

Glossary

ARP: Antenna Reference Point. A point on the antenna used in measuring offsets from the mark and to other points on the antenna. The ARP is usually, but not always, the bottom-center of the base or tripod mount. (<http://www.ngs.noaa.gov/ANTCAL/>).

Constrain: Mathematically limit the estimated adjustment for a parameter in a matrix solution.

CORS: (1) Continuously Operating Reference Station. Generally this means the CORS in the U.S. whose data are available through the NGS but also includes the IGS global network. (2) A network design in which connections to CORS are preferentially selected.

FAA: As used here, this refers to the Airports Surveying-GIS Program. This type of project has specific guidelines. (see AC-16A Deliverable Examples at <http://geodesy.noaa.gov/AERO/aero.html>)

Fix: Constraining the coordinates for a mark to their a priori or other specified values. It is possible to fix the horizontal, vertical or all (3-D) coordinates.

GPSCOM: The stand-alone matrix manipulation program used to combine PAGES results.

HtMod: Height Modernization Project. This type of project has specific guidelines. (<http://geodesy.noaa.gov/heightmod/>)

Hub: A mark to which baseline connections are preferentially, but not exclusively, made. Hubs will often be included in several baselines whereas non-hubs will usually be included in only one or two baselines.

IGS: The International GNSS Service (<http://igs.cb.jpl.nasa.gov/>)

ITRF: International Terrestrial Reference Frame. (<http://itrf.ensg.ign.fr/>)

Manager: The manager is the point-of-contact and person responsible for the project.

Mark ID: Each mark has a unique (to your project), four character name. The mark ID must be four characters in length and contain only the letters a-z, the numbers 0-9 and the underscore character.

Minimal Spanning Tree: A network design containing the minimum baselines needed to connect all included marks while maximizing the data included in the processing.

MST: A network design implementing a minimal spanning tree.

Network: Sessions are grouped into a network. Network adjustments are created from session solutions and are the ultimate product of a project.

NGS: The National Geodetic Survey (<http://geodesy.noaa.gov>)

PAGES: The GNSS processing software suite used for OPUS-Net, OPUS-S and OPUS-Projects.

Preferences: A project will, in part, be defined by its preferences. One class of preferences mentioned here is “Data & Solution Quality Thresholds”. Another is processing options like the observation elevation cutoff and “tropo” model. All can be set at the manager’s discretion.

Project Identifier: A unique string used to identify your project.

Project Keyword: Along with the project identifier, keywords are used to access tasks related to your project.

Queue: Like other OPUS processing streams, OPUS-Projects processing instructions aren’t necessarily acted upon immediately; they are inserted at the end of a queue. The processing engines address queue entries on a first in, first out basis.

RINEX: Receiver INdependent EXchange format. A widely used format for GNSS data files. (<http://igsb.jpl.nasa.gov/components/formats.html>)

Session: Sessions are one or more data files that overlap significantly in time and (usually) are processed together.

Thresholds: Project preferences against which solutions are compared. If any of the solution values for a mark exceed a corresponding threshold, the mark’s map icon is changed to indicate this condition and associated table entries are color coded.

TRI: A network design consisting of closed loops using the Delaunay triangulation algorithms.

Tropo: As a GNSS signal travels from a satellite to your receiver, a number of effects modify that signal or the path it follows. Several such effects are caused by the atmosphere of the Earth. These atmospheric effects can be subdivided in a number of ways. A common subdivision is the charged and neutral atmosphere. Furthermore, the neutral atmospheric corrections are often further subdivided into the hydrostatic (or dry) and wet parts. The wet part is literally the water vapor in the atmosphere. Water vapor, exists almost exclusively in the lower level of the atmosphere called the troposphere, thus tropo = wet, neutral atmospheric correction.

USER: A network design created by user selections.

User: Someone using OPUS-Projects and other NGS tools.

URL: Uniform Resource Locator. In other words, a web page address.