

# Enhancing Your Assets



## EPSS™

## Equipment & Process Simulation Systems

ITS Automation & Controls

Actual or Accelerated Process Rates..., Selectable Scenario Recreation..., Operator Training & Reactionary Response..., Operator Qualification ...,

The ability to experiment & make mistakes without endangering production, equipment or personnel!



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### Our Partners:



**SIEMENS**

**Rockwell  
Automation**



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**EPSS™** is a computer based process and equipment simulation package developed utilizing the exact PLC and HMI software platform and programs Designed and Engineered for your facility and is fully customizable for every equipment center.

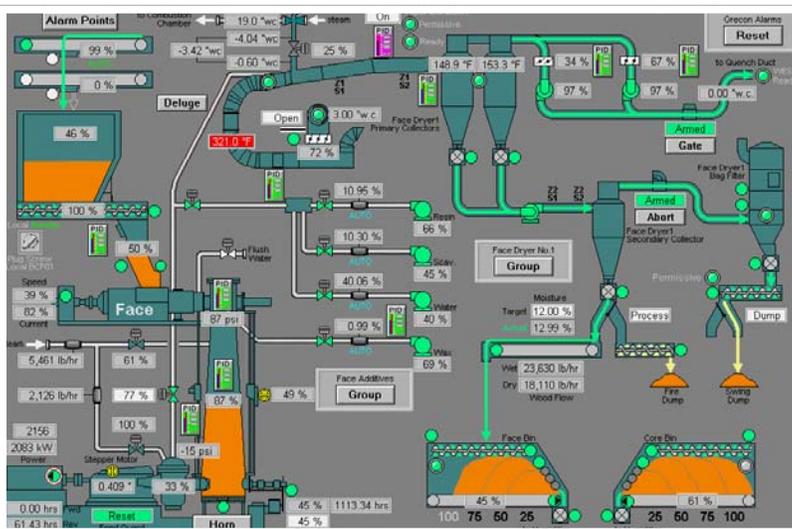
**EPSS™** is a sophisticated tool which can be used during the design stages of a project to minimize

software programming issues, IO & Loop test and equipment & process wide logic test.

**EPSS™** as well can act as a fully functional training and qualifying tool for plant operations and maintenance personnel to be used during start-up and through the production years of the facility.

Flight simulation has provided a means of evaluating the likely behavior and consequences arising from abnormal operating configurations. Training pilots in a controlled and monitored environment while providing full representations of current conditions and minimizing the risk to equipment and personnel. With more than 500 flight simulators in use throughout the world for training and maintenance skills of civilian and military aircrew, some of the measurable results by using flight simulations are:

- ◆ Increased Efficiency
- ◆ Increased Safety
- ◆ Control Ability & Overall Understanding
- ◆ Lower Overall Training Cost



Now production industries have followed the same path as the aerospace industry in which the use of simulation packages can be applied to supervisors, operations and maintenance personnel training.

**EPSS™** has bridged the gap from the simulation world to reality by utilizing the exact control architecture and programs used within your facility with no additional hardware and/or software costs!

## Computer Based vs. Instructor Led Training

|                         |   |               |
|-------------------------|---|---------------|
| Retention Content       | → | 20-60% Higher |
| Learning Gains          | → | 56% Greater   |
| Learning Curves         | → | 60% Faster    |
| Consistency of Learning | → | 60-70% Better |
| Time on Learning        | → | 38-70% faster |

( Source : US Army, United Technologies, Federal Express, Xerox)



**EPSS™** is developed utilizing the same software platform which the facility has chosen to be their control platform. This minimizes cost of purchasing additional software and technical training of individuals to run and maintain the Equipment & Process Simulation package over the years.

**EPSS™** comes in two available configurations. The most common configuration is based on a Dual Station Mode where one station would be the Trainer and the other would be the Trainee. The other configurable option is to operate **EPSS™** in a Single Station Mode for individual's skill testing and examination etc...

In either configuration, the Trainee has the capabilities of full simulation of the process and the ability to initiate a function which would randomly generate an equipment and/or process fault. When the fault is activated, the Trainee is prompted with a multiple choice questions which appears on the screen and needs to be answered prior to continuing.

The generated faults and Trainee's answers are logged, stored and made available for printing once the training session is completed. The printout will provide the date and time of the logged in Trainee as well a calculated grade based on the number of faults generated compared to correctly answered questions. (max. 100 faults permitted per session)

An added feature is also incorporated into **EPSS™** which allows a supervisor or Trainer to modify the stored questions per given fault that would be prompted while **EPSS™** is operating in a Single Station Mode.

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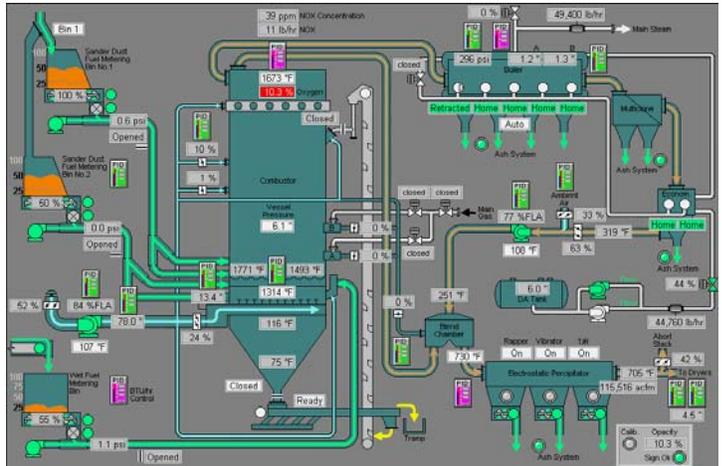
## Benefits in utilizing EPSS™

### Save Time and Money

- Faster Startups – typically save up to 30% of the overall project programming, installation and debugging time
- Eliminate software bugs earlier in the project
- Locate and correct software problems 10 to 20 times faster in simulation environment
- Reduce downtime by installing tested and proven software

### Reduce Project Risk

- Minimize project scheduling and cost uncertainties associated with debugging control logic problems
- Identify and correct problems before they cause delays, over runs and equipment damage
- No third party software packages required
- Consistent control platform with plant environment
- Exact operational screens (HMI application) used in Simulation Mode that are used in daily operations to operate the facility.



### Improve Operator Training

- Gain valuable experience running production on the “live” control system in a simulation environment
- Generate process alarms & conditions that will occur in real life operation.
- Train operators response & reaction to alarms and process conditions
- Training sessions on Emergency scenarios which would be too dangerous to test on actual equipment
- Grading and Qualifying tool for management and operations.



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