

Honeywell:UniSim Design™- Current and Future Plan on CO Compliance

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**Honeywell Process Solutions
London, Ontario**

Honeywell

Where does simulation business fit in Honeywell?

Honeywell's Simulation Portfolio

Current Status of CO Compliance for UniSim Design™

Future Plan for CO Compliance

Honeywell Corporate Overview

Honeywell

- **Founded in 1886**
- **108,000 employees in more than 100 countries**
- **A Fortune 100 company – \$23 billion in sales in 2003**
- **One of 30 companies in the Dow Jones Industrial Average**
- **Global leader in advanced technology products, services and solutions**

SPECIALTY
MATERIALS



TRANSPORTATION
AND POWER
SYSTEMS



AUTOMATION
AND
CONTROL
SOLUTIONS



AEROSPACE



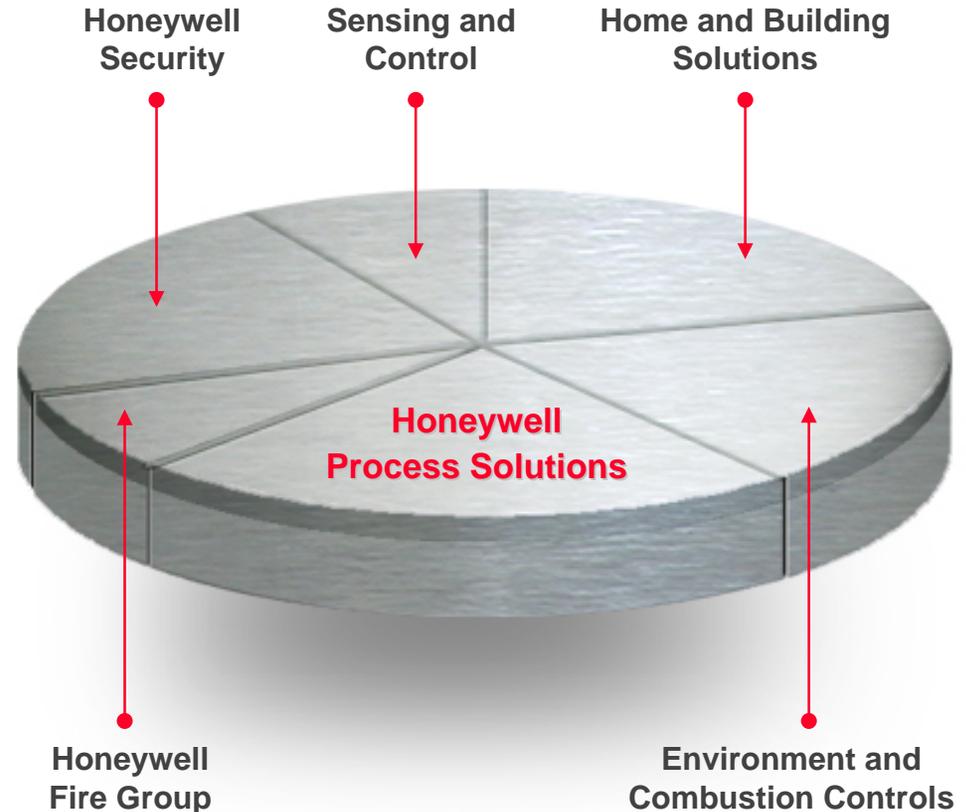
Technology Company, Financially Strong and Global

Automation and Control Solutions (ACS)

Honeywell

- Comprised of 6 strategic business units
- Our diversity makes us a reliable, well-balanced company
- Technologies developed in one business unit often benefits customers in another

2003 Revenues = \$8 Billion



\$8 Billion Company Focused on Automation

Global Reach



Global in Scope, Local in Support

Use of Simulation In Honeywell

Honeywell

- **ACS**
 - For a broad range of solutions in Honeywell Process Solutions
 - For energy optimisation in Honeywell Building Solutions
- **Specialty Materials**
 - For design, optimisation and monitoring of chemical processes
 - Within UOP (50% Honeywell owned)
- **Aerospace**
 - For asset management
 - For system control design

SPECIALTY MATERIALS



TRANSPORTATION AND POWER SYSTEMS



AUTOMATION AND CONTROL SOLUTIONS



AEROSPACE



Innovative Simulation Technologies

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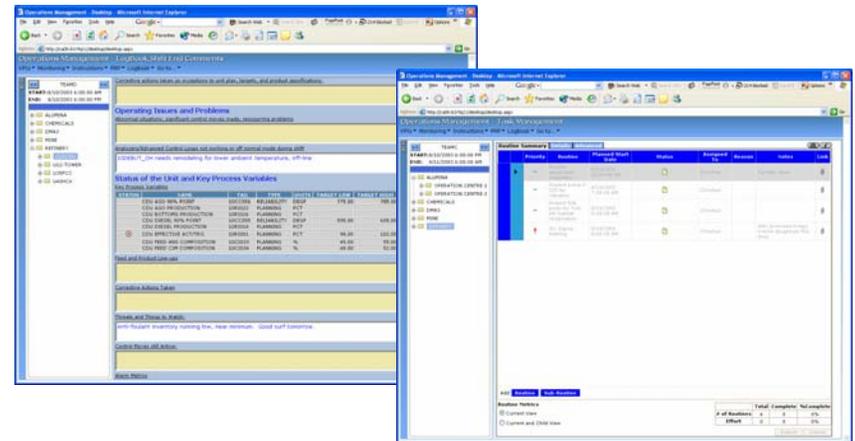
Honeywell's Software for Process Industries

Honeywell

- Honeywell provides a comprehensive set of advanced software and services for the process industries:

- Advanced control and optimization
- Information management
- Planning and scheduling
- Supply chain planning
- Operations management
- Production management
- Movement automation
- Performance management

Software and expert services
= Advanced Solutions



Over 100 Software Applications Available to Customers
in the Process Industries

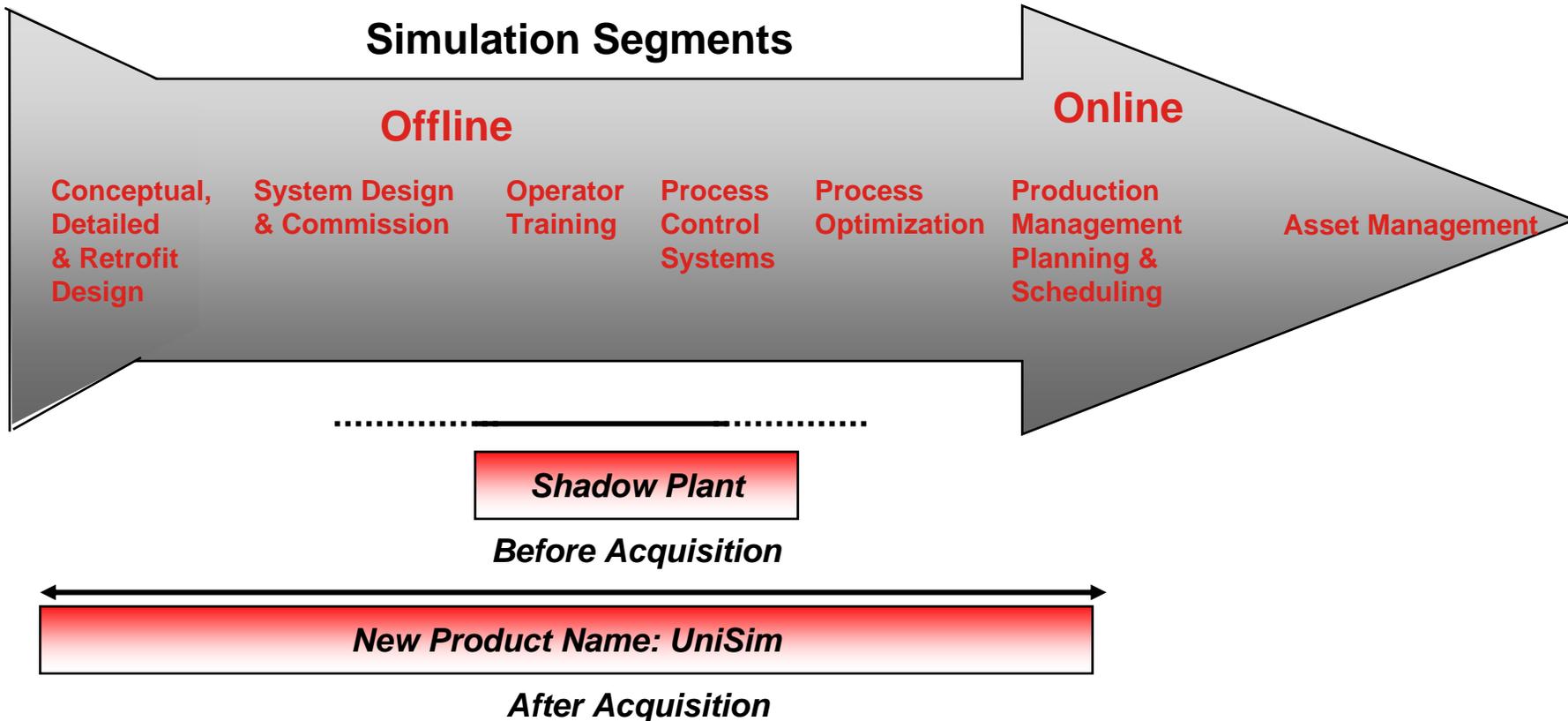
Honeywell's Simulation Portfolio

- **Shadow Plant** – A first principle based high fidelity dynamic simulation software; primarily used in OTS applications; Shadow Plant (TRAINER) has been in the market place for 23 years
- **VPS** – Purchased OTS software and business from Aspen Tech in December, 2004
- **Hysys.XXX** – Purchased Hyprotech IP from Aspen Tech in December, 2004
- **CTC-M** – A dynamic simulation engine; Purchased Petrocom in February, 2005, an advanced solution software/services provider in Russia and FSU

Portfolio has multiple dynamic simulation engines and state of the art steady-state simulation engine

UniSim Strategy: Design, Operate, Optimize

Honeywell



•Promotes use of simulation throughout the “life-cycle” of a plant

•“UniSim” offers a series of unified simulation solutions to support improved performance throughout the lifecycle of a plant, from off-line use in steady-state design simulation, control check-out, and operator training, to online use in control and optimization, performance monitoring, and business planning.

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Honeywell's Simulation Portfolio

Current Status of CO Compliance for UniSim Design™

Future Plan for CO Compliance

- **Stage 1 – UniSim development focus – First half of 2005**
 - Hired 15 key Hysys developers in Calgary
 - Agreements in place with 3rd party simulation component vendors
 - Rebranding UniSim and testing
 - UniSim Design R350 roll out in June 2005
- **Stage 2 – UniSim roll-out focus and next stage development**
 - UniSim Operations R200 roll out in December 2005
 - UniSim Design R360 development and release in March 2006

Executing to Plan

- **UniSim Design™ R360 (Plan)**
 - **CO socket to plug thermodynamic property packages into UniSim Design flowsheet**
 - **CO socket to plug unit operation modules into UniSim Design; PSE will help us in upgrading and testing of the existing interface**
 - **CO plug for UniSim Thermo (COMThermo™) for use in other simulators**
 - **CO socket to plug thermodynamic property packages into UniSim Thermo**
 - ◆ Support plugging in any thermodynamic property packages, flashes, and utilities.

Existing CO interfaces will be updated and rebranded for
UniSim Design™

- **Assessment of CO capabilities acquired from AspenTech**
 - CO socket to plug thermodynamic property packages into UniSim Design flowsheet
 - CO plug for UniSim Thermo (COMThermo™) for use in other simulators
 - CO socket to plug thermodynamic property packages into UniSim Thermo
- **Migration analysis from version 1.0 to version 1.1**
- **Overview of supporting GUI's and other utilities**

Existing CO interfaces will be updated and rebranded for UniSim Design™

Planned Development Activities

- **Migration from version 1.0 to version 1.1**
- **Implement required changes to UniSim CO Unit Operation to upgrade to current version of CO standard**

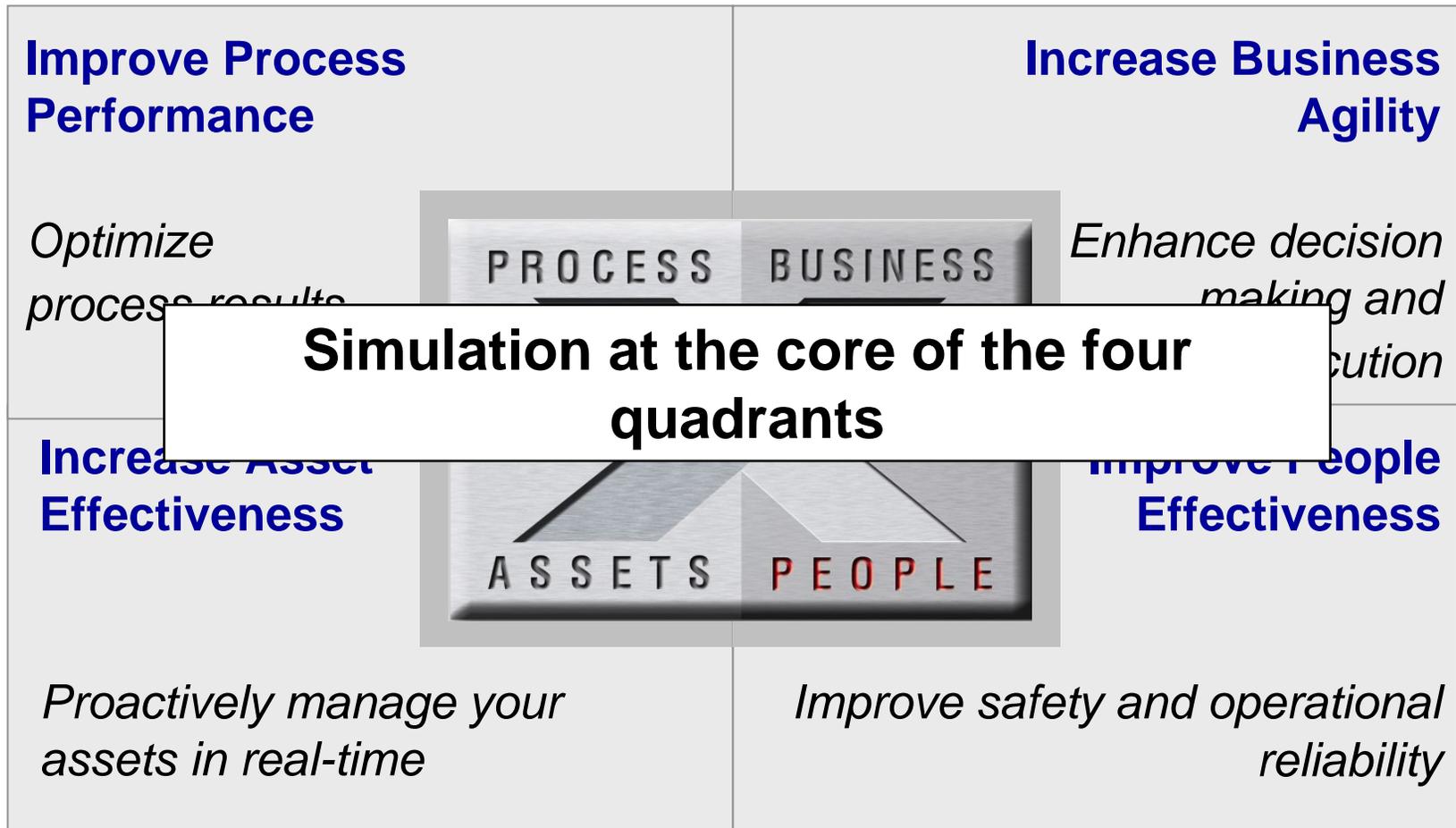
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Future Vision for CO Compliance

Improving Our Customers business performance and peace of mind



- **CO layer to plug UniSim databases into simulator or other thermodynamic engine**
- **CO layer to plug other databases into UniSim Thermo**
- **CO layer to plug UniSim Thermo utilities into other simulator**

UniSim will be ready to embrace best in class technology into its platform

Potentially in collaboration with PSE

- **CO layer to plug in dynamic unit operations object into UniSim Platform**
- **CO layer to plug in UniSim dynamic unit operations into other simulators**
- **CO layer to plug in numerical solver into UniSim Platform**

UniSim will be ready to embrace best in class technology into its platform

Questions?

Honeywell