

# Learning via constructing and operating a realistic simulated plant! More interactions! Better insight! Lots of fun!

- Standard process plant library
- Easy to setup and maintain
- Easy to operate, robust and safe
- Low maintenance cost
- Low operating cost
- Small footprint
- Flexible to construct
- Parts are reusable, cost savings!



platform that offers a fun, hands-on and insightful experience in chemical engineering education.

The ability of the Deskplant<sup>™</sup> to offer an interesting experience in chemical engineering teaching built upon its decades of expertise in chemical engineering, automation and information technology. The aforementioned system allows students to have first hand experience to build their own "plant" and gain better understanding on process dynamics, safety and controllability when all the pieces (equipment) are putting together.

The Deskplant<sup>™</sup> targets different training needs at various levels:

**The Basic Level** focuses on basic construction of chemical processes, understanding the associated process dynamics and how to perform manual operation to startup or shutdown the plant. During the operation, students can interact with the monitoring dashboard (installed on a tablet PC) to have a glimpse on the resulting process dynamics.

The Advanced Level includes automatic control elements (such as Distributed Control System or DCS) on top of that in the basic level. This allows a more realistic training in terms of plant operations. Typical operations include startup, shutdown, handling of equipment/instrument malfunctions, various scenarios such as emergency shutdown, mode changes and etc. In addition, student's performance related to the plant operation can be evaluated using the built-in evaluation function. In industry, the Deskplant $^{\text{TM}}$  can be adopted to enhance the Operator Training Simulator.















Smart Chemical Engineering Model Construction Blocks

DeskPLant™

#### Now, Deskplant<sup>™</sup> is available in the following options:



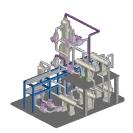
### **Distillation family**



Depropanizer



HCL-Chloromethane separation



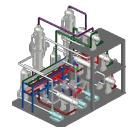
Absorption column



Distillation – catalytic cracking



Deethanizer



Coal Chemical – methanol distillation



Ethanol-water separation



## **Reaction family**



Fixed bed reactor Methanol synthesis



Continuous stirred tank reactor PTA oxygenation

#### Contact us:

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