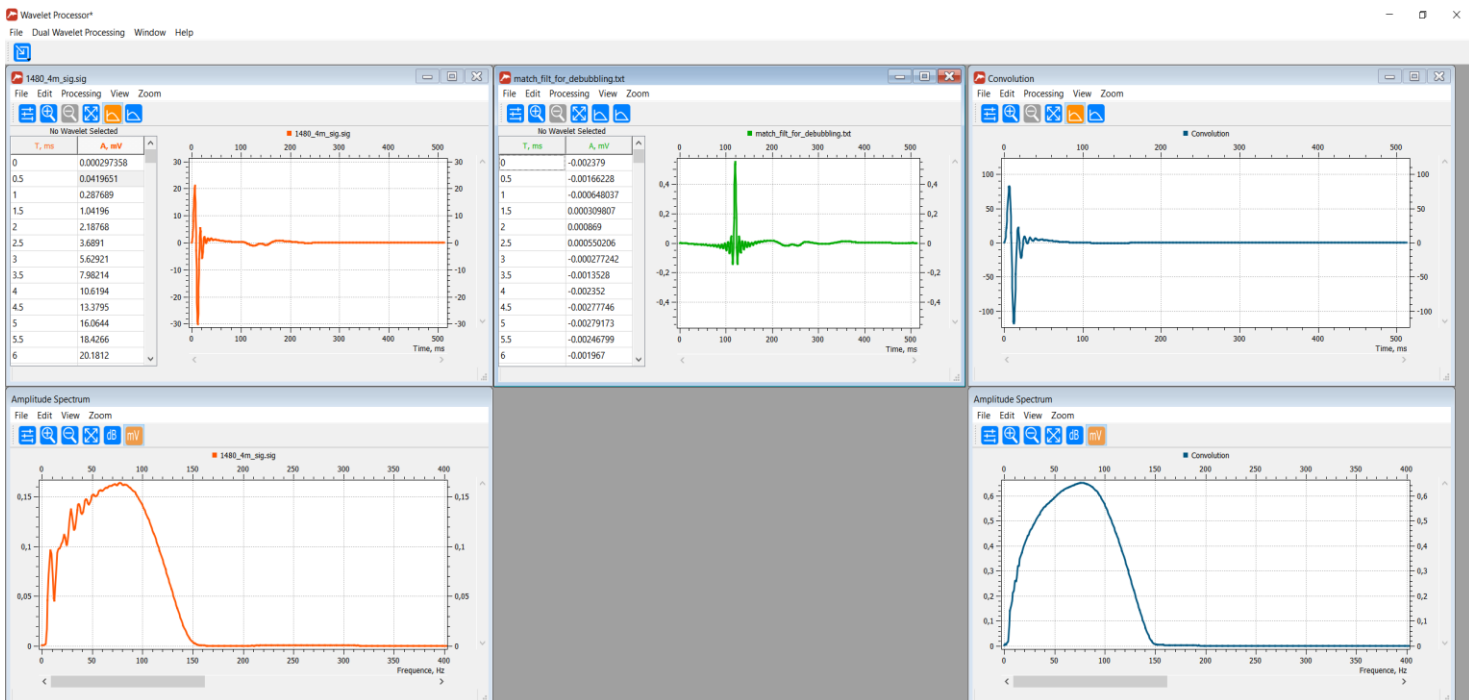# RadExPro 2021.2 release notes

We are happy to announce our next release -- **RadExPro 2021.2**!

The main novels are as following:

- New stand-alone **Wavelet Processor** module provides user-friendly interactive environment for display, analysis, and processing of existing wavelets, as well as for building of matching filters for different purposes.

*Constructing of debubbling filter in the Wavelet Processor module.*

The module can be used for building a de-bubbling filter basing on a pre-defined source signature, a matching filter converting the data to zero-phase, converting the data of different types (e.g. geophone and hydrophone data) to the same wavelet, QC-ing of filters provided by a contractor, etc.

Wavelets and filters can be loaded from the project database as well as from external ASCII files (including *.sig files from the Gundalf software). Generated filters can be saved and used for the production mode processing.
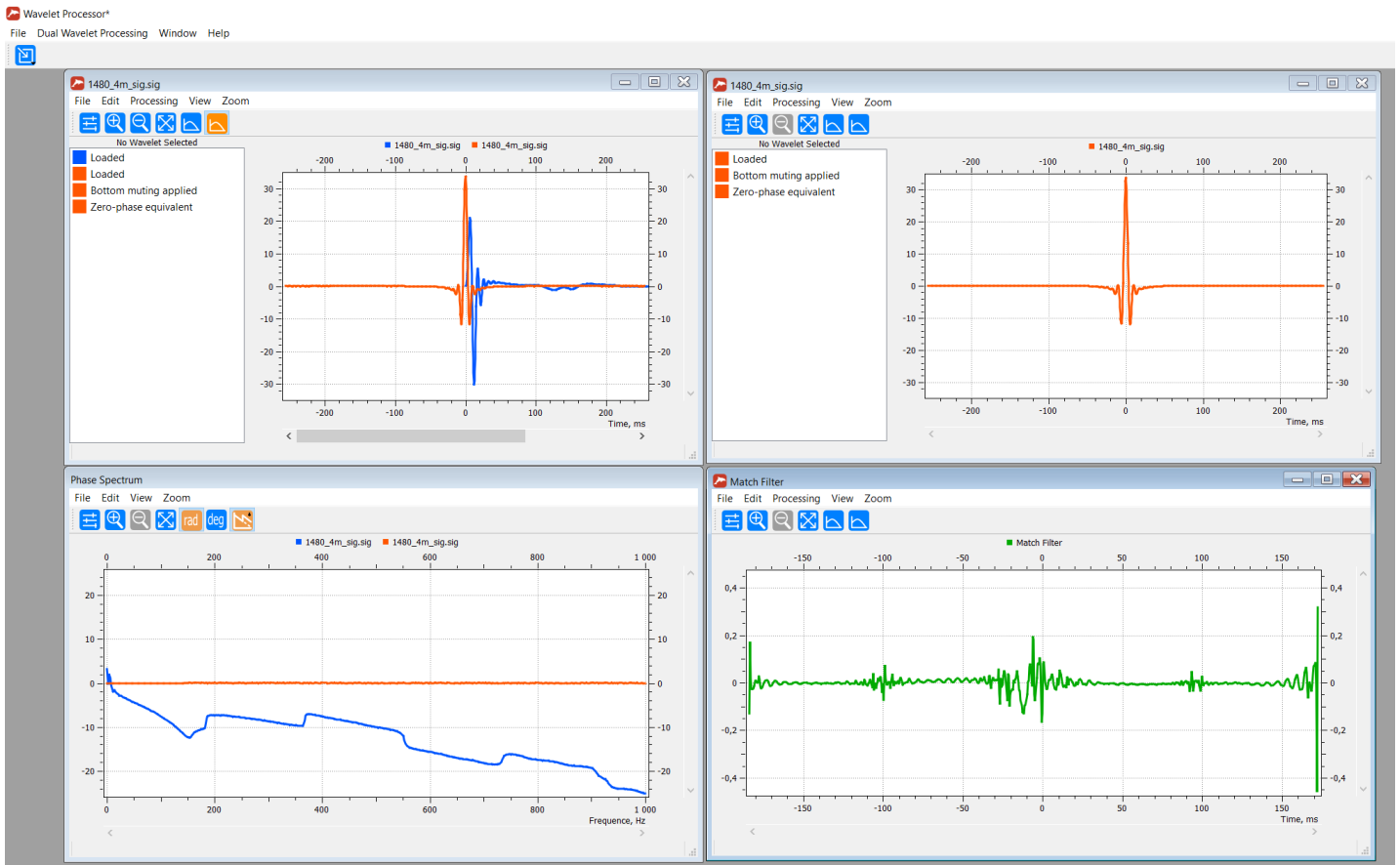
Constructing of zero-phase matching filter in the Wavelet Processor module.

- New **Correlation Stack Enhancement** module works as a kind of time-variant trim statics improving the correlation on NMO-corrected reflections before stacking. Optimal trim static shifts are calculated for several user-defined windows and are linearly interpolated in between of the window centers before being applied to the data.
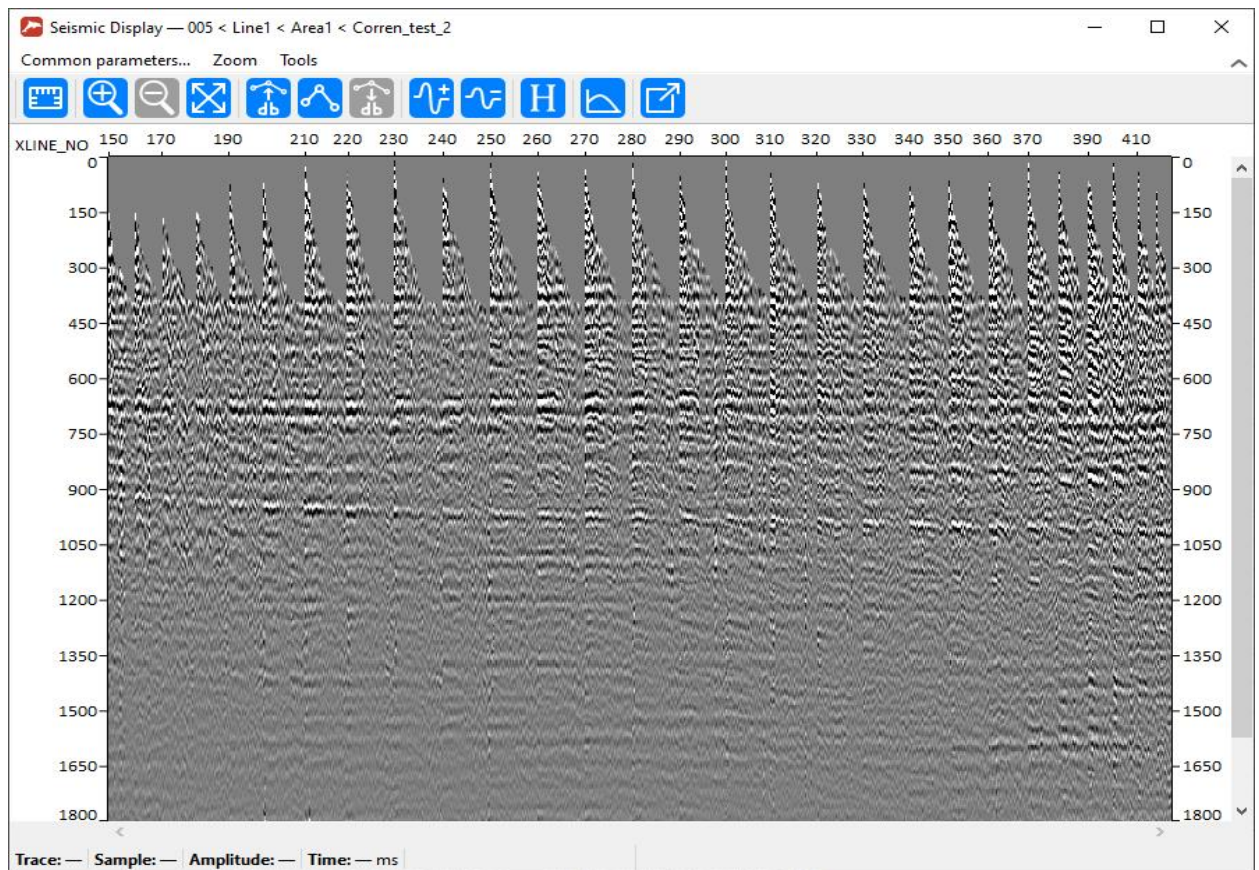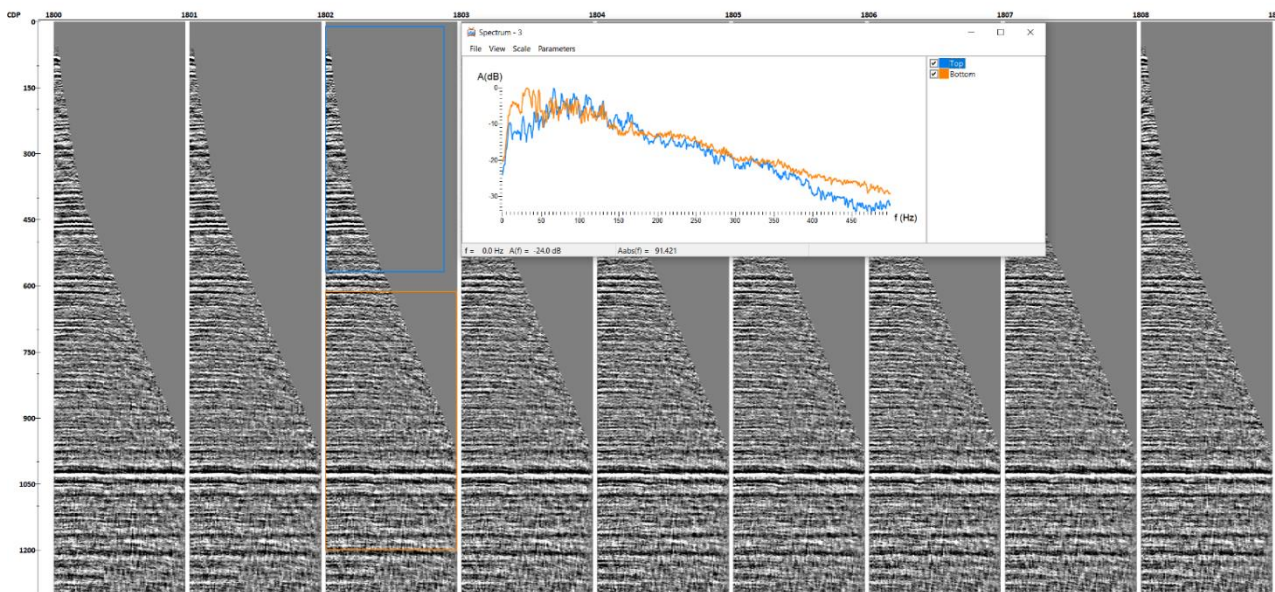
CMP gathers before Correlation Stack Enhancement
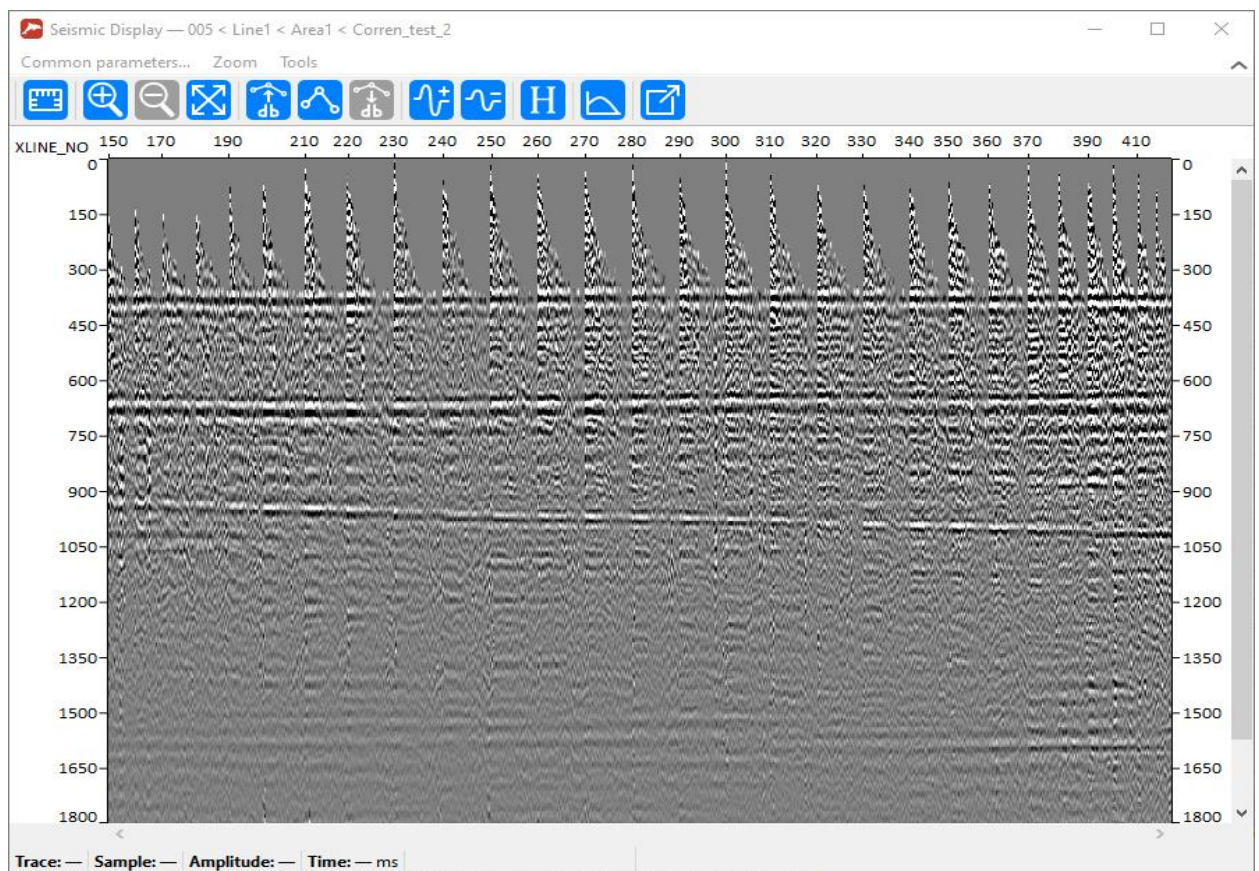
The same after Correlation Stack Enhancement with 3 windows around 400, 700 and 1000 ms.

- New **Terra15 HDF5 Input** module supports HDF5 format of Distributed Acoustic Sensing (DAS) system by Terra15 Technology.

- New **Fotech HDF5 Input** module supports HDF5 format of Distributed Acoustic Sensing (DAS) system by Fotech Solutions.

- **Marine Geometry Input** module now automatically detects decrementing FFID order along the line and process it correctly.

- Now in **Screen Display** and **Seismic Display** modules you can save several (selected) amplitude spectra to one ASCII file.

Two amplitude spectra in Screen Display and the resulting ASCII file.

- The following additional modules now support replicas, facilitating their usage in heavy production mode:
  - **NMO/NMI** (velocities from database, file, and dataset)
  - **2D SRME Interpolation** (Reference Dataset)
  - **2D SRME Geometry Return** (Reference Dataset)
  - **Amplitude Correction** (AGC coefficient dataset)
  - **AGC Removal** (AGC coefficient dataset)
  - **Pre/Post Stack Time Migration** (Input/Output Datasets; Velocity: Choose from database, Velocity dataset; Output bin limits 3D: Min and Max Inline, Min and Max Xline)
  - **Marine Geometry Input** (Dataset; Ship navigation file)

- Now, in the **Fill EBCDIC** window of the **SEG-Y Output** module, beside replica variables you can also use trace headers. An example of the syntax is below:

  {$ffid, *<format>*} – FFID header value of the first trace;
  {$iline_no, min, *<format>*} – the minimum of the ILINE_NO values among all traces;
  {$iline_no, max, *<format>*} – the maximum of the ILINE_NO values among all traces;

  In these examples *<format>* is optional and is the same as for replica variables.

- Some issues were fixed:
  - Multiple spectrums in single window vs Individual spectrums windows of the same data. The plot on dB scale is wrong in the multiple spectrum window. -- **FIXED!**
  - Occasional Trace Output at the beginning of the flow when the flow is run crushes the software - **FIXED!**
  - Copying a module from a project created with elder versions of the software may result in appearing of some other random module - **FIXED!**

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