

How do I create an event with two or more different particles using the GPS

The GPS can be used to generate events with multiple, different particle types in the same event.

The macro below generates a muon and a pion within the same event.

```
/gps/verbose 2

# muon
/gps/source/intensity 1.0
/gps/particle mu-
/gps/position 0 0 0
/gps/direction 0 1 0
/gps/energy 10 GeV

# pion
/gps/source/add 1.
/gps/particle pi-
/gps/position 0 0 0
/gps/direction .25 .75 0
/gps/energy 10 GeV

/gps/source/list

/gps/source/multiplevertex true

/run/beamOn 1
```

The *multiplevertex* command tells the GPS to cycle through the sources and generate a vertex for each one.