Operating modes	Single/Dual frequency Auto-retrieve data (public FTP servers/EDAS
Input formats	RINEX 2.x, 3x RINEX B Logbooks EMS(EGNOS) IONEX SP3-c and SP3-d DCB ANTEX IGS
Coverage	Local and Regional
Supported GNSS core constellations	GPS GLONASS Galileo
Supported GNSS augmentations	RAIM ARAIM SBAS L1 SBAS DFMC L1/L5
Supported standards	ICAO GNSS SARPS SBAS DFMC L1/L5 (draft ICD) RTCA/DO-229 A,C,D,E (SBAS MOPS)
Supported service levels	EGNOS Open Service Customizable
Pseudorange and user analysis	Range Level: · SREW · UDRE · GIVD, GIVE · Time offsets User Level: · Protection Levels · Position Errors · Availability · Safety Index · Continuity risk analysis · Service availability and coverage GNSS-SARPS Compliance

CHECK ALSO

Information website:
https://www.gmv.com/en-es/products/eclayrr

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Eclayr®

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Product info at:
https://www.gmv.com/en-es/products/eclayrr

Eclayr®

The complete tool for SBAS performance assessment

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ECLAYR

Eclayr® is a specialized engineering tool for detailed pseudorange performance assessment of Satellite Based Augmentation Systems (SBAS) such as EGNOS and verify the level of compliance with respect to pre-defined requirements (e.g.; GNSS-SARPs).

The tool automatically collects and processes SBAS and reference truth data and generates comprehensive performance assessment reports. It is endowed with a powerful user interface that displays a variety of the results in a graphical and interactive way.
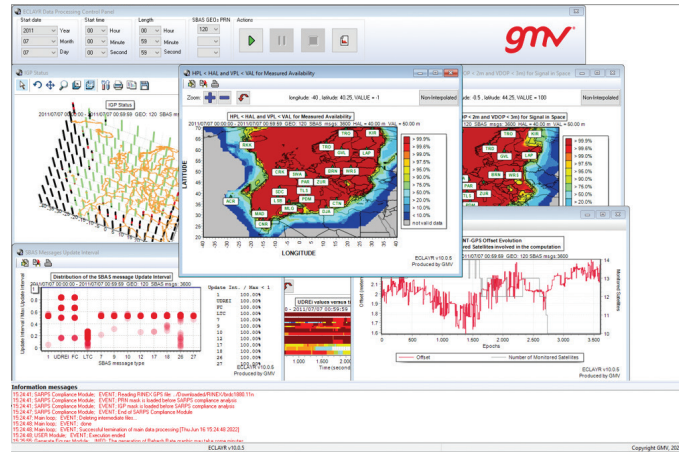

MAIN FEATURES

Eclayr® key features are:

- Full compliance to RTCA/DO229 (SBAS-MOPS) version A, C, D and E (user selectable).
- Multi-constellation support (GPS, GLONASS and Galileo).
- Supports single and dual frequency SBAS (implemented the latest version of the draft ICD for L1/L5 DFMC).
- Supports ARAIM executions. ARAIM is an Advanced-RAIM currently being evolved trying to achieve LPV-200 operation levels.
- Automatic retrieval of the necessary reference and truth data for performance assessment including EGNOS EDAS service.
- Powerful user interface to display statistical results and colored performance maps.
- Automatic generation of comprehensive performance assessment reports in html and pdf formats.
- Runs on any standard desktop laptop computer under Windows 10/11 OS. It is also possible to execute the *Eclayr®* Kernel in Linux OS.

RANGE DOMAIN ANALYSIS

Performance analyses in the range domain supported by *Eclayr®* include:

- Analysis of Satellites' Residual Error at the Worst User Location (SREW).
- Analysis of User Differential Residual Error (UDRE).
- Analysis of Grid Ionospheric Vertical Delay (GIVD).
- Analysis of Grid Ionospheric Vertical Error (GIVE).
- Time offset analysis for each supported constellation (e.g.; GPS, GLONASS, Galileo) with respect to SBAS reference time.
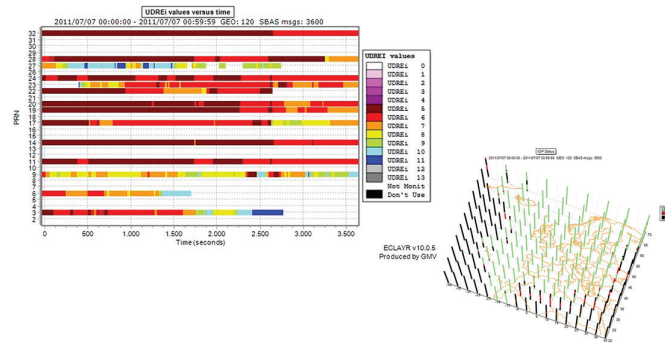

USER DOMAIN ANALYSIS

Position domain analyses in the range domain supported by *Eclayr®* include:

- Protection Levels (xPL) analysis.
- Position Errors (xPE) analysis.
- Availability (xPL vs. xAL) analysis.
- Safety Index (xPE / xPL) analysis.
- Continuity risk analysis.
- Service availability and coverage analysis.
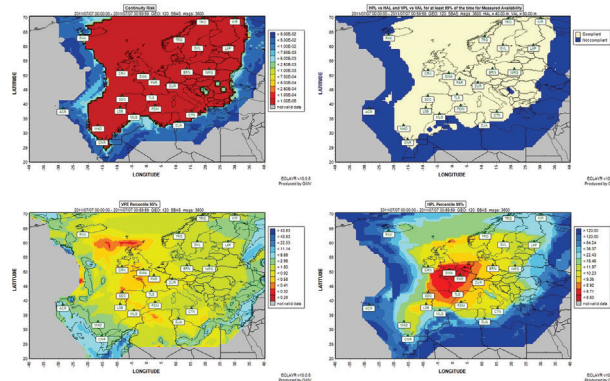
GNSS SARPS COMPLIANCE ANALYSIS

Eclayr® reports the events identified in the processed SBAS messages that do not comply with the high level SARPs requirements, representing the information in user-friendly plots.
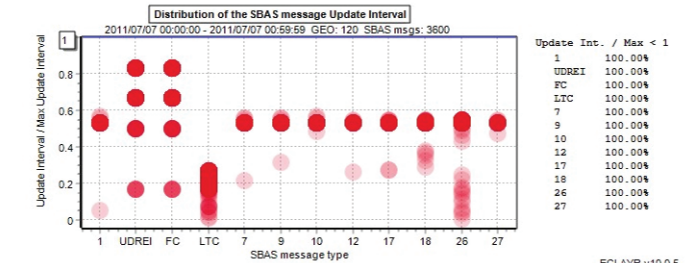
AUTOMATIC REPORT GENERATION

With *Eclayr®* it is not only possible to create reports in the HTML format but also in PDF. PDF reports allow some degree of customization such as company logos, disclaimer texts, etc. The report is also produced in an intermediate format (DocBook) which is editable with some word processors and authoring tools
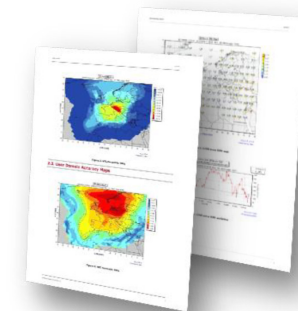
ADITIONAL SERVICES

GMV offers the possibility to contract Advanced Expert Support Service with *Eclayr®* under which GMV GNSS experts can produce additional detailed analyses and reports.

GMV can also provide training and consultancy services to assist in the planning and implementation of GNSS based operations.