

Aspen HYSYS® Teaching Modules

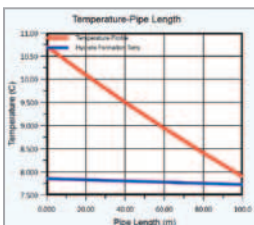
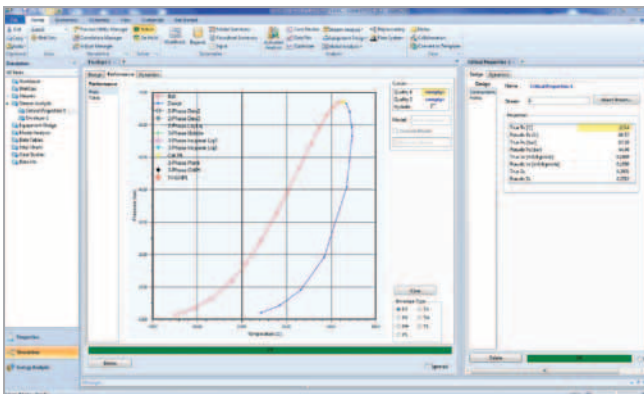
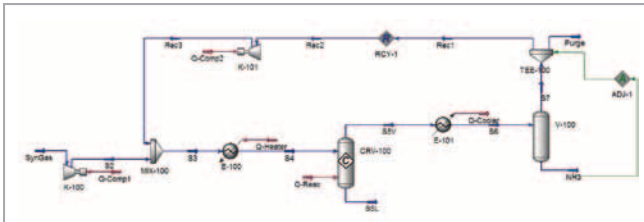
Get students industry-ready with 44 new Aspen HYSYS Teaching modules. Download today.

Empower your class to solve real-world issues that typically arise in the oil and gas production and petroleum refining industries.

Teach Students Process Simulation—Quickly and Easily

Continuing AspenTech's commitment to university customers, we've developed these helpful Teaching Modules for Aspen HYSYS. Now students have the hands-on tools to gain a better understanding of various process simulation exercises.

- Demo the Essentials of Process Design**—Process design simulation allows the engineer to explore and evaluate alternatives to select the optimal process design to meet requirements. Included in this module are a set of step-wise iterations to produce a basic process design.

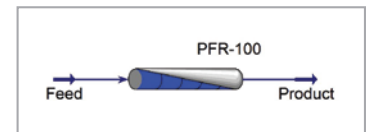


- Tackle Issues that Arise in the Energy Industry**—Examine issues that arise in the petroleum industry with these Teaching Modules, such as the design of a Gas Oil Separation Plant and the formation of hydrates in gas pipelines.

Benefits

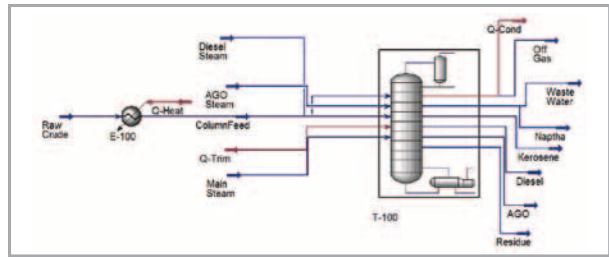
- Get students “industry-ready” with the same software used by leading process manufacturers
- Enhance engineering curriculum with hands-on teaching modules
- Give students a competitive edge when they enter the oil and gas production workforce

- Teach How to Model Reactors**—Modeling reactors provides the basis for how chemical reactions and kinetics affect the process. Included in this module are step-by-step examples on how to use simulation for plug flow reactors (PFR) and continuously stirred tank reactors (CSTR).

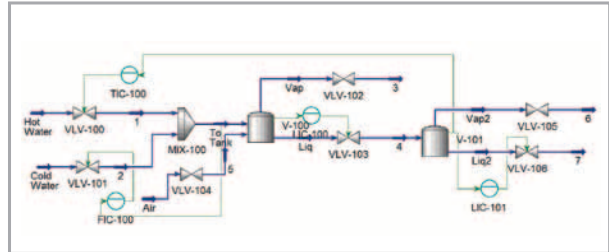


- Show Thermodynamics and Simulate Real-World Applications**—Physical properties and thermodynamics are essential to chemical engineering simulation. With the Aspen HYSYS Teaching Modules you can now provide students with step-by-step instructions on how to use various thermodynamic properties to simulate real-world applications.

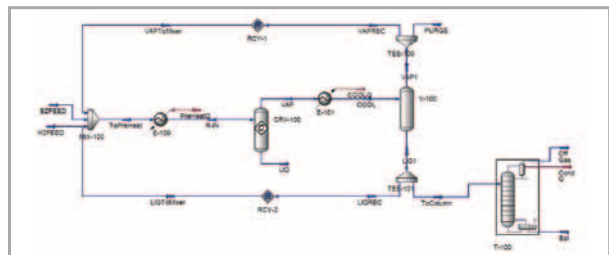
- **Model Distillation Columns**—Process simulation allows engineers to test the feasibility of different separations and compare and optimize designs. Students are provided instructions to simulate distillation columns using various real-world applications.



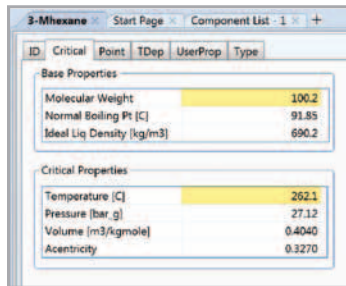
- **Convert Steady-State Simulation to a Dynamic Simulation**—Dynamic simulation allows users to investigate how fluctuations influence the performance of the overall process- crucial to process control. Now students can take the steps to convert a steady-state simulation to a dynamic simulation, and create parameter fluctuations and observe the dynamic effects.



- **Teach Material and Heat Balance to Solve Stream Compositions and State Variables**—Heat and material balances can help solve stream compositions and state variables (T, P, etc.). Process simulation can be used to solve complex problems, such as a process flowsheet. Use the Teaching Modules to show how to use Aspen HYSYS® to simulate a simplified chemical process.



- **Teach Physical Properties for Process Simulation**—Step-by-step examples in this module demonstrate how to access the vast amount of physical data in Aspen HYSYS, how to create hypothetical components, and how to use physical properties for process design.



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About AspenTech

AspenTech is a leading supplier of software that optimizes process manufacturing—for energy, chemicals, engineering and construction, and other industries that manufacture and produce products from a chemical process. With integrated aspenONE® solutions, process manufacturers can implement best practices for optimizing their engineering, manufacturing, and supply chain operations. As a result, AspenTech customers are better able to increase capacity, improve margins, reduce costs, and become more energy efficient. To see how the world's leading process manufacturers rely on AspenTech to achieve their operational excellence goals, visit www.aspentech.com.