Find out how VMGSim™ can help you solve your process challenges at www.virtualmaterials.com.

A WORLD-CLASS PROCESS SIMULATOR FOR THE OIL, GAS, AND CHEMICAL INDUSTRIES.
EMPOWERING PROCESS SIMULATION TECHNOLOGY DESIGNED TO ADVANCE PROCESS UNDERSTANDING

With VMGSim™, you get world-class simulation software capable of modeling various processes and applications:

- **Upstream**: Production facilities, offshore platforms, gathering systems, fluid transport properties, gas hydrates
- **Gas Processing**: Sweetening, dehydration, sulphur recovery, acid gas injection
- **LNG Facilities**: Cryogenic processes, liquefaction, CO₂ freezing
- **Oil Refining**: Oil characterization, crude oil distillation, refinery reactors
- **Heavy Oil/Oil Sands**: Property prediction for heavy oil, diluents, and bitumen
- **Gasification**: Flexible solid feed characterization, solid handling unit operations

INNOVATION BY DESIGN

Plant-wide Model System
Integrate multiple sections of your plant and use innovative thermodynamic models to address each one of your process challenges to get a better sense of how changes in one section affect the whole plant.

Embed Custom Calculations
Integrate your calculations into your models with built-in VMGSim™ capabilities or use the live link to Microsoft Excel™ to create custom-made interfaces.

Open Models
Track the detailed distribution of hydrocarbons at every point in your process with an open model made available by our recent PIONA (paraffins, isoparaffins, olefins, napthenes, aromatics) characterization.

APPLICATIONS

To design, troubleshoot, and optimize your plant’s processes, you need trusted and powerful modelling tools.

Use VMGSim™ to understand the behaviour of your process units in greater detail and with more accuracy. VMGSim™ is a steady state and dynamics simulator that helps improve your plant’s overall profitability by increasing efficiency and product quality while reducing capital and operational costs.

BOOST PRODUCTIVITY

Get your team up to speed quickly, giving you more time to study your process with VMGSim’s™ intuitive and user-friendly environment. Build your models in step with your projects and reuse your existing models to save time.

VMGSim™ comes with a suite of productivity tools, including:

- **Case Studies**: Create “what-if” scenarios to predict changes in your process
- **Model Regression Tool**: Integrate existing plant data to provide more realistic models
- **Optimizer**: Manipulate variables quickly and easily to reach your process goals

COMPLEXITY MADE EASY

- Add more complexity to your models by including different sections of your plant as you work
- Increase the detail of your models by using the sizing and rating capabilities in VMGSim™
- Characterize your oil with all of your experimental data
- Study the transient behaviour of your process with our rigorous and fully integrated dynamic simulation engine
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