BRAIN CUBE | AVEVA

DRIVING TOTAL PRODUCTIVITY WITH AVEVA AND BRAINCUBE

Maximize Productivity and Savings with Braincube and AVEVA

AVEVA has built a world-class industrial digital infrastructure that enables manufacturers to collect, contextualize and visualize vast amounts of operational data for smarter, faster decision-making. Braincube, the leading Productivity Management System, extends on AVEVA solutions such as AVEVA PI System, AVEVA MES, and CONNECT by applying Industrial AI to identify hidden bottlenecks, process inefficiencies, and unlock opportunity. Braincube empowers teams to streamline operations, reduce costs, and maximize output. The result? Greater production, significant savings and a powerful return on investment.

What Makes Braincube Unique?

Braincube isn't just another data visualization tool or dashboard platform that relies on human intuition to connect the dots. Instead, it continuously analyzes structured industrial data to deliver precise, actionable guidance for operators and decision-makers, optimizing production in real-time.

In today's competitive landscape, leadership is focused on achieving enterprise-level objectives, whether they are centered around sustainability, efficiency, or innovation. **Braincube bridges the gap between high-level corporate goals and plant-level execution, aligning both for measurable impact.**

Imagine a plant manager aiming to reduce energy consumption by 3% to support corporate sustainability targets. AVEVA MES or Historian might highlight areas for improvement, but Braincube eliminates the guesswork. If the real savings potential is 25%, Braincube uncovers the exact steps needed to achieve this while driving efficiency, innovation, and sustainability at the plant level—directly supporting broader corporate objectives.

The Fundamental Question Braincube Answers

How can I align my plant's full production potential with the strategic objectives of the top floor, and what actionable steps can the shop floor take to achieve it while utilizing my existing AVEVA infrastructure I have in place?

Proven Success - Real World Impact

With over 15 years of experience across industries, Braincube has helped customers save an estimated **$10 billion** through productivity, efficiency, and cost reductions.

Pulp & Paper Industry
- Targeted **$1.2M** in savings from reduced paper breaks.
- Achieved **$40M** in additional savings by further optimizing production, improving quality, and reducing chemical usage.

Building Materials Manufacturer
- Identified bottlenecks and optimized processes
- Increased production by **$80M** through energy savings, defect reduction, and increased line speed.

Maple Leaf Foods (Canada)
- Deployed Braincube on top of AVEVA MES
- Increased yield by **12%** with an **ROI 4x** faster than expected.

How Braincube Unlocks Better Insights from the Same Data

Unlike traditional tools that simply display data, Braincube transforms it—contextualizing and conneting inputs across AVEVA systems so teams can act on what really matters.

For example, time-series data might show the temperature of an oven between 7 AM and 12 PM, but it won't indicate what product was inside at that time. Braincube solves this by centralizing and structuring data before applying its **CrossRank AI** algorithm to identify the most impactful variables for achieving business goals.

Product Clone: Beyond Traditional Digital Twins

Unlike asset-focused digital twins, Braincube's Product Clones create a model of the journey of each product through production. It tracks every batch or unit from raw materials to finished product, including complex processes like mixes, recirculations, and lag times. The **Product Clone** identifies correlations between the product and/or material and key input variables or performance metriacs, providing a comprehensive view of production dynamics.

This enables Braincube to:
- Compare historical production data to identify success-driving factors.
- Prescribe precise process adjustments to aximize efficiency and ensure quality.
- Continuously adapt strategies based on real-time production conditions.

A Step Toward Full Automation

Some Braincube customers are already implementing closed-loop automation, where Braincube's Productivity Management System feeds directly into control systems. This approach is a key step toward the autonomous factory, where Braincube's CrossRank AI continuously analyzes production data, identifies inefficiencies, and autonomously adjusts processes in real-time.

By integrating seamlessly with existing control systems, Braincube provides the necessary system to drive automated decision-making, reducing reliance on human intervention and enabling manufacturers to achieve higher productivity, greater consistency, and significant cost savings—all while staying aligned with enterprise-level objectives.

This progression towards autonomy allows Braincube customers to not only go beyond traditional optimization processes but also future-proof their operations, enabling them to stay competitive as the industry moves towards more intelligent, self-optimizing manufacturing systems.

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Why AVEVA + Braincube?

While Braincube is data-agnostic, it has identified AVEVA as the leading industrial digital transformation ecosystem—delivering unmatched efficiency, scalability, and impact when combined.

- **Seamless Integration:** AVEVA PI System, MES, and CONNECT provide the ideal data foundation for Braincube's Productivity Management System.

- **Accelerated Deployment:** Braincube leverages PI Asset Framework (PI AF) to speed up Product Clone development and lifecycle management.

- **Going Beyond Time Series Data:** While traditional analytics focus on time-series data, Braincube contextualizes and structures it— unlocking deeper, more actionable intelligence.

The Future of Industrial Productivity and Profitability

AVEVA has established a robust digital foundation, empowering manufacturers to leverage data for improved efficiency and cost reduction. Braincube builds on this by serving as a Productivity Management System, providing strategic guidance that increases output, reduces waste, and drives measurable financial impact.

For companies looking to unlock the full potential of their AVEVA infrastructure, Braincube is the system for total productivity from the shop floor to the top floor.

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Learn more at braincube.com and aveva.com