Training on Waveform Archive Access and Administration

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Section 2.4 - GEOFON

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Outline

1. General features of the software
2. Events
3. Stations
4. Submit Request
5. Request status/Download data

Section 1

General features of the software

General overview of WebDC3 at GEOFON

Information

- ca. 4700 stations
- ca. 500 events/month

Capabilities

- Event based
- Station based
- Timespan based
- Manage your requests

Explore a catalog of seismic events (earthquakes), or look for waveforms related to specific events. You can select events by multiple criteria, then pick from channels available at those times.

General overview of WebDC3 at GEOFON

Information

- ca. 4700 stations
- ca. 500 events/month

Capabilities

- Event based
- Station based
- Timespan based
- Manage your requests

Explore the inventory to see what stations/streams are available and their parameters. You can select stations/streams by multiple criteria.

General overview of WebDC3 at GEOFON

Information

- ca. 4700 stations
- ca. 500 events/month

Capabilities

- Event based
- Station based
- Timespan based
- Manage your requests

Obtain station/stream information over fixed periods of interest.

General overview of WebDC3 at GEOFON

Information

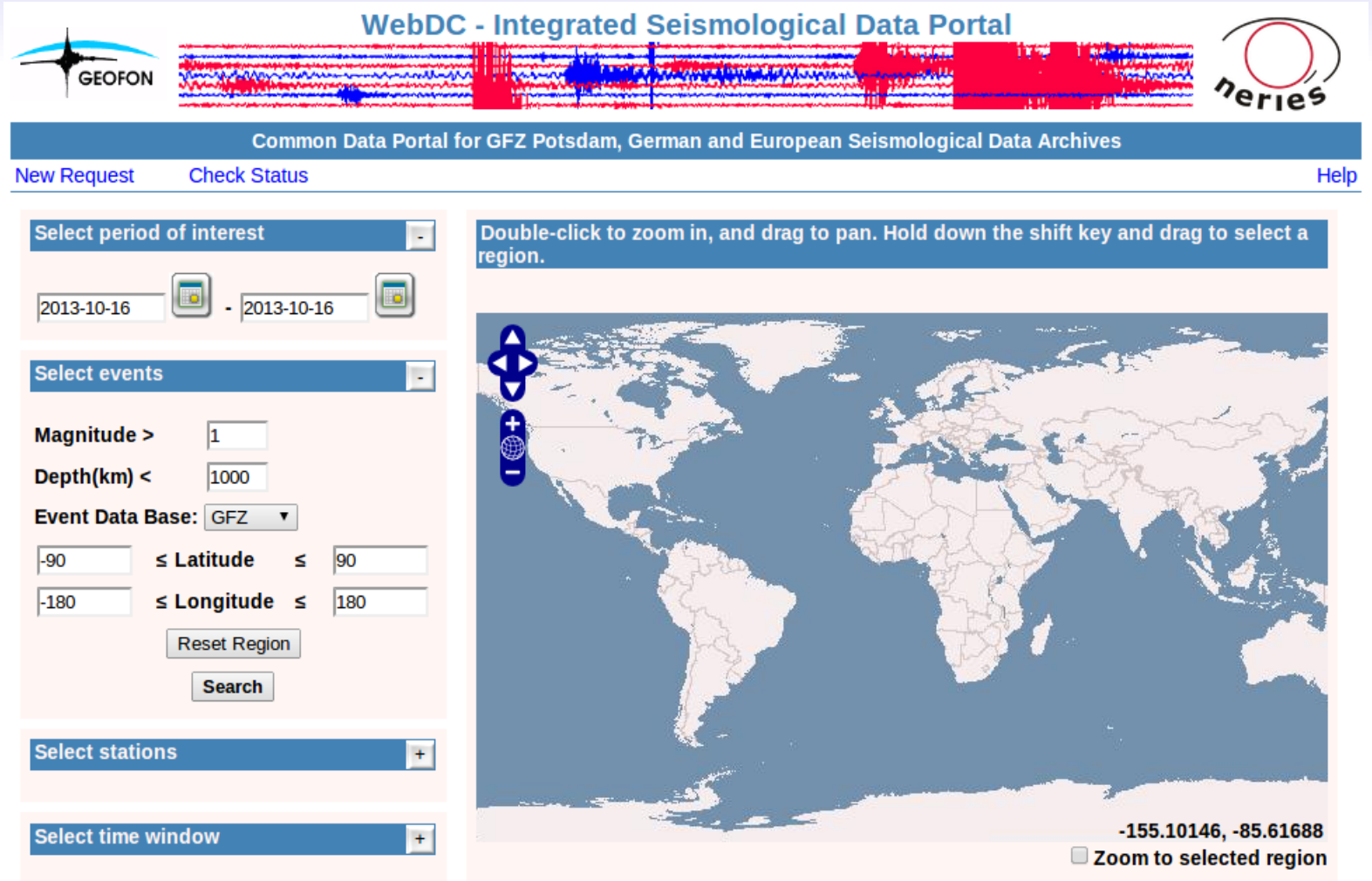
- ca. 4700 stations
- ca. 500 events/month

Capabilities

- Event based
- Station based
- Timespan based
- Manage your requests

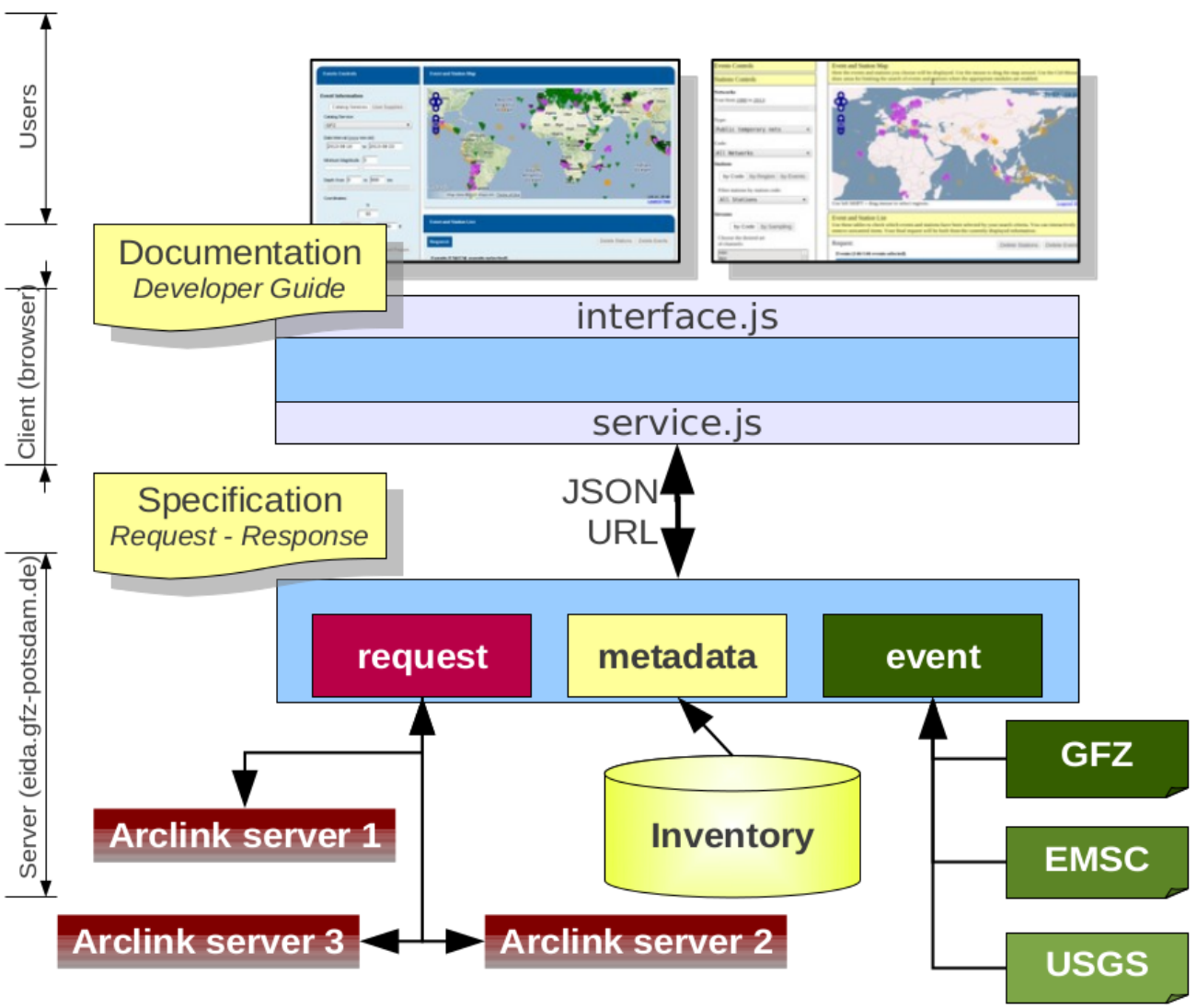
Consult the status of all your requests and manage them from this interface.

Old and new interface



Old and new interface

Software components



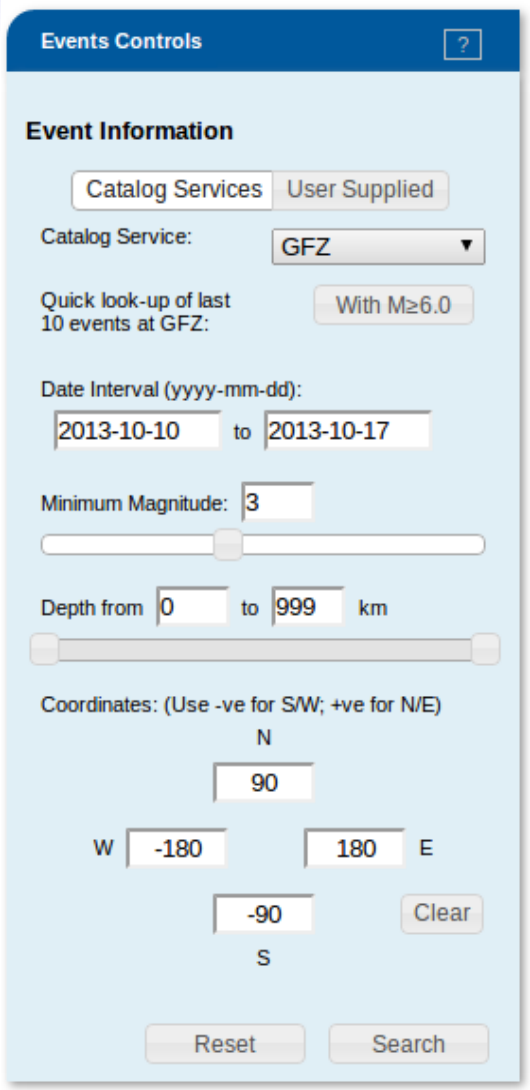
Improvements

- Interface remains similar to make things easy for the user.
- Code was completely restructured.
- Modular code. Easy to mantain. Easy to extend.
- No more **html_chunks.py**!
- Much faster than the old one.
- Fewer communications with the Arclink server.
- Modular support for multiple event catalogs.

Section 2

Events

Selecting events

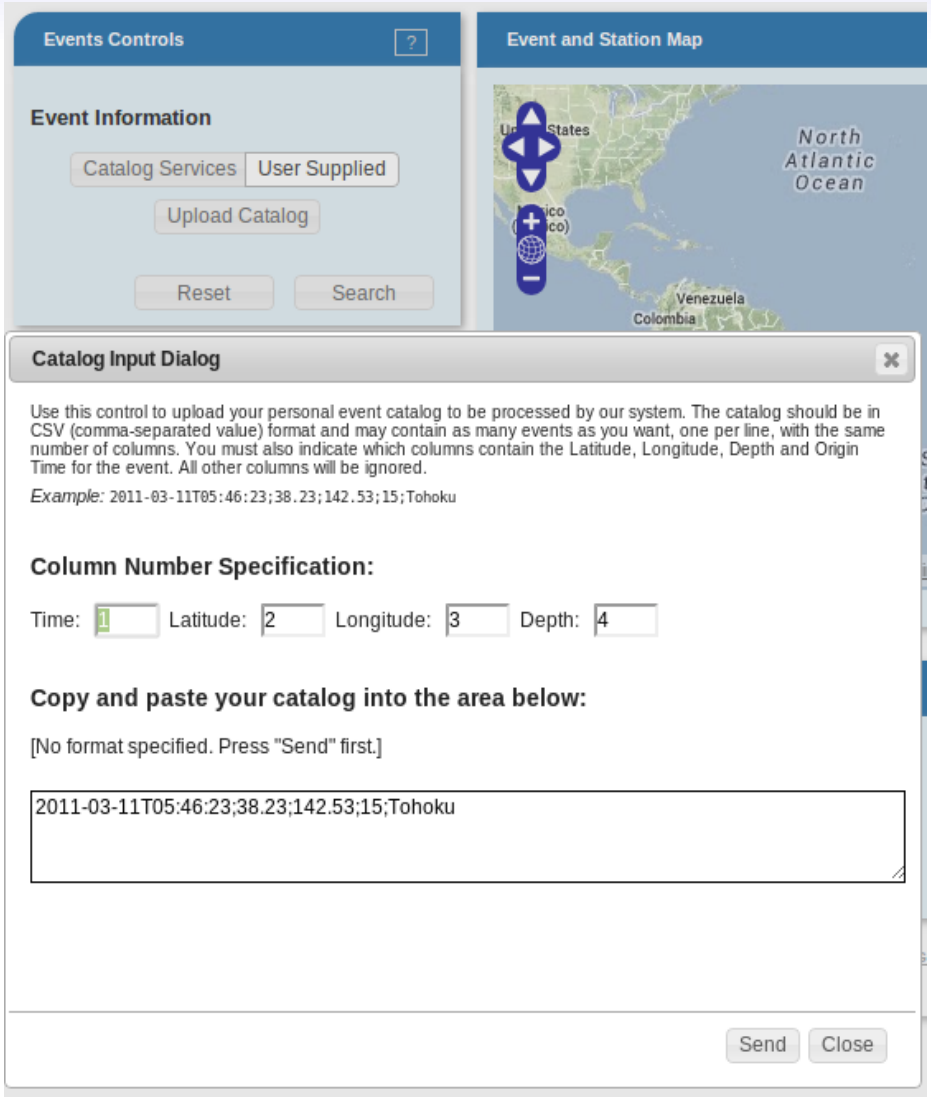


Available catalogs today:

1. BMKG - BMKG catalog - http://www.bmkg.go.id
2. GFZ - The GEOFON catalog - http://geofon.gfz-potsdam.de/eqinfo
3. USGS - The ANSS Comprehensive Catalog (ComCat) service - http://comcat.cr.usgs.gov/earthquakes/feed/v0.1/s
4. ISC - ISC catalog - There could be up to 2 years of delay!

Circular regions as well as **distance from stations** are planned for future versions.

Selecting events



Upload your own set of events in CSV format with the following information:

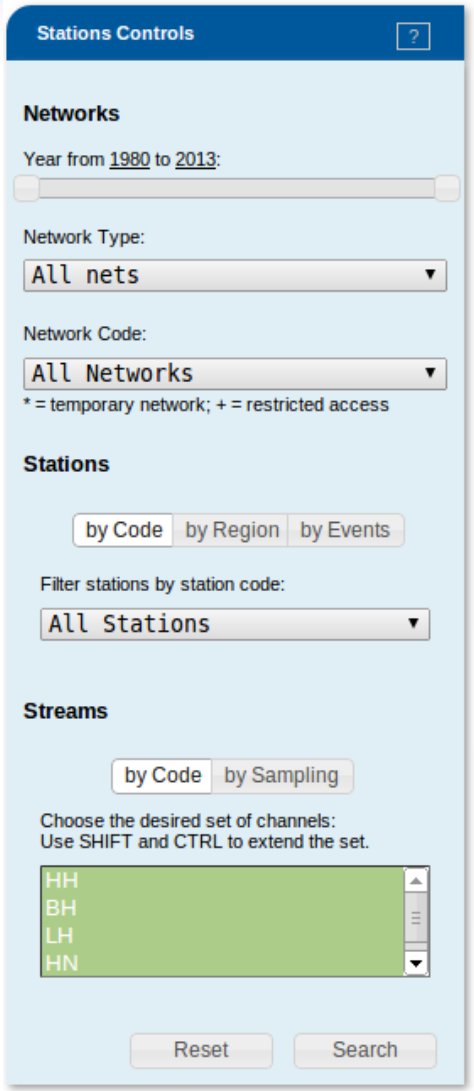
1. Time
2. Latitude
3. Longitude
4. Depth

File upload should be available soon.

Section 3

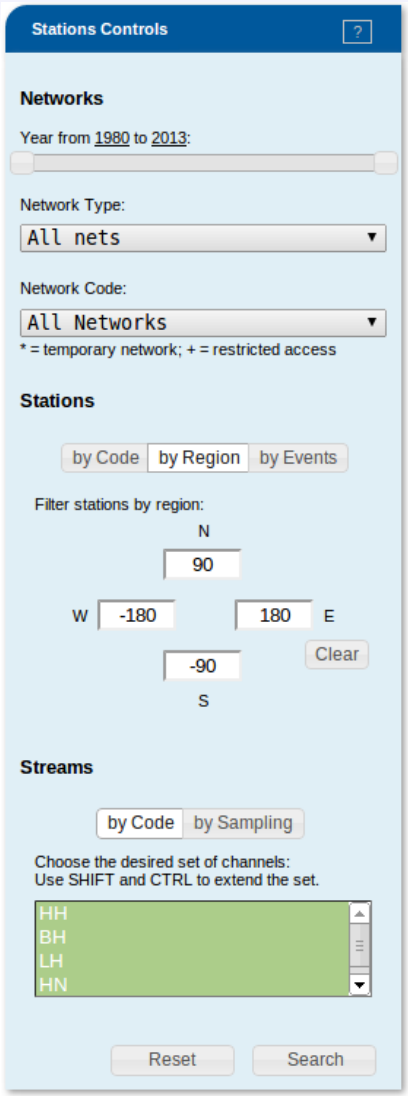
Stations

Selecting stations



- The start/end year is used to filter the selection as much as posible. The filter is applied at all levels.
- Dropdown lists are updated with every change of the other fields. ⇒ No inconsistencies!
- If posible, selected values are remembered after refreshing lists.
- Stream types are sorted by importance for the selection.
- **Multiple selection of stations** is posible using the **Append**button.

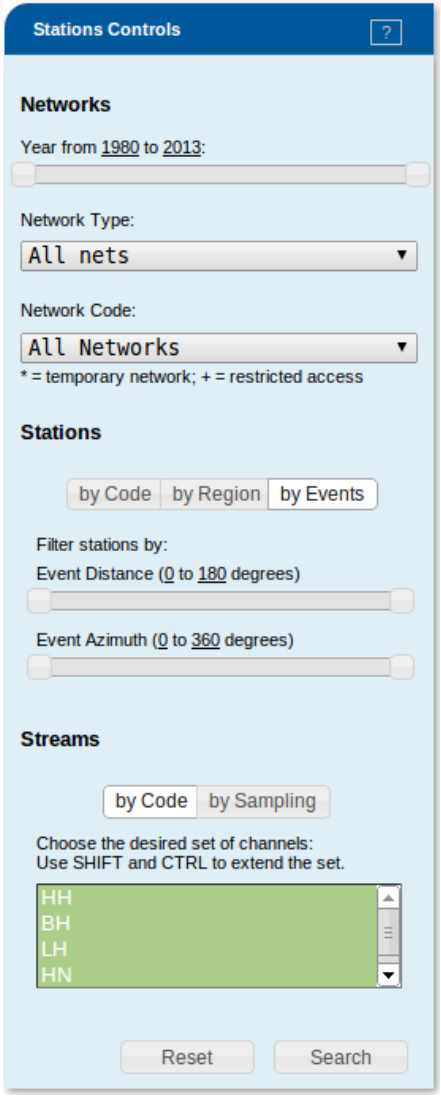
Selecting stations



- Negative values means South/West.
- Longitude selection over 180° is posible.
- Coherent selection in map.
- Download list of stations/streams.
- Upload of list of stations.

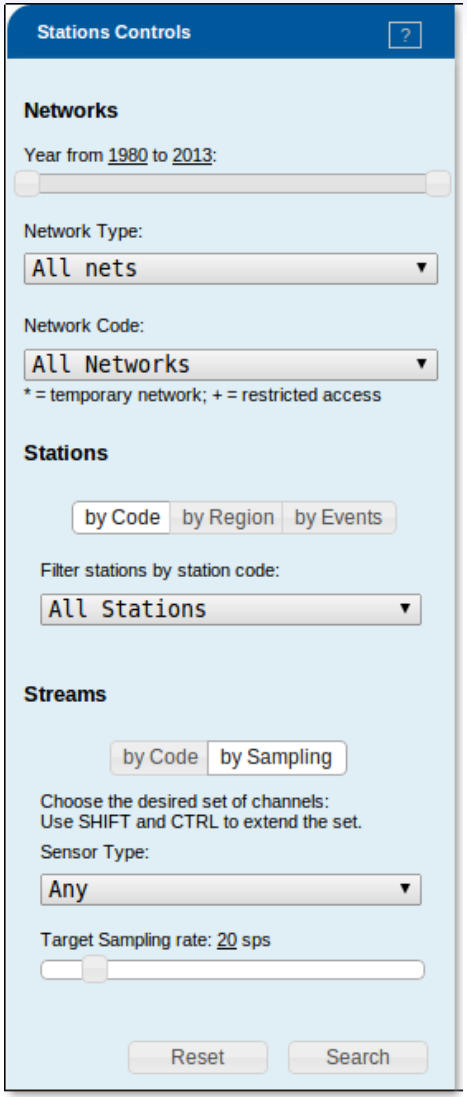
Circular regions (distance from lat/lon) is planned for future versions.

Selecting stations



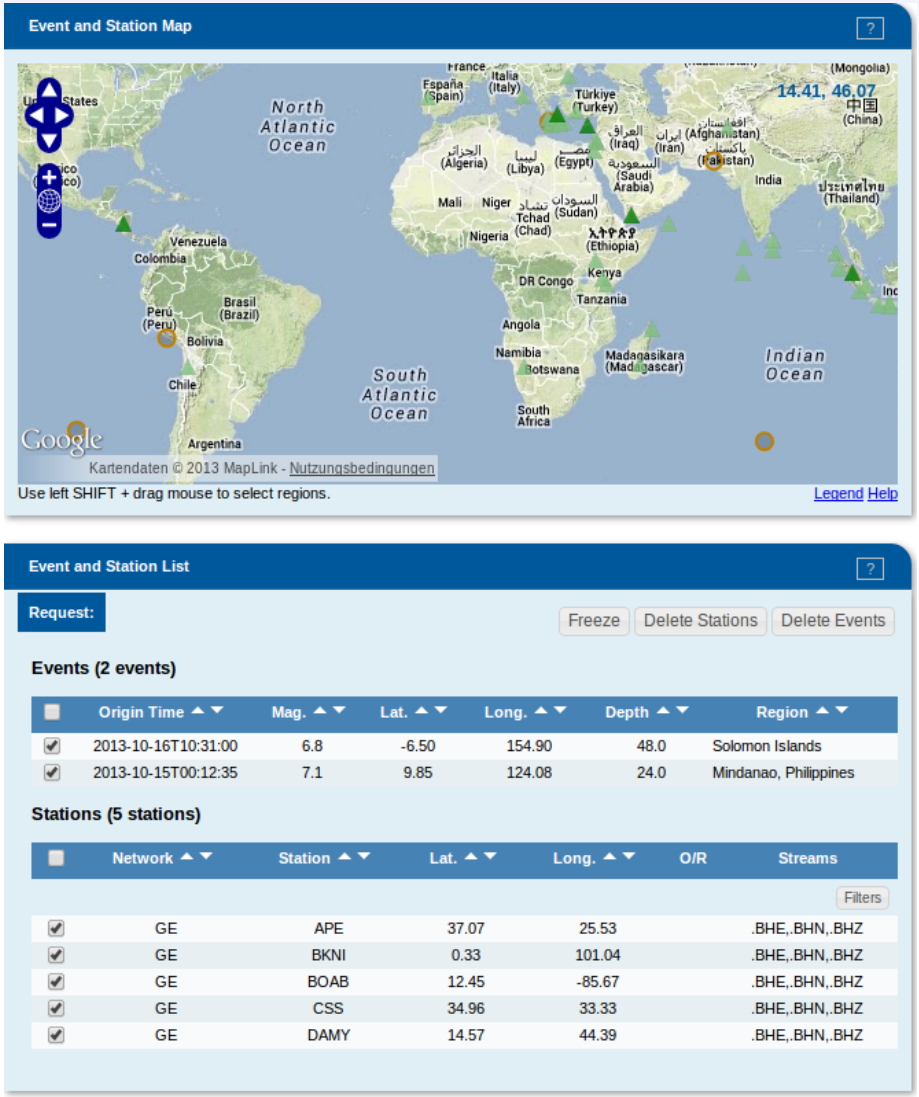
- Stations to a certain distance from an event.

Selecting stations



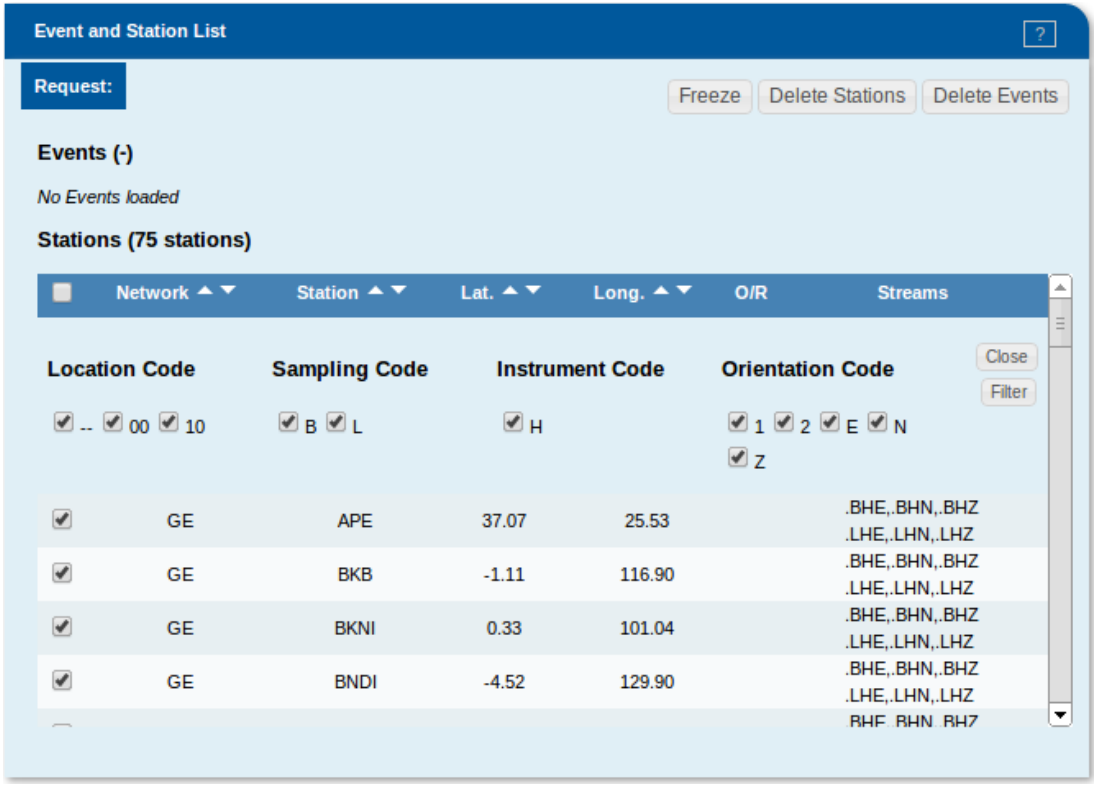
- Selection by **sensor type**
  - Sensor types can be added easily.
  - Combination of sensor types also can be easily added.
- and **sampling rate**.
  - Streams with the desired samplig rate are returned.
  - If this is not found, the ones with closest sampling rate are returned.

Working with the list



- Compile the events and stations/streams to calculate the time windows.
- Allows to further filter the selection with the checkboxes and the **Freeze**button.
- It can be sorted by many columns for easy manipulation of the list.

Working with the list

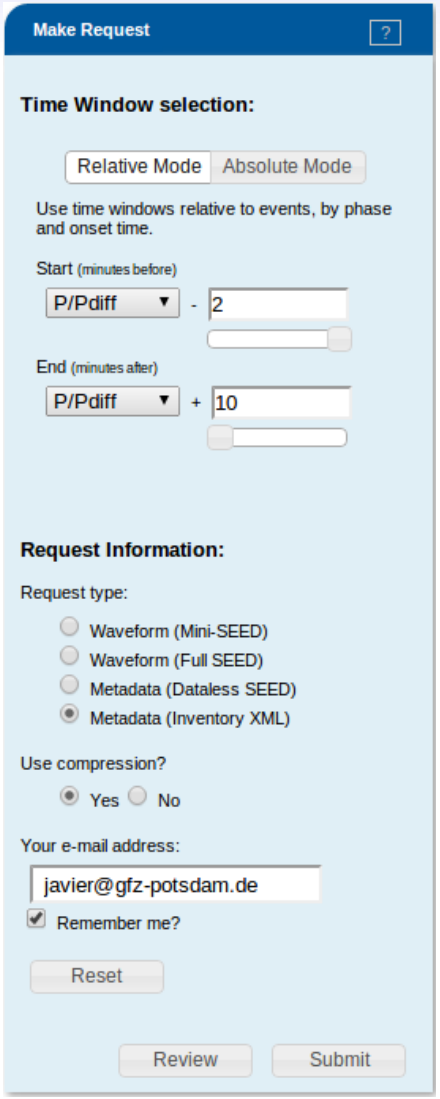


- The **Filter**button gives more fine-grain options to filter the stations list.
- Remember to click on **Filter**again after modifying the options.

Section 4

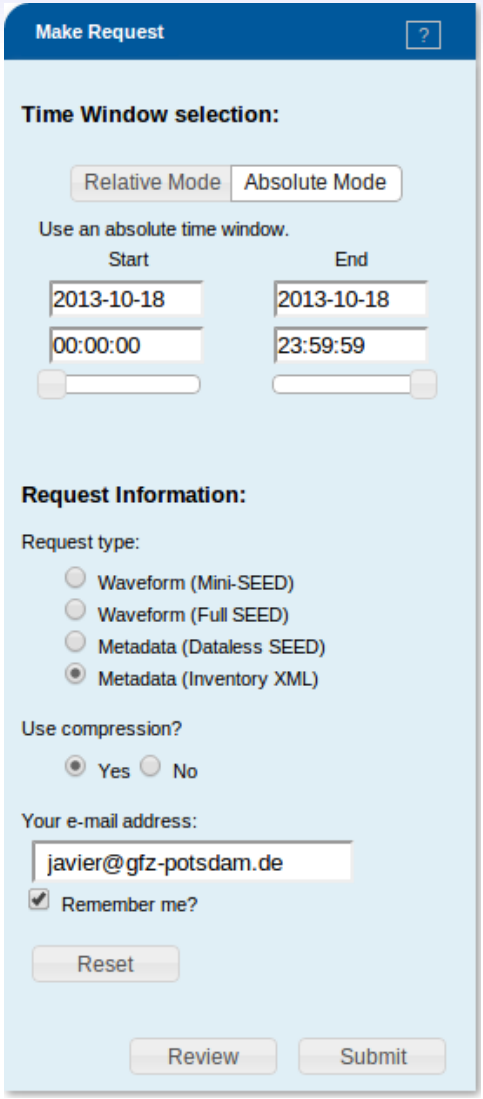
Submit Request

Time window definition



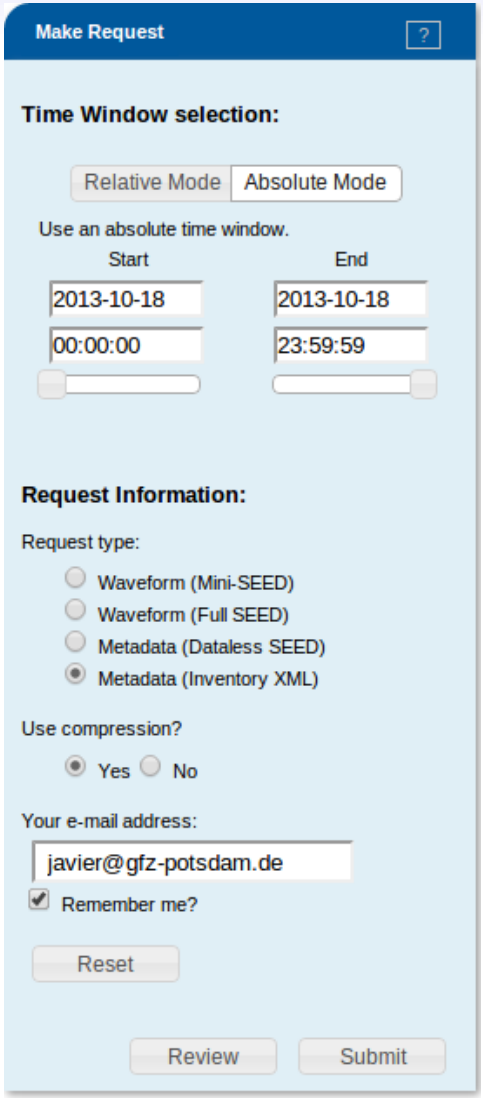
- Define the time window by means of the arrival of a certain phase (P or S) w.r.t. the selected events.
- At least one event must be selected in the list.

Time window definition



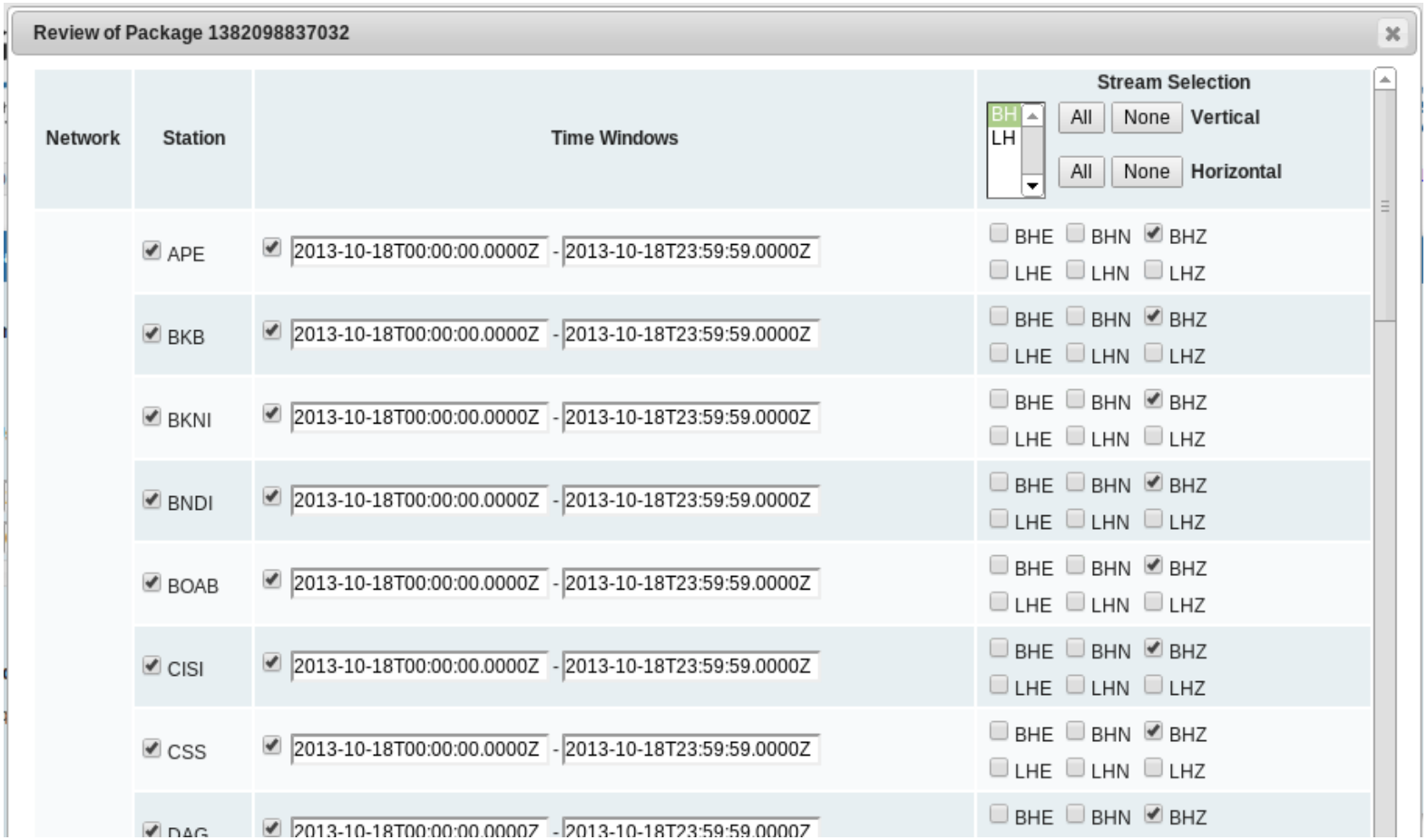
- Define the time window with absolute time.
- Usually this is the mode used when no events are selected.

Types of request



- Waveforms
  - Mini-SEED
  - Full-SEED
- Metadata
  - Dataless SEED
  - Inventory XML

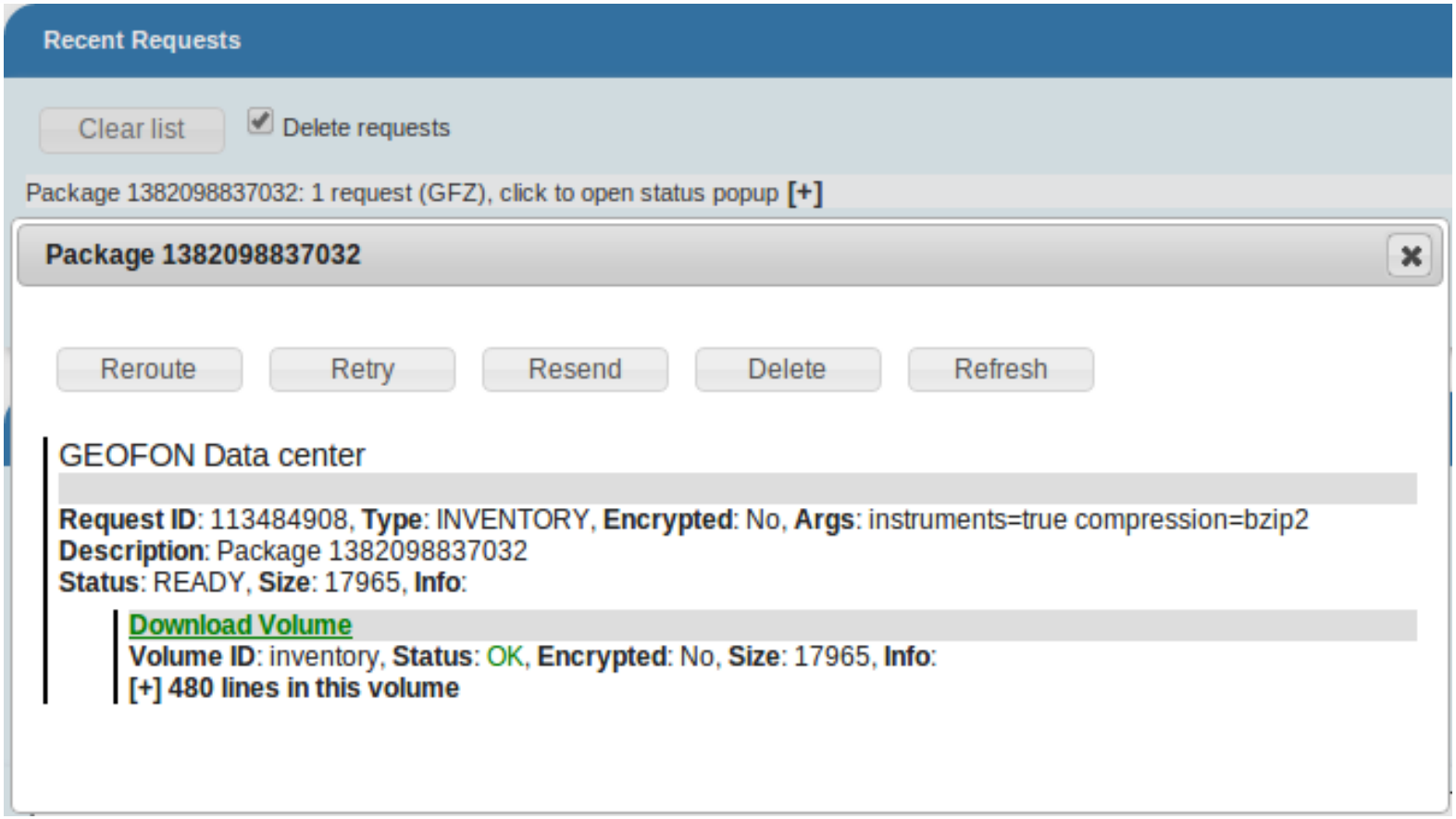
Review a request



Section 5

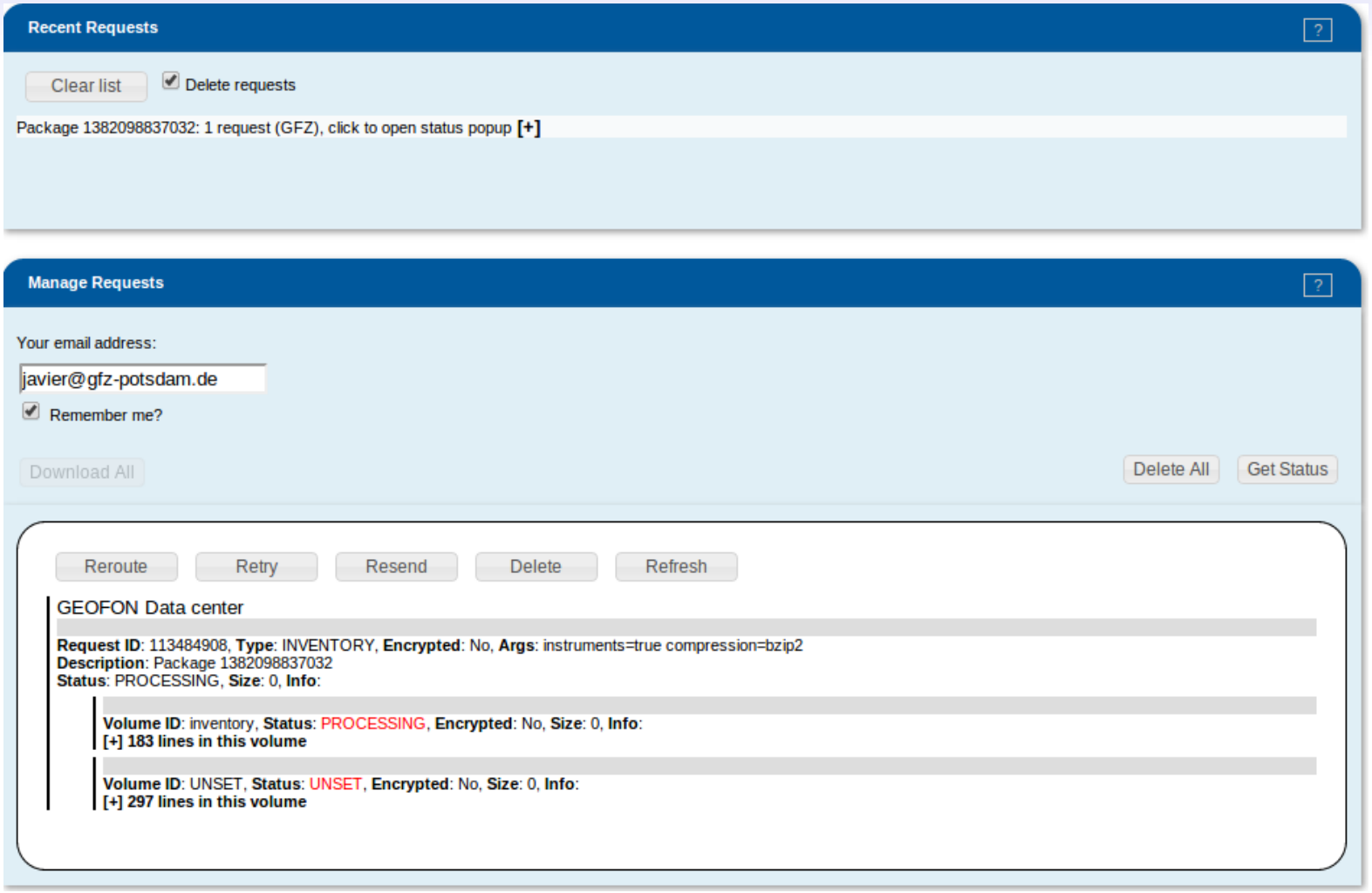
Request status/Download data

Request status



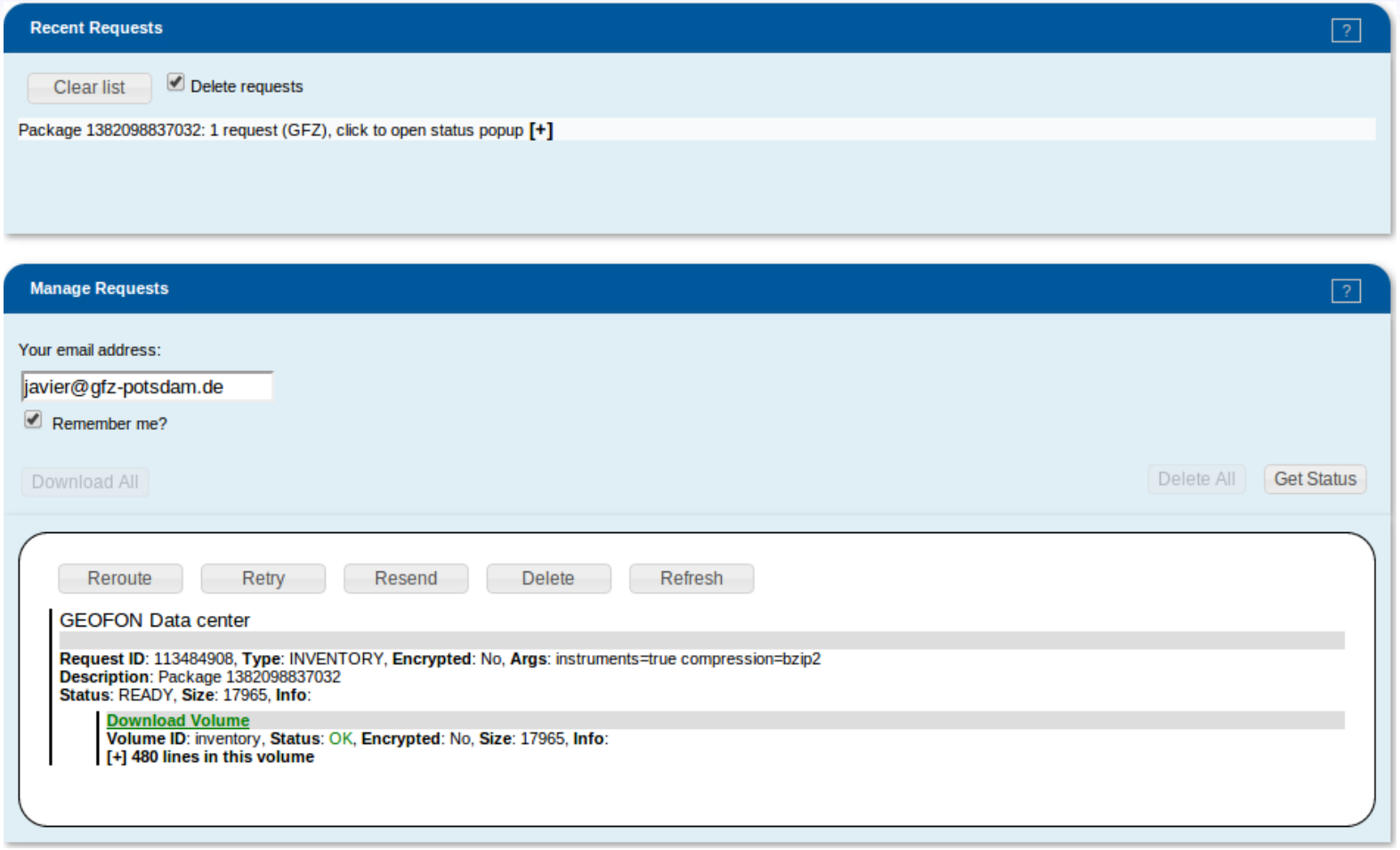
Status of an individual request.

Request status



Status of available requests for my userID in all datacenters.

Request status



Status of available requests for my userID in all datacenters.

Operations on a request

Reroute: tries to send all lines with NODATA and RETRY status to alternative data centers if possible. If there are no (more) alternative routes, you'll see **No more routes found**on the console.

Retry: same as Reroute, except that lines with RETRY status are sent to the same datacentre again.

Resend: send the same request group again. This might be helpful if there are transient errors. Note that the re-sent request does not include lines which could not be routed originally because no routes were found.

Delete: deletes the request group in all datacentres involved.

Refresh: contacts the server(s) to update the processing status of the request group.

Thanks a lot for your attention!