

Kestrel TSCM[®] Professional Software

“Kestrel | Changing the Dynamics of Technical Security”

May 2017

Technical Research and Standards Group (TRSG)

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There are tremendous deployment advantages realized, while improving the Probability of Detection (POD), when working in an IF mode, rather than the traditional sweep mode. Essentially, operation in the Intermediate Frequency (IF) mode, referred to as IFB within the Kestrel architecture, consists of a real-time zero-span, high-speed sweep, within a signal level runtime environment, up to the maximum IF bandwidth of the hardware.

As noted in the April 2017 newsletter.

“Software Defined Radio (SDR) is all about the powerful and innovative features and tools that define the technical operator’s ability to collect, detect, identify, classify, verify and neutralize hostile emitters operating within an oftentimes complex, and challenging ambient RF spectrum environment”.

With powerful SDR hardware such as the Signal Hound BB60C (9 kHz to 6 GHz), and the new SM200A (9 kHz to 20 GHz) firmly on the horizon, along with the recent release of the new ThinkRF R5500 (100 kHz to 27 GHz), provide up to 160 MHz of real-time IF bandwidth, advantaged by the Kestrel[®] IF Broadband (IFB) feature.

The Kestrel TSCM[®] Professional Software now includes an entirely, new gear with the IF Broadband (IFB) mode, to advantage to current and future hardware capabilities across a number of manufacturers worldwide. Our new IFB mode is not part of the Demodulation Visualizer control group as might be expected, but rather IFB has been fully integrated directly on the main User-Interface (UI) with single button enable. This latest development milestone allows the technical operator to take full advantage of all of the primary and secondary display, activity and alerting features, including a new, IF waterfall display. The IFB mode is fully integrated with the existing Dynamic Alert Annunciator (DAA) and Automatic Export Control (AEC) functionality.

The ability to capture and record | Triggered IQ |, and automatically export spectra, RSSI, and Automatic Threat List (ATL) data to CSV format, is fully supported.

The IFB mode is initiated with a single button located within the SDR control group, for any operator defined bandwidth, up to the maximum receivers maximum design, IF Bandwidth (IFBW). The Kestrel[®] IFB mode operates in an active demodulation domain, rather than the traditional sweep mode, providing a number of definitive deployment advantages, depending on the IFBW, defined by the technical operator. These advantages include a significantly lower noise floor (20 dBm), exposing Signals of Interest (SOI) that otherwise might be near, or below, the Ambient Noise Floor (ANF), in a runtime sweep environment, and a higher apparent sweep speed will be realized, significantly increasing the Probability of Detection (POD) Vs Time-on-Target.

Dual Receiver Operation (DRO)[™]

The recommended deployment strategy, as defined under the TSB 2000 (Technical) Standard, is to utilize the Kestrel[®] Dual Receiver Operation (DRO) capability, allowing an uninterrupted, maximum effort capture of the ambient RF spectrum environment on a primary search receiver, or analyzer, and utilize the secondary receiver as a targeted, band, channel, or signal level, trigger and alerting resource, to define and filter, specifically targeted Signals of Interest (SOI), capture and record AEC | Triggered IQ | samples, for analytical hand-off, and / or post analysis an review, along with operator defined pre-buffer and post-buffer data.

IF Broadband (IFB) | Emitter Location

Emitter localization is significantly enhanced, and the requirement for a separate broadband receiver is minimized, when the same powerful resource can easily transition from collection to direction-finding (DF), utilizing the hand-held, Kestrel Log Periodic (KLP)[™] antenna. The ability to utilize the connected receivers real-time bandwidth, provides a powerful built in, full featured broadband detector for precise, targeted emitter location, on-the-fly, utilizing powerful feature combinations, such as the “create new band”, and SOLO priority mode, in combination with the IFB capability.

Kestrel TSCM[®] Professional Software

“Professional Software for Professional Applications”

Professional Development TSCM Group Inc.

Technical Security Branch (TSB)

Whether the operator assisted deployment calls for Technical Surveillance Countermeasures (TSCM), Remote Spectrum Surveillance and Monitoring (RSSM)[™], or other applications, such as Electro-Magnetic Interference (EMI) resolution, or hostile Emitter location, the Kestrel TSCM[®] Professional Software includes all of the required resources to accomplish most complex deployment requirements.

The Kestrel[®] Software Development Group (SDG) is strongly dedicated and focused on the professional end-users technical requirements, goals and objectives. The Kestrel[®] TSCM Professional Software | Signal Intelligence Support System (SISS)[™] is an advanced deployable, “work in progress” for corporate, government, military, and the national security apparatus. Our SDG is never satisfied that any specific feature or functionality, cannot be enhanced or approved upon, in an operator centric interactive development effort.

The Kestrel[®] TSCM Professional Software is a powerful, operator centric application, and we encourage your feedback (positive and negative), as well as your ideas for new field deployable and administrative features, functionality, behaviour observations, and comments.

Kestrel[®] is a unique SDR application destined to soar to even greater heights, with each milestone in keeping with our goal of tackling real-world deployment challenges, including espionage, cyber-security, protective support, kidnap and hostage recovery, tactical intervention, counter-terrorism, and final option incident resolution.

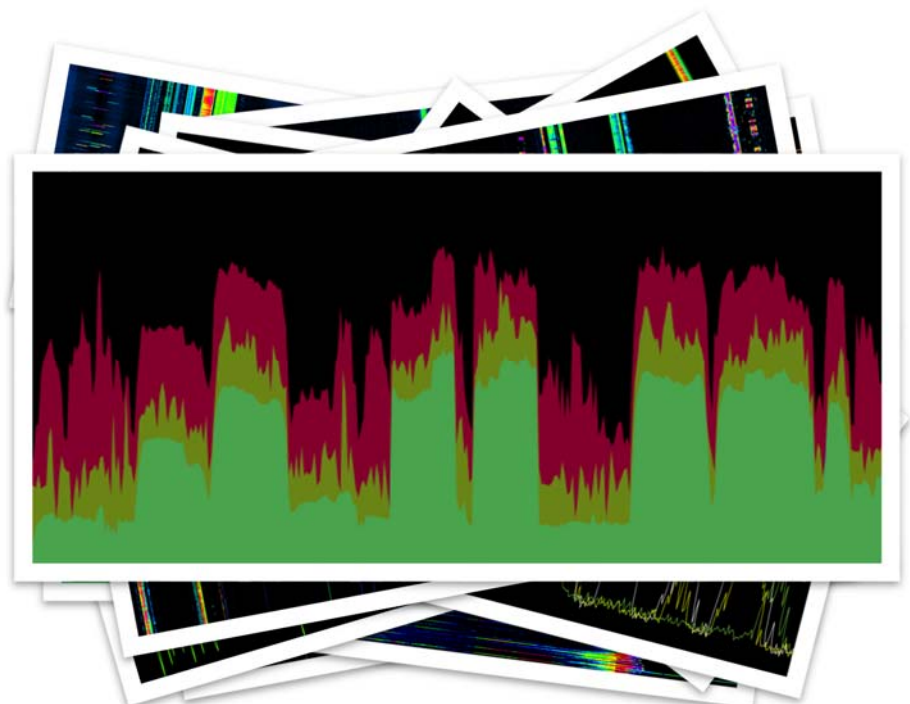
Kestrel[®] offers unique tools for professional field deployment worldwide, with powerful SDR resources for a wide range of end-user defined applications and requirements, all developed under the vast umbrella of company principals, experienced in high-risk protective operations, counter-espionage, counter-terrorism, and Electronic Counter Measures (ECM) deployment.

Our SDG does not simply develop software, our company background and experience permits a deep understanding of the real-world deployment objectives of private sector and the government based national security apparatus, that must deploy Technical Surveillance Countermeasures (TSCM), and Remote Spectrum Surveillance and Monitoring (RSSM)[™].

It is this collective and wide ranging knowledge and experience of the principals of Professional Development TSCM Group Inc., that continue to guide the Kestrel TSCM[®] Professional Software to meet more exacting and demanding capabilities — A powerful fact recognized worldwide by professional technical operators. It is not about the software, it is about the real world life experiences deep within the Kestrel[®] software architecture. It is the confidence and trust that professional technical operators have shown since the first official release in early 2009.

To learn more about developing an effective Technical Security (TSEC) program, please contact [Paul D Turner](#), TSS TSI at Professional Development TSCM Group Inc.

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



Kestrel TSCM[®] Professional Software is innovative industry leading, disruptive technology, now sold in 28 countries worldwide.