

Kestrel TSCM[®] Professional Software

The Global Pandemic vs Progressive Software Defined Radio (SDR) Innovation and Development

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Buying the Best is Not Always Buying the Best!



We are constantly asked for our recommendations on the best SDR hardware for use with the Kestrel TSCM[®] Professional Software. Many technical operators mistakenly rationalize that the more money they spend on brand name spectrum analyzers;

the better equipped and prepared they will be for field deployment. The vast majority of professional level test and measurement spectrum analyzers simply do not have the necessary features to operate effectively or efficiently within the TSCM | SIGINT role. Although, some test and measurement resources do provide excellent bandwidth, and precision measurements, very few

provide continuous IQ streaming and as a result offer only limited demodulation capability. Manufacturers such as Rohde and Schwarz, Anritsu, Keysight all make excellent industry specific test and measurement resources. The cost of even a modest useful instrument with the requirement options will range in cost from \$35,000.00 USD to well over \$100,000.00 USD. As a standalone instrument for which they are designed, they are in-fact the best. There is definitely something to be said about owning one of these noble and majestic instruments, but this does not make them a TSCM best option. Strictly from a TSCM perspective they virtually all lack the necessary data point resolution required for connection to an external host computer or have the ability to provide versatility within the Application Programming Interface (API) to provide the required level of advanced communication, resolution, speed, display data points and other capability that is so easily accomplished on low cost, full featured Software Defined Radio (SDR) hardware. Another down side it the fact that expensive add-on options are generally required for any meaningful level of external software connectivity or runtime operation. None of the best of the best are TSCM oriented and will have complex engineering setup and programming for which they are designed. This is where modern commercial Software Defined Radio (SDR) hardware such as the Signal Hound BB60C (9 kHz to 6 GHz), SM200B (100 kHz to 20 GHz), or the soon to be released SM435B (100 kHz to 43.5 GHz) come into the picture.



These small robust radios are much better suited for TSCM | SIGINT deployment on every level when powered by TSCM specific SDR software such as the Kestrel TSCM[®] Professional Software. ThinkRF Corporation receivers (9 kHz to 8 GHz), (9 kHz to 18 GHz), and (9 kHz to 27 GHz) are also powerful examples of the resources available to the modern day spectrum warrior.

Incremental Upgrade | Scalability

The operator's ability to incrementally upgrade individual hardware and software components, including the host computer technology and radios more frequently at a realized significantly lower cost, while perhaps finding a place for the older technology (system scalability) within the platform to further expand the operators capability is realized. More often than not, an operator has commented that the end-user expects to see something on the table that looks good, often by brand name. Brainwashing and perhaps years of monopolistic business models, I suspect? This is symptomatic of a measure of ignorance on the part of the end-user that thinks they know better than the technical operator that they have engaged to conduct a professional technical inspection. Many operators apparently are willing perpetuate this misconception. I find this all very difficult to understand? It seems to suggests to me that it is all a game of making it look good for an unaware end-user, rather than providing a competent inspection with actionable RF intelligence. I guess for some operators it is all about the money and looking good to the end-user rather than deploying a low cost component-based solution that accomplishes an order of magnitude more at the end of the day in satisfying the (often recognized) expectations of the end-user.

Cost vs Quality

More than once we have been asked to explain why the Kestrel TSCM[®] Professional Software costs less than many competitive solutions. The question is generally asked in the sense of the unsaid, which is, your solution must not be a good as the more expensive options. My reply is usually along the lines of have you ever wondered or asked why the other solutions cost so much? Another common reply is, no problem, how much more would you like to pay for our software to feel better about its superior capability? Many technical operators always seem to be waiting for the next big thing to hit the market and like many manufacturer's, milk sales for years well beyond the best before date, hanging on to obsolete resources for the same reason.

Remember, in a Moving Target Threat Model the Technical Operator is the Spectrum Analyzer...

Kestrel TSCM[®] Professional Software

We Take Pride in Placing our Extensive Field Experience into Every Line of Source Code, Providing a Totally New Experience for Technical Operators

Professional Development TSCM Group Inc.

Technical Security Branch (TSB)

Even when faced with the reality, operators tend to quietly maintain the status quo rather than incrementally advance their professional capability. After all, an investment is an investment, I guess! Waiting for the next big thing is not a competent business approach, as threat technology changes almost daily. How effective is your big investment now? Equipment resource acquisition must be a continuous buy, sell, reuse, buy process, to stay on the technology leading edge. Hanging on to expensive resources past the best before date makes little sense and degrades the effectiveness of the deployment of any professional service.

Kestrel TSCM[®] Professional Software

There is an entirely new industry fresh and truly disruptive methodology at play with the advent of Software Defined Radio (SDR) hardware and software. The very core of the TSCM methodology has dramatically shifted during the past decade as threat technology continues to change and evolve at rapid intervals and at a much faster pace than in previous decades. The Kestrel TSCM[®] Professional Software methodology does away with big investments of equipment resources that are close to being obsolete the day of release or the perceived need to hang on to resources for years after the best before date to justify the investment. Component based SDR systems maximize leading edge competence and threat management within a modern and extremely complex RF signal environment.

Growing Demand

There is a growing demand for innovation and real-time threat management that simply cannot be satisfied by expensive engineering-level test and measurement resources or any other equipment resource that ultimately relies on looking good or is marketed as easy to use. This concept fails to be relevant within a modern moving target threat model. The Kestrel TSCM[®] Professional Software is the leading threat technology detection platform with Multiple Receiver Operation (MRO)[™], Time Differential Signal Analysis (TDSA)[™], IQ Recording and Playback, Advanced TSCM Geo-Location Heat Mapping, RF Visualization (RFV)[™] Technology[™], and Advanced Report Generator (ARG)[™] Technology. These modern new technology tools are just a small sampling of the essential modern day TSCM resources that have been specifically developed by Professional Development TSCM Group Inc., during the past decade.

Our RF propagation modeling and visualization process immediately identifies and pin-points every active RF emitter within the Operator Defined Target Area (ODTA)[™] and the extended Functional Target Area (FTA)[™] as defined by the TSB 2000 (Technical) Standard[™]. It is shocking that every commercial technical operator worldwide is not already deploying our innovative and unique wideband Tap Capture Plot (TCP)[™] Geo-Location Heat Mapping RF Visualizer (RFV)[™] feature for every TSCM inspection. This single highly-advanced TSCM specific feature, developed by Professional Development TSCM Group Inc., takes all of the guess work out of pin-pointing every active emitter, known, unknown, ambient, friendly, and hostile, including unintentional radiators, and renders a real-time heat map across the entire Operator Defined Target Area (ODTA)[™] and extended Functional Target Area (FTA)[™].

Innovation Delivered!

Our **Kestrel-net**[™] business model is firmly focused on the end-users experience; modern threat technology, field deployment requirements, and unique circumstances, across economic and state-sponsored espionage realities at all known and developing threat models from commercial interests to national security. Our ability to respond and develop powerful customized features and tweak existing capability in near-real time is now an industry expectation within the TSCM role to meet today's threat technology within a modern moving target threat model, proving once again that cold war-era concepts fail to meet today's extraordinary threat actor environment.

Innovation is Simply the Beginning!

Visionary Software Beyond the Technology Limitations...

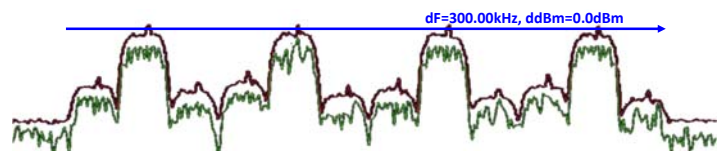
| www.pdtg.ca | www.kestreltscm.com | www.ctsc-canada.com |

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Did you know that Kestrel[®] includes a built-in Differential Measurement Tool (DMT)[™] for the WFD | RSD | DSA | and | DEMOD OSCILLOSCOPE? Try < ALT + Click and Drag >

Kestrel TSCM[®] Professional Software is innovative industry leading, disruptive technology, sold in 50 countries worldwide!