RPX

Radar Data Processing Executive

COMSOFT

PRODUCT INFORMATION

COMSOFT's RPX demonstrates the capabilities of a modern Surveillance Data Processing System by implementing highly sophisticated tracking algorithms for multi-radar processing. Offering high accuracy and performance, RPX is the right solution within numerous ATC applications.

RPX is a leading-edge product, designed as an off-the-shelf module for radar data processing. Due to its structured and modular architecture, it provides an efficient and at the same time flexible and portable solution for a multitude of ATC applications.

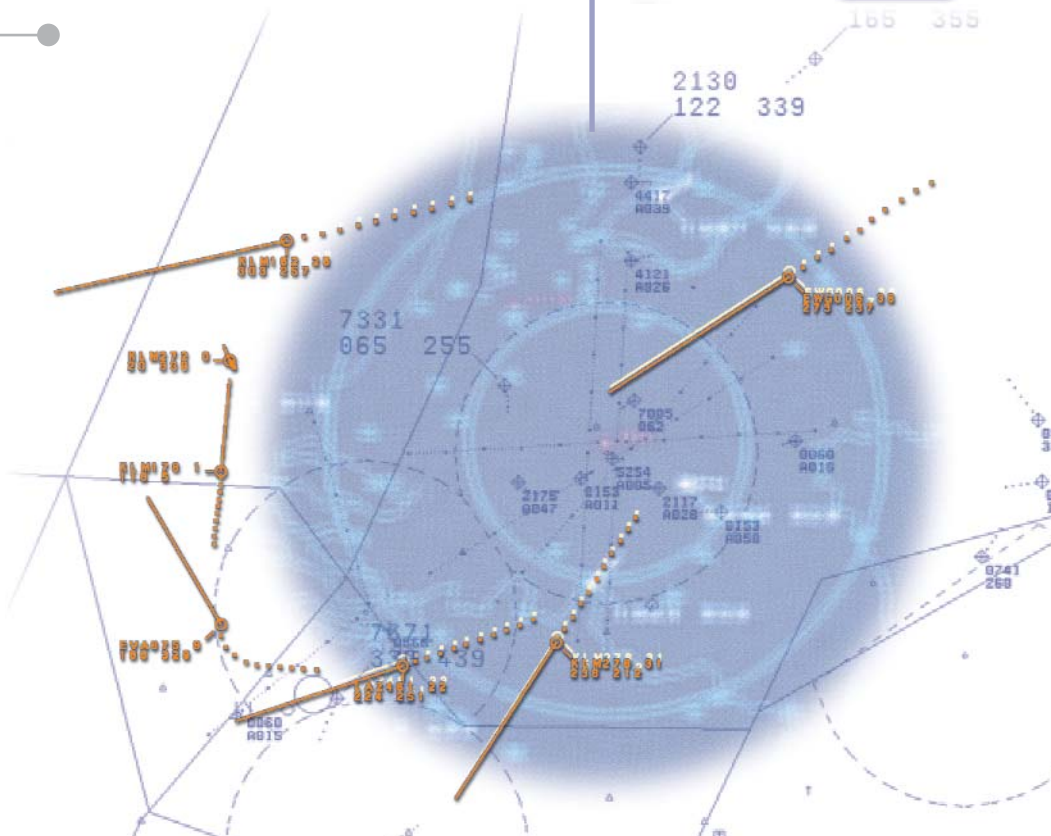
RPX guarantees high interoperability with adjacent ATM system components, including CWP, FDPS, STCA and MSAW. Moreover, it offers system monitoring and control functions supporting a swift integration into existing ATM environments.

Following COMSOFT's strategy of an open system architecture, RPX supports the ASTERIX standards in accordance with guidelines set by EUROCONTROL.

As a sophisticated processing system bearing high adaptability and flexibility, RPX is optimally suited for autonomous ACC, AIP and Tower solutions. It presents itself as an advanced, yet low-cost fallback or backup data processing element in the safety network of today's ATC centers.

Highlights

- High-precision local and system tracking for up to 16 radar sources
- Easily site-configurable to a wide range of operational environments
- Kalman filters with optimized track-plot association
- ARTAS-compatible track output
- Interface to flight plan data processing
- Optimized interfacing with COMSOFT's RDD (Radar Data Display)



Technical Data

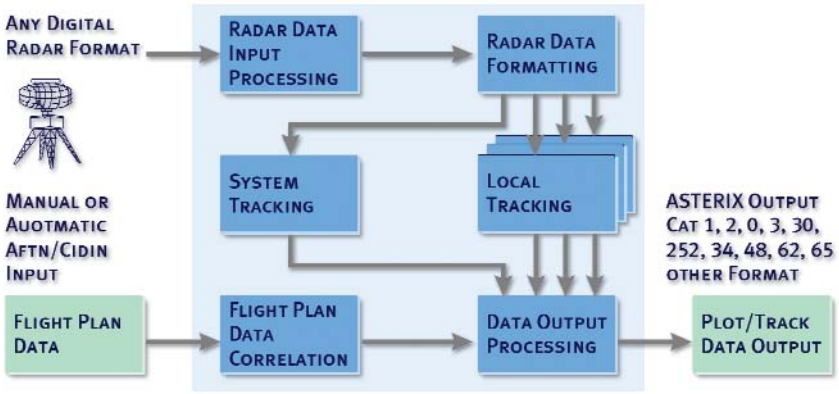
Tracking Algorithm	- Kalman-filters (coupled x/y filtering, vertical tracking) - Optimized plot-track association - Optional combiner and primary clutter filter
Input	- PSR and (M)SSR, plots and tracks - ASTERIX, RDIF, CAA, CD2 supported - Further formats under development
Output	- Mono and multi sensor tracks - ARTAS-compatible output
Platform	- Intel-based server platforms - POSIX-compliant UNIX

Technology

RPX uses a highly sophisticated and optimized multi-radar tracking algorithm that goes beyond a conventional mosaic-based approach. Track computation is extremely reliable. The software processes the data received by all radar sensors available at a given point in time with an optimal assigned weight, and thus avoids areas of inaccuracy at mosaic borders. Local trackers act as preprocessors, delivering filtered base information to the system tracker.

This information is enhanced with positional raw plot information directly received from radar data input processing.

The system is a native ASTERIX SDPS, i.e. it accepts ASTERIX, RDIF, CAA or other plot data (including Mode-S) and provides ASTERIX tracks at its outputs. Code-to-callsign conversion may be performed by interfacing with any kind of FDP system.



System Architecture

Areas of Use

The RPX is an all-purpose tracker that can be scaled for a wide range of application fields. Integration and customization for a given application is fast and economical. RPX can be used as:

- Operational Tracking Front-End for airports and ACCs, providing excellent performance and precision characteristics.
- Fallback Tracking System with a full range of state-of-the-art operational functionality. Considering its open interface capabilities, RPX is ideally suited for use in combination with the EUROCONTROL ARTAS tracking system.
- Stand-alone Tracking System for single radars, e.g. at airports or small control centers, with outstanding cost-value relationship.

In combination with COMSOFT's RDD (Radar Data Display) RPX offers an optimized user interface for the graphical presentation of highly accurate air situation pictures.

COMSOFT

Your Contact:
Manfred Schmid
Wachhausstr. 5a
76227 Karlsruhe
Germany

Tel.:+49-721-9497-104
Fax: +49-721-9497-119
Email: info@comsoft.de
Internet: www.comsoft.de