

Kestrel TSCM[®] Professional Software | Key Operational Features and Functionality | Review

November 2015

Technical Research and Standards Group (TRSG)

Paul D Turner, TSS TSI

Many technical operators tend to understand the core concepts and operational capabilities of the Kestrel TSCM[®] Professional Software from a spectrum analysis perspective, but will gain new respect of the depth of the software, after attending our 3-day technical operator certification training.

As noted in the October 2015 newsletter.

“Software Defined Radio (SDR) is now a dominate and preferred technology worldwide, given the versatility and adaptability to multi-task, and meet a wider range of known and developing threat environments in the field, lab, or classroom, and plays a role in operator training.”

The following describes just some of the core features of the Kestrel TSCM[®] Professional Software.

01 | Project Template Editor (PTE) | The ability to generate any number of user-defined project templates is a powerful new feature that maximizes the technical operators ability to rapidly initialize and enter the runtime environment.

02 | Advanced Signal Intelligence Database (ASID) | The ASID includes a number of advanced features such as the Frequency Database (FDB), and a graphical overlay, user defined Operator Signal List (OSL). The ASID feature is a searchable database with direct correlation to the RF Spectrum Display (RSD).

03 | Demodulation Visualizer | The ability to demodulate and analyze Signals of Interest (SOI) within the Intermediate Frequency (IF) domain, including audio filtering, RSSI Tone Locator (RTL), and audio record capability.

04 | Differential Signal Analysis (DSA) | With the ability to collect and analyze comparative spectrum trace data across an unlimited number of collection locations.

05 | Harmonic Calculator Tool | An expanded Harmonic Calculator displays the fundamental, H2 to H9 as well as the sub-harmonic range of 1/H2 to 1/H9.

06 | Session Report Generator (SRG) — An expanded SRG capability provides the operator with the ability to quickly generate professional, multi-level technical reports.

07 | Live View Analysis (LVA) — The unique ability to review historical data without any interruption of the collection process, permits unprecedented analytical capability to field operations.

08 | Dynamic Alert Annunciator (DAA) — Supports signal loss and signal exceedance detection and reporting, signal level statistical details, Spectra and RSSI, export to CSV file format.

09 | Project Activity Scheduler — The activity scheduler supports active multi-level programming across multiple spectrum bands and multiple receivers, giving total control of multiple collection antenna locations.

10 | Chirp Threat Mode (CTM) — The CTM feature provides positive identification of analog surveillance technologies, by identifying and characterizing the fundamental frequency and any detectable near-field harmonic events, and then resolving them to the appropriate threat list automatically.

11 | Harmonic Signature Threshold (HST) — The ability to resolve harmonic signatures permits the operator to validate signals as potentially hostile. A manual harmonic calculator is also provided to quickly confirm the presence of harmonic events utilizing our “drag-and-drop” technology.

12 | Minimum Detection Amplitude (MDA) — The MDA capability is utilized to capture signal events at or above an operator defined threshold, and generate an Automatic Threat List (ATL).

13 | Spectrum Baseline Logging (SBL) — The SBL capability permits the capture and display of a clean threat list, without any threat detection. This is useful as a baseline reference of all signal events identified as operating within the ambient RF spectrum environment.

Kestrel TSCM[®] Professional Software | Signal Intelligence Support System (SISS) | Industry Disruptive Innovation

Professional Development TSCM Group Inc.

14 | Spectrum Profile Editor (SPE) — Our universal SPE capability allows the operator to create, delete, edit and maintain any number of spectrum profiles at the operator level, ITU region, or client specific environment.

15 | Channel Profile Mask (CPM) — Situational awareness is an essential operator centric feature that provides band and channel specific graphical reference overlay information on the RF Spectrum Display (RSD).

16 | Multiple Receiver Operation (MRO) — Single Receiver Operation (SRO), Dual Receiver Operation (DRO), and Multiple Receiver Operation (MRO) are supported with “on-the-fly” dynamic (spectrum and demodulation) “hand-off” between any number an type of supported receivers and spectrum analyzers.

17 | Kestrel Super Trace (KST) — During Remote Spectrum Surveillance and Monitoring (RSSM) assignments over a period of days, weeks, months, or years, trace and waterfall data can become a storage challenge. The WFD compression feature significantly reduces the project file size.

18 | Operator Signal List (OSL) — The OSL is a user defined frequency reference database with the ability to graphically overlay OSL data in real-time for comparative against the current spectrum. Multiple (friendly and hostile) OSL databases can be maintained and quickly accessed as comparative overlays.

19 | Live View DSA (LVD) — The LVD capability enables the operator to directly compare the current spectrum with a historical trace with real-time updates, without interrupting the current collection location. The echo mode is utilized to display real-time updates.

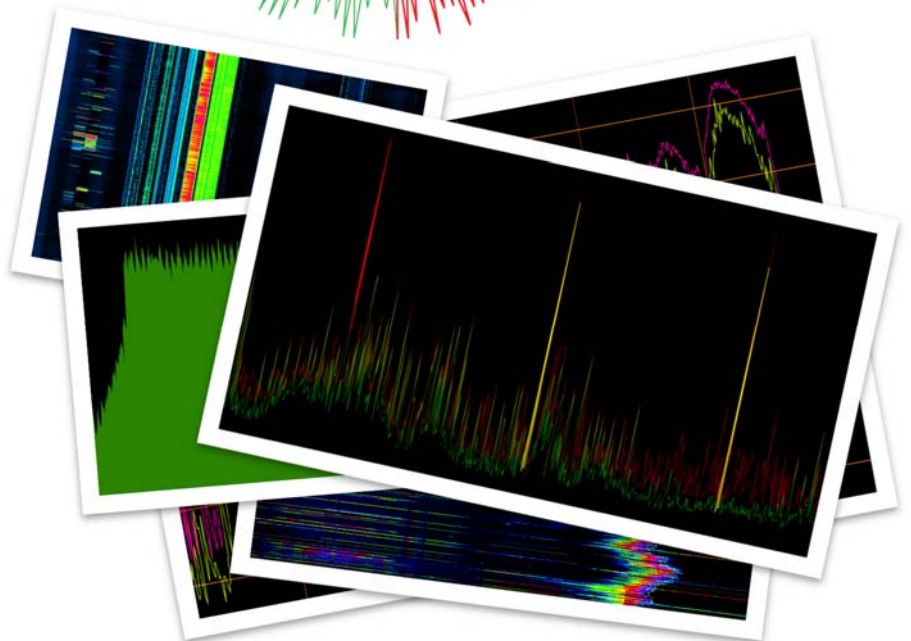
20 | Kestrel Support Profiles (KSP) — Profiles are available for a wide range of professional search receivers and spectrum analyzers. Custom development for user specific SDR receivers is also available.

21 | Multiple Spectral Windows — The ability to display, any number of independent spectral range windows and drag them to additional display monitors is supported.

For information about the many innovative features of the Kestrel TSCM[®] Professional Software, please visit;

<http://www.kestreltscm.com/SISS016.htm>

Innovation is Simply the Beginning



Kestrel TSCM[™] Professional Software is innovative industry leading, disruptive technology, now sold in 20 countries worldwide.