

# Vimpack

- Lookup last version of a source file
- Update automatically current branch (« local »)
- Source code browsing
- Quick search

# Use vimpack

```
$ cd $HOME/pack/cy46t1_fileformats.01.IMPIFC1801.2y.pack
# Create index
$ vimpack -i
# Look for latest cnt4.F90 version
$ vimpack cnt4.F90
# See compiler warnings
$ vimpack -w cnt4.F90
# Difference of last two versions
$ vimpack -d facgrm.F90
...
```

# Edit

\$ vimpack cnt4.F90

```
1 SUBROUTINE CNT4
2
3 !**** *CNT4* - Controls integration job at level 4
4
5 ! Purpose.
6 ! -----
7 ! CONTROLS THE INTEGRATION
8
9 !** Interface.
10 ! -----
11 ! *CALL* *CNT4
12
13 ! Explicit arguments :
14 ! -----
15 ! None
16
17 ! Implicit arguments :
18 ! -----
19 ! None
20
21 ! Method.
22 ! -----
23 ! See documentation
24
25 ! Externals.
```

".vimpack/src=/arpifs/control/cnt4.F90" 1301 lines --0%-- 1,1 Top

# Modify, update

```
369 | -----
370
371 !*      2.      Prepare occurrences of I/O events.
372 | -----
373
374 CALL MONIO(IPOSTS,IPISPS,IHISTS,ISFXHISTS,IGDITS,ISDITS,IDHFGTS,IDHFZTS,&
375 & IDHFDTS,IDHPTS,ICFUTS,IXFUTS,IRESTS,IMASSCONS,IRAZTS)
376 CALL MONVAR(IREFTS,IANATS,IGRATS)
377 IF (LELAM) THEN
378   CALL MOEVAR(ILSGTS)
379 ENDIF
380
381 X = X + 1
382
383 IF (NPRINTLEV >= 1) THEN
384   WRITE(NULOUT, '(' POST-PROCESSING EVENTS, IPOSTS ')')
385   WRITE(NULOUT, '(40I2)')IPOSTS
386   WRITE(NULOUT, '(' ISP (Animation !) EVENTS, IPISPS ')')
387   WRITE(NULOUT, '(40I2)')IPISPS
388   WRITE(NULOUT, '(' HISTORY WRITE-UP, IHISTS ')')
389   WRITE(NULOUT, '(40I2)')IHISTS
390   WRITE(NULOUT, '(' HISTORY SURFACE WRITE-UP, ISFXHISTS ')')
391   WRITE(NULOUT, '(40I2)')ISFXHISTS
392   WRITE(NULOUT, '(' MASS CONSERVATION FIXUP, IMASSCONS ')')
393   WRITE(NULOUT, '(40I2)')IMASSCONS
"src/local/arpifs/control/cnt4.F90" 1303L, 39241C                                381.9                                28%
```

# Browse

```
369 |-----|
370
371 !* 2. Prepare occurrences of I/O events.
372 !-----|
373
374 CALL MONIO(IPOSTS,IPISPS,IHISTS,ISFXHISTS,IGDITS,ISDITS,IDHFGTS,IDHFZTS,&
375 & IDHFDTS,IDHPTS,ICFUTS,IXFUTS,IRESTS,IMASSCONS,IRAZTS)
376 CALL MONVAR(IREFTS,IANATS,IGRATS)
377 IF (LELAM) THEN
378 CALL MOEVAR(ILSGTS)
379 ENDIF
380
381 X = X + 1
382
383 IF (NPRINTLEV >= 1) THEN
384 WRITE(NULOUT,(' POST-PROCESSING EVENTS, IPOSTS '))
385 WRITE(NULOUT,(40I2))IPOSTS
386 WRITE(NULOUT,(' ISP (Animation !) EVENTS, IPISPS '))
387 WRITE(NULOUT,(40I2))IPISPS
388 WRITE(NULOUT,(' HISTORY WRITE-UP, IHISTS '))
389 WRITE(NULOUT,(40I2))IHISTS
390 WRITE(NULOUT,(' HISTORY SURFACE WRITE-UP, ISFXHISTS '))
391 WRITE(NULOUT,(40I2))ISFXHIST 1 SUBROUTINE MONIO(KPOSTS,KPISPS,KHISTS,KSFXHISTS,KGDITS,KSDITS,KDHFGTS,&
392 WRITE(NULOUT,(' MASS CONSERV 2 & KDHFZTS,KDHFDTS,KDHPTS,KCFUTS,KXFUTS,KRESTS,KMASSCONS,KRAZTS)
393 WRITE(NULOUT,(40I2))IMASSCON 3
"src/local/arpifs/control/cnt4.F90" 1 4 !**** *MONIO* - Management of the I/O events
5
6 ! Purpose.
7 !-----|
8 ! Set up the I/O events control arrays
9
10 !** Interface.
11 !-----|
12 ! *CALL* MONIO(...)
13
14 ! Explicit arguments :
15 !-----|
16 ! KPOSTS : ARRAY CONTAINING POST-PROCESSING TIME STEPS
17 ! KPISPS : ARRAY CONTAINING ISP (Animation !) TIME STEPS
18 ! KHISTS : ARRAY CONTAINING TRAJECTORY TIME STEPS
19 ! KSFXHISTS: ARRAY CONTAINING TRAJECTORY TIME STEPS FOR SURFACE
20 ! KGDITS : GRID POINT DIAGNOSTICS TIME STEPS
21 ! KSDITS : SPECTRAL DIAGNOSTICS TIME STEPS
22 ! KDHFZTS : WRITE OUT TIME STEPS FOR GLOBAL MEANS DDH
23 ! KDHFZTS : WRITE OUT TIME STEPS FOR ZONAL MEANS DDH
24 ! KDHFZTS : WRITE OUT TIME STEPS FOR LIMITED AREAS DDH
25 ! KDHFZTS : PAS DE TEMPS IMPRESSIONS DIAGNOSTICS DDH
```

CALL MONIO  
USE YOMCT0  
TYPE (IOFLDDESC)



# Search

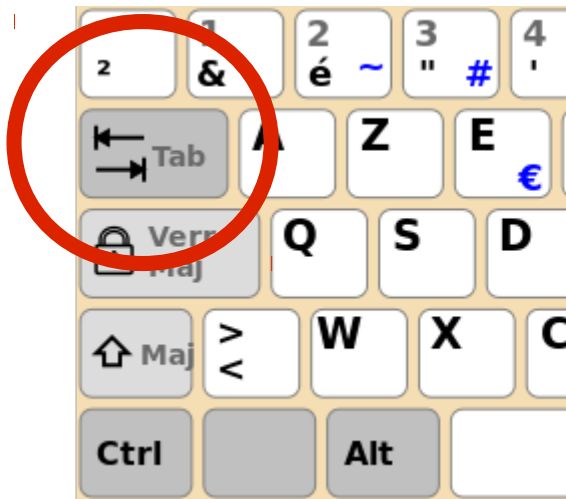
```
773 & .OR. NSIM4D == NSIM4DL) )
774
775 !* 3.9.1 Variational analysis on
776
777 IF(NCONF/100 == 1.OR.LLTLEVL) THEN
778 CLCONF(1:9)='A00000000'
779 RESTART=CLCONF(1:1)
780 LTWANA=.TRUE.
781 LLFDBOP=LFDBOP
782 LFDBOP=.FALSE.
783 IOUTTYPE=NOUTTYPE
784 NOUTTYPE=1
785 CALL SUBRT(CLCONF)
786 IF (LLTLEVL) THEN
787 CALL PPFLUSH
788 CALL PPCLOSE
789 ENDIF
790 LFDBOP=LLFDBOP
791 NOUTTYPE=IOUTTYPE
792 LTWANA=.FALSE.
793 ENDIF
794
795 !* 3.9.2 Post-processing
796
797 IF(LLWRTRA) THEN
```

```
1
2 aladin/coupling/ecoupl1.F90
3
4 237 | ENDDO ! JGPBLKS
5 238 |
6 239 | ! "time stepping" for coupled grid-point GFL fields (must go in STEPO and STEPOTL).
7 240 | !$OMP do
8 241 | DO JFL=1,YGFL%NUMFLDS
9
10 aladin/sinvect/ewrtsv.F90
11
12 66 | #include "cain.intfb.h"
13 67 | #include "scaas.intfb.h"
14 68 | #include "stepo.intfb.h"
15 69 |
16 70 | ! -----
17 ...
18 82 | LTMGRA=.FALSE.
19 83 | NSIM4D=KEIG
20 84 | call SUBRT("A00000000")
21 85 | LTMWCZ=.FALSE.
22 86 |
23
24 aladin/utility/euvcopy.F90
25
26 34 | ! Modifications.
27 35 | ! -----
28 36 | ! Original : 98-03-30 From STEPO
29 37 | ! M.Hamrud 01-Oct-2003 CY28 Cleaning
30 38 | ! A.Bogatchev 15-04-2013 NFLEVL => YOMDIMV
31
32 aladin/var/ecosjr.F90
33
34 88 | ! -----
35 89 |
36 90 | #include "stepo.intfb.h"
37 91 | #include "stepoad.intfb.h"
38 92 | #include "stepotl.intfb.h"
39 ...
40 126 | ! Mask Operator
41 127 | IF(LOCNORM) THEN
42 128 | CALL SUBRT ('OK0000000')
43 129 | CALL STEPOTL('OGBOLOAAO')
44 130 | ENDIF
45
46 aladin/var/ewreini.F90
47
48 13 | ! PDX - initial perturbation
49 14 |
50 15 | ! Externals - SIM4D, STEPO
51 16 | ! -----
52 17 |
53 ...
'stepo' was found in 48 files
```



# Search

```
1
2 aladin/coupling/ecoupl1.F90
3
4 237 | ENDDO ! JGPBLKS
5 238 |
6 239 | ! "time stepping" for coupled grid-point GFL fields (must go in STEP0 and STEPOTL).
7 240 | !$OMP do
8 241 | DO JFL=1,YGFL%NUMFLDS
9
10 aladin/sinvect/ewrtsv.F90
11
12 66 | #include "cain.intfb.h"
13 67 | #include "scaas.intfb.h"
14 68 | #include "stepo.intfb.h"
15 69 |
16 70 | !-----
17
18 82 | LTWGRA=.FALSE.
19 83 | NSIM4D=KEIG
20 84 | call STEP0("A00000000")
21 85 | LTWLCZ=.FALSE.
22 86 |
23
24 aladin/utility/euvcopy.F90
25
26 34 | ! Modifications.
27 35 | !-----
28 36 | ! Original : 98-03-30 From STEP0
29 37 | ! M.Hamrud 01-Oct-2003 CY28 Cleaning
30 38 | ! A.Bogatchev 15-04-2013 NFLEVL => YOMDIMV
31
32 aladin/var/ecosjr.F90
33
34 88 | !-----
35 89 |
36 90 | #include "stepo.intfb.h"
37 91 | #include "stepoad.intfb.h"
38 92 | #include "stepotl.intfb.h"
39 ...
40 126 | ! Mask Operator
41 127 | IF(LOCNORM) THEN
42 128 | CALL STEP0('0K0000000')
43 129 | CALL STEPOTL('0GB0L0AA0')
44 130 | ENDF
45
46 aladin/var/ewreini.F90
47
48 13 | ! PDX - initial perturbation
49 14 |
50 15 | ! Externals - SIM4D, STEP0
51 16 | !-----
52 17 |
53 ...
'stepo' was found in 48 files
```







# Compiler messages

```
141 CALL GATH_GRID (KFGATHG=KFIELDS,KTO=ITO,PGP=PBUF,PGPG=ZGPG)
142 ENDIF
143
144 DO JFLD = 1, INFL
145   IFLDG = IFLDOFF(MYPROC) + JFLD
146   IF (YDFLDSC (IFLDG)%LUNDF) &
147     & CALL WRGP2FA_REMOVE_UNDEF (ZGPG (:,JFLD), YDFLDSC(IFLDG))
148 ENDDO
149
150 CALL FPGPNORMX (ZGPG, YLCPDSC%ZAVE, YLCPDSC%ZMIN, YLCPDSC%ZMAX)
151
152 <ferror:
153 A logical data type is required in this context. [LDOCQ]
154 This is not a field name that is defined in the encompassing structure. [LDOCQ]
155 }>IF (YDFACTX%YI0OPTS%LDOCQ) THEN
156
157   IDIMGVAL=MAXVAL (YDFLDSC%NSIZPK)
158   ALLOCATE (ZGVALCO (IDIMGVAL, INFL))
159
160   IFLDG1=IFLDOFF(MYPROC)+1
161   IFLDG2=IFLDOFF(MYPROC)+INFL
162
163   CALL COMPACTFLD (YDFACTX, YDFLDSC (IFLDG1:IFLDG2), ZGPG, YLCPDSC, ZGVALCO)
164
165   CALL WRGATHFLNM (1_JPIM, INFL, IDIMGVAL, INF, IFLDOFF, ZGVALCO, YLCPDSC, &
166     & LDNORM=.TRUE., YDFACTX=YDFACTX, KTAG=KTAG, &
167     & CDNORMTITLE='GPNORMS OF FIELDS TO BE WRITTEN OUT ON FILE :')
168
169   DEALLOCATE (ZGVALCO)
```

152,1

93%

\$ vimpack -w wrgp2fa.F90

or

:WI (vim command)

# Backtrace

MASTERODB	0000000007D0692A	intel_trbk_	23	gentrbk.F90
MASTERODB	0000000007B82E51	sdl_mod_mp_sdl_tr	73	sdl_mod.F90
MASTERODB	0000000007C378EA	abor1_	39	abor1.F90
MASTERODB	00000000069CF307	checkmv_	212	checkmv.F90
MASTERODB	00000000062256F1	aplpar_.V	1909	aplpar.F90
MASTERODB	00000000052FA6C9	mf_phys_.V	1069	mf_phys.F90
MASTERODB	0000000004BE6498	cpg_.V	687	cpg.F90
MASTERODB	0000000003800CC3	cpg_drv_.V	460	cpg_drv.F90
libiomp5.so	00002B6E4FED67A3	__kmp_invoke_micr	Unknown	Unknown
libiomp5.so	00002B6E4FEA49C7	__kmp_fork_call	Unknown	Unknown
libiomp5.so	00002B6E4FE6DABC	__kmpc_fork_call	Unknown	Unknown
MASTERODB	00000000037FD47D	cpg_drv_.V	434	cpg_drv.F90
MASTERODB	0000000002E2FDF4	gp_model_.V	389	gp_model.F90
MASTERODB	00000000028A27E5	gp_model_stack_	71	gp_model_stack.F90
MASTERODB	000000000212EB79	scan2m_.V	605	scan2m.F90
MASTERODB	0000000000ABD2F8	stepo_.V	352	stepo.F90

# Backtrace

```
$ vimpack -b
```

```
MASTERODB      00000000069CF307  checkmv_          212  checkmv.F90
MASTERODB      00000000062256F1  aplpar_.V        1909  aplpar.F90
MASTERODB      00000000052FA6C9  mf_phys_.V       1069  mf_phys.F90
MASTERODB      0000000004BE6498  cpg_.V           687  cpg.F90
MASTERODB      0000000003800CC3  cpg_drv_.V       460  cpg_drv.F90
libiomp5.so     00002B6E4FED67A3  __kmp_invoke_micr  Unknown  Unknown
libiomp5.so     00002B6E4FEA49C7  __kmp_fork_call   Unknown  Unknown
libiomp5.so     00002B6E4FE6DABC  __kmpc_fork_call  Unknown  Unknown
MASTERODB      00000000037FD47D  cpg_drv_.V       434  cpg_drv.F90
MASTERODB      0000000002E2FDF4  gp_model_.V      389  gp_model.F90
MASTERODB      00000000028A27E5  gp_model_stack_  71  gp_model_stack.F90
MASTERODB      000000000212EB79  scan2m_.V        605  scan2m.F90
```

```
^D
```

```
209 | Generates abort.
210 |
211 |
212 | CALL ABOR1('CHECKMV : T or qv out of physical bounds !')
213 | ENDF
214 |
215 |
216 |
lvimpack/src=/arpifs/phys_dmn/checkmv.F90 212,3 98%
1906 | Check magnitude of model variables.
1907 |
1908 |
1909 | IF (LGCHECKMV) CALL CHECKMV(YDIRIP, YDPHY0, YDPHY2, KIDIA, KFIDIA, KLON, KLEV, KSTEP, PAPHI, PAPHIF &
1910 | & , PAPRS, PAPRSF, PGELAM, PGEMU, PMUO, PLSM, PT, PQ, PTS)
1911 |
1912 |
lvimpack/src=/arpifs/phys_dmn/aplpar.F90 1909,1 34%
1066 | ENDF
1067 |
1068 | ITDIA=1, JPIH
1069 | CALL APLPAR(YDGEOMETRY, YDSURF, YDXFU, YDMODEL, KST , KEND , NPROMA ,&
1070 | & ITDIA , NFLEVG , KSTGLO,&
1071 | & NWCLIS , YSD_VVDXNUMFLDS ,&
1072 | & NSTEP ,&
lvimpack/src=/arpifs/phys_dmn/mf_phys.F90 1069,7 44%
682 | & ZXYR0, ZXYR9 ,&
```

```
67 #include "gp_model_intf.h"
68
69 IF (LHOOK) CALL DR_HOOK('GP_MODEL_STACK', 0, ZHOOK_HANDLE)
70
71 CALL GP_MODEL(YDGEOMETRY, YDFIELDS, YDMODEL, CDCONF, LD_DFISTEP, ILO, ZLSCAW, ZSLBUF1, ZSLBUF2, PTRAJEC=PTRAJEC, PTRAJEC_OOPS=PTRAJEC_OOPS)
lvimpack/src=/arpifs/control/gp_model_stack.F90 71,1 94%
602 | IF (NOPT_MEMORY == 0) THEN
603 | CALL GP_MODEL_HEAP(YDGEOMETRY, YDFIELDS, YDMODEL, CDCONF, LD_DFISTEP, PTRAJEC=PTRAJEC)
604 | ELSE
605 | CALL GP_MODEL_STACK(YDGEOMETRY, YDFIELDS, YDMODEL, CDCONF, LD_DFISTEP, PTRAJEC=PTRAJEC)
606 | ENDF
607 | LL_GP_DONE = .TRUE.
608 | ENDF
lvimpack/src=/arpifs/control/scan2m.F90 605,5 87%
```

# Online help

```
Gmckpack and Vim                                *vimpack*
1. Description                                  |vimpack-description|
2. Usage                                        |vimpack-usage|
3. Principles                                  |vimpack-principles|
4. Commands and mappings                      |vimpack-commands|
5. History                                      |vimpack-history|

=====
1. Description                                  *vimpack-description*

A pack editor based on vim; a vim compiled with the embedded Perl interpreter
has to be available in your PATH.

=====
2. Usage                                        *vimpack-usage*

You must first cd to a valid pack. An index must have been build using the
`vimpack -i' command. Then just type `vimpack filename.F90'; for instance >

vimpack cnt0.F90

<

To edit in diff mode (assuming cnt0.F90 has been modified in an intermediate
or local pack) >
vimpack.txt [Help][R0]                        5.53          3z
 1
[No Name]                                       0.0-1         All
"vimpack.txt" [readonly] 149L, 4507C
```

:help vimpack (vim command)