



# Real-Time Interactive QC and Infield Processing of 3D/2D Land Seismic Data

for QC and infield processing

## Requirements for seismic QC software:

- Easy to install and maintain
- Easy to learn and use
- Interactivity
- Data QC
- Geometry QC
- Basic processing facilities (up to brute stack)



## for QC and infield processing

- **On Windows (7/8/10)**
- **Easy to install**  
Does not require administrative expertise
- **Easy to learn and to use**  
Intuitive graphical interface  
Manual and tutorials available
- **No specific hardware required**  
Operates smoothly on just an average up-to-date laptop or desktop computer



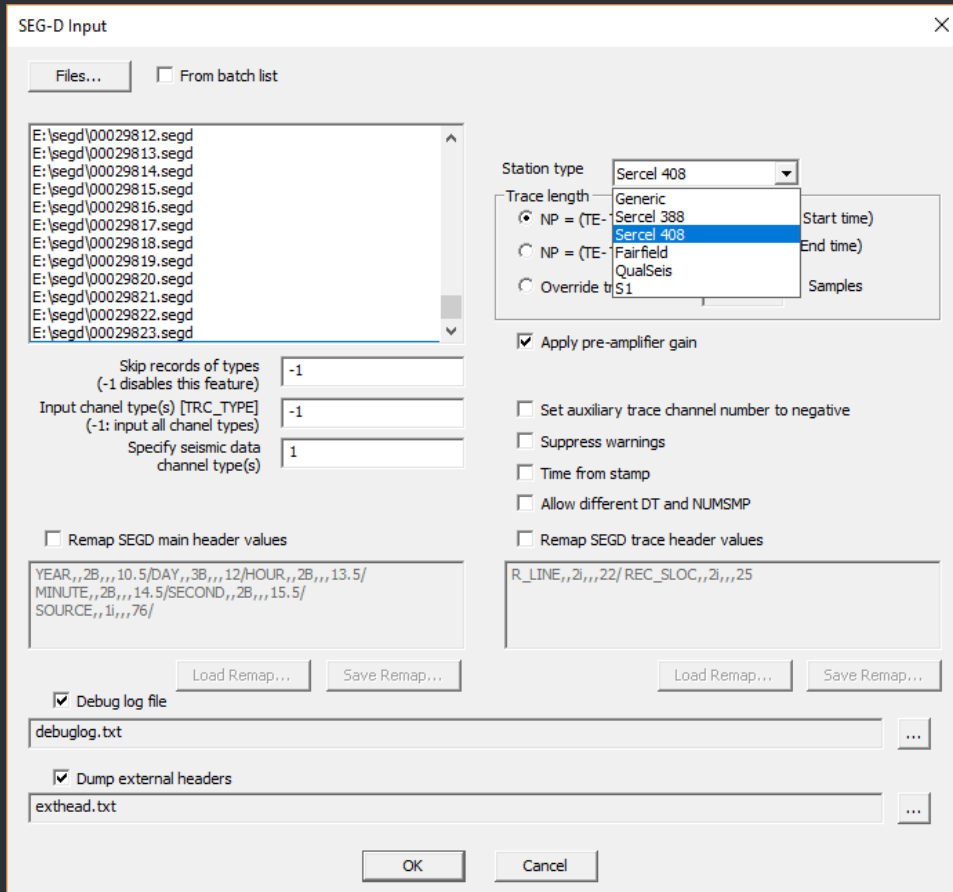


for QC and infield processing

Infield QC

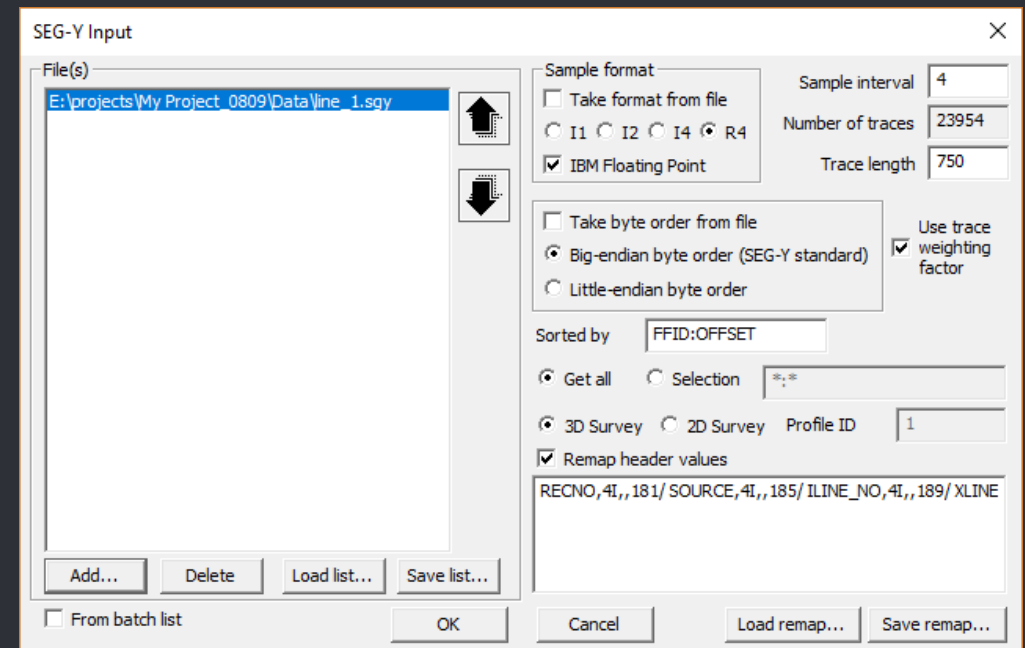
for QC and infield processing

## Rapid input of data of any size



Formats supported:

- SEG-D (incl. rev.3, with optional header remapping)
- SEG-Y (with optional header remapping)
- SEG-2 and more...
- Input seismic trace from ASCII

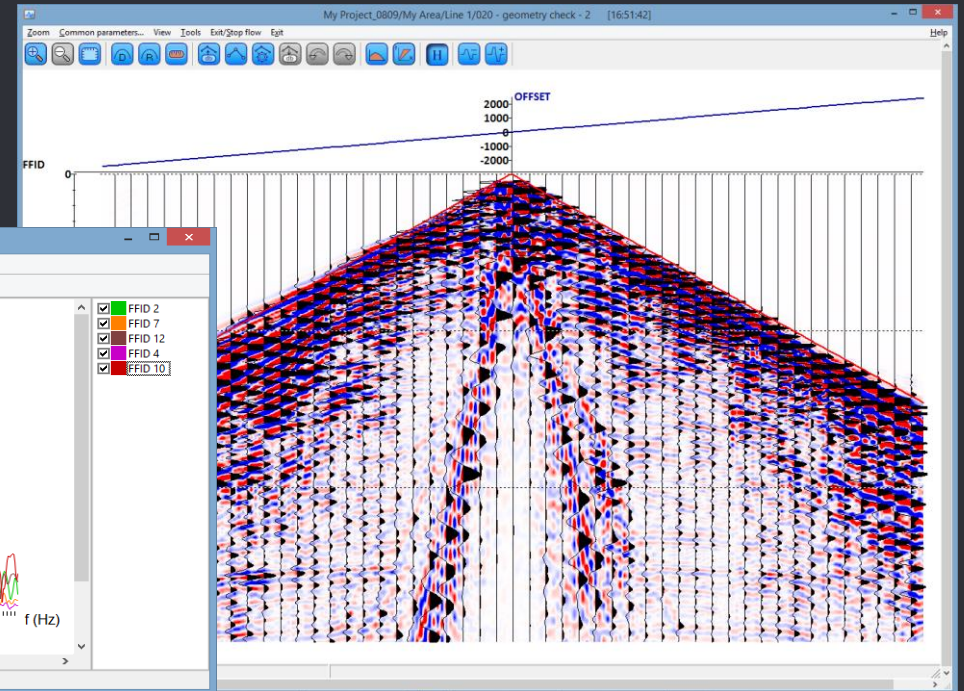
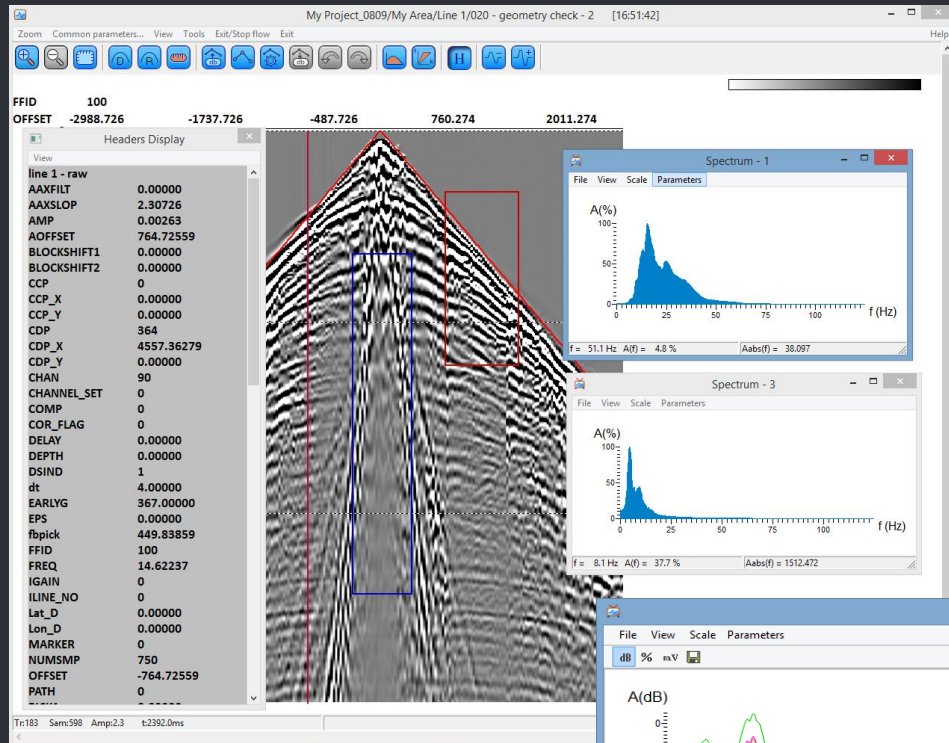




for QC and infield processing

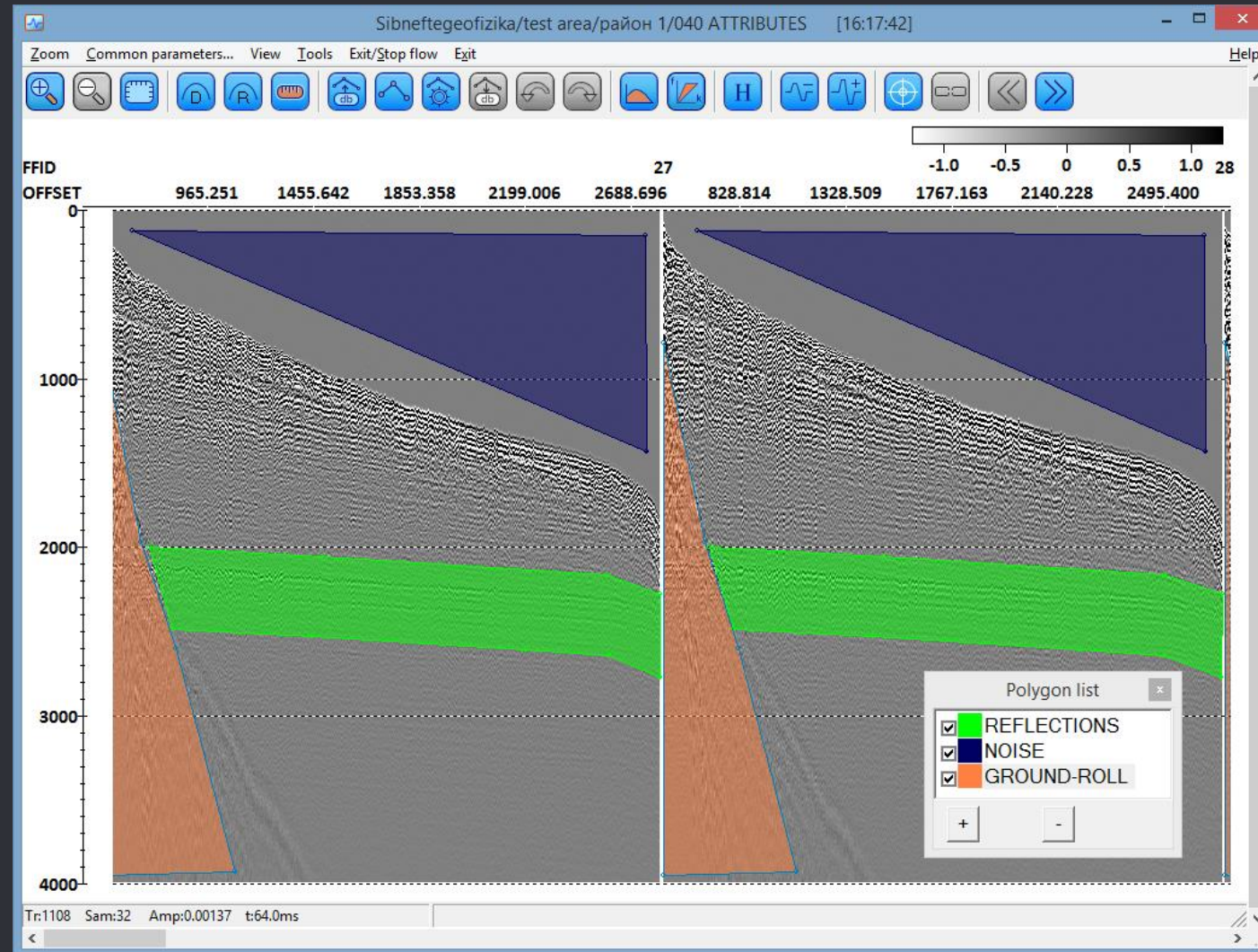
# Visual QC and data analysis

- Any ways of data display
- Check headers of any trace
- Display header value diagrams
- View F and F-K spectrums of arbitrary windows



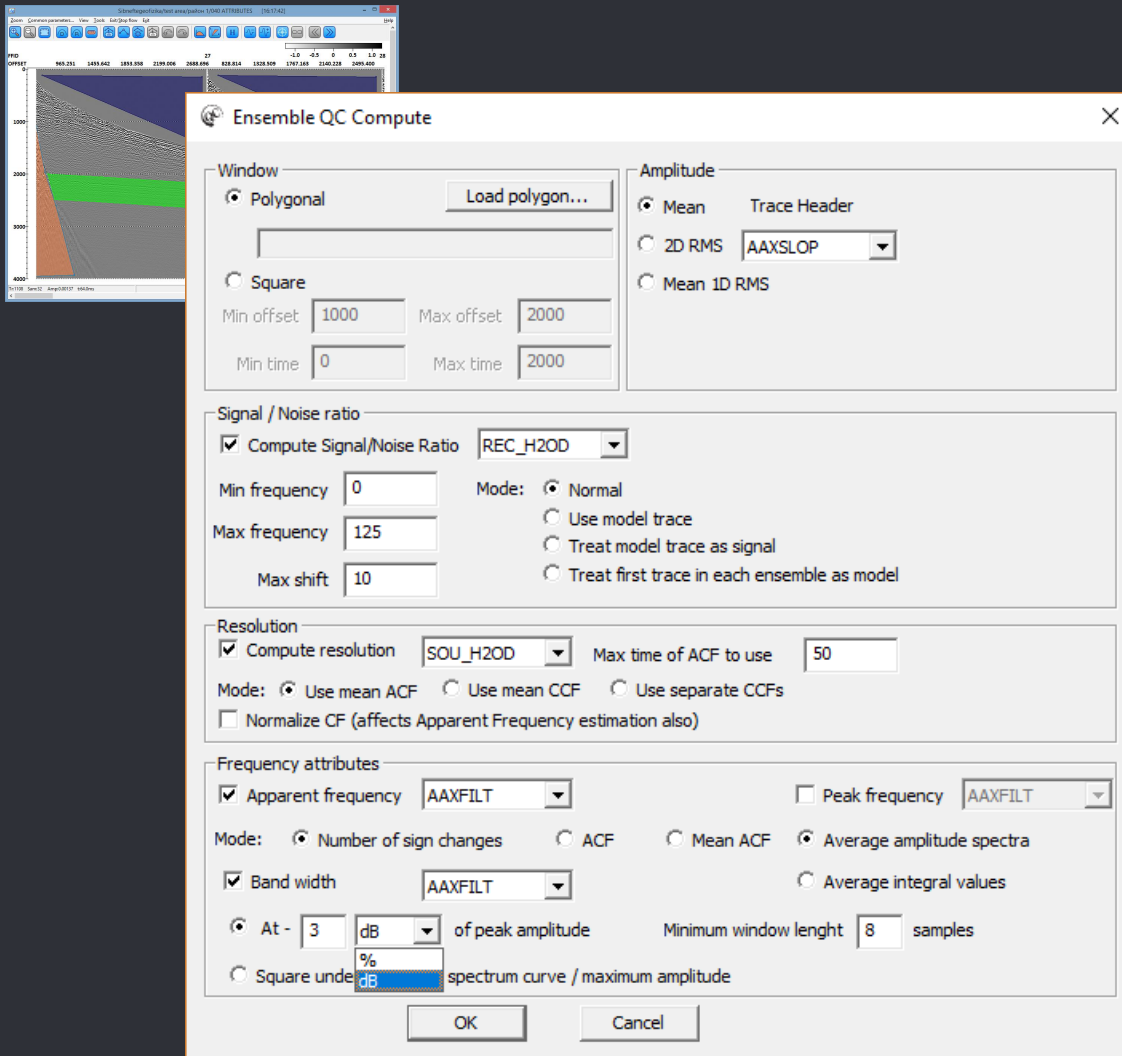
for QC and infield processing

# QC attribute calculation for seismic gathers



for QC and infield processing

## QC attribute calculation for seismic gathers

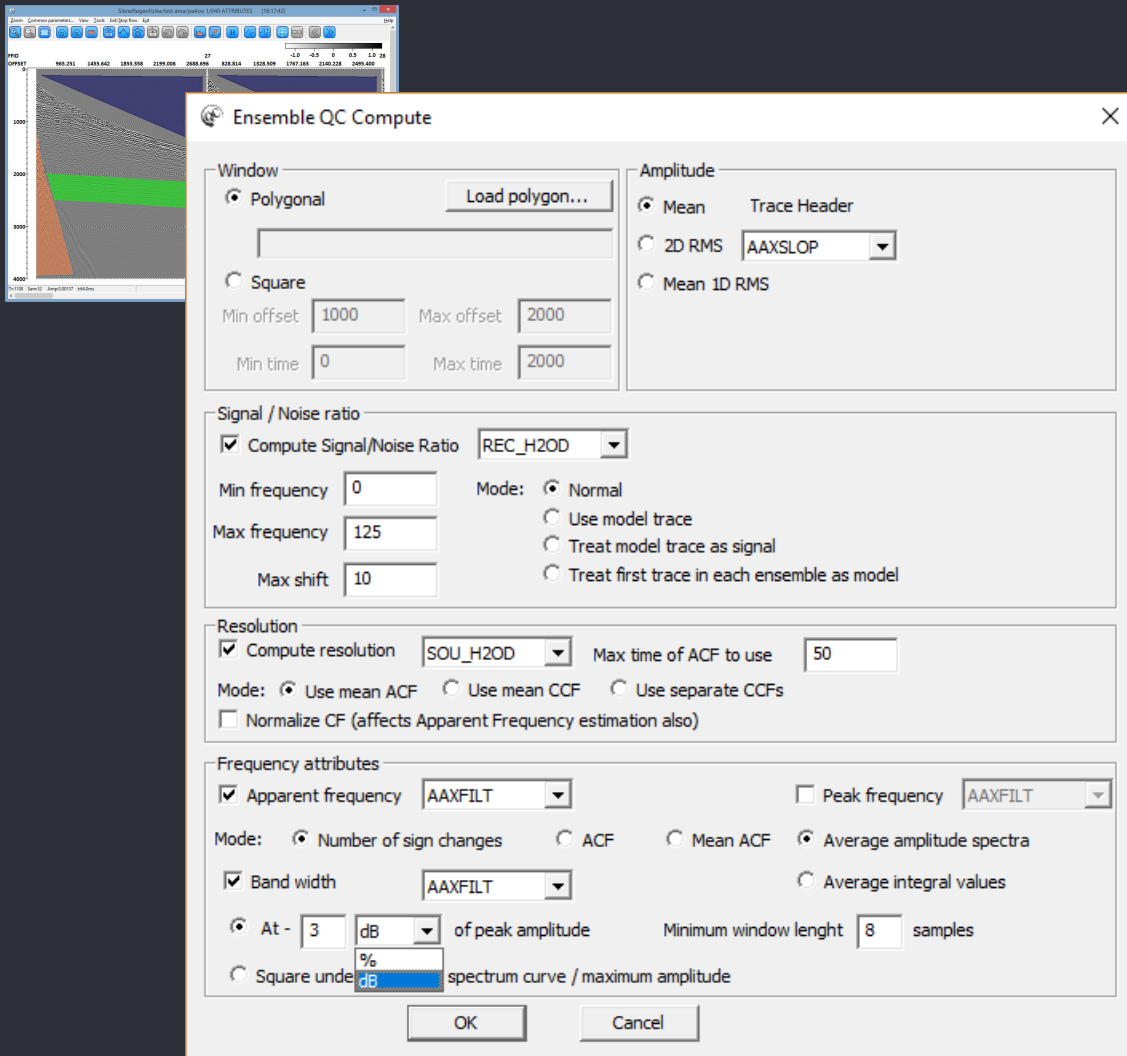


- Various amplitude and frequency attributes
- Correlational SNR within a specified frequency range

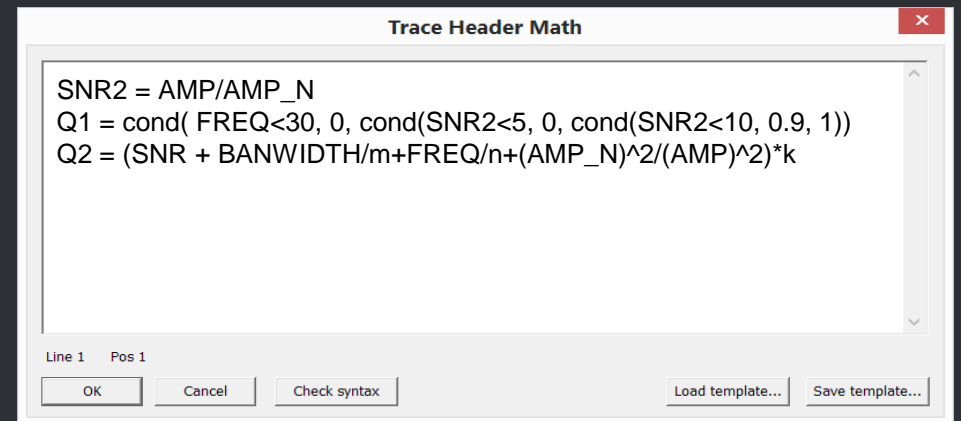


for QC and infield processing

# QC attribute calculation for seismic gathers

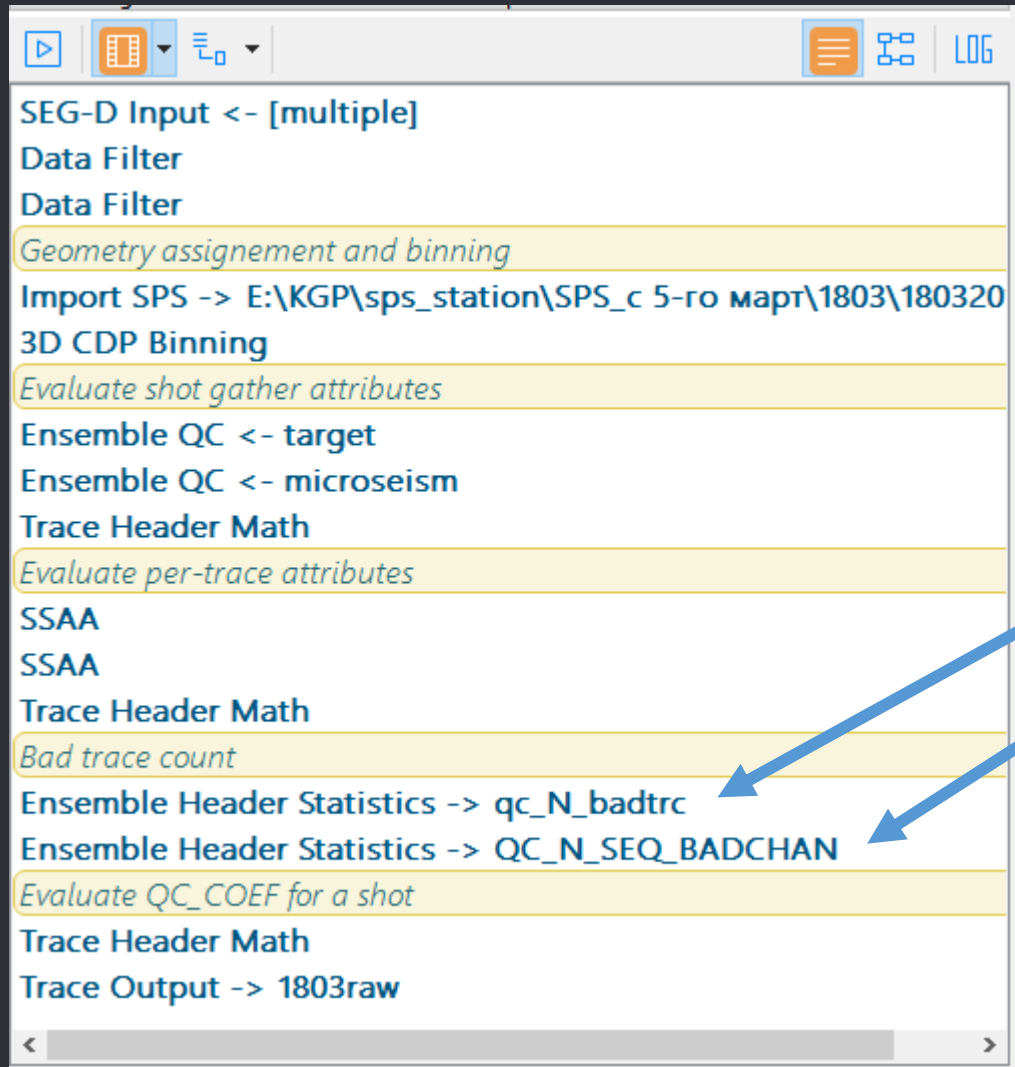


- Various amplitude and frequency attributes
- Correlational SNR within a specified frequency range
- Calculate complex combined attributes using built-in formula editor



for QC and infield processing

## Combining gather and per-trace QC attributes



The screenshot shows a software interface with a workflow list. The workflow steps are:

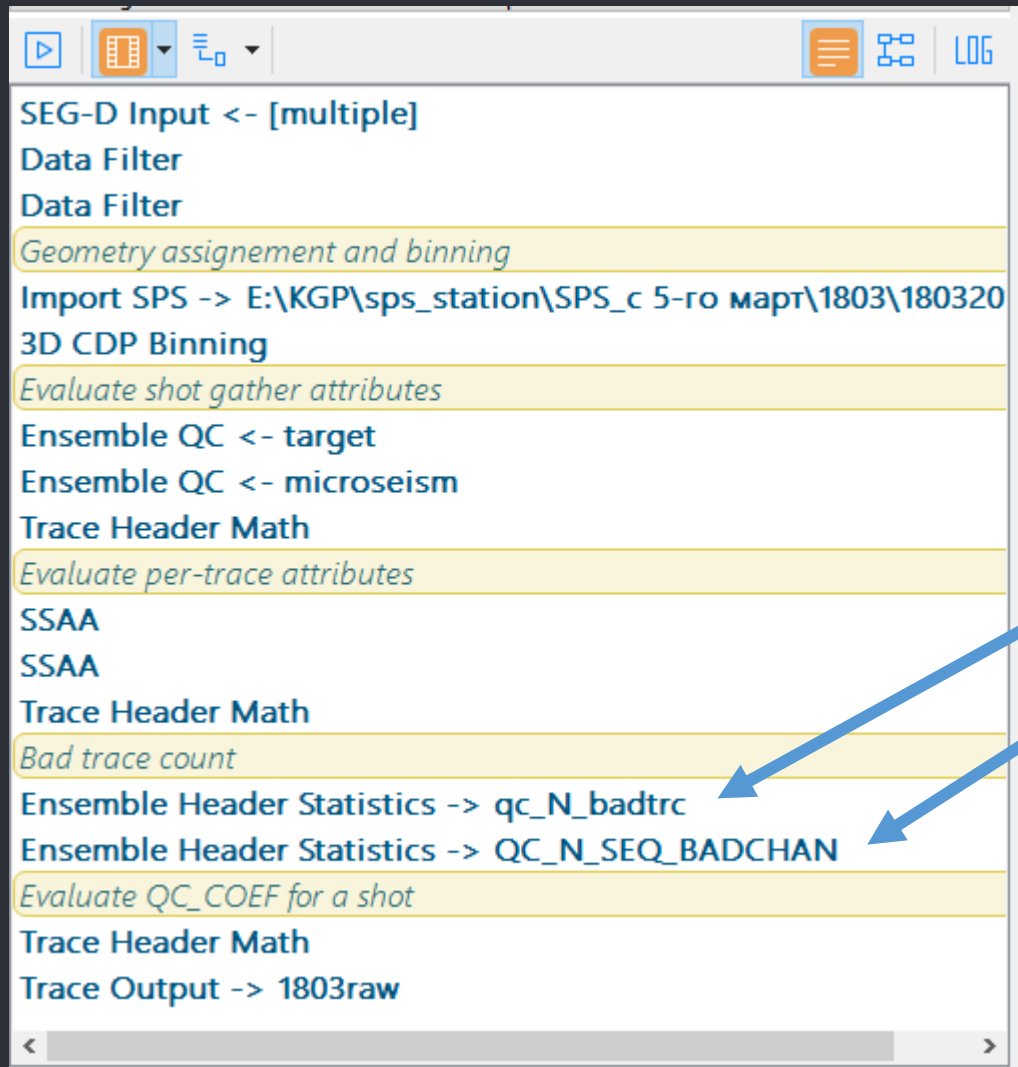
- SEG-D Input <- [multiple]
- Data Filter
- Data Filter
- Geometry assignement and binning*
- Import SPS -> E:\KGP\sps\_station\SPS\_c 5-ro mapr\1803\180320
- 3D CDP Binning
- Evaluate shot gather attributes*
- Ensemble QC <- target
- Ensemble QC <- microseism
- Trace Header Math
- Evaluate per-trace attributes*
- SSAA
- SSAA
- Trace Header Math
- Bad trace count*
- Ensemble Header Statistics -> qc\_N\_badtrc
- Ensemble Header Statistics -> QC\_N\_SEQ\_BADCHAN
- Evaluate QC\_COEF for a shot*
- Trace Header Math
- Trace Output -> 1803raw

Total number of bad traces per shot

Number of sequential dead channels per shot

for QC and infield processing

## Combining gather and per-trace QC attributes



The screenshot shows a software interface with a list of processing steps. The steps are: SEG-D Input <- [multiple], Data Filter, Data Filter, Geometry assignement and binning, Import SPS -> E:\KGP\sps\_station\SPS\_c 5-ro mapr\1803\180320, 3D CDP Binning, Evaluate shot gather attributes, Ensemble QC <- target, Ensemble QC <- microseism, Trace Header Math, Evaluate per-trace attributes, SSAA, SSAA, Trace Header Math, Bad trace count, Ensemble Header Statistics -> qc\_N\_badtrc, Ensemble Header Statistics -> QC\_N\_SEQ\_BADCHAN, Evaluate QC\_COEF for a shot, Trace Header Math, and Trace Output -> 1803raw. Two blue arrows point from the text on the right to the 'Bad trace count' and 'Ensemble Header Statistics -> QC\_N\_SEQ\_BADCHAN' steps.

Total number of bad traces per shot

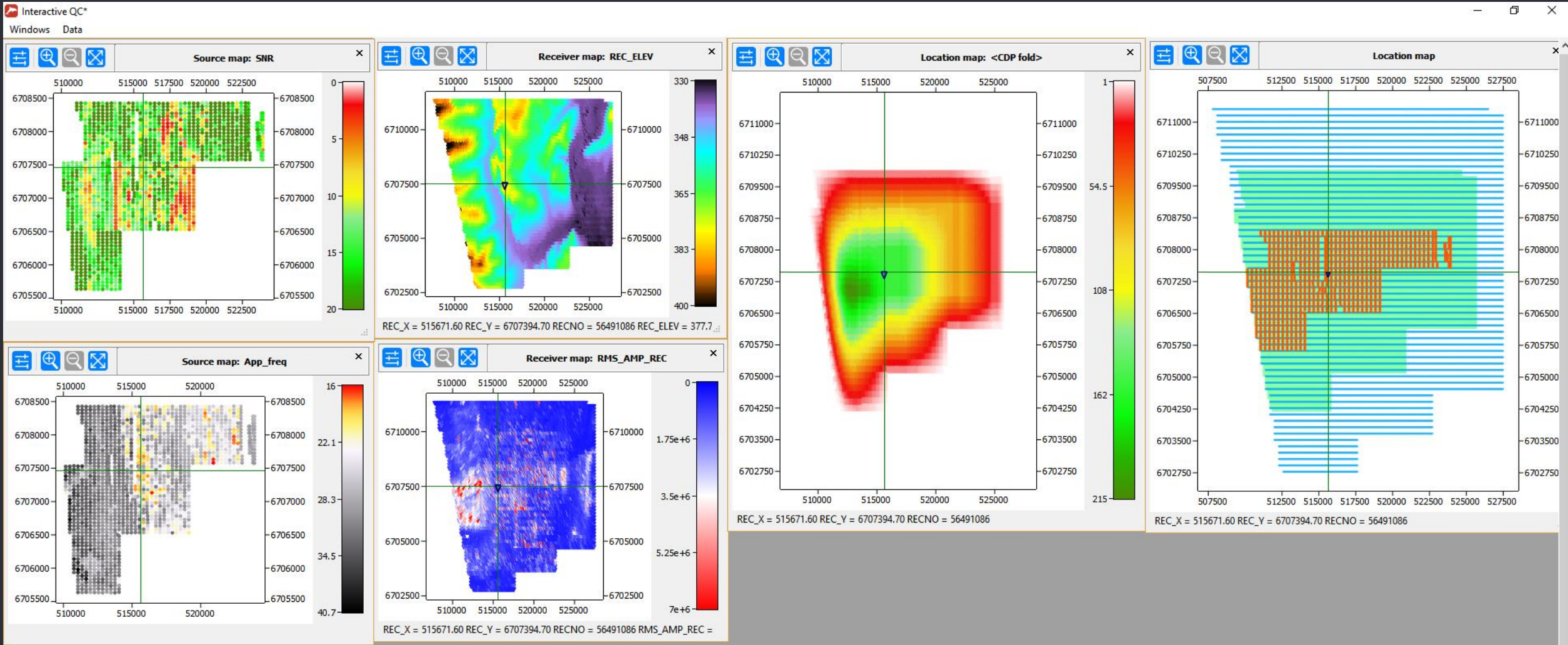
Number of sequential dead channels per shot

Trace Header Math

```
qc_coef = cond(qc_f<30, 0, cond(qc_snr<5, 0, cond(qc_snr<10, 0.9, 1)))  
qc_coef = cond(qc_N_badtrc>50, 0, qc_coef)  
qc_coef = cond(qc_N_seq_badchan>3, 0, qc_coef)
```

for QC and infield processing

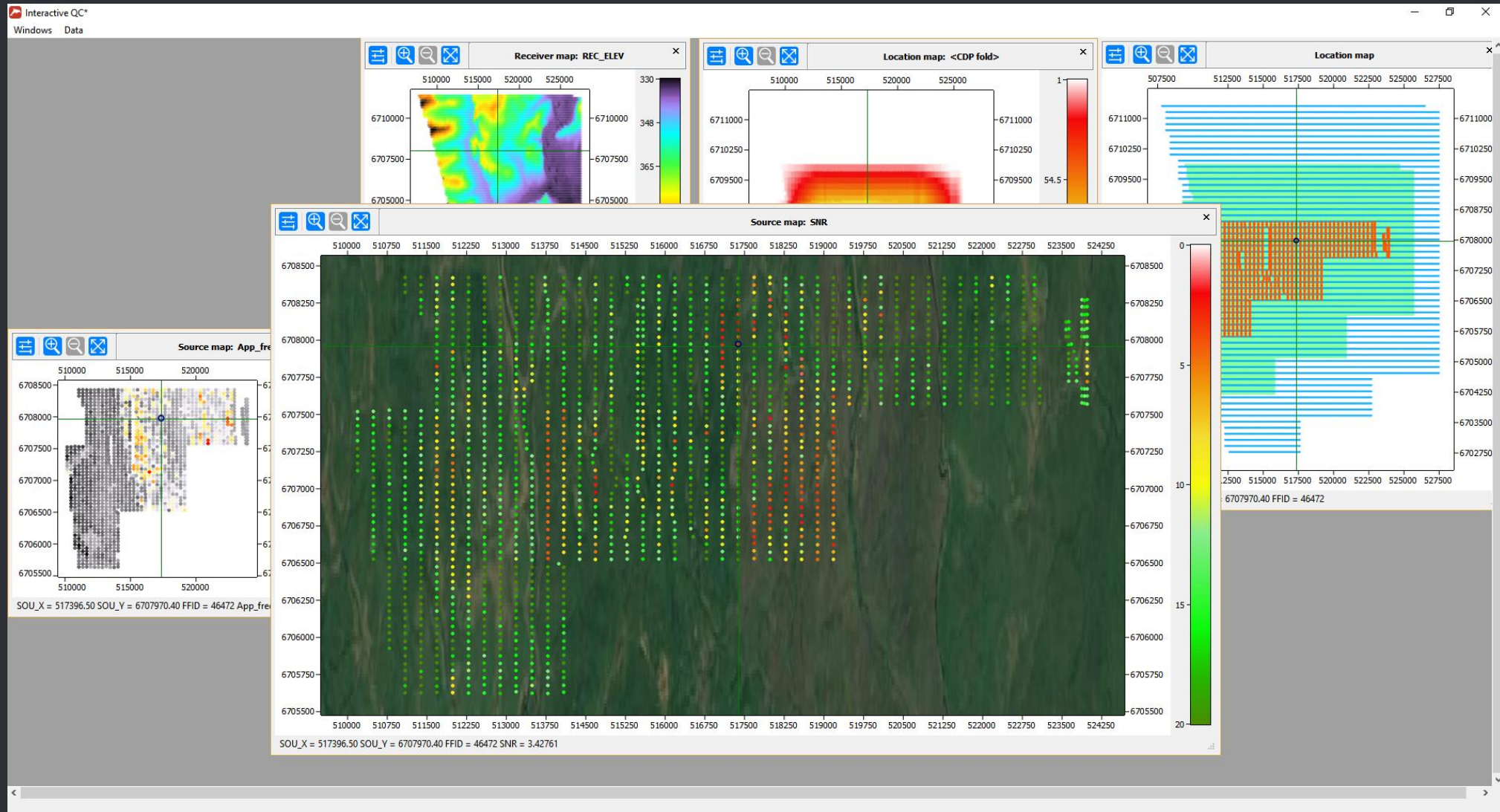
Interactive QC tool – fully synchronized SP/RP/SMP attribute maps,  
SMP fold map, location map





for QC and infield processing

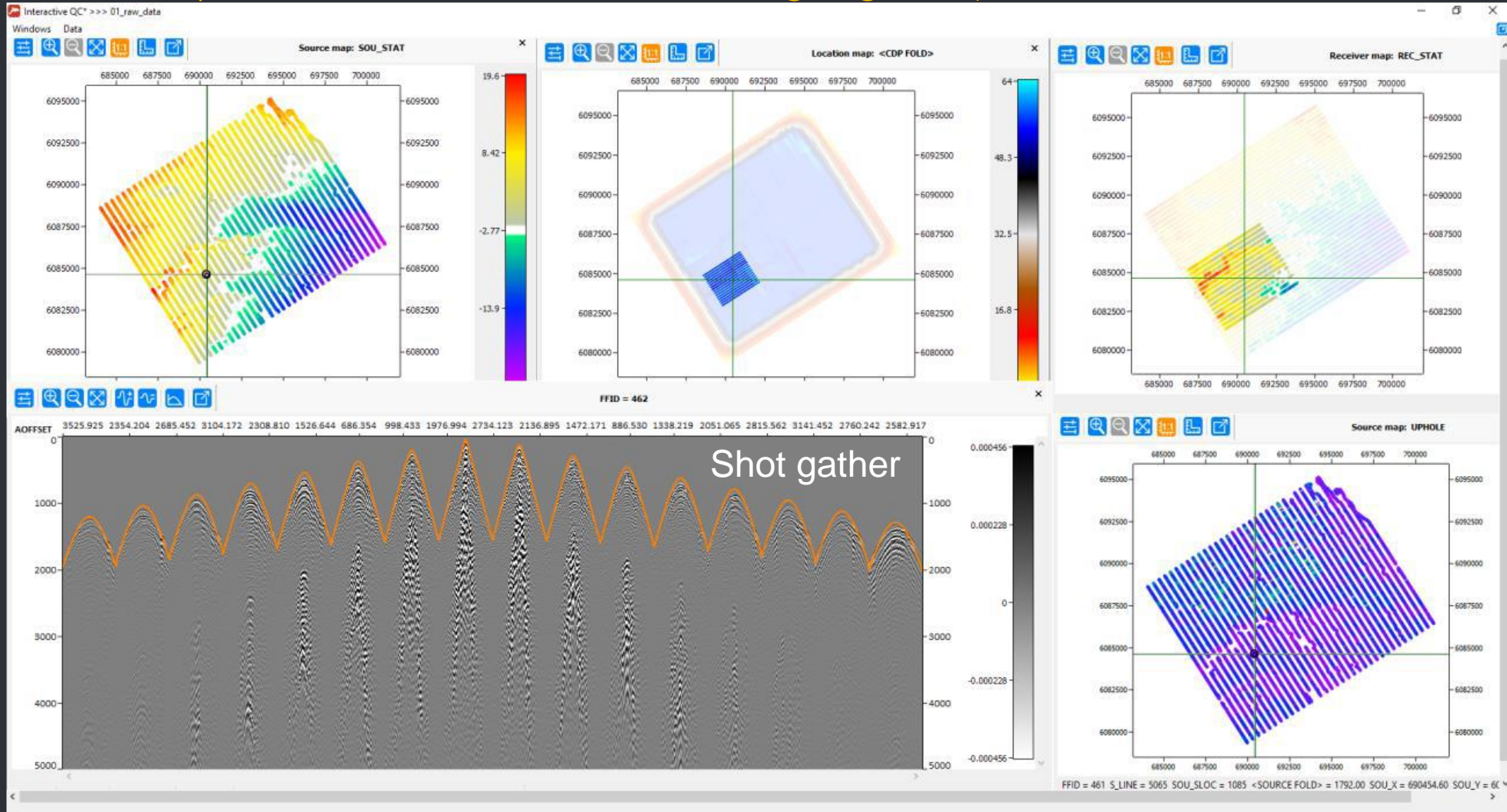
# Interactive QC tool – use bitmap background on any map





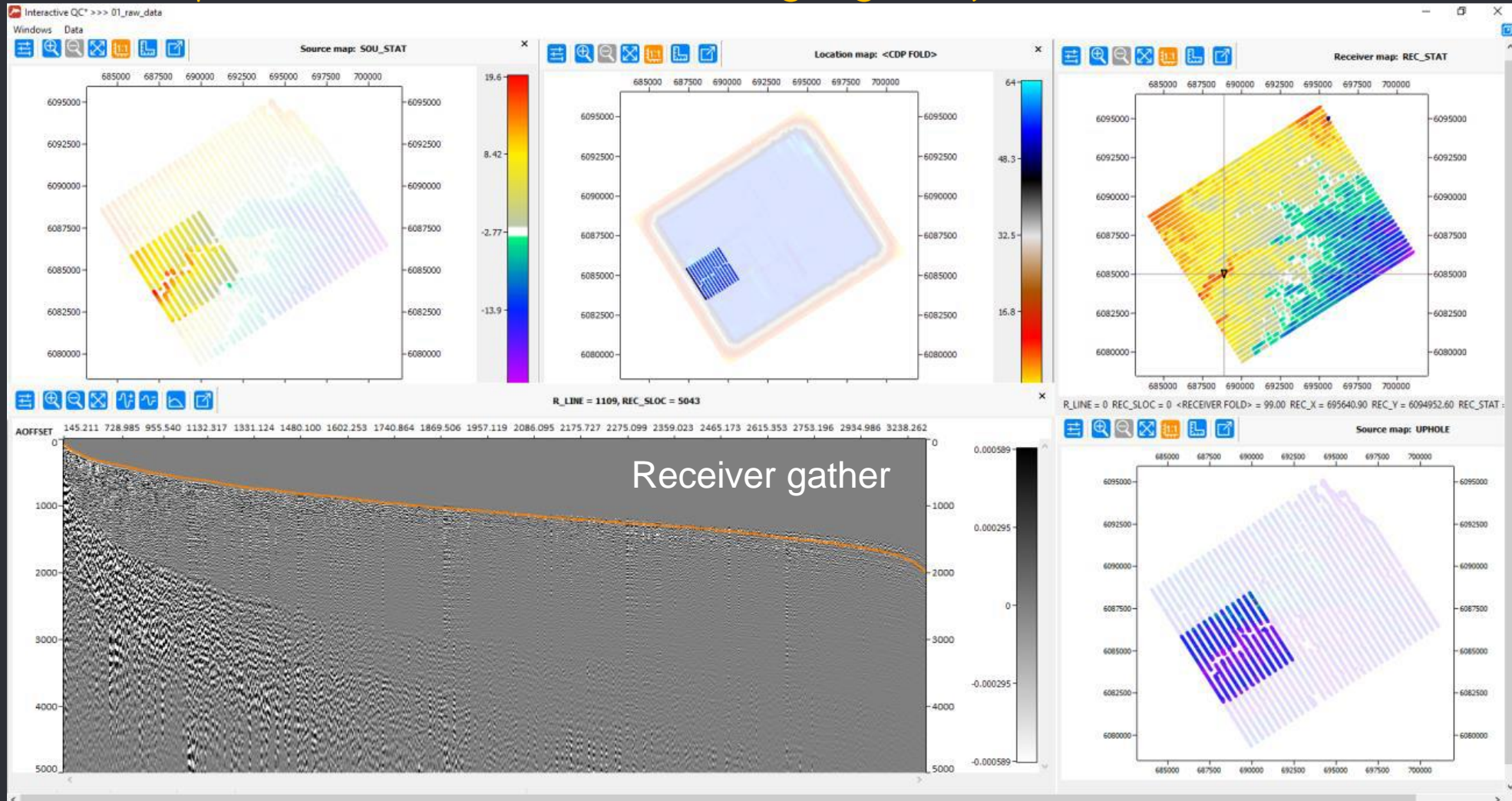
for QC and infield processing

Interactive QC tool – one click for seismic gather display  
(active template, SP, RP and CMP are highlighted)



for QC and infield processing

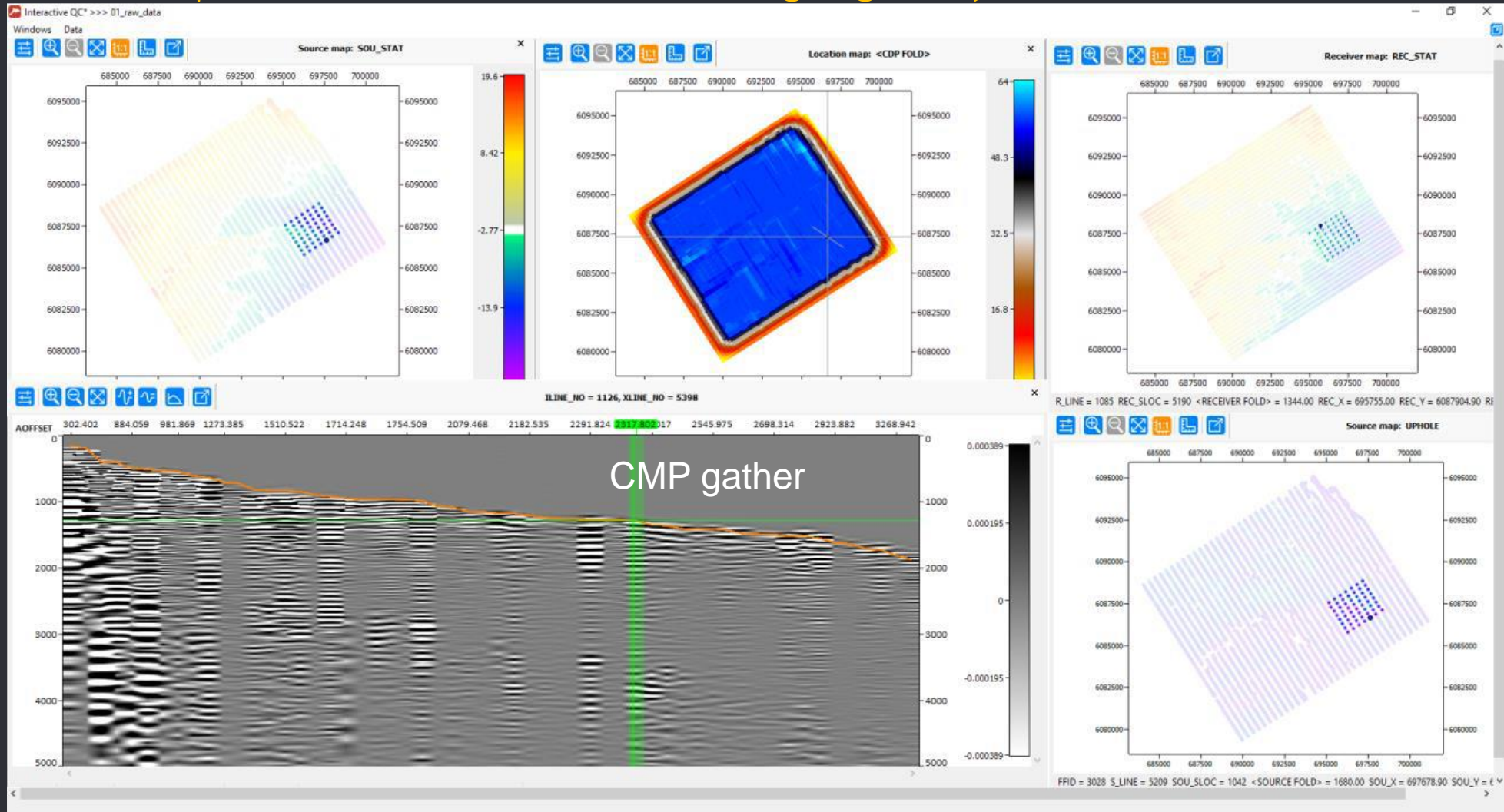
Interactive QC tool – one click for seismic gather display  
(active template, SP, RP and CMP are highlighted)





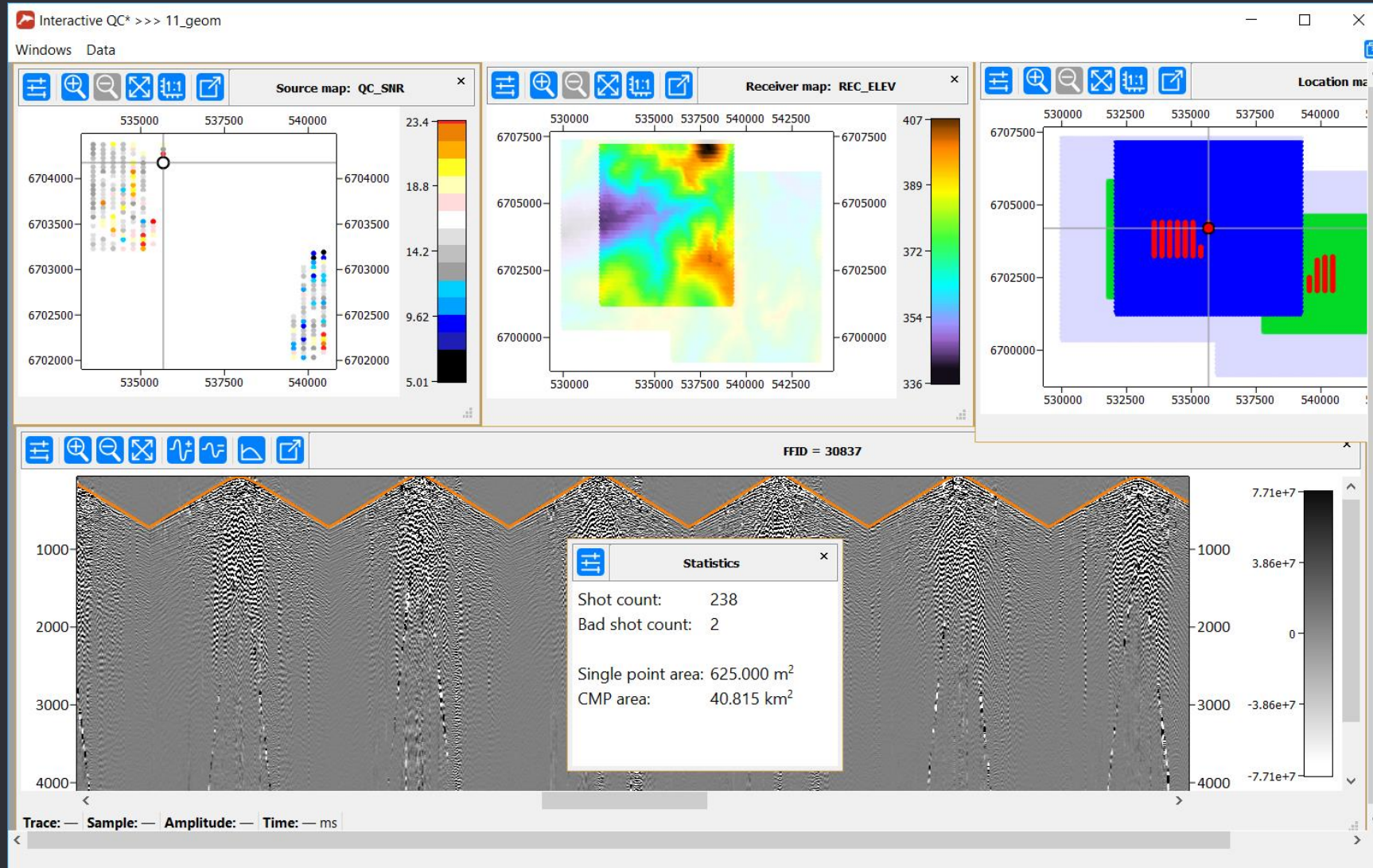
for QC and infield processing

Interactive QC tool – one click for seismic gather display  
(active template, SP, RP and CMP are highlighted)



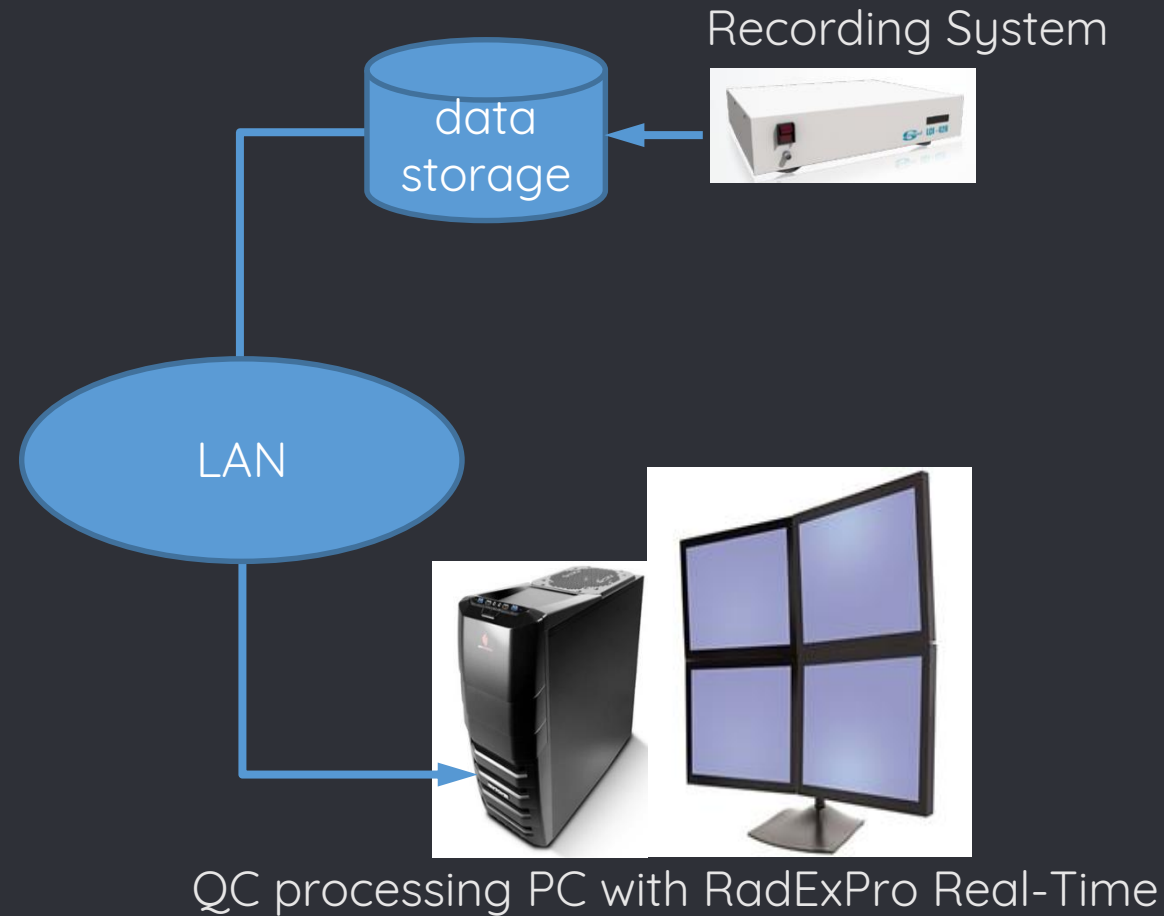
for QC and infield processing

# Statistics



for QC and infield processing

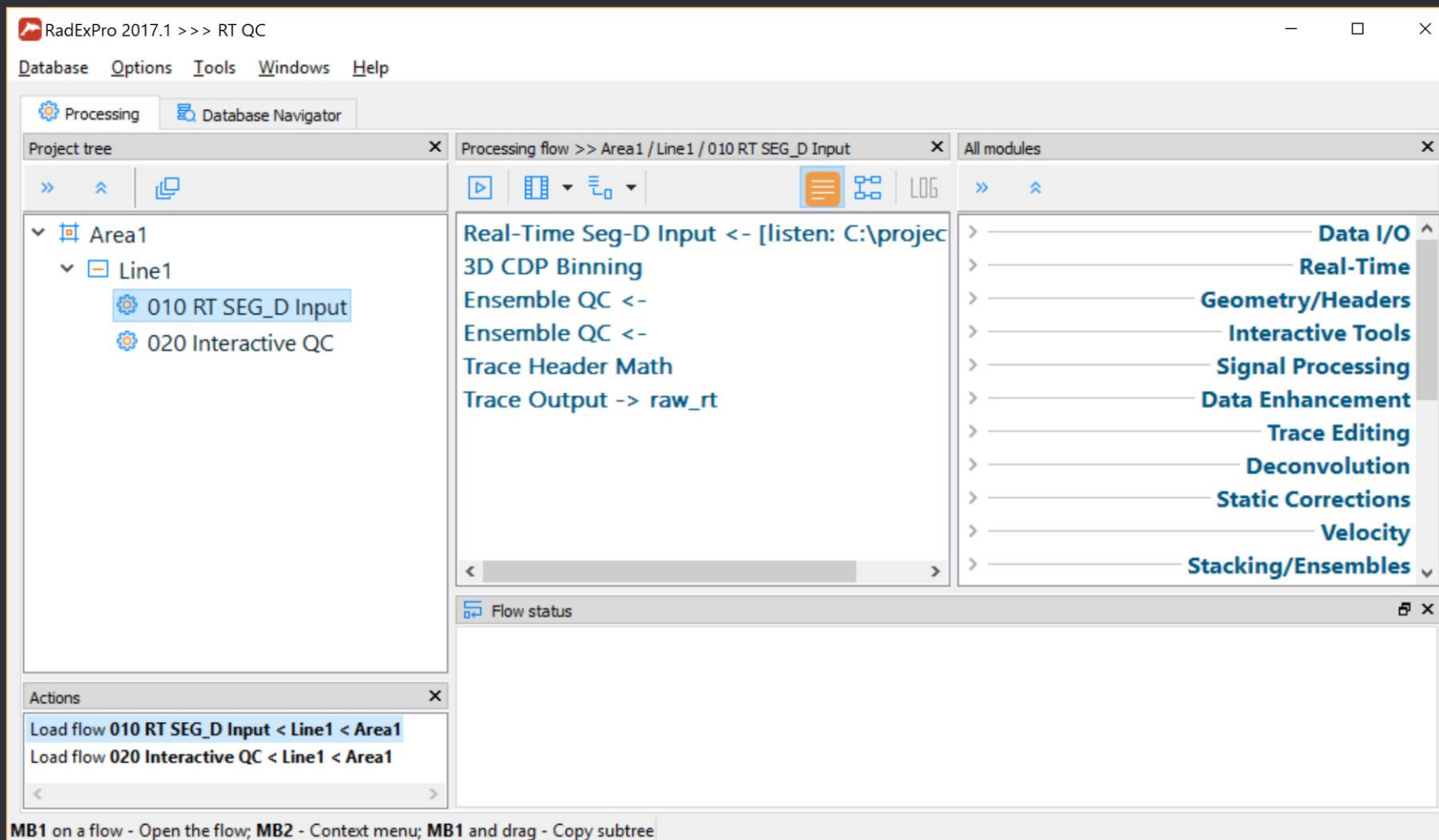
Real-Time QC of land data – data input as soon as it is acquired





for QC and infield processing

Real-Time QC of land data – data input as soon as it is acquired



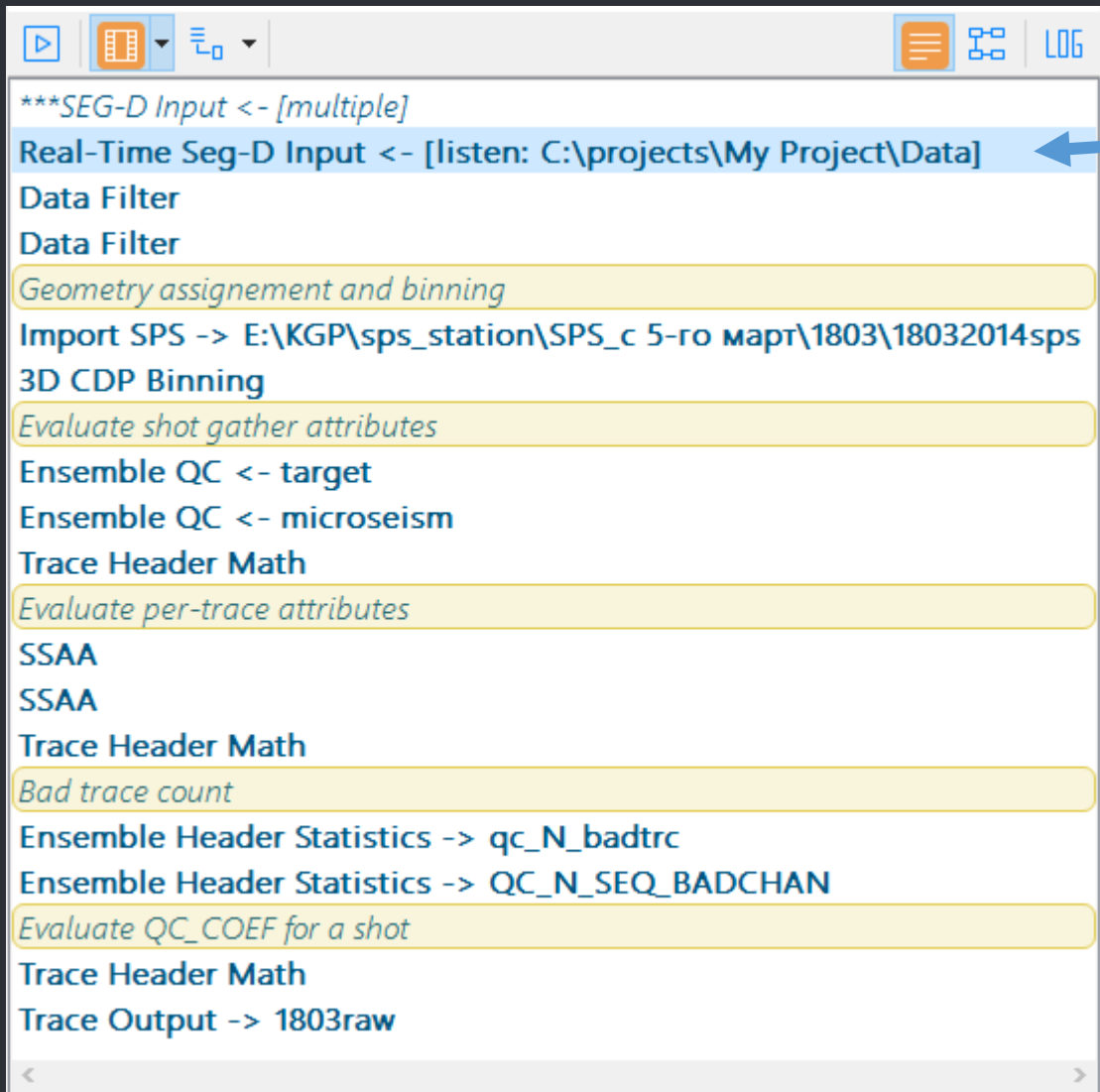
The screenshot shows the RadExPro 2017.1 RT QC interface. The window title is "RadExPro 2017.1 >>> RT QC". The menu bar includes "Database", "Options", "Tools", "Windows", and "Help". The interface is divided into several panes:

- Project tree:** Shows a hierarchical view of the project structure. Under "Area1", there is a sub-tree "Line1" containing two items: "010 RT SEG\_D Input" (highlighted) and "020 Interactive QC".
- Processing flow >> Area1 / Line1 / 010 RT SEG\_D Input:** Displays the processing steps for the selected flow. The steps are: "Real-Time Seg-D Input <- [listen: C:\projec", "3D CDP Binning", "Ensemble QC <-", "Ensemble QC <-", "Trace Header Math", and "Trace Output -> raw\_rt".
- All modules:** A list of available modules, including "Data I/O", "Real-Time", "Geometry/Headers", "Interactive Tools", "Signal Processing", "Data Enhancement", "Trace Editing", "Deconvolution", "Static Corrections", "Velocity", and "Stacking/Ensembles".
- Flow status:** A pane for monitoring the status of the processing flow.
- Actions:** A pane at the bottom left showing actions like "Load flow 010 RT SEG\_D Input < Line1 < Area1" and "Load flow 020 Interactive QC < Line1 < Area1".

At the bottom of the window, there is a status bar with the text: "MB1 on a flow - Open the flow; MB2 - Context menu; MB1 and drag - Copy subtree".

for QC and infield processing

## Real-Time QC of land data – data input as soon as it is acquired



The screenshot shows the RadExPro software interface with a workflow list on the left. The workflow steps are:

- \*\*\*SEG-D Input <- [multiple]
- Real-Time Seg-D Input <- [listen: C:\projects\My Project\Data]
- Data Filter
- Data Filter
- Geometry assignement and binning
- Import SPS -> E:\KGP\sps\_station\SPS\_c 5-ro mapr\1803\18032014sps
- 3D CDP Binning
- Evaluate shot gather attributes
- Ensemble QC <- target
- Ensemble QC <- microseism
- Trace Header Math
- Evaluate per-trace attributes
- SSAA
- SSAA
- Trace Header Math
- Bad trace count
- Ensemble Header Statistics -> qc\_N\_badtrc
- Ensemble Header Statistics -> QC\_N\_SEQ\_BADCHAN
- Evaluate QC\_COEF for a shot
- Trace Header Math
- Trace Output -> 1803raw

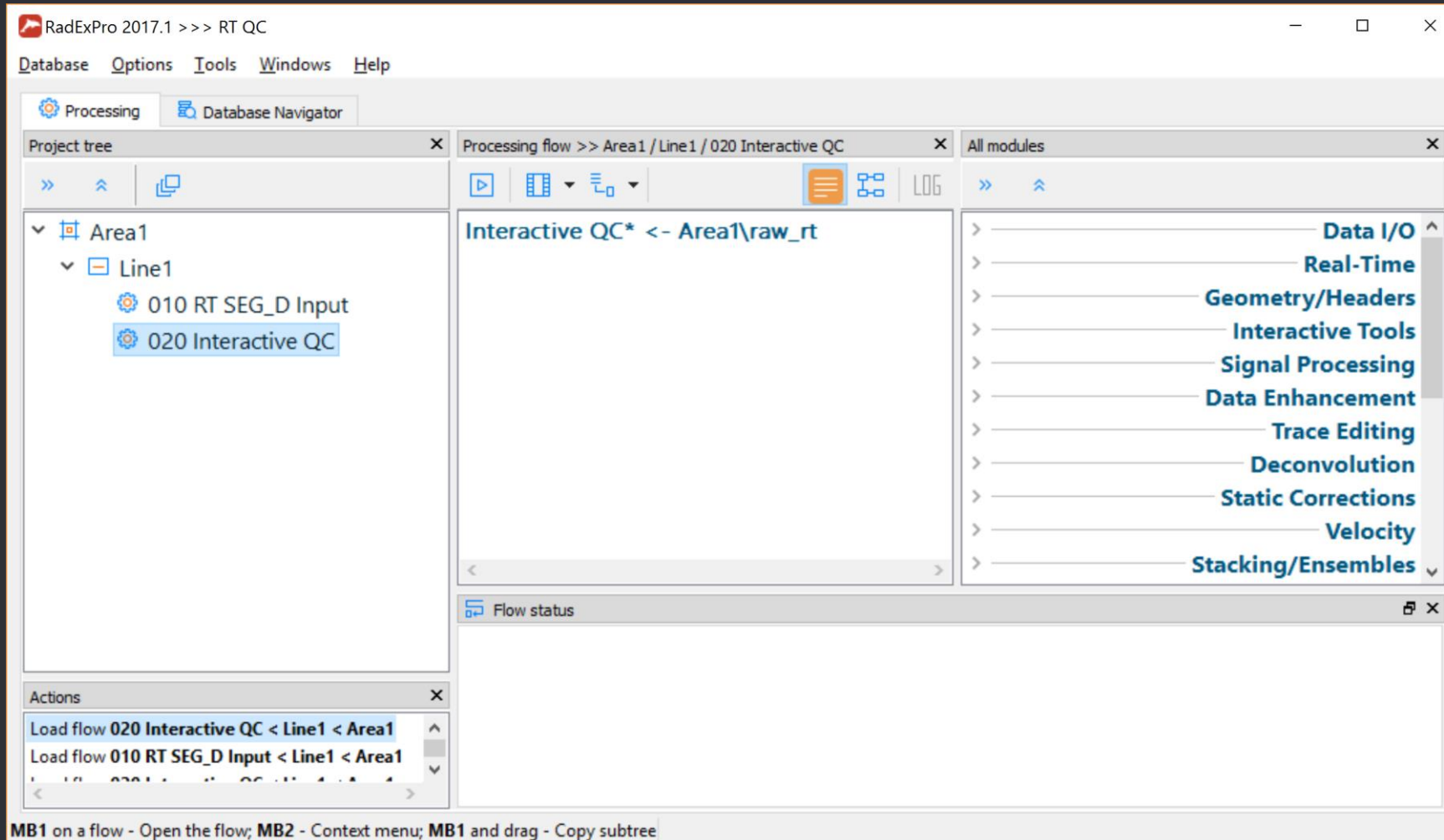
Real-Time SEG-D Input

Trace Header Math

```
qc_coef = cond(qc_f<30, 0, cond(qc_snr<5, 0, cond(qc_snr<10, 0.9, 1)))  
qc_coef = cond(qc_N_badtrc>50, 0, qc_coef)  
qc_coef = cond(qc_N_seq_badchan>3, 0, qc_coef)
```

for QC and infield processing

## Real-Time QC of land data – interactive QC flow



The screenshot displays the RadExPro 2017.1 RT QC interface. The window title is "RadExPro 2017.1 >>> RT QC". The menu bar includes "Database", "Options", "Tools", "Windows", and "Help". The interface is divided into several panels:

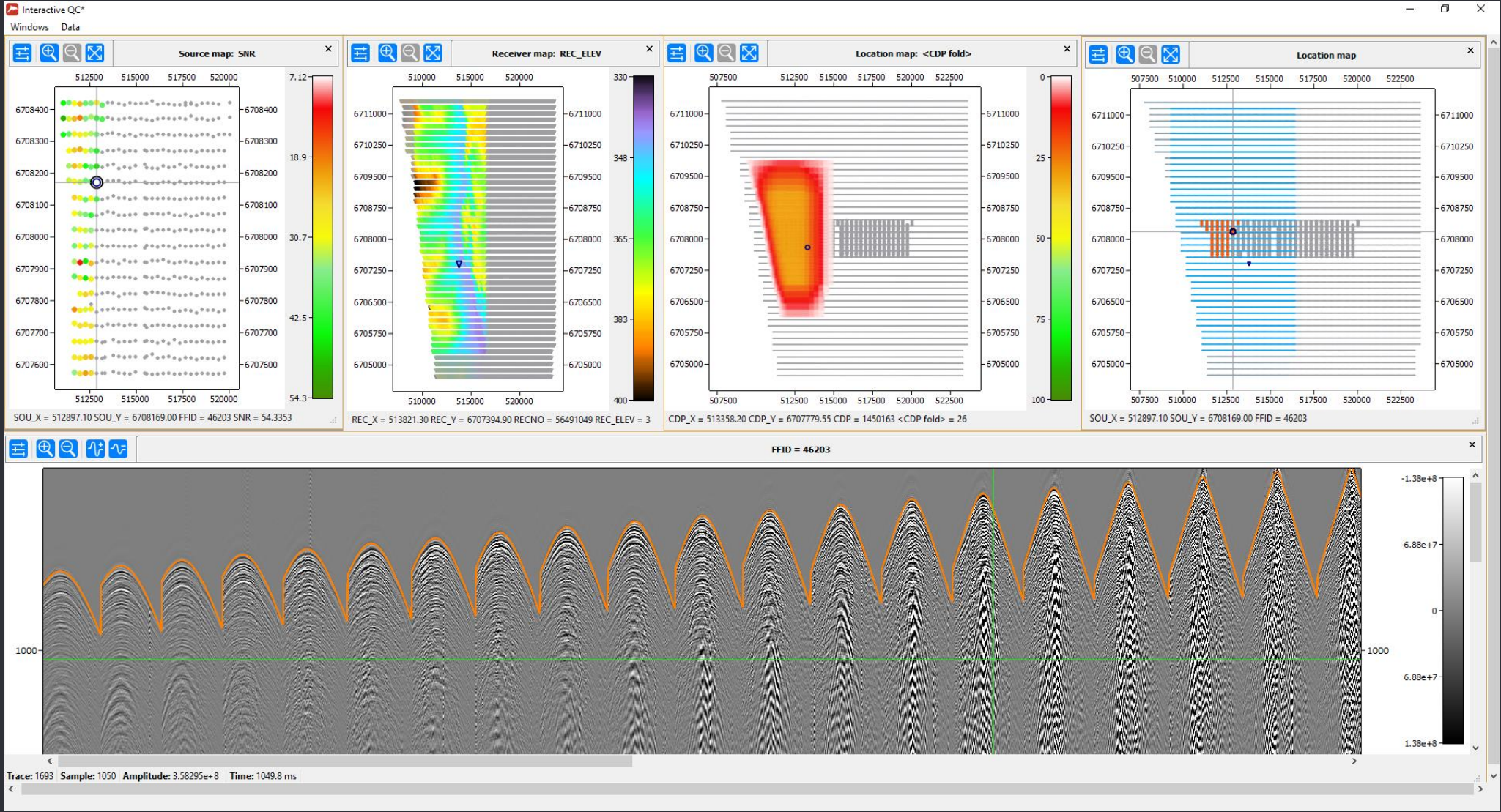
- Processing** and **Database Navigator** tabs are visible at the top.
- Project tree**: Shows a hierarchical view of the project structure:
  - Area1
    - Line1
      - 010 RT SEG\_D Input
      - 020 Interactive QC

- Processing flow >> Area1 / Line1 / 020 Interactive QC**: The main workspace displays the selected flow: "Interactive QC\* <- Area1\raw\_rt".
- All modules**: A list of processing modules is shown on the right, including:
- Data I/O
- Real-Time
- Geometry/Headers
- Interactive Tools
- Signal Processing
- Data Enhancement
- Trace Editing
- Deconvolution
- Static Corrections
- Velocity
- Stacking/Ensembles
- Flow status**: A panel at the bottom right for monitoring the flow's progress.
- Actions**: A panel at the bottom left showing available actions, such as "Load flow 020 Interactive QC < Line1 < Area1".

At the bottom of the window, a status bar provides instructions: "MB1 on a flow - Open the flow; MB2 - Context menu; MB1 and drag - Copy subtree".

for QC and infield processing

# Interactive Real-Time QC of land data



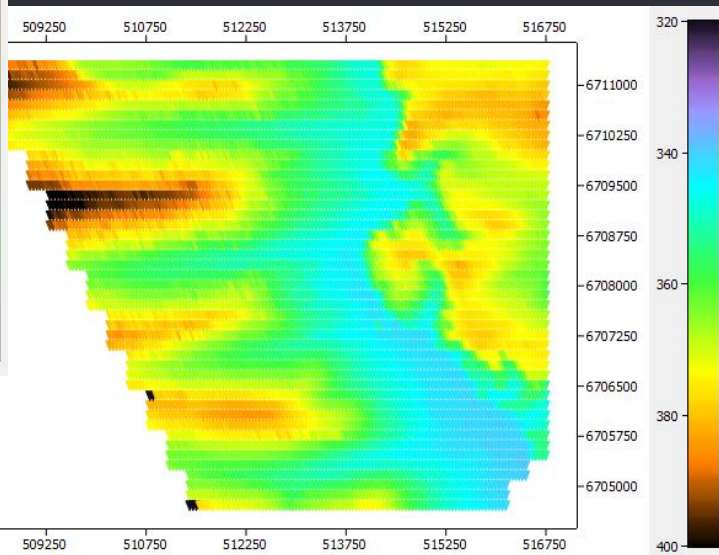
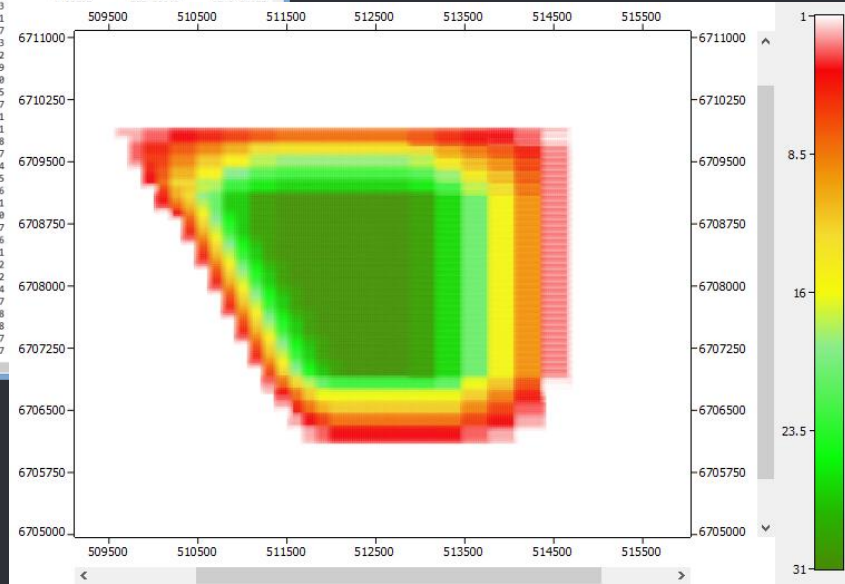


for QC and infield processing

# Deliverables: attributes and coordinates

FFID	AMP	AMP_N	FREQ	FREQ_N	SNR	SOU_X	SOU_Y
1	0.40780	0.00404	17.18436	11.40157	2.31017	-12.50000	2713.54541
2	0.45047	0.00295	16.19009	12.38495	2.42503	38.53920	2713.69238
3	0.44036	0.00525	15.01659	10.66598	2.58533	88.54920	2713.80005
4	0.28959	0.00412	15.41919	13.12504	2.22132	137.54919	2713.80232
5	0.40477	0.00364	16.54680	13.00957	1.56203	187.54919	2713.89478
6	0.32324	0.00363	16.29476	13.28199	1.70511	237.54919	2713.90479
7	0.46186	0.00738	13.71895	12.34985	1.42773	288.54919	2713.91389
9	0.55527	0.00373	14.74238	13.92968	1.05314	387.55942	2713.92603
10	0.84220	0.00342	15.36733	13.20636	2.23475	437.56940	2713.93115
11	0.76150	0.00393	14.98869	15.32059	2.10012	487.57941	2713.90332
12	0.56859	0.00350	14.54371	12.96010	1.54241	537.57941	2713.87891
13	0.55225	0.00353	13.72338	12.14073			
14	0.58447	0.00333	14.96383	15.10681			
15	0.54245	0.00456	15.42029	12.48737			
16	0.60316	0.00461	14.45383	14.02443			
17	0.77343	0.00477	12.95721	14.73612			
19	0.67094	0.00741	11.78627	15.67359			
20	0.66868	0.00926	11.84008	13.50540			
21	0.64874	0.01031	11.31537	17.56605			
22	0.54006	0.00712	11.52600	14.56207			
23	0.40283	0.00959	11.01851	14.46081			
24	0.60930	0.01046	15.49097	15.78631			
25	0.47919	0.01058	16.09502	17.82988			
26	0.57723	0.01284	15.43734	15.38037			
27	0.79876	0.01247	15.55790	14.89094			
28	0.66504	0.00927	15.58137	17.72635			
30	0.71848	0.01529	15.58392	15.97586			
31	0.50405	0.01688	14.95415	11.69521			
32	0.54298	0.00769	15.50439	18.02620			
33	0.43817	0.01059	15.82579	19.76657			
34	0.40370	0.01258	16.72662	17.70386			
35	0.46802	0.00826	18.70637	15.29631			
36	0.36120	0.01061	17.30173	15.71662			
37	0.23180	0.00809	19.60849	16.21322			
38	0.44917	0.01035	18.32579	13.27274			
39	0.53951	0.01172	15.82292	11.25987			
40	0.34360	0.00577	16.54863	13.33638			
41	0.26750	0.00426	17.00064	15.23038			
42	0.27155	0.00500	16.06999	14.55667			
43	0.44234	0.00806	16.08420	13.82697			

- Export to ASCII
- Save images







for QC and infield processing

## Infield Processing



for QC and infield processing

## Infield processing

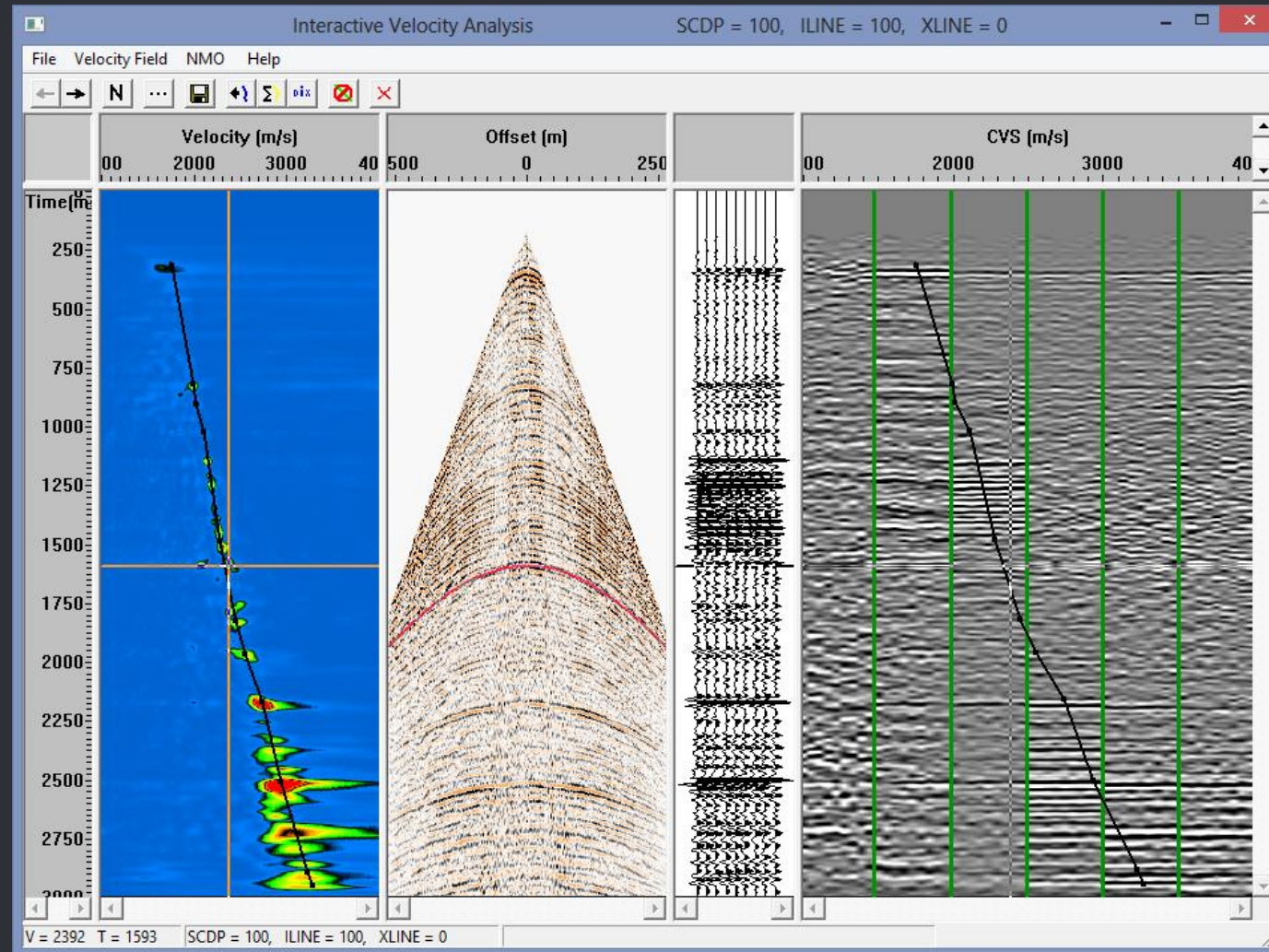
- Complete set of industry-standard algorithms
  - Vibroseis correlation, trace editing, band-pass and 2D filtering, ground-roll suppression, amplitude correction, deconvolutionms, interactive velocity analysis, statics, NMO-correction, regularization, stacking, pre-stack and post-stack migrations, etc.
- Handy data management tools
  - Processing in projects, data is stored together with processing parameters
  - Processing history is available for each dataset
- Efficiently handle data of any size
  - Framed mode of flow execution
  - Fast resorting of big data volumes
  - Parallelization

The screenshot displays the RadExPro 2016.3 software interface. The main window is titled "RadExPro 2016.3 >>> My Project\_0809". The interface is divided into several panes:

- Project tree:** A hierarchical view of the project structure. It shows "Area 2" containing "Line 5" and "My Area". "My Area" contains "Line 1" and "line 2". "Line 1" is expanded to show a list of processing steps: 010 - data load, 020 - geometry check, 020 - geometry check..., 020 - geometry check..., 021 - TFD noise rejec..., 025 qc attributes, 026 CP, 030 - preproc, 040 - velocity analysis, 050 - bstack (highlighted), 060 - HVA, 100 view stack, 99999, and Plotting. "line 2" contains steps 010 and 020 - geometry check.
- Processing flow >> My Area / Line 1 / 050 - ...:** A detailed view of the selected processing step. It shows a sequence of operations: Trace Input <- line 1 - preproc, NMO/NMI, Amplitude Correction, Ensemble Stack, and Screen Display. A status bar at the bottom indicates "\*\*\*Trace Output -> line 1 - stack2".
- All modules:** A list of available modules, including Data I/O, Geometry/Headers, Interactive Tools, Signal Processing, Data Enhancement, Trace Editing, Deconvolution, Static Corrections, Velocity, Stacking/Ensembles, Migration, VSP, QC, 3C Processing, Modeling, Data Manipulation, Auto Picking, Interpolation, Marine, Surface Wave Analysis, and Refraction.
- Actions:** A list of actions related to the selected step, such as "Load flow 050 - bstack < Line 1 < My Area", "Load flow 040 - velocity analysis < Line 1 < My Area", "Load flow 020 - geometry check - 2 < Line 1 < My Area", "Load flow 030 - preproc < Line 1 < My Area", "Load flow 040 - velocity analysis < Line 1 < My Area", "Load flow 050 - bstack < Line 1 < My Area", "Load flow 060 - HVA < Line 1 < My Area", "Load flow 021 - TFD noise rejection < Line 1 < My Area", and "Load flow 040 - velocity analysis < Line 1 < My Area".
- Flow status:** A window showing the execution status of the selected flow. It indicates that the flow "050 - bstack" started on 31 октября 2016 г. at 17:12:21. The status is "Completed" for all steps: Trace Input, NMO/NMI, Amplitude Correction, Ensemble Stack, and Screen Display. The flow finished at 17:12:24.

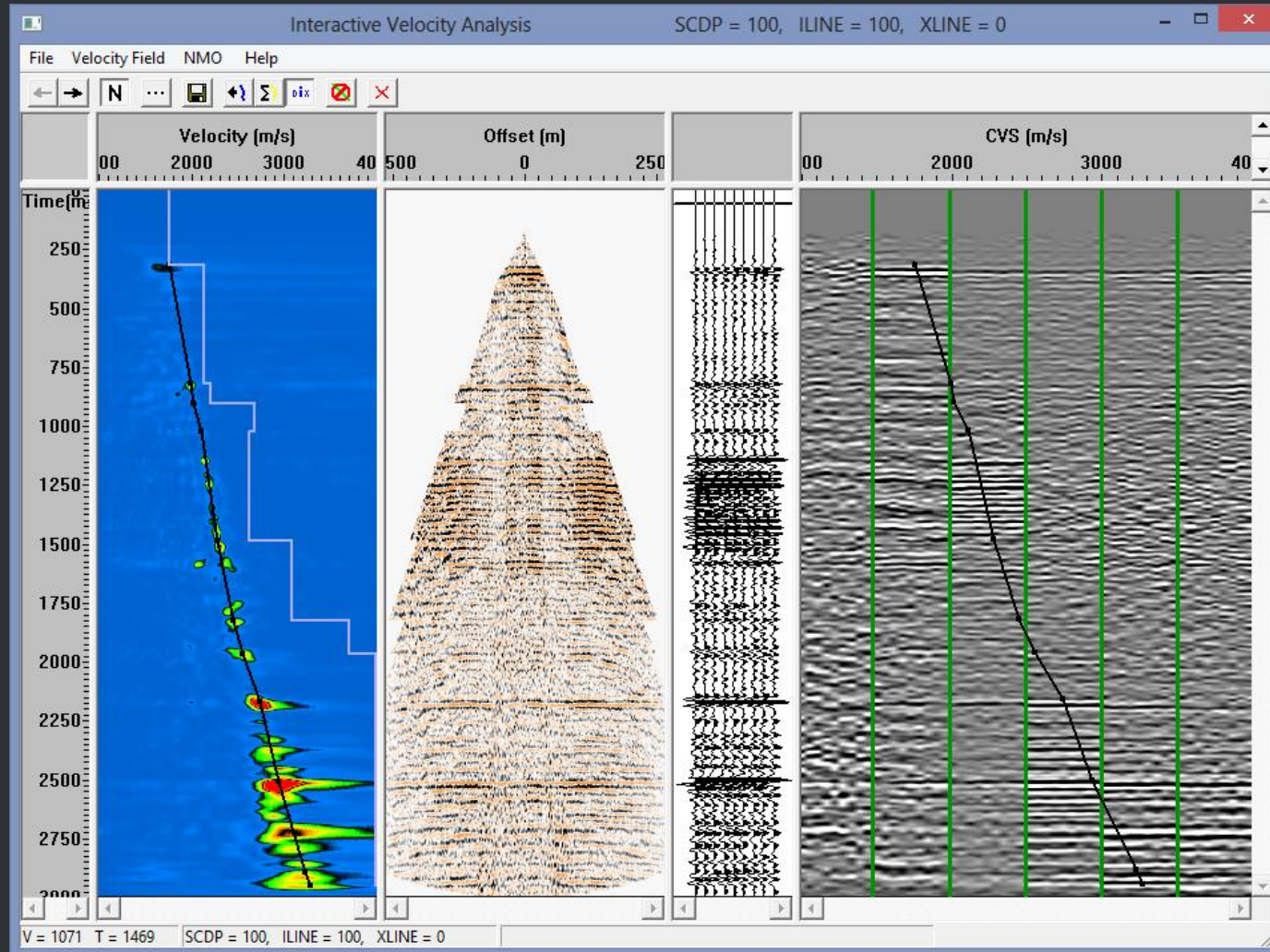
for QC and infield processing

## Interactive Velocity Analysis



for QC and infield processing

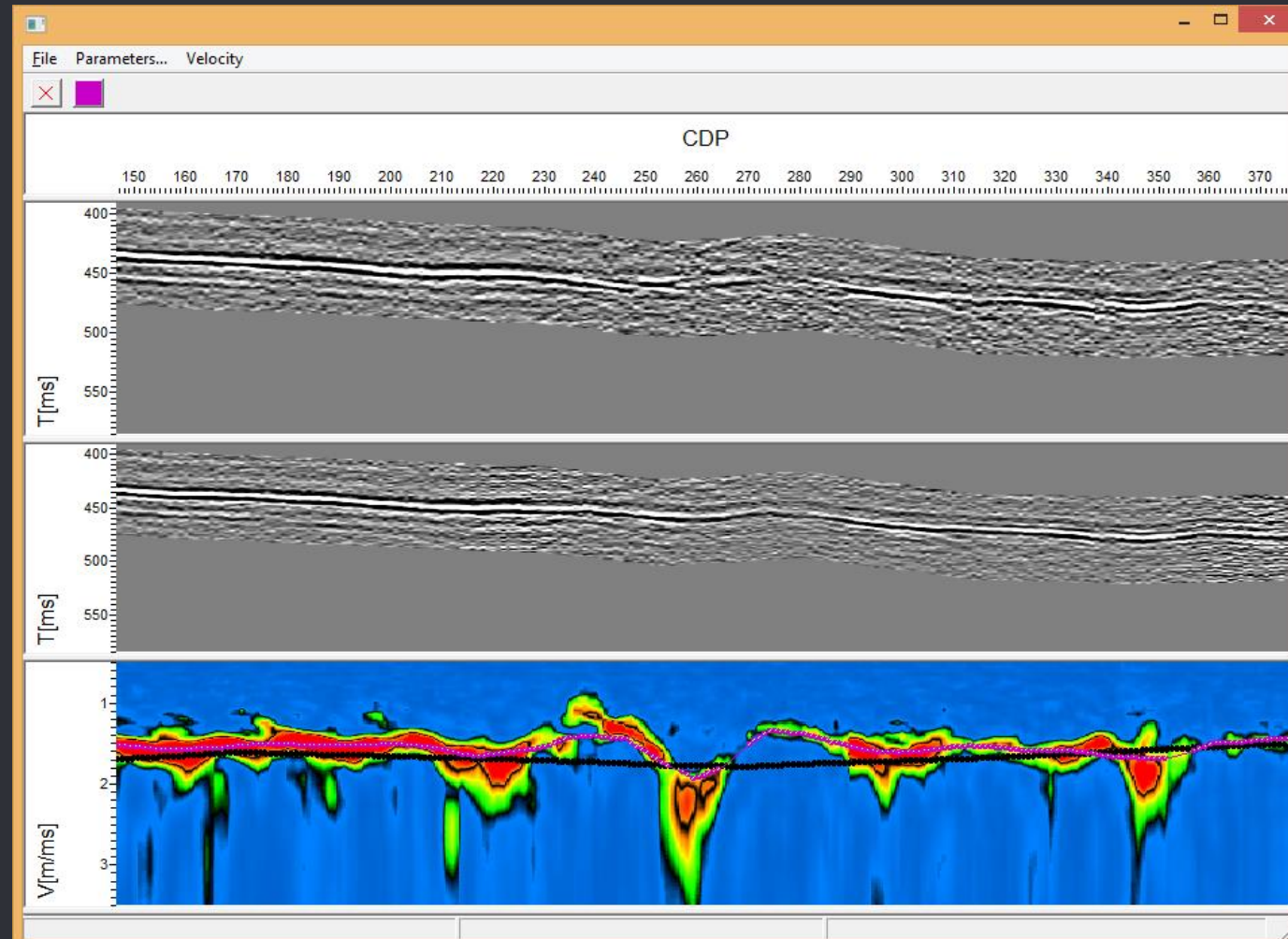
# Interactive Velocity Analysis





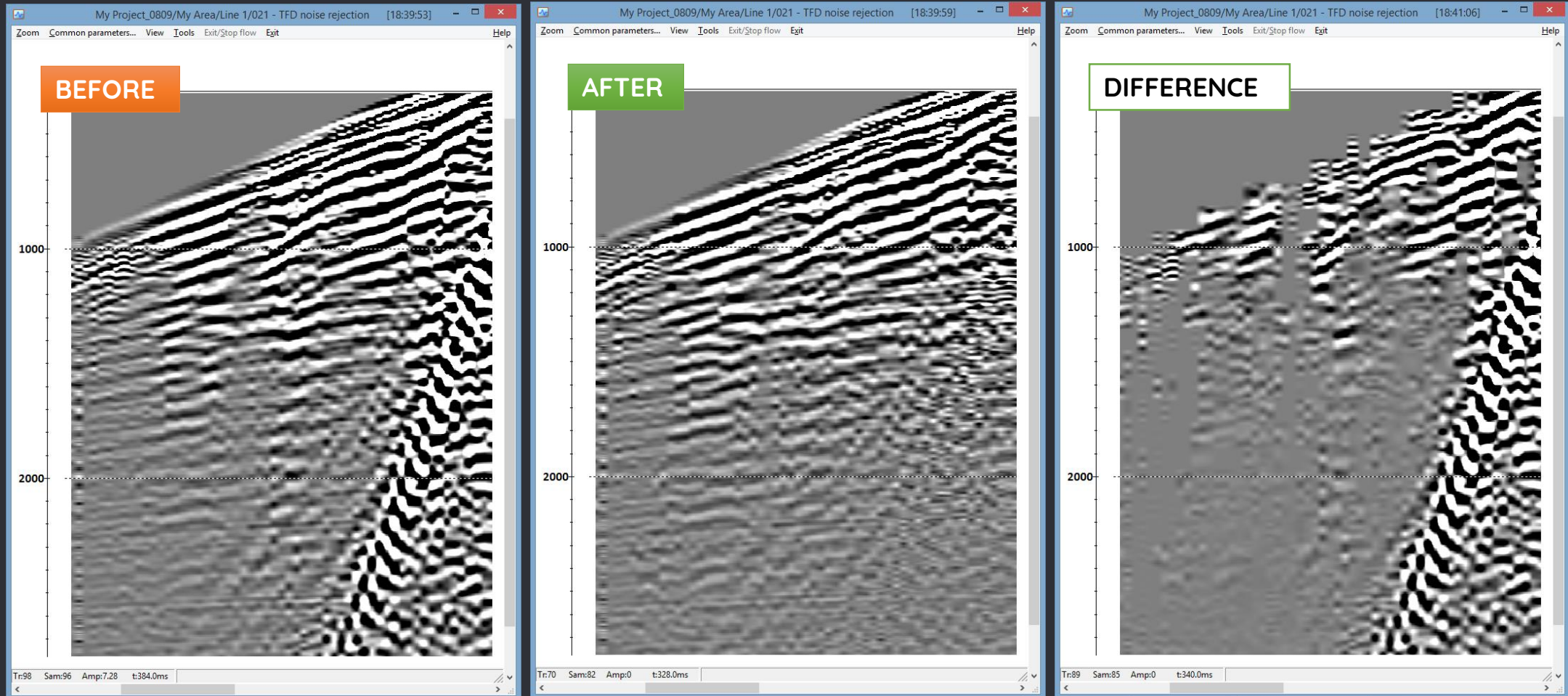
for QC and infield processing

## Horizontal Velocity Analysis



for QC and infield processing

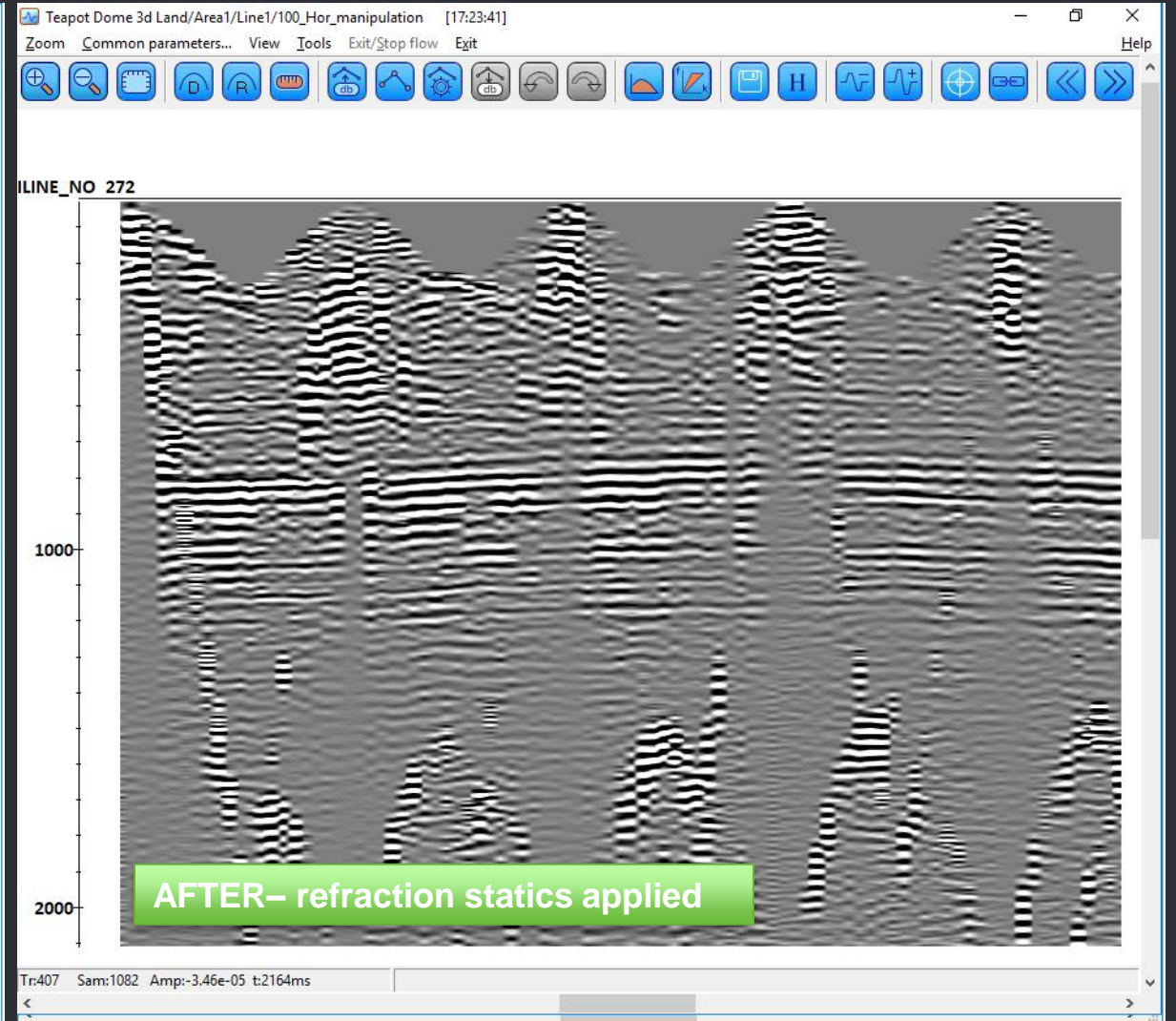
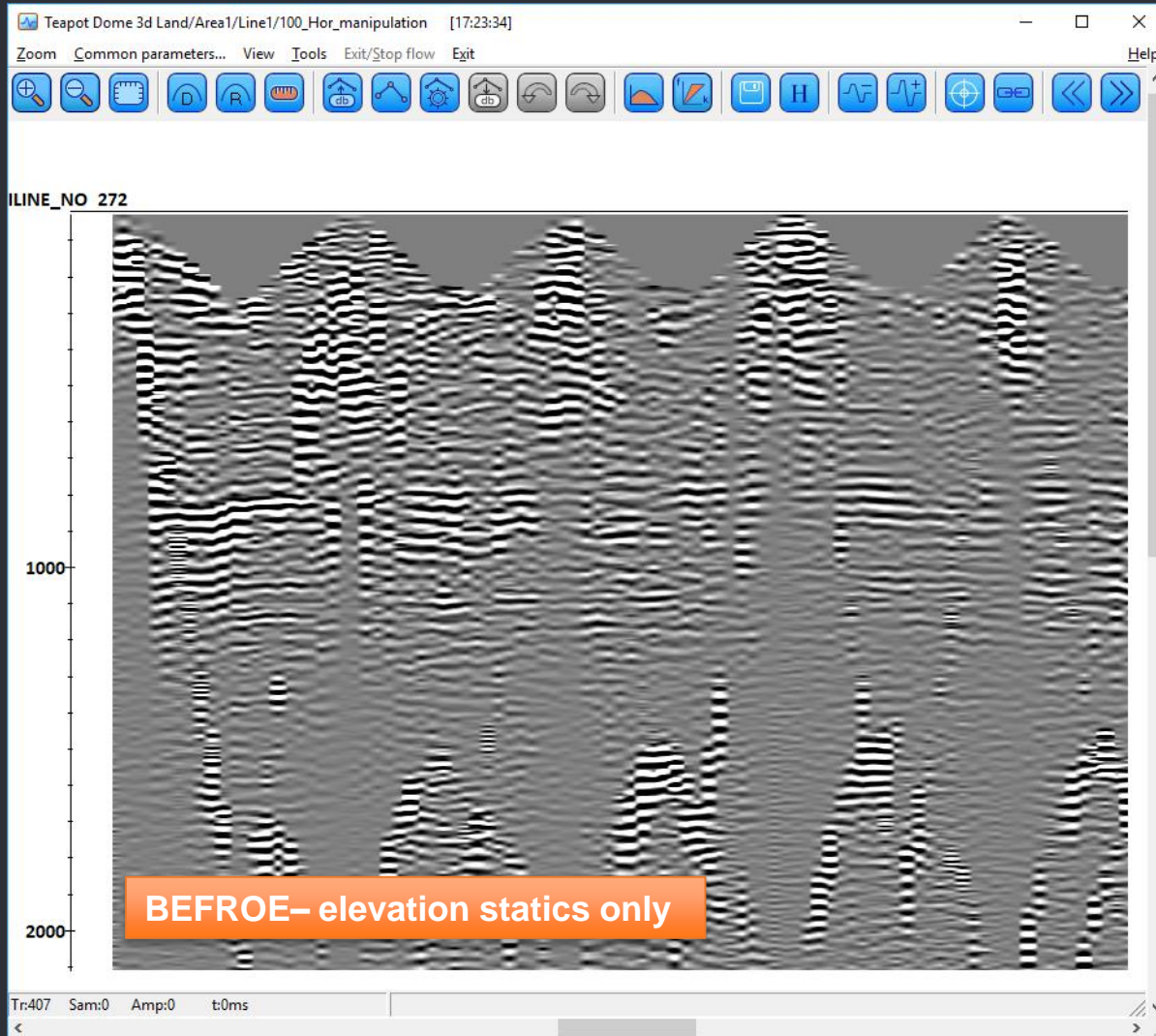
Automatically synchronized displays: before processing, after processing and the difference





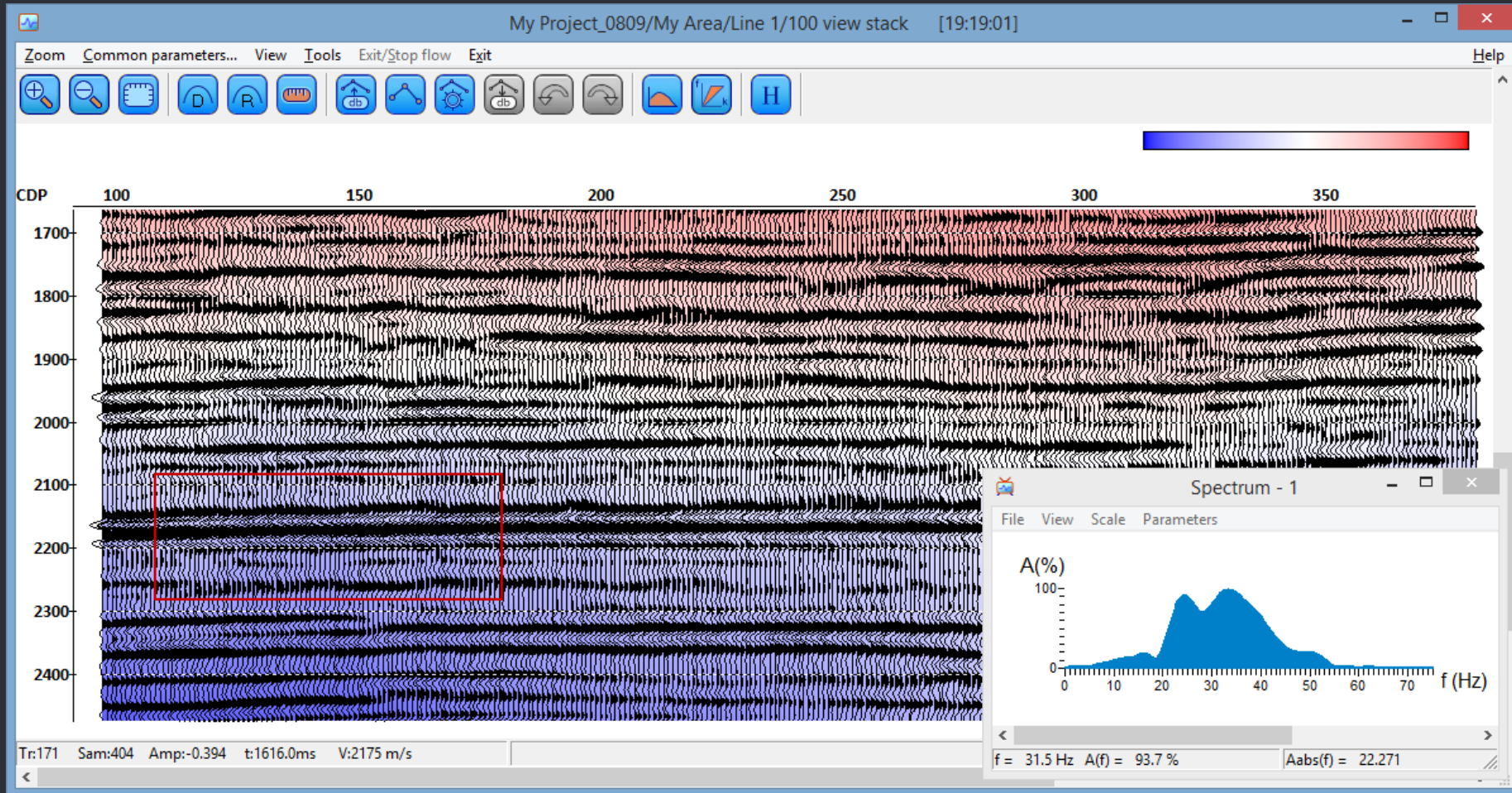
for QC and infield processing

## Refraction statics



for QC and infield processing

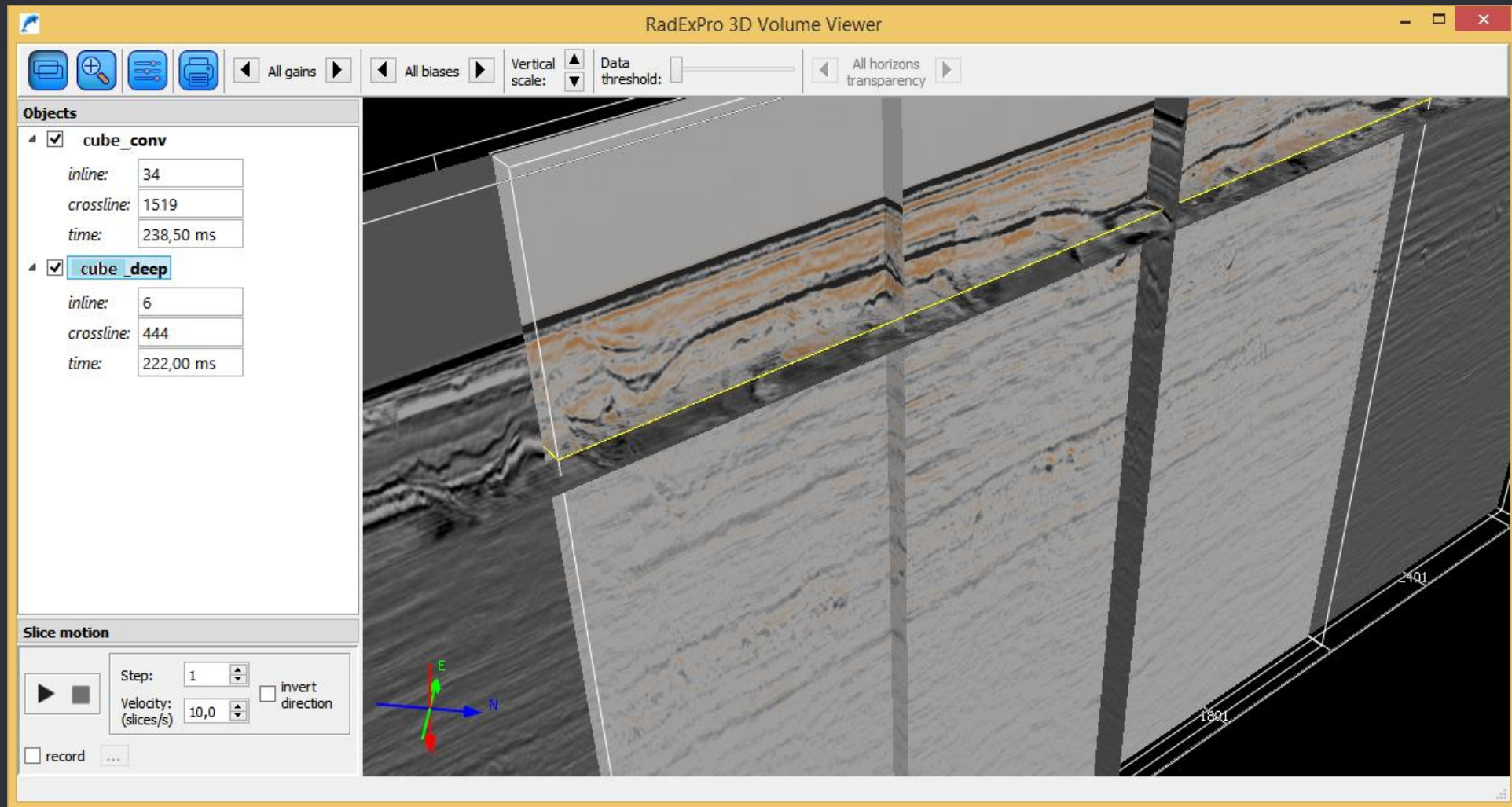
## Simultaneous display of seismic and velocity sections





for QC and infield processing

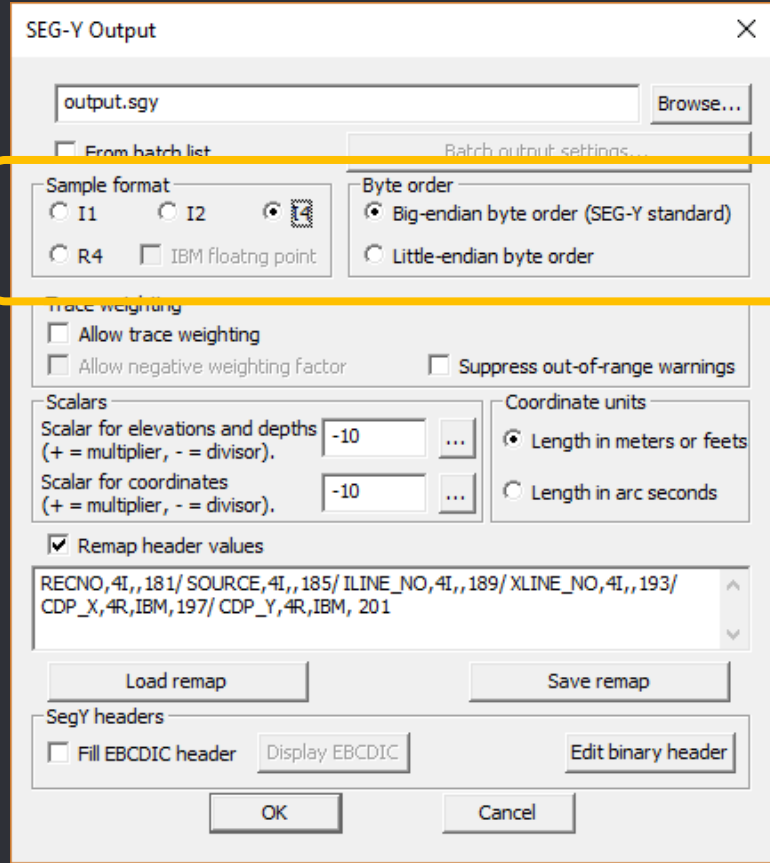
3D display of several cubes and 2D lines at once



for QC and infield processing

Deliverables: Export to SEG-Y is fully customizable!

- Any sample format and byte order



SEG-Y Output

output.sgy

From batch list

Sample format

I1  I2  R4

IBM floating point

Byte order

Big-endian byte order (SEG-Y standard)

Little-endian byte order

Trace weighting

Allow trace weighting

Allow negative weighting factor  Suppress out-of-range warnings

Scalars

Scalar for elevations and depths (+ = multiplier, - = divisor): -10

Scalar for coordinates (+ = multiplier, - = divisor): -10

Coordinate units

Length in meters or feet

Length in arc seconds

Remap header values

RECNO,4I,,181/ SOURCE,4I,,185/ ILINE\_NO,4I,,189/ XLINE\_NO,4I,,193/  
CDP\_X,4R,IBM,197/ CDP\_Y,4R,IBM, 201

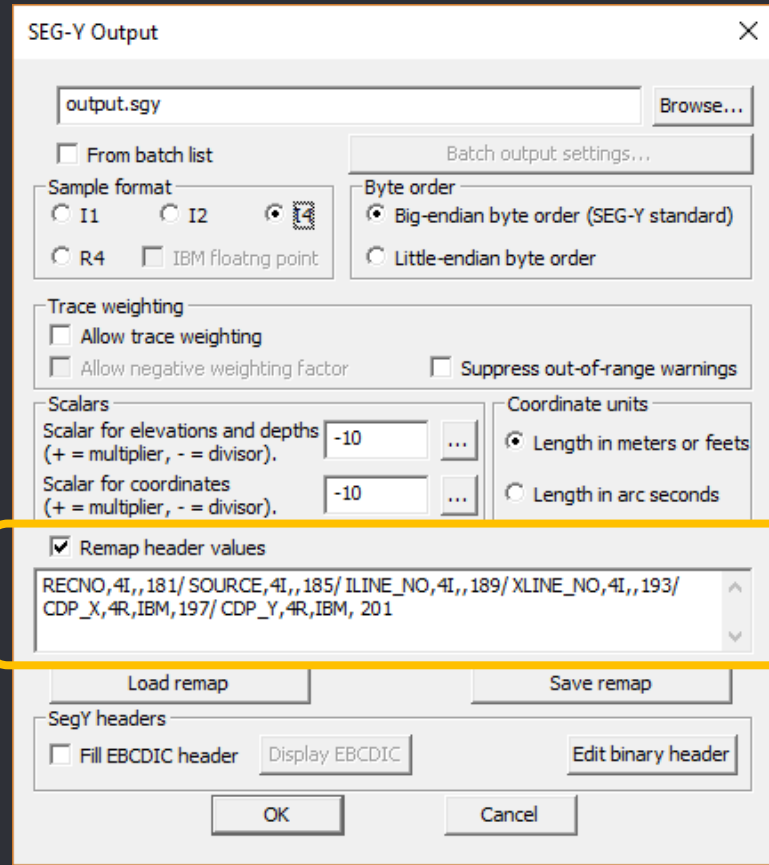
SegY headers

Fill EBCDIC header

for QC and infield processing

## Deliverables: Export to SEG-Y is fully customizable!

- Any sample format and byte order
- Trace header remapping



SEG-Y Output

output.sgy

From batch list

Sample format:  I1  I2  I4  IBM floating point

Byte order:  Big-endian byte order (SEG-Y standard)  Little-endian byte order

Trace weighting:  Allow trace weighting  Allow negative weighting factor  Suppress out-of-range warnings

Scalars: Scalar for elevations and depths (+ = multiplier, - = divisor): -10  Scalar for coordinates (+ = multiplier, - = divisor): -10

Coordinate units:  Length in meters or feet  Length in arc seconds

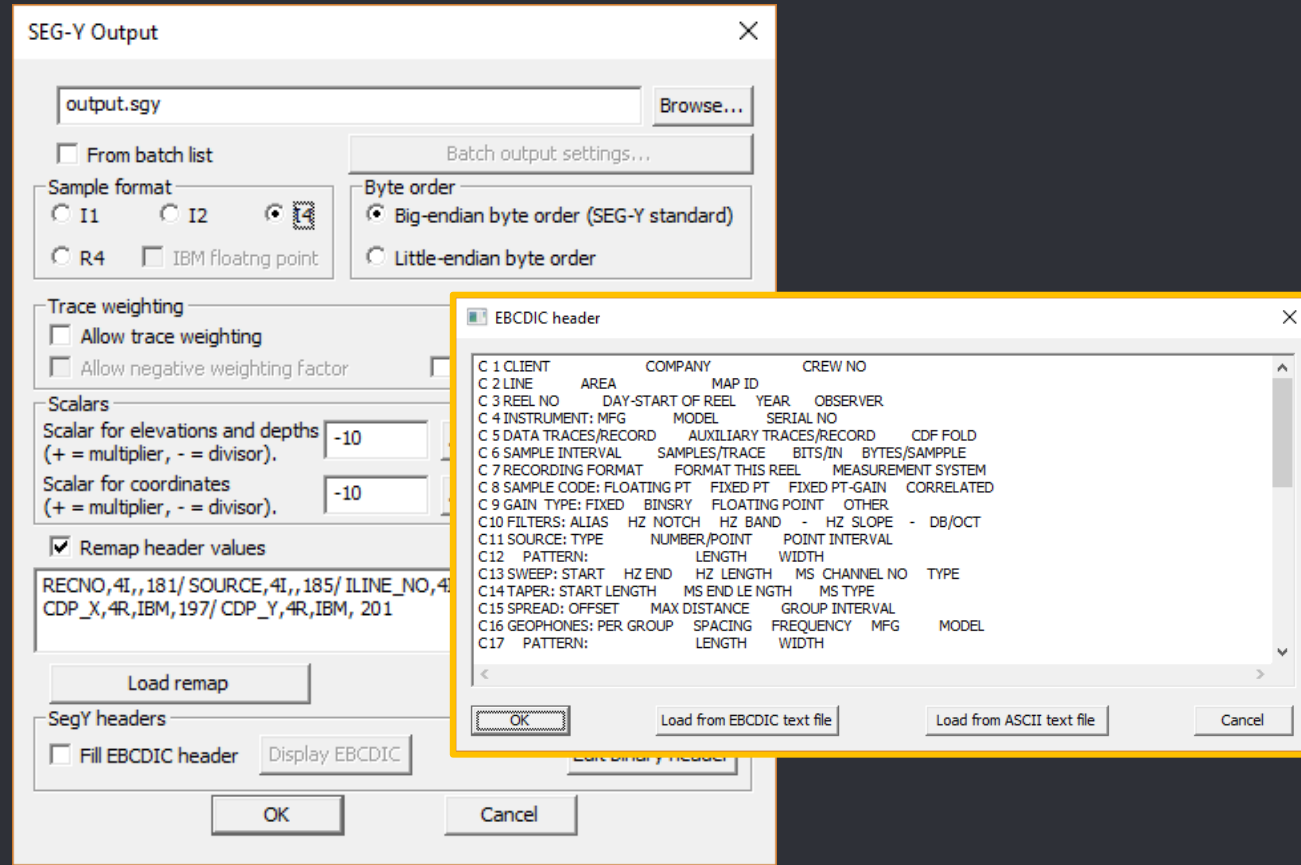
Remap header values

RECNO,4I,,181/ SOURCE,4I,,185/ ILINE\_NO,4I,,189/ XLINE\_NO,4I,,193/  
CDP\_X,4R,IBM,197/ CDP\_Y,4R,IBM, 201

SegY headers:  Fill EBCDIC header

for QC and infield processing

## Deliverables: Export to SEG-Y is fully customizable!



The image shows two overlapping dialog boxes from the RadExPro software. The background dialog is titled "SEG-Y Output" and contains various settings for exporting data. The foreground dialog is titled "EBCDIC header" and shows a list of 17 header parameters in EBCDIC format.

**SEG-Y Output Dialog:**

- Output file: output.sgy
- Sample format: I1, I2, R4, IBM floating point
- Byte order: Big-endian byte order (SEG-Y standard), Little-endian byte order
- Trace weighting: Allow trace weighting, Allow negative weighting factor
- Scalars: Scalar for elevations and depths (-10), Scalar for coordinates (-10)
- Remap header values:  Remap header values
- SegY headers:  Fill EBCDIC header, Display EBCDIC

**EBCDIC header Dialog:**

```
C 1 CLIENT          COMPANY          CREW NO
C 2 LINE          AREA          MAP ID
C 3 REEL NO        DAY-START OF REEL  YEAR   OBSERVER
C 4 INSTRUMENT: MFG  MODEL          SERIAL NO
C 5 DATA TRACES/RECORD  AUXILIARY TRACES/RECORD  CDF FOLD
C 6 SAMPLE INTERVAL  SAMPLES/TRACE  BITS/IN  BYTES/SAMPLE
C 7 RECORDING FORMAT  FORMAT THIS REEL  MEASUREMENT SYSTEM
C 8 SAMPLE CODE: FLOATING PT  FIXED PT  FIXED PT-GAIN  CORRELATED
C 9 GAIN TYPE: FIXED  BINSRY  FLOATING POINT  OTHER
C10 FILTERS: ALIAS  HZ NOTCH  HZ BAND  -  HZ SLOPE  -  DB/OCT
C11 SOURCE: TYPE    NUMBER/POINT  POINT INTERVAL
C12 PATTERN:        LENGTH  WIDTH
C13 SWEEP: START  HZ END  HZ LENGTH  MS CHANNEL NO  TYPE
C14 TAPER: START LENGTH  MS END LENGTH  MS TYPE
C15 SPREAD: OFFSET  MAX DISTANCE  GROUP INTERVAL
C16 GEOPHONES: PER GROUP  SPACING  FREQUENCY  MFG  MODEL
C17 PATTERN:        LENGTH  WIDTH
```

- Any sample format and byte order
- Trace header remapping
- Edit EBCDIC textual header



for QC and infield processing

## Deliverables: Export to SEG-Y is fully customizable!

- Any sample format and byte order
- Trace header remapping
- Edit EBCDIC textual header
- **Edit binary header**

SEG-Y Output

output.sgy

From batch list

Sample format:  I1  I2  I4  IBM floating point

Byte order:  Big-endian byte order (SEG-Y standard)  Little-endian byte order

Trace weighting:  Allow trace weighting  Allow negative weighting factor

Scalars:   
 Scalar for elevations and depths (+ = multiplier, - = divisor): -10   
 Scalar for coordinates (+ = multiplier, - = divisor): -10

Remap header values

RECNO,4I,,181/ SOURCE,4I,,185/ ILINE\_NO,4I, CDP\_X,4R,IBM,197/ CDP\_Y,4R,IBM, 201

SegY headers:  Fill EBCDIC header

EBCDIC header

```

C 1 CLIENT          COMPANY          CREW NO
C 2 LINE           AREA             MAP ID
C 3 REEL NO        DAY-START OF REEL YEAR  OBSERVER
C 4 INSTRUMENT: MFG MODEL           SERIAL NO
C 5 DATA TRACES/RECORD AUXILIARY TRACES/RECORD CDF FOLD
C 6 SAMPLE INTERVAL SAMPLES/TR
C 7 RECORDING FORMAT FORMAT T
C 8 SAMPLE CODE: FLOATING PT FIXE
C 9 GAIN TYPE: FIXED BINSRY FLOA
C 10 FILTERS: ALIAS HZ NOTCH HZ
C 11 SOURCE: TYPE NUMBER/POIN
C 12 PATTERN: LENGTH
C 13 SWEEP: START HZ END HZ LEN
C 14 TAPER: START LENGTH MS END L
C 15 SPREAD: OFFSET MAX DISTANC
C 16 GEOPHONES: PER GROUP SPACIN
C 17 PATTERN: LENGTH
  
```

Binary header editor

Offset	Description	From header	Header list	Constant value
3201	Job identification number	<input type="checkbox"/>		0
3205	Line number	<input type="checkbox"/>		0
3209	Reel number	<input type="checkbox"/>		0
3213	Number of data traces per ensemble	<input type="checkbox"/>		0
3215	Number of auxiliary traces per ensemble	<input type="checkbox"/>		0
3217	Sample interval in microseconds (µs) (= 1000 × value -- value mus...	<input checked="" type="checkbox"/>	dt	0
3219	Sample interval in microseconds (µs) of original field recording (= ...	<input type="checkbox"/>		0
3221	Number of samples per data trace	<input checked="" type="checkbox"/>	NUMSMP	0
3223	Number of samples per data trace for original field recording	<input type="checkbox"/>		0
3225	Data sample format code 1 = 4-byte IBM floating-point 2 = 4-byte inte...	<input type="checkbox"/>		Auto
3227	Ensemble fold - The expected number of data traces per trace ens...	<input type="checkbox"/>		0
3229	Trace sorting code (i.e. type of ensemble)	<input type="checkbox"/>		0
3231	Vertical sum code	<input type="checkbox"/>		0

for QC and infield processing

## Deliverables: Export to SEG-Y is fully customizable!

SEG-Y Output

output.sgy

From batch list

Sample format:  I1  I2  I4  IBM floating point

Byte order:  Big-endian byte order (SEG-Y standard)  Little-endian byte order

Trace weighting:  Allow trace weighting  Allow negative weighting factor

Scalars:   
 Scalar for elevations and depths (+ = multiplier, - = divisor): -10   
 Scalar for coordinates (+ = multiplier, - = divisor): -10

Remap header values

RECNO,4I,,181/ SOURCE,4I,,185/ ILINE\_NO,4I, CDP\_X,4R,IBM,197/ CDP\_Y,4R,IBM, 201

SegY headers:  Fill EBCDIC header

EBCDIC header

```

C 1 CLIENT          COMPANY          CREW NO
C 2 LINE           AREA             MAP ID
C 3 REEL NO        DAY-START OF REEL YEAR  OBSERVER
C 4 INSTRUMENT: MFG MODEL           SERIAL NO
C 5 DATA TRACES/RECORD AUXILIARY TRACES/RECORD CDF FOLD
C 6 SAMPLE INTERVAL SAMPLES/TRACE   BITS/IN   BYTES/SAMPLE
C 7 RECORDING FORMAT FORMAT TR
C 8 SAMPLE CODE: FLOATING PT FIXED
C 9 GAIN TYPE: FIXED BINSRY FLOA
C 10 FILTERS: ALIAS HZ NOTCH HZ
C 11 SOURCE: TYPE NUMBER/POINT
C 12 PATTERN: LENGTH
C 13 SWEEP: START HZ END HZ LEN
C 14 TAPER: START LENGTH MS END LE
C 15 SPREAD: OFFSET MAX DISTANCE
C 16 GEOPHONES: PER GROUP SPACING
C 17 PATTERN: LENGTH
  
```

Binary header editor

Offset	Description	From header	Header list	Constant value
3201	Job identification number	<input type="checkbox"/>		0
3205	Line number	<input type="checkbox"/>		0
3209	Reel number	<input type="checkbox"/>		0
3213	Number of data traces per ensemble	<input type="checkbox"/>		0
3215	Number of auxiliary traces per ensemble	<input type="checkbox"/>		0
3217	Sample interval in microseconds (µs) (= 1000 × value -- value mus...	<input checked="" type="checkbox"/>	dt	0
3219	Sample interval in microseconds (µs) of original field recording (= ...	<input type="checkbox"/>		0
3221	Number of samples per data trace	<input type="checkbox"/>		0
3223	Number of samples per data trace for original field recording	<input type="checkbox"/>		0
3225	Data sample format code1 = 4-byte IBM floating-point2 = 4-byte inte	<input type="checkbox"/>		0
3227	Ensemble fold - The expected number of data traces per trace ens.	<input type="checkbox"/>		0
3229	Trace sorting code (i.e. type of ensemble)	<input type="checkbox"/>		0
3231	Vertical sum code	<input type="checkbox"/>		0

Multiplied fields

REC\_ELEV,SOU\_ELEV,DEPTH,SOU\_H2OD,REC\_H2OD

- Any sample format and byte order
- Trace header remapping
- Edit EBCDIC textual header
- Edit binary header
- **Optional remap of headers affected by coordinates and elevation scalars**

for QC and infield processing

Deliverables: print with preview!

Plotting parameters

Dataset: White Sea\line 5\stack\_final

Sort fields: CDP

Additional scalar: field...

Ensembles' gap: 2 traces

Use excursion: 2 traces

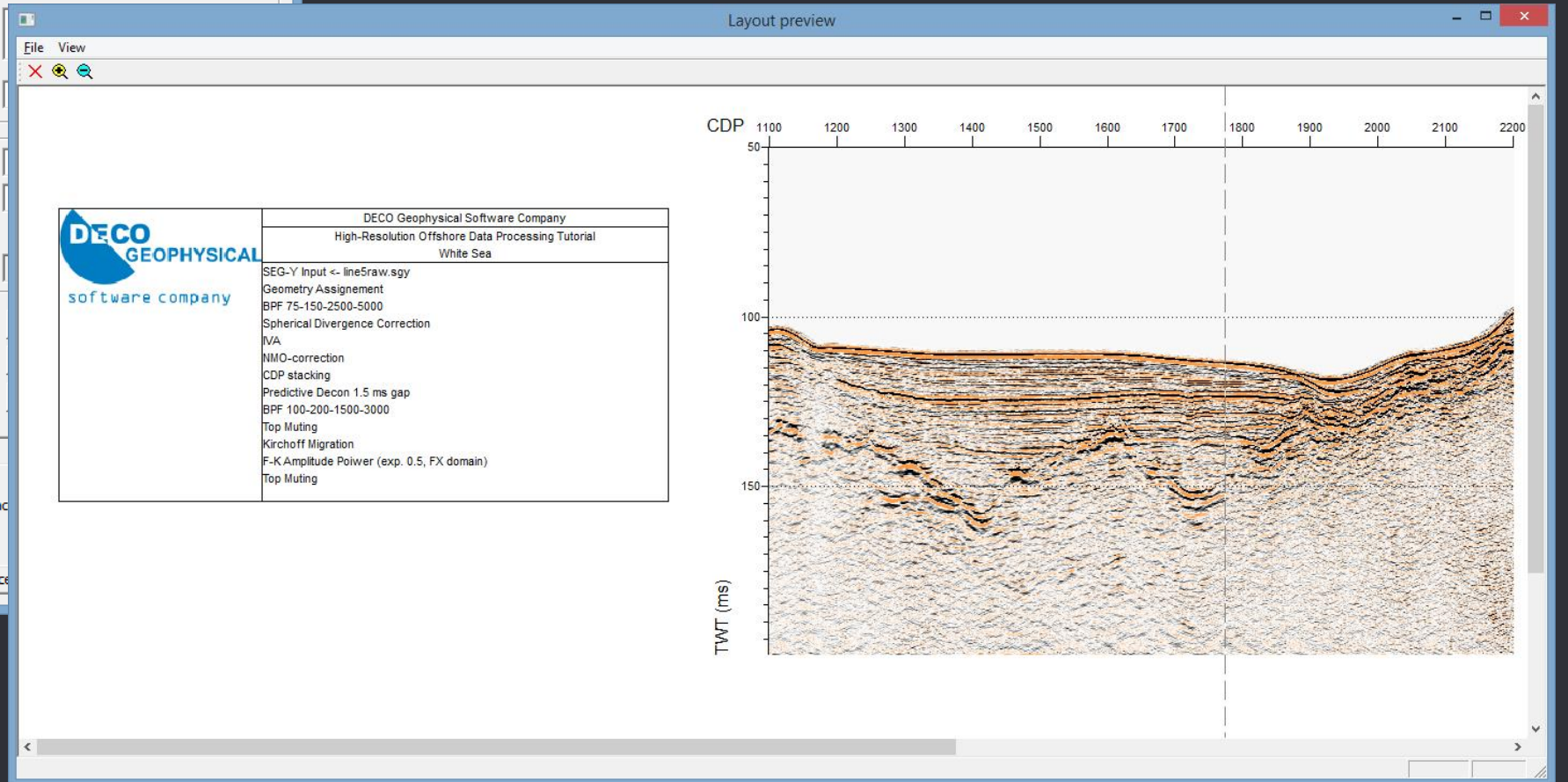
Normalizing: Entire set

Scales: T Scale: 12 ms/cm, X Scale: 60 traces/cm

Microsoft XPS Document Writer

Display traces:

OK Cancel





for QC and infield processing

Open architecture

Missing some specific algorithm?





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Open architecture

Missing some specific algorithm?

Code it yourself and get it integrated into the system!



for QC and infield processing

Open architecture

Missing some specific algorithm?

Code it yourself and get it integrated into the system!

- We provide open API for developing your own modules on C++.
- A dedicated Wizard for MS Visual C++ will generate an empty processing module for you, you will only need to populate it with your own processing code.



for QC and infield processing

THANK YOU FOR YOUR ATTENTION!

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