



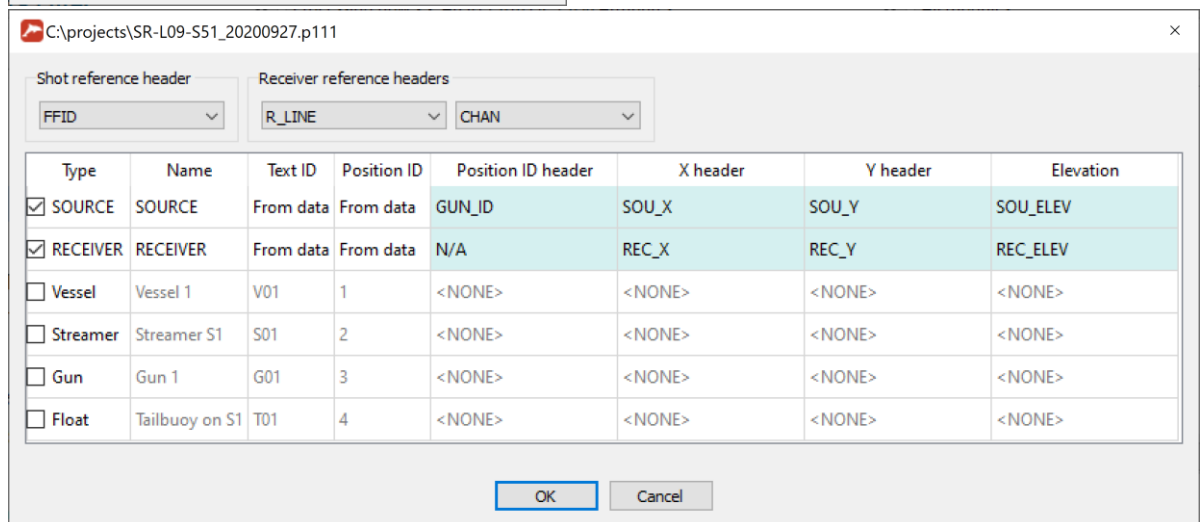
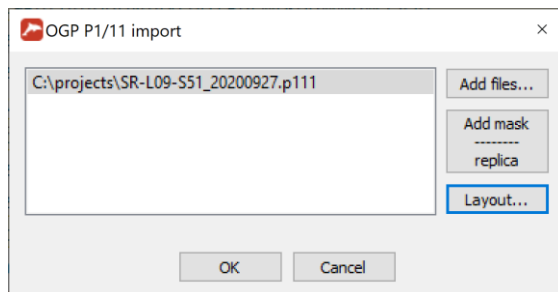
RadExPro 2020.4 release notes

We wish you a Merry Christmas and Happy New Year!

Here is the new **RadExPro** release -- **RadExPro 2020.4** !

The main novels are as following:

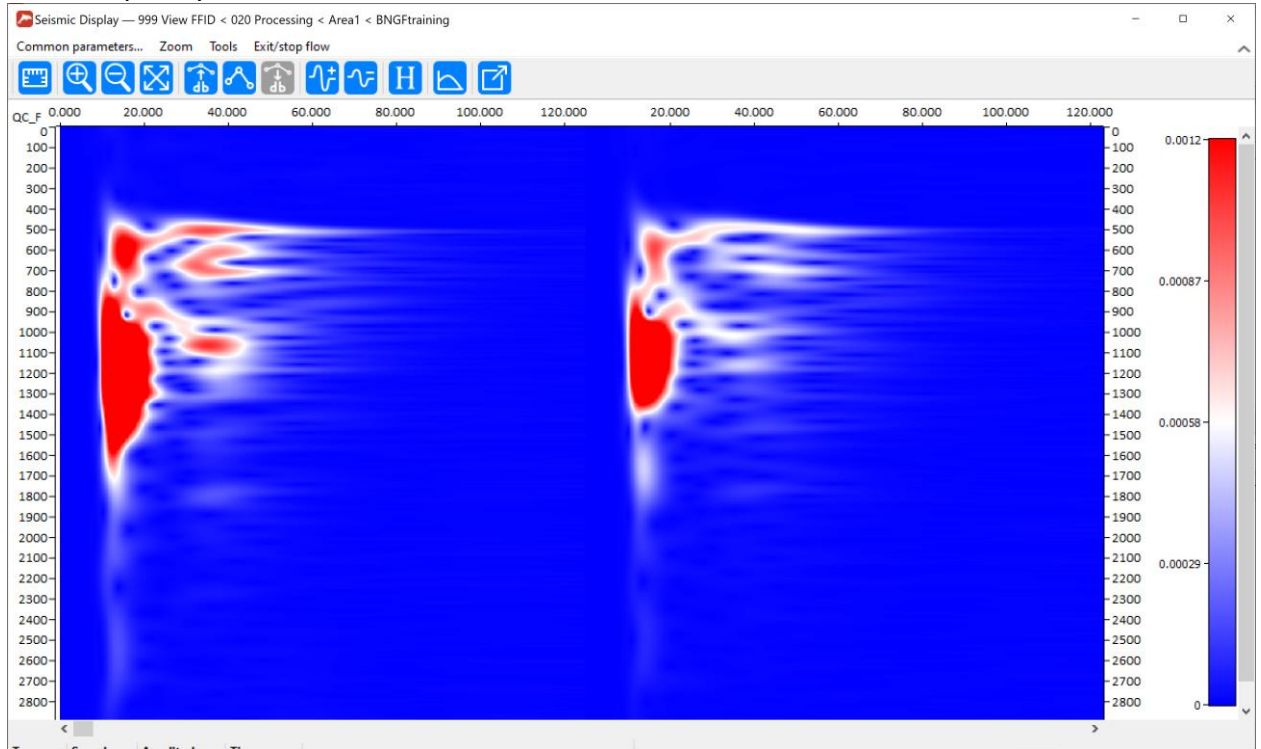
- We supported OGP P1/11 positioning data format with the new **OGP P1/11 Import** module.



- We made **Ensemble QC** module much faster, with optimized algorithms and use of parallelization.
- We have supported storing velocities as seismic traces in a dataset. The following modules can now **load velocities directly from a dataset**:
 - NMO/NMI
 - Trace Header NMO/NMI
 - Pre/Post-Stack Kirchhoff Time Migration



- Kirchhoff Migration
 - Time/Depth Conversion
 - Interactive Velocity Analysis
 - Spherical Divergence Correction
 - Screen Display
- New **Stockwell Transform** module calculates S transform, converting each input trace into a time-frequency distribution.



- New **3D Volume Zero-Padding** module analyses input dataset and adds zero-padded traces to every empty cell of the specified in-line/cross-line grid. The result is saved to another dataset.

The screenshot shows the '3D volume padding*' dialog box. It has several sections:

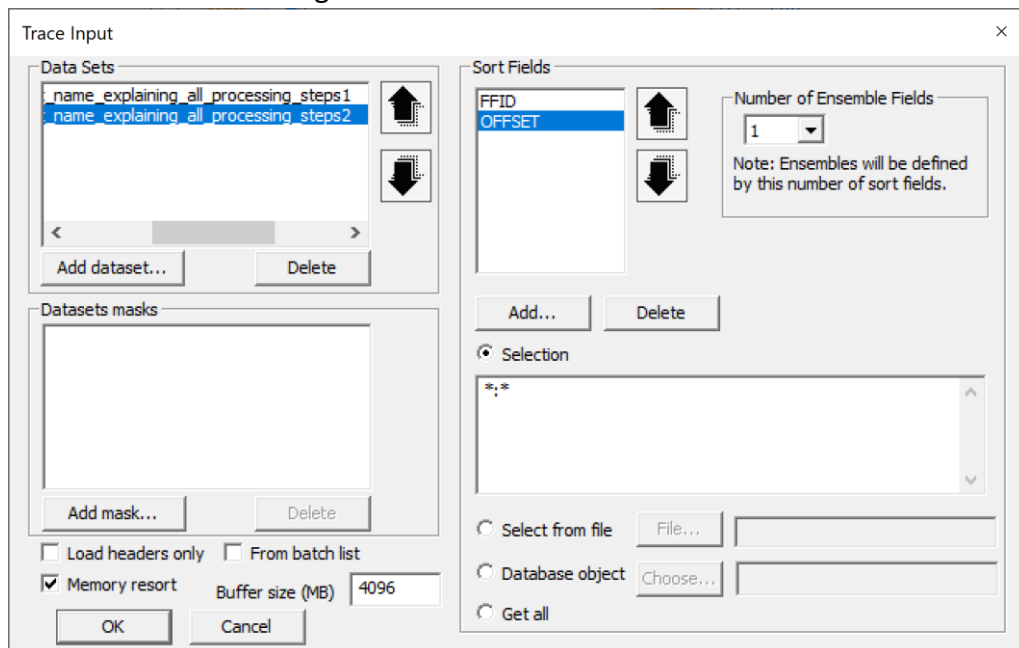
- Headers:** Three dropdown menus for 'X coordinate' (set to CDP_X), 'Y coordinate' (set to CDP_Y), and 'Empty bin marker' (set to TRC_TYPE).
- Grid:** Fields for 'Origin X' (328356.195672946), 'cell size X' (-25.0), 'Origin Iline no' (1), 'Origin Y' (6124538.15362221), 'cell size Y' (12.5), 'Origin Xline no' (1), and 'Angle' (89.999999831037). There is a 'Load grid...' button.
- Output:** Fields for 'From Iline' (1) to '1000' and 'From Xline' (1) to '1000'. A checkbox 'Output traces outside grid' is present.
- Input/Output Datasets:** Two text boxes for dataset names: 'Area1\stack0' and 'Area1\stack_zero_padded'. Buttons for 'Input dataset...' and 'Output dataset...' are next to them.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

- Improved **Trim Statics** module can now use **external pilot trace** (shall come as a first trace of each seismic gather) and additionally **output maximum cross-correlation values** of each trace with the pilot. With the latter option, you may wish to use this module as an additional data QC tool.
- Improved **Surface Consistent Decon** module can now exclude traces with the highest and the lowest average amplitudes from the evaluation. Use **Amplitude rejection (%)** parameter to specify the rejection threshold (here, 10% would mean that 5% of the highest and 5% of the lowest amplitudes will be rejected, 0% would allow all traces to be used).

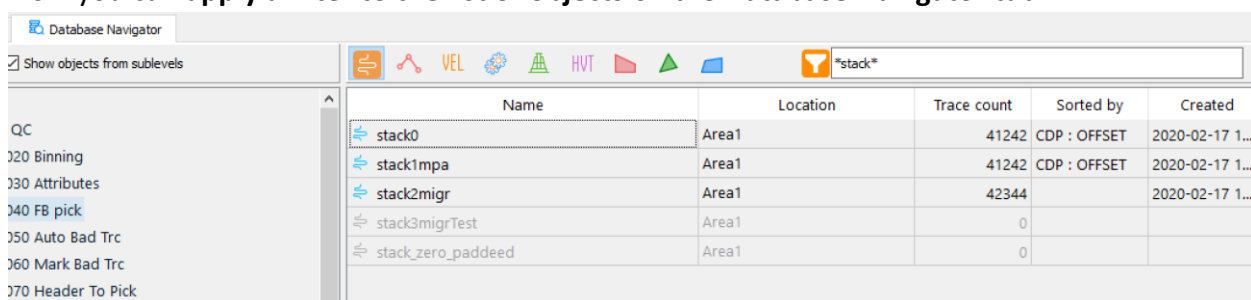
The screenshot shows the 'Surface-Consistent Decon' dialog box. It contains the following settings:

- Dataset:** A text box with a browse button (three dots).
- Area:**
 - ☒ **Constant rectangle:** 'Min. time (ms)' is 0, 'Max. time (ms)' is 2000.
 - ☐ **Boundaries:** 'Top boundary header' is PICK1, 'Bottom boundary header' is PICK2.
- Offset constraints:** 'Min. offset (m)' is 0, 'Max. offset (m)' is 1000, 'Min. window length (ms)' is 50, 'Min. fold' is 30.
- Amplitude rejection (%):** A text box containing the value 5, which is highlighted with a red rectangle.
- Find surface-consistent amplitude gains:**
 - ☐ **Sources amp. gain header:** SOU_STAT1
 - ☐ **Receivers amp. gain header:** REC_STAT1
- Find surface-consistent operators:**
 - ☒ **Operator start time header:** TLIVE_S
 - ☐ **Operator end time header:** TFULL_S
 - ☐ **Operator zero time header:** TZERO
- Amplitude estimation method:**
 - ☐ Mean
 - ☒ RMS
- Operator type:**
 - ☒ Minimum phase
 - ☐ Zero phase
- Number of iterations:** 3
- Number of threads:** 0
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

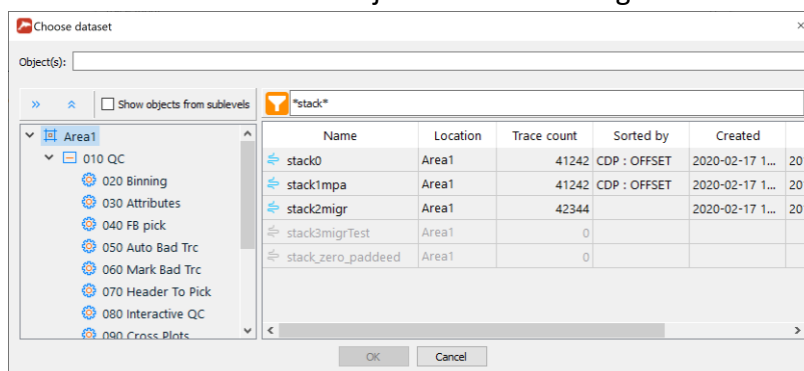
- Improved **Horizon Velocity Auto-Picker** module can now **interpolate input VVT to a specified horizon** instead of picking maximum of a horizontal semblance.
- Improved **Trace Math Transforms** can now calculate **antiderivative** of each input trace. You can use this option to convert data acquired with an accelerometer to a form of standard geophone data.
- Improved **Trace Input** now will show a horizontal scroll-bar in the dataset list, when the dataset name is too long to fit the width of the list.



- Now you can **apply a filter to the list of objects** on the **Database Navigator** tab.



The same works in all DB object selection dialogs within the software.



- Some **bugs were fixed**:
 - Header QC module considered 9999 and a not-a-number – **FIXED!**
 - Header<->Dataset Transfer fails at very big datasets – **FIXED!**
 - Imported flows forget frame mode and batch mode settings – **FIXED!**
 - 3D Regularization makes very confusing log messages – **FIXED!**
 - Export/Import of datasets from the flow with Append mode on does not work – **FIXED!**
 - Trace Editing sometime selects random traces when a horizon is defined manually – **FIXED!**

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

Please, note that between December 31, 2020 and January 11, 2021 we are closed for Orthodox Christmas holidays.

We wish you happy and safe holidays and all the best for the New Year 2021!

Yours,

RadExPro Team:

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