TALON

World Class ELINT Software

Features & Benefits

- Powerful Software Based Signal Processing
- User Friendly Interface
- ELINT/ESM Situational Awareness
- Sophisticated Data Analysis Mode
- Raw IF Import Feature
- Programmable Emitter Library Parameters
- Open Software ICD

Ultra Electronics TCS' TALON software is a world class ELINT/ESM control and analysis software application with over 10 years of detailed development.

TALON software is tailored to control the latest Ultra TCS' ELINT/ESM hardware including Phase Interferometry Direction Finding (DF) systems and Spinning DF antenna systems. TALON can control hardware attached directly or remotely via a datalink such as the Ultra ORION.

TALON analysis mode is a stand-alone functionality that allows complex online or offline/post-mission analysis of data collected from real hardware, TALON simulator or from other systems.

TALON also provides a training mode of operation when paired with Ultra TCS' TALON Server Simulator. This enables users to react to simulated emitter data that can be controlled by the instructor to reflect real world scenarios.
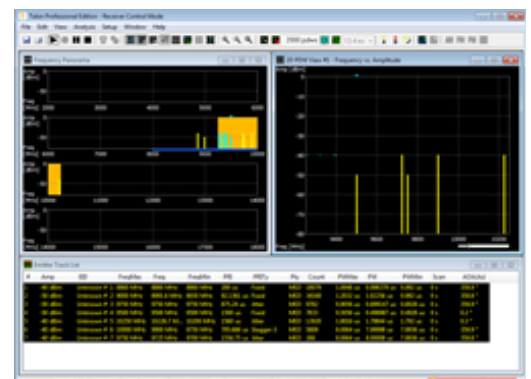
Receiver Control Mode

TALON's Receiver Control Mode (RCM) is a customizable mode that enables it to work with a variety of ELINT/ESM hardware. RCM provides the user with an easy to use Graphical User Interface (GUI) that displays live emitter activity with the ability to conduct searches and collections.

'Searches' provide the user with the ability to identify new or existing emitters of interest and match them to an integrated library. This enables the user to establish situational awareness quickly.

'Collection' is a mechanism in which received signals can be recorded for immediate or post-mission analysis. The collection summary provided to the user includes a library match.
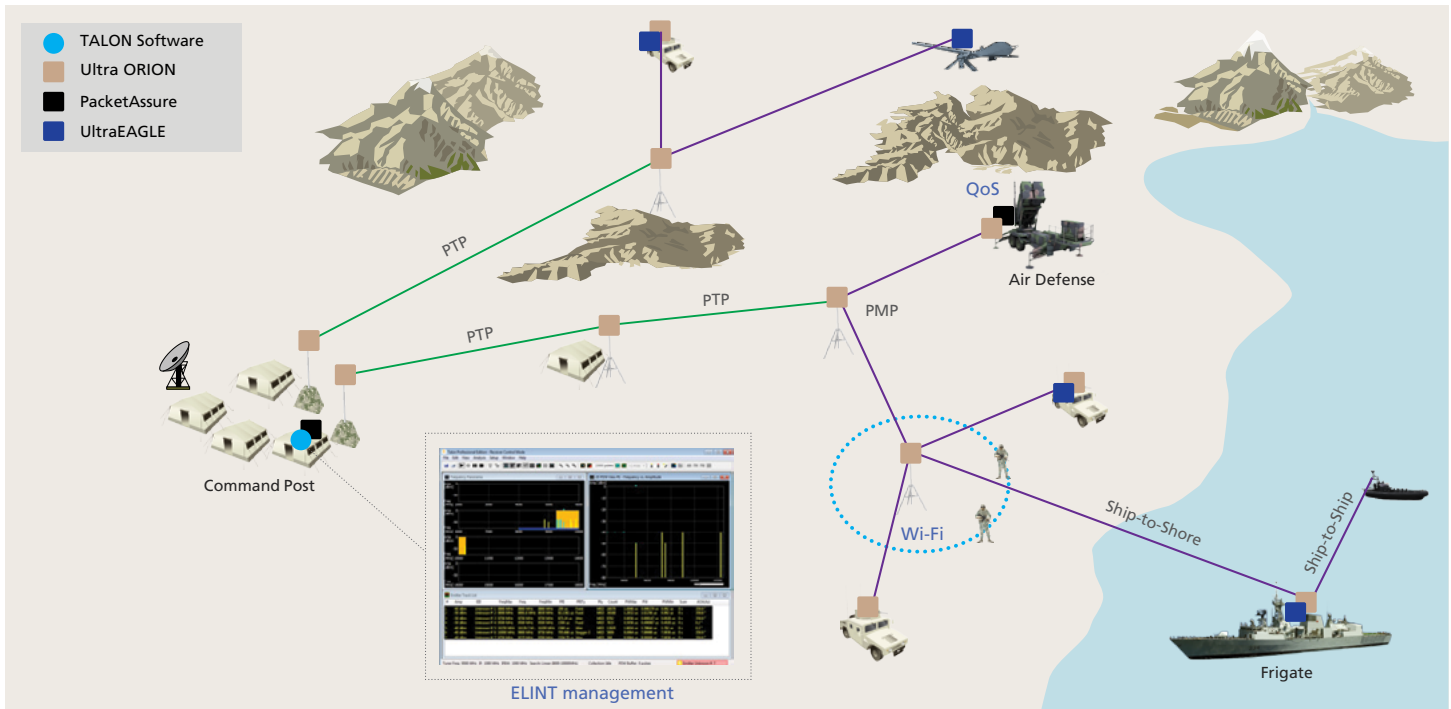
To aid collections and searches a number of GUI windows are provided enabling the user to view emitter parameters in a variety of different ways:

- Frequency Panorama
- 2D PDW Viewer
- 3D PDW Viewer
- Waterfall Viewer
- Direction Finding Viewer
- Emitter Track List
- Emitter Details Window

making a difference

Legend:
- TALON Software
- Ultra ORION
- PacketAssure
- UltraEAGLE

(Network diagram labels: PTP, PTP, PTP, PMP, QoS, Air Defense, Wi-Fi, Command Post, ELINT management, Ship-to-Shore, Ship-to-Ship, Frigate)

Analysis Mode

TALON provides a sophisticated analysis mode that enables users to conduct online or offline detailed emitter analysis. The tools available within analysis mode enable both inter-pulse and intra-pulse analysis to be achieved. TALON analysis provides the following functionality:

〉 PDW viewer/browser

〉 XY Charts

〉 Histograms

〉 Pulse Viewer

〉 Auto Parameter Estimator

〉 Search Playback

A powerful feature of the PDW viewer/browser is the inbuilt 'analysis stack'. The analysis stack captures all operator mathematical adjustments and transformations performed on a collection of PDWs. Each operation can be edited or removed without affecting the other entries in the stack, and the existing changes will be reapplied without further interaction.
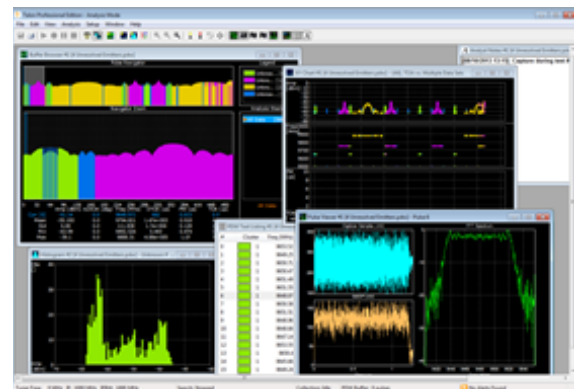
The Pulse Viewer displays the raw digitized data of collected PDWs. This enables the user to view and analyze AMOP, FMOP, PMOP and the FFT spectrum of each pulse.

The Auto Parameter Estimator is a mechanism that provides complex emitter deinterleaving that can aid analysis, along with library matching.

Analysis mode also supports the playback of search results. This is enables an operator to view the Emitter Track List history with the ability to step/pause/seek through the search.

Minimum recommended system requirements for TALON are:

〉 XP or Windows 7 (32 or 64 Bit)

〉 ≥ 2 GHz single core or 1.5 GHz dual-core processor

〉 ≥ 512 MB RAM

〉 Video Card with support for Direct X 8 or better

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