



# **Top-Down, Intelligent Reservoir Modeling**

**AN ALTERNATIVE TO THE TRADITIONAL  
SIMULATION AND MODELING OF MATURE FIELDS**

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**BUILDING RESERVOIR SIMULATION MODELS BASED  
ON HISTORICAL FIELD DATA**

Intelligent Solutions, Inc.

[www.IntelligentSolutionsInc.com](http://www.IntelligentSolutionsInc.com)



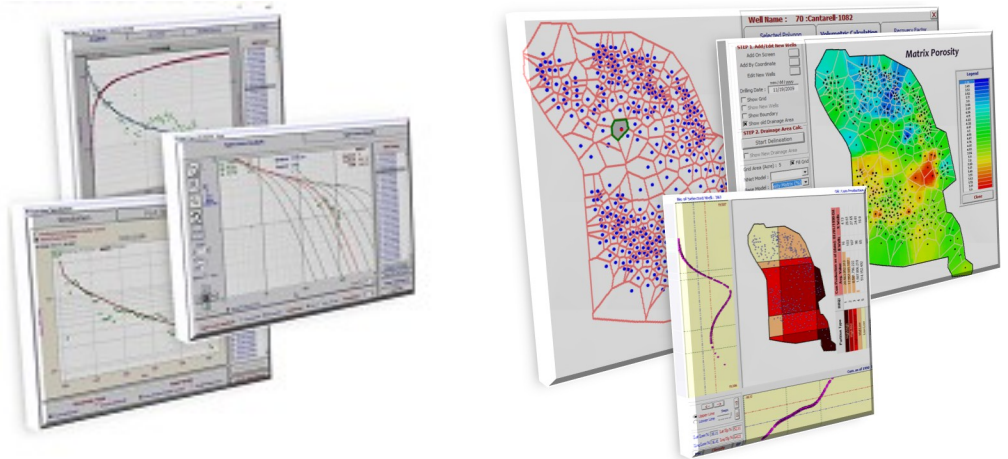


## Does Your Field Include More Than 50 Wells? Has It Been Producing for More Than 5 Years?

**TOP-DOWN MODELING** is a completely new and innovative way of building and history matching reservoir models and forecasting production in mature field.

**TOP-DOWN MODELING** takes full advantage of historical production data and well logs in order to build a reservoir simulation model.

**TOP-DOWN MODELING** is an elegant integration of state of the art in Artificial Intelligence & Data Mining with solid reservoir engineering.



### Minimum Data Requirement:

- Production History
- Well Locations
- Well Logs

### Data that can be used to enhance the model:

- Pressure Data
- Core Analysis
- Well Test
- Seismic

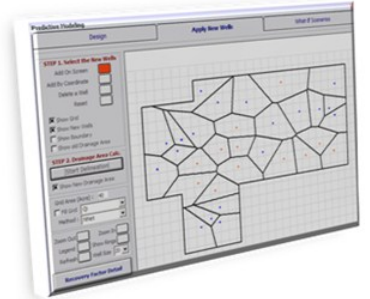




## KEY ADVANTAGES OF TOP-DOWN MODELING

### Short Development Time:

Unlike traditional reservoir simulation models, development of top-down models is measured in days and weeks and not months and years.

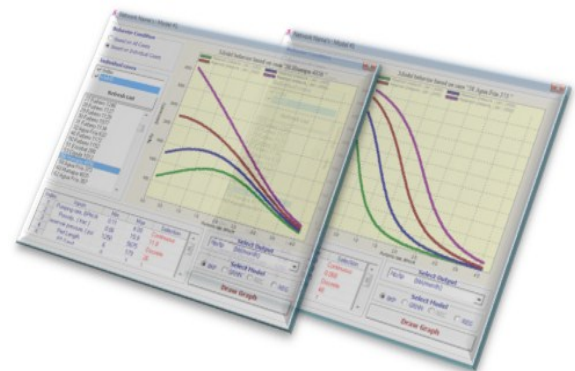


### Data Requirement:

Top-Down Modeling is a newly introduced, peer-reviewed, reservoir modeling technology that requires only production rate data to start the analysis. The model is fine-tuned as more data (logs, cores, pressure, seismic, operational constraints ...) is incorporated in the analysis.

### Analysis Complexity:

Unlike traditional reservoir simulation, no specialized skills are required for the development and analysis of Top-Down model. Any petroleum engineer or geoscientist can build, understand and fully analyze a Top-Down model.



### Technology:

An innovative integration of solid reservoir engineering techniques with state-of-the-art in Artificial intelligence and Data Mining (AI&DM).

### Deliverables:

Production Forecasting, Field Development Strategies, Remaining Reserves, Optimum Infill Locations and a List of Underperformer Wells as prime candidates for workover are among the deliverables of Top-Down modeling.





Maintaining Excellence in the Art and Science of  
*Artificial Intelligence & Data Mining (AI&DM)*  
as Applied to the  
*Exploration & Production Industry*



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