

# Petro-SIM™ Express

Are you getting the most from your process simulator?

Presenting **Petro-SIM Express**

## The Best Value in Process Simulation

Petro-SIM Express is a full-featured, graphical process simulator, based on an industry-proven process simulation environment and enhanced with special features for better modelling of your process facility.

### MAXIMISE PROFITS

- Optimise your unit to maximise profit, yield or throughput, while accommodating real-world equipment limitations and operating constraints
- Perform “what if” studies to quantify the effect of changes on feedstocks and key process operating conditions
- Evaluate proposed capital projects by simulating the effects and economics of modifying or replacing process equipment
- Train new engineers to monitor unit performance and track key performance indicators (KPIs) to solve problems before they become emergencies
- Make informed decisions to improve your bottom line

Petro-SIM Express lets you evaluate the effects of different feedstocks, product mixes, strategies, and process changes:

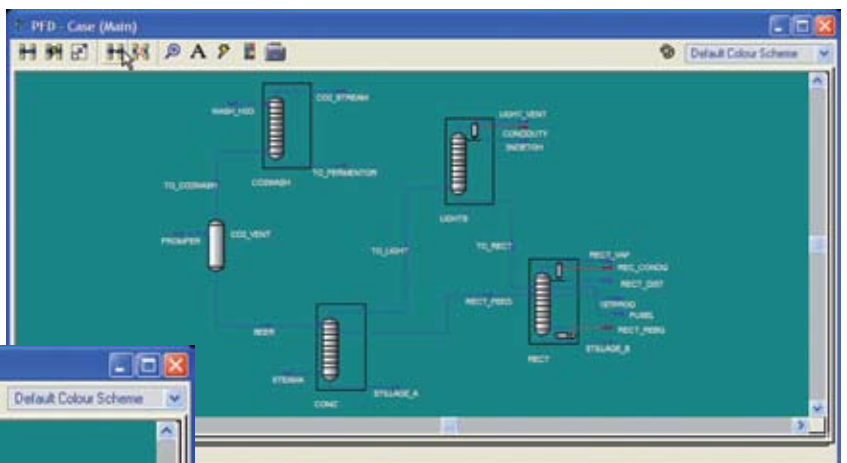
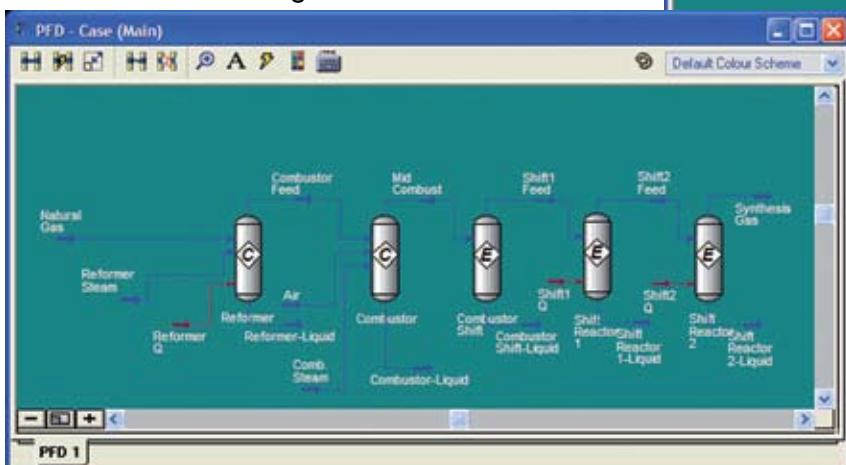
- Compatible with Petro-SIM and the KBC SIM model software
- Reads in cases from other commercial simulators
- Unsurpassed breadth and depth allows accurate modelling

## THE RIGHT TOOLS FOR THE JOB

Our advanced flowsheet solver and architecture handles multiple recycles and changes to fluid properties throughout the plant. For large flowsheets, units can be grouped into sub-flowsheets, allowing you to view unit interactions on a block diagram level, then drill-down for a more detailed view. Petro-SIM Express is completely interactive; it lets you work more efficiently and effectively. The object-oriented structure and event-driven engine mean that you can access and port data easily. Petro-SIM supports XML, and it is OLE-compliant, with exclusive mechanisms between Excel and databases for easy data transfer. The flowsheet optimiser lets you maximise a flowsheet variable or a custom calculation result.

## UNIT OPERATIONS

Standard unit operations include rigorous column, pumps, compressors, pipes, heat exchangers, and separators. Petro-SIM contains a complete library of over 1,000 components and 25 thermodynamics packages, proven through years of commercial use.



Steam-Methane Reformer PFD (left) and Distillation Train (above)

(Continued)

## PETRO-SIM BREADTH AND DEPTH

Assemble the flowsheet your facility requires.

### Flowsheet Features

- General Process Unit Models Library
- 25 Thermodynamic Models
- Tray-to-Tray Rigorous Column Model
- Enhanced Spreadsheet
- Sub-flowsheet Environment
- Flexible Graphical User Interface
- OLE Compliant
- Meter Operation to Link with Screen Plant Data
- Database Import/Export Option
- Undo and Case Change Journal
- Database Communication
- Case Control to Manage Updates From Various Users
- Case Comparison Tool
- Easy Excel Integration

### Refinery-Specific Features

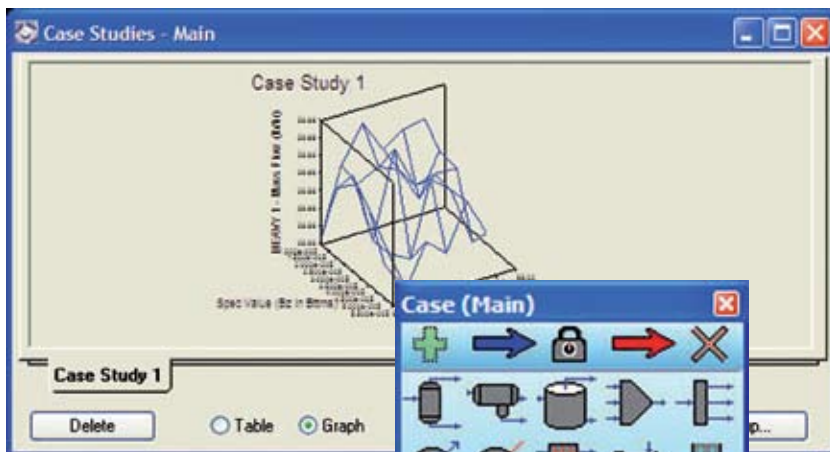
- Crude Assay Database
- Assay Synthesis
- Comprehensive Refinery Properties
- LP Utility
- Furnace Model
- DISTOP Column Model
- Assay Adjuster
- Knowledgebase to Manage Input and Results
- Ability to Link to Any KBC Refinery Reactor Model or the Full Version of Petro-SIM

### THE BOTTOM LINE

Whether you are modelling a specific unit or the entire plant, Petro-SIM Express predicts realistic yields and determines the economic potential so you can make better, more informed decisions. Petro-SIM Express lets you simulate more accurately, more consistently, and more confidently.

### WHY KBC?

KBC has over 30 years of experience in improving profits in the process industries. Petro-SIM Express can be coupled with a wide range of KBC services, from model setup and training, to a profit improvement partnership. Select the amount of service that fits your needs.



Case Study Graph



Stream and Unit Operations Palette

## PREDICTIVE TECHNOLOGY FOR PROFIT IMPROVEMENT

- Petro-SIM™ for Process Simulation
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- KBC SIM Suite:
  - FCC-SIM™ for Fluid Catalytic Cracking
  - REF-SIM™ for Catalytic Reforming
  - HCR-SIM™ for Hydrocracking
  - N HTR-SIM™, D HTR-SIM™ and VGO HTR-SIM™ for Hydrotreating
  - DC-SIM™ for Delayed Coking
  - VIS-SIM™ for Visbreaking and Thermal Cracking
  - ALK-SIM™ for Alkylation
  - RHDS-SIM™ for Residue Hydrotreating
  - AROM-SIM™ for Aromatics
  - ISOM-SIM™ for Isomerisation
  - Olefin-SIM™ for Pyrolysis



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