

Contributing data to the GEOFON Data Centre @ GFZ

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Scope of this document

The present document has been prepared with the aim to provide simple guidelines to assist data providers during the archival of their data at GEOFON DC.

Request a network code at FDSN

For requesting a temporary network code for your project, we need the following information:

- Title of the experiment
- Start year
- End year
- Short abstract (max 200 chars)
- Estimated size (in Megabytes)
- Operating institution(s)
- PI(s) (ideally with ORCID iD)
- Funder(s)
- Deployment area
- Will the data be embargoed?
- Expected release date
- License (now or at end of the embargo)

Most of the above named information will be reused for minting a DOI later.

Of course, if you prefer, you can request a network code yourself. In this case please be cautious, there are a few little traps.

Please make sure to choose **Do nothing right now** if you do not already have a DOI minted for your network. GFZ will mint a DOI for you and **afterwards** insert it into the FDSN network mask.

Please also make sure that you choose the right institution at **Operating institution**. You can also insert a new institution if you can't find yours in the drop-down menu. **Please do not choose GEOFON Program here!**

Choose Geofon as your webservice in order to enable FDSN to get your station metadata from our webservices automatically.

<http://www.fdsn.org/networks/request/temp/>

Please forward the response message to **geofon_dc(at)gfz-potsdam.de!**

Data Preparation

For data preparation we recommend the [GIPPtools](#) from the Geophysical Instrument Pool Potsdam by Christof Lendl or [msmod](#) by Chad Trabant.

The receiver program on our server expects MiniSEED data with the following configuration.

Header containing the final network code (assigned by FDSN), appropriate station code, channel naming, location code

Blocksize 512 or 4096

ByteOrder: BigEndian

Compression: Steim1 or Steim2 (please be consistent stationwise to avoid different compressions in one day file)

Since the conversion can be very time consuming especially for large datasets, we strongly recommend to **try first with a small amount of data**.

Send Network Metadata (for temporary experiments)

Station.xml or inventory.xml or dataless seed or a table containing the following information:

StationCode	Place/Country	Datalogger	%SerialNumber	%Gain	Sensor	%SerialNumber	Latitude	Longitude	Elevation	LocalDepth	AziChan1	AziChan2	Start	End
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If you provide station.xml, please make sure that your streams have start-date and end-date of deployment (for temporary networks). Even if we also may store data from before and after deployment time, only the data during the deployment epoch will be available for the user.

Please ensure that you also provide azimuths if your instruments have not been properly oriented.

Most of the above columns are self explaining but not all of them.

- Place / Country means nearest village or spot that helps to distinguish stations or otherwise be left empty
- AziChan1/AziChan2 only necessary if instruments are not oriented, otherwise it's Z,N,E
- Start / End means start and end of the deployment of the station

Send DOI Metadata (for temporary experiments)

- ✓ *FDSN network code (if already assigned)*
- ✓ *StartYear – EndYear*
- ✓ *Operating Institution*
- ✓ *PI(s) (with ORCIDiD if possible)*
- ✓ *Title of the Experiment*
- ✓ *Funder + award number*
- ✓ *Estimated size of dataset*
- ✓ *Short abstract*
- ✓ *Open/Embargoed until*
- ✓ *License (default CC-BY 4.0)*
- ✓ *Contact persons(s) (will get an invitation to our data management system)*
- ✓ *Related references, publications somehow connected to dataset*

Data Transfer

Now you have to download and install the [Ringserver Client software](#)

Please read the manual. It's possible to do Dry Runs (without server connection) for testing purposes, in order to find out if the data is recognized as miniSEED.

The next step should be the transfer of a **small amount of data** to see if all criteria have been met.

Call **miniseed2dmc -v 139.17.3.77:port** with port number being assigned by our data centre.

In any case, should you have difficulties with one or more of the steps described above, please contact us at [geofon_dc\(at\)gfz-potsdam.de](mailto:geofon_dc@gfz-potsdam.de). Most probably we'll find a solution.

Looking forward to hosting your data at our data centre,

The GEOFON DC operators