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FAQ of the GNSS REFERENCE STATION NETWORK OF VALENCIA (ERVA NETWORK)

How do I become a registered user of ERVA Network?

You need to fill in the form in: <http://icverva.icv.gva.es:8080/es/altausuarios>. After sending it, in some minutes, you will receive a username and password, and the IP address of the real time caster needed to access the service. You need an email address without SPAM filters.

How long can I use the same user password?

The username and password are activated indefinitely, however they are nontransferable; this is because the ICV produces statistics access by user groups. In order to activate new users and avoid duplicate records in the database of users, very old passwords will renew and / or notify the user by automatic procedures. If the system detects more users than authorized connections, then it could be cancelled.

How much costs the service in real time?

Currently, you only pay the fee of your 3G/GPRS Internet connection to you mobile phone Company, (data volume at month between 200 MB -1 GB). Whenever you use the network in both real-time and post-processing method, please include a citation to the network (ERVA), institution that has deployed the network and is responsible for its maintenance (Cartographic Institute of Valencia- ICV), and a link to www.icv.gva.es web page. Any other use involving the reutilization or redistribution of the data and information of the network through another server must be authorized by the ICV.

What services offers ERVA NETWORK?

-Post-processing services: RINEX files.

-Real time services: Real time RTK with network solution RTK or DGPS code differential corrections. In addition, it offers corrections from every station.

What is the precision obtained using ERVA Network?

By using the network, it is achieved centimeter accuracy (2-3 cm) with the ETRS89 Datum with ellipsoidal heights. However, the final accuracy may be degraded depending on the conditions of your own observation, for example, poor latency, limited number of satellites tracked, receiver misconfiguration etc. .. Please note that we use Null Antenna mode, which applies phase center corrections.

What do I need to use the ERVA Network with my rover?

- Your receiver must support at least RTCM versions 2.3 and 3.0 and NTRIP (Network transfer of RTCM via Internet protocol).
- An Internet connection via mobile phone or WIFI.

If I have an old receiver, does it support real-time services (and NTRIP protocol)?

If the receiver does not support NTRIP protocol, you must access the service through the use of other intermediate applications, it is necessary to connect the GPS receiver to a laptop or PDA where you can run utilities that convert the NTRIP protocol.

I can not connect to Internet via mobile phone.

If you use GPRS/3G connection, the problem may be in the coverage or the code or standard dialed markup, which varies for every telephone company or with the model of the mobile phone.

Contact your telephone company for instructions to access to internet with GPRS/3G.

I can not connect to the GPS Stations in Real Time.

If the station is operative, (please consult at : <https://icverva2.icv.gva.es/SBC>), the problem could be the configuration of your GNSS controller, you did not select the appropriate positioning mode or that your receiver configuration is not compatible with the standards and type of corrections. Contact your GPS supplier for suitable system configuration.

Where can I download the data for post-processing mode?

To do this, you must enter www.icv.gva.es - ERVA Services-Network and go to the download section RINEX. The format RINEX file appears compressed. The published data rate for each station (registration times of 1, 5 and / or 30 seconds), is reflected in the description of each of the stations. You can also use the option for downloading customized data "on demand" through a form.

In the ftp download services, you can select the folder of 30, 5 or 1 second.

Then select the directory of the corresponding day.

The directory name has the form YYYYMMDD:

- YYYY the year.
- MM the month.
- DD the day.

Within every day folder, there are two types of files:

EGPSdddS.yyd.Z recipient data in compressed compact RINEX format .
EGPSdddS.yyn.Z RINEX navigation file.

Where:

- EGPS is the 4-character identifier of the GPS reference station.
- ddd is the day of year.
- S is the session.
- yy are the last two digits of the year.

The sessions in hourly data files can be A – X, corresponding to the UTC time.
The session in daily data files is always 0.

If the navigation or data files are compressed, you can decompress *.yyd.z or *.yyn.z with Winzip or a decompression tool based on UNIX, obtaining compact RINEX file.

You can get the file in standard RINEX format with the tool from the Utilities folder :
CRX2RNX.EXE

You can execute:

```
CRX2RNX EGPSdddS.yyd
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and finally you will obtain: EGPSdddS.yyo RINEX file.