

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

## Evaluating and Understanding the Procurement of Modern TSCM Equipment Resources

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### Kestrel<sup>®</sup> vs Technical Operator Misconceptions

The mighty Kestrel TSCM<sup>®</sup> Professional Software has a keen eye and sees the spectrum as the spectrum should be seen, without clever spectrum calibration tricks, averaging tables or artificial enhancements that can mask and render some types of spectral events difficult to identify.



Professional technical operators gain a false sense of security and unfounded confidence, when the spectrum is artificially enhanced to look its so-called best. Unfortunately, the same issue applies to end-users who are misled by branding and slick marketing. These issues are not limited to private sector commercial

operators and we see the same procurement misconceptions across public law-enforcement, government, military and national security sectors.

It is for this reason that many technical operators have in the past, relied on lab quality spectrum analyzers rather than hand me down cold war era TSCM technology and products that fail to meet the challenges of present day threat technology. The Kestrel TSCM<sup>®</sup> Professional Software provides the technical operator with spectra that can be relied upon, so that informed decisions can be made as to the presence of potentially hostile signal events within a modern moving target threat model.

Kestrel<sup>®</sup> sees all— and so does the technical operator by extension! It is essential that the technical operator see the raw spectrum in today's modern moving target threat model, as many signal types are evasive and difficult to capture, let alone observe in an artificial runtime environment without the powerful RF visualization techniques, such as those found only in the Kestrel TSCM<sup>®</sup> Professional Software RF Visualizer<sup>™</sup> technology. Single box solutions tend to provide only one limited dimension of spectrum analysis capability vs the versatility and scalability of modern SDR technology in combination with a powerful standards-based methodology, by substituting a dimensional RF propagation visualization model in place of a complex spectrum analysis display.

The SDR component-based Kestrel<sup>®</sup> TSCM Professional Software | Signals Intelligence Support System allows the technical operator to employ mission critical hardware from multiple manufacturer's that are mission specific, providing unraveled scalability as field requirements change.

There are many considerations in the decision to purchase TSCM RF equipment resources and we feel that the choices are more than clear. We strongly recommend educating yourself on the following considerations, before purchasing any equipment resource.

### Cost vs Revenue Return

Each purchase takes a significant period of time to see a financial return. This can literally be years. The ratio of any product to pay for itself before becoming obsolete, is a critical factor. Single box resources are generally obsolete before they are market ready and lack any meaningful upgrade capability in the future.

The ability to generate new and reoccurring revenue streams is an important consideration. Typical modified TSCM spectrum analyzers simply cannot support new and recurring revenue streams and as noted are often obsolete shortly after official release into the marketplace, often by design.

SDR component-based systems allow the technical operator to upgrade individual components as required to take advantage of the latest hardware, software and computing technology without replacing the entire system.

Technical Operators tend to hold on to equipment for far too long when the cost is excessive. Typically, any resource is considered obsolete within 1 to 3 years for each technology release, compared with operators still deploying the resources for 7 to 10 or more years. This is simply milking revenue by deploying obsolete resources beyond the technology curve.

SDR component-based resources resolve this concern with incremental replacement of low cost components rather than for example, the entire single box resource.

The software component can be updated immediately to tackle the latest threat technology, with new capability and feature-sets, ensuring an obsolescence proof procurement that responds to new challenges firmly within the life span of the hardware components and beyond.

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

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

*Definition: Kestrel, “An Advanced Standards-Based Software Defined Radio Application for Enhanced National Security”*

Professional Development TSCM Group Inc.

Technical Security Branch (TSB)

## Cost vs Usable Life Span

The cost vs usable life span is referred to as the obsolescence factor. Equipment resources that do not interact fully with multiple receiver deployment via a fully upgradable host computer are typically of limited value in today's complex RF spectrum environment and fail to anticipate or adapt to tomorrow's emerging threat technology.

The ability to generate new and recurring revenue streams is limited and the Probability of Detection (POD) is significantly impaired, when field deployment options are limited.

## Cost vs Equipping the Entire Team

The cost of single box solutions for even a moderately sized technical security team can be daunting and unrealistic in today's budget sensitive economy. Why replace the entire system, when individual component-based elements can be upgraded for considerably less cost?

The ability to equip the entire team with a low-cost component-based and shared component resources, sees the advantage of redundancy by design, provides mission scalability, advances deployment flexibility and as a direct result, significantly enhances operator confidence and proficiency.

## Features vs Cost of Ownership

At the end of the day, it is the innovative key features that bring value to the chosen equipment resource. Without significant new and on-going development resulting in the release of new and powerful innovation, equipment resources are of limited value in the long term.

Often this will be influenced by the technical operator's experience level and anticipated deployment requirements when the operator fails to anticipate or understand the modern threat environment against the equipment resource limitations.

It is essential to look for modern new technology features that are designed to tackle today's complex spectrum environment in keeping with a rapidly emerging threat technology environment such as a standards-based, advanced geo-location heat mapping visualization and propagation modeling methodology.

## All Things Kestrel<sup>®</sup> | Virtual Classroom Series

Our popular virtual classroom series, all things Kestrel<sup>®</sup> has proven to be very successful in introducing the standard included and optional features at the technical operator deployment level.

The Kestrel TSCM<sup>®</sup> Professional Software breaks a lot of traditional deployment rules and concepts and requires that the operator embrace a new deployment methodology reality in the face of emerging threat technology.

## ***Innovation is Simply the Beginning!***

***Visionary Software Beyond the Technology Limitations...***

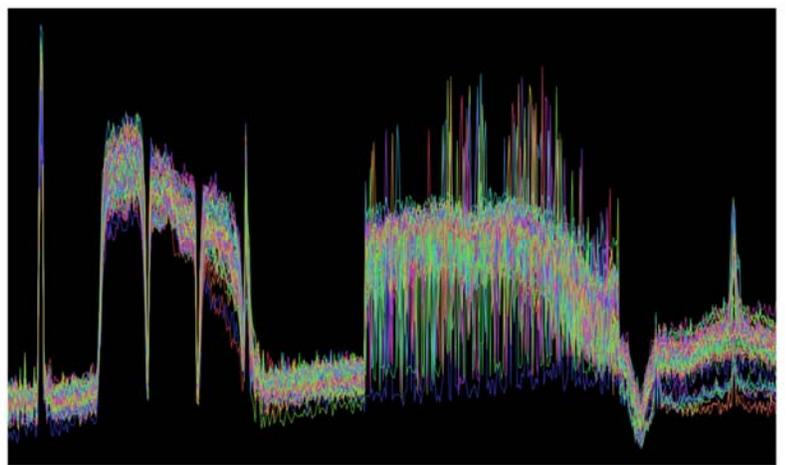
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*They say that the value of art is in the eye of the beholder! Every day a new never before seen artistic spectrum is developed within the Kestrel TSCM<sup>®</sup> Professional Software somewhere in the world. Whether impressionist, contemporary or abstract, the RF spectrum brings a commonly understood meaning for every professional technical operator who views it...*

***Kestrel TSCM<sup>®</sup> Professional Software is innovative industry leading, disruptive technology, sold in 48 countries worldwide.***