

PROCEDURE FOR INCLUDING GNSS STATIONS IN EPOS

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Available from the M³G-Bureau at <https://gnss-metadata.eu/Guidelines/>

Questions and comments are welcome at C.Bruyninx@oma.be.

Updates:

Created: January 13, 2017: Initial version discussed at TCS-ICS Integration Workshop (02/2017)

Update:

July 17, 2017:

- Added M³G-bureau, information on the Supplier Letter
- Clarified relation Operational Centre – Data Supplier

Jan. 10, 2018: Revision to reflect higher maturity of M³G system.

Feb. 2, 2018: Revision of “Data Center/Node” and “Agency” terminology.

Intended for:

This document describes the procedure to be followed by the **EPOS Operational Centres (OC)/Data Suppliers** in order to integrate GNSS stations in EPOS. An EPOS Operational Centre is responsible for

- maintaining the station metadata (e.g. site log, site pictures, individual antenna calibrations, and contact information) within EPOS,
- the availability of the station data at one of the EPOS-GNSS data repositories.

In addition to the procedure in this document, OCs should consult the "Guidelines for EPOS-GNSS Stations and Operational Centres" in order to know about the EPOS-GNSS recommendations with respect to station receiver, antenna, data handling, documentation, and data formats.

Terminology & Principles:

For EPOS-GNSS, **EPOS Operational Centre** and **Data Supplier** are considered as synonyms. The agency acting as OC is the legal contact of an EPOS station w.r.t. EPOS. This agency has the legal rights to distribute the GNSS data of its EPOS stations to a third party through EPOS; it also signs the EPOS Data Supplier Letter

In exceptional cases, the **EPOS Operational Centre** and the **Station Owner** do not fall under the same agency. In such case, EPOS supposes the existence of an agreement between both agencies to assure that the agency acting as OC has the rights to act within EPOS on behalf of the agency of the Station Owner.

Unless otherwise specified, all emails should be sent to m3g@oma.be (M³G: **M**etadata **M**anagement and **d**istribution system for **M**ultiple **G**NSS networks).

Procedure:

1. Read "Guidelines for EPOS-GNSS Stations and Operational Centres", available from https://gnss-metadata.eu/Guidelines/EPOS-GNSS_Guidelines_Station_OperationalCentre.pdf:
 - 1.1. Make sure the station complies with the **Requirements for Permanent Stations** in the document. Pay attention to guidelines specifically for new stations and make sure the equipment (receiver, antenna) you use is known to the International GNSS Service (IGS)! If it is not, contact m3g@oma.be.
 - 1.2. Make sure your agency is allowed to sign the **EPOS-GNSS Supplier Letter**, available from https://gnss-metadata.eu/Guidelines/EPOS-GNSS_Supplier_Letter.docx and capable of performing the tasks of an Operational Centre described in the document "Guidelines for EPOS-GNSS Stations and Operational Centres". As a basic principle, EPOS has an open data policy.
2. Make sure you, or another agency, is capable of acting as an **EPOS Data Node** as it is described in the document "Guidelines for EPOS-GNSS Data Nodes (*not available yet*)". A list of available EPOS-GNSS Data Nodes is available from <https://gnss-metadata.eu/index.php?r=site%2Fdatanode>
3. Choose the **station(s) 4-character identification code(s)**:

All EPOS-GNSS stations are uniquely identified using a 9-character abbreviation code (RINEX 3 naming conventions), consisting of a 4-char ID, followed by "00" and the 3-char ISO country code. Consequently, choosing the 4-char station code is the first step. The 9-char code will be used for all future reference to your station (data and documentation).

To prevent duplication, check for already used 4-char station abbreviations at

<http://sopac.ucsd.edu/checkSiteID.shtml>
<http://facility.unavco.org/data/gnss/sitecheck.php>
<ftp://igs-rf.ign.fr/pub/DOMES/codomes.snz>
http://offiler.demon.co.uk/~dave/gwv/gwv_list.cgi

OPTIONAL, but recommended: **Request a DOMES number** for your station/marker from the International Earth Rotation and Reference Systems Service (IERS):
http://itrf.ensg.ign.fr/domes_request.php.

Download (from https://gnss-metadata.eu/Guidelines/EPOS-GNSS_Supplier_Letter.docx), complete and sign the **EPOS-GNSS Supplier Letter** including Annex A. Send the scanned letter to the M³G-bureau (m3g@oma.be) and send the original to

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If you are proposing several stations to EPOS, then just sign the letter once and list all the stations in Annex A.
4. The contact person indicated in the EPOS-GNSS Supplier Letter will receive an email invitation from the M³G-bureau to register an account at <https://gnss-metadata.eu>. **Create the account** at the M³G-bureau (<https://gnss-metadata.eu>) and login (or login using an existing account), and create/update your **Operational Centre Profile** by adding the new proposed station(s).
5. Go into the "My stations" section of your account and upload the **metadata** of your new proposed station(s)

6. Once the mandatory station metadata is validated and available, the station metadata will show up at the EPOS-GNSS Data Gateway station (even if it is still 'Proposed to EPOS')
7. As soon as the GNSS RINEX data from your station will become discoverable at the EPOS-GNSS Data Gateway, the M³G-bureau will give the station(s) the **official label "EPOS station"**.