

# Product brief: RAPS-3

## Surveillance data support, test & evaluation system

RAPS-3 is an indispensable toolset for testing, analysis, validation, and generation of surveillance data. It is widely used by manufactures as reference and test tool, by ANSPs in control centres or at radar sites for monitoring, troubleshooting, or analysing any kind of surveillance information. RAPS-3 can analyse, monitor, or generate any data from classic and Mode-S radars, ADS-B sensors, MLAT systems, trackers, flight recorders and other surveillance equipment. The tool enables the recording, replay, multichannel communication, and analysis of a wide range of formats and protocols.

## Key features

### Highly sophisticated and flexible functions

for format sensitive evaluation, visualisation, filtering, transformation, and technical simulation.

### Analysis function

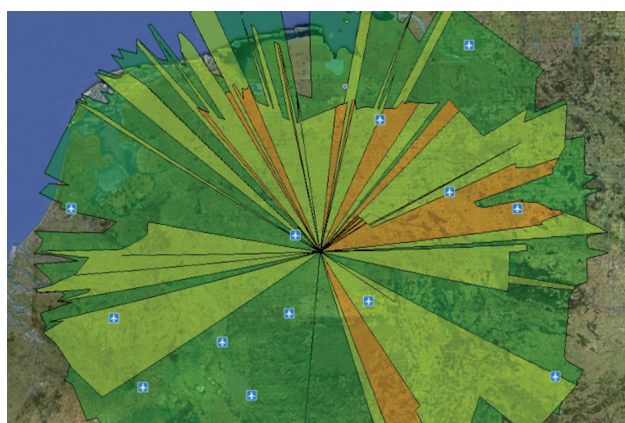
for sensor quality and fault analysis, performance monitoring, test flight and opportunity traffic analysis of any kind of surveillance data.

### ASTERIX reference tool

for all ASTERIX standard categories. The operator can choose from different ASTERIX versions as well as user application profiles (UAP) according to specific requirements of an application. RAPS-3 is fully backwards compatible to earlier versions.

### Different portable platforms

for ease-of-use onsite RAPS-3 is available on three different platforms, tailored to the respective users' needs.



## RAPS-3 at a glance

- EUROCONTROL qualified reference product for the ASTERIX standard
- Support of military ASTERIX
- User-definable test and evaluation suites
- Online surveillance data real-time monitoring and analysis
- Available on various portable platforms



Classic portable PC, ruggedised portable PC, 3xD ruggedised portable solution

## Use cases

ANSPs use RAPS-3 as a measurement and analysis system, while manufacturers implement the tool as an independent reference system for acceptance testing of various systems and applications, such as error diagnostics on operationally running systems or test environments.

RAPS-3 is indispensable in critical situations, such as during inaccurate or unexpected system behaviour or bad performances within the ATC center's infrastructure. Its practical use includes performing acceptance test procedures and certifications within the scope of integrating new communication and data processing systems, radars, sensor, and other surveillance data sources into an existing operational environment.

## ASTERIX experience

The RAPS technology has continuously been refined and upgraded since the first implementation of ASTERIX in 1989. Since then, RAPS benefits from the expertise in the field of surveillance data testing and helps civil and military aviation authorities as well as manufactures to align and test their ASTERIX implementations.

Qualification certificates issued by various organisations endorse the trustworthiness of the product. EUROCONTROL and a recognised German research organisation evaluated the product and certified RAPS as recommended ASTERIX test tool and reference product.

## Facts and figures

Platforms	Classic portable PC, ruggedised portable PC, 3xD ruggedised portable solution
ASTERIX format	Supported categories: EUROCONTROL Standard, NATO STANAG5535 multi-version support, current & previous versions, dialects and customized user-defined versions
Other data formats	AIRCAT, Alenia, CAA, CD2 (all major dialects including CD-1, CD2, CD-2, ARSR-3, ARSR-4, ASR-9, FPS-117, STARS, SCIP), NAVAIR, EURO, F200, FPL, GAF, HADR, RRP, LR, MADREC, MSSR, NAV1, NMEA-GPS, RDE, RDIF, RLD, SVE, SR, Transparent, UZJ
Protocols	HDLC LAP-B, HDLC Frame Level, Async, AIRCAT, CD2, LLC1, TCP/IP, UDP/IP, IPv6, further protocols and formats on request

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