UniSim Operations Suite R440 introduces new suites of products which combine Honeywell’s best-in-class operator training simulator with a new, comprehensive competency management tool that together deliver powerful, immediate customer benefits.

**Benefits of UniSim Operations Suite R440**

**Improve Operations Performance**
- Accelerate operating profits with faster start-ups
- Sustain profits through incident avoidance
- Protect people, plant assets and the environment

**Impact Plant Reliability**
- Staff have skills and knowledge to make informed choices
- Operator confidence is built on practice and experience
- Behaviours are developed that encourage proactive engagement

**Manage Operator Competency**
- Deploy a best practice competency model focused on console and field operators designed and validated by industry specialists
- Monitor the level of attainment of operators at individual, shift or site levels
- Use powerful graphical tools to identify areas for competency improvement
- Continuously improve and deploy the best of the best in training and assessment

**New Products for Field Operator Training**

**UniSim Operations Suite R440**
- UniSim® Field View is a new product added to include more detailed field operator training in simulator based training exercises. Field View is an interactive HMI based upon a library of panoramic digital images from a plant which can be presented on a workstation. Annotating the images with dynamic links and hot spots allows the trainee to navigate around the plant and interact with simulated devices like field stations for pump starts, locally activated valves, monitoring local gauges and lights. This provides a safe training environment for the field operator’s plant orientation and procedural training in the field.

**DCS/PLC Support**
- Support for new Honeywell DCS Releases
  - Honeywell Experion PKS R430/R431, FFD SimFim IO (2015)
  - Honeywell TPS LCN R685
  - Honeywell Safety Manager R152/R160
• New DCS Products Adaptors/Toolkits
  • Emerson Delta-V Simulate R12.3
  • Simit 8 Adaptor
  • Invensys Tricon Turbomachinery Algorithms
  • Mitsubishi Netmation Adaptor
  • General Electric Mark Vle Speed Control Adaptor
• New DCS Products Adaptors/Toolkits in R440 Patchline (2015)
  • Emerson Westinghouse Ovation Adaptor
  • Detso DNA Adaptor
  • HIMA HiMax/HiQuad Adaptor
• Improved Integration
  • New toolkit for improving deployment and maintenance of process model and DCS integration
  • Directed PAR cleanup Serial Comms
  • Directed PAR cleanup: Scaling

Improved Troubleshooting
• Capture Session State

New Engineering Feature Highlights

UniSim Design Suite R431
• Improved Engineering Features
  • Simple flowsheet navigation between distant unit ops
  • Re-Integrate Loaded USD Model
  • Enhanced Engineering Units
  • Automatic valve sizing
  • Enhanced ON/OFF Delay Timers
• Expanded Generic Malfunctions Library
  • Relief Valves
  • Digital Switches
  • Valve Limit Switches
  • Filter
  • Air Cooler

A New Suite for Managing Operator Competency

UniSim® Competency Suite
This is an enriched suite of assessment methods used to compute a composite measure of operator competency in against a Curriculum of Foundational, Core, Field and Console operator competencies.

• UniSim® Curriculum - this is Honeywell’s productized form of the ASM Operator Competency Library which is a tool to help our customers define, deploy, and manage a structured competency program.
• UniSim® Tutor – this new product offers off-the-simulator assessment methods that are pre-configured and presented comparatively to the trainee as lists of interdependent faults and symptoms. The trainee is challenged to think through mental simulations from 2 different perspectives to fully explore and comprehend the operating scenarios. Both of these tools are excellent pre-requisites used to identify and screen for resources with the potential to become DCS panel operators before simulator based operator training.
• What-if Exercises - presents a given fault and asks the Trainee to describe the consequences in terms of a list of symptoms.

• Diagnose Exercises - presents a list of symptoms and asks the Trainee to methodically diagnose the fault behind a given process upset by posing questions.

• Trainee Performance Assessment – Trainee Performance Monitor, Procedural Checklist and Subjective Assessment methods captured during simulator training sessions by UniSim Operations also provides results for the UniSim Competency Suite for analysis against operational behaviors defined in UniSim® Curriculum.
• All of UniSim’s and Tutor’s assessment methods described above are combined into the trainee’s competency index according to the number of attempts, the time taken to formulate a response and alignment with the Curriculum.
Hardware and software systems requirements
UniSim Operations Suite is supplied for use on physical or virtual workstations running under Windows 7, 8/8.1 32 or 64 bit (WOW) operating systems and server stations with Windows Server 2008 (SP2 32 bit or R2 SP1 64 bit WOW) and Windows Server 2012 Standard R2. For most applications, a network of workstations will be supplied to host the instructor station, engineering station and process/control simulators. Linkages to DCS systems are provided using appropriate hardware and software.

Lifecycle Support
Honeywell brings the industry’s most extensive engineering and consultancy experience to help customers deploy simulation based solutions throughout the asset lifecycle.

Dynamic Simulation Studies
- Engineering services to validate process design, consisting of building a dynamic process model, executing case studies and sensibility analysis, and delivering associated reports

Operator Training Simulators
- Hardware, software and associated engineering services for operator training solutions based on dynamic process simulation, either for generic processes or customer’s specific process

Operator Competency Management
- Competence model and required training tools to define, measure, develop and track operator skills, knowledge and behaviours.

Operational Simulators
- Help users solve operational and safety related problems with existing assets including debottlenecking, procedure verification, re-vamps and makeovers.
- Foster implementation of operational best practices across shifts
- Maintenance and support services to help maintain simulation assets providing benefits through upgrades, migrations and extensions.

For More Information
Learn more about how Honeywell’s UniSim Operations Suite can improve your operational performance and plant safety. Visit our website [www.honeywellprocess.com/software](http://www.honeywellprocess.com/software) or contact your Honeywell account manager.

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