Table A4 List of the file, **stoget.new** .
This file is generated automatically by GENOPT.
stoget.new writes the labeled common blocks
to and reads them from auxilliary storage during an
execution of the "OPTIMIZE" processor of GENOPT.
===
```
C=DECK        STORCM
      SUBROUTINE STORCM(IFILE)
C
C  PURPOSE IS TO STORE LABELLED COMMON BLOCKS
C
C *********** NOTE   NOTE   NOTE   NOTE   NOTE   NOTE *********************
C
C  The STOGET.NEW source library is completely provided by GENOPT. You
C  do not have to modify STOGET.NEW at all.
C
C *********************** END NOTE ********************************
C
      COMMON/LWRUPR/VLB(499)
      COMMON/XLINK0/CLINK0(50)
      COMMON/BNDLCX/VLBX(150)
      COMMON/GEOMN3/IBVAR,VARPLT(30)
      COMMON/BEHNEG/ICONSW(99)
      COMMON/ITRSNX/ITRSEN,ITRALL,IRESET
      COMMON/NUMPR3/NCAR0
      COMMON/WORDS7/WORDB0(99)
      CHARACTER*80 WORDB0
      COMMON/FV01/xinput(21),Ixinpu
      REAL xinput
      COMMON/FV02/ainput,binput,xlimit,SPACNG,THSTIF,THKCYL,RADCYL
      REAL ainput,binput,xlimit,SPACNG,THSTIF,THKCYL,RADCYL
      COMMON/FV05/THKSKN(21),HIGHST(21)
      REAL THKSKN,HIGHST
      COMMON/FV16/PRESS(20)
      REAL PRESS
      COMMON/FV19/CLAPS1(20),CLAPS1A(20),CLAPS1F(20)
      REAL CLAPS1,CLAPS1A,CLAPS1F
      COMMON/FV22/GENBK1(20),GENBK1A(20),GENBK1F(20)
      REAL GENBK1,GENBK1A,GENBK1F
      COMMON/FV25/SKNBK1(20,10),JSKNBK1,SKNBK1A(20,10),SKNBK1F(20,10)
      REAL SKNBK1,SKNBK1A,SKNBK1F
      COMMON/FV28/STFBK1(20,10),STFBK1A(20,10),STFBK1F(20,10)
      REAL STFBK1,STFBK1A,STFBK1F
      COMMON/FV31/SKNST1(20,10),SKNST1A(20,10),SKNST1F(20,10)
      REAL SKNST1,SKNST1A,SKNST1F
      COMMON/FV34/STFST1(20,10),STFST1A(20,10),STFST1F(20,10)
      REAL STFST1,STFST1A,STFST1F
      COMMON/FV37/WAPEX1(20),WAPEX1A(20),WAPEX1F(20)
```

```fortran
      REAL WAPEX1,WAPEX1A,WAPEX1F
      COMMON/FV40/CLAPS2(20),CLAPS2A(20),CLAPS2F(20)
      REAL CLAPS2,CLAPS2A,CLAPS2F
      COMMON/FV43/GENBK2(20),GENBK2A(20),GENBK2F(20)
      REAL GENBK2,GENBK2A,GENBK2F
      COMMON/FV46/SKNBK2(20,10),JSKNBK2,SKNBK2A(20,10),SKNBK2F(20,10)
      REAL SKNBK2,SKNBK2A,SKNBK2F
      COMMON/FV49/STFBK2(20,10),STFBK2A(20,10),STFBK2F(20,10)
      REAL STFBK2,STFBK2A,STFBK2F
      COMMON/FV52/SKNST2(20,10),SKNST2A(20,10),SKNST2F(20,10)
      REAL SKNST2,SKNST2A,SKNST2F
      COMMON/FV55/STFST2(20,10),STFST2A(20,10),STFST2F(20,10)
      REAL STFST2,STFST2A,STFST2F
      COMMON/FV58/WAPEX2(20),WAPEX2A(20),WAPEX2F(20)
      REAL WAPEX2,WAPEX2A,WAPEX2F
      COMMON/IV01/npoint,nodes,IMODE
      INTEGER npoint,nodes,IMODE
      COMMON/FV11/LENCYL,WIMP,EMATL,NUMATL,DNMATL,WEIGHT
      REAL LENCYL,WIMP,EMATL,NUMATL,DNMATL,WEIGHT
      COMMON/XAVEXX/XAVE(40)
      COMMON/NUMPAR/NPAR,NVAR,NALLOW,NCONST,NDEC,NLINK,NESCAP,ITYPE
      COMMON/PARAMS/PAR(447)
      COMMON/WORDS1/WORDP(397)
      COMMON/WORDS2/WORDL(120)
      COMMON/NUMPR2/ILAR,ICAR,IOAR,IFLAT,NCASES,NPRINT
      COMMON/PARAM2/FLAR(548)
      COMMON/PARAM3/CINEQ(600)
      COMMON/PARAM4/IDINEQ(341)
      COMMON/WORDS3/WORDF(298)
      COMMON/WORDS5/PCWORD(99)
      COMMON/PLOTCD/ITRTOT,ITER,OBPLOT(4500)
      COMMON/GRADMZ/GRADMX(30)
      COMMON/IAUTOX/IAUTOC(9)
      COMMON/SFACT/SMOVE,SFACTR
      COMMON/PLTVAR/IPV(151)
      COMMON/OPTVAR/IDV(420)
      CHARACTER*80 WORDP,WORDV,WORDA,WORDC,WORDD,WORDL,WORDE
      CHARACTER*80 WORDF,WORDB,WORDOB,WORDS,WORDIQ,PCWORD
C
      REWIND IFILE
      WRITE(IFILE) (VLB(I),I=1,499)
      WRITE(IFILE) (CLINK0(I),I=1,50)
      WRITE(IFILE) (VLBX(I),I=1,150)
      WRITE(IFILE) IBVAR
      WRITE(IFILE) (VARPLT(I),I=1,30)
      WRITE(IFILE) (ICONSW(I),I=1,99)
      WRITE(IFILE) ITRSEN,ITRALL,IRESET
      WRITE(IFILE) NCAR0
```

```
WRITE(IFILE) (WORDB0(I),I=1,99)
WRITE(IFILE) (XAVE(I),I=1,40)
WRITE(IFILE) NPAR,NVAR,NALLOW,NCONST,NDEC,NLINK,NESCAP,ITYPE
WRITE(IFILE) (PAR(I),I=1,447)
WRITE(IFILE) (WORDP(I),I=1,397)
WRITE(IFILE) (WORDL(I),I=1,120)
WRITE(IFILE) ILAR,ICAR,IOAR,IFLAT,NCASES,NPRINT
WRITE(IFILE) (FLAR(I),I=1,548)
WRITE(IFILE) (CINEQ(I),I=1,600)
WRITE(IFILE) (IDINEQ(I),I=1,341)
WRITE(IFILE) (WORDF(I),I=1,298)
WRITE(IFILE) (PCWORD(I),I=1,99)
WRITE(IFILE) ITRTOT,ITER
WRITE(IFILE) (OBPLOT(I),I=1,4500)
WRITE(IFILE) (GRADMX(I),I=1,30)
WRITE(IFILE) (IAUTOC(I),I=1,9)
WRITE(IFILE) SMOVE,SFACTR
WRITE(IFILE) (IPV(I), I=1,151)
WRITE(IFILE) (IDV(I),I=1,420)
WRITE(IFILE) npoint
WRITE(IFILE) (xinput(I), I=1,21),Ixinpu
WRITE(IFILE) ainput
WRITE(IFILE) binput
WRITE(IFILE) nodes
WRITE(IFILE) xlimit
WRITE(IFILE) (THKSKN(I), I=1,21)
WRITE(IFILE) (HIGHST(I), I=1,21)
WRITE(IFILE) SPACNG
WRITE(IFILE) THSTIF
WRITE(IFILE) THKCYL
WRITE(IFILE) RADCYL
WRITE(IFILE) LENCYL
WRITE(IFILE) WIMP
WRITE(IFILE) EMATL
WRITE(IFILE) NUMATL
WRITE(IFILE) DNMATL
WRITE(IFILE) IMODE
WRITE(IFILE) (PRESS(I), I=1,20)
WRITE(IFILE) (CLAPS1(I), I=1,20)
WRITE(IFILE) (CLAPS1A(I), I=1,20)
WRITE(IFILE) (CLAPS1F(I), I=1,20)
WRITE(IFILE) (GENBK1(I), I=1,20)
WRITE(IFILE) (GENBK1A(I), I=1,20)
WRITE(IFILE) (GENBK1F(I), I=1,20)
WRITE(IFILE) ((SKNBK1(I,J), I=1,20), J=1,10),JSKNBK1
WRITE(IFILE) ((SKNBK1A(I,J), I=1,20),    J=1,10)
WRITE(IFILE) ((SKNBK1F(I,J), I=1,20),     J=1,10)
WRITE(IFILE) ((STFBK1(I,J), I=1,20),    J=1,10)
```

```fortran
      WRITE(IFILE) ((STFBK1A(I,J), I=1,20),   J=1,10)
      WRITE(IFILE) ((STFBK1F(I,J), I=1,20),   J=1,10)
      WRITE(IFILE) ((SKNST1(I,J), I=1,20),    J=1,10)
      WRITE(IFILE) ((SKNST1A(I,J), I=1,20),   J=1,10)
      WRITE(IFILE) ((SKNST1F(I,J), I=1,20),   J=1,10)
      WRITE(IFILE) ((STFST1(I,J), I=1,20),    J=1,10)
      WRITE(IFILE) ((STFST1A(I,J), I=1,20),   J=1,10)
      WRITE(IFILE) ((STFST1F(I,J), I=1,20),   J=1,10)
      WRITE(IFILE) (WAPEX1(I), I=1,20),NCASES
      WRITE(IFILE) (WAPEX1A(I), I=1,20)
      WRITE(IFILE) (WAPEX1F(I), I=1,20)
      WRITE(IFILE) (CLAPS2(I), I=1,20)
      WRITE(IFILE) (CLAPS2A(I), I=1,20)
      WRITE(IFILE) (CLAPS2F(I), I=1,20)
      WRITE(IFILE) (GENBK2(I), I=1,20)
      WRITE(IFILE) (GENBK2A(I), I=1,20)
      WRITE(IFILE) (GENBK2F(I), I=1,20)
      WRITE(IFILE) ((SKNBK2(I,J), I=1,20), J=1,10),JSKNBK2
      WRITE(IFILE) ((SKNBK2A(I,J), I=1,20),   J=1,10)
      WRITE(IFILE) ((SKNBK2F(I,J), I=1,20),   J=1,10)
      WRITE(IFILE) ((STFBK2(I,J), I=1,20),    J=1,10)
      WRITE(IFILE) ((STFBK2A(I,J), I=1,20),   J=1,10)
      WRITE(IFILE) ((STFBK2F(I,J), I=1,20),   J=1,10)
      WRITE(IFILE) ((SKNST2(I,J), I=1,20),    J=1,10)
      WRITE(IFILE) ((SKNST2A(I,J), I=1,20),   J=1,10)
      WRITE(IFILE) ((SKNST2F(I,J), I=1,20),   J=1,10)
      WRITE(IFILE) ((STFST2(I,J), I=1,20),    J=1,10)
      WRITE(IFILE) ((STFST2A(I,J), I=1,20),   J=1,10)
      WRITE(IFILE) ((STFST2F(I,J), I=1,20),   J=1,10)
      WRITE(IFILE) (WAPEX2(I), I=1,20),NCASES
      WRITE(IFILE) (WAPEX2A(I), I=1,20)
      WRITE(IFILE) (WAPEX2F(I), I=1,20)
      WRITE(IFILE) WEIGHT
C
      RETURN
      END
C=DECK      GETCOM
      SUBROUTINE GETCOM(IFILE)
C
C  PURPOSE IS TO RETRIEVE LABELLED COMMON BLOCKS
C
      COMMON/LWRUPR/VLB(499)
      COMMON/XLINK0/CLINK0(50)
      COMMON/BNDLCX/VLBX(150)
      COMMON/GEOMN3/IBVAR,VARPLT(30)
      COMMON/BEHNEG/ICONSW(99)
      COMMON/ITRSNX/ITRSEN,ITRALL,IRESET
      COMMON/NUMPR3/NCAR0
```

```fortran
      COMMON/WORDS7/WORDB0(99)
      CHARACTER*80 WORDB0
      COMMON/FV01/xinput(21),Ixinpu
      REAL xinput
      COMMON/FV02/ainput,binput,xlimit,SPACNG,THSTIF,THKCYL,RADCYL
      REAL ainput,binput,xlimit,SPACNG,THSTIF,THKCYL,RADCYL
      COMMON/FV05/THKSKN(21),HIGHST(21)
      REAL THKSKN,HIGHST
      COMMON/FV16/PRESS(20)
      REAL PRESS
      COMMON/FV19/CLAPS1(20),CLAPS1A(20),CLAPS1F(20)
      REAL CLAPS1,CLAPS1A,CLAPS1F
      COMMON/FV22/GENBK1(20),GENBK1A(20),GENBK1F(20)
      REAL GENBK1,GENBK1A,GENBK1F
      COMMON/FV25/SKNBK1(20,10),JSKNBK1,SKNBK1A(20,10),SKNBK1F(20,10)
      REAL SKNBK1,SKNBK1A,SKNBK1F
      COMMON/FV28/STFBK1(20,10),STFBK1A(20,10),STFBK1F(20,10)
      REAL STFBK1,STFBK1A,STFBK1F
      COMMON/FV31/SKNST1(20,10),SKNST1A(20,10),SKNST1F(20,10)
      REAL SKNST1,SKNST1A,SKNST1F
      COMMON/FV34/STFST1(20,10),STFST1A(20,10),STFST1F(20,10)
      REAL STFST1,STFST1A,STFST1F
      COMMON/FV37/WAPEX1(20),WAPEX1A(20),WAPEX1F(20)
      REAL WAPEX1,WAPEX1A,WAPEX1F
      COMMON/FV40/CLAPS2(20),CLAPS2A(20),CLAPS2F(20)
      REAL CLAPS2,CLAPS2A,CLAPS2F
      COMMON/FV43/GENBK2(20),GENBK2A(20),GENBK2F(20)
      REAL GENBK2,GENBK2A,GENBK2F
      COMMON/FV46/SKNBK2(20,10),JSKNBK2,SKNBK2A(20,10),SKNBK2F(20,10)
      REAL SKNBK2,SKNBK2A,SKNBK2F
      COMMON/FV49/STFBK2(20,10),STFBK2A(20,10),STFBK2F(20,10)
      REAL STFBK2,STFBK2A,STFBK2F
      COMMON/FV52/SKNST2(20,10),SKNST2A(20,10),SKNST2F(20,10)
      REAL SKNST2,SKNST2A,SKNST2F
      COMMON/FV55/STFST2(20,10),STFST2A(20,10),STFST2F(20,10)
      REAL STFST2,STFST2A,STFST2F
      COMMON/FV58/WAPEX2(20),WAPEX2A(20),WAPEX2F(20)
      REAL WAPEX2,WAPEX2A,WAPEX2F
      COMMON/IV01/npoint,nodes,IMODE
      INTEGER npoint,nodes,IMODE
      COMMON/FV11/LENCYL,WIMP,EMATL,NUMATL,DNMATL,WEIGHT
      REAL LENCYL,WIMP,EMATL,NUMATL,DNMATL,WEIGHT
      COMMON/XAVEXX/XAVE(40)
      COMMON/NUMPAR/NPAR,NVAR,NALLOW,NCONST,NDEC,NLINK,NESCAP,ITYPE
      COMMON/PARAMS/PAR(447)
      COMMON/WORDS1/WORDP(397)
      COMMON/WORDS2/WORDL(120)
      COMMON/NUMPR2/ILAR,ICAR,IOAR,IFLAT,NCASES,NPRINT
```

```fortran
      COMMON/PARAM2/FLAR(548)
      COMMON/PARAM3/CINEQ(600)
      COMMON/PARAM4/IDINEQ(341)
      COMMON/WORDS3/WORDF(298)
      COMMON/WORDS5/PCWORD(99)
      COMMON/PLOTCD/ITRTOT,ITER,OBPLOT(4500)
      COMMON/GRADMZ/GRADMX(30)
      COMMON/IAUTOX/IAUTOC(9)
      COMMON/SFACT/SMOVE,SFACTR
      COMMON/PLTVAR/IPV(151)
      COMMON/OPTVAR/IDV(420)
      CHARACTER*80 WORDP,WORDV,WORDA,WORDC,WORDD,WORDL,WORDE
      CHARACTER*80 WORDF,WORDB,WORDOB,WORDS,WORDIQ,PCWORD
C
      REWIND IFILE
      READ(IFILE) (VLB(I),I=1,499)
      READ(IFILE) (CLINK0(I),I=1,50)
      READ(IFILE) (VLBX(I),I=1,150)
      READ(IFILE) IBVAR
      READ(IFILE) (VARPLT(I),I=1,30)
      READ(IFILE) (ICONSW(I),I=1,99)
      READ(IFILE) ITRSEN,ITRALL,IRESET
      READ(IFILE) NCAR0
      READ(IFILE) (WORDB0(I),I=1,99)
      READ(IFILE) (XAVE(I),I=1,40)
      READ(IFILE) NPAR,NVAR,NALLOW,NCONST,NDEC,NLINK,NESCAP,ITYPE
      READ(IFILE) (PAR(I),I=1,447)
      READ(IFILE) (WORDP(I),I=1,397)
      READ(IFILE) (WORDL(I),I=1,120)
      READ(IFILE) ILAR,ICAR,IOAR,IFLAT,NCASES,NPRINT
      READ(IFILE) (FLAR(I),I=1,548)
      READ(IFILE) (CINEQ(I),I=1,600)
      READ(IFILE) (IDINEQ(I),I=1,341)
      READ(IFILE) (WORDF(I),I=1,298)
      READ(IFILE) (PCWORD(I),I=1,99)
      READ(IFILE) ITRTOT,ITER
      READ(IFILE) (OBPLOT(I),I=1,4500)
      READ(IFILE) (GRADMX(I),I=1,30)
      READ(IFILE) (IAUTOC(I),I=1,9)
      READ(IFILE) SMOVE,SFACTR
      READ(IFILE) (IPV(I), I=1,151)
      READ(IFILE) (IDV(I),I=1,420)
       READ(IFILE) npoint
       READ(IFILE) (xinput(I), I=1,21),Ixinpu
       READ(IFILE) ainput
       READ(IFILE) binput
       READ(IFILE) nodes
       READ(IFILE) xlimit
```

```
READ(IFILE) (THKSKN(I), I=1,21)
READ(IFILE) (HIGHST(I), I=1,21)
READ(IFILE) SPACNG
READ(IFILE) THSTIF
READ(IFILE) THKCYL
READ(IFILE) RADCYL
READ(IFILE) LENCYL
READ(IFILE) WIMP
READ(IFILE) EMATL
READ(IFILE) NUMATL
READ(IFILE) DNMATL
READ(IFILE) IMODE
READ(IFILE) (PRESS(I), I=1,20)
READ(IFILE) (CLAPS1(I), I=1,20)
READ(IFILE) (CLAPS1A(I), I=1,20)
READ(IFILE) (CLAPS1F(I), I=1,20)
READ(IFILE) (GENBK1(I), I=1,20)
READ(IFILE) (GENBK1A(I), I=1,20)
READ(IFILE) (GENBK1F(I), I=1,20)
READ(IFILE) ((SKNBK1(I,J), I=1,20), J=1,10),JSKNBK1
READ(IFILE) ((SKNBK1A(I,J), I=1,20),    J=1,10)
READ(IFILE) ((SKNBK1F(I,J), I=1,20),    J=1,10)
READ(IFILE) ((STFBK1(I,J), I=1,20),    J=1,10)
READ(IFILE) ((STFBK1A(I,J), I=1,20),    J=1,10)
READ(IFILE) ((STFBK1F(I,J), I=1,20),    J=1,10)
READ(IFILE) ((SKNST1(I,J), I=1,20),    J=1,10)
READ(IFILE) ((SKNST1A(I,J), I=1,20),    J=1,10)
READ(IFILE) ((SKNST1F(I,J), I=1,20),    J=1,10)
READ(IFILE) ((STFST1(I,J), I=1,20),    J=1,10)
READ(IFILE) ((STFST1A(I,J), I=1,20),    J=1,10)
READ(IFILE) ((STFST1F(I,J), I=1,20),    J=1,10)
READ(IFILE) (WAPEX1(I), I=1,20),NCASES
READ(IFILE) (WAPEX1A(I), I=1,20)
READ(IFILE) (WAPEX1F(I), I=1,20)
READ(IFILE) (CLAPS2(I), I=1,20)
READ(IFILE) (CLAPS2A(I), I=1,20)
READ(IFILE) (CLAPS2F(I), I=1,20)
READ(IFILE) (GENBK2(I), I=1,20)
READ(IFILE) (GENBK2A(I), I=1,20)
READ(IFILE) (GENBK2F(I), I=1,20)
READ(IFILE) ((SKNBK2(I,J), I=1,20), J=1,10),JSKNBK2
READ(IFILE) ((SKNBK2A(I,J), I=1,20),    J=1,10)
READ(IFILE) ((SKNBK2F(I,J), I=1,20),    J=1,10)
READ(IFILE) ((STFBK2(I,J), I=1,20),    J=1,10)
READ(IFILE) ((STFBK2A(I,J), I=1,20),    J=1,10)
READ(IFILE) ((STFBK2F(I,J), I=1,20),    J=1,10)
READ(IFILE) ((SKNST2(I,J), I=1,20),    J=1,10)
READ(IFILE) ((SKNST2A(I,J), I=1,20),    J=1,10)
```

```fortran
      READ(IFILE) ((SKNST2F(I,J), I=1,20),    J=1,10)
      READ(IFILE) ((STFST2(I,J), I=1,20),     J=1,10)
      READ(IFILE) ((STFST2A(I,J), I=1,20),    J=1,10)
      READ(IFILE) ((STFST2F(I,J), I=1,20),    J=1,10)
      READ(IFILE) (WAPEX2(I), I=1,20),NCASES
      READ(IFILE) (WAPEX2A(I), I=1,20)
      READ(IFILE) (WAPEX2F(I), I=1,20)
      READ(IFILE) WEIGHT
     RETURN
     END
==============================================================
```