

# R Package : quaker

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## Description

The document describes the R package ***quaker***.

The ***quaker*** API allows users to retrieve, analyse and visualize global seismic activity. The data used is available on the [Earthquake Hazards Program](#) sections of the USGS website.

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## quaker function list

### 1. getSeismicData(timeFrame, minMagnitude)

- returns a [GeoJson](#) formatted document of global seismic activity

Name	Description	Valid input
timeFrame	The time interval	PAST_HOUR, PAST_DAY, PAST_WEEK, PAST_WEEK
minMagnitude	The minimum magnitude	all, 1.0, 2.5, 4.5

### 2. getSummaryInfo(timeFrame, minMagnitude)

- Returns summary information
- Description
- count of events in period
- dataframe of magnitude by day
- dataframe of magnitude by country

Name	Description	Valid input
timeFrame	The time interval	PAST_HOUR, PAST_DAY, PAST_WEEK, PAST_WEEK
minMagnitude	The minimum magnitude	all, 1.0, 2.5, 4.5

### 3. earthquakeRegression(timeFrame, minMagnitude)

- A simple regression model is computed of cumulative earthquake frequency by magnitude

Name	Description	Valid input
timeFrame	The time interval	PAST_HOUR, PAST_DAY, PAST_WEEK, PAST_WEEK
minMagnitude	The minimum magnitude	all, 1.0, 2.5, 4.5

### 4. plotByLocation(timeFrame, minMagnitude)

- interactive geo-plot

Name	Description	Valid input
timeFrame	The time interval	PAST_HOUR, PAST_DAY, PAST_WEEK, PAST_WEEK
minMagnitude	The minimum magnitude	all, 1.0, 2.5, 4.5

##### 5. plotByAnimate(timeFrame, minMagnitude)

- interactive geo-plot , animating the plot to plot the earthquakes by day