

The purpose of the analytical dashboard

Provide the engineer or shift supervisor with a holistic understanding of the production status for quick and informed decision-making.

Context: enrichment plant

The solution is intended for an enrichment plant

Continuous technological process

High interconnection of technological parameters

High cost of deviations and downtime

The criticality of operational decisions during the shift

Problem

A modern processing plant generates a large amount of production data (energy consumption, equipment downtime, productivity, emergency events, HSE indicators).

However, this data is used inefficiently and does not support operational decision-making.

Key problems:

Lack of visual visualization

data is presented in the form of tables or reports;

It's difficult to quickly figure out where the problem has occurred and how critical it is.

The delay in managerial decisions

is when an engineer or shift supervisor spends time searching for and interpreting information; decisions are made late or intuitively.

There is no focus on priorities

, all indicators look equally important.;

there are no signals of what exactly needs attention right now.

Weak data connection with occupational safety

HSE indicators are not integrated into the overall picture of production;

risks for personnel are identified late.

Baseline data and dashboard metrics

Sources: Automated process control system, laboratory, HSE

Productivity, t/h
Extraction of useful component, %
Reagent consumption, kg/t
Downtime and equipment loading

KPIs and performance benchmarks
Execution of the performance plan
Minimizing reagent overruns
Reduced downtime
No HSE incidents

Task

Create an analytical dashboard that combines all key indicators on one screen for an engineer or shift supervisor.

Requirements for solving the problem:

- All indicators on one screen;
- Visual visualization (charts, indicators);
- Priority and signal logic
- User Orientation (UX)
- Prioritizing downtime elimination
- Reaction to deviations of technological parameters
- HSE risk Prevention

Expected result:

- Quickly understand the state of production;
- Comparison with planned values;
- Thresholds and color indication;
- See deviations and risks;
- Make a decision in minutes, not hours