Advanced Integration (RESOLVE) Course

Target Audience:

This course is targeted to those engineers that have (i) attended the ***Standard IPM*** course previously, and (ii) have consolidated their familiarity of **MBAL**, **PROSPER** and **GAP** through consistent use over time. This course will assume a base level of familiarity of the tools, and is intended promote the analytical features available in creating physics based field realisations in the **IPM** tools.

Overall Objectives:

1/   Developing dexterity in integrating production models together using **RESOLVE**
2/   Understanding and selecting appropriate solution strategies
3/   Using workflows to detect and mitigate flow related behaviour, and implement Field Rules

Course Agenda

Part 1: Introduction
RESOLVE *Overview: Objectives, Functionality and structure*
Integrating Reservoir Numerical Simulation models to Surface Network Models and Economics for Field Development purposes (long-term forecast):
- *Connecting Applications*
- *Transferring Data amongst application*
- *Scheduling Events (Event Driven Scheduling)*
- *Creating Field Development Scenarios*

Applying Field Operation Rules in an Integrated Model (Advanced Event Driven Scheduling using Workflows)

Part 2: Global Optimisation
Solving Global Optimisation problems (involving multiple applications)
Formulation Strategies for Reservoir – Wells – Surface Network – Process models: (Feedback Loops, Integrated Process Design, Routing Optimisation using **RESOLVE** (GIRO))
Optimisation formulation strategies (Finding the Solution) and Interpreting/Analysing Results

Part 3: Advanced PVT Options
Creating Consistent Fluid Description across all integrated applications using Proprietary PVT Lumping/Delumping methodologies.
Creation of Process Independent Models