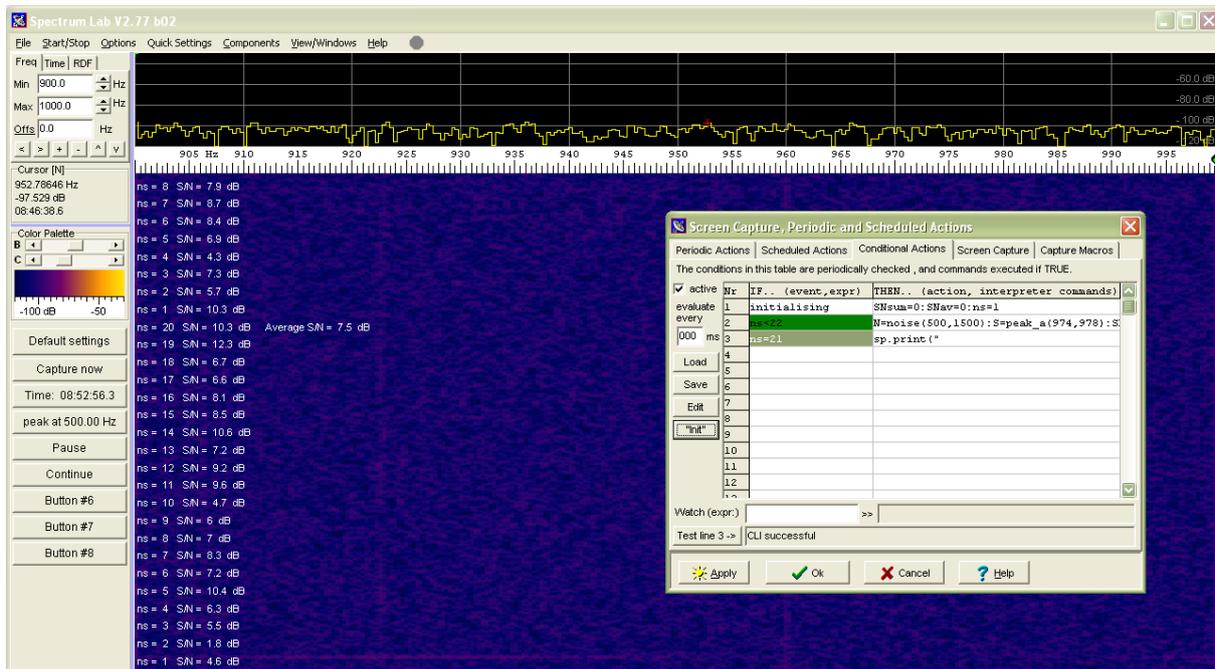


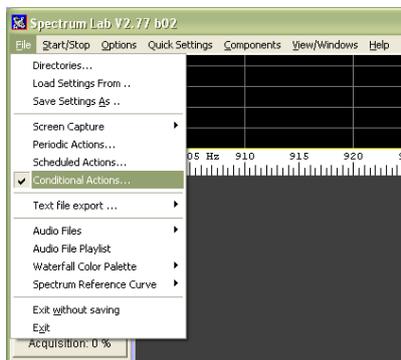
Progress on automated optical Rx S/N measurements using Spectrum Lab

G8AGN 7 March 2012

I've now developed a Spectrum Lab "Conditional Actions" script which removes the need for external number crunching of the measured S/N values and instead, displays them directly on the waterfall display. As presently configured, Spectrum Lab is used to automatically measure 20 values of receiver S/N (at 6 second intervals) and these are displayed "on the fly", together with the average of these values (at 2 minute intervals, as $20 \times 6 = 120$ seconds). A typical waterfall display (of just noise – i.e. no signal present) is shown below



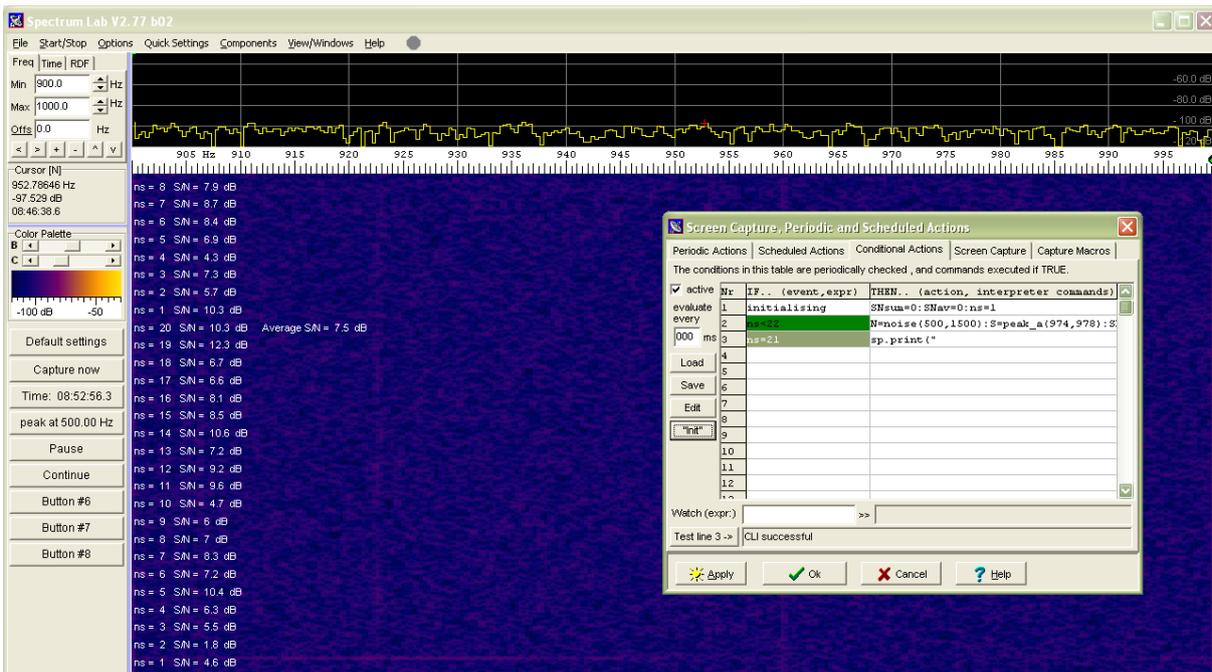
The set up procedure for Spectrum Lab is as follows:



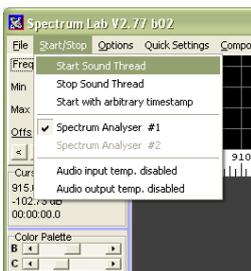
Go into the Conditional Actions box via the File menu. Choose the Load button



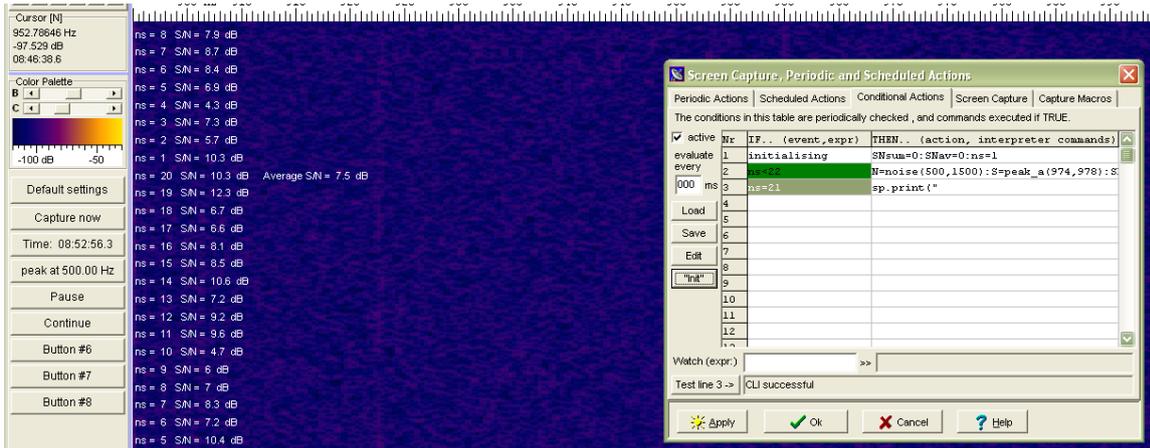
Make sure that the “active” box is ticked in the Screen Capture, Periodic and Scheduled Actions window



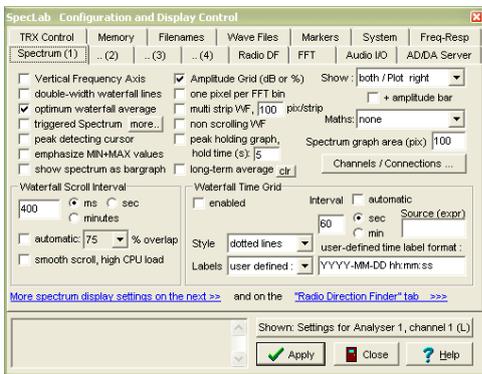
To take a S/N measurement, start the sound thread



Then push the init button – this resets the sample counter to 1.



Display settings were as follows:



A 32K point FFT was used.

The Spectrum Lab script can be found in the files section of the UKNanowaves Group. Look for Rx_SN_average.txt.

