complex process problems and to ultimately improve and optimize production and quality issues."

Paul Chappell, Technical Manager & **Muzaffar Goolam**, Wedge Key User
Orora Paper, Australia

KEY FEATURES

Early Warning of Potential Problems

- ▶ Get the best operating instructions
- ▶ Avoid reactive management

Quick Resolution to Problems

- ▶ Find the root causes hiding upstream in the process
- ▶ Quickly identify reasons for individual changes and cyclic fluctuation of variables
- ▶ Dramatically reduce problem solving time

Configurable User Interface

- ▶ Process operators
- ▶ Production managers
- ▶ Process and product developers
- ▶ Mill managers

Intuitive Data Cleansing

- ▶ Remove bad data resulting from faulty sensors and shutdown periods
- ▶ Improve analysis quality
- ▶ Intuitive visual cleanse
- ▶ Automatic correction

Intelligent Data Hide

- ▶ Dynamically remove irrelevant data
- ▶ Understand faster process behavior
- ▶ Hide controlled by process status variables

Powerful Calculations

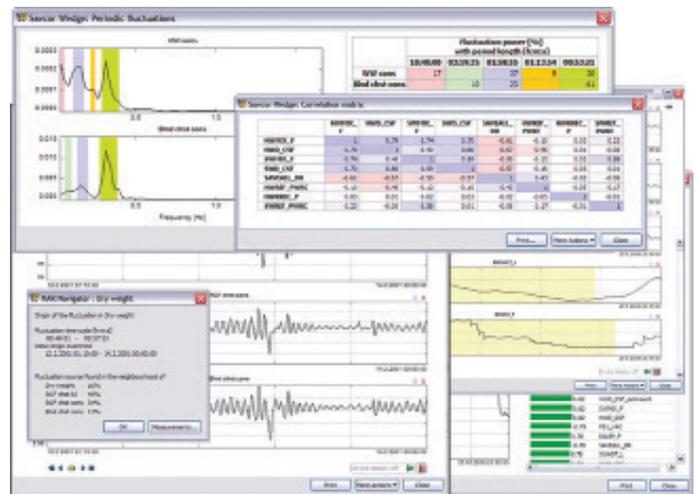
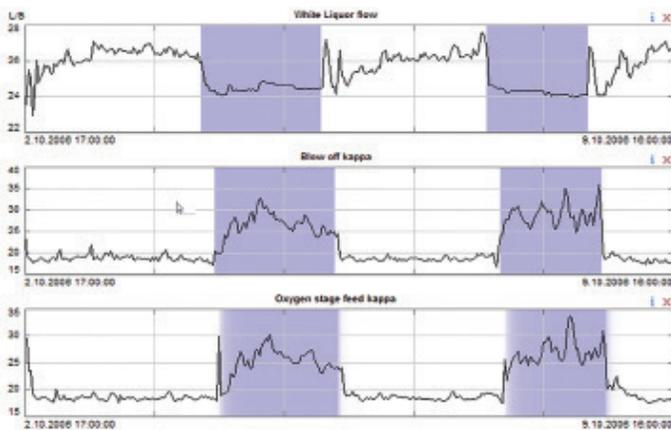
- ▶ Edit any formula in easy mathematical notation
- ▶ Results presented as virtual variables
- ▶ No programming required
- ▶ Statistical power with formula library

Data Integration from Multiple Sources

- ▶ Consolidates data disparate sources to one time axis
- ▶ Full suite of analytics and diagnostic functions can be applied across all data

High-bandwidth Database

- ▶ High sampling rate resolution up to 1 MHz
- ▶ Long history span up to decades
- ▶ Super-fast data retrieval
- ▶ Protects data sources from data retrieve overload



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