

## SureLine™ Software

### SureLine™ Core

Monitoring

Logging and Recording

Framing and Media  
Conversion

WAN Streams / MPS API

Security

Configuration

### Licensed Tier Features

#### Tier 1

Radar Format Conversions  
(over 400)

Pre-requisite to Licensed  
Features

Data Analysis Tools

Filtering

Radar Visualization Tools

#### Tier 2

All Tier 1 Functionality

CV4400 Emulation

Maximum Number of Radar  
Support

### Individually Licensed Features

#### Advanced Radar Processing Features

Single Sensor Tracker

Multi-Track Fuser

Plug-in API Interface

Virtual Radar

Encryption

#### Advanced MPS API Features

HDLC

TADIL-B

X.25

Sunhillo SureLine™ software is the backbone of Sunhillo Corporation's surveillance gateway products (RICI, Longport, SGP, Ventnor and Margate II ADS-B) and is the same codebase that was historically referred to as "COTS". It provides a wide range of functionality including conversion, translation and other transforms that allow for bridging dissimilar networks, analyzing data and connecting surveillance sources to air-traffic automation systems. SureLine™ Software is designed with an expandable layered architecture. The base layer on all Sureline™ products is "SureLine™ Core".

The proven architecture of SureLine™ Core and associated secure GUI allows easy

configuration of complex data flows to route data between different frame formats and media. For applications that require custom integration, Core contains the MPS API connections. The MPS API connection provides a wide range of WAN radar protocols to a user-developed application through the MPS development software kit.

Features can be added to the Core to open additional functionality. Basic features are included in our SureLine Tier 1 and 2 licenses while more advanced features can be added individually.

The Tier mechanism extends SureLine Core to include a wealth of radar format conversions, filtering capabilities and visualizations with

more than 400 possible conversion combinations. Tier 1 and 2, support opens the door for other advanced features that can be loaded or licensed individually such as radar trackers, fusers and advanced MPS API protocols.

Through the web-enabled graphical user interface (GUI), SureLine™ Core offers a seamless user interface experience across all associated platforms reducing training requirements.

SureLine™ is constantly evolving to meet the demands of the ever rising security bar. The security features built in to SureLine™ are derived from the ISO/IEC 15408 Common Criteria (CC) Network Device Protection Profile (NDPP).

## SureLine Radar Format/Frame Conversion Support

### Outputs

Inputs		CD2C	CD2T	AIRCAT500	ASTERIX CAT 1&2	ASTERIX CAT 34&48	ASR9	MAR1 (FPS117)	ARSR4	ASR11 ASTERIX CAT 1&2	RDIF	TPS75 (9 bit) (plugin)	TPS70 (13 bit)	ASR9 Weather	CD 2 Weather	Asterix Cat 8 Weather (polar)	ASR11 Cat 8 Weather (polar)	ASTERIX CAT 21 *	ASTERIX CAT 62	ASTERIX CAT 23/33**	OTG (Over the horizon gold)	XML SDO	CSV	KML	UDP or TCP Output Only	SGF***	ECGP	
	CD2C	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→		→	→	
	CD2-T	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→		→	→	
	AIRCAT500	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→				
	ASTERIX CAT 1&2	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→				
	ASTERIX CAT 34&48	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→				
	ASTERIX CAT 159 (plugin)	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→				
	MAR1(FPS117)	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→		→	→	
	ASR9	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→	→		→	→
	ARSR4	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→	→		→	→
	TVT2																									→		
	ASR11 Cat 8 Weather (polar)													→	→	→	→											
	ASTERIX Cat 8 Weather (polar)														→	→	→	→										
	CD2 Weather														→	→	→	→									→	→
	ASR9 Weather														→	→	→	→									→	→
	SSR2001C	→	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→			
	SELENIA	→	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→			
	CD AMS	→	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→			
	TPS75 (9 bit) (plugin)	→	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→		→	
	TPS70 (13 bit)	→	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→		→	→
	Cardion CTE-2F	→	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→		→	→
	ASR11 ASTERIX	→	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→			
	ASTERIX CAT 21*	→	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→			
	ASTERIX CAT 33&23**	→	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→			
	ASTERIX CAT 62	→	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→			
ADS-B (from RF Antenna - Longport Only)	→	→	→	→	→	→	→	→	→	→	→	→	→					→	→	→	→	→	→	→				

### Legend

\*ASTERIX Cat 21 supported subtypes  
v.23 (limited), v.26(limited), v2.4(full)  
\*\*ASTERIX Cat 33 supported subtypes  
FAA v1, FAA v2, FAA v3, Radio v2  
\*\*\*SGF version 1.1 full/reduced & 2.0

→	Conversion from row format 'to' column format
→	Conversion requires addition of virtual radar (converts track data down to plot data for interoperability)
→	May require the addition of the single sensor tracker plugin if the input data does not contain track information (SGP Only)
→	ECGP or SGF Framing capability supported

## SureLine Filters, Utilities, and Specific Conversion Support

Filters	Utilities	Specific Conversions
ASTERIX Filter	Filter Module	CD to FAA RAPP
Generic Filter	ARTS Unpacker	ASR-11 ASTERIX (US UDP) to ASR9
ASR9 Filter	Timestamp Targets	ARTS to CD2
CD2 Filter	Radar Display	CD to ASTERIX CAT 34/48 (FAA)
Site Name/ID Filter	Radar Ident	ASTERIX CAT33 to CD2 (FAA)
TI1033 Filter	SOM EOM Remover	ASR9 to CD2
SIC/SAC Filter	Asterix Framer	NUNIO to ASR-9
ASTERIX FRN Filter	Asterix Packer	ASR-4 Military to CD2
Mode 3A Filter	FAA ASTERIX Header	MAR to CD2 Status (plugin)
Mode 3A Range/Azimuth Filter	Add Lat Long	ASR12ToCD2Status (plugin)
Geo Filter	Generate Message	CV4400 Emulation
Mode 3A Code Filter (plugin)	Radar Display	
	Real-Time Data Display	
	KML Display	
	Encryption 3DES (plugin)	
	Single Sensor Tracker (plugin)	
	Multi-Track Fuser (plugin)	
	Virtual Radar	

### Legend

These filters, utilities and specific conversions are accessible with a base licensed unit***
These filters, utilities and specific conversions are accessible with a Tier 1+ licensed unit
These filters, utilities and specific conversions are accessible with a Tier 2 licensed unit
These filters, utilities, and specific conversions require Tier 1 and are sold separately
***Note: Some configurations could be limited with a base licensed unit for these options and may need Tier 1



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