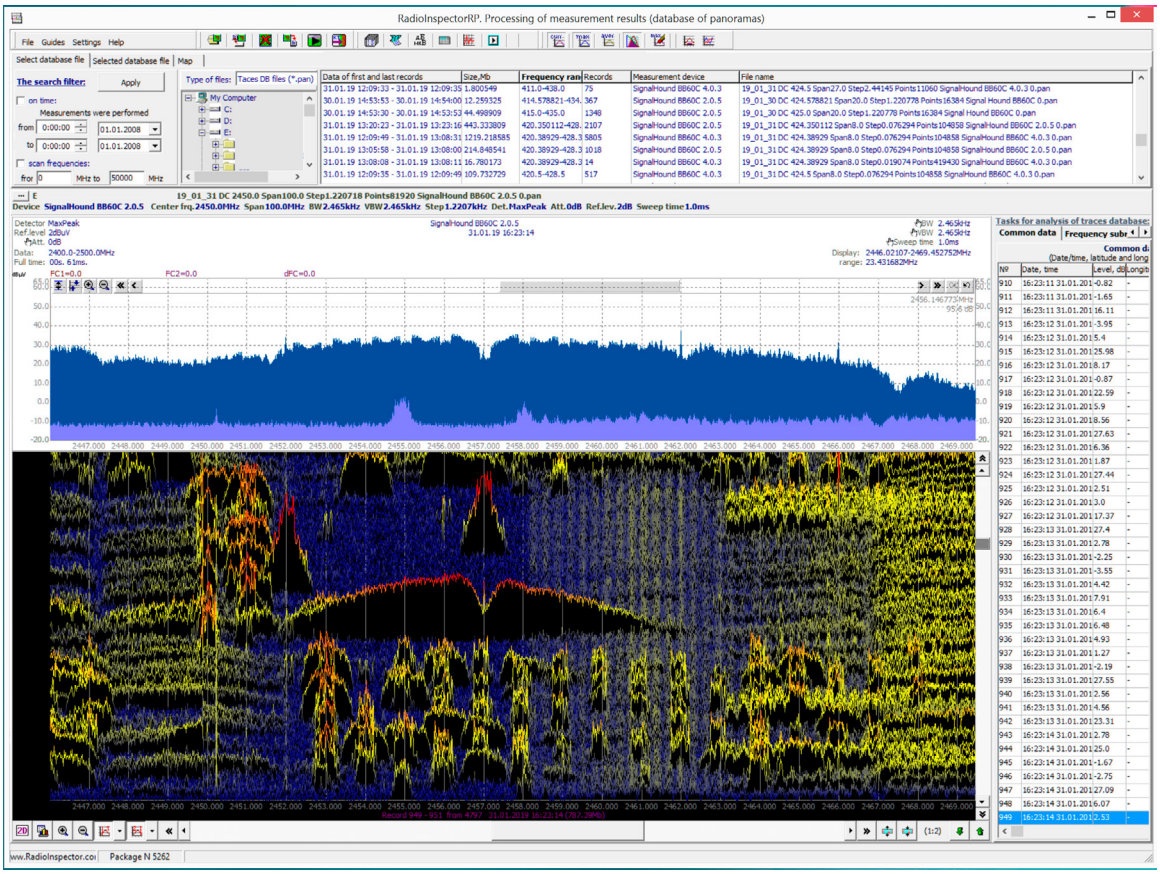
RadioInspectorRP

SOFTWARE FOR POST-ANALYZIS OF RECORDED DATABASES



RadioInspectorRP program is designed for statistical processing of signals or frequency ranges from a stored database of panoramas in the amplitude-frequency-time-geographical coordinates space. Panorama databases can be formed by various programs - **RadioInspectorRC, RadioInspectorRT.**

Possible application areas of the program:

1. Expert analysis of the radio frequency spectrum.
2. Display and document previously collected radio frequency spectrum measurement results.
3. Analysis of the electromagnetic environment along the measurement route.
4. Search for illegal sources of radiation.
5. Fixing the output of radiation parameters beyond the limits of the specified norms (limiting lines).
6. Search for sources of radio interference.
7. Performing measurements of the radiation parameters of the RES based on the results of previous measurements.

FUNCTIONALITY AND BRIEF CHARACTERISTICS OF THE PROGRAM:

• Analysis of the electromagnetic situation at the measurement point or along the route of the vehicle.

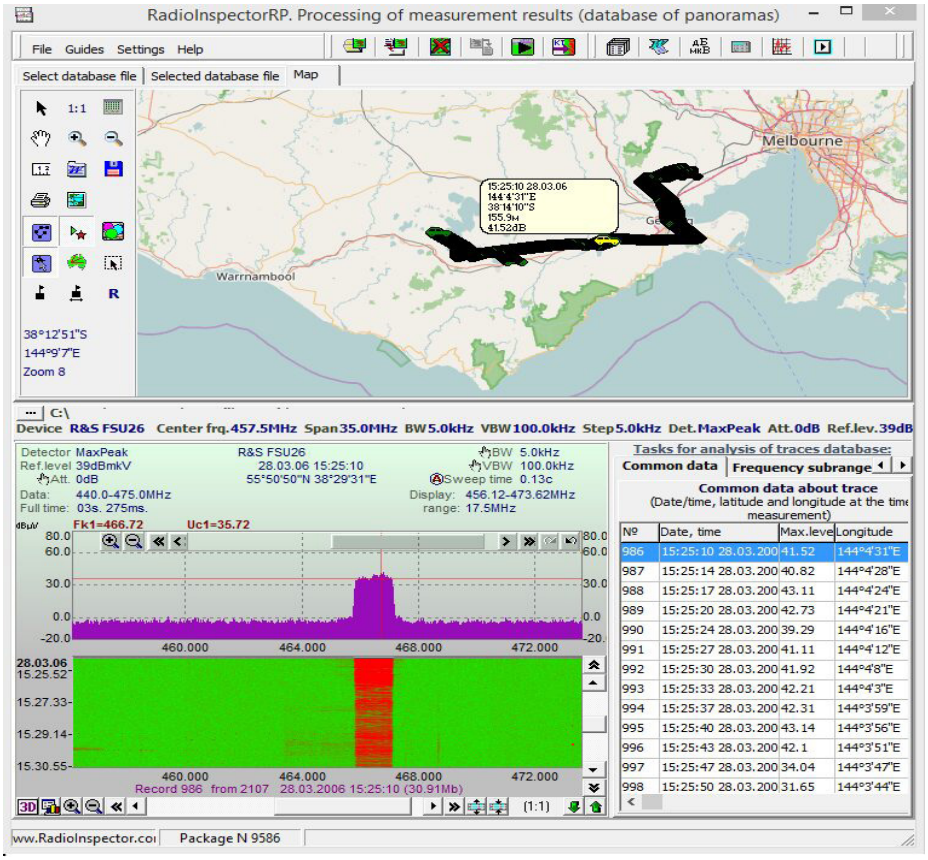
• “Playback” of saved panoramas in real time and in accelerated mode.

•Detailed analysis of individual signals and sub-bands of frequencies (up to 4 simultaneously).

• Representation of measurement results in the form of graphs and spectrograms (in 2-dimensional and 3-dimensional form).

• Simultaneous representation of measurement results in the form of amplitude-frequency, amplitude-time graphs and display of measurement points on an electronic map of the area (if the RP-GEO option is available).

• Display of measurement results on an electronic map. Using OSM maps (if the RP-GEO option is available).



• Saving a selection from the database based on the criteria of time, frequency, geographical coordinates (if the RP-GEO option is available), and a range of record numbers.

• Documenting the presence of signals in the radio air with reference to the time of operation of the radiosignal transmitters.• Preparation and creation of a report on the measurement results.

• Measurement of frequency occupancy (frequency range).

• Measurement of signal parameters (occupied frequency bands by the β /2 method, occupied frequency bands by the level-N dB, field strength using various methods, estimates the center frequency for symmetric signals).

• Search for interference sources based on the hypotheses of blocking, the presence of harmonics, and intermodulation of the 2nd, 3rd, 5th, and 7th orders over the actual measured signal spectrum.

• Using a database of frequency assignments and displaying information on legal and unidentified radiosignal sources on a graph.

• Analysis of the output of radiotransmission parameters beyond the specified limits or search for new radiosignal sources using the reference panorama.

• Preparation and creation of a report on the measurement results.