



INFORMATION
TO GEOSCIENCE

Online well-bore data

interpretation and
management platform

COLLABORATE ANYTIME ANYWHERE



Applications

i2G online platform enables multiple petrophysical applications running on it. These applications are supported by a comprehensive data management system and a "base" module to provide data analysis and pre-processing tools.

Within the platform, an effective collaboration system is also developed to support multi-user projects with flexible sharing permissions. The following apps are currently available on i2G:

01

Well Insight

provides full-spectrum wellbore data interpretation from clastic reservoir to fractured basement. A reservoir analysis, project storage and Artificial Intelligence (AI) are also three key modules built within it.

03

Base Map

is basically designed to view well locations by wellhead positions or at a specific marker along the wellbore. The app supports multiple projects access, block boundary visualization which makes it easier for data management, especially big operators with many assets.

02

Machine Learning Toolkit

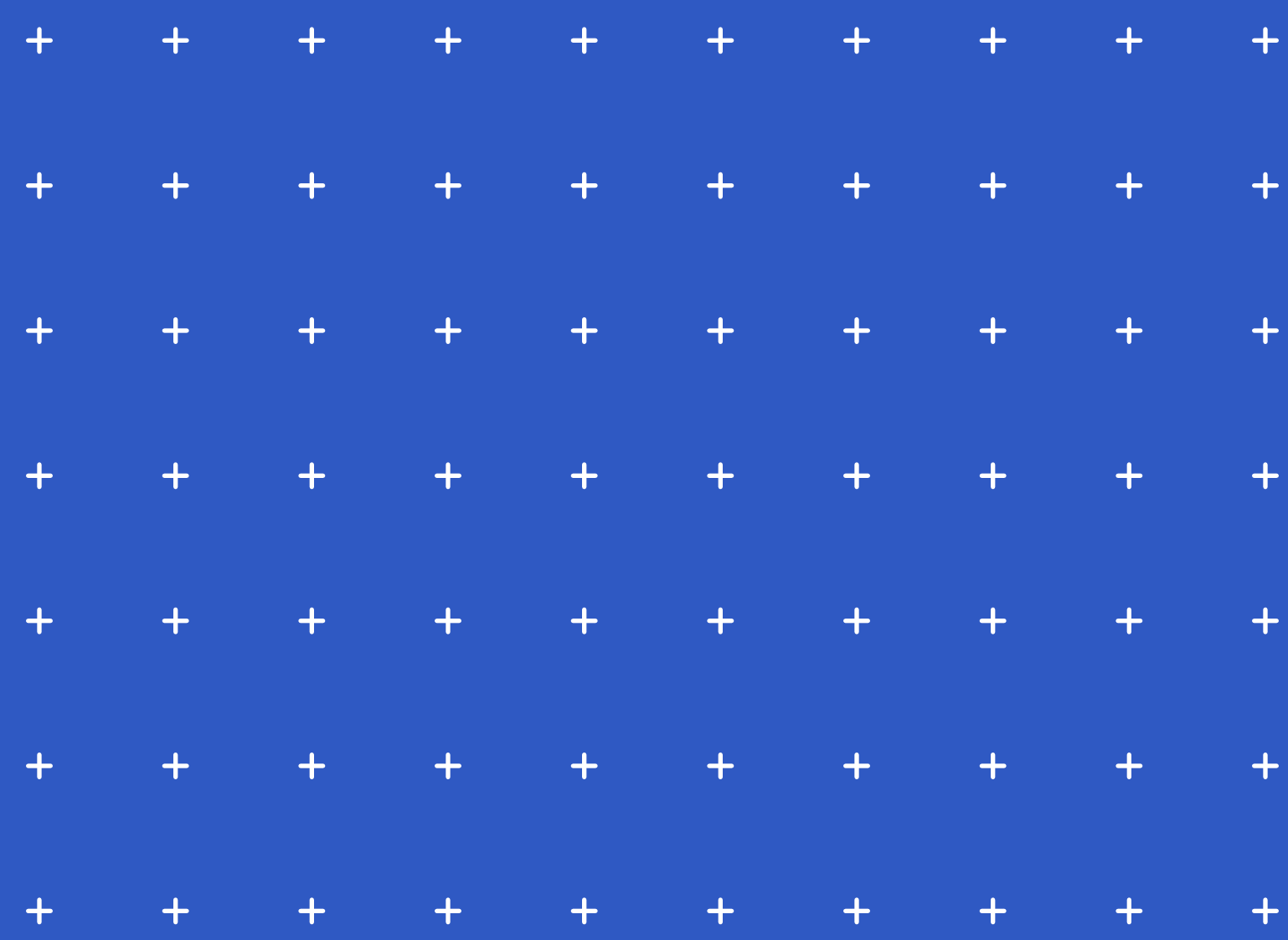
on i2G offers the most advanced predictive algorithms including both regression and classification. It also contains non-linear predictor functions and Self-organizing Map with both supervised and unsupervised algorithms.

04

Python Editor

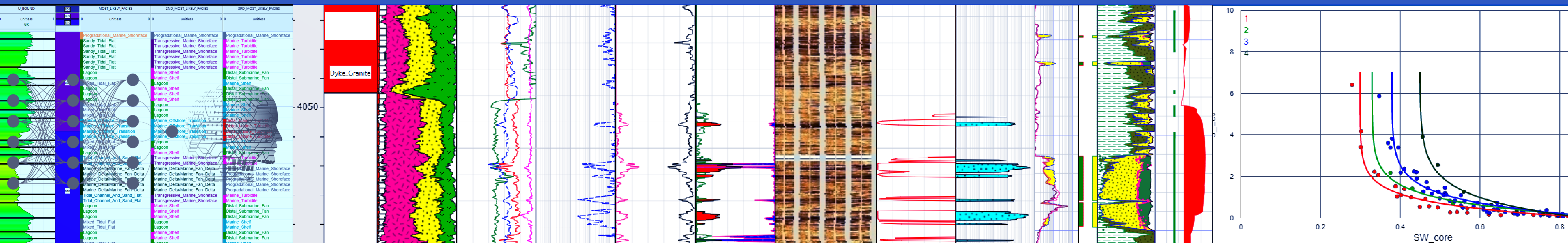
enables user to accomplish various aspects of programming activities from simple to complicated calculations and database implementations. The app offers batch processing ability to perform tasks on a huge dataset including many wells with a few lines of code.

INFORMATION TO GEOSCIENCE



Well insight

The Well Insight app is designed to provide a full-spectrum wellbore data management and interpretation tool, including the following modules:



Clastic Reservoir Petrophysics

Clastic Reservoir Petrophysics is built for clastic reservoir interpretation. With editable workflow, user can drag and drop interpretation steps to design your most appropriate process. The robust multi mineral solver concept is also applied within the app, enabling you to deal with complex lithology model.

Depofacies Predictor

This module is an AI built to predict depositional facies. A new hybrid approach which combines machine learning and an expert system generates data-driven, reproducible and consistent results for facies prediction across an entire field.

Project storage

The data management system on i2G allows you to index and catalogue metadata or attributes related to well digital data. The system supports bulk data loading with direct access to computer folders. The efficient and extensive search ability helps find the correct data and exact description which is need of all geoscientists.

Geomechanics

The Geomechanics app offers a complete package of 1D geomechanical modeling and wellbore stability modeling. Geomechanical models for drilled wells can be constructed and conveniently transferred to the corresponding wellbore stability models. The wellbore stability models for drilled wells can then be calibrated with actual drilling events.

Fractured Reservoir

Module Fractured reservoir Petrophysics (FRP) provides a full workflow interpretation for Granitoid fractured basement reservoir which is characterized by different mineral compositions in a complex pore space structure such as Fracture-Open, Vug-Isolated and Vug system.

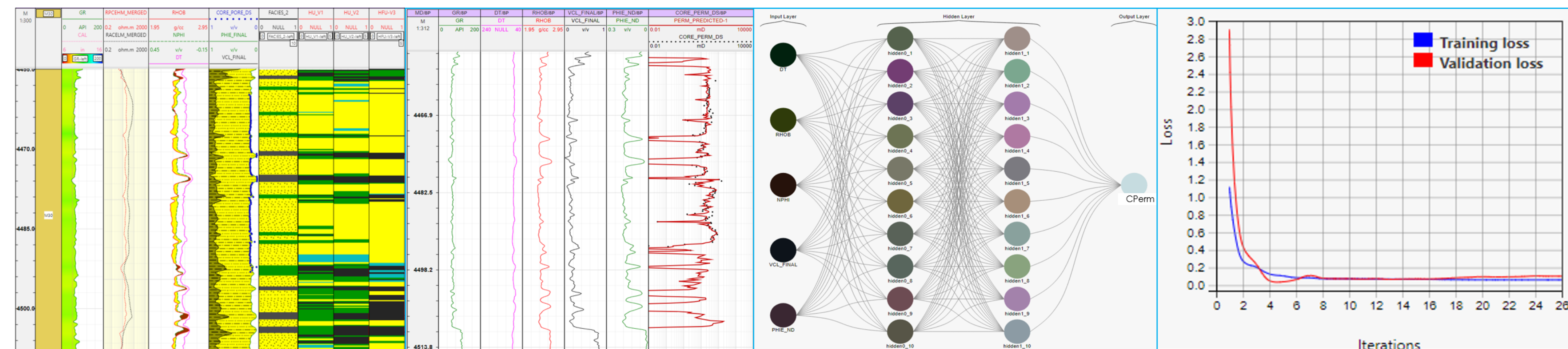
Reservoir Analysis

The package contains three modules of Formation Pressure Analysis (FPA), Hydraulic Flow Unit (HFU) and Saturation Height Modeling (SHM). FPA allows user to define reservoir fluid contacts and fluid density based on the change in fluid gradient. HFU helps user to classify core data into different flow units. SHM enables user to establish Pc versus Saturation or Height versus Saturation models from special core analysis.

Machine Learning Toolkit

Machine Learning Toolkit on i2G offers the most advanced predictive algorithms with a fully controllable parameter set-up in an intuitive graphic user interface.

- Geoscientists and machine learning experts
- Reproducible results by allowing seed number input
- Flexibility in configuring model inputs and architectures
- Easy-to-use and adjustable workflow interface
- Availability of different model validation metrics



01

Classification Model

The built model can be used to predict discrete properties such as lithofacies, depofacies, flow units or rock types. The module offers diversified ways to assess the model: loss and accuracy cross-plot as well as confusion matrix. Users have an ability to perform data filtering and input ranking.

03

Non-linear regression

This is a nonlinear approach to model the relationship between the input curves and the target curve. The relationships are modeled using nonlinear predictor functions, so called nonlinear models, whose unknown model parameters are estimated from the data.

02

Regression Model

The built model can be used to predict quantitative petrophysical, geochemical and geomechanical properties as well as generate synthetic output for missing data or bad-hole intervals. Multi perceptron algorithm enables building multi-layer neural network with non-linear activation functions to solve complex geological settings.

04

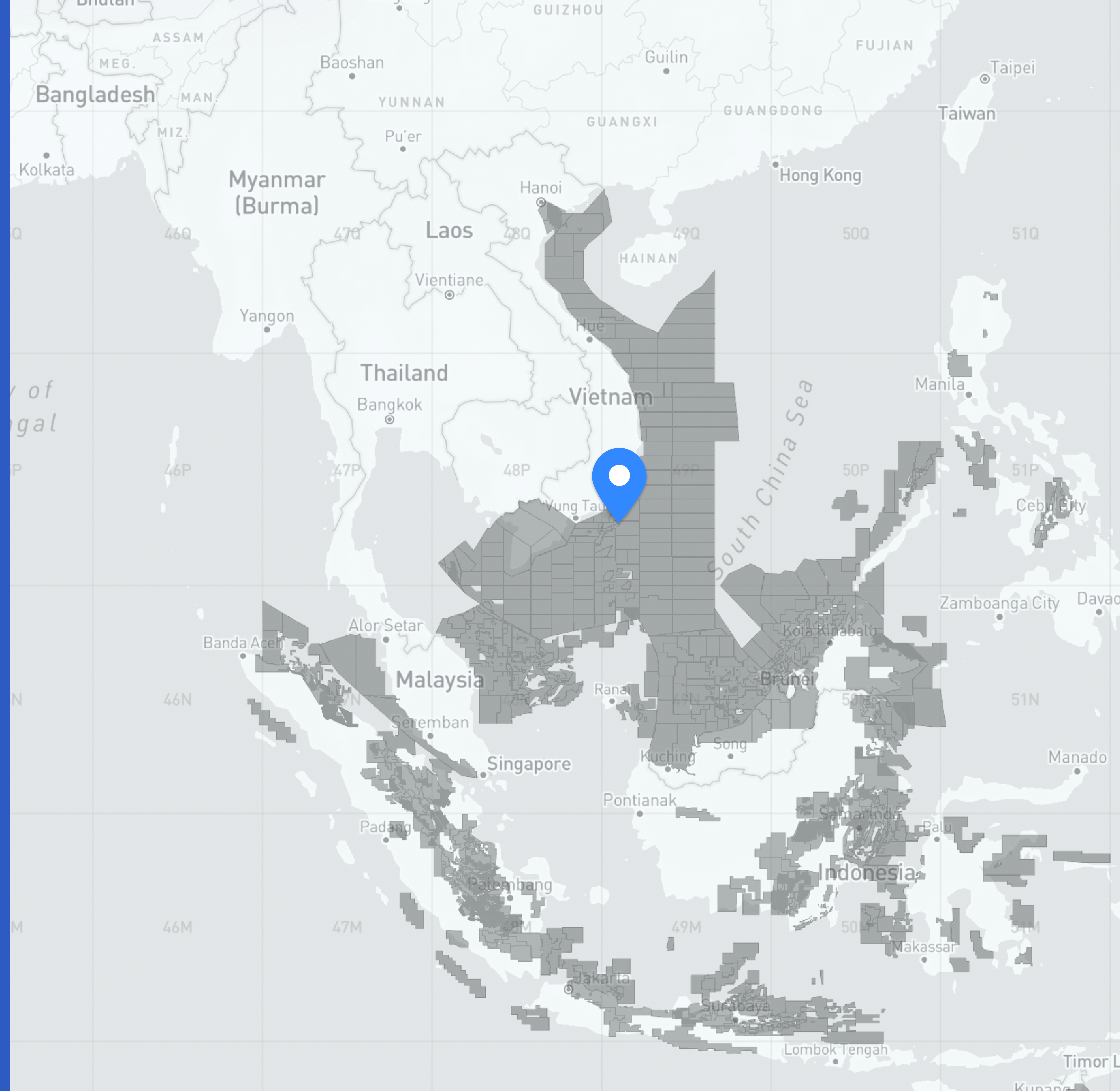
Self-organizing Map (SOM)

Self-organizing Map is a unique tool for facies classification by both supervised and unsupervised modes. The tool provides a robust workflow from model construction to model validation which is critical to make sure the output brings actual geological meaning.

Base Map

The Basemap app is basically designed to view well locations by wellhead positions or at a specific marker along the wellbore. The app supports multiple projects access, block boundary visualization which makes it easier for data management, especially big operators with many assets. The user is able to export any basemap configurations and import for a quick basemap creation.

Another key feature of the app is contouring. It interpolates across the model by 2D kriging between wells any parameter carried within i2G. These can be formation data, average log data by zone, core data and other parameters.



Python editor

Process thousands of wells
with advanced calculations
using Python

Process thousands of wells with advanced calculations using Python

Python Editor app enables user to accomplish various aspects of programming activities from simple to complicated calculations and database implementations. With multiple APIs supported, writing your own codes is much more easier than ever.

The app offers batch processing ability which means user can now perform a task on a huge dataset including many wells with a few lines of code. The python programming also supports most commonly used libraries such as Numpy, Scipy and Matplotlib for data analytics workflow implementation.

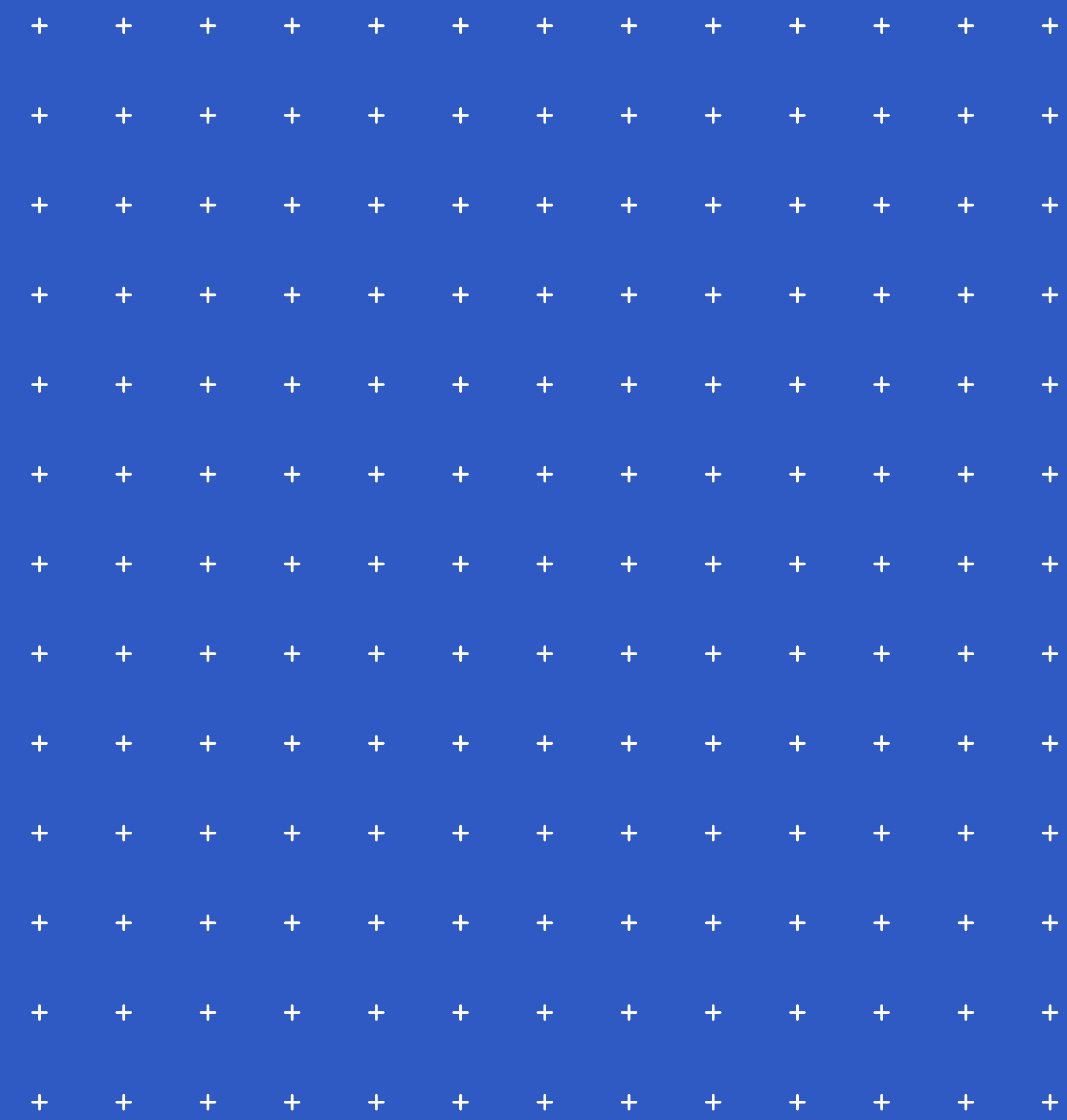
The screenshot displays the WiPython Python Editor interface. The top navigation bar includes the WiPython logo and menu items: Project, New, Action, Tools, and Help. On the left, a 'Projects' sidebar shows a folder named 'DEMO' containing files: __init__.py, main.py, and well limiting.py. The main editor area shows Python code for logging in and processing wells. A console window is open, showing the output of the code.

```
client = wilib.loginByToken("eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ1c2V  
listwell = ["ESS_28P","ESS_23P"]  
  
for well in listwell:  
  
    editwell = client.getWellByName(well,"DEMO_PDB")  
  
    if editwell:  
  
        zonesets = editwell.getAllZoneSets()  
  
        start = None  
  
        stop = None  
  
        for zoneset  
  
        if zoneset.
```

Console Output:

```
+-----|*WELCOME*|-----+  
ESS_28P start: 4403.5 stop: 4579  
ESS_23P start: 2192.3 stop: 2390.3  
+-----|*END*|-----+
```


Saving Cost



Saving cost with flexible pricing scheme

Consultants, Service Providers, Operators ...
can save a significant amount of cost with i2G
weekly, monthly or yearly pricing schemes.

Weekly

Monthly

Yearly

Project Data Managements





Easily organize your messy and scattered project data

Project data and their related flat files are stored in an unified online platform and can be linked together allowing users quickly find related items.

Furthermore, a strong metadata system and tagging capability allows users searching data very quickly as well as organizing data neatly.

The interface consists of several components:

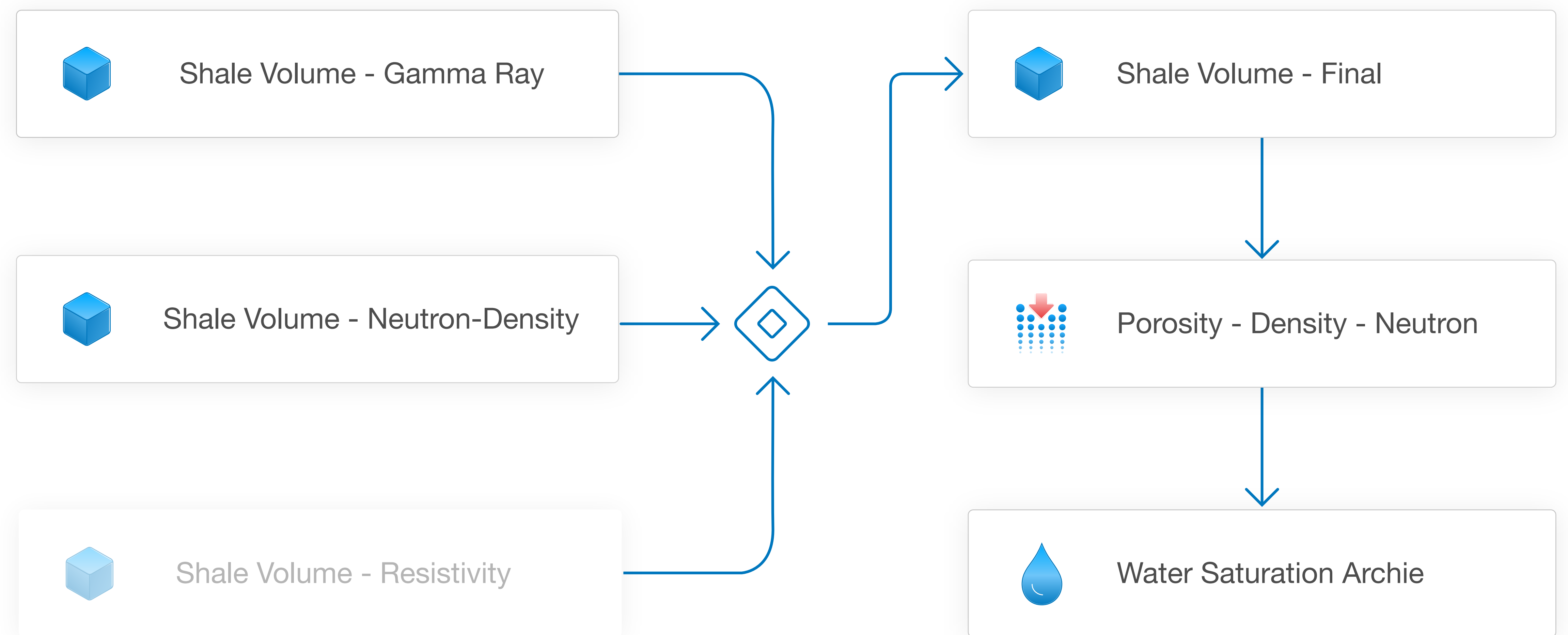
- Tags Sidebar:** A vertical list of tags including Basement, Core, Geo, MMS, PC, and Working. 'Basement' is currently selected.
- Project Browser (Top):** Shows a hierarchy starting with 'Project Demo' and a sub-item 'TEST_BASEMENT'.
- Project Storage (Main View):** A table listing project folders with columns for Name, Data type, Size, and Date. The folders listed are:
 - 0. General information
 - 1. Survey
 - 10. Digital Log data
 - 11. Gas Data (highlighted)
 - 12. G-1X
 - 13. Well completion R
 - 14. Geochemical
- Metadata Popup (Overlaid on '11. Gas Data'):** A detailed view of the selected folder's metadata.

General	
Name	11. Gas Data
Type	Folder
Size	-- KB
Location	CLASTIC_BASEMENT
Infomation	
Well	 
Field	
Well Type	
Data Type	
Quality	★★★★★
Associate	
Description	

Petrophysical workflow

Intuitively visualize and create your petrophysical workflow

With the ability to visually connect, disconnect, rearrange, disable, enable various calculation blocks, users can save a significant amount of time when customizing their multi-well workflows.



Asset Managements

Manage all frequently-reuse **parameters and templates** in one place for quickly retrieving and reusing

All parameters estimated during data interpretation process can be stored in a central place for later use.

Users can quickly load and propagate these existing parameters to the new workflow at zone, well, or project level. This helps users not have to re-estimate parameters for every new workflow, resulting a significant time saving.

VSH - Gramma Ray		CLASTIC		Asset Manager			
General		Input Configuration		Output Configuration		Input Selection	
Input/Output	Parameter	Backup	Restore	Histogram	Logplot	Filter	
Well ▾	Zone ▾		Top ▾		Bottom ▾		GR clean ▾
● C_1	● KNURR_FM (0)		1410.1571 (m)		1692.1886 (m)		10.0000
● C_1	● FUGLEN_FM (2)		1974.22 (m)		2256.2514 (m)		10.0000
● C_1	● STØ_FM (3)		2256.2514 (m)		2538.2829 (m)		10.0000
● C_2	● FUGLEN_FM (0)		7841.2076 (ft)		7900.2627 (ft)		10.0000
● C_2	● STØ_FM (1)		7900.2627 (ft)		8260.8927 (ft)		10.0000

Zone and marker template

Zone and marker template control system allows a consistent display and fast creation

Users can quickly create a new zone/marker based on a customizable template library.

When there is a need to adjust any zone/marker, users only need to do it one time from a central location and these changes will be updated throughout the whole project, resulting a consistent display and time saving.

Zone Set Manager

✕
+
↺

Stratigraphy zone

Marker Set Manager

↕
↑
↓
✓
✕
+
↺

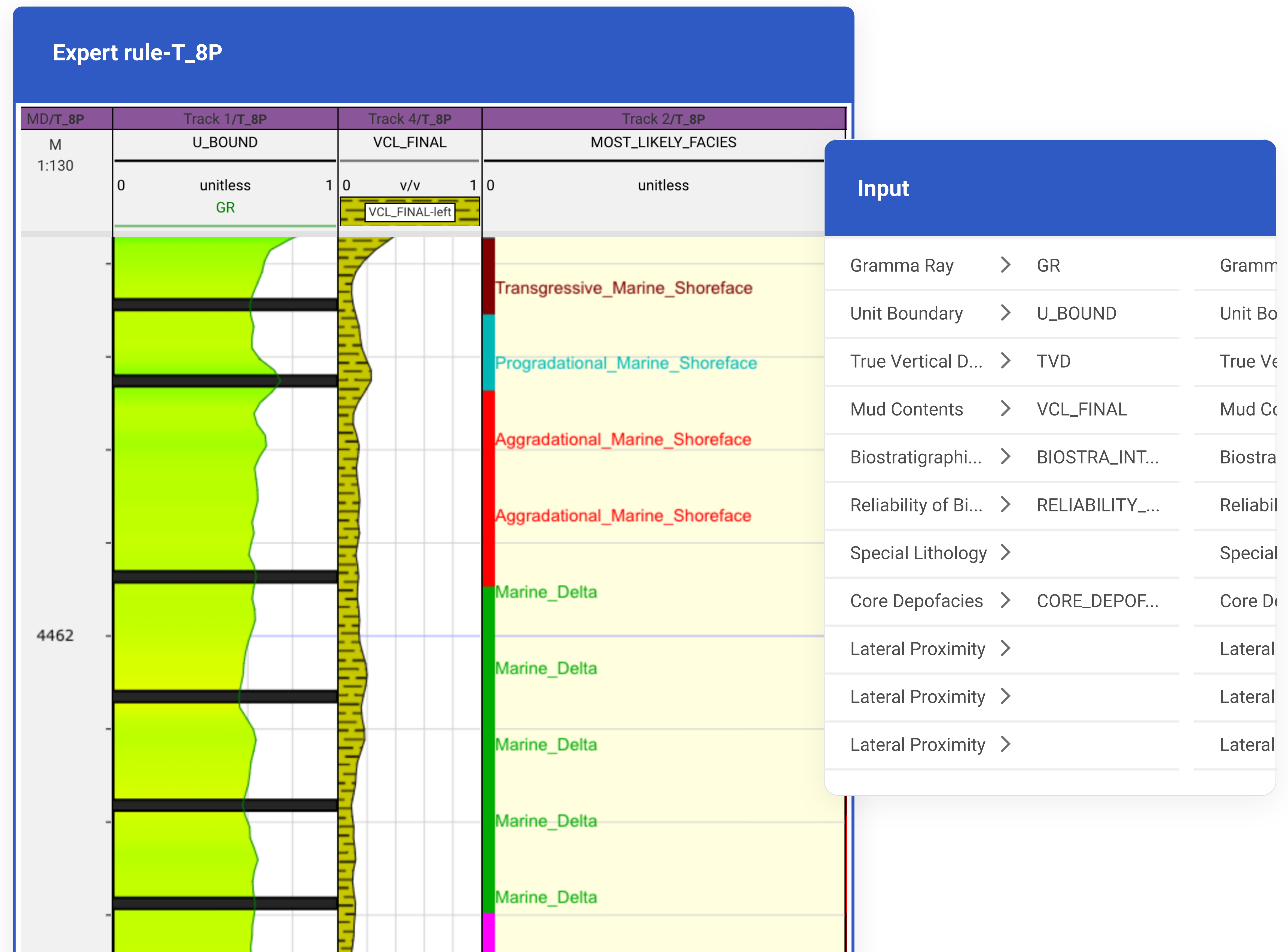
	Template name	Background	Foreground	Pattern	Export
<input checked="" type="checkbox"/>	TORSK_FM	<div style="width: 20px; height: 10px; background-color: #c8e6c9;"></div>	<div style="width: 20px; height: 10px; background-color: #424242;"></div>	<div style="width: 20px; height: 10px; background-color: #c8e6c9;"></div>	1
<input checked="" type="checkbox"/>	KVEITE_FM	<div style="width: 20px; height: 10px; background-color: #2196f3;"></div>	<div style="width: 20px; height: 10px; background-color: #424242;"></div>	<div style="width: 20px; height: 10px; background-color: #2196f3;"></div>	2
<input checked="" type="checkbox"/>	KOLMULE_FM	<div style="width: 20px; height: 10px; background-color: #e91e63;"></div>	<div style="width: 20px; height: 10px; background-color: #424242;"></div>	<div style="width: 20px; height: 10px; background-color: #e91e63; border: 1px dotted #e91e63;"></div>	3
<input checked="" type="checkbox"/>	KOLJE_FM	<div style="width: 20px; height: 10px; background-color: #ff9800;"></div>	<div style="width: 20px; height: 10px; background-color: #424242;"></div>	<div style="width: 20px; height: 10px; background-color: #ff9800;"></div>	4
<input checked="" type="checkbox"/>	KNURR_FM	<div style="width: 20px; height: 10px; background-color: #3949ab;"></div>	<div style="width: 20px; height: 10px; background-color: #424242;"></div>	<div style="width: 20px; height: 10px; background-color: #3949ab;"></div>	5
<input checked="" type="checkbox"/>	HEKKINGEN_FM	<div style="width: 20px; height: 10px; background-color: #f0e68c;"></div>	<div style="width: 20px; height: 10px; background-color: #424242;"></div>	<div style="width: 20px; height: 10px; background-color: #f0e68c;"></div>	6
<input checked="" type="checkbox"/>	FUGLEN_FM	<div style="width: 20px; height: 10px; background-color: #d32f2f;"></div>	<div style="width: 20px; height: 10px; background-color: #424242;"></div>	<div style="width: 20px; height: 10px; background-color: #d32f2f;"></div>	7

AI system

An AI system which can predict depositional facies. Save both cost and time for an equivalent quality

Based on the combination of machine learning and a set of expert rules, the AI depositional facies predictor can provide data-driven, re-producible and consistent results at a much faster speed than doing the interpretation manually.

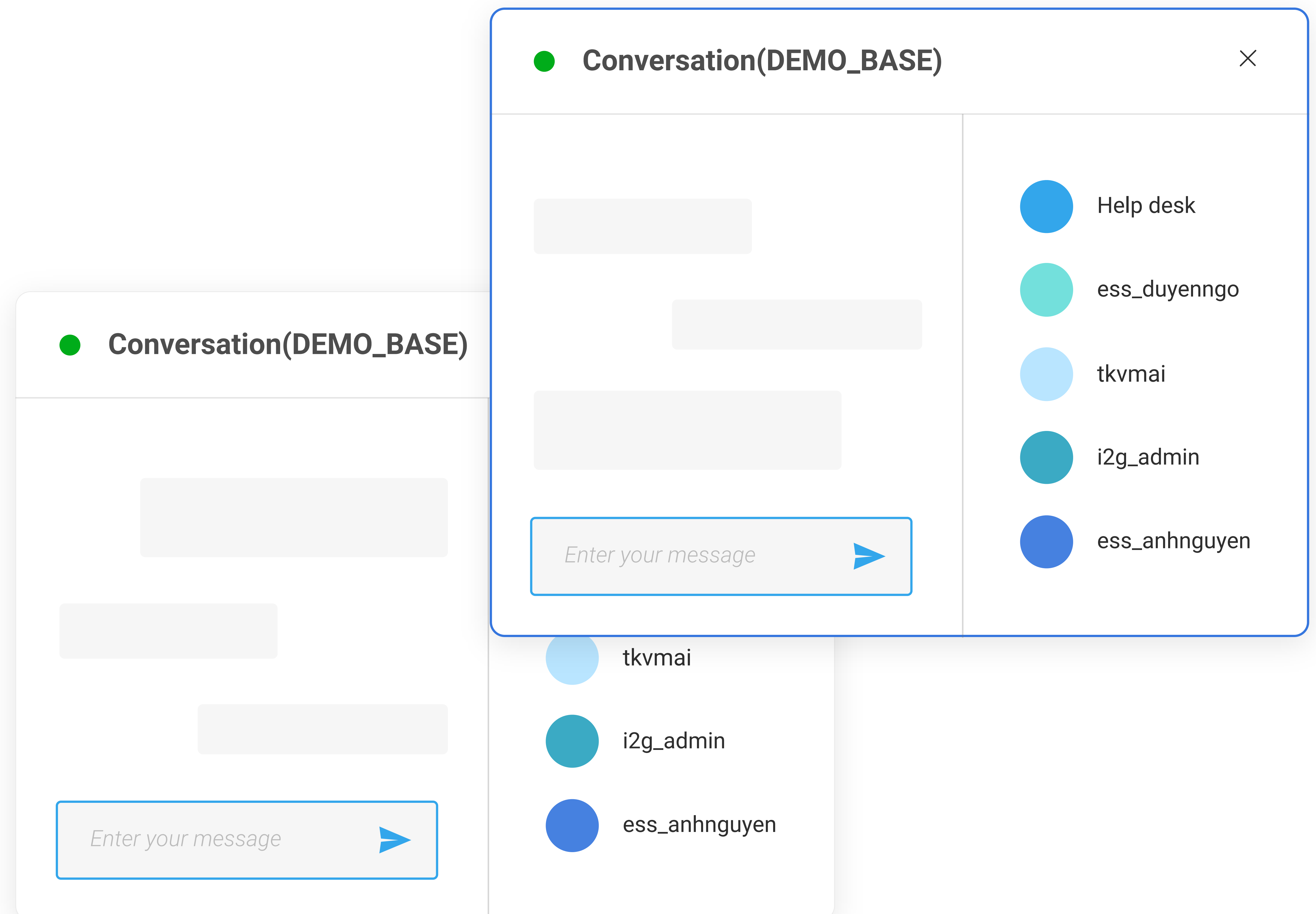
This results in a significant time and cost saving when dealing with a huge dataset including many wells.



Build-in chat

Build-in chat support for instant communication

Users working on the same project can instantly communicate with each other without the need of any external chat app. This improves the team working productivity.



About Us

i2G is a product of Revotech, a data science and software development company who provides solutions to improve efficiency of capital intensive industries

Petroleum Exploration and Production

Petrochemical

Power Generation

Storage terminal and Tank farms

01

Software Solutions

Our flagship software, i2G, is the pioneer online wellbore interpretation platform for multiple users to work with a single source of truth database in a shared work hub.

03

Our vision

We see ourselves to be the leading company to support energy operators in digital transformation journey from finding business opportunities for digital transformation to implementing them.

02

Software Development Services

We provide data analytic software development services for industry operators such as EOR screening, FDP Benchmarking, Machine Learning tools to analyze subsurface and operation data.

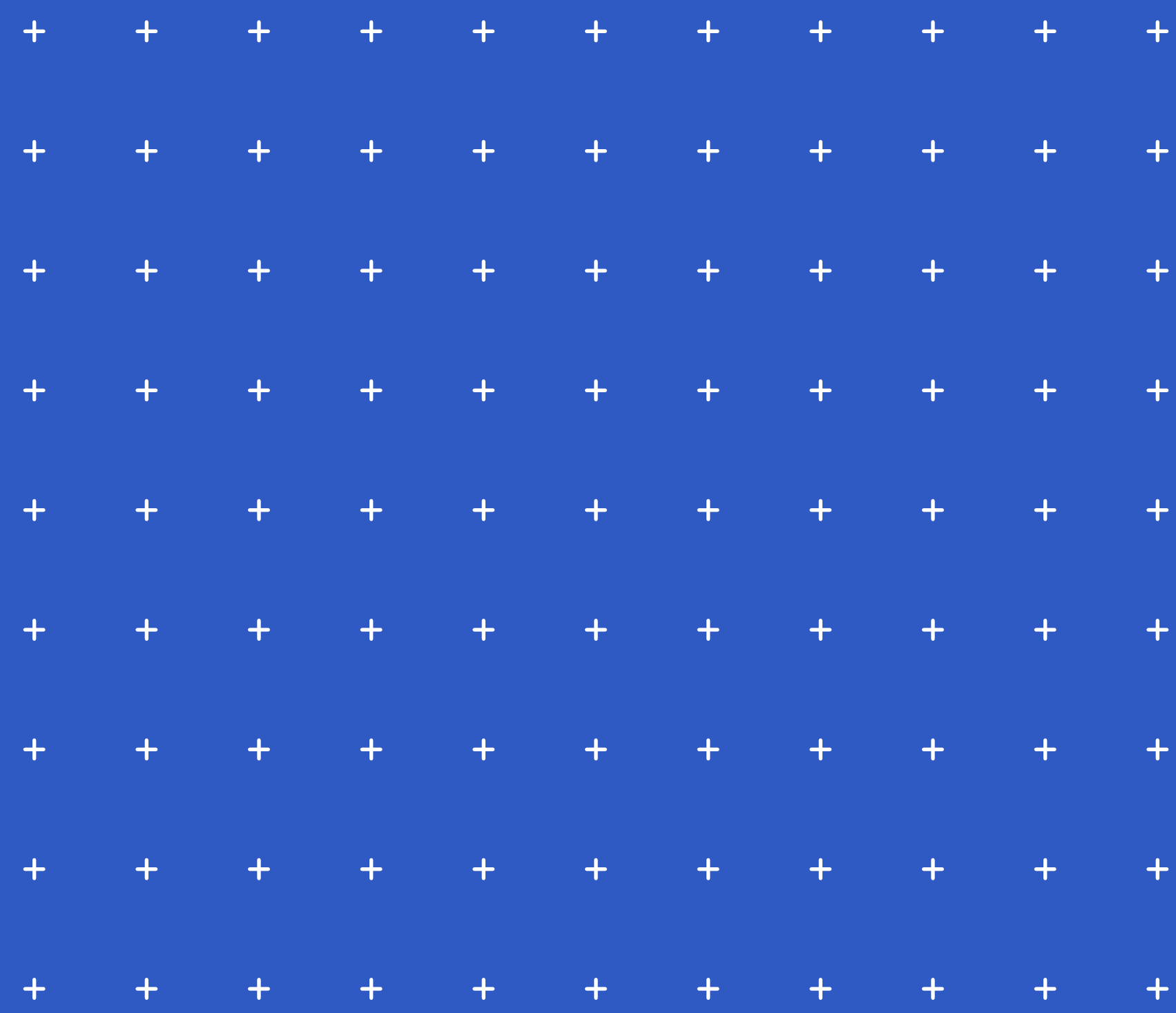
04

Our Mission

Trust: We never compromise the quality of our products and services. Customer Oriented: Our software solutions are fit to purpose, cost effective and well support.

Contact Us

Contact Us



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