# Kestrel TSCM<sup>®</sup> Professional Software A Decade of National Security Excellence TSCM | SIGINT | ELINT | RSSM<sup>™</sup>

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There are two (2) TSCM | SIGINT features that are essential to the automatic detection and reporting of various aspects of the ambient RF signal environment. The Kestrel TSCM <sup>®</sup> Professional Software is specifically designed for TSCM, SIGINT, ELINT and for our proprietary RSSM <sup>™</sup> deployment mode. Our Dynamic Alert Annunciator (DAA) <sup>™</sup>



(standard included feature) and our popular Automatic Export Control (AEC) <sup>™</sup> | OPT AEC are just two (2) of the many key features and advanced, must have functionality, unique to the Kestrel TSCM <sup>®</sup> Professional Software, and together provide the ability to establish any number of technical operator defined alert zones across multiple bands and / or radios to provide targeted signal, channel, or band level capture, alerting, and

synchronized hand-off to the Automatic Export Control (AEC)<sup>™</sup> | OPT AEC module for secondary signal level processing of RSSI, SPECTRA, and TRIGGERED IQ functionality. The ability to export operator defined CSV signal lists on either a TIME PERIODIC basis, or in direct response to any operator defined AUTOMATICALLY TRIGGERED event, is fully supported at the application level. The ability to trigger and record TSCM | SIGINT related IQ samples in KIQ<sup>™</sup>, CSV, or WAV format is an essential capability within a modern TSCM platform. Equipment resources that fail to capture and playback IQ samples is simply obsolete by today's signal analysis standards. The ability to export SPECTRA and RSSI values to CSV format, provides further advanced TSCM and SIGINT capability. Our TIME PERIODIC export resource has the ability to export all detected signals events during each operator defined time periodic, or can be programmed to export only changes since the preceding export period. The ability to manually export on demand is also supported. The exported file elements are operator defined and invokes a standard CSV file export. The operator is therefore able to define the desired mission specific CSV table elements. The AEC <sup>TM</sup> module can also respond to any available alerting event within the project as a defined TRIGGER event, for capture and export as SPECTRA, RSSI, and more importantly analytical IQ samples. The DAA <sup>™</sup> and AEC <sup>™</sup> modules are fully integrated within the software and permit advanced triggering based on the Minimum Detection Amplitude (MDA)<sup>™</sup> and other available detection methods, providing unsurpassed capability for managed Remote Spectrum Surveillance and Monitoring (RSSM)<sup>™</sup> deployment of the software for unattended operation and reporting.

Kestrel<sup>®</sup> is a powerful budget friendly, TSCM | SIGINT specific SDR application that is <u>easy</u> to deploy...

The reason that the Kestrel TSCM <sup>®</sup> Professional Software was originally developed, was the lack of real-world TSCM specific, RF capability within any of the available products on the market back in 2009. Our original objective to extend our experience-based product to key TSCM equipment manufacturer's resulted in Kestrel<sup>®</sup> not being taken seriously by most of those contacted. It became evident that by the 2nd quarter of 2009 that we would need to take a different approach and develop a totally new industry focused technology on our own, and set out to find an innovative hardware manufacturer that shared the same view on innovation. Signal Hound was determined to be the partner we were looking for, willing to advance the test and measurement and RF industry with a series of industry disruptive SDR technologies. Although, the mighty Kestrel<sup>®</sup> is no longer fully reliant on any one manufacturer's hardware product, Signal Hound continues to be the go to technology of the vast majority of our clients, and frankly is the most powerful SDR hardware available within the TSCM global market. In a moving target threat model as defined by the TSB 2000 (Technical) Standard <sup>™</sup> Remote Spectrum Surveillance and Monitoring (RSSM)<sup>™</sup> deployment is a core requirement in the detection and identification of today's complex RF based Technical Surveillance Devices (TSD) that may be time, frequency, band, and modulation agile. Probability of Detection (POD) is significantly enhanced when the RSSM <sup>™</sup> methodology is actively deployed. Within a professional level; standards-based TSCM | SIGINT platform, the ability to record, playback and process, In-Phase and Quadrature (IQ) signals is absolutely essential. There is tremendous advantage to capturing continuous IQ streaming data for Signals of Interest (SOI). The Kestrel TSCM <sup>®</sup> Professional Software provides the unique ability to manually capture IQ samples on demand, and capture IQ based on multiple advanced alert triggering options at the application level. IQ sampling is an essential best practice in securing real-world analytical signal content for post capture analysis and review. Kestrel<sup>®</sup> provides the ability to capture IQ samples in KIQ<sup>™</sup>, CSV, and WAV file formats. IQ samples that are captured in CSV format can be converted to our IQ format. The Kestrel TSCM <sup>®</sup> Professional Software also provides Time Reference Sub-Sampling (TRS) <sup>™</sup> for more focused analytics of captured KIQ  $^{\rm TM}$  and CSV files converted to KIQ. Time Reference Sub-Sampling (TRS)<sup>™</sup> files can be saved as separate and independent IQ files. The Dynamic Alert Annunciator (DAA) <sup>™</sup> feature is a powerful feature within the application that permits any number of active and standby alert trigger zones to be quickly generated and programmed by the technical operator to respond to both exceedance and signal loss events. Each alert trigger zone acts as a totally independent trigger with full and unrestricted programmability by the operator.

## Kestrel TSCM <sup>®</sup> Professional Software

# Celebrating 15 Years! Canadian Technical Security Conference (CTSC) <sup>™</sup>

### Professional Development TSCM Group Inc.

**Technical Security Branch (TSB)** 

The alert trigger zones can be exported and stored as CSV files for instant recall in a new Kestrel Project File (KPF)<sup>TM</sup>.

### CTSC 2020 | CTO <sup>™</sup> Training Opportunity

We will be running a new version of the Certified Technical Operator (CTO)<sup>™</sup> program leading up to the Canadian Technical Security Conference (CTSC 2020)<sup>™</sup> event. We have added many new features and functionality this past year and will be extending the training March 2020 program an extra 2-days to provide adequate instructional time for all the new features recently released, about to be released, and those scheduled to be released between now and March 2020. There are a number of new features pending release early in the new year. Participants of the CTO <sup>™</sup> program arrive at the training centre on Sunday March 22, 2020. Check-In at our Resident Training Centre (RTC) <sup>TM</sup> is 1600 hours. The CTO <sup>TM</sup> Training begins on Monday March 23, 2020 at 0830 hours and will wrap up early afternoon on Sunday March 29, 2020. Monday March 30, 2020 is a free day for those staying on for the Canadian Technical Security Conference (CTSC 2020)<sup>™</sup> event. CTSC 2020<sup>™</sup> begins Tuesday March 31, 2020 and runs until Thursday April 02, 2020. Check-out is Friday April 03, 2019 at 1100 hours. The cost of the CTO <sup>™</sup> training is \$2,950.00 CAD + taxes and includes the full new CTO training program, 7 nights of private accommodation, and all meals on-site. This is an exception value and tremendous opportunity to move from many of the obsolete spectrum analyzers currently in use and gain insight into why the Kestrel TSCM <sup>®</sup> Professional Software has become the preferred TSCM platform by professional operators, working in both the private and public sector from corporate to national security.

#### **Canadian Technical Security Conference (CTSC 2020)**

The Canadian Technical Security Conference (CTSC) is the only long-standing event with a TSCM | Cyber-Security focus, holding true to its roots by bringing powerful new ideas and technology to an educated few who actively choose to advance their professional credibility across an ever evolving Technical Surveillance Countermeasures (TSCM) industry worldwide. Our conference event is one of the most respected places to get first had knowledge about a wide range of subject matter by peeling away the layers of marketing hype, misconceptions and outright lies across the industry. Most importantly, it provides tremendous insight into a modern moving target threat model and the time-tested standards based deployment methodology defined by the TSB 2000 (Technical) Standard <sup>™</sup>. The Canadian Technical Security Conference (CTSC) <sup>™</sup> is entering into the 15th edition of this powerful Canadian based, professional development opportunity. Our event is small and focused and our speakers and presenters are industry experts and professionals who volunteer to impart a wide range of knowledge and experience to other like-minded professional colleagues, who may be seasoned professionals themselves or just venturing into a technical security career. The technical security industry is such that changes in technology and attack sophistication change on a daily basis and demands the most up to date methodology and well as new technology. This years event will include many timely topics covering physical security, technical security, Technical Surveillance Countermeasures (TSCM), Remote Spectrum Surveillance and Monitoring (RSSM)<sup>™</sup>, cyber-security, equipment and resources, methods, techniques and hands-on opportunities. Our competitive bug-off, has become the highlight of the CTSC event, as a totally unique competitive bug-off feature, held on the second day of the conference. Participants get to test various TSCM products and their skill sets against live technical targets. The incredible hands-on learning opportunity realized by participants brings amazing value to the event. Everyone attending the conference is welcome to participant regardless of there experience level.

#### Innovation is Simply the Beginning!

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State-sponsored and commercial satellite assisted espionage may involve sophisticated Technical Surveillance Devices (TSD) operating within the ambient RF spectrum environment. These devices can be associated with Store and Forward burst technology, or involve real-time burst energy. The above image shows two (2) discrete satellite UP LINK burst channels.

Kestrel TSCM <sup>®</sup> Professional Software is innovative industry leading, disruptive technology, sold in 44 countries worldwide.