magicGNSS' WEB SERVICE

8 YEARS OF LESSONS LEARNED FROM THE GNSS COMMUNITY

GUILLERMO TOBIAS, PEDRO F. NAVARRO, IRMA RODRIGUEZ, JOSE LUIS CARRETERO, DAVID CALLE, PEDRO J. ROLDÁN, LAURA MARTÍNEZ/ GMV

SERVICE DESCRIPTION

magicGNSS suite implements state-of-the-art GNSS algorithms developed by GMV as a result of 25 years' experience in the field.

magicGNSS' web service provides the following services:

- Multi-constellation Precise Orbit and Clock Determination Service.
- Multi-constellation Single and Double-frequency Precise Point Positioning (PPP) Service.
- Multi-constellation Long-Term Ephemeris Service, providing high-accuracy GNSS orbit and clock predictions suitable for Assisted-GNSS (A-GNSS) applications.
- Station Monitoring Service, allowing real-time monitoring of a configured network of reference stations according to predefined KPIs.

USAGE OF magicGNSS

![Graph showing usage of magicGNSS](image)

MAIN IMPROVEMENTS

- New magicGNSS web responsive, accessible and friendly.
- New magicEphem service.
- New magicMonitor service.
- Improve the pre-validation tool to solve most issues related to RINEX formatting.
- Notice message when the quality of the output results is not considered satisfactory.

REPORTED ISSUES

- Submission of RINEX files with wrong formatting.
- Non-supported data rates in input files.
- Poor quality input data.
- Unavailability of multi-constellation PPP products prior to 2014.
- Non-integer timestamps in submitted RINEX files.
- Submission of too short RINEX files.
- LITE users calling for PRO functionalities.

MOST FREQUENT QUESTIONS

- Which SRP model used for the generation of long-term ephemeris.
- Availability of toolkit/sdk/library to improve the quality of the position of the GPS included in the device (phone, tablet).
- Types of compatible receivers.
- Support of different constellations, many questions about QZSS processing capabilities.
- Availability of RTK solution.
- Differences between magicPPP service and RTK.
- Availability of PPP residuals information for scientific purposes (multipath characterisation, tomography, ...).