JPro™ Dynamic Simulation Software for Process Industries

For over 40 years GSE Systems has been developing custom simulations for the process, fossil, and nuclear marketplace, providing solutions to industry problems. As more and more customers realize the potential of simulation, the demand for easy-to-use tools for simulation development has steadily increased.

At GSE Systems, we packaged our years of process industry simulation development experience with the tools of our trade. The result is an easy-to-use tool kit that allows your process engineers to develop their own high-fidelity, real-time, dynamic simulations.

Benefits

GSE Systems customers most often purchase our simulators for training applications. However, when this tool kit is used from the process design through training phase, the resulting models may provide benefit over the life of your process.

- Often these models can be used to evaluate process design.
- They can then be integrated with the control system of your choice for thorough evaluation prior to start-up.
- Once you have confidence in your control system, the models then provide an excellent training and procedure development platform, allowing your operators to get hands-on experience even before the plant is built.
- Finally, once you have achieved a successful start-up, these same models can assist you in on-going training, de-bottlenecking and optimizing your process.

The result is smoother operations and ultimately greater profits from your successful operation.

Integrated Software Suite

The JPro simulation system provides an integrated software suite used to build, test, and run simulation models, dynamically and in real time. These models are used for process and control system design, process scale up and evaluation, engineering study, Advanced Process Control, and operator training. The models can be used alone or connected to virtually any control system. JPro models are configured graphically from a simulation library of process and equipment objects.

Key Features and Advantages

The number and types of processes being simulated continues to grow. The term "process simulation" encompasses a variety of applications, including simple replications of processes by loose approximations or empirical relations, steady state equilibrium models, equipment design utilities, and a variety of approaches aimed at operator training.

GSE Systems
www.gses.com/simulation
The JPro process simulation solution allows you to develop one or more models, using state-of-the-art graphical tools, and use them for a range of applications. In the past, these applications would have required several different products and a workforce with a diverse skill set to achieve.

The essential features are:

- The software is object-oriented and presented with a configuration vs. programming approach.
- A robust graphical user interface provides easy drag and drop functionality from an extensive module list.
- The process models are easily scalable, reducing subsequent development time.
- The process is modeled on a first-principles basis, ensuring high-fidelity.
- The simulation developed is dynamic, capable of running in real time, fast time, or slow time.
- The process control system can be simulated, partially simulated, or fully simulated.
- There are tools in the package to support rapid model development, engineering studies and operator training.

The Result

With its high-fidelity models and real-time response JPro is the ideal environment for operator training and beyond.