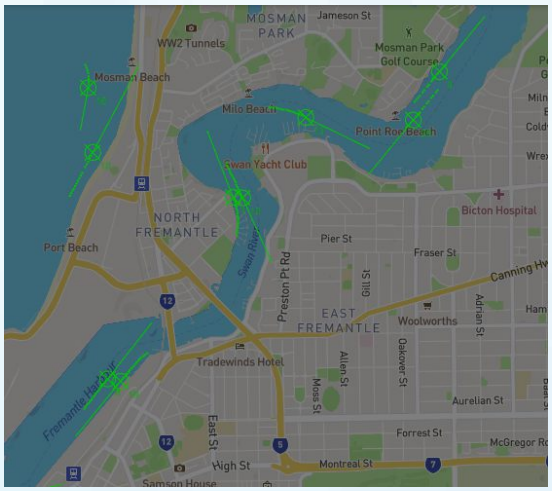
CAMBRIDGE PIXEL
AN EMPLOYEE-OWNED COMPANY

CP-16-470-01, Issue 1.1

DATA SHEET

SPx Track Manager

Track Format Converter, Filter and Network Switch



Features:

- Ready-made application for Windows or Linux
- Supports ASTERIX, SPx, NMEA, REL-4, SEIWG, GeoJSON, other proprietary formats
- Conversion between formats
- Filtering on position, speed, threat level
- Track annotation and correction
- Web-based control interface
- Supports dual-redundant switching of track streams
- Remote API for system integrators
- NMEA nav data input for track adjustment
- Compatible with SPx Server, SPx Fusion Server, SPx System Monitor
- Licensing options on number of output channels (1,2,4,8,16)

Cambridge Pixel's SPx Track Manager is a multi-function track processing module that provides a number of essential track-related services including: format conversion, network switching, dual-redundant control, annotation and filtering.

In a complex radar-based installation, plot or track reports generated at one location will need to be displayed on a situational awareness display at another location. Several practical problems present themselves, for example:

- The track data may be in a different format to that required by the display equipment.
- It may be required to handle dual-redundant streams of tracks and pass one to the display equipment.
- Information required by the display equipment may not be present in the track stream, so additional fields may need to be added to the track data.
- It may be desirable for operators to be able to edit the contents of track messages in a persistent manner.
- There may be several displays at different locations on different network sub-nets that all need to receive the track data, so a splitter is needed.
- It may be desirable to filter tracks so that only those tracks meeting certain conditions are passed onto the output.

SPx Track Manager is designed to address these issues.

Format Conversion

SPx Track Manager is able to convert plot or track data between different formats. A single input channel can be converted to different formats simultaneously if desired.

Track Distribution

SPx Track Manager supports multiple input and output channels. A single track input channel can be configured to output to one or more outputs, allowing tracks to be output onto several different network adapters or network sub-nets.

Track Annotation

The contents of a track message may be adjusted for selected track parameters. For example, if there are known to be systematic errors in the track position then these can be compensated for. Also, the track's lat/long can be corrected if it was originally based on slant range rather than flat range. Additionally, a display application can feed back to the Track Manager, through a remote control interface, to adjust classification and threat information.

Dual-Redundant Operation

SPx Track Manager can be configured to support dual-redundant streams of tracks, automatically enabling one stream and switching to the second in the event of its loss.

Track Filtering

A filter may be set up on a track output channel to control the tracks being sent to that output. The filtering is based on the track position, dynamics and properties. By creating appropriate filters, the original track stream may be partitioned into different subsets of tracks sent to different displays, for example. Alternatively, the filter may be set up to restrict the output of tracks passing a threat test. ■

SPx Track Manager Specifications

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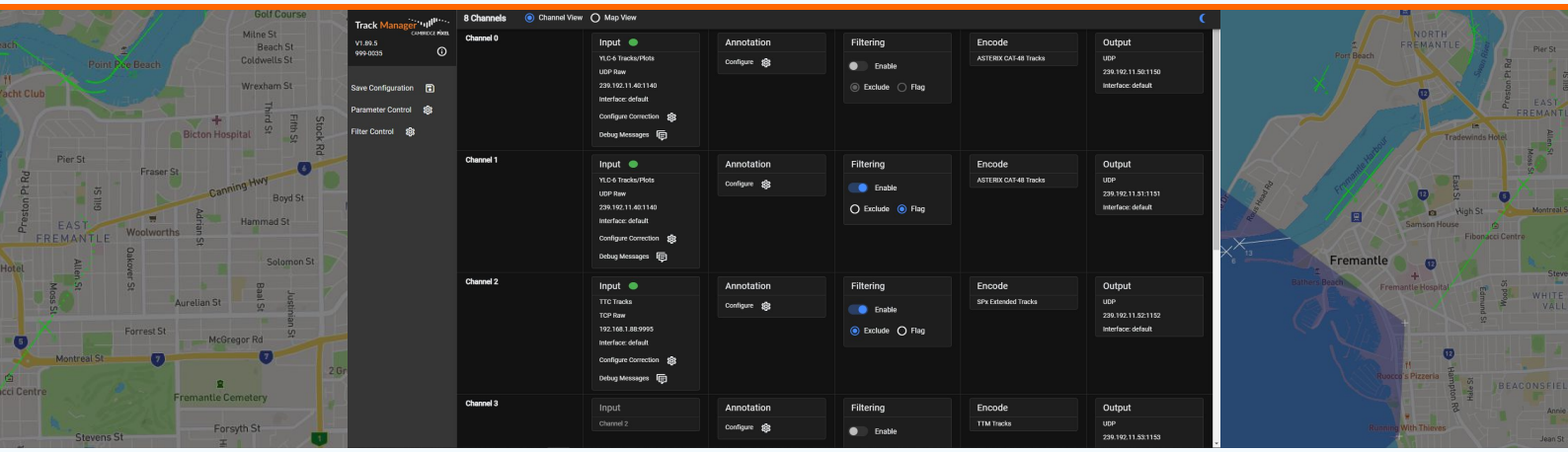

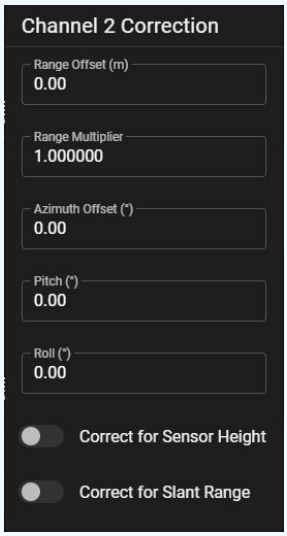

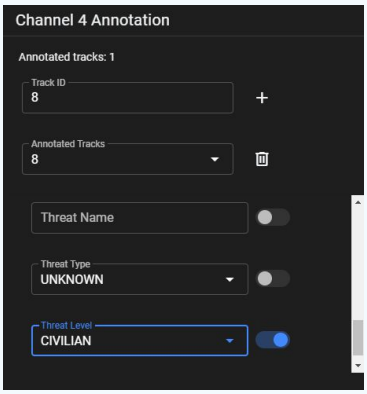

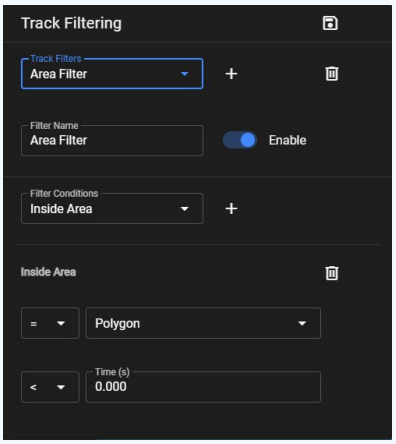

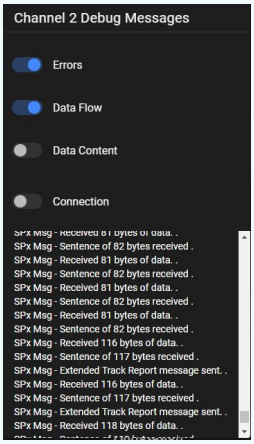

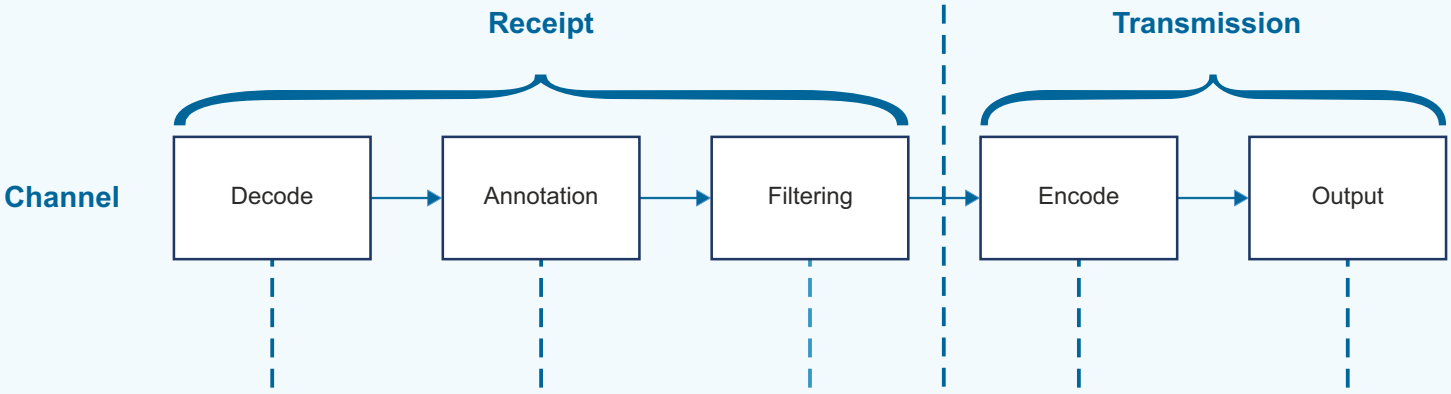

Schematic diagram showing the different processing stages for a single channel.
In addition to each channel acting as a totally separate process it is also possible to duplicate the output from any stage of another channel in order to create a new one. Each subsequent stage can then be performed differently on the new channel as required.

For more information, please contact:

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