



# IPM 12.5, IVM 9.5 and IFM 6.5

## New Features and Software Enhancements

### **HARDLOCK 11.5**

All new products using network licences will require **HARDLOCK 11.5** network licensing system or higher.

### **IPM 12.5**

#### **GAP**

- General group control option for optimisation
- Algorithm to space icons on canvas further apart, to help in cases where icons are on top of one another.

#### **RESOLVE**

##### Data Objects

- Added section for data formats: currently contains a container for JSON data
- Created JSON schema for creation of GAP models
- Extended properties exposed by EOS object
- Added EOS to GAP choke calculators
- Included Python3.8 in Python object

##### Application drivers

- Intersect - allows use of EclRun and Delfi compliance
- RN-KIM - new reservoir simulator driver
- TurbulentFLUX - the transient multi-phase pipeline flow simulator

#### **MBAL**

#### **PVTp**

- Ability to import 3<sup>rd</sup> party formats

#### **REVEAL**

##### Calculation improvements:

- EOS thermal properties calculated in fastflash
- EOS zero component concentration handled better in transport equations
- Improved handling of total CO<sub>2</sub> dissolution with EOS model
- Interface improvements for lateral naming in schedule

Allow downhole loops for detailed wells - for geo-thermal

## **MOVE**

- MOVE 2020 is now a part of the IPM 12.5 release.
  - Single installer with MOVE, RESOLVE, REVEAL, GAP, PROSPER, MBAL, PVTP, OPENSERVR.
  - Important for API and workflows that utilise both RESOLVE and MOVE.
- MOVE 2020 introduces a brand new 3D Regular Grid data type:
  - Supports Geostatistical data, Attribute data, Geophysical data, including seismic, potential field, electrical or electromagnetic data, Velocity data, and Porosity data;
  - Supports ASCII, GOCAD Voxet (.vo), or Move link for GST;
  - Support in 3D, Section and Map Views, as well as Attribute Browser and Query tool support;
  - Velocity cube support in the 3D Depth Conversion tool;
  - Porosity cubes support in the 3D Decompaction tool.
- MOVE 2020 extends further the new API for either RESOLVE (licensed separately) or OPENSERVR (licensed separately) that was introduced in MOVE 2019. More MOVE tools exposed to the API.
- Forming some of the 2D Kinematic Modelling improvements:
  - Improve the Displacement Analysis display in Section Analysis
  - Support polygons for improved calculations in Area-Depth
- New Calculate Effective Shale Gouge Ratio (ESGR) option in the Fault Analysis tool
- New direct solver option in the Fault Response Modelling tool for when applying slip zone modelling
- MOVE 2020 also includes new developments to allow compatibility with Petex's Model Catalogue product (licensed separately)
- MOVE links to Petrel and GST updated to support latest versions
- Various additions, improvement, and bug-fixes which are listed later in the more detailed What's New in MOVE 2020 – IPM 12.5 section that can be found in the MOVE Knowledge Base

## **VISUAL WORKFLOW ENGINE**

- Added ability to handle cluster machines dynamically joining (or leaving) the cluster.
- Improved handling of Job Cancellations.

## **IVM 9.5**

- Allows alteration of selected data objects within signed workflows
- Fixed issues when running Workflows containing Python Scripts
- Fixed issues with running interactive workflows containing Python Scripts
- Python 3.8 Compatibility

## **IFM 6.5**

- Performance Improvements in Main Display Panel
- Performance Improvements in Results Deletion System
- Fixed issue when running Workflows containing Python Scripts
- Python 3.8 Compatibility

## **Operating system Support**

- Windows Server 2019 has been added to the supported Operating systems for the products.