

Technical Bulletin

For OPC-5000 – version 5.05

This bulletin describes two changes incorporated into the latest OPC-5000 release: Vista compatibility and the new Trace Sequence Recording and Review feature.

OPC Vista Compatibility

This release has been modified to accommodate changes encountered in Vista.

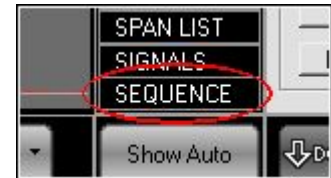
Trace Sequence Recording

This release incorporates a new bonus feature, *Trace Sequence Recording and Review* which is designed to capture a series of traces that can be displayed in a graphical style often referred to as a waterfall display. Trace Sequence Recording, which can be run in manual or Auto mode, continuously records trace data into a sequence file. Trace Sequence Review displays the captured trace data in a waterfall format. Since R.F. energy levels are captured with a time stamp, it is easy to determine when a particular signal was detected.

Trace Sequence Recording is available only while OSCOR is connected to OPC. This is a bonus feature and REI does not guarantee continued support or development.

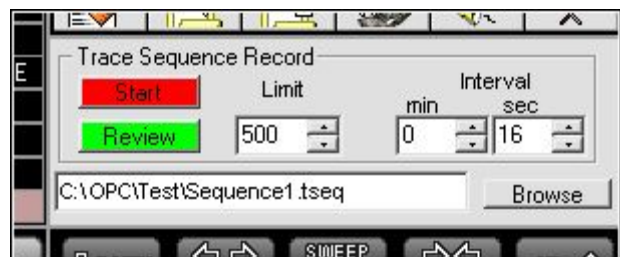
To Record a sequence in Manual Mode:

Set up the OSCOR in the normal way, selecting the input, span and other settings. Then click on “SEQUENCE” as shown to display the Trace Sequence Configuration panel. Here there are options to limit the collection size, set time spacing and supply a file name.



Limit: Because trace sequence files can get very large, the number of traces collected can be limited. Each trace may require up to 60k bytes of disk space; 1000 traces could consume 60 MB; 10000 traces, up to 600 MB. At 30 seconds per trace, the latter could cover three days of recording.

Interval: This sets the minimum time spacing between traces collected. However, OPC will wait until a trace is fully captured before writing to file, so the time spacing may be greater than what is shown. When multiple OSCOR sweeps occur during the interval, OPC keeps the peaks and saves a single merged trace to file. This allows optimization of file size versus time stamp resolution.



Browse: You may accept the default Trace Sequence file name or enter one of your choosing. Trace Sequence files use the extension “.tseq”.

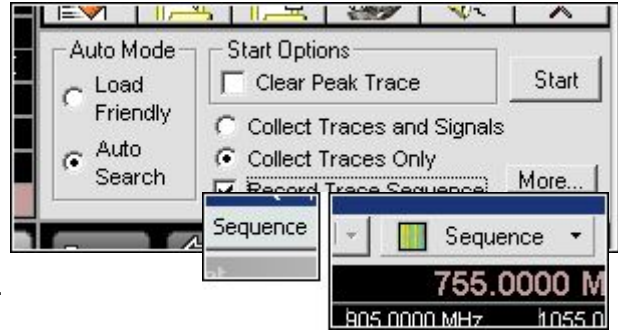
Start / Stop: Click this button to start or stop trace sequence recording in Manual mode.

Review: Click this button to review the current trace sequence file.

To Record a sequence in Auto Mode:

Set up the OSCOR in the normal way for Auto Mode, selecting the spans and other Auto Mode parameters. Set the Trace Sequence Limit, Interval and filename as described above under Manual Mode.

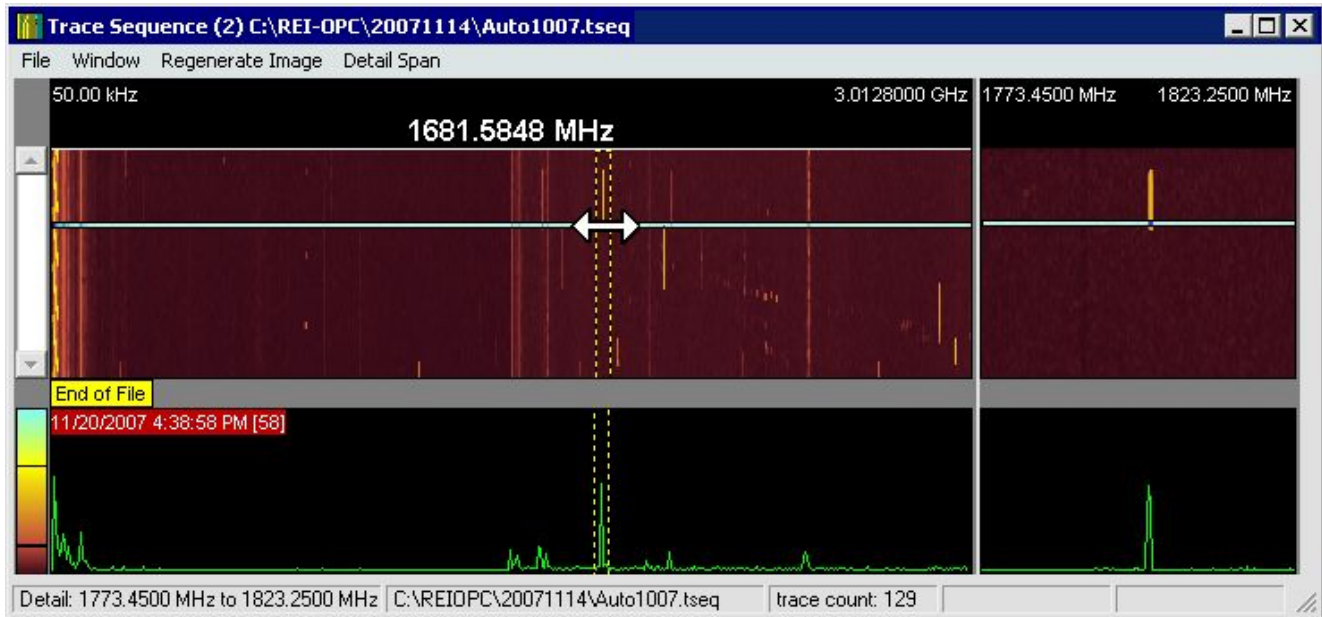
Click “Show Auto” to access the Auto configuration panel. Record Trace Sequences can only be checked when “Collect Traces Only” is selected. Click start to begin Auto Mode with Trace Sequence Recording.



To Review a sequence:

Click either the *Sequence/Review* menu item or the *Sequence/Review* button on the Trace Analysis window to open the file select dialog. Find and open the desired file.

There are four main panes on the Trace Sequence Review window. Top left is a waterfall representation of all the trace data collected. Top right is a zoomed detail view of the trace data located within the dashed yellow selector box. This box can be moved by click and drag or by double-clicking. The lower two panes show the trace data under the horizontal select bar on the upper panes. The red box indicates the time stamp for the trace under the mouse cursor.



Clicking on the color bar at the left of either the OSCOR sequence pane or on the Trace Review window can easily customize the color scheme. Not only can the colors be changed, but the gradient spread can also be adjusted by click and drag on the black bars.

Using these tools, you can quickly discover the time and frequency of any R.F. energy captured by OSCOR during the Trace Sequence Record period. Burst, spread spectrum and other transmission methods can be determined by examining the patterns displayed.