


# The SEIS InSight Data


[Data description](#)   [Accessing data](#)   [Tools](#)

## Data Description

SEIS data is available in the standard exchange formats defined by the International Federation of Digital Seismograph Networks (FDSN) (<http://fdsn.org>) : dataless SEED or stationXML for the metadata and miniSEED for the waveforms.


 **Know more about the SEED format**  
(<https://ds.iris.edu/ds/nodes/dmc/data/formats/>)

The SEIS Channel Naming Convention file describes configured stations and channels for SEIS Data.

 **Download SEIS Naming Convention File (/msds/doc/INS-ST-GRDS-1500-IPGP\_SEED\_ChannelNaming.xlsx)**

## Access to SEIS Data

SEIS InSight data for scientific team are collected, archived and available at Mars SEIS Data Service (MSDS) provided by IPGP data center.

 **The MSDS provides data and metadata access through the FDSN Web Services**  
(<https://www.fdsn.org/webservices/>)

Server address: <http://seisdata-test.ipgp.fr:8080/fdsnws>

MSDS offers two web services:

- `fdsn-dataselect` : to request waveforms data in miniSEED format.
- `fdsn-station` : to request metadata in stationXML format

## Accessing data during SEIS-OQT-30 (March 12-14, 2018)

### Metadata in stationXML format

**To get metadata of scientific data (station KAWA2) :**

<http://seisdata-test.ipgp.fr:8080/fdsnws/station/1/query?network=7I&station=KAWA2&level=response>  
(<http://seisdata-test.ipgp.fr:8080/fdsnws/station/1/query?network=7I&station=KAWA2&level=response>)

**To retrieve the stationXML file, you can use :**

```
curl "http://seisdata-test.ipgp.fr:8080/fdsnws/station/1/query?network=7I&station=KAWA2&level=response" -o 7I.KAWA2.xml
```

**To get metadata of housekeeping data (station KAWHK)**

:

<http://seisdata-test.ipgp.fr:8080/fdsnws/station/1/query?network=7I&station=KAWHK&level=response>  
(<http://seisdata-test.ipgp.fr:8080/fdsnws/station/1/query?network=7I&station=KAWHK&level=response>)

**To retrieve the stationXML file, you can use :**

```
curl "http://seisdata-test.ipgp.fr:8080/fdsnws/station/1/query?network=7I&station=KAWHK&level=response" -o 7I.KAWHK.xml
```

### Metadata in Dataless SEED format

❗ Please, don't click into the file link directly.  
Download the each Dataless SEED file by right-clicking  
the file link.

**Station KAWA2 :**

Download dataless.7I.KAWA2.seed (/msds/dataless/SEIS-OQT-30/dataless.7I.KAWA2.seed)

**Sation KAWHK :**

Download dataless.7I.KAWHK.seed (/msds/dataless/SEIS-OQT-30/dataless.7I.KAWHK.seed)

## Available Channels

**Station KAWA2 :**

<http://seisdata-test.ipgp.fr:8080/fdsnws/station/1/query?network=7I&station=KAWA2&level=channel&format=text>  
(<http://seisdata-test.ipgp.fr:8080/fdsnws/station/1/query?network=7I&station=KAWA2&level=channel&format=text>)

**Station KAWHK :**

<http://seisdata-test.ipgp.fr:8080/fdsnws/station/1/query?network=7I&station=KAWHK&level=channel&format=text>  
(<http://seisdata-test.ipgp.fr:8080/fdsnws/station/1/query?network=7I&station=KAWHK&level=channel&format=text>)

## Data available at MSDS

Following requests give access to 7-day dataset  
available during the tests for both stations.

**Station KAWA2**

<http://seisdata-test.ipgp.fr:8080/fdsnws/dataset/network=7I&station=KAWA2&start=2018-03-07T00:00:00&end=2018-03-14T00:00:00&nodata=404>  
([http://seisdata-](http://seisdata-test.ipgp.fr:8080/fdsnws/dataset/network=7I&station=KAWA2&start=2018-03-07T00:00:00&end=2018-03-14T00:00:00&nodata=404)

```
test.ipgp.fr:8080/fdsnws/dataselect/1/query?network=71&station=KAWA2&start=2018-03-07T00:00:00&end=2018-03-14T00:00:00&nodata=404
```

**Station KAWHK**

```
http://seisdata-test.ipgp.fr:8080/fdsnws/dataselect/1/query?network=71&station=KAWHK&start=2018-03-07T00:00:00&end=2018-03-14T00:00:00&nodata=404  
(http://seisdata-test.ipgp.fr:8080/fdsnws/dataselect/1/query?network=71&station=KAWHK&start=2018-03-07T00:00:00&end=2018-03-14T00:00:00&nodata=404)
```

Or you can access data for each delivery with the following requests.

## Data delivered on 2018/03/12 08:10 UTC

**CONTINUOUS\_WAVEFORM (miniSEED data)**

POST file to submit fdsnws request:

continuous.data\_request.1520842200.txt

(/msds/postfile/continuous.data\_request.1520842200.txt)

```
curl -X POST --data-binary @continuous.data_request.1520842200.txt "http://seisdata-test.ipgp.fr/fdsnws/dataselect/1/query" -o continuous.msdsdata.mseed
```

## Data delivered on 2018/03/12 09:29 UTC

**CONTINUOUS\_WAVEFORM POST (miniSEED data)**

POST file to submit fdsnws request:

continuous.data\_request.1520846951.txt

(/msds/postfile/continuous.data\_request.1520846951.txt)

```
curl -X POST --data-binary @continuous.data_request.1520846951.txt "http://seisdata-test.ipgp.fr/fdsnws/dataselect/1/query" -o continuous.msdsdata.mseed
```

### **COHERENCE\_FILES**

download files coherence.data.1520846951.tgz  
(/msds/COHERENCE/coherence.data.1520846951.tgz)

## Useful tools

This section shows some useful tools used to manipulate miniSEED or StationXML/datalessSEED data.

### **ObsPy library**

ObsPy (<http://obspy.org/>) is an open-source project dedicated to provide a Python framework for processing seismological data. It provides parsers for common file formats and seismological signal processing routines which allow the manipulation of seismological time series.

### **dataselect tool**

`dataselect` is a general use tool for extracting a subset and sorting data in miniSEED format. In particular, it is useful to split a multiplexed miniSEED file into channel files. The last release is available on github (<https://github.com/iris-edu/dataselect/releases>).

In order to split a multiplexed miniSEED file:

```
dataselect -A output/%n.%s.%l.%c.%Y.%j MSDS_TEST.fdsnws.mseed
```

*split the multiplexed miniseed file into the directory 'output'. Output files are named following Network, Station, LocationID, channel, year and day of the year information.*

## miniSEED Inspector (msi) tool

miniSEED Inspector (msi) parses and reports details from SEED formatted data records. The last release is available on github (<https://github.com/iris-edu/msi/releases>).

## rdseed tool

rdseed reads and interprets Standard for Exchange of Earthquake Data (SEED) files. It can be used to read and extract information of a Dataless SEED file.

---

Seis InSight scientific portal is provided by IPGP (<http://www.ipgp.fr>) -  
contact : [seis-website@ipgp.fr](mailto:seis-website@ipgp.fr) (<mailto:seis-website@ipgp.fr>)