**ray\_caltec3d.f**

**arguments** (2)

1: scale factor (to adjust simulation results to the observed TEC curve)

2: earthquake occurrence time in hour UT (to plot simulation results together with observed TEC)

**necessary files**

list of files made by ray\_block3d and los\_3d should be put into the program using standard input

It should look like below (you need a dummy line as the first line, the three columns correspond to time in minute after earthquake (in f5.2), ray\_block3d file, and los\_3d file).

(input file for ray\_caltec3d)

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8.00 data/ray\_block08.0 data/22klhv.path.8.0

8.25 data/ray\_block08.25 data/22klhv.path.8.0

8.50 data/ray\_block08.5 data/22klhv.path.8.5

8.75 data/ray\_block08.75 data/22klhv.path.8.5

9.00 data/ray\_block09.0 data/22klhv.path.9.0

9.25 data/ray\_block08.25 data/22klhv.path.9.0

9.50 data/ray\_block09.5 data/22klhv.path.9.5

9.75 data/ray\_block09.75 data/22klhv.path.9.5

10.00 data/ray\_block10.0 data/22klhv.path.10.0

….

….

(in the above case, ray\_block3d file is given every 15 seconds, but los\_3d is given every 30 seconds)

**example**

bin/ray\_caltec3d 0.001 15.138 < (input file) > (output file)

output file is composed of two columns, time in UT (hour) and STEC anomaly

**How to view the output file**

Just redirect the output file to gmt psxy to plot as a simulated STEC anomaly time series for the specific station-satellite pair.

This program takes some time (minutes) to finish.