

Kestrel TSCM[®] Professional Software

TSCM Deployment Methodology and Process

September 2016

Technical Research and Standards Group (TRSG)

Paul D Turner, TSS TSI

Understanding the TSCM threat environment, or threat model, as it relates to the assignment at the target level, must include the deployment methodology and process as essential operational element.

Unfortunately, what the client wants or envisions, and what is actually possible are often on opposite sides of the spectrum (pun intended).

Operators that blindly expect the clients Scope of Work (SOW) without providing the client with a clear declaration of effectiveness for the various elements of work to be performed, and the realistic outcome, is not acting in the best interest of the client.

As noted in the August 2016 newsletter.

“The effectiveness of a few hours of target area spectrum analysis provides a very low Probability of Detection (POD) for the type and characteristics of modern Technical Surveillance Devices (TSD) that are designed to hide, evade, and generally avoid obsolete detection strategies that are unfortunately, still utilized by many technical operators, and expected by the end-user with only a limited measure of TSCM experience”.

The current recommended methodology as delineated within the TSB 2000 (Technical) Standard, includes a more rigorous deployment process that includes periodic RF inspections against the backdrop of 24/7 Remote Spectrum Surveillance and Monitoring (RSSM), oftentimes across multiple geographically co-located, but unrelated clients, by exporting and importing multiple location trace data in real-time as an active differential comparative across distributed monitoring systems.

Real-Time | Kestrel Analytics[™]

The ability to remotely access various runtime systems at any time, and from any location, permits the application of advanced Kestrel Analytics[™], while providing a convenient method of advancing the time-on-target, not only during normal business hours, but also outside of business hours, and over weekends allowing for new and sustainable revenue streams.

Kestrel Analytics[™], includes the ability to remotely access the live runtime Kestrel[®] User-Interface (UI) and review all aspects of any historical and currently displayed spectrum and waterfall data, signal list data, and any automatically exported CSV and IQ data.

Digital Demodulation | Protocol Analysis

With the recent very successful implementation of the Kestrel IQ (KIQ) module, our development efforts are now focused on implementing a number of new digital demodulation modes within the Kestrel[®] software.

The first phase of our anticipated demodulation mode implementation will include a number of additional analog and digital demodulation schemes, which will be implemented with the next scheduled v1.34xx installer release (anticipated for release in September 2016) with additional digital demodulation modes with the v1.35xx installer release (anticipated for release in December 2016).

Along with the various new demodulation modes, a number of advanced protocol based analysis tools will also be implemented as standard included features within the current licensing structure.

Software Development Group (SDG)

Our Technical Research and Standards Group (TRSG) and the SDG remain strongly committed to the development and implementation of new industry disruptive technology, concepts, methodology, and strong Canadian innovation that is operator centric.

No Broadband Detector | No Problem!

Most technical operators utilize a broadband detector for near-field detection of the strongest signal level within a given search area.

Broadband detectors can be quickly deployed and are able to localize some types of signals relatively efficiently, however, in a modern search environment, there are many more signal sources, all in near-field proximity than ever before, making many detectors ineffective.

Kestrel TSCM[®] Professional Software

Kestrel[®] Digital Demodulation | Protocol Analysis

Professional Development TSCM Group Inc.

Technical Security Branch (TSB)

Most are periodic digital signals and are not easily detected, displayed, or more importantly, easy of localize due to the periodic nature of the signals and extensive ambient background noise encountered.

This diminishes the effectiveness of most broadband detectors, and as a result they are not necessarily reliable in a modern threat environment.

The vast majority of broad band detectors are virtually useless in high ambient RF environments.

The Kestrel TSCM[®] Professional Software can be utilized in a walk-about mode, capturing and displaying signal events specific to any location within the target area.

The ability to capture real-time and peak hold trace data permits a direct method of quickly identifying discrete signals as the operator moves about the target area in either an RF sweep mode or IF mode up to the maximum operating bandwidth of the SDR hardware.

The RSSI Tone Locator (RTL) feature utilizes dual channel audio overlay capability that allows the technical operator to monitor both the Signal of Interest (SOI) source audio, and the amplitude based RSSI Tone Locator (RTL) simultaneously, or independently.

In active sweep mode, discrete signal events are captured across the entire receiver Range of Interest (ROI) or any frequency sub-band, or operator defined custom range.

The high speed nature of industry leading search receivers, such as the Signal Hound (BB60C) Spectrum Analyzer and RF Recorder, makes them ideal for walk-about signal detection, localization and RSSI based direction-finding.

Operator Development Group (ODG)

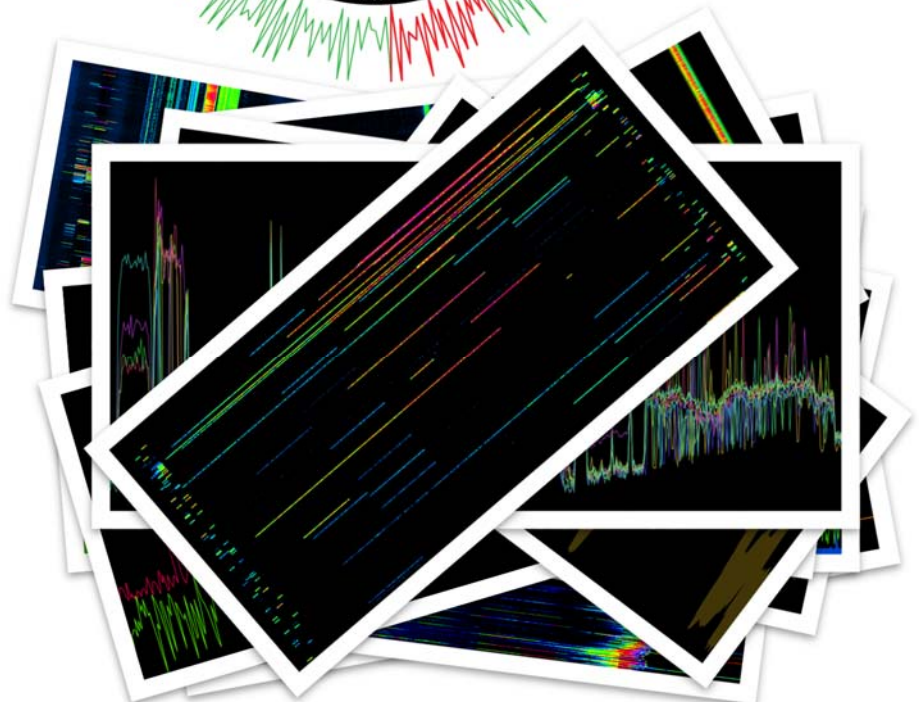
Join the ODG and contribute to the future development of the Kestrel TSCM[®] Professional Software.

PDTG is committed to the development of strong industry disruptive technology, designed for operators.

To learn more about the benefits of the Operator Development Group (ODG)[™], please contact [Paul D Turner](mailto:Paul.D.Turner@pdtg.ca), TSS TSI at Professional Development TSCM Group Inc.

| www.pdtg.ca | www.kestreltscm.com | www.ctsc-canada.com |

Innovation is Simply the Beginning



Kestrel TSCM[®] Professional Software is innovative industry leading, disruptive technology, now sold in 25 countries worldwide.