

RENAISSANCE PROCESS DIGITAL TWIN

Renaissance Process Digital Twin is a powerful, intuitive software solution that transforms real-time data into actionable insights. It creates and manages dynamic process models, empowering teams to optimize performance, track KPIs, and uncover process constraints. With in-depth monitoring, soft sensing, and troubleshooting, it allows users to test scenarios virtually before applying them in the plant. By democratizing access to simulation tools, it provides a consistent, real-time view of plant performance for all skill levels. Renaissance Process Digital Twin drives value, reduces inefficiencies, enhances decision-making, and enables plant-wide optimization with lasting impact. It bridges the gap between operations and planning teams, fostering collaboration and continuous improvement.



The Challenge: Staying profitable amid fast-changing supply, demand, and regulatory shifts.

In today's interconnected world, disruptions in one area can quickly affect supply and demand elsewhere. Rapid market shifts and evolving regulations demand agile decision-making in plant production and investment planning. This requires assessing incoming changes, optimizing unit operations, reducing inefficiencies, boosting workforce productivity, and making specialized tools accessible to all.

The Opportunity: Tapping into New Levels of Value

Process Digital Twins are crucial for achieving operational excellence by offering detailed insights into optimizing unit operations, tracking key performance indicators (KPIs), and monitoring process constraints. They serve as a soft-sensing tool, bridge gaps between planning and operations teams, and provide a unified platform for engineers, planners, and operators of any skill level to test scenarios in a virtual model of the manufacturing process. With calibrated models, Digital Twins offer a unique perspective on the past (root cause analysis), present (KPI tracking), and future (predictive analysis) of processes and assets—without the risk of costly downtime in the plant.

The Solution: Renaissance Process Digital Twin

Renaissance Process Digital Twin is a comprehensive software solution that manages, contextualizes, and analyzes real-time data. It utilizes first-principles-based models, calculations, and analytics to provide actionable insights for performance monitoring, troubleshooting, soft sensing, what-if analysis, and updates to planning.

A web-based interface delivers insights with customizable graphics, flexible reporting, and role-based access. It can integrate existing simulations, models, and graphics for faster deployment. Built on years of experience in Oil & Gas, Refining, Petrochemicals, Chemicals, Steel, Fertilizer, and industrial software, Renaissance Process Digital Twin drives smarter, data- driven decision-making.

For More Information

Learn how ENI can optimize your industrial operations with advanced engineering solutions. Visit www.enianalytics.com or contact ENI for tailored consultations and support.

ENI

106, Mahant Chambers, Road no. 34,
Wagle Estate, Thane West, MH- 400604
Phone: +91- 95033 3697/ 98231 56611
Email: sales@enianalytics.com

www.enianalytics.com

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