

PSImetals Online Heat Scheduler

Optimize metals production with AI-powered scheduling



Manage the complexity of hybrid steel plants with Artificial Intelligence

Steel and aluminum production is complex, especially as metals producers transition to more sustainable processes. As traditional methods rely on fossil fuel, modern steel plants are now integrating renewable energy sources, alongside conventional production techniques. Hybrid steel plants that blend hydrogen and natural gas are a promising solution that could help ease the shift to green steel.

Managing this mix efficiently is challenging. Steelmakers must balance strict quality standards, process stability, and resource constraints while keeping costs under control. This is where PSImetals Online Heat Scheduler (OHS) with integrated Artificial Intelligence (AI) comes into play.

PSImetals Online Heat Scheduler is an advanced scheduling software that helps metals manufacturers plan and manage their production efficiently.

With integrated Qualicision AI Solver, an AI-based optimization model, the Online Heat Scheduler creates a detailed production schedule for all planned heats. It trades off classical economic goals, like minimization of costs and maximization of productivity, with new ecological targets, like usage of green energy and minimized CO₂ emissions.



How PSImetals Online Heat Scheduler can support you



Online heat scheduling – forecasts in PSImetals Virtual Factory

How you benefit

- + **Smarter scheduling:** uses AI-powered real-time scheduling to automatically plan production based on resource availability, energy supply, and manufacturing constraints.
- + **Energy efficiency:** aligns production schedules and routes with energy availability, optimizing the use of renewable energy to reduce costs and carbon emissions.
- + **Problem prevention:** utilises flexible scenario management by identifying potential production delays in advance, enabling quick adjustments to keep operations running smoothly.
- + **Data-driven decision making:** provides a clear, visual overview of the heat schedule, hot metal, DRI, and energy demand, ensuring informed decision-making with KPI-driven insights.

Why is this important?

Metals production consumes a massive amount of energy. By using AI to optimize the process, OHS helps manufacturers save energy, lower costs, and reduce their environmental impact – all while ensuring smooth and reliable production. If you want to make your steel production more efficient, cost-effective, and sustainable, PSImetals Online Heat Scheduler is the solution.



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