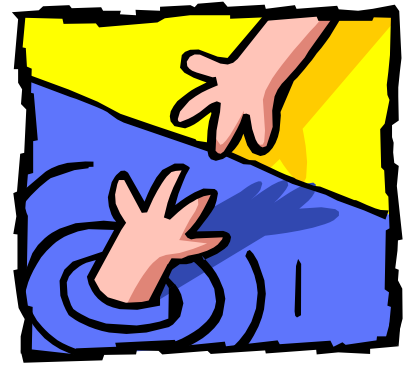


# Process Analysis and Operating Problem Solutions ...at your fingertips



Merging enterprise operations information with basic engineering fundamentals

Process Systems Engineering 6362 Glenknoll Drive  
714-595-9813 [www.prosyseng.com](http://www.prosyseng.com)

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- ◆ We provide *economic, practical solutions* to complex process issues.
- ◆ We integrate, store, and use knowledge from your operations to *maximize your business operating profit*.
- ◆ We *employ a holistic approach to your unique manufacturing situation*, combining the following technical and business disciplines in our work as appropriate:

**Chemical and Industrial Process Engineering.** PSE has the scientific background and work experience needed to analyze your manufacturing process needs and problems. Our focus is to help you make your product(s) more efficiently **and** profitably. Our engineering expertise has made over \$50 MM for our clients in high ROI projects.

**Plant Automation, Control, And Optimization.** Processes and systems must be controlled (for economic, safety and regulatory reasons) within a window of control that is “best” for you. We help you find and maintain that window in your process scheme, from continuous flow plants of world scale size to lean operations in discrete manufacturing.

**Business Analysis, Compliance Assurance and Information Systems Integration.** To enhance your bottom line, your information must flow from the instrument & plant loop, up to management, and to all points in-between, wherever and however that information is needed. **Much of it is required by law and fixed in format.** Information technology and supporting systems are the glue that tie your plant operations, in compliant fashion, to the rest of your business and to the world.

**Project Implementation and Management.** Any significant improvement project requires strong support and guidance. Whether a capital value or services oriented project, PSE has the PM experience and abilities to help you go from conceptual & needs analysis to final installation.

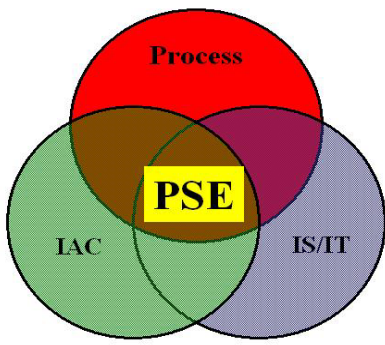
**Process Systems Engineering** has a unique blend of real industrial expertise, technical skills and business capabilities. With its associates, PSE provides the following assets to you:

**Experience.** Each of our associates has a minimum of 25 years of quality multi-industry domain professional experience in at least two scientific/engineering or IS/IT disciplines. We emphasize knowledge as an asset that can be utilized in a variety of ways. Rarely do we offer single solutions.

**Knowledge & Methodology.** We use the most efficient methods and data relevant to your project. We are a computing oriented service company so we know how to apply systems and modeling technology to address your needs and solve your problems.

**Hands On Approach.** Our investment in systems technology is augmented by our experience in a practical “nuts-and-bolts” approach to your needs. All of us have “hands-on” time in process and manufacturing facilities and continue do so as necessary. The application report is not correct until we validate it with a dose of reality.





## The 21 situations when you should engage PSE !

1. Your expensive real time optimizers aren't working very well, if at all.
2. You use no regular optimization at all, real time or off line.
3. Your process unit controls, traditional or model-based, are not doing their job, or have not been calibrated in at least a year.
4. You've had inventory and supply chain control problems. Or off spec product. Or excessive rework. Or quality complaints. Or.....
5. Your simulation and modeling applications cannot be automatically calibrated and run with your real-time or historical process data.
6. Your staff is manually inputting data or run scripts that require too much time to prepare.
7. Few or none of your models include the use of valid manufacturing economics in the application.
8. Your modeling or information display applications are not being used, even though they were originally justified with a very high ROI. There are lots of excuses, but no good reasons for this.
9. Your planning model outputs do not match your real plant production.
10. You need **test plant operations changes with a model** before you enact them in the plant.
11. You need to **comply with your KPI's** and established performance metrics more often. Or you need to (re)define them in the first place.
12. Your engineering and operations staff don't spend at least 30% of their time looking for profit opportunities in their unit of responsibility, and perhaps throughout the entire enterprise.
13. Your staff is shorthanded and burdened with too many tasks. They have no time to do any modeling, let alone basic engineering. And then....
14. You have a revamp or expansion plan that needs to be scoped out and evaluated for technical and economic feasibility.
15. You need a replacement/rationalization analysis of existing systems and applications.
16. You have staff training or technical assistance needs in the areas of :
 

<p><b>Simulation And Modeling</b></p> <p><b>Lean Manufacturing,</b></p> <p><b>Business Process Economics</b></p> <p><b>Thermodynamics And Physical Properties</b></p>	<p><b>Process And Controls Engineering</b></p> <p><b>Regulatory Issues</b></p> <p><b>Change Management</b></p> <p><b>Effective Use Of IT &amp; IS apps</b></p>
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17. **Your staff need assistance, training, and encouragement** in the use of whatever systems and applications are already in place, or in the new versions just installed.
18. You need to **improve the overall profitability of your plant/enterprise.**
19. You need to turn laboratory or other experimental data into a commercial process.
20. Your plant and enterprise information is not readily available as needed to **every one of your staff**, in real time, from the Web browser on your intranet and/or VPN. The same need applies to your predictive model outputs. You must benchmark your predicted vs. actual performance.
21. You need a process systems **resource available** to you that provides the technical muscle **you do not have in-house**, at a price and project return that you will appreciate.

***Process Systems Engineering makes your data work for you!***

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