



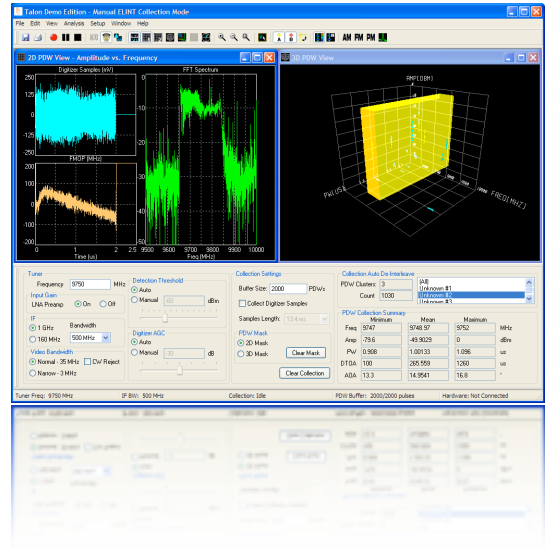
TALON VIRTUAL PULSE ANALYZER Product Overview

Intelligence
Surveillance
Reconnaissance

ELINT
Emitter
Collection

Radar
Parameter
Analysis

Intrapulse
Modulation
Analysis



Talon is a derivative product of the Raven-ES software suite used with the EAGLE (Electronic Acquisition Gathering Locating Equipment) ES/ELINT receiver system used for ISR (Intelligence, Surveillance and Reconnaissance) and ESM (Electronic Support Measures) applications. It operates as a standalone application for processing collected Pulse Descriptor Word (PDW) data sets or can connect to live streaming PDW data sets via a TCP/IP LAN Connection.

Furthermore, Talon can be used to analyze the Intrapulse characteristics of the PDW data sets with synchronously collected digitized RF pulse sample data. The sample data is automatically demodulated to show profiles of Amplitude/Frequency/Phase Modulation On Pulse (A/F/PMOP).

Talon operates natively with the EAGLE Receiver and Corvus Pulse Analyzer ELINT platforms, but it can be easily extended to operate with a variety of radar pulse data sources. Examples include, interoperability with VIEWS simulation software by DRS, which is capable of generating complex, high fidelity virtual PDW data streams.

Talon is designed using open standard XML data files, as well as XML based messaging format for communication over a socketed TCP/IP connection. This ensures maximum interoperability and allows data compatibility into newer versions of the product.

FEATURES

- PC Pulse Analyzer
- MS Windows 200/XP/Vista Software
- Powerful Software Based Signal Processing
- User Friendly Interface
- ELINT Collection and Analysis Mode
- Processes Collected PDW Sets / Streaming PDW Data
- PDW and Digital Receiver Modes
- Automated Intrapulse Modulation Analysis
- Programmable Emitter Library Parameters
- EAGLE ELINT System Compatible
- Open Software ICD





TALON Modes

ELINT Collection and Online Analysis Mode

In the ELINT Collection Mode, the Talon provides the operator with a manual collection receiver capability. It allows the operator to control the receiver to collect and analyze radar Pulse Descriptor Words (PDWs) for online or later offline analysis. This mode provides a mechanism for the operator to analyze 'live' PDWs. The operator can extract specific clusters of PDW data for ELINT collection and statistical analysis. The operator is presented with a 2D and 3D PDW viewer. In the 2D viewer the operator can select PDW parameters assigned to either axis. Any emitter signal of interest may be collected for analysis by defining a collection mask around the emitter(s) activity on the screen. The collected emitter data is stored in a collection buffer and may be recorded to a file. In addition to the PDW viewer, the operator can also view any emitter of interest in a time history waterfall display or digital receiver display that allows the operator to observe time and frequency domain data such as Amplitude/Frequency/Phase On Pulse (A/F/PMOP) and Spectrum plots.

ELINT Analysis Mode

In the ELINT Analysis Mode, the EAGLE provides the operator with a comprehensive emitter and signal analysis tool. New PDW collections as well as those stored in files can be analyzed. Charting and histogramming tools enable the analysis of all emitter parameters. For a more detailed analysis, the operator can use a Pulse Buffer Browser tool to conveniently navigate and isolate any interval of pulses or individual pulse through the collection. The Pulse Buffer Browser includes a Pulse Viewer tool that allows the operator to view pulse modulation parameters of a pulse or interval of pulses and their spectral information for intrapulse analysis. The operator may also remove individual pulses from the range of pulses that are under evaluation. A sortable text listing of the PDW data can be viewed in whole or over a range of pulses, allowing data exporting to other applications, such as Microsoft Excel or MATLAB.

	Standard	Professional	Advanced
	T1603	T1703	T1803
PDW Analysis of Collected Datasets	•	•	•
PDW Analysis of Streaming Datasets via TCP/IP	•	•	•
Maximum PDW Buffer Size	10000	50000	100000
Digital Receiver Online Viewer and Analysis		•	•
Automatic Deinterleaving and Clustering		•	•
Compatible with EAGLE ELINT Receiver PA		•	•
Automatic Modulation on Pulse Processing Analysis			•



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