

# TALON

## Electronic intelligence 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

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 radio platform.

TALON also provides a training mode of operation when paired with a 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 quickly establish situational awareness.

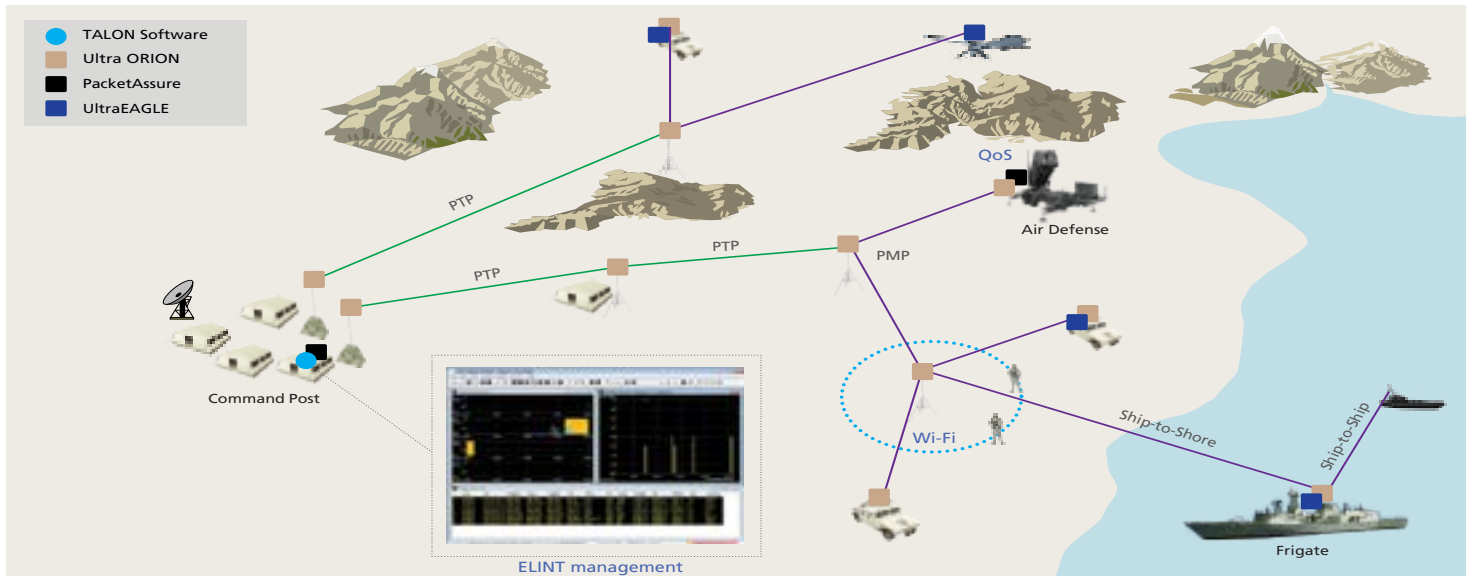
'Collection' is a mechanism in which received signals can be recorded for immediate or post-mission analysis. The collection summary provided to the user includes a library match.

Talon also supports showing the emitter tracks from two different systems. This allows for an operator to view the search results from a separate system whilst monitoring his own.

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
- Secondary Track List
- Emitter Details Window





## Analysis Mode

TALON provides a sophisticated analysis mode that enables the user 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 Pulse Viewer also includes automatic IMOP detection. This feature provides automatic measurement of FMOP and PMOP such as Barker, Chirp, Stepped FM etc.

The Auto Parameter Estimator is a mechanism that provides complex emitter deinterleaving that can aid analysis, along with library matching. The results from the Estimator can be saved to a file.

Analysis mode supports the playback of search results. This 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)
- $\geq 2$  GHz single core or 1.5 GHz dual-core processor
- $\geq 512$  MB RAM
- Video card with support for Direct X 8 or better



making a difference

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