

ffRSAM Viewer

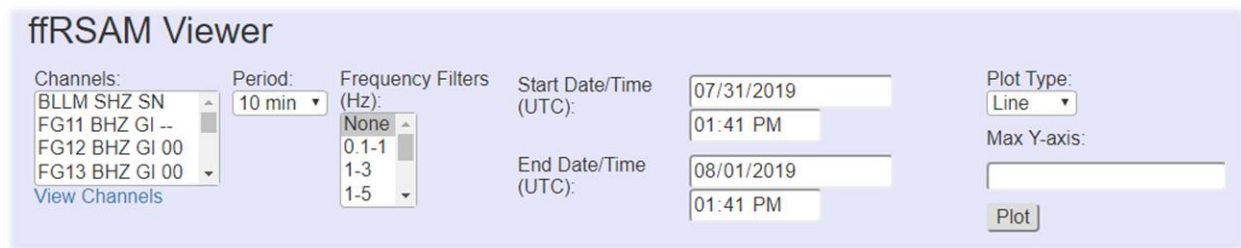
User Manual

Last Updated: 2/8/2020

1 INTRODUCTION

ffRSAM is a web-based application to allow users to view plots of pre-calculated Real-time Seismic-Amplitude Measurement (RSAM) and frequency filtered (ff) RSAM.

2 MAIN MENU OPTIONS



The screenshot shows the ffRSAM Viewer main menu. It includes a 'Channels' dropdown menu with options: BLLM SHZ SN, FG11 BHZ GI --, FG12 BHZ GI 00, and FG13 BHZ GI 00. Below the dropdown is a 'View Channels' link. To the right is a 'Period' dropdown menu set to '10 min'. Further right is a 'Frequency Filters (Hz)' dropdown menu with options: None, 0.1-1, 1-3, and 1-5. To the right of that are two date/time input fields: 'Start Date/Time (UTC):' with '07/31/2019' and '01:41 PM', and 'End Date/Time (UTC):' with '08/01/2019' and '01:41 PM'. To the right of these is a 'Plot Type:' dropdown menu set to 'Line'. Below that is a 'Max Y-axis:' input field. At the bottom right is a 'Plot' button.

Channels: Select 1 or more channels (SCNL). For a web-page view of all available channels (along with the period, frequency, and available time period, click on the View Channels link underneath.

Period: Select 1 min, 5 min, 10 min, 1 hour, 4 hours, 12 hours, or 1 day. 10 minutes is default.

Frequency Filters (Hz): Available frequency bands are listed here. Select one or more options. Select 'None' to plot RSAM that is not frequency filtered. 'None' is default.

Start Date/Time (UTC): Enter date as mm/dd/yyyy and time as HH:MM AM or PM, in UTC. Default is 24 hours ago.

End Date/Time (UTC): Enter date as mm/dd/yyyy and time as HH:MM AM or PM, in UTC. Default is current time.

Plot Type: Choose Line or Scatter plot. 'Line' is default.

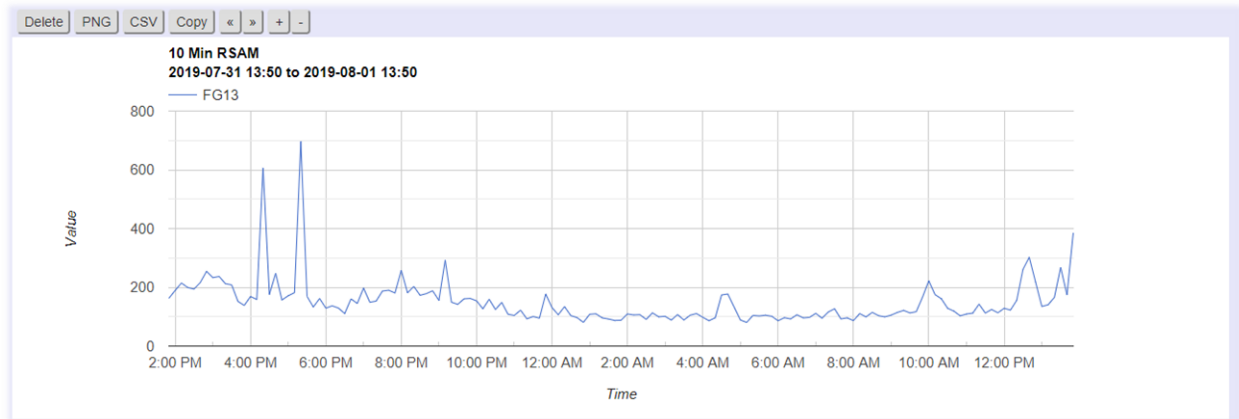
Max Y-axis: Enter numerical value to limit y-axis (RSAM value) maximum of the plot. Leave blank to use maximum RSAM value as Y-axis maximum.

3 PLOT CHART

Once input options are selected on the main window, click on the 'Plot' button to draw the chart. If there are input errors or data is not available for selected time period, you will be alerted. If all is well, you will get a plot such as below with RSAM values on the y-axis and date/time on x-axis. Plot colors are

not configurable. Multiple channels and/or frequency bands can be plotted on the same time-series. The legend is available above the plot (e.g. 'FG13' in below example).

Each click on the 'Plot' button creates a new plot and does not overwrite the plot.



The plot has two interactive features:

- Hover over point to see date and RSAM value.
- Drag to zoom. Right click to reset.

In addition to the interactive features, there are buttons above the plot that do the following:

Delete : Delete the current plot

PNG : Download current plot as PNG image

CSV : Download current plot data as CSV file

Copy : Make a copy of the current plot

<< : Scroll left on the x-axis (time) by 10%

>> : Scroll right on the x-axis (time) by 10%

+ : Zoom in by 10%

- : Zoom out by 10%

4 API

The software offers URL based API to retrieve JSON results by individual channels.

Example URI:

```
api/v1/getRsam?channel=FG13$BHZ$GI$00&period=600&f1=0&f2=0&start_time=2020-02-07%2011:17&end_time=2020-02-08%2011:17
```

The above returns the result in JSON format. Here is a snippet of the result:

```
[  
  {  
    end_time: "2020-02-07 11:20:00",  
    channel: "FG13$BHZ$GI$00",  
    period: "600",  
    f1: "0",  
    f2: "0",  
    value: "148.8997"  
  },  
  {  
    end_time: "2020-02-07 11:30:00",  
    channel: "FG13$BHZ$GI$00",  
    period: "600",  
    f1: "0",  
    f2: "0",  
    value: "184.5955"  
  },  
  {  
    end_time: "2020-02-07 11:40:00",  
    channel: "FG13$BHZ$GI$00",  
    period: "600",  
    f1: "0",  
    f2: "0",  
    value: "178.4082"  
  },  
]
```