```
C**AGSAV
C  Continuum Dynamics, Inc.
C  AGDISP Version 8.29 06/16/16
C
      SUBROUTINE AGSAV(XV,T)
C
C  AGSAV saves the current results for plotting
C
C  XV     - Array of results
C  T      - Current time
C
      DIMENSION XV(9,60),ANSW(4,60)
C
      INCLUDE 'AGCOMMON.INC'
C
      IF (T.GE.0.0) THEN
        IF (IDSB.EQ.1) THEN
          WRITE (16,1000) T
 1000     FORMAT(1P1E12.4)
        ENDIF
C
C  Save Y,Z,Spread,Volume Ratio
C  Save derivatives for continuous deposition
C
        IF (LVTFLG.GT.0.AND.IVTT.NE.0.AND.NVTRK.LT.8000000) THEN
          NVTRK=NVTRK+1
          IVTRK(NVTRK)=0
          RVTRK(1,NVTRK)=T
          RVTRK(2:3,NVTRK)=0.0
        ENDIF
C
        DO N=1,NVAR
          IF (IDSB.EQ.1)
     $      WRITE (16,1010) N,(XV(I,N),I=1,3),SQRT(XV(7,N)),EDOV(N)
 1010     FORMAT(I6,1P5E12.4)
          IF (ISW(N).NE.0) THEN
            ANSW(1,N)=XV(2,N)
            ANSW(2,N)=XV(3,N)
            ANSW(3,N)=XV(7,N)
            ANSW(4,N)=(EDOV(N)/DIAM)**3
            DNDEP(1,N)=XV(5,N)
            DNDEP(2,N)=XV(6,N)
            DNDEP(3,N)=2.0*XV(8,N)
            TEM1=DNDEP(1,N)
            TEM2=DNDEP(2,N)
            DNFLX(1,N)=TEM2
            DNFLX(2,N)=-TEM1
            DNFLX(3,N)=DNDEP(3,N)
C
C  Save droplet positions for vapor tracking
C
            IF (IVT(N).EQ.1.AND.NVTRK.LT.8000000) THEN
              NVTRK=NVTRK+1
              IVTRK(NVTRK)=N
              RVTRK(1,NVTRK)=XV(1,N)
              RVTRK(2,NVTRK)=XV(2,N)
              RVTRK(3,NVTRK)=XV(3,N)
              RVTRK(4,NVTRK)=EDOV(N)
              XVTMAX=AMAX1(XVTMAX,XV(1,N))
              YVTMIN=AMIN1(YVTMIN,XV(2,N))
              YVTMAX=AMAX1(YVTMAX,XV(2,N))
              ZVTMAX=AMAX1(ZVTMAX,XV(3,N))
            ENDIF
```

IDSB — Save trajectory flag
1=yes
2=no

- Start by assuming isw(n)=0

ANSW only In AgS2V

Ends line 44

```
64                ENDIF
65    C
66    C  Save deposition information for contour
67    C
68                IF (ISW(N).LT.0.AND.IIDEP.GE.0) THEN
69                  IF (IIDEP.EQ.0) THEN
70                    VOLRN=1.0/DIAM**3
71                  ELSEIF (IIDEP.EQ.1) THEN
72                    VOLRN=CMASS(N)*AFRAC
73                  ELSEIF (IIDEP.EQ.2) THEN
74                    VOLRN=CMASS(N)*(1.0-VFRAC)
75                  ELSE
76                    VOLRN=CMASS(N)*(EDOV(N)/DIAM)**3
77                  ENDIF
78                  XPOSV(N,NNDRP)=XV(1,N)
79                  YPOSV(N,NNDRP)=XV(2,N)
80                  SPRDV(N,NNDRP)=SQRT(ABS(XV(7,N)))
81                  VOLRV(N,NNDRP)=VOLRN
82                ENDIF
83    C
84    C  Save deposition information for Gaussian
85    C
86                IF (ISW(N).NE.0.AND.IIGAU.EQ.1) THEN
87                  IF (XV(2,N).LT.XYMIN) THEN
88                    XGV(1,N,NNDRP)=XV(2,N)
89                    XGV(2,N,NNDRP)=XV(3,N)
90                    XGV(3,N,NNDRP)=SQRT(ABS(XV(7,N)))
91                    XGV(4,N,NNDRP)=EDOV(N)
92                  ENDIF
93                ENDIF
94    C
95    C  Increment discrete receptor deposition
96    C
97                IF (ISW(N).NE.0.AND.IIDIS.EQ.1) THEN
98                  IF (IIDEP.EQ.0) THEN
99                    VOLRN=1.0/DIAM**3
100                 ELSEIF (IIDEP.EQ.1) THEN
101                   VOLRN=CMASS(N)*AFRAC
102                 ELSEIF (IIDEP.EQ.2) THEN
103                   VOLRN=CMASS(N)*(1.0-VFRAC)
104                 ELSE
105                   VOLRN=CMASS(N)*(EDOV(N)/DIAM)**3
106                 ENDIF
107                 IF (VOLRN.GT.0.0) THEN
108                   DO NR=1,NNDSR
109                     IF (NTDSR(NR,N).GE.1.AND.NTDSR(NR,N).LE.4) THEN
110                       IF (XV(3,N).LE.ZZDSR(NR)) THEN
111                         CALL AGDSR(NR,N,XV(1,N),VOLRN)
112                         NTDSR(NR,N)=0
113                       ENDIF
114                     ENDIF
115                   ENDDO
116                 ENDIF
117               ENDIF
118             ENDDO
119           ENDIF
120   C
121   C  Increment deposition
122   C
123       CALL AGCON(T,ANSW)
124   C
125   C  Increment flux
126   C
```

```
      CALL AGVRF(T,ANSW)
C
C  SCIPUFF Save Deposited Droplets for AGDISPexportResults
C
      DO N=1,NVAR
        IF (ISW(N).LT.0) THEN
          IF (LSPFLG.EQ.1) THEN
            LDRP=LDRP+1
            XLSPN(1,LDRP)=XV(1,N)
            XLSPN(2,LDRP)=XV(2,N)
            XLSPN(3,LDRP)=0.0
            XLSPN(4,LDRP)=SQRT(ABS(XV(7,N)))
            ELSPN(1,LDRP)=DIAM
            ELSPN(2,LDRP)=EDOV(N)
            ELSPN(3,LDRP)=DCUT
            SLSPN(LDRP)=1.91E+11*YMASS*FLOWN*UO*SWATH/DIAM**3
            FSPV(1)=FSPV(1)+YMASS*(1.0-(EDOV(N)/DIAM)**3+(DCUT/DIAM)**3)
            FSPV(3)=FSPV(3)+YMASS*((EDOV(N)/DIAM)**3-(DCUT/DIAM)**3)
            FSPV(5)=FSPV(5)+YMASS*(1.0-VFRAC)
          ENDIF
          ISW(N)=0
        ENDIF
      ENDDO
      TOLD=T
C
C  CALPUFF Save Aloft for AGDISP Export
C
      IF (T.LT.0.0.AND.LCPEND.EQ.1) THEN
        DO N=1,NVAR
          IF (ISW(N).EQ.1) THEN
            NPUFF=NPUFF+1
            ELSPN(1,NPUFF)=EDOV(N)
            XLSPN(1,NPUFF)=XV(1,N)
            XLSPN(2,NPUFF)=XV(2,N)
            XLSPN(3,NPUFF)=XV(3,N)
            XLSPN(4,NPUFF)=SQRT(ABS(XV(7,N)))
            ELSPN(2,NPUFF)=YMASS
          ENDIF
        ENDDO
      ENDIF
C
C  SCIPUFF Save Aloft Droplets for AGDISPexportResults
C
      IF (T.LT.0.0.AND.LSPEND.EQ.1) THEN
        DO N=1,NVAR
          IF (ISW(N).EQ.1) THEN
            LDRP=LDRP+1
            XLSPN(1,LDRP)=XV(1,N)
            XLSPN(2,LDRP)=XV(2,N)
            XLSPN(3,LDRP)=XV(3,N)
            XLSPN(4,LDRP)=SQRT(ABS(XV(7,N)))
            ELSPN(1,LDRP)=DIAM
            ELSPN(2,LDRP)=EDOV(N)
            ELSPN(3,LDRP)=DCUT
            SLSPN(LDRP)=1.91E+11*YMASS*FLOWN*UO*SWATH/DIAM**3
            FSPV(1)=FSPV(1)+YMASS*(1.0-(EDOV(N)/DIAM)**3+(DCUT/DIAM)**3)
            FSPV(2)=FSPV(2)+YMASS*((EDOV(N)/DIAM)**3-(DCUT/DIAM)**3)
            FSPV(4)=FSPV(4)+YMASS*(1.0-VFRAC)
          ENDIF
        ENDDO
      ENDIF
      RETURN
      END
```