```
1  function model_findpackets, input, strstart, overwrite=overwrite, generic=generic
2
3  ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
4  ;;
5  ;; * Given an inputfile, determines how many packets are available.
6  ;; * Will extract from generic files if requetsed.
7  ;; * Also returns the available output files and number of packets in each file
8  ;;
9  ;; Revision history
10 ;;   4.0 -- 12/8/2011
11 ;;      * Moving this part of modeldriver_3.7 to a separate program.
12 ;;
13 ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
14
15 ;;Load in the common blocks
16 common constants
17
18 ;; Determine run options
19 if (overwrite EQ !null) then overwrite = 0
20 if (generic EQ !null) then generic = 1
21
22 dogen = (generic EQ 1) or (generic EQ 2)
23
24 totalpackets = 0L     ;; reset the number of packets
25
26 if (dogen) then geninput = make_generic_input(input)
27
28 files = modeloutput_search(input, nfiles=nfiles)
29 print, stuff.strstart + strint(nfiles) + ' output files found.'
30
31 if (dogen) then begin
32   genericfiles = modeloutput_search(geninput, nfiles=ngfiles)
33   print, stuff.strstart + strint(ngfiles) + ' generic output files found.'
34 endif else ngfiles = 0
35
36 ;; Delete old files if requested
37 if (overwrite) then begin
38   print, stuff.strstart + 'Eraseing old, unwanted files.'
39
40   for i=0,nfiles-1 do spawn, 'rm ' + files[i]
41   if (generic EQ 2) then for i=0,ngfiles-1 do spawn, 'rm ' + genericfiles[i]
42 endif
43
44 if ((generic EQ 0) or (generic EQ 1)) then begin
45   ;; Want specific output files
46
47   ;; Extract from generic if any new generic files are available
48   if (ngfiles GT 0) then begin
49     extract = replicate(1, ngfiles)
50     if (nfiles GT 0) then begin
51       ;; check to make sure none of the generic files have been used already
```

```
52     param0 = extract_parameter('sourcefile', files)
53     usedfiles = (param0.values()).toArray(type='string')
54     param0 = 0
55
56     ;; go through each generic file to make sure it has been used no more than once
57     for i=0,ngfiles-1 do begin
58        w = (where(strcmp(usedfiles, genericfiles[i]), nw))[0]
59        case (nw) of
60           0: extract[i] = 1
61           1: extract[i] = 0
62           else: stop ;; already two files extracted -- error
63        endcase
64     endfor
65  endif
66
67  q = where(extract, nq)
68  print, stuff.strstart + strint(nq) + ' new generic files available.'
69  if (nq GT 0) then begin
70     newfiles = extract_distribution(genericfiles[q], input)
71
72     ;; Reset the filelist
73     files = modeloutput_search(input, nfiles=nfiles)
74     if (nfiles EQ 0) then stop ;; error
75  endif
76 endif
77
78 ;; Determine number of packets available
79 if (nfiles GT 0) then begin
80    pack = extract_parameter('savedpackets', files)
81    totalpackets = long(total((pack.values()).ToArray(type='long')))
82    pack = 0 ; get around an IDL bug
83 endif else totalpackets = 0L
84 endif else begin ;; generic = 2
85    if (ngfiles GT 0) then begin
86       pack = extract_parameter('savedpackets', genericfiles)
87       totalpackets = long(total((pack.values()).ToArray(type='long')))
88       pack = 0 ; get around an IDL bug
89    endif else totalpackets = 0L
90 endelse
91
92 return, totalpackets
93
94 end
```