

Software & Information Technology



Simulation Software Captures Operational Nuances

Some applications, such as biomedical devices, soil and water management, and turbulent mixing of specialty chemicals, present simulation challenges because of minor operational subtleties that can significantly influence performance. Enhancements to STAR-CCM+ Version 9.06 help to capture these nuances within the model to more accurately reflect actual operation. The Acoustic Wave Equation Solver separates acoustic signals from the flow field for a clearer and more accurate view of operation. Partial wrapping and extended overset of mesh deliver more realistic views of detailed systems and sophisticated motion. Tools to create, visualize, and modify mesh control points are available to deform specified geometry, allowing design changes to be performed more easily from an interactive interface.

CD-adapco
www.cd-adapco.com

Control System Accepts Multiple I/O Signal Types



The CENTUM VP R6.01 production control system works with a new field I/O device (the N-IO) that fulfills the function of a universal I/O and a signal conditioner. The N-IO accommodates multiple single I/O types and accepts up to 16 I/O points, eliminating the need for a dedicated I/O module for each signal type. The

software also includes the FieldMate Validator, which verifies the wiring and relevant operation of any newly installed field instrument or field I/O device in real time. Previously, this type of verification could only be done when the entire system was installed, but now these checks can be performed individually to save time and allow for versatile project execution. The addition of the AD Suite creates a total engineering environment, with an entirely new database structure that feeds standardized and consistent engineering information, maintains engineering data integrity, eliminates inconsistencies between design information and the system, manages change, and supports the automation lifecycle.

Yokogawa
www.yokogawa.com

Modeling Platform Generates Files Compatible with Mobile Devices



CADWorx 2015, an AutoCAD-based intelligent 2D and 3D plant design system, has new capabilities that improve the software's performance. Viewing, sharing, and reviewing design models are made easier by the program's ability to generate *.iFV files, which are compatible with the FreeView app that can be downloaded for free on mobile devices. This version has enhanced modeling features, such as the ability to route mitered elbows, design skewed piping, and place male and female needle valves. The specification editor has been expanded and now includes more tables for selecting requirements and

inputting data. Additionally, users can create custom default data that can be selected to override the specification editor. Although this software is AutoCAD-based, users have access to other common systems, such as ISOGEN and OrthoGEN. The ISOGEN interface has been redesigned to be more user-friendly.

Intergraph
www.intergraph.com

Firmware Is Flexible and Customizable



Gas Select Firmware 5.0 has been expanded to include a library of up to 130 preloaded gases, referenced to National Institute of Standards and Technology (NIST) Prop 9, as well as a utility for defining mixed gas compositions. The expanded library includes some predefined gas mixtures commonly used in bioreactors, manufacturing, and refrigeration, among other applications. The COMPOSER module allows users to program and store up to 20 personalized gas compositions for increased flexibility and accuracy of measurements. Gas compositions can be defined to 0.01% for each of up to five constituent gases. The firmware comes standard with all of the manufacturer's mass flowmeters and controllers.

Alicat Scientific
www.alicat.com