

```

1 function make_generic_input, inputtemp
2
3
4
5 ;; Standard function for making the generic version of an input file
6 ;;
7 ;; Version History
8 ;; 3.1: 7/8/2011
9 ;; * Added PSD spatial distribution option
10 ;; 3.0: 1/7/2011
11 ;; * created based on code removed from modeldriver_3.4
12 ;;
13
14
15 input = (isa(inputtemp, 'string')) ? inputs_restore(inputtemp) : inputtemp
16
17 case strlowcase(input.SpatialDist.type) of
18   'surface': begin
19     SpatialDist = {type:'surface', use_map:0, longitude:[0, 2*!dpi], $
20                   latitude:[-!dpi/2,!dpi/2], exobase:input.SpatialDist.exobase}
21     AngularDist = {type:'isotropic', azimuth:[0,2*!dpi], altitude:[0,!dpi/2.]}
22   end
23   'exosphere': begin
24     AngularDist = {type:'isotropic', azimuth:[0,2*!dpi], $
25                   altitude:[-!dpi/2.,!dpi/2.]}
26     stop ;; don't know what generic exosphere dist should be
27   end
28   'psd': begin
29     SpatialDist = {type:'surface', use_map:0, longitude:[0, 2*!dpi], $
30                   latitude:[-!dpi/2,!dpi/2], exobase:input.SpatialDist.exobase}
31     AngularDist = {type:'isotropic', azimuth:[0,2*!dpi], altitude:[0,!dpi/2.]}
32   end
33 endcase
34
35 case strlowcase(input.geometry.planet) of
36   'mercury': SpeedDist = {type:'flat', vprob:4d, delv:3.99d}
37   'jupiter': SpeedDist = {type:'flat', vprob:4d, delv:3.9d}
38   'saturn': SpeedDist = {type:'flat', vprob:4d, delv:3.9d}
39   else: stop
40 endcase
41
42 genericinput = {geometry:input.geometry, sticking_info:input.sticking_info, $
43                forces:input.forces, options:input.options, $
44                perturbvel:input.perturbvel, plasma_info:input.plasma_info, $
45                SpatialDist:SpatialDist, SpeedDist:SpeedDist, AngularDist:AngularDist}
46
47 return, genericinput
48
49 end

```