Symmetry*, a process software platform, is a comprehensive simulator that captures all aspects of your models from reservoir to product distribution. The Symmetry platform is built using VMG’s industry proven simulation technologies that have been optimized to scale to your engineering needs.

The Symmetry platform uniquely integrates the modeling of fields, pipe networks, process plants, and flare systems, providing an unprecedented level of collaboration and cooperation that enables teams to seamlessly transfer knowledge and expertise and maximize the total value of the asset.

The Symmetry platform contains a proven thermodynamic fluid representation that can be used throughout the simulator and an integrated dynamic mode tailored for each workspace that can be used when required.
Asset-Wide Analysis

- Seamlessly assess impact of upstream changes on process operations
- Develop models to required fidelity
- Reveal interactions that may be overlooked

Effect of plant inlet separator on ethane recovery.

- Model conditions at any point of the asset (field and facility)
- Long term evaluation as production characteristics change
  - Early production facilities
  - Requirements of additional equipment
  - Relevant economic analysis

Effect of different GOR and flow rates or gathering system pressure drop.
Multi Engine Analysis

- Create and initialize dynamic models from existing steady-state models
- Evaluate systems using both steady state and dynamics in the same case
- Use the best engine for the task at hand
- Dynamics provides additional hydraulics and transient effects
- Investigate disturbances in the process starting from the gathering system or egress lines
- Develop or troubleshoot control systems based on more realistic system disturbances

Component Tracking

- Track components throughout the entire asset, including those that impact HSE and operations (e.g., BTEX, H2S, CO2, methanol, mercaptans, etc.)
- Provide awareness and quantify risk
- Develop mitigation strategies and define impact for field- or facility-based components or a combination

Control system implemented with liquid loaded gathering line.

Control system developed with isolated feed.

Add downstream processes to model to evaluate viability asset wide (e.g. ethylene production from produced ethane).