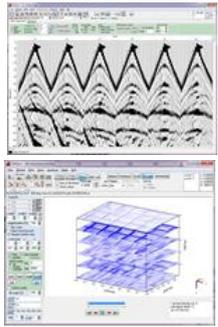


- 2D-dataanalysis
- 3D-datainterpretation
- modelling

reflection seismics

processing and interpretation



**2D-data
multichannel or
ZeroOffset-data**

- Reflexw 2D-dataanalysis
- Reflexw modelling

**3D-data
ZeroOffset**

- Reflexw 2D-dataanalysis
- Reflexw 3D-datainterpretation
- Reflex3DScan

	2D-data	3D-data
2D-data-analysis	x	x
3D-data-interpretation		x
modelling (simulation/inversion)	x	
Reflex3DScan		x

Short overview of the Reflexw possibilities for reflection seismic data processing and interpretation

2D-multichannel data (single shot data) 2D-dataanalysis

Reflexw supports all well known seismic dataformats. The full 2D-processing of the shot data starting from setting the geometry, filtering the shot data (starting from simple bandpassfilters up to complex Finite Difference post-stack migration and a pre-stack migration algorithm), performing the velocity analysis up to stacking is included.

CMP-processing setting the geometry

The **CMP-processing** allows the sorting of raw data to CMP, Common Shot, Common Receiver and Common Offset. It is very easy to change interactively between the given sorting possibilities.

There are different possibilities of entering or changing the **geometry**:

Activating **moving line** allows you to define the geometry for a geophone line moving with the shots.

Activating **fixed line** allows you to define the geometry for a fixed geophone line for different shot points.

The original shot geometry may contain **GPS** coordinates. In this case the receiver geometry will be calculated from a moving line relative to these GPS-coordinates. In addition the geometry of each trace may also be edited individually and loaded from an ASCII-file.

CMP-velocity-analysis

The CMP-velocity-analysis allows the calculation of a one-dimensional velocity-depth-distribution from CMP- or moveout-data based on different analysis techniques:

-**interactive generation** and change of a velocity-model for a CMP- or a moveout-section with continuous indication of the actual reflections

-**semblance analysis** for a given velocity-interval, interactive choice of a vrms-depth-distribution from the semblance analysis or from the interactive adaptation panel

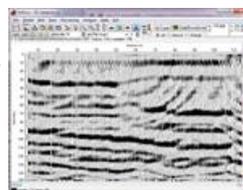
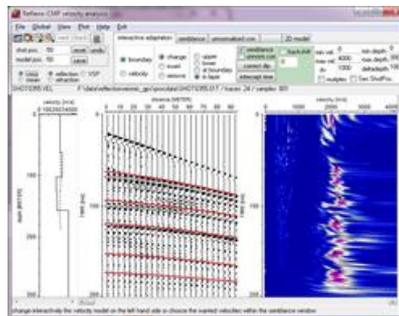
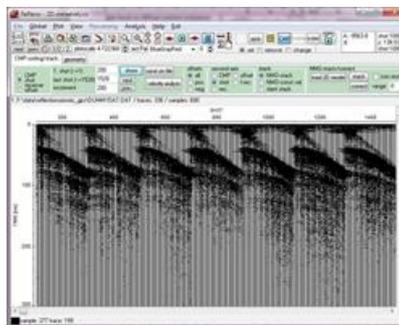
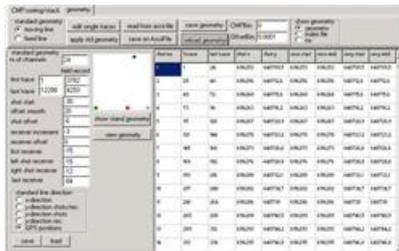
-generation of a **2-dimensional velocity-model** based on the resulting 1D-velocity-depth distributions. This 2D-model represents the base for the stacking.

A second CMP-section may be loaded for a parallel adaptation of the reflections. A zero-offset section with true distance information may serve for a calibration of the corresponding reflections

CMP-processing stacking

Stacking or simple **NMO-correction** of CMP-Gather, Common Shot-Gather or Common Receiver-Gather is possible based on a 2-dimensional velocity-distribution (see velocity analysis) or using a slant stack algorithm (only stacking).

Optionally an automatic correction of the **residual statics** is applied.



2D and 3D-ZeroOffset data 2D-dataanalysis, 3D-datainterpretation

- **import** from all well known seismic data formats like SEG2, SEG Y, ABEM, Summit, OYO and other non-standard formats
- **processing** includes all necessary filter and edit functions starting from simple bandpassfilters up to complex Finite Difference migration. Processing may be done on single profiles as well as on a set of profiles as a **sequence processing**.
- Many different 2D-data **interpretation** tools are incorporated. Diffraction hyperbolas may be interpreted as well as single reflectors resulting in a so called layershow.
- **Building a 3D-dataset** either from parallel equidistant stacked or ZO 2D-lines or from freely distributed data using a spatial interpolation scheme.
- **3D processing** is restricted to stacked or ZO lines. It includes all necessary filter and edit functions starting from simple bandpassfilters up to complex Finite Difference migration. Special **3D-algorithms** are available.
- The 3D-data may be **interpreted** within the scroll, windows or 3D-cube mode. A 3-dimensional **picking** is included.