```
 1  pro out_cat, out0, out1
 2
 3  ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
 4  ;;
 5  ;; Combine two output structures
 6  ;; out0 is changed.
 7  ;;
 8  ;; Written 14 March 2011
 9  ;;
10  ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
11
12  *out0.x0 = [*out0.x0 , *out1.x0]
13  *out0.y0 = [*out0.y0 , *out1.y0]
14  *out0.z0 = [*out0.z0 , *out1.z0]
15  *out0.f0 = [*out0.f0 , *out1.f0]
16  *out0.vx0 = [*out0.vx0, *out1.vx0]
17  *out0.vy0 = [*out0.vy0, *out1.vy0]
18  *out0.vz0 = [*out0.vz0, *out1.vz0]
19  *out0.phi0 = [*out0.phi0, *out1.phi0]
20  out0.totalsource += out1.totalsource
21  *out0.time = [*out0.time, *out1.time]
22  *out0.x = [*out0.x, *out1.x]
23  *out0.y = [*out0.y, *out1.y]
24  *out0.z = [*out0.z, *out1.z]
25  *out0.frac = [*out0.frac, *out1.frac]
26  *out0.vx = [*out0.vx, *out1.vx]
27  *out0.vy = [*out0.vy, *out1.vy]
28  *out0.vz = [*out0.vz, *out1.vz]
29  *out0.lossfrac = float([*out0.lossfrac, *out1.lossfrac])
30  *out0.ringfrac = float([*out0.ringfrac, *out1.ringfrac])
31  *out0.leftfrac = float([*out0.leftfrac, *out1.leftfrac])
32  *out0.sourcefile = [*out0.sourcefile, *out1.sourcefile]
33  s = size(*out0.hitfrac)
34  if (s[0] EQ 1) $
35  then *out0.hitfrac = float([*out0.hitfrac, *out1.hitfrac]) $
36  else begin
37     temp = fltarr(n_elements(*out0.x),s[2])
38     temp[0:s[1]-1,*] = float(*out0.hitfrac)
39     temp[s[1]:*,*] = float(*out1.hitfrac)
40     *out0.hitfrac = temp
41  endelse
42  *out0.deposition.map += *out1.deposition.map
43
44  end
45
46  ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
47  ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
48
49  pro out_sub, output, q
50
51  *output.x0 = (*output.x0)[q]
```

~/Work/NeutralModel/modelpro/loc_operations_3.0.pro

```
52   *output.y0 = (*output.y0)[q]
53   *output.z0 = (*output.z0)[q]
54   *output.f0 = (*output.f0)[q]
55   *output.vx0 = (*output.vx0)[q]
56   *output.vy0 = (*output.vy0)[q]
57   *output.vz0 = (*output.vz0)[q]
58   *output.phi0 = (*output.phi0)[q]
59   *output.time = (*output.time)[q]
60   *output.x = (*output.x)[q]
61   *output.y = (*output.y)[q]
62   *output.z = (*output.z)[q]
63   *output.frac = (*output.frac)[q]
64   *output.vx = (*output.vx)[q]
65   *output.vy = (*output.vy)[q]
66   *output.vz = (*output.vz)[q]
67   *output.lossfrac = (*output.lossfrac)[q]
68   *output.ringfrac = (*output.ringfrac)[q]
69   s = size(*output.hitfrac)
70   if (s[0] EQ 1) $
71     then *output.hitfrac = (*output.hitfrac)[q] $
72     else *output.hitfrac = (*output.hitfrac)[*,q]
73
74   end
```