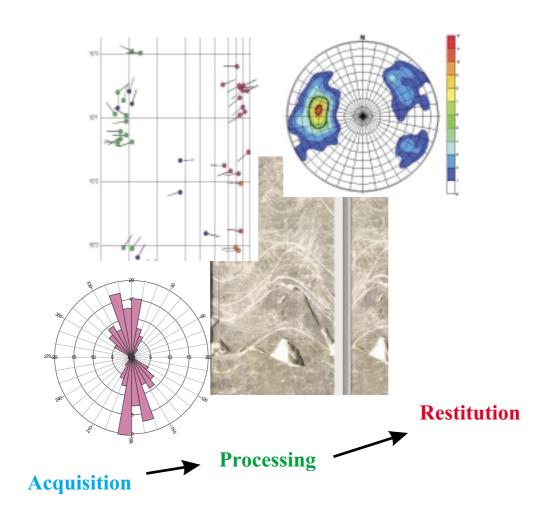
## **CORE INTERPRETATION ASSISTANCE**

**Proposes the** 

# 3D STRUCTURAL ANALYZER

A system for geometrical and geological analysis of drill-cores

Using the three-dimensional digitization technology



## **CORIAS**

74, Allée de la Robertsau - 67000 STRASBOURG - FRANCE Tel: +33 3 88 24 24 00 -Fax: +33 3 88 24 23 45 Email: corias@corias.com - Web: www.corias.com



# Corias AS3D: State-of-the-art technology A step forward in structural core analysis

The data recording is made by using the AS3D, CORIAS equipment which allows, by three-dimensional digitization, a direct acquisition of planar and linear structures on drill cores. The orientation of the structures is first calculated in relation to a reference scribe line, then reoriented in the real geographic position.

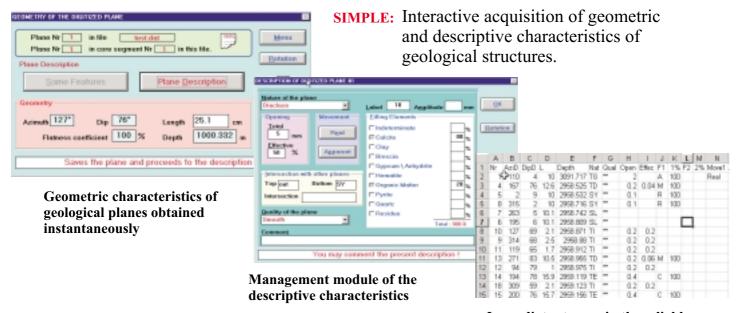
- \* With an oriented core, the geographic orientation of the structures is calculated immediately;
- \* With a non-oriented core, the reorientation is done using statistic investigations and logging data,
- \* Without such information, sedimentary and tectonic informations from various sources (seismic, tectonic stylolite, borehole ovalisation ...) can also used to determine the real position of the core reference scribe line.



#### PORTABLE AND FAST:

Direct operation on the drilling site or in the core library. Up to 40m of cores studied per day.

**SPECIFIC:** software designed by and for geologists. Customized menus, available in French or English.



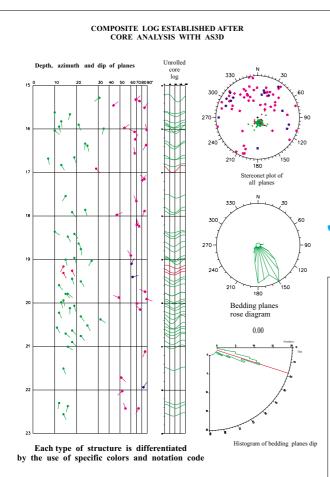
Immediate storage in the reliable integrated database

**HIGH-PERFORMANCE:** Permanent quality control of data acquisition.

# Results obtained in very short time

The fullest data to produce the most accurate models

# Large range of analysis depending on the project



From 2D figures to 3D diagrams

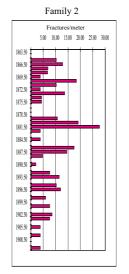
# FRACTURES DISTRIBUTION ALONG A BORE HOLE

Calculation of fractures frequencies

Discrimination in fracture direction families

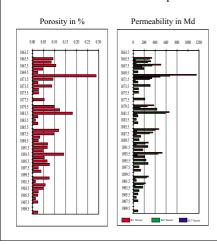
**Customized graphical outputs** 



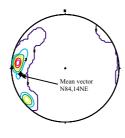




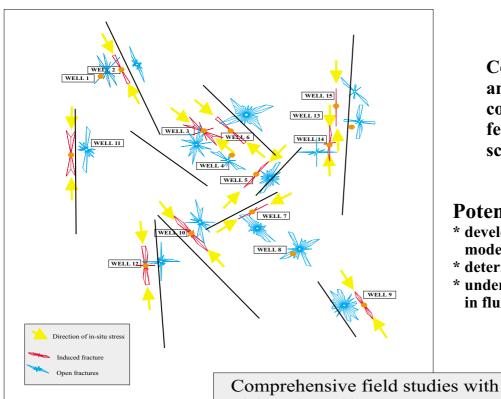
Calculation of fracture porosity and permeability and détermination of the minimum permeability vector: K3



Density stereonet plot Determination of minimum permeability vector K3



From fracture orientation through frequency and porosity and permeability to well optimization



Corias has large experience and knowledge of structural core logging to characterise features on a microstructural scale and larger-scale.

## Potential benefits such as:

- \* development of overall fracture model in the reservoir simulator
- \* determination of near well bore effects
- \* understanding of influence of stress in fluid movements

elaboration of in-situ stress maps

# By the way, CORIAS offers You:

### Fractures analysis

Corias geologists are specialized in fracture analysis. From data collecting to drawing the results, they take care of all information regarding the structural analysis of the cores.

### **Civil Engineering**

Corias has developped specific data treatment in order to perform a complete bloc fracturing and stability in fractured rock medium.

## **Core Scan system**

In complement to the core analysis with AS3D equipment, Corias has also a new Core Scan video system to use for pictures storage or for structural analysis with integrated software.

#### Reorientation

Corias has long experience in analysis of oriented cores and propose an on site reorientation with immediate structural analysis and report.



# Corias is working worldwide with many major companies:

Europe: Tota-Elf-Fina, BP-Amoco, BEB, Veba, Coparex, Conoco...Gasprom, Jaslo

Middle East: ADCO, ADNOC, ADMA, KOC, Total,

Complete list of recent references are available on our web site: www. corias.com