SERAFIM

About Us

We are a company that specialise in non-standard problems in reservoir engineering, field development optimisation and finance. By background, we are Cambridge educated mathematicians and engineers. As a company we have worked on providing bespoke software solutions to various clients; examples of which can be found on our website at www.serafimltd.com.
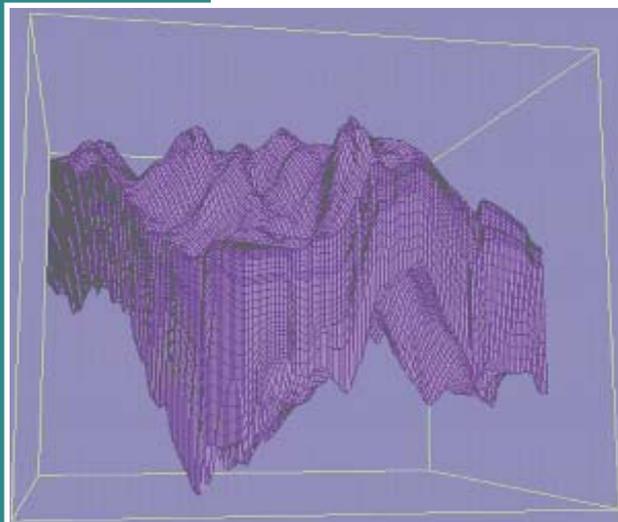
4D Seismic
Functions Library

SERAFIM

Import an eclipse grid and sample
SEGY data into it.

4D Seismic Functions Library

4D seismic is a rapidly developing subject and you may find yourself looking for software to apply your rock physics algorithms. We recognise that it is not always practical to purchase complete applications and with this in mind, we have developed a software library of functions to perform geophysical calculations and seismic data conversion, utilising the SEGY and Eclipse formats.

This was originally created for Enterprise/Shell as a means of calculating implied water saturations for a North Sea seismic data set.
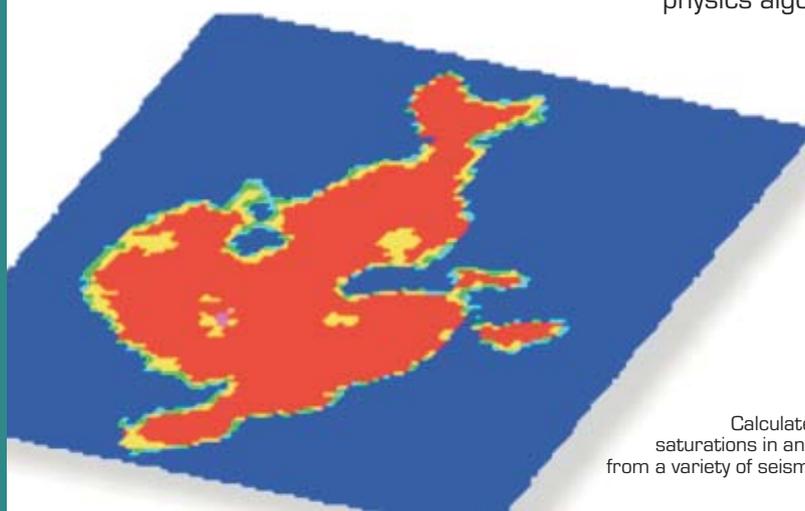
Software Capabilities

Seismic Data Conversion

- Import 4D data in either SEGY or Eclipse format.

- Import simulation geometry.

- Export data in SEGY or Eclipse formats.

- Exported files are created to user defined parameters.

- Enables you to use 4D results in your existing geophysics and reservoir engineering applications.

- Developed in C++ and can be used in UNIX and MS Windows environments.

Rock Physics

As well as allowing you to convert data from one format to another, our software can also be used as a platform for performing rock physics calculations.

- Calculate expected Sw and pressure from imported 4D data.

- Calculate the changes in seismic properties expected from simulator-predicted reservoir dynamics.

- Can be customised to your choice of rock physics algorithms.

Calculate water
saturations in an oil field
from a variety of seismic data