Instrument Response Requests

Requesting Instrument Response Files

There are several strategies for downloading instrument response files and deconvolving instrument responses from the data.

Response files can be downloaded as:

- dataless files
- RESP files
- SAC poles and zeroes
- part of the full SEED volume
- files from the IRIS MetaData Aggregator page

Dataless files

1. Generate a request for a dataless using the DMC SeismiQuery tool
2. Submit a BREQ_FAST style request to dataless@iris.washington.edu from your mail client
3. Get a dataless from the BUD Query Interface
4. Download network dataless SEED files from the IRIS ftp site: http://ftp.iris.washington.edu/pub/RESPONSES/DATALESS_SEEDS/

RESP files

1. Response can be downloaded using the DMC SeismiQuery tool Response can be downloaded using the webservices tools
2. Go to http://www.iris.edu/SeismiQuery/ Go to http://service.iris.edu/irisws/resp/1/
3. Choose the ‘responses’ button on the hint bar on the lower portion of the page
4. Fill out the information for your desired network ID and channels and then hit “View Results”
5. A listing of stations and channels will appear, check to see if its correct
6. Choose the “RESP file” checkbox at the top of the page
7. Hit the “Submit” button to submit your request.
8. You will receive an email confirming your request
9. When the response files are available, you will receive another email with instructions on how to download them.

SAC poles and zeroes

1. Use Breq_fast, NetDC, SeismyQuery, WebRequest, Wilbur3, or SOD to download a SEED volume
2. Use the rdseed tool to write out RESP file:
3. This can be done by specifying the -p option when using the command line execution
4. If using the User Prompt Mode, choose 'Y' when asked to "Output poles and zeroes?[Y/(n)]:"

   For more information and examples, go to the rdseed manual: http://www.iris.edu/dms/nodes/dmc/manuals/rdseed/

SEED volume

1. Use Breq_fast, NetDC, SeismyQuery, WebRequest, Wilbur3, or SOD to download a SEED volume
2. Use the rdseed tool to write out RESP file: This can be done by specifying the -R option when using the command line execution If using the User Prompt Mode, choose 'Y' when asked to "Extract Responses [Y/(N)]"

   For more information and examples, go to the rdseed manual: http://www.iris.edu/dms/nodes/dmc/manuals/rdseed/

From IRIS MetaData Aggregator website page

1. From the MetaData Aggregator website page choose a network from the available list (ex. 7D Cascadia)
2. Choose a station (ex. FS01B)
3. Choose a channel (ex. HH1)
4. On the page will be a link to "View resp", click on the link
5. Copy and save the response file

Once downloaded the files can be viewed and deconvolved from files using several tools:

- evalresp http://www.iris.edu/dms/nodes/dmc/manuals/evalresp/
- remove instrument response directly from data using web services using FetchData http://service.iris.edu/clients/
- SAC http://www.iris.edu/files/sac-manual/