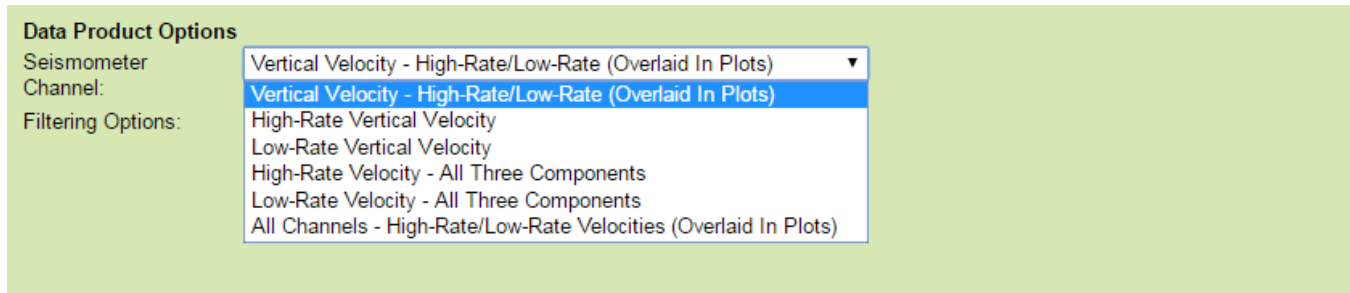


# Seismometer Channel Option

The selected seismometer channel option is applied before receiving the data from IRIS:



The screenshot shows a web interface with a light green background. On the left, there are labels for 'Seismometer Channel:' and 'Filtering Options:'. To the right, a dropdown menu is open, displaying a list of channel options. The top option is 'Vertical Velocity - High-Rate/Low-Rate (Overlaid In Plots)' and is highlighted in blue. Below it are 'High-Rate Vertical Velocity', 'Low-Rate Vertical Velocity', 'High-Rate Velocity - All Three Components', 'Low-Rate Velocity - All Three Components', and 'All Channels - High-Rate/Low-Rate Velocities (Overlaid In Plots)'.

The Seismometer Channel Option allows you to specify which channel(s) you would like to receive data for. An explanation of seismometer channel codes [https://ds.iris.edu/ds/nodes/dmc/tools/data\\_channels/#](https://ds.iris.edu/ds/nodes/dmc/tools/data_channels/#). Here are the options:

**Vertical Velocity - High-Rate/Low-Rate (Overlaid In Plots):** High-rate and low-rate vertical velocity data will be overlaid and plotted on one graph. For broadband seismometers, this will be HHZ for the high-rate channel and MHZ or LHZ for the low-rate channel depending on the requested time range. For short period seismometers, this will be a high-rate channel of EHZ and a low-rate channel of MHZ or LHZ.

Oceans 2.0 API filter: `dpo_seismometerChannel=*Z`

**High-Rate Vertical Velocity:** High-rate vertical velocity data will be plotted on one graph. For broadband Seismometers, this will be channel HHZ. For short period seismometers, this will be channels EHZ.

Oceans 2.0 API filter: `dpo_seismometerChannel=HHZ`

**Low-Rate Vertical Velocity:** Low-Rate vertical velocity data will be plotted on one graph. For broadband and short period seismometers, this will be channel MHZ or LHZ depending on the requested time range.

Oceans 2.0 API filter: `dpo_seismometerChannel=MHZ`

**High-Rate Velocity - All Three Components:** All high-rate velocity data will be plotted on separate graphs. For broadband seismometers this will be channels HHZ, HHN, HHE. For short period seismometers this will be channels EHZ, EHN, EHE.

Oceans 2.0 API filter: `dpo_seismometerChannel=HH*`

**Low-Rate Velocity - All Three Components:** All low-rate velocity data will be plotted on separate graphs. For broadband and short period seismometers this will be channels MHZ, MHN and MHE or LHZ, LHN and LHE.

Oceans 2.0 API filter: `dpo_seismometerChannel=MH*`

**All Channels - High-Rate/Low-Rate Channels (Overlaid In Plots):** The All Channels Option will plot all available channels for the seismometer including velocity, accelerometer data, as well as pressure data. The high-rate and low-rate velocities and accelerations will be overlaid with matching orientations. If the selected output format is MAT file or miniSEED, then mass position will also be included.

Oceans 2.0 API filter: `dpo_seismometerChannel=All`

Note: A change in sample rate occurred in 2013 for all seismometers causing the low-rate channels to change from LHZ, LHE, LHN, LNZ, LNE and LNN to MHZ, MHE, MHN, MNZ, MNE and MNN.

File-name mode field

The IRIS channel code is applied in the the file mode field at the end of the file name after the date, separated with a '-'. If there is more than one, then they are listed (only occurs for overlaid plots), example: '-EHZ-MHZ'.