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1 function modeloutput_search, inputtemp, verbose=verbose, nfiles=nfiles
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function modeloutput_search, inputtemp, verbose=verbose, nfiles=nfiles
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;
; Program to search through the available model output files to compare
; with an input set.
;
; Help file: Docs/modeloutput_search.pdf
;
;
; 3.5: 8 Dec 2011
; * minor updates
; 3.4: 3 Jan 2011
; * Rewriting using compare_inputs
; 3.3: 26 August 2010
; * improving the efficiency a bit by making use of the directory tree
; 3.1: 7/15/10
; * seraches for exact matches only. Use genericmodel_search to find the
;   generic models
; 3.0: 7/14/10
; * original
; * looks for files - if none found, gives the generics
;
;
input0 = (isa(inputtemp, 'string')) ? inputs_restore(inputtemp) : inputtemp
if (verbose EQ !null) then verbose = 0

nfiles = 0
ct = 0
taa0 = input0.geometry.taa

;
; Find what output files are available
while ((nfiles EQ 0) and (ct LE 5)) do begin
  if (ct EQ 0) then begin
    if (verbose) then print, 'Trying within +/-0.5 deg'
    q = output_filename(input0, path=path)
    filelist = file_search(path, '*.output', count=nfiles)
  endif else begin
    if (verbose) then print, 'Trying within +/-' + strint(ct) + ' deg'
    input0.geometry.taa = taa0-ct*!dctor
    q = output_filename(input0, path=path)
    filelist0 = file_search(path, '*.output', count=nfiles0)
    input0.geometry.taa = taa0+ct*!dctor
    q = output_filename(input0, path=path)
    filelist1 = file_search(path, '*.output', count=nfiles1)
  endif
  nfiles = nfiles0+nfiles1
  case (1) of

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52 nfiles0 EQ 0 and nfiles1 EQ 0: filelist = ''
53 nfiles1 EQ 0: filelist = filelist0
54 nfiles0 EQ 0: filelist = filelist1
55 else: filelist = [filelist0, filelist1]
56 endcase
57
58 input0.geometry.taa = taa0
59 endelse
60
61 if (nfiles GT 0) then begin
62   same = intarr(nfiles)
63   for i=0,nfiles-1 do begin
64     out = obj_new('IDL_savefile', filelist[i])
65     out.restore, 'input'
66   end
67   ;; do a quick check
68   t = tag_names(input.options)
69   if ~(total(strcmp(t, 'trackloss', /fold))) then stop
70   same[i] = compare_inputs(input0, input, verbose=verbose)
71   obj_destroy, out
72 endfor
73 q = where(same, nq)
74 filelist = (nq NE 0) ? filelist[q] : ''
75 endif
76 nfiles = (filelist[0] EQ '') ? 0 : n_elements(filelist)
77 ct++
78 endwhile
79
80 if (verbose) then print, strint(nfiles) + ' files found with these inputs.'
81 return, filelist
82
83
84 end

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