19/03/74/0915

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      IDENT LINSC
      SUBROUTINE LINSC
C
C *** LINE AND SCREEN SET PROCESS -  DATA REQUIRED :
C     XLS   CENTERLINE OF LINE OR SCREEN
C     YLS   UNCORRECTED POSITION OF Y MASK
C     ZLS   UNCORRECTED POSITION OF Z MASK
C     NUR   CORRECTED POSITION OF U MASK (STEPS)
C     NLN   POSITION OF LINE AND SCREEN MATRIX (STEPS)
C     NREP  NUMBER OF REPETITIONS (0 IF NO REPEAT)
C     DXLS  INCREMENT FOR XLS
C     DYZLS INCREMENT FOR YLS AND ZLS
C     LSCFL NUMBER OF FLASHES
C     LOLSL OVERLAP IN STEPS (LEFT)
C *** LOLSR OVERLAP IN STEPS (RIGHT)
C
C *** SPECIFICATION STATEMENTS
C
      DIMENSION ISKIP(36),INSER(36)
      DIMENSION ITEXT(200)
      DIMENSION ISTAT(6),DBH(64),DBV(64),ARG(4)
      DIMENSION KORY(53),KORZ(53),KLIN(16),KOL(16),KTK(16),KTH(16),
     1          KTP(16),NG(11),IPARA(200)
      DIMENSION NN(11),NV(11),ND(11)
      DIMENSION INPTZ(196),IOUTZ(12),INPRC(200)
      COMMON/SPCOM/ISKIP,INSER,ISK,ISE,ISKSH,NOPTI,NOPTO,NOPTE
      COMMON/P2COM/SCH,SCV,SCX,SCY,DX,DY,MAXX,MAXY,ITEXT,M100,
     1             IST32,IH00,KORTX
      COMMON/PDCOM/NSEG,KOUNT,KOUNP,ISTAT,ISHRD,ISHHR,DBH,DBV,IBLOK,
     1             IOR,IORV,IND,A1,A2,A3,A4,IREP,KAR,IREC
      COMMON/NCCOM/NX0,NY0,NZ0,NU0,NL0,NV0,NN0,NP0,NK0,NS0,NT0,NXT0,
     1             NLS0,KORY,KORZ,KORU,KLIN,KOL,KTK,KTH,KTP
      COMMON/NDCOM/NXN,NYN,NZN,NUN,NLN,NVN,NNN,NPN,NKN,NSN,NTN,
     1             NXV,NYV,NZV,NUV,NLV,NVV,NNV,NPV,NKV,NSV,NTV,
     2             NXD,NYD,NZD,NUD,NLD,NVD,NND,NPD,NKD,NSD,NTD,
     3             NATN,NASN,NATV,NASV
      COMMON/IOCOM/INPTZ,NINP,JIN,JNER,INSIN,JOUTZ,NOUT,JOU
      COMMON/KRCOM/LRA,LRB,LRC,LRE,LRH,LRL,LRN,LRP,LRD,LRR,LRS,LRT,
     1             LRU,LRV,LRZ,LR0,LR9
      COMMON/LSCOM/XLS,YLS,ZLS,XREP,NREP,DXLS,DYZLS,LOLSL,LOLSR,LSCFL
      EQUIVALENCE (ARG(1),A1)
      EQUIVALENCE (IPARA(1),N0(1),NX0)
      EQUIVALENCE (NN(1),NXN),(NV(1),NXV),(ND(1),NXD)
      EQUIVALENCE (INPRC(1),INPTZ(1))
      DATA NYZ0/3/
      DATA NUMAX/3000/
C
C *** SUBROUTINE BODY
C
      IF (IREP.NE.0) GO TO 4035
4000  NXN = -XLS*SCX-DX
      NYN = YLS*SCY+DY
      NZN = -ZLS*SCY-DY
      IF (IABS(NXN).GT.MAXX) GO TO 4080
      IF (IABS(NYN).GT.MAXY) GO TO 4080
      IF (IABS(NZN).GT.MAXY) GO TO 4080
      NXN = JNTAS(NXN)
      NYN = JNTAS(NYN+COR(NYN,KORY))-LOLSL
      NZN = JNTAS(NZN+COR(NZN,KORZ))-LOLSR
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      MYZ=-NZR-NYR
      IF(MYZ.LT.NYZ0)GO TO 4085
      IF (NUR.LT.NYZ0) GO TO 4085
      IF (NUR.GT.NUMAX) GO TO 4087
      IF (NOPTO.EQ.0) GO TO 4011
      DO 4010 KT=1,5
      ND(KT) = NR(KT)-NV(KT)
4010  CONTINUE
      CALL FIL1(128,-1)
      CALL FIL2(NXD,3)
      CALL FIL2(NYD,4)
      CALL FIL2(NZD,5)
      CALL FIL2(NUD,7)
      CALL FIL2(NLD,6)
      CALL FIL1(NTD,2)
      NOUT = JOU-1
      CALL OUTP1
4011  IF (IOR.NE.LRS) GO TO 4012
      ISTAT(3)=ISTAT(3)+1
      GO TO 4018
4012  IF (NREP.EQ.0 .AND.  IBLOK.LE.1) GO TO 4015
      ISTAT(2)=ISTAT(2)+1
      GO TO 4018
4015  ISTAT(1)=ISTAT(1)+1
4018  CALL MOVEM(NR,1,5,NV,1)
      NTD = 0
      NTV = NTR
      IF (LSCFL.EQ.1) GO TO 4030
      CALL FIL1(128,-1)
      NOUT = 1
      DO 4020 KT=2,LSCFL
      CALL OUTP1
4020  CONTINUE
4030  NREP = NREP-1
      IF (NREP.LE.0) GO TO 4040
4035  XLS = XLS+DXLS
      XREP = XREP+DXLS
      YLS = YLS+DYZLS
      ZLS = ZLS+DYZLS
      GO TO 4060
4040  IND = 0
      GO TO 4095
4080  CALL MES(5)
      GO TO 4090
4085  CALL MES(11)
      GO TO 4090
4087  CALL MES (10)
4090  IND = 2
4095  RETURN
      END
 F/MESSAGE ?F00
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