

3.3 LISTINGS

3.3.1 Incomplete Item Program: No Card 21

```
C          PRINT OF ITEMS HAVING NO CARD 21 - QUOTATION
C
C          DIMENSION KY(9),JR(36)
C          INTEGER*4 BL/,/
C          DEFINE FILE 7(5500,265,E,KAA),13(11800,40,F,K1),14(5250,80,E,K1),
115(1520,120,E,K1),16(0960,160,E,K1)
C
C          INITIALIZE COUNTER - PRINT HEADING
C
C          KTR=0
C          WRITE(3,500)
500 FORMAT('1',/,' WORDS HAVING NO CARD 21 - QUOTATION'/)
C          READ ADDRESS OF FIRST ENTRY IN SORT ORDER
C
C          READ(13,1,510)KAA
510 FORMAT(16)
C          READ MASTER RECORD
C
C          NWA ADDRESS OF NEXT ENTRY IN SORT ORDER
C          KY  ENGA ENTRY, EXISTENTIAL VERB, GRAMMATICAL CLASS
C          LU,K1 ADDRESS OF ENGLISH GLOSS
C          NQ  ADDRESS OF QUOTATION
C
C          1 READ(7,KAA,530)NWA,(KY(J),J=1,9),LU,K1,NQ
530 FORMAT(6X,15,6A4,A3,55X,A4,A3,25X,I2,I5,126X,I2)
C          IF(NQ.EQ.0)GO TO 3
C
C          CHECK FOR END OF FILE - GO BACK TO READ NEXT RECORD
C
C          IF(NWA.EQ.99999)GO TO 6
C          KAA=NWA
C          GO TO 1
C
C          ADD TO COUNTER - READ ENGLISH GLOSS
C
C          3 KTR=KTR+1
C          LF=(LU-12)*10-4
C          READ(LU,K1,540)(JR(J),J=1,LF)
540 FORMAT(16X,36A4)
C          PRINT RECORD
C
C          IF(LF.GT.22.AND.JR(23).NE.BL)GO TO 4
C          LZ=22
C          IF(LF.LT.LZ)LF=LZ
C          WRITE(3,550)(KY(J),J=1,9),(JR(J),J=1,LZ)
550 FORMAT(10',31A4)
C          IF(NWA.EQ.99999)GO TO 6
C          KAA=NWA
C          GO TO 1
C
C          4 WRITE(3,550)(KY(J),J=1,9),(JR(J),J=1,22)
C          WRITE(3,560)(JR(J),J=23,LF)
560 FORMAT(5X,30A4)
C          IF(NWA.EQ.99999)GO TO 6
C          KAA=NWA
C          GO TO 1
C
```

C
C

END OF FILE - PRINT COUNTER

```
6 WRITE(3,570)KTR
570 FORMAT('0'/'0',9X,'NUMBER OF WORDS HAVING NO CARD 21 - QUOTATION =
1 ',I4)
WRITE(3,500)
STOP
END
```

3.3.2 Single Phase Retrieval: Noun and Noun Phrase

```

C          PRINT OF NOUNS AND NOUN PHRASES
C
C          DIMENSION KY(9),JR(59)
C          INTEGER*4 BL/' /,TH/' /,3/' /
C          OFFLINE FILE 7(5500,265,E,KAA),13(11800,40,E,K1),14(5250,80,E,K1),
115(1520,120,E,K1),16(8960,160,E,K1),17(8390,200,E,K1),18(8330,240,
2E,K1)
C
C          CALL FRRSET(215,0,256,1)
C          DD 7 MM=1,9,9
C
C          INITIALIZE COUNTER - PRINT HEADING
C
C          KTR=0
C          IF(NN.EQ.1)WRITE(2,500)
500  FORMAT('1'/' NOUNS'/' )
C          IF(NN.EQ.9)WRITE(3,505)
505  FORMAT('1'/' NOUN PHRASES'/' )
C
C          READ ADDRESS OF FIRST ENTRY IN SORT ORDER
C
510  READ(13,1,510)KAA
C          FORMAT(I6)
C
C          READ MASTER RECORD
C          NWA ADDRESS OF NEXT ENTRY IN SORT ORDER
C          KY FNSA ENTRY, SEMANTIC DOMAIN
C          NDR,NPN GRAMMATICAL CLASS
C          LU,K1 ADDRESS OF ENGLISH GLOSS
C          LUS,K1S ADDRESS OF CROSS REFERENCES
C
C          1 READ(7,KAA,530)NWA,(KY(J),J=1,9),(NDR,NPN,LU,K1,LUS,K1S
530  FORMAT(6X,I5,6A4,A3,1X,A4,50X,I3,I1,28X,2(I2,I5))
C
C          CHECK IF NOUN, NOUN PHRASE, OR PROPER NOUN
C          IF(NDR.NE.NN)GO TO 2
C          IF(NPN.NE.1)GO TO 3
C
C          CHECK FOR END OF FILE - GO BACK TO READ NEXT RECORD
C
2  IF(NWA.EQ.99999)GO TO 6
C          KAA=NWA
C          GO TO 1
C
C          ADD TO COUNTER - READ ENGLISH GLOSS AND PRINT RECORD
C
3  KTR=KTR+1
C          IF=(LU-12)*10-3
C          READ(LU,K1,540)(JR(J),J=2,LF)
540  FORMAT(16X,36A4)
C          IF(LF.GT.23.AND.JR(24).NE.3)GO TO 4
C          L7=3
C          IF(LF.LT.LZ)L7=LF
C          WRITE(3,550)(KY(J),J=1,9),(JR(J),J=2,LZ)
550  FORMAT('0',7A4,1X,A4,3X,22A4)
C          GO TO 5
C
C
4  WRITE(3,550)(KY(J),J=1,9),(JR(J),J=2,23)
C          WRITE(3,560)(JR(J),J=24,LF)

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560 FORMAT(5X,30A4)
C
C      READ AND PRINT CROSS REFERENCES IF THEY EXIST
C
5   IF(LUS.EQ.0)GO TO 2
    K1=K1S
    JF=(LUS-12)*10-1
    READ(LUS,K1,520)(JR(J),J=2,JF)
520 FORMAT(9X,58A4)
    JR(1)=TH
    WRITE(3,560)(JR(J),J=1,JF)
    IF(NWA.EQ.99999)GO TO 6
    KAA=NWA
    GO TO 1
C
C      END OF FILE - PRINT COUNTER
C
6   IF(NN.EQ.1)WRITE(3,570)KTR
570 FORMAT('0'/'0',9X,'NUMBER OF NOUNS = ',I4)
    IF(NN.EQ.9)WRITE(3,580)KTR
580 FORMAT('0'/'0',9X,'NUMBER OF NOUN PHRASES = ',I4)
7   CONTINUE
    WRITE(3,500)
    STOP
    END

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2.3.3 Listing

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C          JDATE PROGRAM
C
DIMENSION KY(70),KARD(20),JFL(3,20),IND(2,21)
DIMENSION ARRDV(2),ARRA(7),ARRB(200)
INTEGER*4 BL/' 7 '/,KREC(209)/209*'  '/,CT(11)/' * 1 2
1  4 5 6 7 8 9 10/'
EQUIVALENCE(KY(31),IND(1,2)),(KY(4),ARRA(1)),(KREC(3),ARRB(1))
EXTERNAL CRTHC
DEFINE FILE 7(C340,265,E,KAA),13(0C590,40,E,K1),14(0290,80,E,K1),
15(028J,120,E,K1),16(013C,160,E,K1),17(C11C,20C,E,K1),18(0044,240,
2E,K1),19(0C25,28C,E,K1),20(0024,320,E,K1),21(0024,36C,E,K1),22(0C2
31,40J,E,K1),23(0C18,440,E,K1),24(0018,480,E,K1),25(0015,520,E,K1),
42(0015,560,E,K1),27(0015,60C,E,K1),28(0012,640,E,K1),29(0012,680,
5E,K1),30(0012,720,E,K1),31(0012,760,E,K1),32(0009,800,E,K1)

C          READ AND WRITE FILE COUNTERS
C
READ(1,500)((JFL(J,K),J=1,3),K=1,20)
50J FORMAT(12,218)
WRITE(3,505)
505 FORMAT('1')
DO 1 K=1,20
WRITE(3,510)((JFL(J,K),J=1,3)
51J FORMAT(11X,12,218)
IF(JFL(1,K).NE.(K+12))STOP
1 CONTINUE

C          INITIALIZE
C
CALL ERRSET(215,0,256,1)
CALL REREAD
WRITE(3,505)
IER=J
JVB=J
KTA=J

C          READ FIRST OF GROUP OF UPDATE CARDS
C
2 REAJ(1,515)(KARD(J),J=1,20)
51J FORMAT(16,12,18A4)
3 IF(KARD(1).EQ.559999)GO TO 214

C          READ MASTER RECORD OF ENTRY TO BE UPDATED
C
KAA=KARD(1)
READ(7,KAA,520)(KY(J),J=1,70)
52J FORMAT(15,11,15,8A4,110,18A4,20(12,15))

C          INITIALIZE FOR CARD TYPES 2-21
C
IF(KARD(2).EQ.1)GO TO 20
KREC(1)=KARD(1)
KREC(2)=KARD(2)
KNT=2
KR=1

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C
C      UPDATE OF CARD TYPE 2
C
      IF(KARD(2).NE.2)GO TO 8
      KREC(3)=BL
      KREC(4)=BL
      KNT=13
      READ(99,900)JAJ
90 J  FORMAT(8X,17)
      DJ 4 J=3,10
      4  KY(J+2)=KARC(J)
      CJ 5 J=1,19
      5  KREC(J-6)=KARD(J)
      GO TO 7

C
C      READ AND PROCESS REMAINDER OF GROUP OF UPDATE CARDS
C
      6  IF(KREC(2C1).NE.BL)GO TO 206
      7  IF(KARD(2C).EQ.BL)GO TO 10
      IF(KARD(2C).NE.CT(KR))GO TO 202
      READ(1,515,END=212)(KARD(J),J=1,2C)
      IF(KARD(2).NE.KREC(2))GO TO 2C2
      IF(KARD(1).NE.KY(1))GO TO 200
      KR=KR+1
      8  DJ 3 J=3,19
      KNT=KNT+1
      J  KREC(KNT)=KARD(J)
      GO TO 6

C
C      CHECK LENGTH OF RECORD FOR CARD TYPES 2-21
C
      10  DO 11 J=1,201,10
      IF(KREC(J).EQ.BL)GO TO 12
      11  CONTINUE
      12  J=J-1

C
C      CALL ORTHOGRAPHY CHANGE ROUTINE FOR CARD TYPES 3-21
C
      IF(KREC(2).EQ.2)GO TO 14
      J=J*4-8
      CALL CSDV(ARRB,ARRCV,800,J)
      CALL XTOPL1(ORTFO,ARRDV,C,IER,0)
      J=J/4
      IF(IER.EQ.0)GO TO 12
      525 WRITE(3,525)KREC(1),KREC(2),(ARRB(K),K=1,J)
      FORMAT('CSYNTAX ERROR - ',I4,I2,4X,25A4/(2X,31A4))
      IER=0
      13  IF(KREC(J).EQ.BL)GO TO 14
      J=J+10
      GO TO 13

C
C      CHECK IF NEW RECCRD TOO LONG FOR EXISTING AREA
C
      14  LF=J/10+1
      LU=LF+12
      IF(IND(1,KREC(2)).LT.LU)GO TO 15
      IF(KREC(2).GT.2)GO TO 18
      GO TO 17

```

3.3.3 Multi Phase Retrieval: Semantic Domains

```

C      CREATE FILE OF ADDRESSES OF ITEMS BELONGING TO EACH SEMANTIC DOMAIN
C
INTFGR #2 JK(425,100),KT(100)
DEFINE FILE 7(5500,265,F,KAA),13(11800,40,F,K1)
DEFINE FILE 8(100,1700,E,KR)
C
C      INITIALIZE FILE AREA AND RECORD COUNTFPS
C
CALL ERRSET(215,0,256,1)
DO 10 K=1,100
DO 9 J=1,425
9 JK(J,K)=0
10 KT(K)=0
WRITE(3,500)
500 FORMAT('1')
C
C      READ ADDRESS OF FIRST ENTRY IN SORT ORDER
C
READ(13'1,510)KAA
510 FORMAT(I6)
C
C      READ MASTER RECORD
C      NWD ADDRESS OF ENTRY
C      NWA ADDRESS OF NEXT ENTRY IN SORT ORDER
C      KC SEMANTIC DOMAIN CODE
C
1 READ(7'KAA,530)NWD,NWA,KC
530 FORMAT(1X,I4,1X,I5,28X,I4)
C
C      CHECK VALIDITY OF SEMANTIC DOMAIN CODE
C
IF(KC.EQ.0)GO TO 4
IF(KC.LT.100)GO TO 8
WRITE(3,535)KC,NWD
535 FORMAT('0',I4,' KC = ',I4,' NWD = ',I4)
GO TO 4
C
C      STORE ADDRESS OF ENTRY IN APPROPRIATE RECORD
C
9 KT(KC)=KT(KC)+1
IF(KT(KC).GT.425)GO TO 2
JK(KT(KC),KC)=NWD
4 IF(NWA.EQ.99999)GO TO 3
KAA=NWA
GO TO 1
C
C      ERROR MESSAGE
C
2 WRITE(3,540)KC
540 FORMAT('0',9X,'425 EXCEEDED FOR CODE ',I2/'1')
STOP
C
C      WRITE FILE TO DISK
C
3 WRITE(8'1,550)((JK(J,K),J=1,425),K=1,100)
550 FORMAT(200I4,200I4,25I4)
C
C      PRINT COUNTS OF NUMBER OF ADDRESSES IN EACH RECORD
C
WRITE(3,500)

```

```
DO 7 K=1,99
WRITE(3,560)K
560 FORMAT('O CODE ',I2/1X)
DO 5 J=1,425
IF(JK(J,K).EQ.0)GO TO 6
WRITE(3,570)JK(J,K)
570 FORMAT(10X,I4)
5 CONTINUE
6 J=J-1
WRITE(3,580)J
580 FORMAT('O',9X,'N = ',I3/'O')
7 CONTINUE
WRITE(3,500)
STOP
END
```


CC

PRINT OF ITEMS BELONGING TO EACH SEMANTIC DOMAIN
USING FILES OF ADDRESSES CREATED IN A PRIOR RUN

CC

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INTEGER*4 NR(20) / 1 2 3 4 5 6 7 8 9 10 11 12 13
1 14 15 16 17 18 19 20 21 //, RL // /
DIMENSION KY(12), JF(1501), NF(2720), JK(425), KED(10)
DEFINE FILE 7(5500,265,E,KAA),13(11800,40,E,K1),14(5250,80,E,K1),
115(1520,120,E,K1),16(0960,160,E,K1),17(0390,200,E,K1),18(0330,240,
2E,K1),19(0200,280,E,K1),20(0180,320,E,K1),21(0080,360,E,K1),22(007
30,400,E,K1),23(0070,440,E,K1),24(0060,480,E,K1),25(0060,520,E,K1),
426(0050,560,E,K1),27(0025,600,E,K1),28(0025,640,E,K1),29(0020,680,
5E,K1),30(0020,720,E,K1),31(0020,760,E,K1),32(0020,800,E,K1)
DEFINE FILE 8(100,1700,E,KB)
```

READ CONTROL CARD
PRINT INDICATOR (JTY), SEMANTIC DOMAIN CODE (KB), AND HEADING

```
WRITE(3,500)
500 FORMAT(11)
1 READ(1,505) JTY, KB, (KED(J), J=1,10)
505 FORMAT(11,12,10A4)
```

PRINT SEMANTIC DOMAIN CODE AND HEADING

```
WRITE(3,510) KB, (KED(J), J=1,10)
510 FORMAT(13,3X,10A4)
```

READ RECORD CONTAINING ADDRESSES OF ENTRIES BELONGING TO
THE REQUIRED SEMANTIC DOMAIN

```
READ(8*KB,515) (JK(J), J=1,425)
515 FORMAT(200I4,200I4,25I4)
```

SET COUNTER TO ZERO

```
NC=0
GO TO(2,9), JTY
```

PRINT REQUIRED OF ALL INFORMATION ASSOCIATED WITH EACH ENTRY

PICK UP ADDRESS OF NEXT ENTRY - READ MASTER RECORD

```
2 NC=NC+1
IF(JK(NC).EQ.0) GO TO 13
KAA=JK(NC)
READ(7*KAA,520) KY(12), (KY(J), J=1,7), KY(11), (KY(J), J=8,10), ((NF(J,K
1), J=1,2), K=1,20)
520 FORMAT(15,6X,8A4,50X,A4,A3,A2,23X,20(I2,I5))
```

READ ENGLISH GLOSS
PRINT INFORMATION FROM MASTER RECORD AND ENGLISH GLOSS

```
LU=NF(1,1)
K1=NF(2,1)
FIND(LU,K1)
LF=(LU-12)*10-4
READ(LU*K1,525) (JR(J), J=1,LF)
525 FORMAT(16X,36A4)
LF=LF+1
3 LF=LF-1
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```

      IF(JR(LF),EQ,BL)GO TO 3
      WRITE(3,540)(KY(J),J=1,12),(JR(J),J=1,LF)
540  FORMAT(10,7A4,1X,2A4,A3,A4,I5,12,1RA4/5X,30A4)
C
C      READ AND PRINT ALL ASSOCIATED INFORMATION
C
      DO 4 KK=2,20
      IF(NF(1,KK).NE.0)GO TO 5
4  CONTINUE
   GO TO 2
C
5  JF=0
   LU=NF(1,KK)
   K1=NF(2,KK)
   FIND(LU,K1)
   IF(KK.EQ.20)GO TO 7
   LL=KK+1
   DO 6 JJ=LL,20
   IF(NF(1,JJ).EQ.0)GO TO 6
   JR(JF+1)=NR(KK)
   JG=JF+2
   JF=JF+(LU-12)*10-1
530  READ(LU,K1,530)(JR(J),J=JG,JF)
      FORMAT(8X,198A4)
      LU=NF(1,JJ)
      K1=NF(2,JJ)
      FIND(LU,K1)
      KK=JJ
6  CONTINUE
C
7  JR(JF+1)=NR(KK)
   JG=JF+2
   JF=JF+(LU-12)*10-1
   READ(LU,K1,530)(JR(J),J=JG,JF)
   JF=JF+1
8  JF=JF-1
   IF(JR(JF).EQ.BL)GO TO 8
   WRITE(3,550)(JP(J),J=1,JF)
550  FORMAT(5X,30A4)
   GO TO 2
C
C      PRINT REQUIRED OF CROSS REFERENCES ONLY
C      PICK UP ADDRESS OF NEXT ENTRY - READ MASTER RECORD
C
9  NC=NC+1
   IF(JK(NC).EQ.0)GO TO 13
   KAA=JK(NC)
   READ(7,KAA,560)(KY(J),J=1,8),LU,K1,NF(1,2),NF(2,2)
560  FORMAT(11X,6A4,A3,1X,A4,82X,2(I2,15))
C
C      READ ENGLISH GLOSS
C      PRINT INFORMATION FROM MASTER RECORD AND ENGLISH GLOSS
C
      LF=(LU-12)*10-4
      READ(LU,K1,525)(JR(J),J=1,LF)
      LF=LF+1
10  LF=LF-1
   IF(JR(LF).EQ.BL)GO TO 10
   WRITE(3,570)(KY(J),J=1,8),(JR(J),J=1,LF)

```

```

570 FORMAT('0',8A4,' 2',22A4/5X,4A4)
C
C      READ AND PRINT CROSS REFERENCES IF THEY EXIST
C
      IF(NF(1,2).EQ.0)GO TO 9
      LU=NF(1,2)
      K1=NF(2,2)
      JF=(LU-12)*10-1
      READ(LU*K1,530)(JR(J),J=2,JF)
      JR(1)=NR(2)
      JF=JF+1
12  JF=JF-1
      IF(JR(JF).EQ.BL)GO TO 12
      WRITE(3,550)(JR(J),J=1,JF)
      GO TO 9
C
C      END OF FILE - PRINT COUNT OF NUMBER OF ENTRIES
C      BELONGING TO THE SEMANTIC DOMAIN
C
13  NC=NC-1
      KB=KB-1
      WRITE(3,580)KB,(KED(J),J=1,10),NC
580 FORMAT('0',13,3X,10A4/'ON = ',14,'1')
C
C      GO BACK TO READ ANOTHER CONTROL CARD
C
      GO TO 1
      END

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END OF DOCUMENT

AS FOR THE REMAINING PART OF THE DOCUMENT

THE FOLLOWING INFORMATION IS GIVEN:

1. TITLE: ...

2. AUTHOR: ...

3. SUBJECT: ...

4. DATE: ...

5. SOURCE: ...

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