

ABOUT US

iOG Solutions stands for intelligent O&G solutions.
iOG Solutions is an Independent and reputed provider of consulting and implementation services for advanced and Intelligent Software solutions in Oil & Gas industry.
Following is the list of our major service offerings in this vertical:

iOG Solutions for Supply Chain Management:

iOG understands the diversity and complexity of refinery supply chain operations. We help maximize profitability through the following services at various levels through a "best practice" and "best fit" approach using our enriched knowledge and experience in leading software solutions:

1. Production Planning:

- Build LP models from scratch or update existing models
- Implement Planning business process - Short term & Long term planning
- Develop business processes for crude and product evaluation

2. Refinery Scheduling

- Build scheduling models from scratch or update existing models
- Implement Dock, feedstock, process unit scheduling, product blending and distribution

3. Back-casting / Retro-Analysis

- Implement Retro-Analysis business process
- Update yield shift vectors in LP model through simulation and scheduling inputs

4. Profit improvement studies

- Develop stand-alone models for tracking refinery profitability on a regular basis
- Usage of simulation and LP tools for margin improvement.

5. LP Configuration studies

- Perform "What-if" analysis to recommend the right unit configuration and technology

6. Supply and distribution

- Demand Management - demand forecasting, analytics, and collaboration for better demand management
- Optimization of Supply & distribution at depots
- Provide end-to-end retail automation solutions from Forecourt to HQ
- Supply Chain Operations & Scheduling

7. SC Integration

- Develop and implement Integrated Supply Chain Enterprise solutions



iOG Solutions for Energy Trading and Risk Management & Pricing Tools:

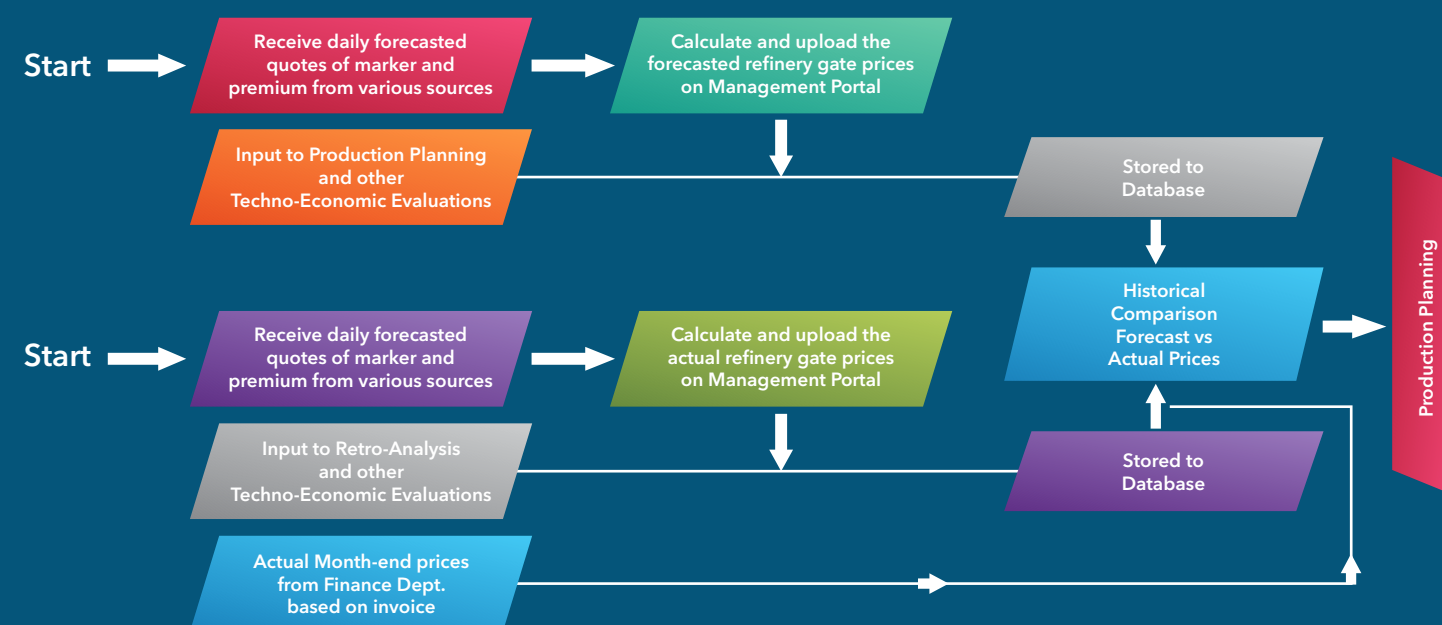
iOG Solutions with its vast experience in the area of ETRM & Pricing can help our clients choose the right ETRM and Pricing solution that fits into the business needs.

Our Services in the ETRM area are as below:

- Capture AS-IS and Define future TO-BE for trading
- Evaluate and recommend best fit ETRM tools
- Implementation of ETRM tools and new trading scenarios

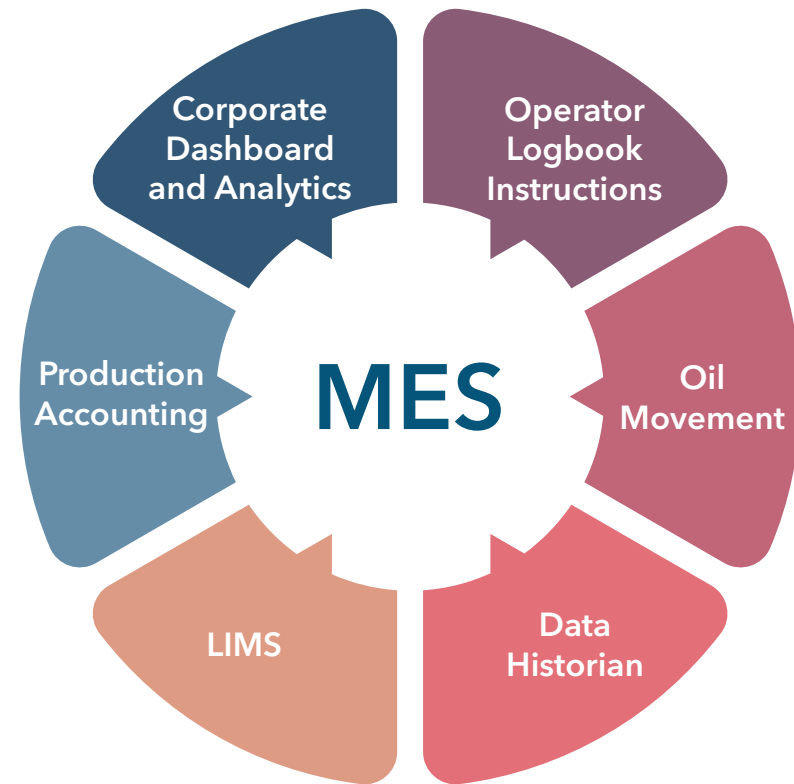
Our Services in the Pricing Tool application are as below:

- Study the existing pricing tools and suggestion modifications/improvement
- Design and implement integration of pricing tools with critical applications



iOG Solutions for Manufacturing Execution Systems:

Manufacturing Execution Systems (MES) are vital tools in smooth and efficient execution of the manufacturing process. MES applications enable you to collect, store and analyse the plant data in real-time, increase visibility, measure and monitor the performance, track execution of instructions/orders and manage product quality.



1. Data Historian

- Record vital plant information in real-time
- Facilitates analysis of plant operation and root cause analysis

2. Laboratory Information Management System (LIMS)

- Sample Analysis and Reporting
- Integration with Lab Instruments & other MES Applications

3. Oil Movement Management

- Provides visibility of all activities and data at the off sites area
- Stores history of all the data, instructions, actions and movements

4. Production Accounting and Data Reconciliation

- Provides functionality to perform exhaustive daily mass balance and reconciliation
- Provides capabilities for calculating various KPIs such as losses, efficiencies & yields

5. Operator Logbook and Instructions

- Logs events, comments and observations for use in daily and shift reports and analysis
- Allows monitoring of the refinery performance

6. Track Key KPIs using Corporate Dashboard

- Facilitate top management in visualizing Static and Real-time data such as KPI's and KOP's
- Single, integrated end-to-end real-time visibility of information across the business chain

iOG Solutions for Advance Process Control & Base Control Loop Tuning:

iOG Solutions provide customers with the experience needed to address plant design, regulatory control, identification of profit improvement, commissioning, training and post-audit assessments. We have strong expertise in serving our clients in tuning of control loops for improved performance. This experience is derived from working on best technology in the industry.

Our Services in the APC area are as below:

- Evaluation of current plant operations and existing automation performance
- Current automation status review.
- Benefits analysis to define and quantify the expected economic improvements
- Development of a Functional Design Specification for APC project implementation
- APC implementation - Project execution or support services to implement APC application



Our Services in the area of Control Loop tuning are as below:

- Control loop readiness for APC implementation
- Implementation of control loop tuning software
- Identify top 10 control loops for economic improvement
- Build real time performance dashboards and KPIs to enhance plant performance



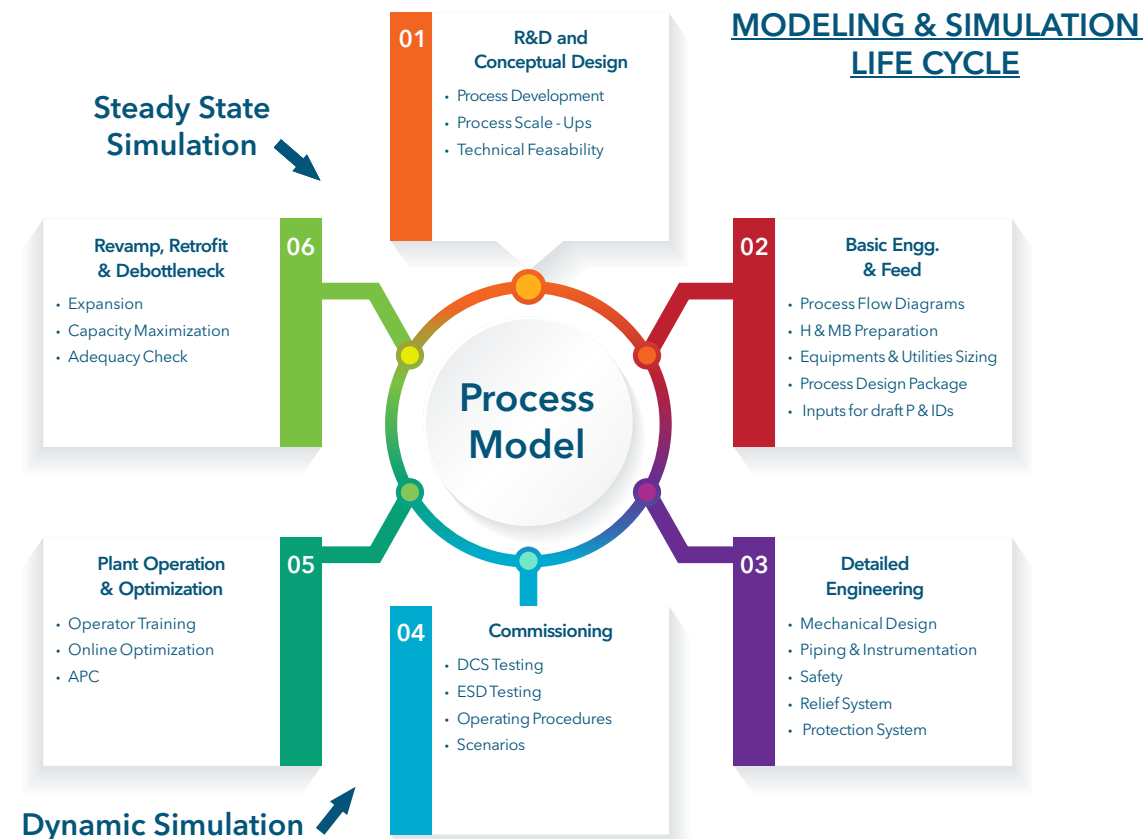
iOG Solutions for Simulation & Modeling

iOG Solutions have strong capabilities in both Steady state and Dynamic simulation.

Our Services in this area are as below:

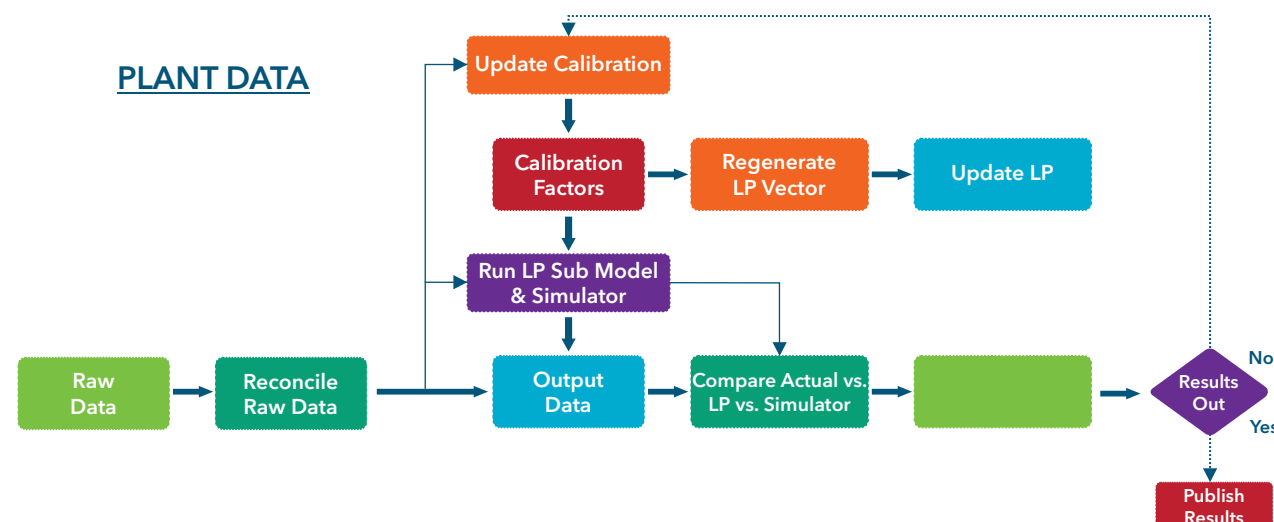
1. Steady state and Dynamic Simulation

- Building of dynamic/steady state simulation models
- Simulation model tuning
- Engineering studies and report generation



2. Rigorous Kinetic reactor modeling and LP Yield shift vector generation

- Build unit kinetic reactor models using rigorous simulation
- Model Calibration and validation using design and actual plant data
- Precise data generation for LP tool through case scenarios and statistical analysis



iOG Solutions for Energy Management Services:

iOG Solutions for Energy management include analysis of energy usage through statistical models, resolve energy imbalances, identify equipment-specific operational cost improvements and performance monitoring.

Our Services in this area are as below:

- Conducting energy optimization studies to boost profitability
- Devise energy performance KPI's to track the actual performance
- Develop optimized operating strategies during non-routine and challenging situations



Our Solutions

iOGImplement

Implementation of software solutions in the area of:

- Refinery Planning & Scheduling
- Supply and Distribution
- Manufacturing Execution Systems (MES)
- Advanced Process Control
- Dynamic and Steady-state Simulation
- Rigorous reactor modelling

iOGConsult

- Consulting services to improve our client's process & bringing them up to best practices in the industry:
- Business Process Mapping (As-Is, To-Be and Gap Analysis)
- Establishing industry-wide best practices
- Supply Chain Optimization Consulting Services
- PMC services

iOGStudy

Specialized studies using latest technologies, tools & best practices:

- LP Configuration Studies
- Profit improvement studies
- Energy Management
- Steam Network optimization
- Hydrogen management
- Pinch Analysis

iOGTrain

- Training on software applications and business areas:
- Refinery Planning & Scheduling
- Supply and Distribution
- Manufacturing execution systems (MES)
- Dynamic and Steady-state Simulation
- Rigorous reactor modelling