DECO Geophysical Software Company



and are most pleased to announce the latest RadExPro of this year - RadExPro 2016.4 !

The main novels are as following:

• With the brand-new **Horizon Manipulation** module, now you can make a number of useful operations with your horizons, stored either in picks or in trace headers. You can transfer them from picks to headers and another way around, combine several of horizons into one, interpolate and extrapolate them using a reference dataset either within ensembles or/and in X-Y space. Extrapolation within ensembles would follow the slopes of the pick at the edges making it most convenient for defining various mutings.

左 Horizon Manipulatior	۱*			×	
Source Picks Headers		Destination Single pick Single header	 Multipl Multipl 	e picks e headers	
Picks 1 tm < 071 Migration result < Line 1 < Dem				▼ top_mute ∨	
Reference dataset: Demo project\Line 1\geom_data Image: mail of the second					
In X-Y space Extrapolation Inside ensembles	Post-stack	(comma constant lint) u	Ensemble X coordinate: Ensemble Y coordinate:		
Inside ensembles Ensemble forming headers (comma-separated list): In X-Y space CDP Number of threads: 1					
OK Cancel					

• *Surgical muting* option have been added to **Trace Editing** module. The muting area will be the overlap of the *Horizon* and *Second Horizon* as defined at the appropriate tabs of the parameter dialog.

Trace Editing	×
Trace Editing parameters Horizon Second horizon Muting O Top muting O Bottom muting O Bottom muting	
C Muting in window 10 ms	
Taper window length 5 ms	
Editing O Zero padding O Inverse O Trace killing	
Save template Load template OK Отмена	

• Amplitude Correction module has been improved. Now it includes *Time raised to power* option, with the power being any positive value.

Amplitude Correc	tion	×
Time raised to pov	ver 1.00	
Exponential correct	tion (dB/ms) 0.00	
Normalization		
None		
 Constant time 	0.00 0 - trace center	
O Horizon		
O Header	TRACENO	
Maximum application t	ime 0.00 0 - trace end	
Save AGC coeffici	0.00 MEAN \checkmark CENTERED \checkmark	
Trace equalization		
Basis for scaling	Time gate start time (ms) Time gate end time (ms)	
MEAN	▼ 0.00 0.00	
Time variant scalir Example format: t1:k Specify gain function	I,t2-t3:k2,,tN:kN	

Now, with either *Time raised to power* or *Exponential correction* you can use *Normalization* option: when on, it will normalize each trace to preserve original amplitudes either at a defined constant time or along a specified horizon. Additionally, with these options you can define *Maximum application time* to prevent lowermost noisy parts of the traces to become over-amplified.

• We have added a brand-new **Spherical Divergence Correction** module for appropriate correcting of trace amplitudes for spherical divergence using RMS velocity function, which can be either defined manually or taken from the database (e.g. created earlier by *Interactive Velocity Analysis*). The resulting trace amplitudes can be normalized to preserve original amplitudes either at a constant time or along a pre-defined horizon.

DECO Geophysical Software Company

Spherical divergence correction					
	Velocity				
	Define velocity function 0-100:1.5; 200:1.7, 300:1.8, 500-1000:2				
	Use coordinates based interpolation				
Normalization (t0)					
	O None				
	Constant time	0.00 0 - trace center			
	O Horizon				
	O Header	TRACENO 👻			
		OK Cancel			

• Now you can **edit picks in a spreadsheet table**. Right-click on a pick in the *Database Navigator* panel and in the pop-up menu select *Edit…* You can edit pick values, change headers, edit color and line style. The result can be either applied to the same pick or saved to a new pick object.

Fields: Color: ine th	nickness: 2	•	CDP	-
Points	: First field	Second field	Value	^
1	0	0	430.582	
2	1	1	430.486	
3	2	2	430.359	
4	3	3	430.253	
5	4	4	430.228	
6	5	5	430.244	
7	6	6	430.29	1
8	7	7	430.303	-
9	8	8	430.283	
10	9	9	430.203	
11	10	10	430.128	
12	11	11	430.058	
13	12	12	430.056	
14	13	13	430.084	
15	14	14	430.168	
16	15	15	430.249	
17	16	16	430.351	~
Ir	nsert 0	rows before	 current row 	

- You can use a brand-new **Find/Replace NaN** module to identify occasional bad samples (not-a-numbers) in your data. The positions (trace and sample numbers) of found NaNs are be reported to a log file. Optionally, you may also replace bad samples with zeroes.
- In Screen Display module, now when Ensemble boundaries option is on pick smoothing will work within individual ensembles only. When the option is off, smoothing behavior will remain as it used to be – a pick will be smoothed as a whole, through all the ensembles.
- In **Time Variant Band Pass Filter**, **Wavefield Subtraction** and **Zero-Offset Demultiple** modules, now you can use either picks or trace headers for window definition.
- MaxPower Autostatics module behavior has been changed as following:
 - Now you can define a horizon either with a pick or a header in both 2D and 3D modes
 - In 3D mode, horizons are neither interpolated nor extrapolated. When statics are calculated for a horizon, a trace is taken into evaluation only if a horizon has a picked node exactly at this particulate trace.
 - In 2D mode, behavior is the same with the only difference that interpolation (but not extrapolation!) can be allowed as an option.

Generally, it is advised that you use *Horizon Manipulation* module for appropriate interpolation and extrapolation of horizons prior to input them for statics calculation.

• Now you can make more than one auto-saved copy of the project database – set autosave parameters through the *Options/DB autosave* menu of the main window.

🐌 Database autosave options 🔷 🔀	<
Number of copies 2 🔹	5
Autosave on exit	
OK Cancel	

For instance, with the parameters as shown above, the first auto-saved DB copy will be created in 30 minutes. In another 30 minutes, the second copy will be created. Then, in the following 30 minutes, a new auto-saved DB copy will overwrite the first (eldest) one. It is recommended that you use at least 2 auto-saved copies here, to make sure that in case of a very unlikely (though still possible) situation of project corruption you are able to safely recover most of your work.

A number of small issues were fixed: Non-Stationary Predictive Deconvolution now preserves tapering value and uses it properly, Apply Statics now makes appropriate 'relative to time' correction with the picks the same way as with the headers, Profile Interpolation can now use negative spatial increments and display scales correctly even

with very big numbers, **3D Gazer** can now load bitmap images correctly from any format supported at the particular machine, etc.

As usual, if you are on maintenance, please contact us at support@radexpro.ru and get your update for free.

PLEASE NOTE: Our office will be closed for the Russian Orthodox Christmas holidays until January 9, Monday. Meanwhile, we will be checking our emails seldom so some delays in correspondence may occur.



Wishing you once again happy and prosperous New Year 2017!

Your RadExPro development team:

Petr Alexandrov, Pavel Bannikov, Sergey Buryak, Mikhail Poluboyarinov, Pavel Shashkin, and Sergey Valulenko