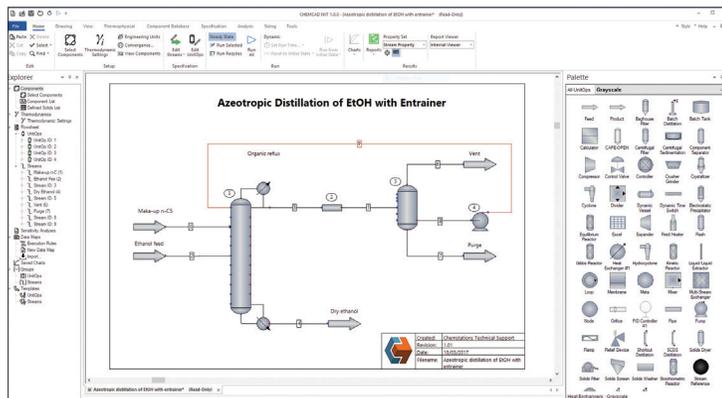


# → LEVERAGE THE POWER OF CHEMCAD NXT

Amplify your organization's chemical engineering expertise to increase your productivity and profitability.

INSPIRE  
CREATE  
CALCULATE  
COMMUNICATE  
ADVANCE  
→ **CHEMCAD**





**CHEMCAD NXT has a variety of applications, including:**

- Research and Development
- Project/Process Design
- Project/Process Redesign and Optimization
- Operations/Maintenance
- Safety and Hazard Analysis
- Environmental Study and Analysis
- Project and Product Sales
- Education

**CHEMCAD NXT is commonly used in such industries as:**

- Bio Processing
- Chemical Processing
- Consulting
- Education
- Equipment Manufacturing
- Oil and Gas
- Pharmaceuticals
- Sustainability
- Utility and Power

**→ Broaden your capabilities and maximize your workflow.**

**CHEMCAD NXT** is an integrated suite of intuitive chemical process simulation software that supercharges an engineer's efficiency without exceeding your budget. Whether you're facing the toughest chemical process models or just addressing day-to-day tasks, CHEMCAD NXT is flexible and affordable enough to handle virtually any challenge that comes your way.





Designed to  
**INSPIRE.**

→ And inspired by you.

This is *your* product. As advanced and intuitive as CHEMCAD NXT is, perhaps its most significant benefit is that it continues to evolve to meet the ever-expanding needs of chemical engineers.



## TAKE ADVANTAGE OF THE IDEAL TOOL AND UNMATCHED SUPPORT.

CHEMCAD NXT is designed to be the most useful and intuitive software tool for chemical engineers. It is easy to use, works seamlessly with other programs, scales easily to handle your simplest or most complex jobs, and makes for beautiful presentations.

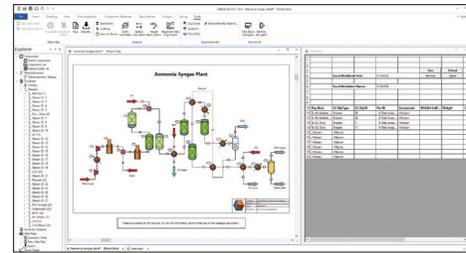
### And that's just the tool itself.

A key differentiator for CHEMCAD NXT is the group of people behind the software. We have outstanding technical support engineers, people who understand chemical engineers' challenges and are happy to help you use the software to address every task, every project, every job.

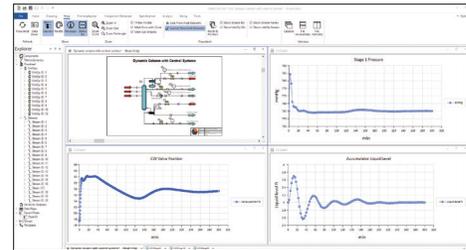
Take advantage of:

- Phone and email access to high-level customer support engineers
- Customer portal with robust knowledge base
- Ticketing system to track feature requests and software improvements
- Training

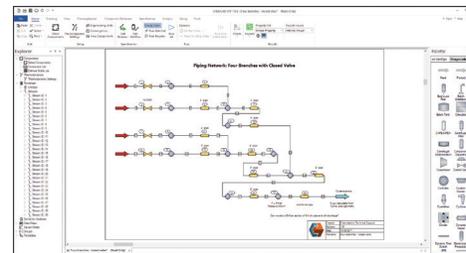
**We're waiting to hear from you.**



- Easily connect CHEMCAD NXT to spread-sheets to exchange data or execute simulations.



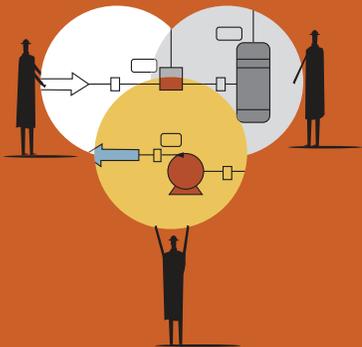
- Switch from steady state to dynamics and back again at the push of a button.



- Add hydraulic balances to your heat and mass balance for pressure/flow calculations.



Maximize your ability to  
**CREATE.**

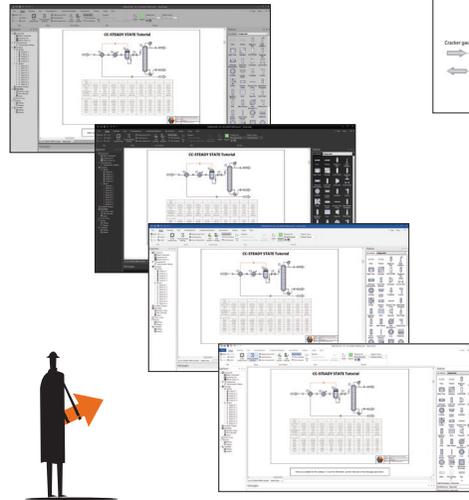
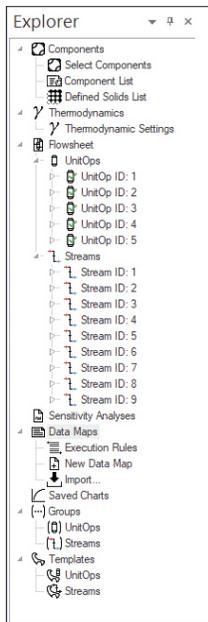


→ Expand your ideas, not your number of programs.

CHEMCAD NXT operates within a single graphical user interface. You won't need to jump back and forth between programs and features. CHEMCAD NXT provides seamless interaction, something unique in the industry.

# INTUITIVE, CUSTOMIZABLE GRAPHIC INTERFACE FITS YOUR WORKFLOW.

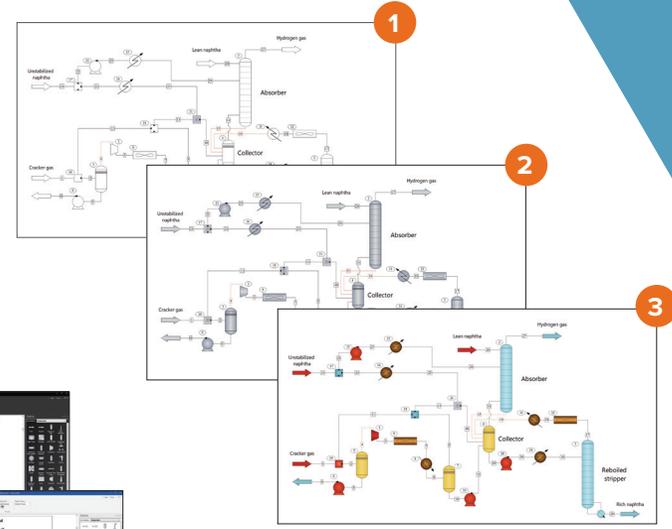
Whether you prefer a wireframe (P&ID style), grayscale, color enhanced, or a custom look, CHEMCAD NXT has you covered.



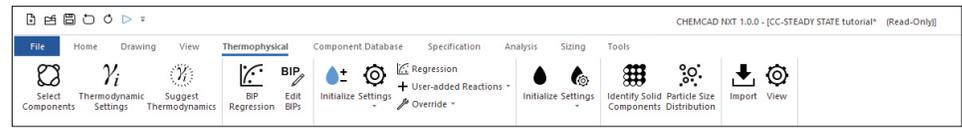
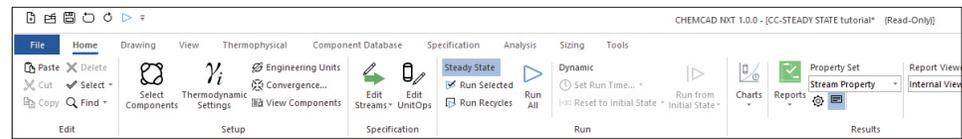
GUI style options

→ Extensive set of unit operations with multiple icon options. Fully customizable for adding your own icons or even your own unit operations.

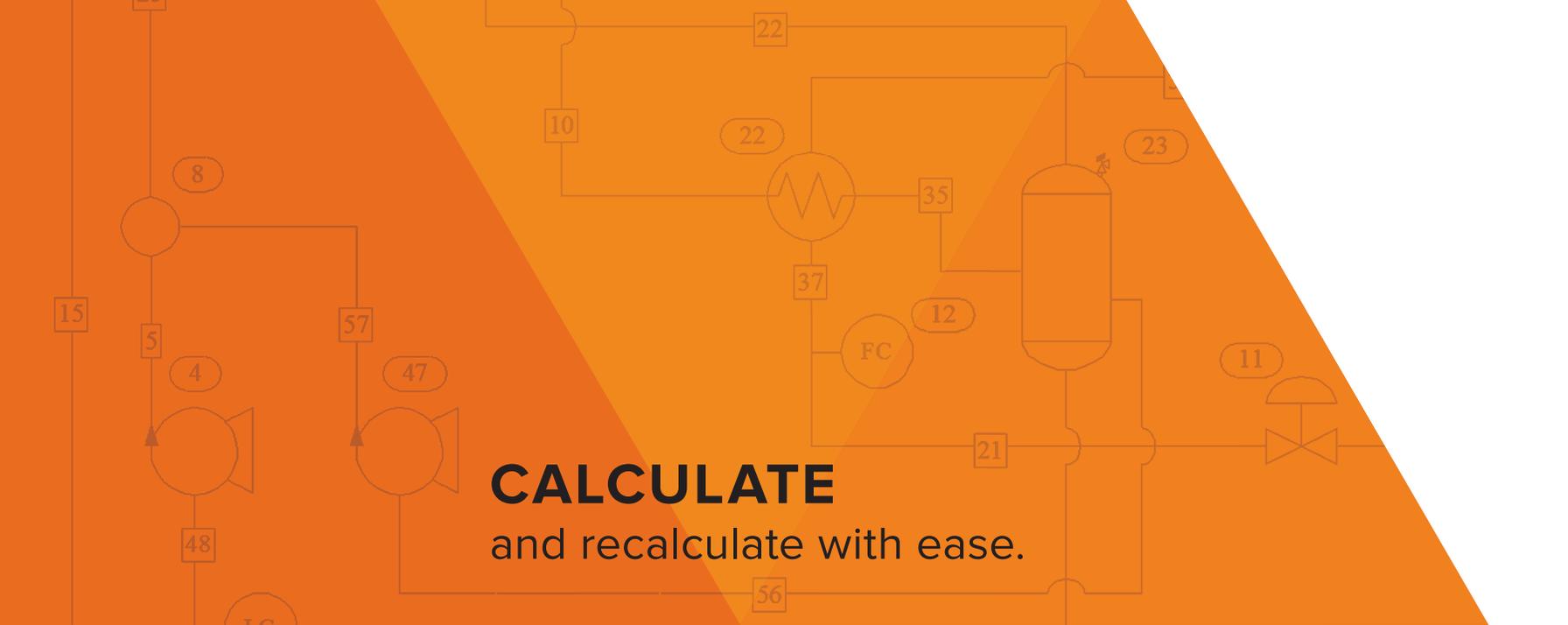
→ CHEMCAD NXT provides an explorer pane to quickly access flowsheet settings and items. Very useful for large flowsheets.



1. Wireframe-look exports nicely to P&ID
2. Grayscale shading makes for easy viewing on screen
3. Jewel-toned color palette yields maximum impact in presentations



→ CHEMCAD NXT guides you intuitively through building, specifying, running, and creating reports for simulations. Ribbons are organized so the most often used functions are accessed from the Home ribbon.



**CALCULATE**  
and recalculate with ease.

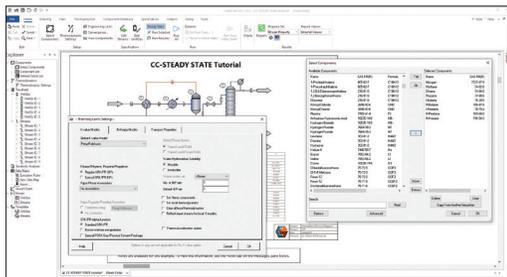


→ CHEMCAD NXT adapts to however you approach engineering challenges.

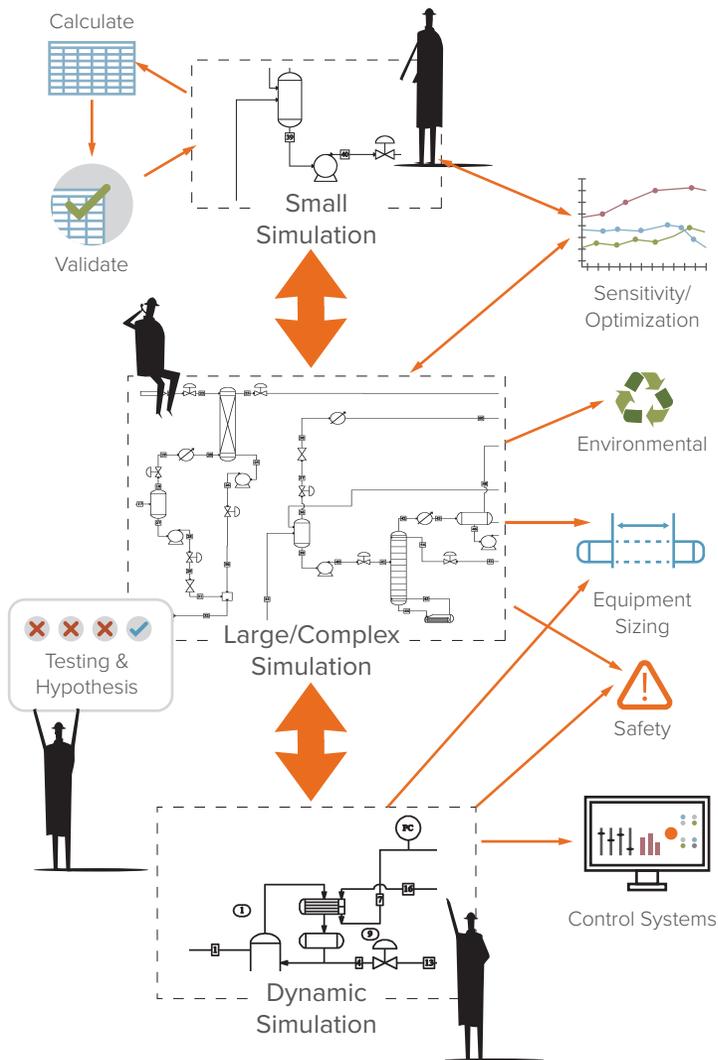
One of the most significant benefits of this powerful tool is how much it assists the chemical engineer across the entire spectrum of work, from the simplest daily tasks to the most complex, integrated projects.

## CHEMCAD NXT CAN ILLUMINATE AND EXPEDITE THE ENGINEER'S PROCESS.

Once you build something, validate it and check it against real world data, possibilities emerge. "What if" calculations become more attractive. Adding complexity – different chemicals, additional equipment, environmental factors, etc. – is less taxing and time-consuming. The software allows you to be creative on the way to your ultimate goal.



- Over 2500 chemical components, over 40 different K-value calculation methods, over 50 different unit operations, and options to customize or add your own. It all adds up to endless opportunities to create value for your organization.



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# COMMUNICATE

more effectively.

→ CHEMCAD NXT makes presenting your work easier too.

As much as we respect the knowledge and creativity required to solve the complex problems you tackle every day, we know you need to look good, too. That's why we made our graphics and reports appealing, customizable and easy to export to third party software.



Charts can be XY, triangular, and even 3-D

Charts and Reports are easy to use, reuse and modify

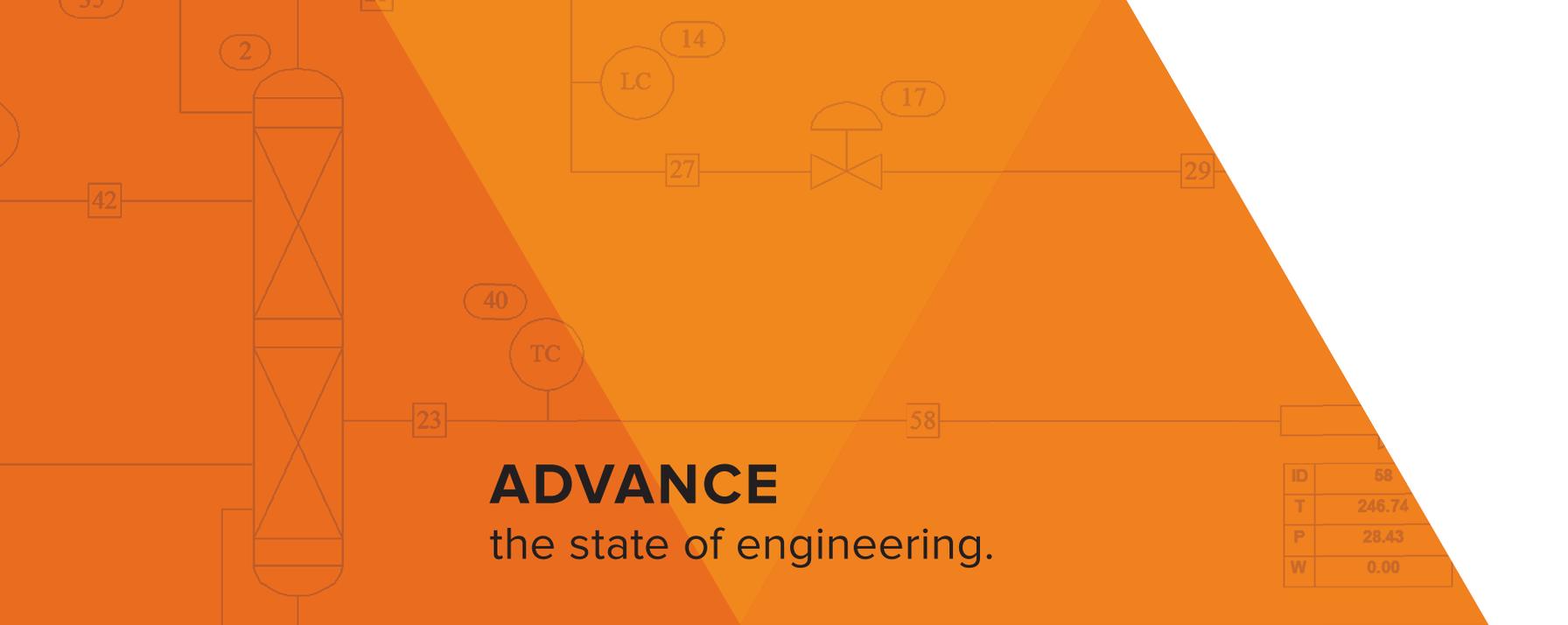


**POLISHED AND PROFESSIONAL FOR ALL OF YOUR AUDIENCES.**

Whether proposing ideas to your team, publishing a paper or presenting at a conference, flowsheets are simple to produce, and reports look professional.

**REPORTS CAN BE SENT DIRECTLY TO WORD AND EXCEL**





**ADVANCE**  
the state of engineering.

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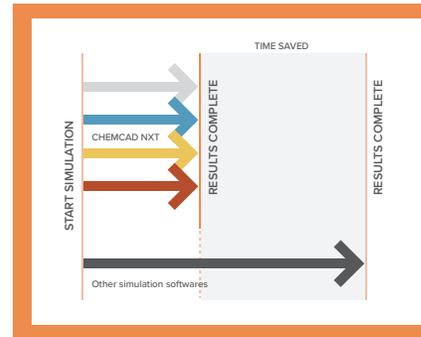
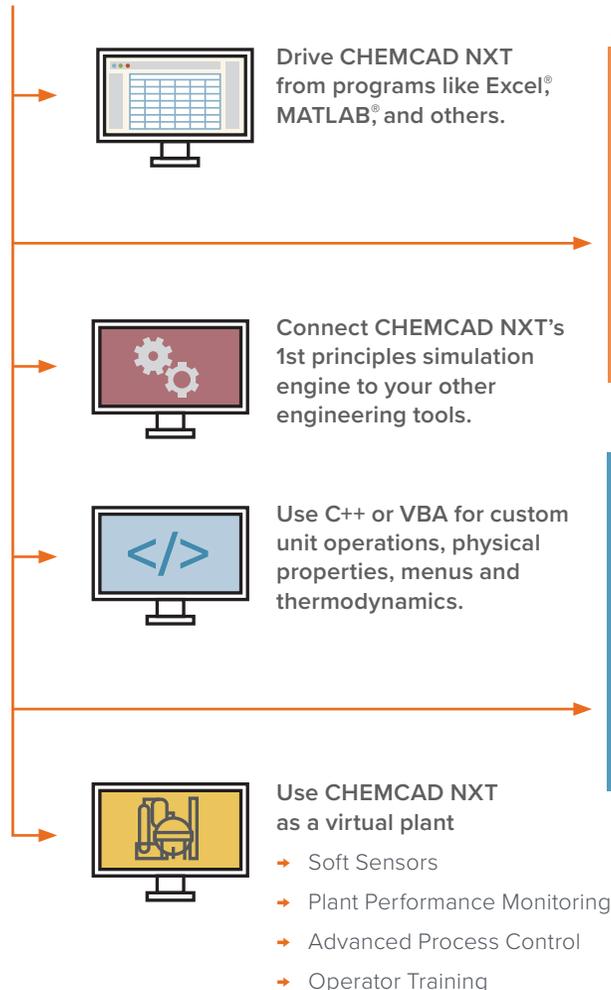
→ CHEMCAD NXT's potential impact has yet to be experienced.

With you and your chemical engineering peers as our partners, we believe CHEMCAD NXT has already significantly enhanced the processes and productivity of the industry. But there is still so much more we can do together.

## FLEXIBLE, CUSTOMIZABLE, SCALABLE SOFTWARE CREATES SIGNIFICANT VALUE.

CHEMCAD NXT's most experienced users can incorporate their own learning and knowledge into the program to have an even greater impact on their work. Since it uses industry standard protocols for communication, CHEMCAD NXT integrates into the chemical engineering computing environment with ease.

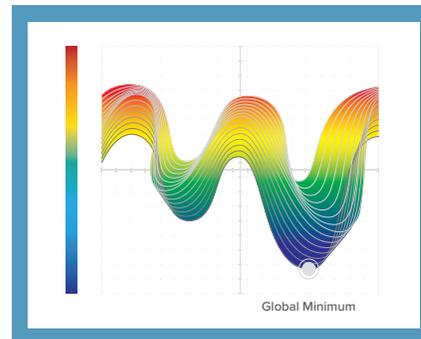
## CHEMCADNXT



### Parallelization

CHEMCAD NXT parallelizes on multiple levels across all your CPU cores, avoids race conditions, and gets your answers fast.

- ➔ Large Flowsheets
- ➔ Complex Thermodynamics & Electrolytes
- ➔ Complex Hydraulic Balancing
- ➔ High Fidelity Mass and Heat Transfer
- ➔ Sensitivity Analyses



### Optimization

Let CHEMCAD NXT help determine optimum design or operating conditions with its powerful optimization engine. Quickly set up, run, maintain and rework your optimization.

- ➔ Your existing flowsheet defines your process
- ➔ Define your objective function, whether a single or multiple objective
- ➔ Define which variables can be adjusted and any constraints
- ➔ Let CHEMCAD NXT find the global optimum using rigorous, first principles simulation

## → CHEMCAD NXT SUITE

**CHEMCAD NXT** is scalable to allow users to purchase only the features they need. The CHEMCAD NXT suite includes six products that can be purchased individually or bundled as needed to accommodate specific industries, projects and processes.

### STEADY STATE

Chemical process simulation software that includes libraries of chemical components, thermodynamic methods, and unit operations to allow steady-state simulation of continuous chemical processes from lab scale to full scale.

- Users who want to design processes, or rate existing processes, in steady state.

### DYNAMICS

Process simulation software that takes steady-state simulations to the next level of fidelity to allow dynamic analysis of flowsheets. The possibilities are endless: operability check-out, PID loop tuning, operator training, even online process control and soft sensor functionality.

- Users who want to design or rate dynamic processes.

### THERM

Heat exchanger design and rating software available as an add-on or stand-alone program. THERM makes use of multiple international standards for design and materials to make sizing a heat exchanger faster and more accurate. The program covers shell-and-tube, plate-and-frame, air-cooled, and double-pipe exchangers. Rigorous designs are based on CHEMCAD NXT's foundation of physical property and phase equilibria data.

- Users who want to design or vet a design by a vendor of a heat exchanger (single unit at a time), and those who want to rate existing exchangers in new service or perform "what if" calculations.

### SAFETY NET

Piping and safety relief network simulation software that allows rigorous analysis of any piping network. SAFETY NET combines the latest in two-phase relief device calculation, rigorous pressure drop calculation, rigorous physical property calculation, and rigorous phase equilibrium calculation to deliver fast, accurate answers.

- Users who need to design or rate piping networks or safety relief devices/systems.

### BATCH

Batch distillation simulation software that, when used as an add-on or stand-alone program, makes batch distillation simulation and design easy with intuitive, operation step-based input. BATCH is extremely flexible, with many operating modes and the capability to model any number of operating steps and conditions. BATCH optimizes batch operation, minimizes intermediate "slop" cuts, and increases productivity.

- Users who want to design or rate a batch distillation column.

### FLASH

Physical properties and phase equilibrium calculation software that is a subset of the CHEMCAD NXT suite (all of the CHEMCAD NXT suite products include FLASH capabilities). This program allows rigorous calculation of physical properties and phase equilibrium (VLE, LLE, VLLE) for pure components and mixtures.

- Users who need physical property and phase equilibrium data, as well as users who need property prediction and regression.



H<sub>2</sub>S concentrator

CO<sub>2</sub> absorber

H<sub>2</sub>S stripper

Reboiler

Rich flash drum

To Claus



→ To learn more about how **CHEMCAD NXT** advances engineering, to request a free trial, or to find a representative in your area, visit **Chemstations.com** or call us at 1.800.CHEMCAD (1.800.243.6223) or +1 713.978.7700.