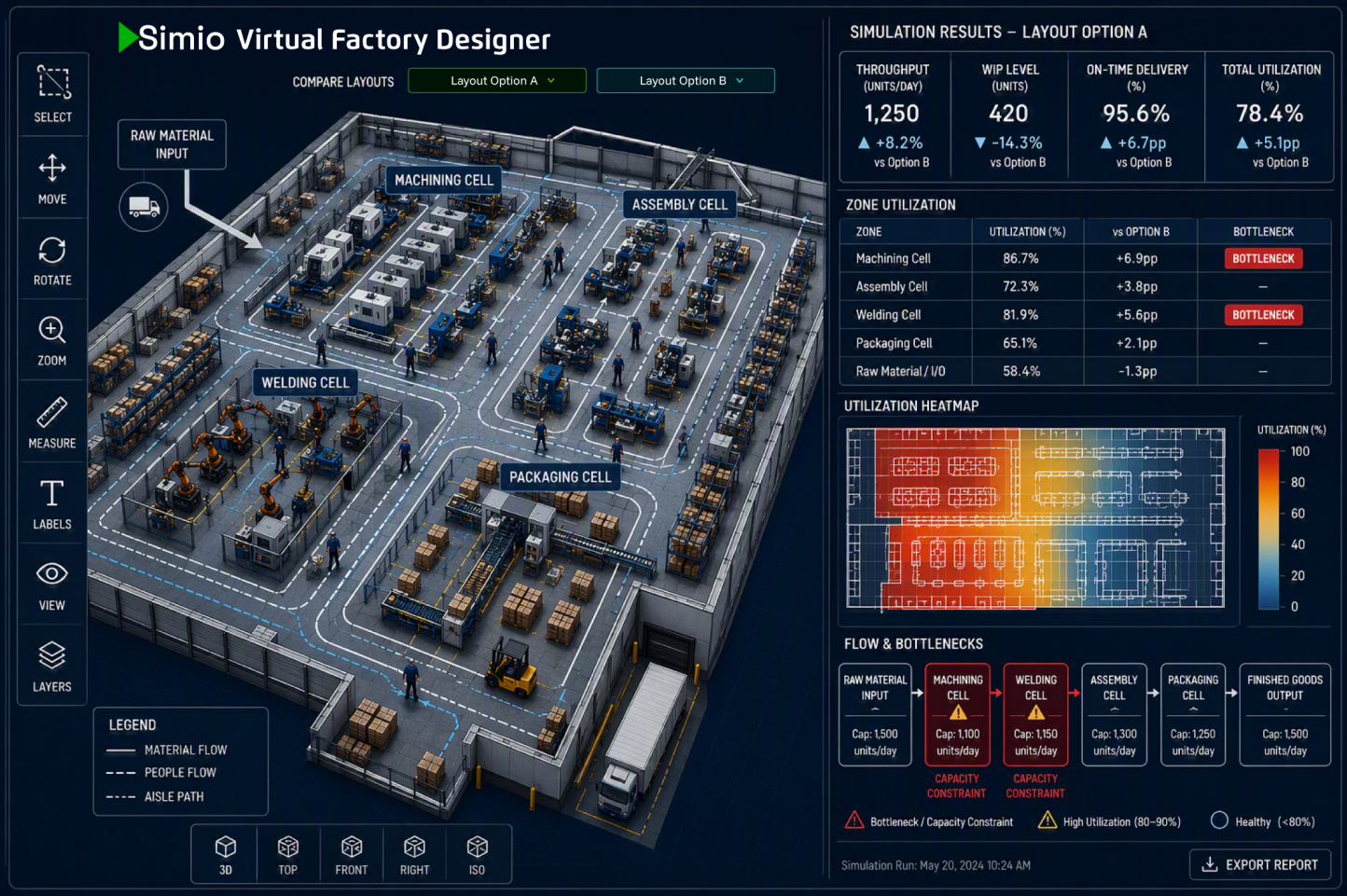
DATA SHEET

AEGIS SOFTWARE

Simio Virtual Factory Designer

Data-Driven Factory Design and Optimization

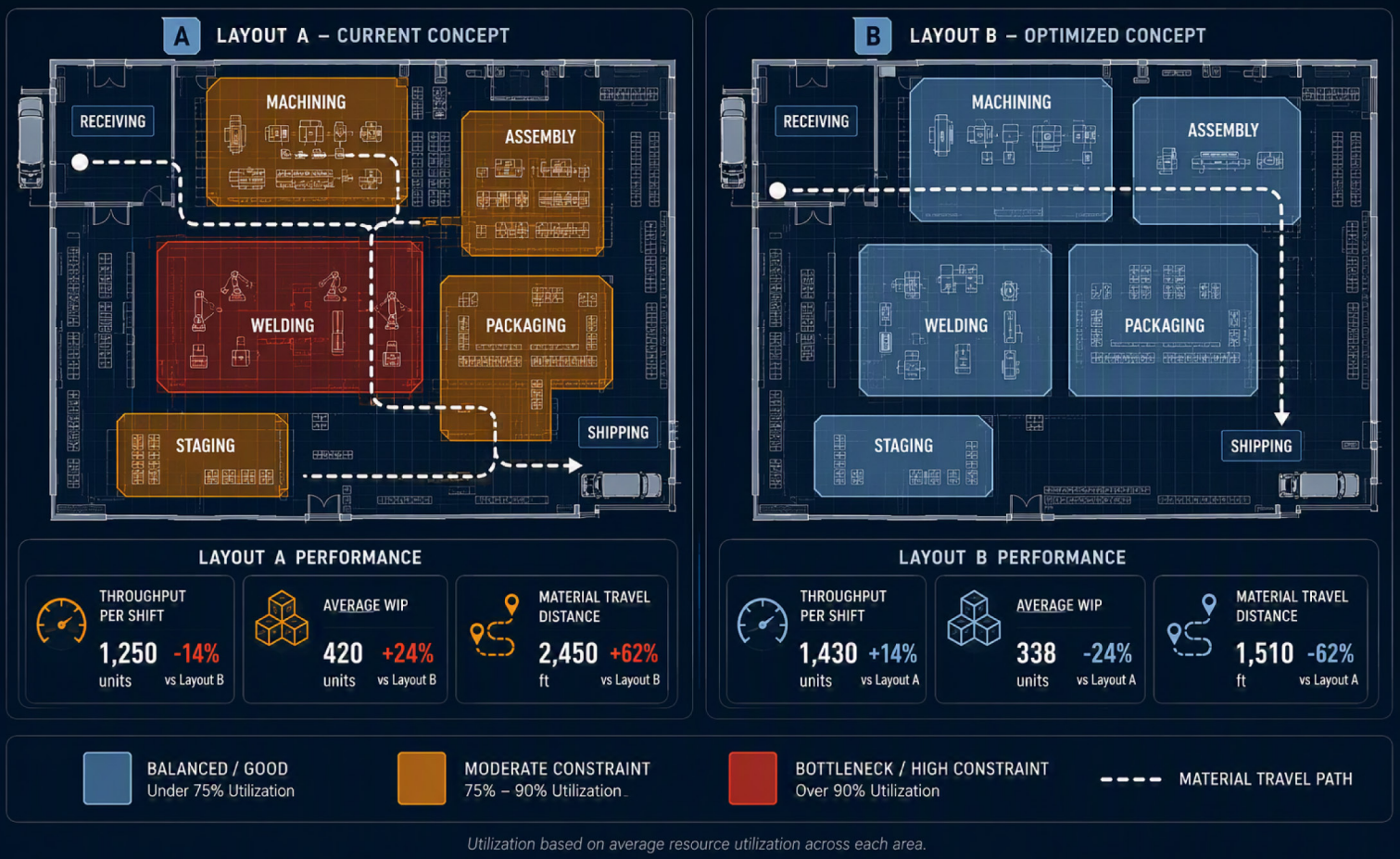
Design Your Next Factory Before You Build It



Validate Facility Decisions With Data, Not Guesswork

Facility design and layout decisions are among the most expensive a manufacturer can make. Traditional approaches rely on 2D drawings, CAD tools, and engineering judgment to evaluate new layouts and production cell configurations, with no quantitative way to understand how the proposed design will actually perform under real production conditions. Simio Virtual Factory Designer changes that.

Using the same simulation engine that powers the full Simio planning and scheduling platform, Virtual Factory Designer lets manufacturers build a data-driven model of a proposed or existing facility, evaluate how work will flow through the design, identify bottlenecks before they are built in, and compare alternative layouts against each other using real production data. The result is more confident facility decisions made before construction, equipment purchases, or operational changes are committed to.



Why Engineering and Operations Teams Use Virtual Factory Designer

Pre-Build Validation

Evaluate new factory layouts and current production cell configurations using simulation before committing to construction, equipment purchases, or major operational changes.

Bottleneck Prevention

Test decisions in the model before they reach the floor, Identify where proposed layouts will create production flow constraints before they are built in and expensive to fix on the live production environment.

Layout Comparison

Compare alternative facility designs using real production data, material flow simulation, and constraint modeling to identify which option performs best before any commitment is made.

Operational Change Analysis

Model the impact of major equipment changes, production cell reconfigurations, or floor layout adjustments before implementing them on the live floor.

Design and Analysis Capabilities

- Factory layout modeling and simulation using real production data
- Production cell design and configuration analysis
- Material and work order flow simulation through proposed layouts
- Bottleneck identification and elimination in facility design before construction
- Alternative layout comparison with quantified performance differences
- New facility planning and validation before equipment procurement
- Major operational change analysis before live floor implementation
- Compatible with FactoryLogix and other enterprise data sources
- Changeover, reliability, and work schedule modeling within facility designs
- Ongoing "what-if" analysis in support of continuous improvement and transformation projects

Build It Right the First Time.

Simio Virtual Factory Designer is for manufacturers with an active facility design, layout change, or production cell reconfiguration project. It does not produce production schedules. For organizations that need both facility design capability and full advanced planning and scheduling, Simio APS includes all Virtual Factory Designer functionality in a single platform.

