Geoactive

Software training workshops programme

Interactive Petrophysics

Interactive Correlations

Contents

IP Fundamentals for Log Analysis

DURATION:
2 days

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics

IP MODULES:
IP Platform Basic

Objectives

Learn the general basics of IP primary applications, with hands-on exercise that illustrates most of their features and functions.

The course includes:

- Familiarisation with IP
- Be able to import and export data into IP
- Perform data editing and manipulation, data calculation.
- Work through to a basic deterministic Interpretation for single well and multi-well

Benefits

Learn from the experts that write, support and design IP. Throughout the course attendees are hands-on with IP getting familiar using the basic modules of the software.

Who should attend

The course is suited to those new to IP or new to Petrophysics software. Petrophysicist, Geologist, Reservoir Engineer, Well log analysis and Technical Assistant with different levels.

Course Instructor

This course will be presented by Geoactive instructors either from our Senior Support staff or Subject Matter Expert Team.

Course description and Modules

The course is conducted with an engaging combination of lectures and practical exercises using custom databases to explore the basic functionality in IP. There will also be a basic introduction to deterministic petrophysical concepts and techniques along with their subsequent application in IP.

The course will cover the following topics:

- Project set up and database structure
- Viewing data in IP
- Data editing and manipulation, data calculation
- Quick introduction to basic interpretation calculation
- Multi-Well interpretation
- 3D Petrohysics

Certification

On completion of this course you will receive a certificate of attendance.

IP User Apps

DURATION:
1 day

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics

IP MODULES:
IP User Apps

Objectives

This course caters for those looking to develop their own custom User Apps using IP software. The workflows presented will cover the setup and running of User Apps using the available programming languages. Additionally, attendees will be shown how to customise and create interactive log plots. Attendees will gain an overview of the available programming functionality within IP through the development of a User App through common programming languages, including Python and C#.

Benefits

Learn from the team that write, support and design IP. Our training is delivered by experts who use the software daily and bring their detailed understanding to you. Throughout the course we're "hands-on" with IP, employing real-world examples and industry-based exercises to guide the attendees through the process of creating and running custom User Apps. IP contains a wide range of programming languages to cater to your needs.

Who should attend

Our course caters to Petrophysicists, Geologists, Reservoir Engineers, Production Engineers and Technical Assistants with varying levels of experience. It is preferable if you have already attended the 'IP Fundamentals for Log Analysis' workshop or have previous working experience with IP, but it is not essential. This course primarily focuses on working with coding, therefore a basic knowledge on programming languages would be advantageous, but it is not essential.

Course Instructor

This course will be presented by Geoactive instructors either from our Senior Support staff or Petrophysics team.

Course description and Modules

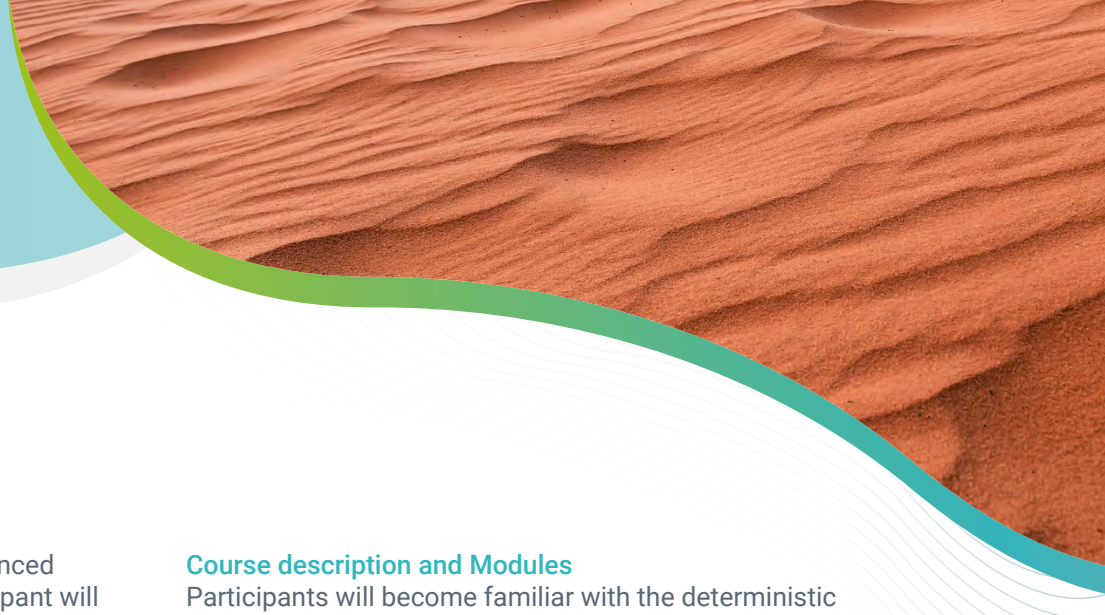
The course is conducted with an engaging combination of lectures and practical exercises designed to lead new users to competency.

The course is made up of the following sections:

- Introduction to Programming
- Setup User Preferences
- IP User Programming Setup
- Compilers
- Advanced Features
- Common Issues
- Creation of a User App
- Python Functionality
- Working with the API

Certification

On completion of this course you will receive a certificate of attendance.



IP Introduction to Deterministic interpretation

DURATION:
2 days

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics

IP MODULES:
IP Platform Basic, Deterministic and Uncertainty Workflow

Objectives

Learn how IP can be used as a tool for performing advanced deterministic petrophysical well evaluations. The participant will have a fully understanding of the comprehensive suite of individual deterministic modules. All common techniques for clay volume, porosity, saturation and lithology determination are included.

Benefits

Learn from the team that write, support and design IP. Through the course participants are hands-on with IP, using real-world examples to guide the experience with deterministic workflows.

Who should attend

Petrophysicists , Geologists , Geoscientist with varying level of expertise- preferable if they have already attended “IP Fundamentals for Log Analysis” workshop.

Course Instructor

This course will be presented by Geoactive instructors either from our Senior Support staff or Petrophysics team.

Course description and Modules

Participants will become familiar with the deterministic interpretation workflow, be able to perform interpretation across multiple wells and become familiar with the most advanced uncertainty Monte Carlo approach for quantifying petrophysical uncertainty.

The course will cover the following modules:

- Clay volume
- Porosity and Water Saturation
- Cutoff and Summation
- Multiwell interpretation
- 3D Petrophysics

Certification

On completion of this course you will receive a certificate of attendance.

IP Image Log Analysis

DURATION:
2 days

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics

IP MODULES:
IP Image Analysis, DLIS Importer/ Exporter; LAS Importer/Exporter; TVD Module; IP Platform

Objectives

This course caters for those wanting to gain experience in processing and interpreting Borehole Imaging logs using IP software. The workflows are performed using the most commonly used logging tool types for Borehole Imaging including: Wireline Electrical and Acoustic Imaging Tools and LWD Imaging Tools.

Attendees will learn how to import, QC and process raw data followed by automatically and manually picking dips and facies. Then the attendee will visualize these dip sets using a plethora of dip interpretation plots, calculate structural dip and identify sedimentary features. Finally, they will perform feature counting (specifically fractures) and sand count analysis.

Benefits

Learn from the team that write, support and design IP. Our training is delivered by experts who use the software daily and bring their detailed understanding to you. Throughout the course we're "hands-on" with IP, employing real-world examples and industry-based exercises to guide the attendees through several Borehole Imaging workflows.

Who should attend

Our course caters to Geologists, Petrophysicists and Technical Assistants with varying levels of experience. It is preferable if they have already attended 'IP Fundamentals for Log Analysis' workshop or have previous working experience with IP but not essential. Primarily this is a software workshop so a basic knowledge on the principles of Borehole Imaging would also be an advantage but this will be covered briefly at the start of the course.

Course Instructor

This course will be presented by Geoactive instructors either from our Senior Support staff or Petrophysics team.

Course description and Modules

The course is conducted with an engaging combination of lectures and practical exercises designed to lead new users to competency.

The course is made up of the following sections:

- Introduction to Image Analysis
- Borehole Image Processing including:
- Data Import, QC, Speed Correction, Other Corrections, Image Enhancement
- Dip Picking (Automatic and Manual)
- Interpretative Dip Plots
- Pick Relationships
- Structural Dip and Zonation
- Fracture Analysis
- Breakouts
- Core Pictures and Images
- Export Image and Dips to DLIS/LAS
- Merging Image Runs
- What's New with Image Analysis

Certification

On completion of this course you will receive a certificate of attendance.

Porosity and Water Saturation in complex Mineralogy

DURATION:
1 day

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics

IP MODULES:
Multi Mineral - Mineral Solver

Objectives

Provide the participant with an understanding of the theoretical basis of the optimizing approach to petrophysical interpretation, a good understanding of how to create models in mineral solver. This module is based in the probabilistic, or optimizing, approach to modelling wireline and rock data.

Benefits

Learn from the team that write, support and design IP. Throughout the course participants are “hands-on” with IP, using examples and industry based exercises to guide the experience in a broad Probabilistic workflow.

Who should attend

Petroleum Geologist, Engineers, Petrophysicists - with varying level of expertise- preferable if they have already attended ‘IP Fundamentals for Log Analysis’ workshop.

Course Instructor

This course will be presented by Geoactive instructors either from our Senior Support staff or Petrophysics team.

Course description and Modules

The course is conducting with an engaging of lectures and practical exercises. Introduction to Mineral Solver and Data Preparation.

The course will cover the following topics:

- Fundamentals of mineral Solver models.
- Mixing Mineral Models and Multi-well Analysis.
- Incorporating other data to the model - NMR, ECS or XRD data.

Certification

On completion of this course you will receive a certificate of attendance.

Making the most of NMR data in IP

DURATION:
2 days

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics

IP MODULES:
NMR Normalization &
NMR Interpretation

Objectives

Whether you're new to working with NMR data or not, our instructor led NMR course develops the skills necessary to make full use of NMR data, not only in your Petrophysics but also your Static and Dynamic Modelling.

Beginning from first principles, we explain the unique benefits of NMR data and just how much it can bring to your reservoir understanding. However, due to the nature of NMR data, it can easily be mis-interpreted, so to gain the maximum value from it you really need to understand the data and the interpretation process. Mistakes can be caused by erroneous assumptions about the data and poor data quality, but also from failing to observe certain features in the data that are 'telling' you something about the reservoir.

This course is a hands-on, pragmatic course that allows users to maximise the value of their NMR data.

Benefits

Paul Spooner, the primary designer of the NMR workflows in IP, has used the software as a consultant for many clients around the world. This is an opportunity to go beyond learning the 'button clicking' and to gain a real understanding of the design ethos and interpretation process. Throughout the course we'll be "hands-on" with IP, using real-world examples and industry-based exercises to guide the experience.

Who should attend

Ideally suited to experienced users of IP with a good understanding of Petrophysics, who work with NMR data. This might include Petrophysicists, Geologists and Reservoir Engineers.

Course Instructor

This course will be presented by Paul Spooner, IP Product Champion, who has over 30 years' experience in the industry and has been involved in logging, processing and interpreting NMR data since 1994.

Course description and Modules

The course begins with a basic review of NMR logs focussing on the key points to keep in mind when performing an interpretation of real data. Then we'll look at the NMR Normalization module, which, because there are no delivery or presentation 'standards' for NMR data in the industry, allows for the data to be 'standardised' to a user defined format.

Most of the day will be spent working through all the options in the NMR Interpretation module which includes: cut-offs for Free Fluid and Clay-Bound Fluid; a Tapered (Spectral) function for Bound Fluid; Light Hydrocarbon Correction (LHC); calculating Permeability (3 methods) and deriving the coefficients using core data; calculating Sw using the Dual Water equation; correcting the T2 distribution for hydrocarbon signal to create T2wet; deriving Pc and PSD curves from T2wet to calculate Sw as a function of height.

The training is conducted with an engaging combination of lectures and practical exercises designed to lead users to a deeper understanding of NMR data.

Certification

On completion of this course you will receive a certificate of attendance.

IP Monte Carlo

DURATION:
1 day

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics

IP MODULES:
Monte Carlo

Objectives

All petrophysical interpretations contain significant uncertainty which comes from every step in the process, starting with the data itself. Log measurements are not absolute, they have a defined 'precision' so even a properly operating, correctly calibrated, and environmentally corrected log will not repeat exactly. For example, 2 runs of a density log will give 2 different measurements, which means 2 different answers for porosity. Which is correct?

The answer is that neither is absolutely correct, but they are both within a distribution of possible answers. Add to this, the uncertainty in every interpretation parameter, e.g. grain density or water salinity, and the uncertainty in hydrocarbon pore feet can be quite significant. But how uncertain, what is the P10, P50 and P90? And which data or parameters contribute the most to this uncertainty?

The Monte Carlo module allows you to answer these by running thousands of interpretations with user defined ranges of uncertainty for each input log and parameter, across the entire workflow. This course is a hands-on, pragmatic course that allows users to understand and quantify the uncertainty in their interpretations, before using the results in geostatistical models.

Benefits

Being able to run a true Monte Carlo process, i.e. thousands of iterations, on the complete interpretation workflow, is a very powerful way to understand and quantify the uncertainty. Most interpretation modules and utilities in IP can be run through Monte Carlo, so understating how to effectively implement entire workflows in Monte Carlo is fundamental to gaining the most from this module. Throughout the course we'll be "hands-on" with IP, using real-world examples and industry-based exercises to guide the experience.

Who should attend

Ideally suited to experienced users of IP with a good understanding of Petrophysics, who need to understand and quantify the uncertainty in their interpretations. This might include Petrophysicists, Geologists and Reservoir Engineers.

Course Instructor

This course will be presented by Paul Spooner, IP Product Champion, who has over 30 years' experience in the industry and has been involved in logging operations, data processing, interpretation, field studies and software development.

Course description and Modules

The course begins with a basic overview of the Monte Carlo process before applying it to a typical deterministic volumetric interpretation using the Vclay, PhiSw and Cutoff & Summation modules. We will then apply Monte Carlo to a non-deterministic interpretation using Mineral Solver and consider the effects of facies distributions generated by Cluster Analysis (or SOM), where the Mineral Solver workflow includes mixing facies-based models.The defaults for Monte Carlo are customisable, in particular which specific parameters are included, so we will look at how to customise the application.

Finally, we will look at some of the new features in IP, which includes making the uncertainties zonally variable, and more modules being included such as Sigma Saturation and Saturation vs Height Curves. The training is conducted with an engaging combination of lectures and practical exercises designed to lead users to a deeper understanding of uncertainty in their interpretations.

Certification

On completion of this course you will receive a certificate of attendance.

Curve Prediction tools in IP

DURATION:
1 day

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics

IP MODULES:
Fuzzy Logic, Principal Component Analysis, Multiple Linear Regression, Neural Networks, Domain Transfer Analysis

Objectives

This course caters for those looking to gain experience in predicting missing data, repairing data that has been affected by bad hole conditions and classification of facies. The interpretations are carried out using several machine learning algorithms including Fuzzy Logic, Neural Networks, Multiple Linear Regression and Domain Transfer Analysis. You will learn how to setup each model, optimise the parameters, run the models and compare the results.

Benefits

Learn from the team that write, support and design IP. Our training is delivered by experts who use the software daily and bring their detailed understanding to you. Throughout the course we are "hands-on" with IP, employing real-world examples and industry-based exercises to guide the attendees through several Curve Prediction workflows.

Who should attend

Our course caters to Geologists, Petrophysicists and Technical Assistants with varying levels of experience. It is preferable if they have already attended 'IP Fundamentals for Log Analysis' workshop or have previous working experience with IP but not essential. Primarily this is a software workshop so a basic knowledge on the principles of Machine Learning and Prediction would also be advantageous, but this will be covered briefly at the start of the course.

Course Instructor

This course will be presented by Geoactive instructors either from our Senior Support staff or Petrophysics team.

Course description and Modules

The course is designed with an engaging combination of lectures and practical exercises to enable you to gain an understanding of how the curve prediction modules work within IP.

The course covers the following topics:

- Overview of Curve Prediction
- Experienced Eye
- Principal Component Analysis
- Fuzzy Logic
- Multiple Linear Regression
- Neural Networks
- Domain Transfer Analysis (DTA)
- Comparing model results

Certification

On completion of this course you will receive a certificate of attendance.

Reservoir Characterisation with IP Advanced Integrated Workflows

DURATION:
1 day

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics / Reservoir Engineering

IP MODULES:
Saturation Height Modelling, Hydraulic Flow Units, Cluster Analysis, SOM, Fuzzy Logic

Objectives

A robust Saturation Height Model depends on so much more than just a good regression fit to core Pc data, a good R2 does not necessarily provide a good model. It is just as important to correctly determine the Rock Classes as it is to fit a function for each Rock Class, and it is also just as important to model the distribution of those Rock Classes throughout the reservoir, field or basin, i.e. to extend the core derived model to all the wells in the field or basin.
Furthermore, if the Hydraulic Flow Unit method is used to determine Rock Class then there will be a direct link between the derived permeability, the Rock Class, and the Saturation Height Functions derived for each Rock Class. This course is a hands-on, pragmatic course that allows users to gain an insight into how Hydraulic Flow Units and Rock Types can be utilised to develop robust Saturation Height Models for use in the Dynamic Reservoir Model.

Benefits

Each of these Advanced modules can be taught, and learned, in isolation, but by bringing them together into a robust workflow the user will learn more, not only about the flexibility of the modules themselves, but also about the power that flexibility that can bring the workflow. This can lead to a much deeper understanding of the inherent connections between the Geology, Petrophysics and Reservoir Performance.
Throughout the course we'll be "hands-on" with IP, using real-world examples and industry-based exercises to guide the experience.

Who should attend

Ideally suited to experienced users of IP with a good understanding of Petrophysics, who need to build saturation Height Functions for use in the Dynamic Reservoir Models. This might include Petrophysicists, Geologists and Reservoir Engineers.

Course Instructor

This course will be presented by Paul Spooner, who has over 30 years' experience in the industry and has been involved in logging operations, data processing, interpretation, field studies and software development.

Course description and Modules

After an overview of the whole workflow we will look in detail at each step of the process.

1. Use the Hydraulic Flow Units module with core data to determine the Rock Classes present.
2. Use Saturation Height Modelling to derive Height Functions for each Rock Class.
3. Use the Rock Typing modules to determine the distribution of Rock Classes in all the wells.
4. Apply the Hydraulic Flow Units pore-perm relationships to derive permeability in all the wells.
5. Apply the Height Functions in all the wells and compare the results to the log derived Sw.

Normally, this is an iterative process where adjustments might be required to any step to improve the result, and we'll look at how easy that is to do once the workflow is complete.

Finally, we'll look at swapping things around as there are alternative ways of performing these steps that some users may prefer. The training is conducted with an engaging combination of lectures and practical exercises designed to lead users to a deeper understanding of Saturation Height Modelling workflows.

Certification

On completion of this course you will receive a certificate of attendance.

Reservoir Analysis within IP using Formation Testing

DURATION:
1 day

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics / Reservoir Engineering

IP MODULES:
Formation Testing

Objectives

To learn how to use the Formation Testing module to analyse raw FT drawdown and buildup data. Use the intuitive interactive tools to QC the raw data, identify drawdowns, make picks on the pressure / time plots to perform drawdown mobility calculations. Create derivative plots, identify flow regimes and perform spherical and radial buildup analysis. Create pressure crossplots to identify fluid types and contacts, and identify compartmentalization.

Learn to create over-pressure plots using IP's comprehensive logplot functionality.

Benefits

Learn from the IP product experts who write, support and design IP. Develop the skills to re-process the vendor-supplied raw time-based pressure data in-house. IP software is service-company neutral, and can process data from all vendor's logging tools, avoiding the need for expensive proprietary interpretation by the service companies. It can also be used to QC any vendor-supplied interpretation. The course will be" hands-on", using real-world examples and exercises.

Who should attend

This course is an advanced module course, and will be of interest to anyone dealing with Formation Tester data. This would be anyone with an interest in pressure regimes, fluid types and contacts, and reservoir modelling. This would typically be Petrophysicists and Reservoir Engineers.

Course Instructor

This course will be presented by Geoactive instructors either from our Senior Support staff or Petrophysics team.

Course description and Modules

The course is a combination of lectures and practical exercises using the Formation Testing module. Real-world data is used in practical exercises to demonstrate the features of the module. The course will be supported with documentation and example datasets to explore the functionality of IP.

Certification

On completion of this course you will receive a certificate of attendance.

IP Geomechanics and Pore Pressure

DURATION:
1 day

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics / Geomechanics

IP MODULES:
Wellbore Stability, Multi-Well Pore Pressure and Sandpit3D

Objectives

This course caters for those looking to gain experience and an understanding of Pore Pressure Prediction, of the stresses acting upon the well during drilling and production using the Geomechanics tools in IP. This course will cover the processes of creating a 1D Geomechanical Model and applying it to real world data. You will learn the basics of modelling geomechanical rock properties, prediction of pore pressure, wellbore stability and sand failure all within the IP software.

Benefits

Learn from the team that write, support and design IP. Our training is delivered by experts who use the software daily and bring their detailed understanding to you. Throughout the course we're "hands-on" with IP, employing real-world examples and industry-based exercises to guide the attendees through a number of Wellbore Stability, Sand Failure and Pore Pressure workflows.

Who should attend

Our course caters to Petrophysicists, Geologists, Drilling Engineers, Reservoir Engineers, Production Engineers and Technical Assistants with varying levels of experience. Its preferable if they have already attended an 'IP Fundamentals for Log Analysis' workshop or have previous working experience with IP, but it is not essential. Primarily this is a software workshop, so a basic knowledge on the principles of Geomechanics and Sand Failure Analysis would also be advantageous, but this will be covered briefly at the start of the course.

Course Instructor

This course will be presented by Geoactive instructors either from our Senior Support staff or Petrophysics team.

Course description and Modules

- Introduction to IP and Geomechanics Basic Essentials
- Introduction to Geomechanical rock properties modelling
- Demos and hands on exercises of modelling rock properties
- Introduction to Pore Pressure Prediction
- Demos and hands on exercises of predicting pore pressure
- Introduction to Far Field Stresses
- Demos and hands on exercises of modelling Far Field Stresses
- Introduction to Wellbore Stability Modelling
- Demos and hands on exercises of modelling Wellbore Stability
- Basics of Sand Failure
- Demos and hands on exercises of modelling Sand Failure using SandPit3D

Certification

On completion of this course you will receive a certificate of attendance.

Geophysics within IP Application – Acoustic Waveform Processing

DURATION:
1 day

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics / Rock Physics

IP MODULES:
Acoustic Waveform Processing

Objectives

To learn how to use the Acoustic Waveform Processing module to reprocess vendor-supplied raw acoustic waveforms. This includes performing semblance processing on monopole and dipole waves and labelling correlation peaks to identify Compressional, Shear and Stoneley arrivals. Further processing includes frequency-domain analysis and dispersion corrections for flexural waves, and anisotropy processing using Alford rotation using inline and cross-dipole waveforms.

Benefits

Learn from the IP product experts who write, support and design IP. Develop the skills to re-process the vendor-supplied raw acoustic waveforms in-house. IP software is service-company neutral, and can process data from all vendor's logging tools, avoiding the need for expensive proprietary processing by the service companies. It can also be used to QC any vendor-supplied processing.

The course will be" hands-on", using real-world examples and exercises.

Who should attend

This course is an advanced module course, and will be of interest to anyone dealing with raw acoustic data. This would typically be Petrophysicists and those dealing with rock physics.

Course Instructor

This course will be presented by Geoactive instructors either from our Senior Support staff or Petrophysics team.

Course description and Modules

The course is a combination of lectures and practical exercises using the Acoustic Waveform Processing module. Real-world data is used in practical exercises to demonstrate the features of the module. The course will be supported with documentation and example datasets to explore the functionality of IP.

Certification

On completion of this course you will receive a certificate of attendance.

IP Production Log Analysis

DURATION:
2 days

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics

IP MODULES:
IP Production Logging

Objectives

This course caters for those wanting to gain experience in delivering Product Logging Interpretations using IP software. Learn how to import, QC and edit PL data, calculate fluid velocities, determine downhole PVT properties then ultimately calculate the flow contributions of each producing zone. The course uses multiple real-word examples to calculate flow from producing wells and also the inflow rates of Injections wells. Data from a variety of Production Log tools types are used from centralized, conventional tools in vertical wells to advanced PL array tool data in highly deviated or horizontal wells.

Benefits

Learn from the team that write, support and design IP. Our training is delivered by experts who use the software daily and bring their detailed understanding to you.

Throughout the course we're "hands-on" with IP, employing real-world examples and industry-based exercises to guide the attendees through a number of Production Logging workflows.

Who should attend

Our course caters to Petrophysicists, Geologists, Reservoir Engineers, Production Engineers and Technical Assistants with varying levels of experience. Its preferable if they have already attended 'IP Fundamentals for Log Analysis' workshop or have previous working experience with IP. Primarily this is a software workshop so a basic knowledge on the principles of Production Logging would also be an advantage but this will be covered briefly at the start of the course.

Course Instructor

This course will be presented by Geoactive instructors either from our Senior Support staff or Petrophysics team.

Course description and Modules

The course is conducted with an engaging combination of lectures and practical exercises designed to lead new users to competency.

The course is made up of the following sections:

- Introduction to Basic Production Logging Principles
- Overview of Production Logging module within IP Software
- Single Phase Injection Well Example using Conventional PL Tool
- Multi-Phase Producing Wells Examples using Conventional PL Tools
- Overview of PL Principles in Highly Deviated or Horizontal Wells
- Multi-Phase Highly Deviated Well Examples using Array PL Tools

Certification

On completion of this course you will receive a certificate of attendance.

IP Cement Evaluation and Casing Inspection

DURATION:
1 day

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics / Well Integrity

IP MODULES:
IP Cement Evaluation, IP Casing Inspection

Objectives

This course caters for those wanting to gain experience in delivering interpretations on the condition of downhole cement and/or casing using IP software. The interpretations are carried out using all the most commonly used logging tool types for well integrity operations including, CBLs, Radial Bond Logs, Ultrasonic tools, Multi-Finger Imaging Tools, and more.

Attendees will learn how to quickly import, QC and process the data then produce a depth by depth interpretation report on the cement or casing condition.

Benefits

Learn from the team that write, support and design IP. Our training is delivered by experts who use the software daily and bring their detailed understanding to you. Throughout the course we're "hands-on" with IP, employing real-world examples and industry-based exercises to guide the attendees through a number of Cement Evaluation and Casing Inspection workflows in a fast and efficient manner.

Who should attend

Our course caters to Petrophysicists, Geologists, Reservoir Engineers, Production Engineers and Technical Assistants with varying levels of experience. Its preferable if they have already attended 'IP Fundamentals for Log Analysis' workshop or have previous working experience with IP but not essential.
Primarily this is a software workshop so a basic knowledge on the principles of Cased Hole Logging would also be an advantage but this will be covered briefly at the start of the course.

Course Instructor

This course will be presented by Geoactive instructors either from our Senior Support staff or Petrophysics team.

Course description and Modules

The course is conducted with an engaging combination of lectures and practical exercises designed to lead new users to competency.

The course is made up of the following sections:

- Introduction to Cement Bond Logging Principles
- Overview of IP Cement Evaluation Module
- Demos and Exercises using various Cement Evaluation Tool Types
- Introduction to Casing Inspection Principles
- Overview of IP Casing Inspection Module
- Demos and Exercises using various Casing Inspection Tools Types

Certification

On completion of this course you will receive a certificate of attendance.

IP Pulsed Neutron Sw Analysis

DURATION:
1 days

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics / Reservoir Engineering

IP MODULES:
IP Sigma Sw Analysis, IP Sigma Time Lapse, IP CO Sw Analysis

Objectives

This course caters for those wanting to gain experience in calculating reservoir fluid saturation within a cased hole environment using data from Pulsed Neutron Logging Tools. This is done through the teaching of the Pulsed Neutron workflows within software package Interactive Petrophysics (IP). Modules covered include Sigma Sw Analysis, Sigma Time Lapse and CO Sw Analysis. Attendees will learn how to quickly import and interpret pulsed neutron data data and estimate the behind casing fluid saturations in place.

Benefits

Learn from the team that write, support and design IP. Our training is delivered by experts who use the software daily and bring their detailed understanding to you. As well as learning the Pulsed Neutron workflows in the software an overview of Pulsed Neutron logging theory and applications will be provided. Example datasets and step-by-step instructions will be provided for each module.

Who should attend

Our course caters to Petrophysicists, Log Analysts, Reservoir Engineers, Production Engineers and Technical Assistants with varying levels of experience. Its preferable if they have already attended 'IP Fundamentals for Log Analysis' workshop or have previous working experience with IP but not essential. Primarily this is a software workshop so a basic knowledge on the principles of Pulsed Neutron Logging would also be an advantage but this will be covered briefly at the start of the course.

Course Instructor

This course will be presented by Geoactive instructors either from our Senior Support staff or Petrophysics team.

Course description and Modules

The course is conducted with an engaging combination of lectures and practical exercises designed to lead new users to competency.

The course is made up of the following sections:

- Introduction to Principles and Applications of Pulsed Neutron Logging
- Sigma Sw Analysis
- Sigma Time Lapse Analysis
- Introduction to Casing Inspection Principles
- Overview of IP Casing Inspection Module
- Demos and Exercises using various Casing Inspection Tools Types

Certification

On completion of this course you will receive a certificate of attendance.

Machine Learning with subsurface and IP

DURATION:
2 days

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Petrophysics / Rock Typing / ML

IP MODULES:
Experienced Eye, Fuzzy Logic, Multiple Linear Regression, Neural Networks, Domain Transfer Analysis, Cluster Analysis, Self Organising Maps

Objectives

This course is designed to introduce machine learning for subsurface teams looking to learn how to apply machine learning to petrophysical problems, such as facies classification, rock typing, and data repair.

It is for those looking to gain hands-on experience in applying modern machine learning techniques to well log and petrophysical datasets. Machine Learning has a variety of applications in petrophysics ranging from bad hole data repair to classification of measurements into discrete facies. Through this course you will also learn how to setup different models, optimise the parameters, run the models and compare the prediction results.

This course will cover regression based algorithms such as Fuzzy Logic, Multiple Linear Regression,
Neural Networks to datasets in order to predict data and unsupervised methods such as Cluster Analysis and Self Organising Maps to the prediction of facies. It will also cover IP's unique model based solution called Domain Transfer Analysis (DTA).

Benefits

Learn from the team that write, support and design IP. Our training is delivered by experts who use the software daily and bring their detailed understanding to you. Throughout the course we are "hands-on" with IP, employing realworld examples and industry-based exercises to guide the attendees through several Curve Prediction and rock typing workflows using machine learning.

Who should attend

Our course caters to Geologists, Petrophysicists and Technical Assistants with varying levels of experience. It is preferable if they have already attended 'IP Fundamentals for Log Analysis' workshop or have previous working experience with IP but not essential. Primarily this is a software workshop so a basic knowledge on the principles of Machine Learning and Prediction would also be advantageous, but this will be covered briefly at the start of the course.

Course Instructor

This course will be presented by Geoactive instructors either from our Senior Support staff or Petrophysics team.

Course description and Modules

The course is designed with an engaging combination of lectures and practical exercises to enable you to gain an understanding of how the curve prediction modules work within IP.

The course covers the following topics:

- Overview of Curve Prediction
- Fuzzy Logic
- Multiple Linear Regression
- Neural Networks
- Domain Transfer Analysis (DTA)
- Comparing model results
- Overview of Clustering and Rock Typing
- Cluster Analysis
- Self Organising Maps

Certification

On completion of this course you will receive a certificate of attendance.

Data Management with IC

DURATION:
2 days

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Data Management

IP MODULES:
IC Platform,
IC Geology

Objectives

This course aims to introduce professionals to the exciting world of Interactive Correlations (IC). Delve into the interactive world of data management and with IC's visualization toolkit and start checking and modifying data with ease.

Learn the foundations of IC with hands-on exercise that illustrates most features and functions needed to build, maintain and query a database.

Benefits

Learn directly from the team building and improving IC toolkits to improve workflows efficencies. During the course attendees will have opportunity to carry out exercises and ask questions about the basic toolkits available in IC. Learn how to QC and evaluate data itself and compare wells to build a confident data coverage that can be built upon.

Who should attend

The course is suited to those new to IC. Data Managers and Technical Assistants along with Geoscientists with varying levels of experience would be ideal candidates.

Its preferable they have a working knowledge of subsurface data but it is not essential.

Course Instructor

This course will be presented by Catriona Penman, our Product Chamption or one of our Geoactive instructors from our Senior Support team.

Course description and Modules

The course is conducted with an engaging combination of lectures and practical exercises using custom databases designed to lead new users to competency. Explore the basic capabilities of IC and be able to find and utilise a range of tools to build a confident database.

The course is made up of the following sections:

- Introduction to IC Database Structure
- Data Management Overview
- Introduction to Database Security
- Importing and organising data
- Introduction to maintaining data
- Interrogating and modifying data
- Building Database Standards
- Organising and comparing Interpretations

Certification

On completion of this course you will receive a certificate of attendance.

IC Foundations for Regional Evaluation

DURATION:
2 days

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Geoscience / Data Management

IP MODULES:
IC Platform,
IC Geology

Objectives

This course aims to introduce professionals to the exciting world of Interactive Correlations (IC). Delve into the iterative world of data QC and interpretation with IC's visualization toolkits and start building your regional maps to highlight where to look next. Learn the foundations of IC with hands-on exercise that illustrates most features and functions needed to query, interpret and display a database.

Benefits

Learn directly from the team building and improving IC toolkits to improve workflows efficencies. During the course attendees will have opportunity to carry out hands-on exercises and ask questions about the basic visualization toolkits available in IC. Learn how to display and compare data interpretations from well to well and zone to zone to build a confident interpretation for the improvement of regional understanding.

Who should attend

The course is suited to those new to IC or with a need to expand their knowledge of the toolkits available. Geologists, Petrophysicists, Data Managers and Technical Assistants with varying levels of experience for example. Its preferable they have a working knowledge of geological concepts but it is not essential.

Course Instructor

This course will be presented by Catriona Penman, our Product Chamption or one of our Geoactive instructors from our Senior Support team.

Course description and Modules

The course is conducted with an engaging combination of lectures and practical exercises using custom databases designed to grow all users awareness and understanding of the tools available. Explore the visualisation options and how to manipulate them to highlight your findings.

The course is made up of the following sections:

- Overview of Data Summaries
- Overview of Mapping resources
- Overview and applying Dictionaries
- Building and Utilising Templates
- Building Correlations
- Building Cross Sections
- Introduction to Data Interpretation
- Introduction to Data conversion Utilities
- Building Regional Summaries

Certification

On completion of this course you will receive a certificate of attendance.

Mapping Zonal Analysis with IC

DURATION:
2 days

DATES:
TBC

LOCATION:
Online / in person

DOMAIN:
Geoscience

IP MODULES:
IC Platform,
IC Geology,
IC Stratigraphy

Objectives

This course aims to expand the basic uses of IC mapping to generate a more detailled analysis of your stratigraphic zones. Working to build a lateral understanding while maintaining standardised displays to compare and explain findings and build interpretations of the lithological, facies and depsitional variations across a basin. This course will build on the fundamentals of the IC toolkits to build new display formats and generate zonal bubble maps.

Benefits

Building Stratigraphic Schemes to set rules for your basin generates a series of deeper looks at each zone within your system to quickly identify anomolies and details within the zone to build the inputs for any modelling.

Who should attend

This course caters to any number of subsurface specialists, Petrophysicists, Geologists, Reservoir Engineers, and Technical Assistants with varying levels of experience. Its preferable if they have already attended 'IP Fundamentals for Log Analysis' workshop or have previous working experience with IP but not essential.

This software workshop requires a working knowledge of regional geological concepts so a basic understanding of what information could explain the findings from the subsurface samples used and the principles of stratigraphic hierarchy would also be an advantage but this will be covered briefly at the start of the course.

Course Instructor

This course will be presented by Catriona Penman, our Product Champion or one of our Geoactive instructors from our Senior Support team.

Course description and Modules

The course is conducted with an engaging combination of lectures and practical exercises using custom databases to explore some advanced functionality in IC.

There will also be a basic introduction to stratigraphic concepts and techniques along with their application in IC.

The course is made up of the following sections:

- Introduction to Stratigraphic Schemes
- Overview of IC Mapping and 3D Viewer
- Mapping Zonal Analysis
- Grids
- Bubbles
- Analysis Sticks
- Building Well Summaries

Certification

On completion of this course you will receive a certificate of attendance.

Geoactive

Get in touch

Please visit **www.geoactive.com** for more information
or email **softwaresupport@geoactive.com**

Training

We offer training courses in various locations around the world for both IC and IP. We can also provide tailored in-house courses for individual clients, please email **salesenquiries@geoactive.com**

Software Support

Our web portal provides first class support by a team dedicated to our subsurface software products.
Email **IPsupport@geoactive.com**
or Call:
UK: +44-2036088024
USA: +1-713-489-3995

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