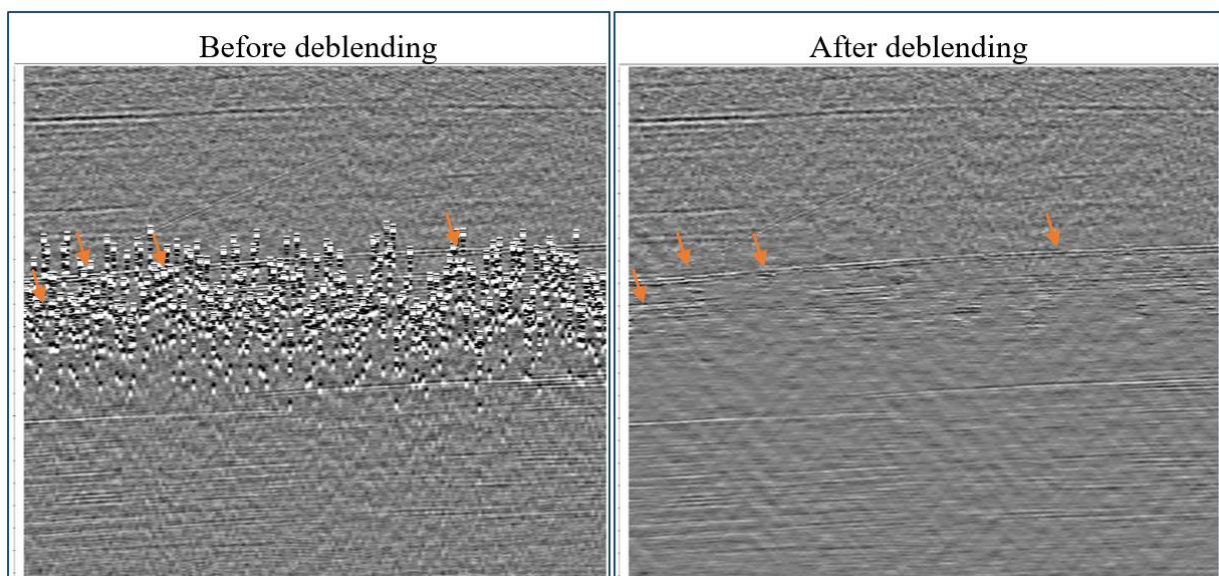# RadExPro 2023.2 release notes

The next version of our seismic software is ready now -- **RadExPro 2023.2** !

- The main novelty of this version is the new **Deblending** module. This module conducts the removal of noise caused by the blended acquisition of seismic data using an iterative inversion-based technique.

  The input dataset needs to be supplied in a sorting where the signal appears as coherent and 'smooth', while the blending noise looks like random bursts (this is usually true when field acquisition involves 'dithered' shots, i.e., when the time intervals between shots are unstable). The algorithm conducts iterative estimation of the denoised dataset by applying a set of coherence-pass filters to the data followed by thresholding in a domain where the data is sparse. At each iteration, the threshold decreases. The idea is that the blending noise is suppressed at every iteration, and only the signal is passing the threshold. At the following iteration, the signal picked up by the threshold is used to model and remove the blending noise caused by this signal. The algorithm continues until the threshold is small enough and the blending noise is completely removed.

  You can apply median filtering, F-X predictive filtering and F-K filtering (in this order) as coherence-pass filters. The thresholding can take place in F-K domain or time domain.

  An example of the algorithm's application to a field marine dataset (common channel gathers) is shown below:

| Before deblending | After deblending |

Other improvements are as follows:

- Improved **Header QC** module can now process ensembles separately.

- We converted the following modules to the new universal parameter style, with full support of replicas and standard export/import facility:
  TFD Noise Attenuation
  Custom Impulse Trace Transform
  SharpSeis Deghosting
  MaxPower Autostatics
  F-X Predictive Filtering
  Calculate Statics 3D

  Additionally, we removed the HVT->VVT option from Tools menu and converted this functionality to a new stand-alone **HVT->VVT*** module, also with the new universal parameter style.

- Improved **module search**: now when you start typing to search for a module, the search string would ignore spaces as well as the following special characters: – < > \

The following issues were fixed:

o Custom Impulse Trace Transform – Impulse field, t1, t2 - Get time from headers – create artifacts; Impulse field, zero time - Get time from headers – does not work -- **FIXED!**
o Intensive drag-and-drop of modules within the flow editor may crash the software -- **FIXED!**
o Use of Exit/stop flow in the Screen Display causes crashes in the flows with Resample module -- **FIXED!**
o DB Navigator – incorrect behavior of Empty dataset command when applied to multiple datasets in non-default table sorting -- **FIXED!**
o Advanced VSP Display – does not show scales on some computers -- **FIXED!**
o Trace Header Math – commented string with a replica variable lead to module failure -- **FIXED!**
o Screen Display crashes the software if a Text Hint was previously created -- **FIXED!**

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