



RadExPro 2021.4 release notes

Merry Christmas & Happy New Year 2022!

Welcome to the last **RadExPro** release of the year 2021 -- **RadExPro 2021.4** !

The main novel of this release is a **new project database**. We have been working on this for quite some time and are very happy to announce that finally it is ready!

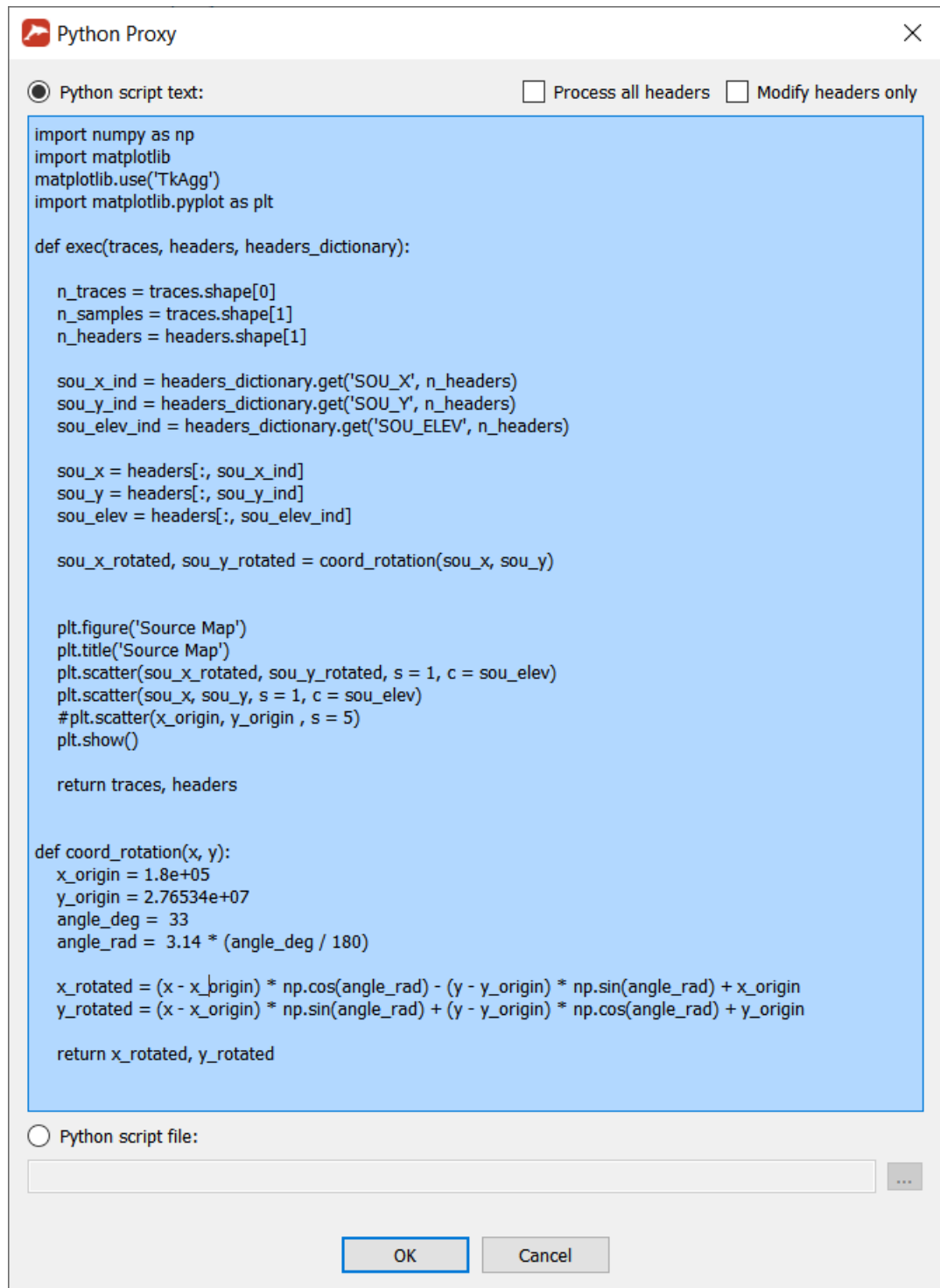
With the old database, it used to occasionally happen that a software failure could damage a RadExPro project to an extent when it was impossible to recover. Even though these cases were extremely rare, they still used to come up and, unfortunately, several of you have experienced this very bad situation losing the result of, sometimes a long, work.

Now this problem is gone for good! The new database is not a one big file containing almost everything, as it used to be, but a set of small files and folders representing different parts of the project structure and data objects. Now, even if a fatal error happens when a part of the project is being saved on disk, only few corresponding files may become damaged. All other parts of the project will not be affected by the failure and will remain readable and in a good condition. This approach makes new RadExPro projects tremendously more reliable.

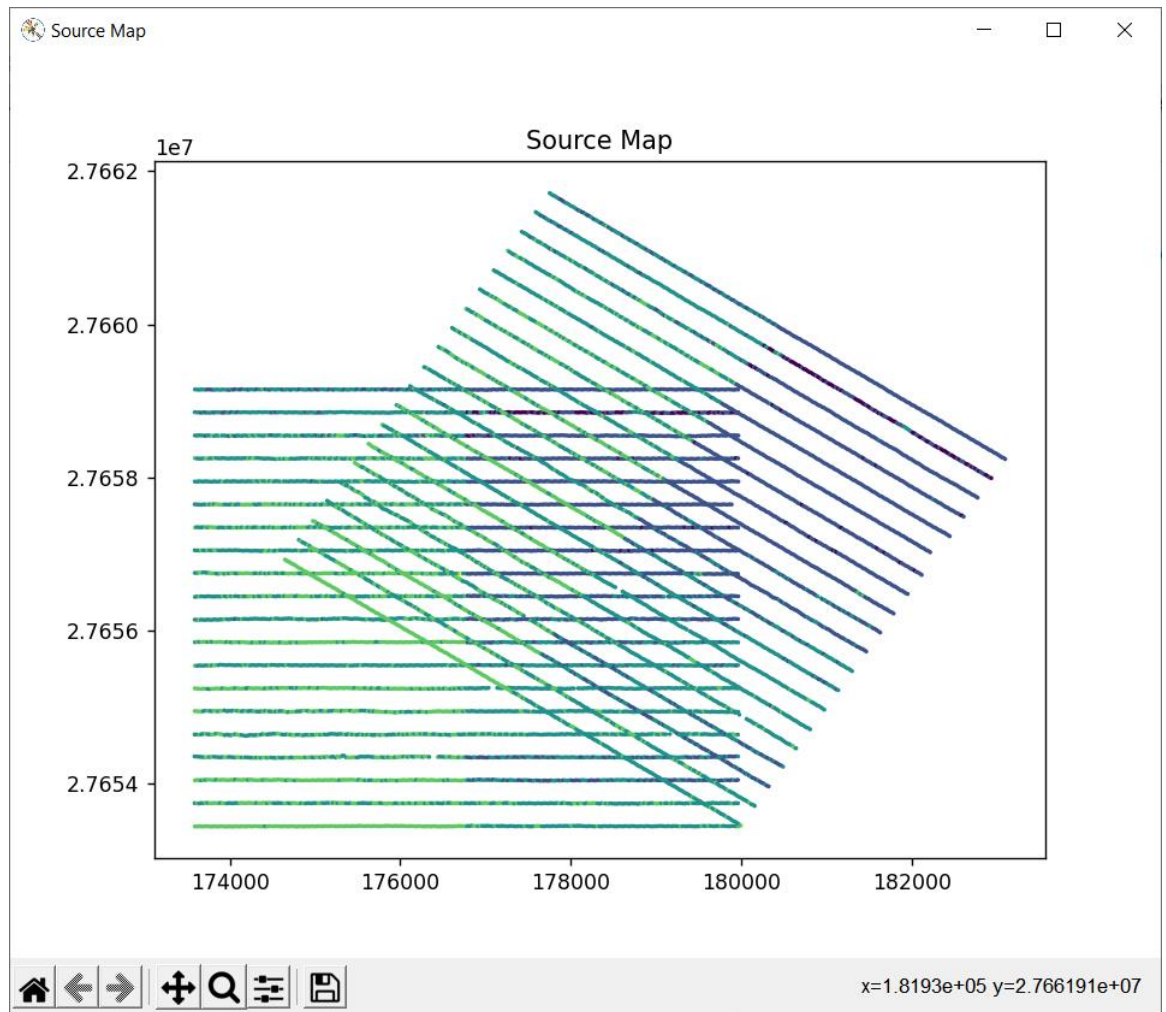
From now on, all new RadExPro projects will be created with the new database. Your old projects will open as usual and will not be converted to the new format.

Other novels are as following:

- New **Python Proxy** module allows you to integrate Python scripts into RadExPro processing flows. The scripts get access to the data and trace headers in the flow and can process them and even make plots.



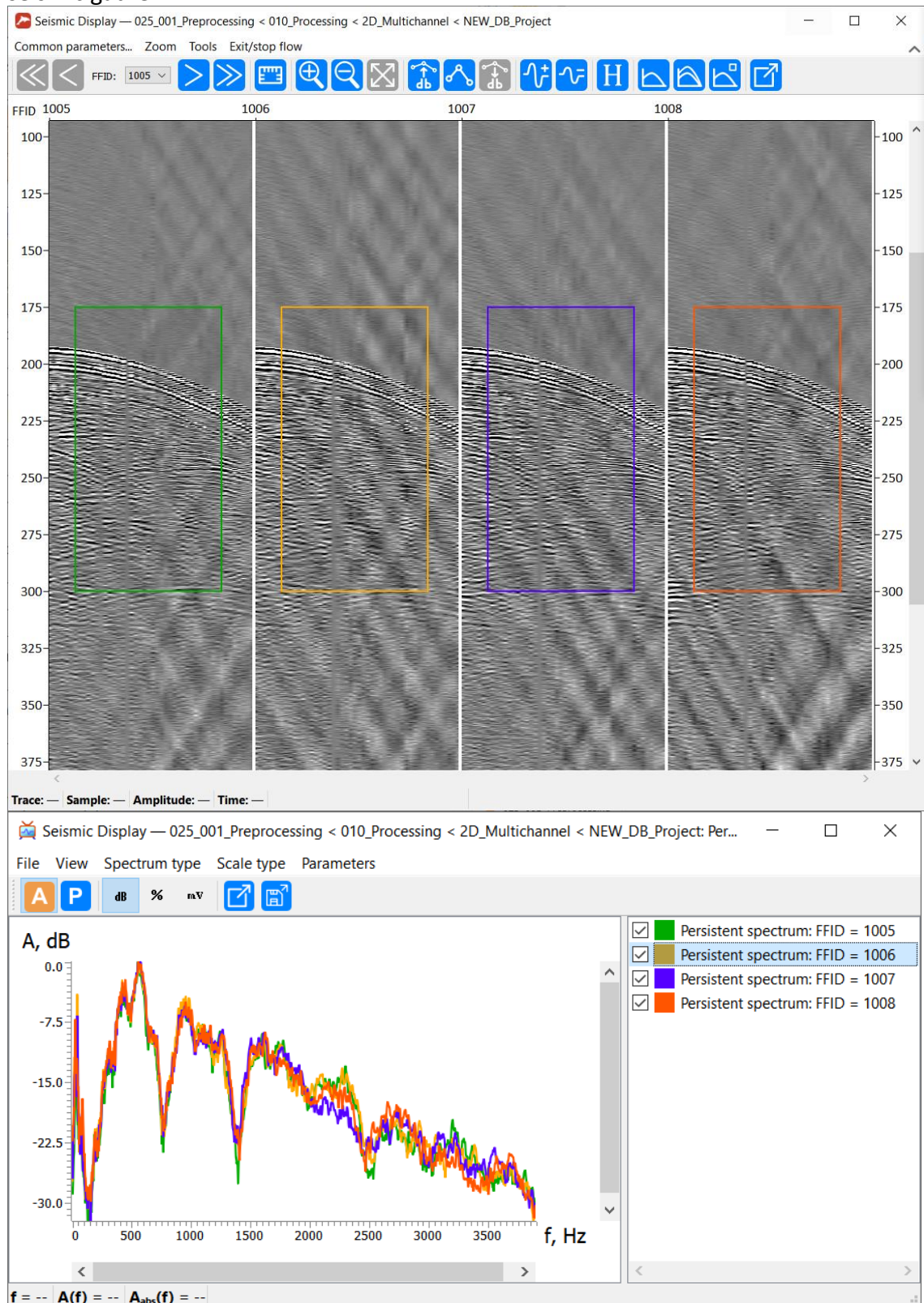
A Python Proxy module dialog with a script to be executed as a part of a RadExPro processing flow. The script access trace headers of the flow and plot original and rotated versions of SOU_X and SOU_Y, with SOU_ELEV as a color code.



A Python plot as a result of running the flow with the script from the previous page.

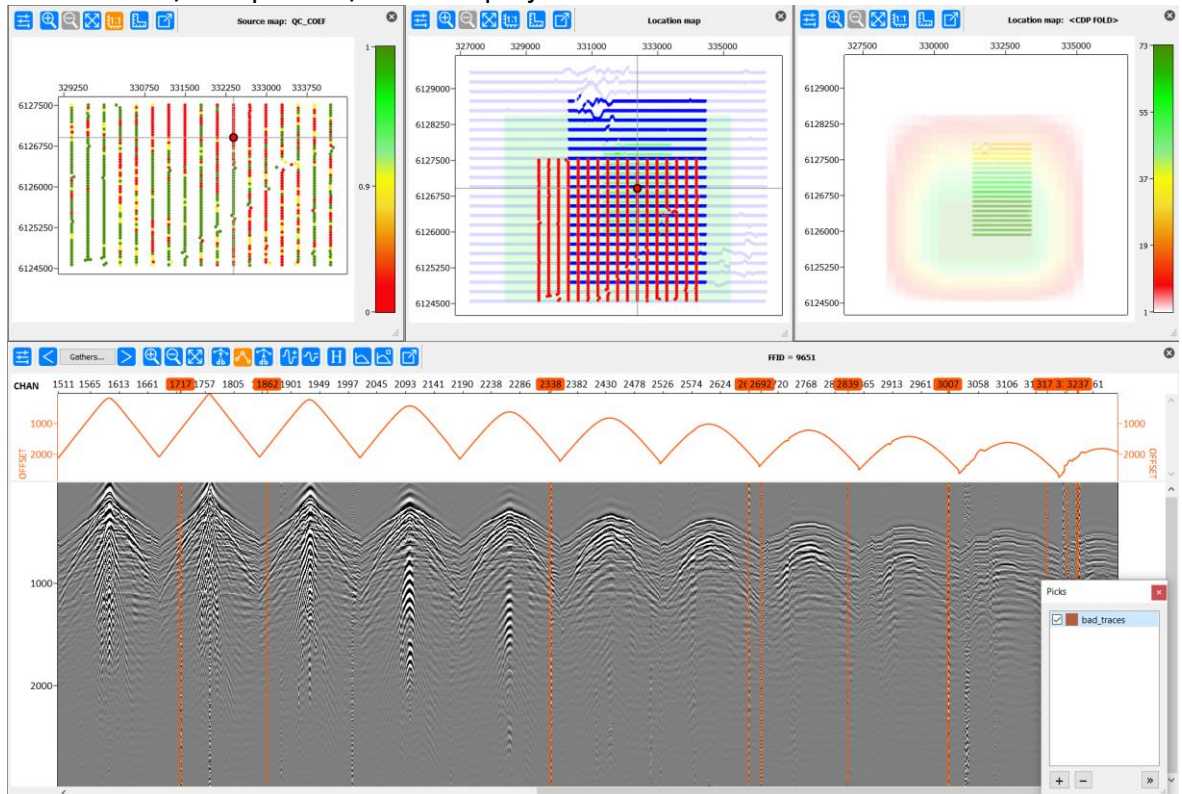
- New **Ensemble Stack to Dataset** module allows you to correctly stack up additional pre-stack data to a stack in a dataset. Now, when working in field or on board a seismic vessel you do not need to wait for the whole volume of the 3D data to make a final brute stack. Instead, you can add more data to an existing stack as soon as the data is acquired. An individual fold for each sample is stored in a separate dataset to ensure correct summation even when the stretch muting is used.
- New **Shot Stack** module allows you to stack up new shot gathers coming through the flow to a vertical stack dataset on disk. The shot gathers are supposed to be with the same source and receiver positions and are stacked trace by trace.

- We have added '**persistent spectra**' facility to the **Seismic Display** and **QC Viewer**. Now you can predefine time/offset window for the spectra that will be displayed for each seismic gather.



Persistent spectra in Seismic Display – for all gathers the spectra are calculated for exactly the same time/offset window as specified in the module parameters.

- You can now display **power spectra** instead of the amplitude spectra in **Seismic Display**, **Interactive QC** and **QC Display** modules. Use buttons of the toolbar of the spectra display window to select the type of spectra to be displayed.
- We added **picking facility** to the seismic display window of the **Interactive QC** module. By default, a new pick is 'marks only' that is convenient for manual picking of bad traces. You can save/load picks to/from the project database.



Manual picking of bad traces in the QC Viewer.

- Improved **Zero-Offset Demultiple** module now allows you to specify filter zero position (used to be always in the center of the filter).
- Now you can see **3D CDP bin grid objects** on the **DB Navigator** tab. You can check and edit their parameters, save current grid as another grid object, as well as export/import them to/from ASCII JSON files to exchange the grids between projects.

- The following extra modules now support **replicas**:
 - Interactive Velocity Analysis
 - Velocity Analysis Precompute
 - Velocity Manipulation
 - Python Proxy
- Some **bugs were fixed**:
 - Custom Impulse Trace Transforms sometime forget specified Impulse Zero value—**FIXED!**
 - PSTKM – when content of the selected 3D bin grid object changes, the module does not recognize this and keep using initial grid – **FIXED!**
 - DB Navigator cannot create an empty velocity object for further editing – **FIXED!**
 - We made some other minor fixes but, honestly, they are not worth mentioning here.

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, 2021 and January 10, 2022 we are closed for Orthodox Christmas holidays.

We wish you happy holidays and all the best for the New Year 2022!

Yours,

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