



 | Brochure

Aspen Economic Evaluation Family



Aspen Economic Evaluation estimates project capital cost and asset lifecycle economics from conceptual definition through detailed engineering. It has cost estimating, scheduling and benchmarking capabilities to help users successfully manage CAPEX and OPEX.

Unlike other approaches, AspenTech's underlying technology does not rely on capacity factors to estimate installation quantities and installed cost of equipment. It uses a unique approach where equipment with associated plant bulks is represented by a comprehensive design based on installation models allowing faster, more accurate decision based on consistent engineering and economic information.



The suite includes these products:

1. Aspen Process Economic Analyzer™

- Use process simulation data to drive engineering models.
- Develop CAPEX and OPEX estimates to screen competing technologies and process configurations during conceptual design.

2. Aspen Capital Cost Estimator™

- Generate conceptual and detailed cost estimates. Analyze and select project execution strategies including contracting strategies with multiple EPCs, vendor management and change orders over the project lifecycle.
- Hone and improve the estimates as more information becomes available and optimize control, power and piping configuration and cost. Support project relocation and scaling based on plant capacity.

3. Aspen Capital Cost Estimator Insights™

- Aggregate, analyze, visualize and benchmark project information and metrics for streamlined project management and informed decision-making.



An Integrated Solution for Accelerated, Accurate Estimation and Project Delivery

Key Benefits of Implementing Aspen Economic Evaluation

Rapid
Screening

Reduced Time
to Market

Improved
Accuracy,
Reliability of
Estimates

More Informed
Decision-Making

Lower Project
Costs

Greater
Transparency

Faster
Execution

Increased
Project
Profitability



Aspen Process Economic Analyzer

Aspen Process Economic Analyzer (APEA) helps compare cash flow and operating cost of competing technologies during conceptual design. Seamless integration between APEA and process simulators, Aspen HYSYS and Aspen Plus, enable process engineers to perform early economic CAPEX and OPEX analysis based on simulation data. Its equipment mapping technology expands the unit operations in the simulation into actual equipment models, generates preliminary sizes and calculates costs using design based installation models.

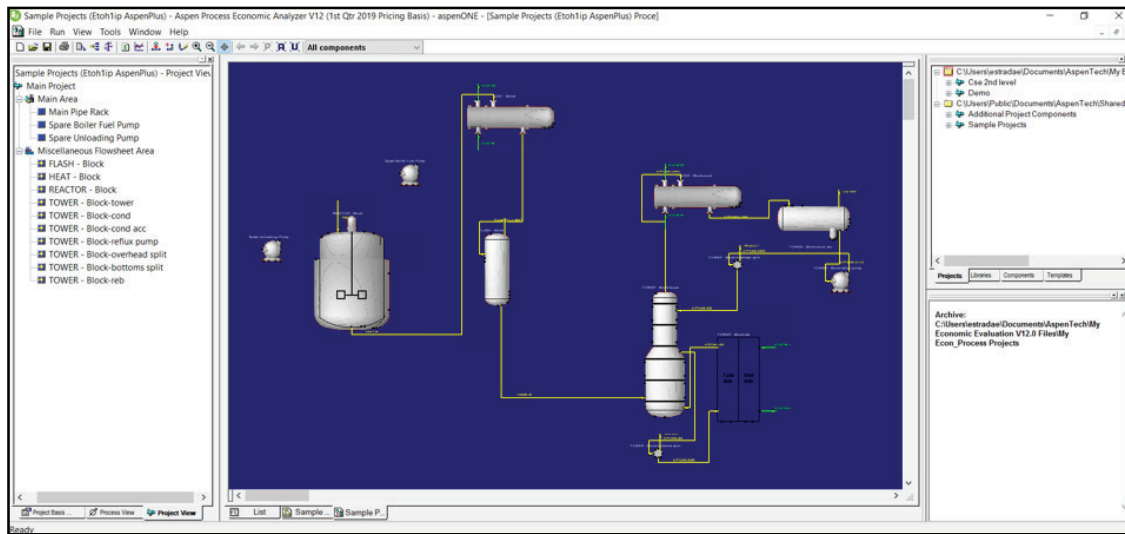
Automatic Generation of Preliminary Sizing Relative CAPEX and OPEX

APEA uses a rule-based system to develop automated scope from simulation data, reducing cycle time and helping companies evaluate process design alternatives quickly, early, accurately, and consistently. APEA's integration with process simulators enables interactive cost optimization where any change in the process can be automatically evaluated to fully comprehend their economic impact.

Additional benefits include:

- **Generate a baseline for cost optimization of process design** to focus on high-return projects
- **Use analysis data to further improve project profitability**
- **Analyze the economic impact of design changes and** alternative feed-stocks and energy sources





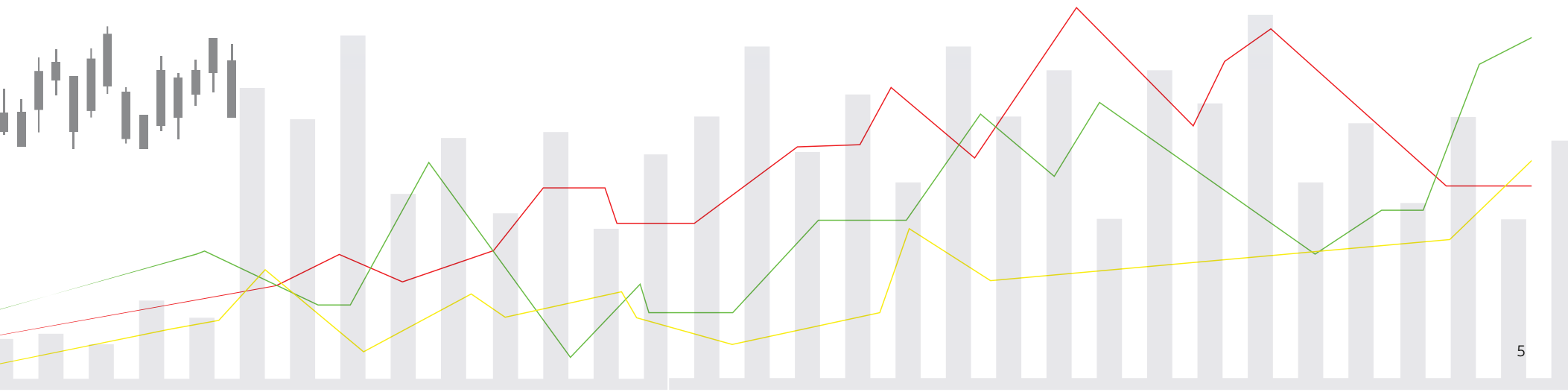
APEA provides an early view to relative costs, enabling users to align design concepts with capital and operating costs and quickly provide management with reliable answers, leading to more informed capital decisions.

Features

- Integrated with Aspen Plus® and Aspen HYSYS® process simulators
- Export to ACCE to provide basis for detailed TIC estimates
- Interactive mapping, sizing and costing of simulation objects
- Investment analysis of capital and operational expenses

Benefits

- Develop highly accurate CAPEX and OPEX estimates from conceptual process definitions
- Evaluate business impact of design alternatives in earliest lifecycle phases
- Expand unit operations into actual equipment models and calculate preliminary sizes
- Streamlined workflow from process design to cost estimation



Aspen Capital Cost Estimator

Aspen Capital Cost Estimator (ACCE) establishes a consistent model to enable the creation of accurate, detailed project cost estimates and high-level critical path method (CPM) schedules early in the design process. It has powerful capabilities to evaluate construction hours and durations, identify long lead deliveries, optimize construction quantities, assess project technology location and capacity, and compare construction execution strategies.

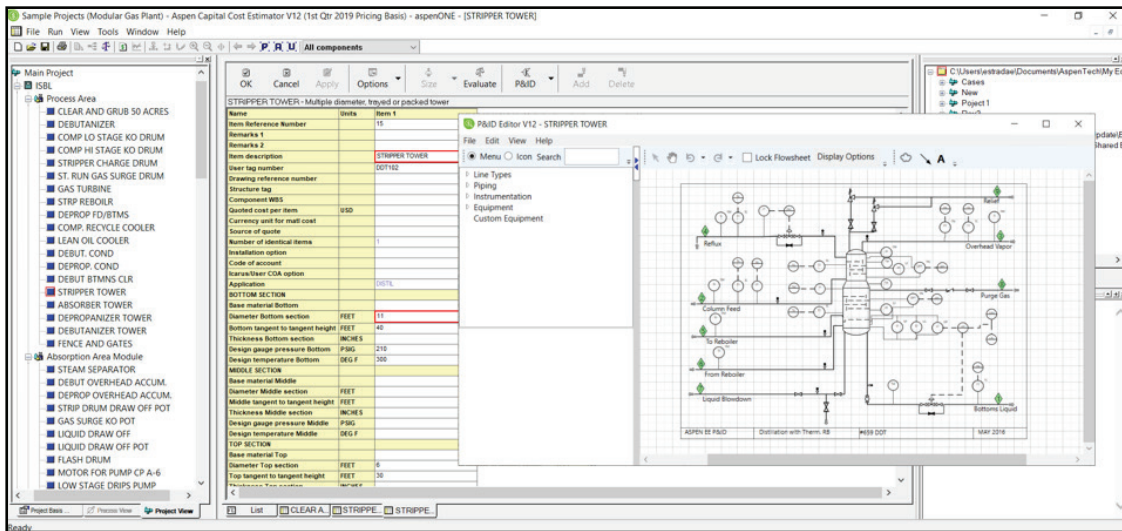
Transform Work Processes to Drive Collaboration and Efficiency

ACCE enables estimators to perform investment option analysis during conceptual engineering. Costs automatically update as specifications change, providing clear visibility of how changing assumptions affect project economics.

Additional benefits include:

- **Identify and quantify risks** using built-in probabilistic risk analysis
- **Leverage reusable templates and configurable reports** to decrease estimation time and increase transparency
- **Evaluate cost impact of scale up** or scale down or project relocation during concept design
- **Get detailed Total Installed Cost (TIC) estimates** from preliminary project definition in a fraction of the time required by traditional methods
- **Reduce estimation variability** by adopting a consistent methodology throughout the lifecycle





ACCE enables estimators to control the estimate data at full project level, individual area level, or individual components to further refine the overall scope.



Features

- Cost estimation from preliminary design (adds detail throughout the estimation and bid process)
- Integration with Aspen OptiPlant 3D Layout™ for visualization and accurate estimation of MTO quantities
- Exports CPM schedule data to Primavera P6 Enterprise for detailed schedule development
- Fast “What If?” analysis of plant relocation and capacity
- Six regional locations: US, Europe, Middle East, Japan and UK, Chinese basis template

Benefits

- Develop detailed designs and cost estimates from preliminary project definition
- Minimize cost variability
- Model and analyze project execution strategies while optimizing project costs
- Analyze stick build vs modular construction execution strategies

Aspen Capital Cost Estimator Insights

Aspen Capital Cost Estimator (ACCE) Insights enables data aggregation, benchmarking, workflow management, estimate analysis, visualization and collaboration. ACCE Insights is available via web browsers, helping users manage and share estimate data and workflows easily to make sound, data-driven decisions across business functions. Data obtained by ACCE Insights resides in a secure, shared database accessible by authorized stakeholders anytime and anywhere.

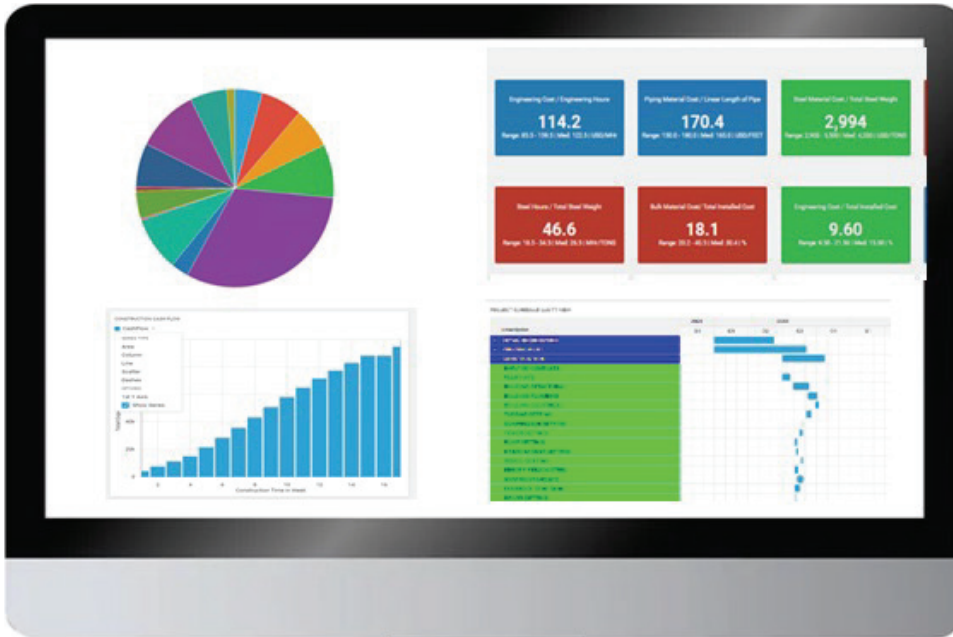
Connected Decision-Making and Better Collaboration

ACCE Insights enables transparency and collaboration between estimators, managers, subject matter experts, executives and other stakeholders in the estimation workflow. It provides benchmarking, enhanced visualization of project metrics, tracking of milestones and actionable items.

Additional benefits include:

- **Provide ready-to-use visualization tools** to identify project cost drivers
- **Improve process efficiency and enable greater collaboration**
- **Integrate estimation and supporting disciplines**
- **Analyze and monitor KPIs**
- **Identify issues and constraints** in project schedule
- **Improve insights for management and decision-makers**





ACCE Insights provides a collaborative environment with controlled access and the most recent project data, turning silos into connected decision-making.

Features

- Collect and organize company data to perform history-based Benchmarking
- Develop cost and quantity timeline across project phases (milestones)
- Choice of a wide variety of chart and graph templates to visualize and analyze data
- Ability to create and assign action items, designating priorities and due dates
- Identify bottlenecks in multiple estimates and prevent potential delays

Benefits

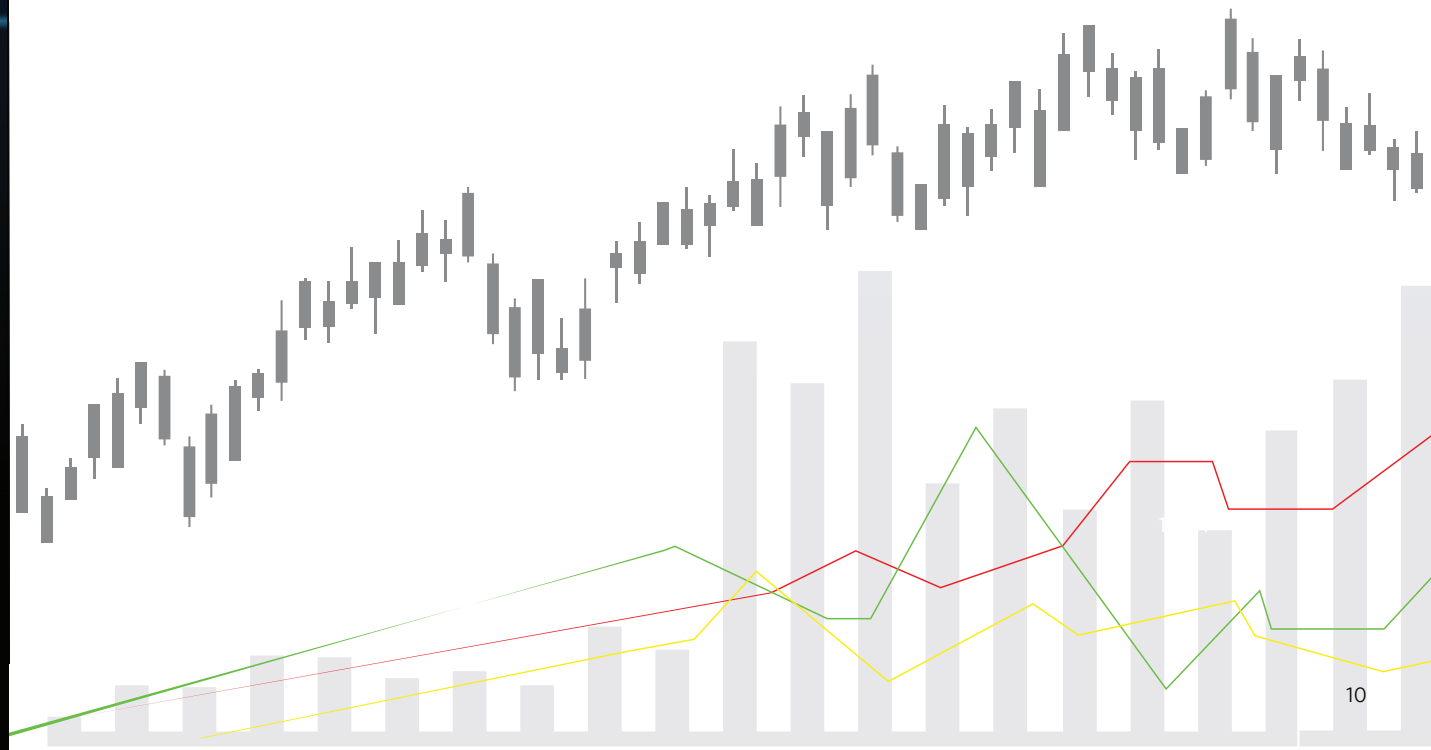
- Identify potential gaps in pricing and metrics
- Simplify and accelerate the review of the estimate and compare results with previous versions of the project
- Create reports and export charts and tables to MS Office for faster deliverables
- Provide access to authorized stakeholders to the most recent data without the need to manage multiple files



Accelerated Execution and Decision-Making

Whether you are an estimator looking to perform cost estimates faster and with greater accuracy, an Owner Operator looking at early conceptual project options and trying to identify the best candidate, or an EPC looking to accelerate project design and delivery, the Aspen Economic Evaluation suite enables quick, confident assessment of projects early in the design process and effective management of projects across the entire lifecycle.

Contact our team of experts to hear more.





About Aspen Technology

Aspen Technology, Inc. (NASDAQ: AZPN) is a global software leader helping industries at the forefront of the world's dual challenge meet the increasing demand for resources from a rapidly growing population in a profitable and sustainable manner. AspenTech solutions address complex environments where it is critical to optimize the asset design, operation and maintenance lifecycle. Through our unique combination of deep domain expertise and innovation, customers in capital-intensive industries can run their assets safer, greener, longer and faster to improve their operational excellence.

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