

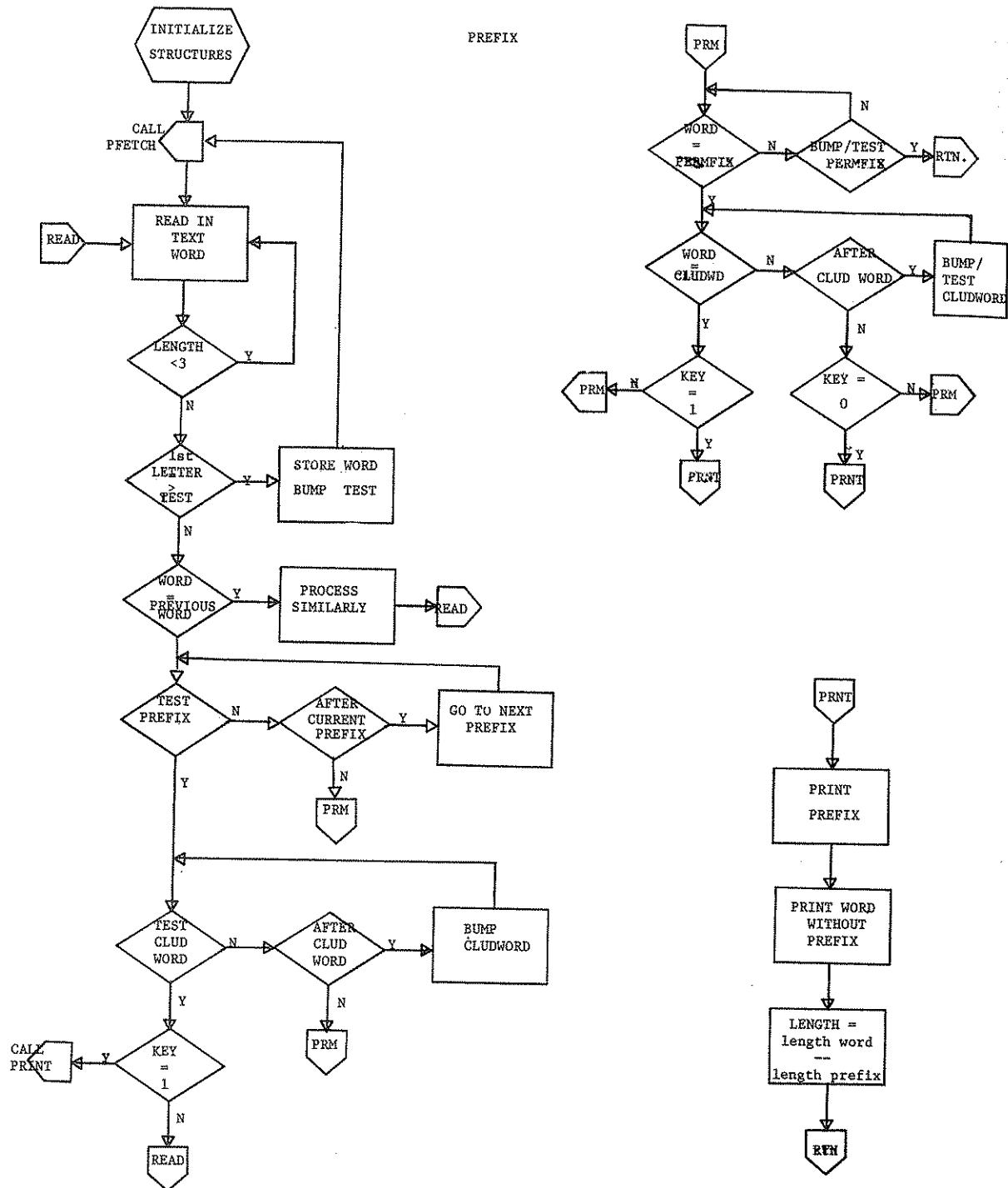
APPENDIX F

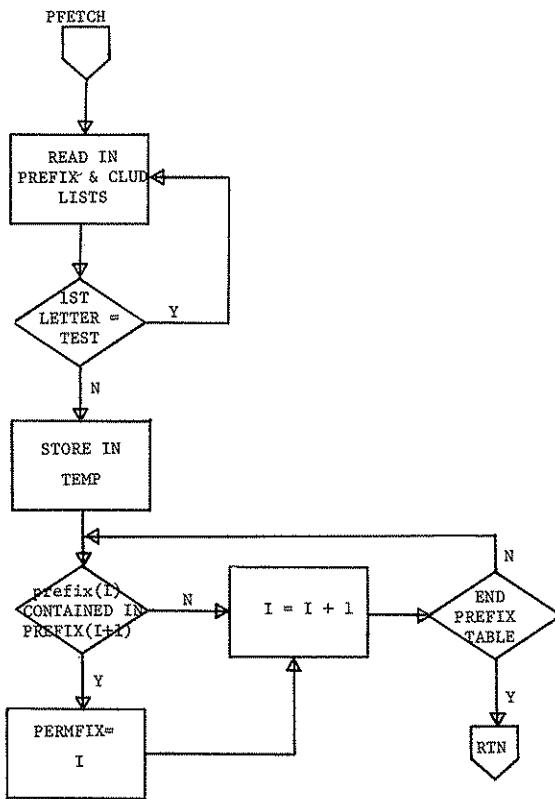
PREFIX Program and Table Listing

by

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## PREFIX





PREFIX: PROCEDURE OPTIONS (MAIN);

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STMT LEVEL NEST 1 PREFIX: PROCEDURE OPTIONS (MAIN);

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/*
*****  
/*  
/* PREFIX IS A GENERAL PURPOSE PROGRAM USED  
/* TO ANALYZE USAGE OF ENGLISH PREFIXES.  
/* IF DOES THIS BY STRIPPING A WORD OF ITS  
/* PREFIX AND REPRODUCING THE ROOT FORM OF  
/* THE WORD WITH ITS DETACHED PREFIX.  
/*  
/* THE SPECIFIC FUNCTION OF PREFIX IN THE  
/* VIA PACKAGE IS TO CREATE DUPLICATES OF WORDS  
/* WITH PREFIX DETACHED AND TO INSERT THESE  
/* FORMS INTO THE DATA STREAM ALONG WITH THE  
/* ORIGINAL FORM OF THE WORD. THE RESULT IS  
/* THAT THE FREQUENCY COUNTS OF THE ROOT FORM  
/* OF THE WORD WILL BE MODIFIED, PERHAPS  
/* FORCING THE TOTAL OVER PARAMETERS KEYING  
/*  
/* OTHER ANALYTIC STEPS.  
/*  
/* ENGLISH PREFIXES, ARRANGED IN ALPHABETIC  
/* ORDER ARE LOADED INTO A STRUCTURE ALONG WITH  
/* A LIST OF WORDS THAT ARE EITHER EXCLUSION  
/* LISTS FOR A PARTICULAR PREFIX OR INCLUSION  
/* FORMS, I.E., WORDS THAT DO HAVE  
/* LEGITIMATE PREFIXES ATTACHED. THE NATURE OF  
/* THE LIST IS DETERMINED BY A KEY ALSO LOADED  
/* INTO THE STRUCTURE.  
/* TEXT WORDS OR WORDS UNDER ANALYSIS ARE ALSO  
/* ARRANGED IN ALPHABETIC ORDER AND ARE EX-  
/* AMINED ONE AT A TIME. IF THE FIRST X CHARAC-  
/* TERS OF A WORD (CORRESPONDING TO THE LENGTH  
/* OF THE PREFIX) MATCH THE PREFIX, THEN A  
/* SEARCH IS MADE OF THE CLUD LIST ASSO-  
/* CIATED WITH THE PREFIX. IF A MATCH IS FOUND  
/* THEN THE FIRST X CHARACTERS ARE STRIPPED OR  
/* NOT DEPENDING UPON WHETHER THE LIST IS AN  
/* INCLUSION OR AN EXCLUSION LIST.  
/* *****  
/*  
/* MAIN STRUCTURE THAT HOLDS PREFIXES, CLUD LIST  
/* AND KEY. THE PROGRAM READS IN ALL PREFIXES;  
/* FOR A PARTICULAR LETTER OF THE ALPHABET,  
/*  
2      1      DCL 01 PTABLE (35),  
/*2      PREFIX CHAR(8) VARYING,  
/*2      KEY FIXED DEC(1),  
/*2      CLJWD(300) CHAR(18) VARYING;  
/*  
/* TEMP STORES THE FIRST PREFIX OF THE NEXT  
/* LETTER OF THE ALPHABET. TEMP BECOMES PTABLE  
/* (1) WHEN THE STRUCTURE IS NEXT LOADED.  
/*  
3      1      DCL 01 TEMP,  
/*2      TEMPKEY FIXED DEC(1),  
/*2      TEMPCLD(300) CHAR(18) VARYING;
```

PREFIX: PROCEDURE OPTIONS('MAIN');

STMN LEVEL NEST

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4      1           /* LETTER = ARRAY HOLDING ALPHABET FOR TESTS AND
        1           /* CONTROL OF MAIN DO LOOP. */
4      1           DCL LETR (26) CHAR(1);
5      1           DCL POP FIXED DEC(2) INITIAL(0);
        1           /* WORD STRING TESTED FOR PREFIX
6      1           DCL WORD CHAR(18);
7      1           DCL ALLWORD CHAR(13);
8      1           DCL ISWORD CHAR(18);
9      1           DCL REJECT CHAR(18);
10     1           DCL 01 DUPREC,
        02 DUPFIX CHAR(8) VARYING,
        02 DUPARD CHAR(13) VARYING;
11     1           DCL CH CHAR(4);
12     1           DCL N FIXED DEC(2) INITIAL(1);
13     1           DCL P'FIXED DEC(3);
14     1           DCL X'FIXED DEC(1);
15     1           DCL PNO FIXED DEC(3) INITIAL(1);
16     1           DCL Y'FIXED DEC(2);
17     1           DCL PERFPX '(10) FIXED DEC(2);
18     1           DCL PERCBLD '(10) CHAR(8) VARYING;
19     1           DCL FRSTL FIXED DEC(3) INITIAL(0);
20     1           DCL TRAILD CHAR(18) INITIAL(' ');
21     1           DCL COUNTS FIXED DEC(6) INITIAL(0);
22     1           DCL DECS(5) INITIAL(0);
23     1           DCL LAST CHAR(13) INITIAL(' ');
24     1           ON ENDFILE(LIND) GO TO JUT;
25
26     1           PUT PAGE;
        1           PUT EDIT('WORD', 'PREFIX', 'STEM', 'ENDINGS', 'PREFIX OUTPUT: PAGE',
        1           PNO(COL(1), A, COL(20), A, COL(30), A, COL(80), A, F(3));
        1           PNO = PNO + 1;
        1           PUT SKIP(2);
        1           ON ENDPAGE BEGIN;
        2           PUT PAGE;
        2           PUT EDIT('WORD', 'PREFIX', 'STEM', 'ENDINGS', 'PREFIX OUTPUT: PAGE',
        2           PNO(COL(1), A, COL(20), A, COL(30), A, COL(80), A, F(3));
        2           PNO = PNO + 1;
        2           PUT SKIP(2);
        2           END;
27     1           GET EDIT(LETTR, CH(26 A(1), X(53), A(1));
        1           /* MAIN DO LOOP THAT CONTROLS TEST LETTER OF
        1           /* ALPHABET.
28     1           DO I = 1 TO 26;
        1           IF LETTR(I) = 'J' THEN SO TO BUHP;
29     1           N = 1;
30     1           P = 1;
31
32     2
33     2
34     2
35     2
36     2
37     1
38     1           DO I = 1 TO 26;
        1           IF LETTR(I) = 'J' THEN SO TO BUHP;
39
41     1           N = 1;
42     1           P = 1;

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PREFIX: PROCEDURE OPTIONS (MAIN) :

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43   1   CALL PFETCH;          /* CALLS SUBPROCEDURE THAT LOADS PREFIX TABLES. */

44   1   /* TESTS TO SEE IF CURRENT BATCH OF PREFIXES
45   1   /* CORRESPOND WITH CURRENT TEST LETTER.
46   1   /* AT THAT TIME.

47   1   IF TEMPWD = * THEN DO;
48   1   WKWORD = FTEMPWD;
49   1   TEMPWD = *;
50   1   END;

51   1   ELSE DO;
52   1   WKWORD = *;
53   1   DCL JUNK1 FIXED DEC(2) INITIAL();
54   1   DCL JUNK2 CHAR(16);
55   1   GET FILE(LIND) EDIT(JUNK1, JUNK2, ALLWORD)(F(2), A(16), A(18));
56   1   COUNT = COUNT + 1;
57   1   PUT FILE(ADD) EDIT(JUNK1, JUNK2, ALLWORD)(F(2), A(16), A(18));
58   1   DO I3 = 18 TO 1 BY -1;
59   1   IP SUBSTR(ALLWORD,I3,1) = * THEN GO TO OUTA;
60   1   END;
61   1   OUTA;
62   1   IF I3 < 3 THEN G3 TO A;
63   1   WKWORD = SUBSTR(ALLWORD,1,I3);
64   1   END;

65   1   IF SUBSTR(WKWORD,1,1) > LCTR(I)
66   1   THEN DO;
67   1   TEMPWD = WKWORD;
68   1   GO TO BUMP;
69   1   END;

70   1   /* TESTS TO SEE IF CURRENT WORD IDENTICAL TO
71   1   /* LAST WORD. IF SO AND IF LAST WORD DID NOT
72   1   /* HAVE AN ALLOWABLE PREFIX, THEN THIS WORD IS
73   1   /* SKIPPED ALSO.

74   1   IF WKWORD = REJECT THEN GO TO A;

75   1   /* IF LAST WORD STRIPPED OF PREFIX, THEN
76   1   /* CURRENT WORD IS STRIPPED WITHOUT GOING
77   1   /* THROUGH ENTIRE PROCEDURE.
78   1   /* THROUGH ENTIRE PROCEDURE.
79   1   /* THIS WORD IS

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PREFIX: PROCEDURE OPTIONS (MAIN);

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71 1 1 IF WKWORD = LSTWORD THEN DO;  
73 1 1 CALL PRINT;  
74 1 1 GO TO A;  
END;

```
/* SINCE WORDS AND PREFIXES IN ALPHABETICAL ORDER, LAST PREFIX ADDRESS IS STORED SO THAT SEARCH CONTINUES FROM HERE.
 */
76 1 1 ERSTL = N;
77 1 1 IF WKWORD = REJECT THEN 30 TO SKIP1;
79 1 1 IF WKWORD = LSTWORD THEN GO TO SKIP1;
81 1 1 PUT EDIT (WKWORD) (SKIP, COL(1), A);
82 1 1 SKIP1;
X = 1;
83 1 1 DO L = N TO TOP;
    /* IF FIRST X LETTERS PAST CURRENT PREFIX,
     * SKIPS TO NEXT PREFIX.
    */
84 1 2 IF SUBSTR(WKWORD, 1, LENGTH(PREFIX(L))) > PREFIX(L) THEN 30 TO BUMPL;
    /* WHEN MATCH OF FIRST X LETTERS WITH PREFIX IS FOUND SEARCH IS MADE OF CLOUD LIST.
    */
86 1 2 IF SUBSTR(WKWORD, 1, LENGTH(PREFIX(L))) = PREFIX(L)
    THEN DO N = PTBL 300 WHILE (PTABLE(L).CLOUD(N) = ' ' );
87 1 2 PTABLE(L).CLOUD(M) > SUBSTR(WKWORD, 1, LENGTH(PTABLE(L).CLOUD(M))) THEN DO;
    3 IF PTABLE(L).CLOUD(M) > SUBSTR(WKWORD, 1, LENGTH(PREFIX(L + 1))) > PREFIX(L + 1) THEN GO TO
P = M;
    3 IF SUBSTR(WKWORD, 1, LENGTH(PREFIX(L + 1))) = PREFIX(L + 1) THEN GO TO
BUMPL;
    ELSE 30 TO PRMLOOP;
END;
89 1 3
90 1 3
91 1 3
92 1 3
93 1 3
94 1 3
END;
    /* LOCATION OF LAST CLOUD MATCH. NEXT SEARCH
    */
95 1 3 IF SUBSTR(WKWORD, 1, LENGTH(PTABLE(L).CLOUD(M))) =
PTABLE(L).CLOUD(M) THEN DO;
    3 P = M;
    /* WHEN MATCH WITH CLOUD WORD IS FOUND, PROGRAM CHECKS KEY TO DETERMINE WHETHER THE LIST IS INCLUSION OR EXCLUSION LIST.
    */
96 1 3
97 1 3
98 1 3 IF KEY(L) = '0' THEN DO;
    3 REJECT = WKWORD;
    3 GO TO A;
END;
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REFLEX: PROCEDURE SPOTLIGHT

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        /* PRINT IS SUBPROCEDURE THAT PRINTS WORD WITH
        /* PREPIX REMOVED.
103      1   3   CALL PRINT;
104      1   3   Y = L;           /* PRINT IS SUBPROCEDURE THAT PRINTS WORD WITH
                                /* PREPIX REMOVED.
105      1   3   N=L;
106      1   3   GO TO A;
107      1   3   END;
108      1   3   END;
109      1   3   END;
110      1   3   END;

111      1   2   DO;
112      1   2   IP SUBSTR(WKWORD,1,LENGTH(PREFIX(L+1))) >= PREFIX(L+1) THEN GO TO
                                BUMPL;
113      1   2   ELSE 30 TO PRMLOOP;
114      1   2   END;
115      1   2   BUMPL; P = 1;
116      1   2   END;
117      1   2   END;

118      1   1   PRMLOOP: D2:          /* *****
119      1   1   DO X = 1 TO 10 WHILE(PERMIX(X) ^= 3);
120      1   2   IF SUBSTR(WKWORD,1,LENGTH(PERMIX(X))) >= PREFIX(PERMIX(X));
121      1   2   SUBSTR(WKWORD,1,LENGTH(PERMCLD(X)) > PERMCID(X) THEN GO TO ENDX;
                                /* IF MATCH IS FOUND, CLUDWD(J) <= PERMCID(X);
                                /* CHECKS CWD LIST
122      1   2   DO J = 1 TO 300 WHILE(PTABLE(PERMIX(X)) .CLUDWD(J) <= PERMCID(X));
123      1   3   IF SUBSTR(WKWORD,1,LENGTH(PTABLE(PERMIX(X)) .CLUDWD(J)) <
                                PTAB10(PERMIX(X)) .CLUDWD(J), THEN GO TO ENDX;
124      1   3   IF SUBSTR(WKWORD,1,LENGTH(PTAB10(PERMIX(X)) .CLUDWD(J)) <
                                PTAB10(PERMIX(X)) .CLUDWD(J), THEN DO;
125      1   3   PTAB10(PERMIX(X)) .CLUDWD(J) = CLUDWD(J);
126      1   3   END;

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PREFIX: PROCEDURE OPTIONS (MAIN);

        PREFIX LEVEL NEST
127      1   3 IF KEY(PERMFIX(X)) = 'J' THEN DO; /* CHECKS IN/EX-CLUSION LIST */ /
129      1   3 REJECT = 'WORD';
130      1   3 GO TO A;
131      1   3 END;

132      1   3 ELSE DO;
133      1   3   Y = PERMFX(X);
134      1   3   IF N < PERMFX(X) THEN N = PERMFX(X); /*START SUCCESSIVE SCANS HERE*/
135      1   3   CALL PRINT;
136      1   3   GO TO A;
137      1   3 END;
138      1   3 END;

139      1   3 END;

140      1   3 ENDJ: IF PTABLE(PERMFX(X)) .CLJWD(J) = PERMCLD(X)
141      1   3 THEN DO;
142      1   3   GO TO ENDX;
143      1   3 END;
144      1   3 END;
145      1   2 ENDX: END;

146      1   1 IF L > TOP THEN L = TOP;
148      1   1 DO L2 = PRSL TO L;
149      1   2 B: IF KEY(L2) = 'J'
150      1   2 THEN IF SUBSTR(WORD,1,LENGTH(PREFIX(L2))) = PREFIX(L2)
151      1   2 THEN DO;
152      1   2   Y = L2;
153      1   2   IF N < L2 THEN N = L2;
154      1   2   CALL PRINT;
155      1   2   GO TO A;
156      1   2 END;
157      1   2 END;
158      1   2 END;

159      1   1 DO X = 1 TO 10 WHILE(PERMFX(X) ^= 0);
160      1   2 IF KEY(PERMFX(X)) = J
161      1   2 THEN IF SUBSTR(WORD,1,LENGTH(PREFIX(PERMFX(X)))) = PREFIX(PERMFX(X));
162      1   2 Y = PERMFX(X);
163      1   2 IF N < PERMFX(X) THEN N = PERMFX(X);
164      1   2 CALL PRINT;
165      1   2 GO TO A;
166      1   2 END;
167      1   2 END;
168      1   2 END;
169      1   2 END;

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PREFIX: PROCEDURE OPTIONS (MAIN);

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170      1   1   REJECT = #WORD;
171      1   1   GO TO A;
172      1   1   END;
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173      1   1   BUFP: 3 ND;
```

```
/* PRINT IS THE SUBPROCEDURE THAT CREATES A DUP- */
/* LICATE RECORD AND PRINTS THE RECORD. */
174      1   1   PRINT: PROCEDURE;
175      2   1   IP SUBSTR(WKWORD, LENGTH(PREFIX(Y)) + 1, 1) = '-' THEN DO;
176      2   2   DUPFIX = SUBSTR(WKWORD, 1, LENGTH(PREFIX(Y)) + 1);
177      2   2   DUPARD = SUBSTR(WKWORD, LENGTH(PREFIX(Y)) + 2);
178      2   2   GO TO PNT;
179      2   2   END;
180      2   2   DUPFIX = SUBSTR(WKWORD, 1, LENGTH(PREFIX(Y)));
181      2   2   DUPARD = SUBSTR(WKWORD, (LENGTH(PREFIX(Y)) + 1));
182      2   2   PRNC:          /* LENGTH OF THE WORD IS RECOMPUTED FOR SUFFIX */
183      2   2   JUNK1 = JUNK1 - LENGTH(PREFIX(Y));
184      2   2   PUT FILE(ADD) EDIT(JUNK1, JUNK2, DUPARD) (P(2), A(16), A(18));
185      2   2   IF WKWORD = LSTWORD THEN GO TO SKIP2;
186      2   2   PUT EDIT(DUPFIX, DUPARD) (SKIP(0), COL(30), A);
187      2   2   LSTWORD = WKWORD; /* SUCCEEDING WORDS TESTED TO AVOID RECONDUTINS */
188      2   2   SKIP2;
189      2   2   COUNTS = COUNTS + 1; /* COUNT OF WORDS WITH PREFIXES KEEP */
190      2   2   END PRINT;
```

```
/* PPETCH IS THE SUBPROCEDURE THAT BUILDS THE */
/* PREFIX TABLES. IT ALSO DETERMINES WHEN A */
/* PREFIX IS CONTAINED IN THE SUCCEEDING PREFIX */
/* SO THAT THESE PREFIXES MAY BE USED IN PERFIX. */
191      1   1   PPETCH: PROCEDURE;
192      2   1   ON ENDFILE(PREFIX) GO TO PTTEST;
193      2   1   DCL PREFIX CHAR(3);
194      2   1   DCL ICLJD CHAR(18) INITIAL(' ');
195      2   1   DO J = 1 TO 35;           /* CLEARS PREFIX AND CLJD LISTS. */
196      2   1   PREFIX(J) = ' ';
197      2   1   CLJD(J, *) = ' ';
198      2   1   END;
199      2   1   TOP = 0;
```

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      STMT LEVEL NEST

201      2      PERPREFIX = 0;
202      2      PERCOLD = 0;
203      2      DO J = 1 TO 35;

204      2      /* PROGRAM SAVES THE LAST PREFIX WITH CLUD LISTS   */
205      2      /* THAT WAS READ IN BUT FOUND TO COME IN LATE3   */
206      2      /* ALPHABETICAL SEQUENCE THAN THE CURRENT   */
207      2      /* PROCESSING LEPPER. THIS BECOMES PREFIX(1)   */
208      2      /* IP TEMP.TEMPREFIX = * . THEN DO;          */
209      2      TEMP.TEMPREFIX = * ;
210      2      TEMP.TEMPCLD = * ;
211      2      GO TO TEST;
212      2      END;

213      2      GET FILE(PREFIX) EDIT(PREFIX1, KEY(J), 2H)(A(3), X(3), F(1), X(67),
214      2      A(1));
215      2      /* PREFIX IS STORED IN VARYING CHAR. SLOT SO THAT   */
216      2      /* THE LENGTH OF THE PREFIX WILL BE AVAILABLE FOR   */
217      2      /* SUBSTRING PARAMETER WHEN CHECKING WORD FOR   */
218      2      /* MATCH.                                              */
219      2      DO II = 8 TO 1 BY -1;
220      2      IF SUBSTR(PREFIX1,II,1) = * THEN GO TO OUT;
221      2      END;
222      2      OUTP: PREFIX(J) = SUBSTR(PREFIX1,1,II);
223      2      DO K = 1 TO 300;
224      2      GET FILE(PREFIX) EDIT(TCLUD, 2H)(X(2), A(18), X(55), A(1));
225      2      DO III = 18 TO 1 BY -1;
226      2      IP SUBSTR(TCLUD,III,1) = * THEN GO TO OUTCLD;
227      2      END;
228      2      OUTCLD: PTABLE(J).CLUDWD(K) = SUBSTR(TCLUD,1,III);
229      2      IP PTABLE(J).CLUDWD(K) = END CLUD.
230      2      THEN DO;
231      2      PTABLE(J).CLUDWD(K) = * ;
232      2      GO TO TEST;
233      2      END;
234      2      ENDK: END;

235      2      /* STORES PREFIX AND CLUD LIST FOR NEXT CONST. JP   */
236      2      /* PTABLE.                                              */

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PREFIX: PROCEDURE OPTIONS(MAIN);
        PREFIX LEVEL NEST
235      2   1      TEST: IF SUBSTR(PREFIX(J),1,1) = LEFR(L)
236      2   1      THEN DO;
237      2   1      TEMP = ?TABLE(J);
238      2   1      GO TO PTESTP;
239      2   1      END;
240      2   1      TOP = TOP + 1;
241      2   1      END;

242      2           PTESTP: X = 1;          /* TESTS TO SEE IF PREFIX IS *CONTAINED IN* SJC-
        /* CREATING PREFIX. */
243      2           DO J = 1 TO TOP;
244      2           1      IF SUBSTR(PREFIX(J),1,LENGTH(PREFIX(J))) = SUBSTR(PREFIX(J+1),1,
245      2           1      LENGTH(PREFIX(J))) THEN D;
246      2           1      PREFIX(X) = J;
247      2           1      DO L1 = 1 TO 300;
248      2           2      IF ?TABLE(J).JLUDAD(L1) = 1 THEN SO TO L1END;
249      2           2      ELSE DO;
250      2           2      PERCLD(X) = ?TABLE(J).JLUDAD(L1 - 1);
251      2           2      X = X + 1;
252      2           2      GO TO JEND;
253      2           2      END;
254      2           2      END;
255      2           2      L1END: END;
256      2           1      END;
257      2           1      JEND: END;
258      2           2      ENDPATCH: END PTESTP;

/* COMPUTES THE TOTAL NUMBER OF WORDS WITH PREFIXES */
/* AND THEIR PROPORTION IN THE TEXT. */
259      1      OUT: PIR EDIT(*TOTAL WORDS*, COUNT1)(SKIP(2), A, COL(30), F(6,1),
260      1      PUT EDIT(*TOTAL WORDS WITH PREFIXES*, COUNT2)(SKIP, A, COL(30), F(5,2));
261      1      PUT EDIT(*PERCENT WITH PREFIXES*, 100*COUNTS/COUNT1)
        (SKIP, A, COL(30), F(5,2));

```

262 1 END PREFIX;

		(NOTE)	
1	ABED	ABLATE	ABLON
	ABOIL	ACENTRIC	ACHROM
	ADINCS	ADANGLE	ADREAN
	AFIELD	AFLIRE	AFLORN
	AFLITTER	AFOOT	AFOUL
	AGLARE	AGLEM	AGLIMER
	AGLTTER	AGLOW	AGROUND
	AHORSE	AHUN	AHUNT
	ALIKE	ALIT	ALONE
	AMID	AMORAL	APERIODIC
	ARIPPLE	ARTISS	AROUSE
	ASBLIMER	ASHINE	ASHIVE
	ASTEW	ASLIANT	ASHORE
	ASPERICAL	ASPAWL	ASLEEP
	ASTATIC	ASTIR	ASPREAD
	ASWAY	ASWRL	ASTRADDLE
	ASYNTACTIC	ASYNTACTIC	ASYLLABIC
	ATINGLE	ATPILE	ATHIRST
	ATVITTTER	ATVTE	ATVPPH
	AWASH	AWERY	AVOW
	AWOKE	AWOK	AWHEEL
AB	1	AWAY FROM	ABNEGATE
		ABNOMIAL	ABNORMAL
AC	1	VAR. OF * AD*	ACCOMPAT
		ACCED	ACCOMPANY
		ACCOUNT	ACCREDIT
		ACCURS	ACCUSATION
AD	1	ADVIN	ADMIX
		AWAY FROM	END CLUD
AERO	?	AEROBATIC	AIR
		AERONAUT	AERODROME
AFORE	0	APOREHAND	AEROSOL
		BEFORE	END CLUD
AFTER	C	*AFTER *	AFTER
		END CLUD	AFTERCAP
AG	1	AGGLOMERATE	TOWARD (TENDENCY, DIRECTION, ADDITION)
		ALLUR	VAR OF AD, TOWARD TENDENCY, DIRECTION, ADDITION)
ALL-	0	ALL	END CLUD
ALLO	1	ALLOGRAPH	OTHER
ALTI	C		HIGH

PREFIX	KEY	CLUDLIST	ALTIMETRY	ALTITUDE	END CLUD
AMBI	1	AMBIDEXT	BOTH	AMBILATERAL	END CLUD
AMPHI	1	AMPHITHEATER	TWO, BOTH, ON BOTH SIDES	END CLUD	
AN	1	ANALPHABETIC	NOT, WITHOUT, LACKING, VAR. OF 'AD', VAR. OF 'ANA' - UP, -	END CLUD	
ANDRO	1	ANROCENTRIC	ANOKHOBIA	END CLUD	
ANEMO	1	ANEMOCRA	WIND	END CLUD	
ANGLO	0	ANGLOPHIL	ENGLISH	END CLUD	
ANT	1	ANTACID	VAR. OF 'ANTI' AGAINST ANTARCTIC	END CLUD	
ANTE	1	ANTE-BEFORE	ANTE-DAWN	ANTE-MARRIAGE	ANTE-SPRING
		ANTE-CHRISTIAN	ANTE-CHAMBER	ANTE-DAT	ANTE-HISTERIC
		ANTE-ERRATIC	ANTE-UNDANE	ANTE-NATIONAL	ANTE-NUMBER
		ANTEPRANDIAL	ANTEPONITION	ANTEROOM	ANTE-SPIKE
ANTHROPO	1	ANTHROPOCENTRI	HUMAN	ANTHROPOGEN	ANTHROPOGRAPH
ANTI	0	ANTIBODY	AGAINST, OPPOSITE OF ANTIQUE	ANTICIPA	ANTIQUY
		ANTIPATH	ANTIQUED	ANTIQUU	ANTITYP
AP	1	*APPEND,	VAR. OF AD, VAR. OF APO - AWAY, DIFFERENT, FROM APPEND	APPLY	APPRESS
AR	1	ARREAR	VAR OF AD BEFORE 'R'	END CLUD	
ARCH	1	(CHIEF)	ARCH-HERO	ARCH-HERETIC	ARCH-OPPONENT
		ARCH-FOE	ARCH-TRAITOR	ARCH-VERSLIER	ARCHANGEL
		ARCH-PORT	ARCH-HANCEL	ARCHDEACON	ARCHDUKE
		ARCHBISHOP	ARCHIEND	ARCHHERE	ARCHPRIEST
ARCHE	1	ARCHETYPE	ARCHILLIAN	END CLUD	
ARCHI	1	ARCHIDIACONAL	(CHIEF)	ARCHIEPISCOPA	END CLUD
AT	1	ATTRAPER	VAR. OF AD ATTRACT	ATTUN	END CLUD

END-CLUE ATTRACT ATTRIBUT ATTRUM TEMPER ATTRACT

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PREFIX	KEY	CLUDLIST	
ATMO	1	ATMOSPHER	AIR END CLUD
AUDIO	C	AUDIOPEN AUDIOLOG (Y) END CLUD	AUDITORY
AUTO	O	AUTOLG AUTOCLAVE	AUTOMAT (SELL, SAME) AUTOCHEM AUTOCHEM
BACK	C	* BACK BACKSTAB	BACK BACKNEWT
BE	1	BE-NIGHTMED BECRIPPL BEDAZZL BEDRABL BEFLOWER BEGEM BEJESUIT SEMAN BENIGHT BERIBBONED BESLOBBER BESTRID BEWAIL BEWRITTE	COVER, TO MAKE, TO DUB, PROVIDED WITH, NO MEANING BEBOGGED BEDDBBL BEDDVL BEDFAGGL BEPGJ BEGAMOUR BEJEWEL BEJEWELLED BEMAN BEPANT BEPAIN BESPAANL BESTROD BETEEP END CLUD
BIT	O	BIAS BICIPITAL BIDDY BIFID BILLE BILLION BINARY BIO BIRTH 'BIT' BITTER	TWO, TWICE, VAR, OF 'BIT' 'BIB', 'BID', BIDS 'BIG', BILLUS BILLION BINARIAL BIPPO 'BIS', BITCH BITUM
BIBLIO	1	BIBLIFIL	BOOK, BIBLE BIBLIOMANI
BITN	1	BINARIAL	TWO, TWO AT A TIME BINOCULAR
BOOK	O	'BOOK'	BOOKS, BOOKING, BOOKISH BOOKLET
BY	O	BY-WORD BYWORD	(ACCESSORY, PAST, SUBORDINATE, BY THE SIDE) BY-WORD END CLUD
			BYTE

PREFIX	KEY	CLUDLIST	
BYE	1	BYELAW	VAR.OF BYE END CLUD
CENTRI	0	CENTRIC	(CENTER) CENTRIFUGAL CENTRIOLE END CLUD
CHRONO	1	CHRONOGRAPH	TIME CHRONOMET (NEAR SIDE OF) END CLUD
CIS	1	CISATANTIC	CISLUNAR END CLUD
CO	1	COORDIN	VAR OF COM, IN ASSOC WITH CO-SIGNER COADJUT COADJUTANT COEQUAL COINCIDE COOPERATE COORDIN END CLUD
COL	1	COLLABORA	COLLAPSE COLLAGE COLLAGUE COLLOCATE END CLUD
COM	1	COMPASUR	WITH, TOGETHER, IN ASSOC COMMAGER COMPATERN COMPATIOR END CLUD
CON	1	CONCAV	VAR OF COM CONCENTRIC CONFEDERA CONGENTIAL CONSOLIDAT 'CONTRACT' (OPPOSITE) COUNTERFEIT END CLUD
COUNTER	0	COUNTERCHANGE	-JUNTERMAN END CLUD
DE	1	DE-BMP HASAT	SEPARAT, PRIVATION, REMOV, DESCENT, REVERSAL !DECAT DECAMP DECLASS DECESC DECEN DEFAC DEFOLIAT DEGENERA DEHORN DELEGALIZ DELOCAT DEMAY DEMILITAR DEMORALI DENUMERA DEPEOPLE DEPOTL DEPORT DEPOR
DECA	1		DEBRIEF DECENTR DECOM DEDUC DEFEND DEFROST DEGRA DEJAM DELAMINA DELINCAT DEMAGETI DEMILITAR DEMORALI DENA 'DEPART ' DEPICTUR DEPLAN END CLJD TEN

PREFIX	KEY	CLUDLIST								
		DECAGRAM	DECALITER	DECIMETER		END CLJD				
DECI	1	DECIGRAM	TENTH DECILER	DECIMETER		END CLUD				
DEMI	1		(HALF) DEMISOD		END CLUD					
DI	1	DIATOMIC	TWO DOUBLES DICHRON	DISYLAB	DITHEIS	END CLUD				
DIS	0	DISBUS DISCER DISCREPAN DISDAIN *DISHES DISHWA DISPARA DISPIRIT DISPOSUR DISSECTED DISTAPAT DISTAPP DISTIL DISTRICT END CLUD	APART AWAY, UTTERLY, PNR DISAFFECT DISCI DISCREP DISDAIN *DISHES DISHWA DISPARA DISPIRIT DISPOSUR DISSECTED DISTAPAT DISTAPP DISTIL DISTRICT END CLUD	DISAST DISCLOSE DISCRIM DISGRUNT DISHEVEL DISK DISPATCH DISPLAY DISPEAL DISPUT DISSEN DISSIMILAT DISSOLUT DISTAIN DISTORT DISUARD	DISBURS DISCORD *DISCUS *DIS H DISHRAJ DISMAY DISPEN DISPOSA DISRUP DISSET DISSEN *DISOLVE DISTAL DISTANT DISTRAIGHT DISUASIVE	*DISC DISCREET DISCUSS DISCOVER DISHTOWEL DISMISS DISPER DISPOSE DISRUP DISSET DISSEN *DISOLVE DISTAN DISTRESS DISYLLAB	DISBURS DISCORD *DISCUS *DIS H DISHRAJ DISMAY DISPEN DISPOSA DISRUP DISSET DISSEN *DISOLVE DISTAN DISTRESS DISYLLAB	DISBURS DISCORD *DISCUS *DIS H DISHRAJ DISMAY DISPEN DISPOSA DISRUP DISSET DISSEN *DISOLVE DISTAN DISTRESS DISYLLAB	DISBURS DISCORD *DISCUS *DIS H DISHRAJ DISMAY DISPEN DISPOSA DISRUP DISSET DISSEN *DISOLVE DISTAN DISTRESS DISYLLAB	DISBURS DISCORD *DISCUS *DIS H DISHRAJ DISMAY DISPEN DISPOSA DISRUP DISSET DISSEN *DISOLVE DISTAN DISTRESS DISYLLAB
DOW N	Q		(DOWN) *DOWN DOWNTIME	DOWNPAYMENT DOWNTWN	DOWNRIGHT DOWNY	DOWNSTAGE END CLUD				
E	1		*EDUCE ELOPE *EMERGENT ER UPT EVOK	VAR OF *EX* UTTERLY, ETC. ELUDCAT *EMERGNG *EVAL END CLUD	ELAPS EMASCULAT EMIGRA EVAPO	ELAPS *EMERGE ENUMERA EVISCERAT	ELOCUTION EMERGED ERADIAT EVOC	ELOCUTION EMERGED ERADIAT EVOC	ELOCUTION EMERGED ERADIAT EVOC	
EM	1		EMBALM EMBLAZ EMBOWEL EMPANEL END CLUD	ENCLJS, PUT INTO OR ONGIVE THE QUALITY, AG EMBANK EMBOD *EMBRACE EMPLAC	EMBED EMBOSS EMBOLDR EMPOISON	EMITTER EMBOW EMBOS EMPOWER	EMITTER EMBOW EMBOS EMPOWER	EMITTER EMBOW EMBOS EMPOWER	EMITTER EMBOW EMBOS EMPOWER	
EN	1			ENACT ENCAS ENCOMPASS ENDERAR ENFOLD ENGIRD ENJOIN ENLIGHT ENLIST ENRICHA ENSAY ENTITL	ENAMOR ENCHAIN ENCOAG ENDUR ENFORC ENFOR3 ENJOY ENLIV ENROLL ENSNAR ENSHROUD ENTHRON	ENCLAG ENCLASP ENCRUST ENFACE ENGAG ENGRAV ENKINDL ENLIV ENROLL ENSNAR ENSHRIN ENPANGL ENTRAIN	ENCLAG ENCLASP ENCRUST ENFACE ENGAG ENGRAV ENKINDL ENLIV ENROLL ENSNAR ENSHRIN ENPANGL ENTRAIN	ENCLAG ENCLASP ENCRUST ENFACE ENGAG ENGRAV ENKINDL ENLIV ENROLL ENSNAR ENSHRIN ENPANGL ENTRAIN	ENCLAG ENCLASP ENCRUST ENFACE ENGAG ENGRAV ENKINDL ENLIV ENROLL ENSNAR ENSHRIN ENPANGL ENTRAIN	

PREFIX	KEY	CLUDLST	ENTRANCH ENWRAP	ENTRUST ENWRAETH	ENTWI END CLUD	ENVISAG
EPI	C	*EPIC *	(AT,BEFORE,AFTER) EPICURE EPILIS EPITAPH END CLUD	EPIDERM EPIPHENOMEN EPITHELI	EPIGRA EPISCO EPITOME	
ERB	1	ERBLONG	(BEFORE,-ARCHAIC-) EREWIW	EREWILLE	END CLUD	
EX	1	EX-EXPORT	EX EXCENTRIC END CLUD	EXCHANG	EXCURRENT	EXCJRS
EXTRA	C	EXTRACT EXTRAVAGAN	OUTSIDE, ADDITIONAL, MORE THAN USUAL, SUPERI EXTRAD EXTRAVER	EXTRANEOUS	EXTRAPOLAT	
PARM	0	PARME	(PARM)	PARMI	END CLUD	
FAT	1	FAT-FACED	(PAT)	PATREGE	PATHHEAD	END CLUD
FOR	1	FORBAD	AWAY, OFF, EXTREMELY, WRONGLY, NEGATIV OR PRIVATIV FOR			
		*FORBEAR *(?)				
		*FORBID *(?)				
		FORBOR *(?,E,NE)				
		FORFEND (ARCHAIC)				
		FORGIV (?)				
		FORSAKE (?)				
		FORSOO (P,K,TH)				
		FORSPENC (?,ARCHAIC)				
		FORSWEAR				
		FORSWOR (E)				
FORE	0	FORE AND FOREBDN?	BECFORE BEFORE	FRONT, SUPERIOR	FORWENT	END CLUD
		FOREDDID	*FOREDD	*FOREDOING	*FORECAST	
		FOREIGN	*FORENSIC	*FOREST*	*FOREGO	
		FORESTER	FORESTRY	FOREVER	*FORESTION	
GEO	1	GEOCENTRIC	THE EARTH	GEOGRAPHIC	GEOPHYSIC	END CLJD
GOAL	1	GOALK	(GOAL)	GOALTEND	END CLUD	
GUIDE	0	GUIDED	(GUIDE)	END CLUD		
HAIR	0	"HAIR" HAIRY	(HAIR) HAIRBRA END CLUD	HAIKDO	HAIRLES	HAIRSPLIN

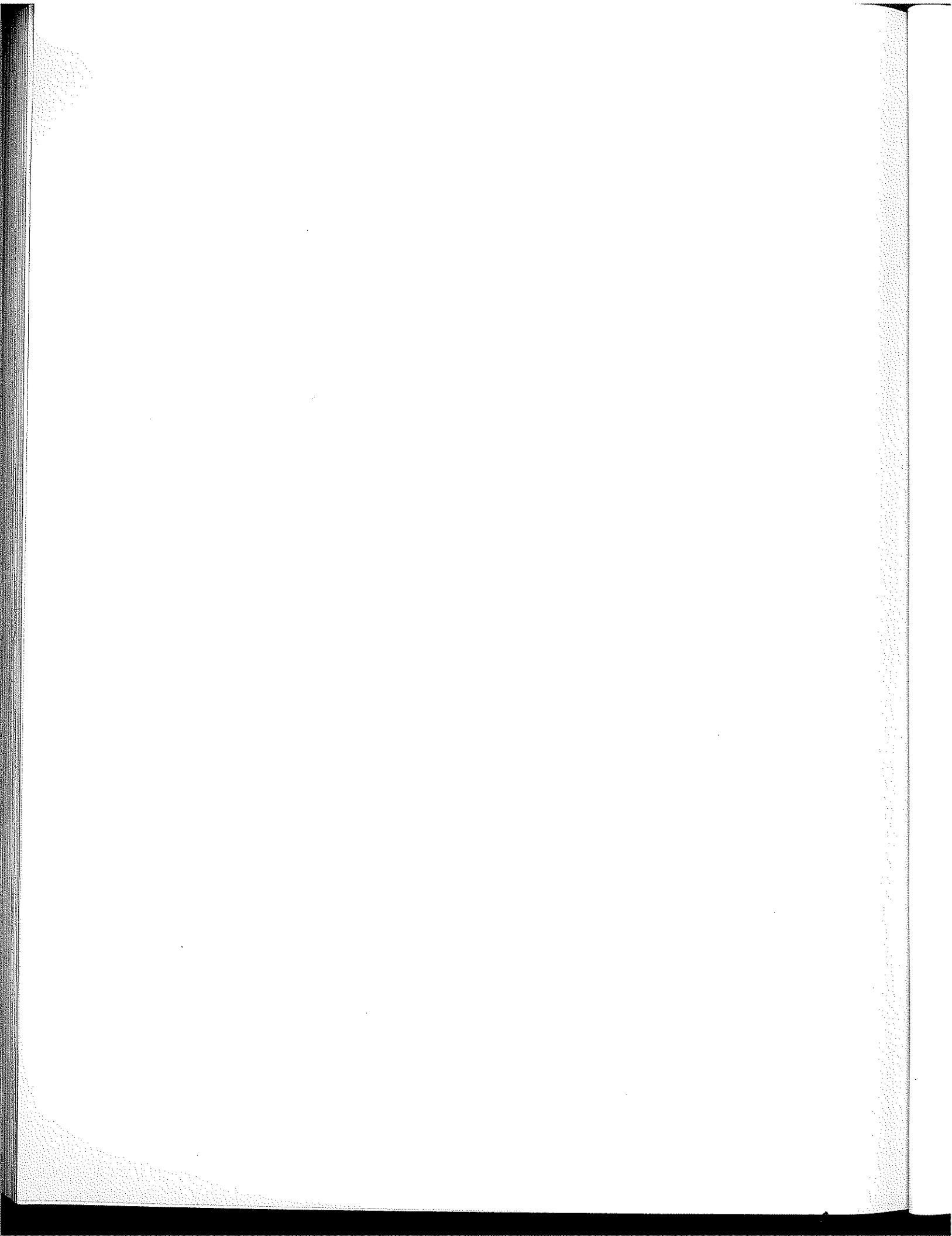
\*HAIR \*

HAIRBRA  
END CLUD

HAIRLES

HAIRSPLIT

PREFIX	KEY	CLUDLIST					
HALF	1	HALF AND HALF END CLUD	HALF_BLOOD	HALF_HEARTED	HALF_TRACK	HALFWAY	
HEMI	1	HEMISP HER	HALF END CLUD				
HETERO	1	HETEROCHROM	DIFFERENT, OTHER HETEROSEX	END CLUD			
HEXA	1	HEXYAMETER	SIX HEXANGULAR	HEXASYLLABL	END CLJD		
HIND	1	HINDQUARTER	REAR, PAST HINDSIGHT	END CLUD			
HOMO	1	HONOCENTRIC	SAME HONOCRHO	HOMOCHE	END CLJD		
HUMAN	1	HUMAN-INTER END CLUD	(HUMAN) HUMAN HEART	HUMAHOOD	HUMANKIND	HUMANKIND	
HYDRO	0	HYDROCHLORIC HYDROPHOB	WATER, HYDROGEN HYDROGEN HYDROUS	HYDROGRAPHY END CLUD	HYDROLOGY	HYDROLY	
HYLO	1	HYLOTHEIS	MATTER END CLUD				
HYPER	0	HYPEROBC	OVER, (SEM.DIF. EXPRES)	HYPERURBAN END CLUD			
HYPNO	1	HYPNOANALY (SIS) HYPNOS (ENESIS, RAPHS)	SLEEP, HYPNOSIS END CLUD				
HYPN	0	HYPOTHESIS	UNDER, LESS, LOW HYPOTHEC	END CLUD			
ICONO	1	ICONOGRAPH	IMAGE, LIKENESS END CLUD				
IL	1	ILLAUDAB	VAR.OF IN, NOT, V.B, FORM .	ILLEGAL	ILLIBERAL	ILLIGIC	
		ILLASGI (EL, TIRATE)					
		ILLICIT					
		ILLITERA (?A)					
		ILLUMIN (A TEST)					
IM	1	VARIOF IN, NOT, ETC.	IMBALM	IMBARK	IMBITES		
		IMBALANCE	IMBO (DY, SOM, AER?, )	IMBRANT	IMMACULAT	IMMERS	
		IMMIGRA	IMMINGL	IMMINGL	IMMISCIB	IMAX	
		IMMOD	(ERATE, PST)				



PREFIX	KEY	CLUDLISF
INDO-	INDO (P, SNT)	INDOCH
INDU (RTE, STRY)		
INEBRI (ETY, ATE)		
INFANT	INFECT	
INFIRMAR (Y)		
INFIRMI (TY)		
*INFORM - (ION, CRY, IVE)	INFLECT	
INFLAT		
INHABIT	INGEST	
INHE (BLT, SION)	INHAL	
INI (NICAL, MITABLE, TIAL)		
INK	INNE	
INOC (ULATE)		
INQUIR	INQULS	
INSERT	INSIGNE	
INSIST	INSCFAR	
INSOLA (TE, )		
INSOLE (NT, E)	INSCMNTA	
INSPECT (OR, ORATE)		
INSPIR (IT, RE, )		
INSTAL (L, LATIION)	INSTI	
INSTAN (CE, CY, T)		
INSTRU (CT, MENTAL)		
INSUBA (NCN)	INSURE	
INSURG (ENT)		
INSURECT	INTAK	
INTEG (ER, RAL, RATE)		
INTELL (ECT, ISENCE)		
INTEN (D, DANT, SE, T)		
INTER (SHOULD WORK EXCPT 'MINABLE')		
INTERDIN	INTHRAIL	
INTIN (ATE)		
'INTO'		
INTOXICA (NT, ATE)		
INTRA (NTRA SHOULD BE RUN - DEBUGGED)		
INTRAM (WAR.)		
INTRAS (OPTAL, RATE)		
INTRAV (VAR.)	INTRIPD	
INTRI (CAT, GANT, SUE, NSIC)		
INTRO (VAR.)	INTRUD	
INUNDA (TE)		
INUR (E, NI)		
INVAS (ION)	INVECT	
INVEI (GH, GLE)		
INVERSE (ERATE)	INVERT	
INVID (CLOS)		
INVIS (LIATE, ORATE)	INVC	
END CLUF		
INFRA 0	INFRACT	
	BELW	
	INFRANGIB	
INTER 0	INTERCED	
	AMONG, BETWEEN, MUTUALLY, DURING, ETC.	
	INTERCEPT	

PREFIX	KEY	CLUDLIST					
			*INTERCON *				
			INTERDICT	INTEREST	INTERFER	INTERIOR	
			INTERJACEN (CE,T)	INTERNAL	INTERJECT	INTERIM	
			*INTERN	INTERNAL	INTERMISS	INTERIMAT	
			INTERNIST	INTERNAL	INTERNEED	INTERNAL	
			INTERPEL (LANT)	INTERNAL		INTERNS	
			INTERPOAT	INTERPRET		*INTERPUL	
			INTERROGATE, UPT)			INTERSECT	
			INTERSPERS				
			INTERSTIC (E)				
			INTERSTIT (IAL)	*INTERVAL *	INTERVEN	INTERVOLV	
			END CLUD				
IR	0	IRA IRRIGA IRRIGIJUS	IN, NOT, VB, FORMATIVE & TRANSITIVE	*IRISH *		IREMEAS	
			IRE			IRO	
			(ARCHAIC, WELL_WATERBED)			IRRITA	
KEY	1	KEYHO KEYSTONS	KEY (LOCK), CENTRAL IMPORTANCE	KEYMAN	KEYNOTE	KEYPUNC	
				KEYSTOK	KEYWORD	END CLUD	KEYSHI
LITHO	1	LITHOZRAPPI	STONE	LITHOPRINT	LITHOSPHER	END CLUD	
MACRO	0	END CLUD	LARGE, LONG, EXCESSIVE, NO WORDS-SOME ARE RARE				
MAL	1	MALADAPT HALF (EA SANCE, CRM, UNCTION)	BAD, WRONG, ILL, FR.	MALADMINIS	MALAPPORTION	MALCONTENT	
				END CLUD			
META	0	METABOLI	AFTER, AWAY, BEYOND, BEHIND	METAMER	METAMOR	METAPHOR	
		END CLUD	METAL				
MICRO	0	*MICROBE *	SMALL, ENLARGING SOMETHING SMALL				
		END CLUD					
MID	1	MIDA (IR, FTERNCON)	MIDDLE, BETWEEN				
		MIDB (RAIN, AND)					
		MIDC (CURSE)	MIDDAY				
		MIDL (AND, E3, LINE)					
		MIDMO (ST, ON)					
		MIDN (IGHT, C3C)					
		MIDEJITION	*MIDSHP *				
		MIDT (OWN, PRM)					
		MIDW (ATCH, AY, BEK, EST, IFE, INTER)					
MIS	0	MISCE (GENATION, LANY)					
		MISCHA (NCK, WIER)					
		MISCHIE (F)	MISCI	MISCREAN	MISSE *		
		MISSIIV	MISHAP	MISHMASH	MISNER	MISNER	
		(= 'HATE' PREFIX)					

PREFIX	KEY	CLUDLIST			
MISPRIS	(E,ION)				* MISSED *
MISS	(LE,ON)				* MIST *
MISTER		MISLIE			MISTRESS
END CLUD		MISSTOK			MISTY
MON	1	MONAURAL ALONE, SINGLE, ONE, VAR. OF * MONO*			
MONO	C	ALONE, SINGLE, ONE, MONOLITH (IC) MONOPOL (Y)			END CLUD
MULTI	0	MANY MULTIFARIOUS MULTIPAR (A,OUS) MULTIPLE	MULTIFID	MULTIPLE	
CEN	0	NEW, RECENT NEOLITH	MULTIPLY	MULTITUD	END CLUD
NO	1	NO NOBODY (?)	NEOLG	NEOPHYL	END CLUD
NON	0	* NONAL , NOT, * LACKING *, NOT, NECESSARILY, * REVERSE*, NONCHALAN (F,CE) * NONDESCRIPT *	* NONCE , NONESUCH	NONPARSIL	* NONCNC * NONPLUS
OB	1	OBLIGAT	NON, OVER, AGAINST OBLONG	OBVER	END CLUD
OFF	1	OFF OFFFS (COURING,CREEN,SET)	OFFBEAT OFFCAST OFFTAK	OFFHAND END CLUD	OFFPRINT
CUT	0	OUT-OF OUTRAJ (E,EOUS)	OUT+TRANS.VB.GOING BEYOND, SURPASSING, OUTDOING OUTAG OUTSET *	OUTPIR OUTSIDE	JUTLIER OUTWARD
OVER-	0	* OVER *	OVER A LIMIT OVERLAP	OVERSEER	* OVERE *
PAN	1	PANSOPHISM	ALL,GENERAL PANTHEISM	PANTROPIC	END CLJD
PARA	1	PARABOMB PARAMILIT PARATROOP	PARACHUT, GUARD AGAINST, BE SID, NEAR, AMISS, +IMP, ALTER PARACHUT PARAGLIDER PARAPHRAS PARAPSYCHO	PARAMEDIC PARARESCU	PARAGNET PARASOL
PAY	1	PAYDAY	TO PAY ETC.	PAYMASTER	END CLUD
PER	0	THROUGH	UTTERLY, VERY, THOROUGHLY		

KEY	CLUSTER	DEFINITION	EXAMPLES
PREFIX	PERAMBULAT	PERAMBULATE (E, ABLE)	*PERFECT *
	*PERHAPS ;	PERHAPS !	*PERSON !
	PERSTA (DS, SION)	PERSTANT	
	END CLUD		
PERI	1 PERISCOPE	ABOUT, AROUND, BEYOND END CLUD	
	1 POLYANG (JLAE)	MULTIPLE, MUCH, MANY	
	POLYGRAPH	POLYPHON	POLYCHROM
	POLYTAN	POLYTYPE	POLYSYLLAB
			END CLUD
POST	C POSTAGE	BEHIND, AFTER, MAIL	POSTER
	POSTONE	POSTAL	POSTIC
	POSTNU (LATE, RE)		POSTING
			END CLUD
PRES	C	BEFORE, PRIOR TO, EARLY, IN FRONT OF	
	PRESA (ORY)	PREAMBLE	PRECARI
	PREC2 (DE, PT, DENT)		PRECARIO
	PRECI (PICE, SE)		PREDICT
	PRECIL (UD2)		PREGUR
	PREGCG (NITION?)	PREDCESS	
	PREDOP (T, AVANT, ABLE)		PREFAT
	*PREPEN		PREFAT
	PREPEN (CDE, FRENCE)	PREFIX	PREFENS
	PREPEN (T, CY)		PRELIMIN
	PRAJIDYC		PREMISE
	PRAZLA (TE, CY, TURF)		PREPARE
	PRELU (EE)		PREPOSSES
	PRESH (RE)		PRESCRIBE
	PRESIGN	PRENTICE	PRESCRIBE
	PREPARED	PREPENSE	PRESCRIBE
	PREPICE	PREPORG	PRESCRIBE
	PRESERIP	PRESEND	PRESERV
	PRESS	*PRESS *	PRESST
	PRESIN (PTION)		PREST
	PRESIN (CSE, DGR, SE, STION, IONS)	PREFER	PRETT
	PRESA (IL, RICARE)		PREVIOUS
	PRESFY (T, INT)		PREVY
			END CLUD
PREFER	C	BEYOND, MORE THAN, BY, PAST	
	PREFER	PRETERIT	PREFERIT
			END CLUD
PRO	C PRO-SAT	FOR (A CAUSE, ETC.)	
	PRO3AB (LE)		
	PROBAP (E)		
			PROBITY
	PROBE		PROBLEM
	PROCED (URE)		PROCESS
	PROCEED		PROCLAIM
	PROCED (ACTION)		PROCRAST
	PROCIVILTY		PROCRASTANT

PREFIX	KEY	CLUD LIST	
			PROCTO (PREFIX, ANUS, RECTUM)
			PROCUR 'PROD'
			PRODIE (Y, ALIUS)
			PRODU (CE, CT)
			PROFF
			PROFICI (ENT, ENCY)
			PROFIL (E)
			PROFLIG
			PROGN (OSE, OSTIC)
			PROJECT
			PROLIF (IC, ERATE)
			PROLOS
			PROLONGAT (E, ION)
			PROMINEN (CC, T)
			PROMIS (E, SON)
			PROMISN (? SP. DICT.)
			PROMPT
			PROMULG (ATE, R)
			PRONG
			PROPAG (ABLN, ANDA, AGATE)
			PROPH (ESM, ET, Y, YLACTIC)
			PROPI (NE, NOVITY, TITATORY)
			PROPOIN (E, ENT)
			PROPOS (E, ITION)
			PROPRET
			PROPRO (PREFIX)
			PROPUIS (ION)
			PROSAL (C, SAI)
			PROSAT (?)
			PROSF
			PROSOOD (ENSTIC, Y, EST)
			PROSTH (SISTICS)
			PROTAG (ONIST, AGORAS)
			PROTEAN
			PROTES (E)
			PROTRY
			PROTO (PREFIX)
			PROTRACT (? , SUGGEST RUN DEBUG)
			PROTRY
			PROTU (BERANCE)
			PROVINC END CLUD
PROTO	1	PROTHUMAN FIRST, FOREMOST, EARLIEST FORM OF, MAYBE SHOULD O IF SCI PROTOLANGUAG PROTOLINGU PROTOPLASM	PROTOTYP
PROSUDO	r	PROSTHOMOGRAPH PROTHODONYN (IRY, CUSI) END CLUD	END CLUD
QUAST	r	PROASSEMBLING, SEEMING	
PE	C	BACKWARD, AGAIN PEACH READY REALLY REAP,	READ REALIS REALTY REAPER READYST

PREFIX	KEY	CLUDLIST	REASON	REBATE	REBUFF
			*REBUT	REBUTAL	REBUFF
REBUD					
REBUK					
RECALCTRRA (NT,TE)					
RECAN (PT,VE)					
RECESSION*			'RECENT'		
RECEP (ACLE, IBLE, ION, INE, JR)					
RECIDIIV					
RECIP (IENT, ROCAL)					
RECK		RECLAM	RECLIN	RECLIS	RECLUS
RECOGNI (SE, TION, ZANCE, ZCR)					
RECOL (ONLY, *REIND, MEANING SHOULD BE CHOPPED)					
RECOLLECT (ONLY, *REGATHER, MEANING SHOULD BE CHOPPED)					
RECOMPENSE RECOMPENSI			'RECON'		
RECONNASSANCE			RECORD		
RECOVER			RECRUIT		
RECT (VAR.)			RECRUITER		
RECUM (BENT)					
RECUP (ERATE)					
*RECUR *			RECURR		
RECURS (ION)					
RED (VAR.)					
REDB (VAR.)					
REDD (VAR.)		REDEM	REDEMP	REDIN	REDN
REDOLEN (C, ZE)			REDDUBT	REDRESS	
REDS (KIN)					
REDUC (E)					
*REEL *	(? ER, ED.)	REFER	REFINE	*RED *	
REFECT					
REFLEX					
REFRAN					
REFRI (GERATOR, NGENT)					
REFUT					
REGID		REGAL	REGDN	REFUG	REPUS
REGRET		REGIM	REGIM	REGENDY	REGENT
REICH		REGULA	REGIGPAT	REGISP	REGRESS
*REINS *	(ARCHAIC - THE KIDNEYS)	REIGN	REGURS	REHASH	REHEARS
KEYBO		REIJUVEN	REJECT	'REIN' *	'REIN'
RELAT (IVE)					
RELAY		RELEASE	RELIG	RELENT	RELAX
RELIB		RELIAN	*RELIC *	*RELICS	RELEVANT
RELIE (F, VE)					
RELIGIO (N)					
RELUC		REMAIN	REMIND	RELIQUE	REMARK
REMEDIAL		REMIDLESS	REMIDY	REMIND	REMIDAB
REMINISC		REMISS	REMITT	REMIND	REMIND
REMNN (T)					
REMNSTRA (NT, CBE, TE)					
REMORS (E IS INTENDED)					
REMOVAL		REMUNERAT	RENOD	RENEGAD	REMOTE
RENHWL		RENOUC	RENOUN	RENEGE	RENUNT
RENUNC		REPAIR	REPAIR	REPART	REPART
REPEA (L,T)		REPEL	REPEL	REPLI	REPLICA
REPERTO (IRE, RY)		REPLENISH	REPLIER		
REPETIT					

PREFIX	KEY	CLUDLIST		
			REPORT REPRESS REPROACH REPUBLIC REQUIR REQUEST RESEMBL RESILIE RESOLV RESON (N.F., N.C., T.E.) RESPECT *REST * RESPIRE RESTORAT (I.V.E., I.O.N.) RESUM RETIN (L.N.) RETAIL (I.A.E.) REVENTION (O.N., V.E.) RETIC (L.E., U.L.A.R.) RETIN (A., S.E., VAR., SCI.) RETREAT RETURN REVIS REVOL (T., U.TION) REX (? NECESS?) REY (? NECESS?)	REPJSAL REPRESS REPROBATE REPUGN REQUIR RESCUE RESID RESIST RESORT RESPLEN RESPFL RESPIR RESPIRAUR RESURR RESUSC RETARD RETAUCH RETICEN RETRACT RETRO REVEN REVOKE REVOKE REVOULS END CLUD
RETRO	0	RETROCED END CLUD	BACKWARD, BEHIND RETROGRADE	RETROGRESS RETROSPECT RETROVERSION
SELF	1	SELF -	COMB. FORM OF "SELF", SELF SAME	END CLUD
SEMI	0	SEMINA	HALF	SEMITIC END CLUD
SIDE	0	SIDEBURN SIDESPLIT	SIDEKICK SIDEWINDER	*SIDE * *SIDES *
STEP	0	STEPH	STEPP (E., E.D., ING)	*STEPS * STEPWISE
SUB	0	SUBALTERN	BELOW, SLIGHTLY, (MOTION OF ASSISTANCE)	SURDUE SUBJUNCT (I.V.E., I.O.N.) SUBMERS SUBSCRIPT SUBSTITUT (UENT, UTB, UTIVE) SUBSUM, (E., PTION)
				SUPER SUBLINE SUBMIT SUBSID SUBSTANC SUBSTANT SUBTEND SUBTILE SUBTILY (ARCHAIC, SUBTLETY) SUBTLE

PREFIX	KEY	CLUDLISI	*SUBURB*
		SUBTRA (CT, HEND)	
		*SUBURBIA*	*SUBURBS*
		SUBVE (NE, NATION, RATION, RT)	
SUBTER	1	UNDER, BELOW SUBTERRANEAN END CLUD	
SUPER	0	SUPER-DUPER ABOVE, BEYOND, TO AN ESPEC. HIGH DEGREE SUPERFICIAL SUPERABLE SUPERANNUATE SUPERFLIY SUPEREGO SUPERETTE SUPERLATIV SUPERFLUOUS SUPERFUS *SUPERPOSING* SUPERNAL SUPERORDINAT SUPERSESSON SUPERPOSITION SUPERSCRIBE SUPERVENE SUPERREVENE	*SUPERB* SUPERCEIT SUPERFIC SUPERIOR *SUPERPOSED* SUPERSESSED SUPERVIS
SUPRA	0	VAR. OF 'SUPER' EMPHASIZING POSITION END CLUD	
SUR	1	SURCEAS (ARCHAIC DESIST, SUR (1)+CEASE) SURFACE (?) SURROUNNT SURROUND SURPRISE SURREAL	SURCOAP SURPASS SURTAK
SYM	1	WITH, TOGETHER SYMMETRIC (?)	END CLUD
SYN	1	WITH, TOGETHER, IN ASSOC. (WITH) SYNAESTHESIA SYNECOLOGY SYNCHRONAL SYNCHRONISE	SYNTHESIS SYNTHRONISM
SYNCHR	0	END CLUD	SYNCHRONOUS
TAX	1	ORDERING, DIRECTION, TAX TAXP (AID, AYER)	TAXGATHER END CLUD
TAXI	1	TAXIMETER TAXI (CAB), VAR. OF TAXO TAXIPLANE	TAXIWAY END CLUD
TETRA	0	TE TRAD TETRAHED	PCUR TETRAMER END CLUD
THOROUGH	0	THOROUGHFARE THOROUGH	END CLUD
THROUGH	1	THROUGHPUT THROUGH THROUGHWAY	END CLUD
TRANS	0	TRANSCIVER ACROSS, BEYOND, THROUGH TRANSECT TRANSFER TRANSIT TRANSLAT TRANSOM TRANSPAREN TRANSID TRANSVERS	TRANSDUCE TRANSDUCER TRANSPORT TRANSPON
TRI	1	TRI-STATE THREE TRI-STATE (PURPLACE)	TRICHEMIAL TRICOLOR

PREFIX	KEY	CLUDLIST				
	TRICYCL	TRIPOOR TRIMOTOR TRISYLLAB (LE) TRIWEIK (LY)	TRILINGUAL TRINERO TRIPEDAL	TRIMETALL TRIPLANE	TRIMONTILY	
TROPO	1	TROPOSFER TURN, TURNING END CLOUD			END CLUD	
ULTRA	0	ULTRAISM BEYOND USUAL, EXCESSIVE END CLOUD				
UN	0	UNANIA UN NOT, LACKING IN, ONE UNCANNY ("CANNY" HAS ARCHAIC MEANING *SUPERNATURAL) UNCHAIN (?)	UNCT UNGUENT	UNDER	UNDIRS	UNIAXIAL
		*UNCLES * UNDLIA (NT, PE) UNGUL (AR) UNIC (ORN, CYCLE) UNID (IRECTIONAL)				UNIF
UNDER	0	UNDER THE ?UNDER ?ONS? UNDERSTAND (PUTPLACE) UNDERTOOK	UNDERLING UNDERNEATH UNDERTOOK	UNDERNEATH END CLJD	UNDERGATORY	
UNI	1	UNIAXIAL ONE UNIFORM (?WORD IN ITSELF?) UNILATERAL UNILIN (UAL) UNILO (BED-CULAR) UNIP (PERSONAL, LAMAR, CLAR, GENT) END CLOUD	UNICYCL	UNIDIRECT	UNISEX	* UNIVERSE *
UP	C	UP AND UP UPHOLSTER UPWARD	UP TO UPON END CLOUD	UP BRAID UPP	UPBRINGIN, UPSET	UPPAVAL UPSHOT
VICE	C	VICES VICEN	DEPUTY VICEN	END CLUD		
WELL	0	"WELL" WELL-CIT "WELLS", WELLS,	GOOD WELL-FAVOR WELL-SPRING END CLUD	WELL-FIX WELL-TO-DO	WELL-FIEL WELL-TIES	WELL-OFF WELLAWAY
WITH	1	"WITHDRAW", WITHOUT (?) WITHSTAND (?)	COMBINING FORM OF WITH, SEPARATIVE OR OPPOSING PORC WITHDRAW, WITHSTAND	WITHOLD	WITHIN	
XYLO	1	XYLOGRAPH WOOD	XYLOGRAPH WOOD	END CLUD	END CLUD	
YESPER	0	PRECEDING END CLUD				

PREFIX	KEY	CLUDLIST	
ZYGO	1	ZYGOSNESS	SCI, UNION, CONNECT ZYGOSPORE END CLUD

1 March 1969

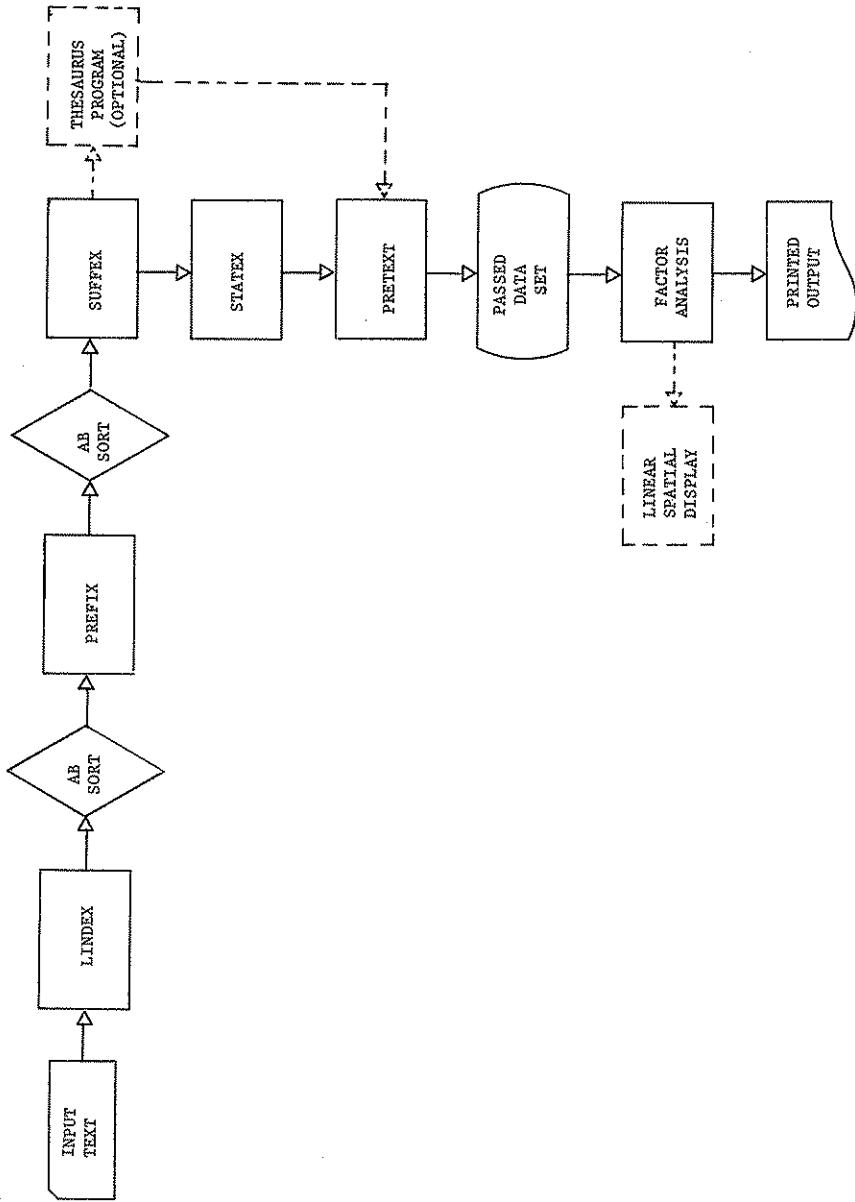
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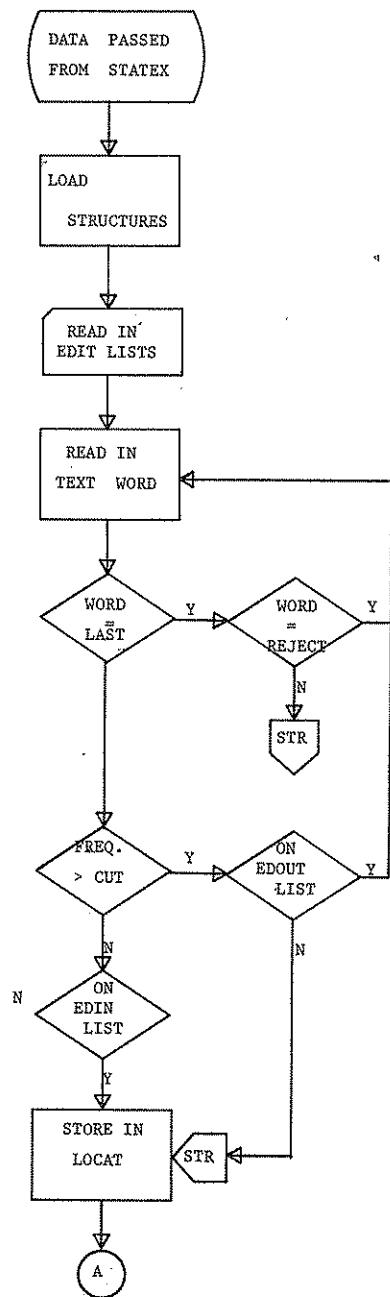
APPENDIX G

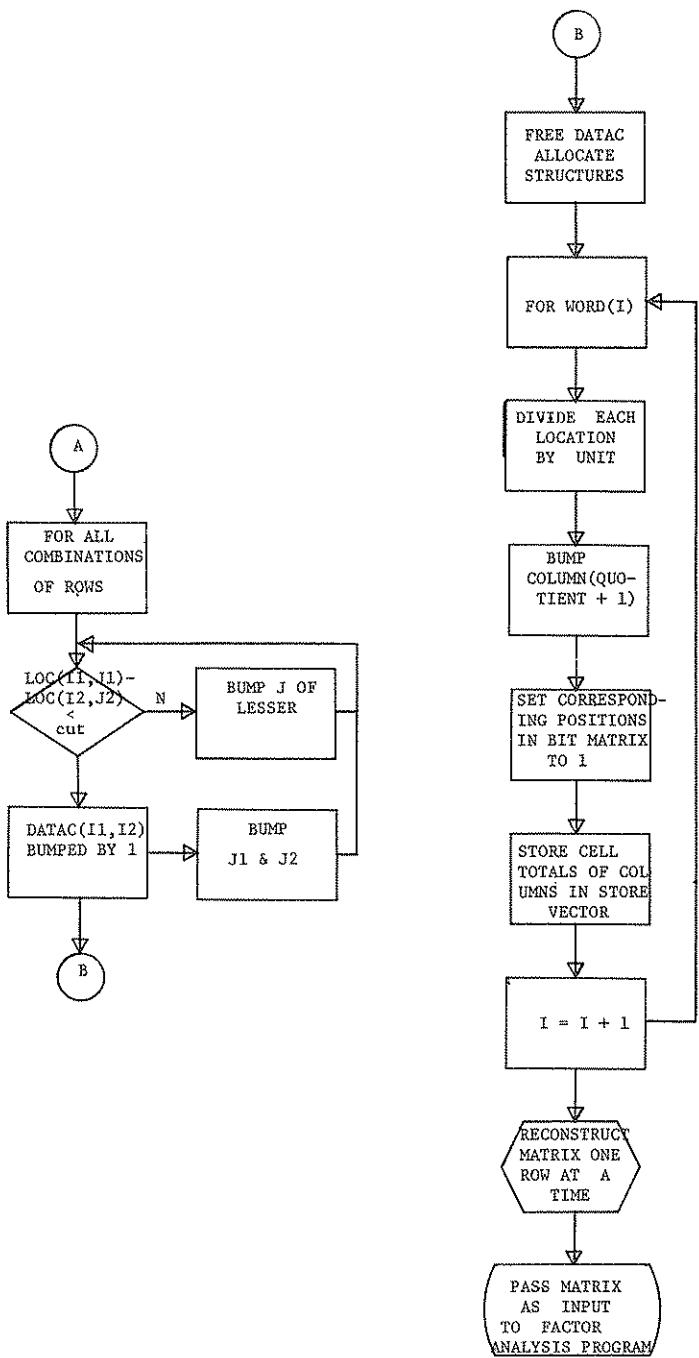
CONTEXT Programs

by

John B. Smith







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PAGE 2

PRETEXT: PROCEDURE OPTIONS(MAIN) ;

STMT LEVEL NEST
1      PRETEXT: PROCEDURE OPTIONS(MAIN);
          /* PRETEXT IS THE PRINCIPLE PROGRAM IN THE CONTEXT SEQUENCE. */
          /* IT RECEIVES AS INPUT THE TEXT DATA SET IN MATCHCOUNT,
          /* WORD, AND LINEAR ORDER. IT ALSO RECEIVES TWO EDIT LISTS: */
          /* ONE TO EDIT IN WORDS REGARDLESS OF FREQUENCY, ONE FOR
          /* EDITING OUT REGARDLESS OF FREQUENCY.
          /*
          /* AN INPUT RECORD IS READ IN. IF THE FREQUENCY OF THE
          /* ROOT GROUP IS GREATER THAN A THRESHOLD SET IN TERM
          /* OF MEAN + N*S.D., THE WORD IS SELECTED FOR FURTHER C-N-
          /* S IDENTIFICATION, PROVIDING THAT HAS NOT BEEN EDITED OUT.
          /* IF THE WORD IS SELECTED, IT IS LOADED INTO A STRUCTURE
          /* ALONG WITH THE LOCATIONS OF ALL TOKENS FROM THIS
          /* STRUCTURE TWO THINGS ARE COMPUTED. A MATRIX OF THE
          /* CO-OCCURRENCES EXPRESSED IN ABSOLUTE TERMS IS COMPUTED.
          /* THIS PROCEDURE COMPUTES THE NUMBER OF TIMES EACH PAIR
          /* OF WORDS OCCURRS WITHIN A GIVEN NUMBER OF WORDS OF EACH
          /* OTHER. AFTER THIS, THE PROGRAM COMPUTES A DATA MATRIX
          /* THAT IS PEG TO THE "CANNED" FACTOR ANALYSIS PROGRAM.
          /* THIS MATRIX CONSISTS OF THE NUMBER OF OCCURRENCES OF A
          /* GIVEN TERM PER GRID-JUNIT OF TEXT. FROM THIS THE FACTOR
          /* ANALYSIS PROGRAM DEVELOPS FACTORS OF WORD CLUSTERS.
          /*
          /* LOCAT IS THE MAIN STORAGE STRUCTURE INTO WHICH EACH WORD
          /* IS LOADED ALONG WITH ITS LOCATIONS WITHIN THE TEXT.
          /* THE SIXTEEN PARAMETERS FOR THIS MATRIX IS PASSED FROM STATEX
          /*
2      1      DCL 01 LOCAT(MAT) CONTROLLED,
          02 WORD CHAR(6),
          02 MATCH FIXED DEC(5),
          02 NLJC FIXED DEC(3),
          02 LOC (MAX) FIXED DEC(6),
          02 TEMP FIXED DEC(5) INITIAL(0);

3      1      DCL DATA(MAT,NMAT) FIXED DEC(3) CONTROLLED;
          /*
          /* DATA HOLDS THE MATRIX OF ABSOLUTE CO-OCCURRENCE.
          /*
4      1      DCL DATA(MAT,NMAT) FIXED DEC(3) CONTROLLED;

5      1      DCL LIN FIXED DEC(5) INITIAL(0),
          COUNT FIXED DEC(2) INITIAL(0),
          MAT FIXED DEC(5) INITIAL(0),
          REQ FIXED DEC(4) INITIAL(0),
          LISTMAX FIXED DEC(5) INITIAL(0),
          X FIXED DEC(3) INITIAL(1),
          CH CLEAR(1);
          DCL MAX_FIXED DEC(3) INITIAL(0),
          CUT_FIXED DEC(3) INITIAL(0),
          NMAT FIXED DEC(3) INITIAL(0),
          WRD CHAR(6) INITIAL(""),
          DCL ENVIR FIXED DEC(3) INITIAL(0);

6      1      /*
          /* ED1 AND ED2 HOLD THE TWO EDIT LISTS.
          /*
9      1      DCL ED1 (100) FIXED DEC(6) INITIAL(0);
          DCL ED2 (100) FIXED DEC(6) INITIAL(0);
          /*
10     1      DCL X1 FIXED DEC(3) INITIAL(1);
          DCL X2 FIXED DEC(3) INITIAL(1);
          DCL T1 FIXED DEC(1) INITIAL(0);
          DCL T2 FIXED DEC(1) INITIAL(0);
          /*
11     1      /*
12     1      /*
13     1      /*
14     1      /*

```

PICTEXT: PROCEDURE OPTIONS(MAIN);

PAGE 3

```
      15      1      DCL REQUEST FIXED DEC(6) INITIAL(0);
      16      1      DCL CLOSE1 FIXED DEC(1) INITIAL(0);
      17      1      DCL CLOSE2 FIXED DEC(1) INITIAL(0);
      18      1      DCL C12 FIXED DEC(2) INITIAL(0);
      19      1      DCL NAMED12 FIXED DEC(2) INITIAL(0);
      20      1      DCL NAMELEFT FIXED DEC(3) INITIAL(0);
      21      1      DCL BLANK CHAR(1) INITIAL('*');
      22      1      DCL N1M3 FIXED DEC(2) INITIAL(0);
      23      1      DCL CT1 FIXED DEC(3) INITIAL(0);
      24      1      ON ENDFILE(STAT) GO TO OUT1;

      25      1      /* CUT, MAX, AND NMAT ARE RECEIVED FROM STATEX AS PARAMETERS. */
      26      1      GET FILE(SCRAT) EDIT(CT1,CH1(F(3), X(76), A(1));
      27      1      GET FILE(SCRAT) EDIT(NMAT,CH1(F(3), X(75), A(1));
      28      1      GET FILE(SCRAT) EDIT(MAX,CH1(F(3), X(76), A(1));

      29      1      /* ENVIR IS THE USER-SPECIFIED PARAMETER FOR DETERMINING
      30      1      /* CO-OCCURRENCE.
      31      1      ENVIR = 40;

      32      1      PUT EDIT(CUR)(SKIP, P(3));
      33      1      ALLOCATE DATA(1, NMAT);
      34      1      ALLOCATE LOCAT;
      35      1      WORD(*) = ' ';
      36      1      MATCH(*) = 0;
      37      1      NL0Z(*) = 0;
      38      1      LOC(*,*) = 0;
      39      1      DATA(*,*) = 0;
      40      1      ED1(*) = 0;
      41      1      ED2(*) = 0;

      42      2      /* EDIN IS THE SUBPROCEDURE FOR EDITING IN WORDS REGARDLESS */
      43      2      /* OF FREQUENCY
      44      2      EDIN: PROCEDURE;
      45      2      T1 = 0;
      46      2      IF CLOSE1 = 1 THEN GO TO ENDIN;
      47      2      B: IF MAT = ED1(X1)
      48      2      THEN DO;
      49      2      T1 = 1;
      50      2      MATCH(T1 + 1) = MAT;
      51      2      WORD(T1 + 1) = WRD;
      52      2      LSTMAT = MAT;
      53      2      NL0Z(T1 + 1) = NL0Z(T1 + 1) + 1;
      54      2      LOC((T1 + 1) + 1) = L1N;
      55      2      GO TO ENDIN;
      56      2      END;
      57      2      IF MAT < ED1(K1) THEN GO TO ENDIN;
      58      2      ELSE X1 = X1 + 1;
      59      2      IF ED1(X1) = 0 THEN DO;
```

PICTEXT: PROCEDURE OPTIONS(MAIN);

PAGE 4

STMT LEVEL NEST

```
6.1      2      CLOSE1 = 1;
6.2      2      GO TO ENDIN;
END;
IF X1 > 100 THEN DO;
CLOSE1 = 1;
GO TO ENDIN;
END;
ELSE GO TO B;
ENDIN: END EDIN;

/* SIMILARLY, EDUP REJECTS WORDS REGARDLESS OF FREQUENCY */
7.1      1      EDOUT: PROCEDURE;
T2 = 0;
7.2      2      IF CLOSE2 = 1 THEN 30 TO ENDOUT;
C: IF MAT = ED2(X2),
THEN DO;
REJECT = MAT;
T2 = 1;
GO TO ENDOUT;
END;
IF MAT < ED2(X2) THEN GO TO ENDOUT;
ELSS X2 = X2 + 1;
IF ED2(X2) = 0 THEN DO;
CLOSE2 = 1;
GO TO ENDOUT;
END;
IF X2 > 110 THEN DO;
CLOSE2 = 1;
GO TO ENDOUT;
END;
END: END EDOUT;

/* THE EDIN AND EDOUT LISTS ARE READ IN */
96      1      DD I = 1 TO 100;
ON 2 NDFLR(SYSIN) GO TO OUT4;
97      1      GET FILE(SYSIN) BLD(ED1(I), CH)(F(6), X(73), A(1));
99      1      IF ED1(I) = 999999
THEN DO;
ED1(I) = 0;
ED1(I) = 0;
GO TO OUT3;
END;
100     1      OUT3: DO I = 1 TO 100;
101     1      OUT3: GET FILE(SYSIN) EDIT(8)2(F), CH)(F(6), X(73), A(1));
102     1      END;
103     1      OUT4: END EDOUT;
END;
104     1      END;
105     1      OUT3: DO I = 1 TO 100;
106     1      OUT3: PUT EDIT(ED1(I))(SKIP, F(6));
107     1      END;
108     1      OUT4: END EDOUT;
109     1      OUT4:
```

PRETEXT: PROCEDURE OPTIONS(MAIN);

5

PAGE

stmt level nest

```
113      1   1   PUT EDIT(ED2(I)) (SKIP, F(6));  
114      1   1   END;  
  
115      1   1   DO I = 1 TO NMAT;  
116      1   1   X = 2;  
117      1   1   /* A TEXT WORD IS READ IN  
118      1   1   GET FILE(STAT) EDIT(LIN, MAT, FREQ, WRD, SH)  
119      1   1   (X(2), F(6), X(3), F(5), F(4), A(6), X(11), A(1));  
120      1   1   /* AFTER THE INITIAL PROCESSING OF A WORD TYPE, ALL  
121      1   1   /* SUBSEQUENT TOKENS ARE PROCESSED SIMILARLY.  
122      1   1   IF MAT = LSTMAT THEN DO;  
123      1   1   LOC(I,X) = LIN; /* LOCATION IS LOADED INTO STRUCTURE  
124      1   1   NLOC(I) = NLOC(I) + 1;  
125      1   1   X = X + 1;  
126      1   1   GO TO A;  
127      1   1   END;  
128      1   1   IF LSTMAT = 0 THEN DO;  
129      1   1   /* IF FREQ. IS GREATER THAN THRESHOLD, CHECK EDIT OUT LIST  
130      1   1   IF FREQ >= CUT THEN ED;  
131      1   1   CALL EDOUT;  
132      1   1   IF P2 = 1 THEN GO TO A;  
133      1   1   /* IF WORD IS NOT EDITED OUT, LOAD DATA INTO STRUCTURE  
134      1   1   MATCH(I) = MAT;  
135      1   1   WORD(I) = WRD;  
136      1   1   LSTMAT = MAT; /* PROVIDES CHECK FOR SUBSEQUENT RECORDS  
137      1   1   NLOC(I) = NLOC(I) + 1;  
138      1   1   LOC(I,I) = LIN;  
139      1   1   END;  
140      1   1   GO TO A;  
141      1   1   END;  
142      1   1   IF FREQ >= CUT THEN DO;  
143      1   1   CALL EDOUT;  
144      1   1   IF T2 = 1 THEN GO TO A;  
145      1   1   MARCH(I + 1) = MAT;  
146      1   1   WORD(I + 1) = WRD;  
147      1   1   LSTMAT = MAT;  
148      1   1   NLOC(I + 1) = NLOC(I + 1) + 1;  
149      1   1   LOC(I + 1,I) = LIN;  
150      1   1   END;  
151      1   1   GO TO END1;  
152      1   1   END;  
153      1   1   /* IF FREQ. IS LESS THAN THRESHOLD, CHECK EDIT IN LIST  
154      1   1   CALL EDIN;  
155      1   1   IF P1 = 1 THEN GO TO END1;  
156      1   1   GO TO A;  
157      1   1   END1: END;
```

PTEXT: PROCEDURE OPTIONS(MAIN);

STAT LEVEL NEST

```

201   1   3 IF ABS(LOC(I1,J1) - LOC(I2,J2)) <= ENVIR
202   1   3 THEN DO;
203   1   3 COUNT = COUNT + 1;
204   1   3 J2 = J2 + 1;
205   1   3 GO TO J1END;
206   1   3 END;
207   1   3 IF LOC(I1,J1) < LOC(I2,J2) THEN 30 TO J1END;
208   1   3 ELSE DO;
209   1   3 COUNT = COUNT + 1;
210   1   3 J2 = J2 + 1;
211   1   3 GO TO T3END;
212   1   3 END;
213   1   3 J1END;
214   1   2 I2END: DATAAC(I1,I2) = COUNT;
215   1   2 DATAAC(I2,I1) = -COUNT;
216   1   2 END;
217   1   2 I1END: END;

218   1   1 PUT PAGE; /* THE TABLE OF CO-OCCURRENCES IS PRINTED OUT */
219   1   1 DO K = 1 TO NMAT;
220   1   1 PUT SKIP(2);
221   1   1 PUT EDIT(DATAAC(K,*)) ((NMAT) (F(3), X(2)));
222   1   1 END;
223   1   1 FREE DATAAC;

```

/\* THE REMAINDER OF THE PROGRAM IS CONCERNED WITH THE  
 /\* COMPUTATION OF THE INPUT DATA FOR THE FACTOR ANALYSIS  
 /\* PROCEDURE. BECAUSE OF STORAGE CONSTRAINTS THIS MATRIX  
 /\* CANNOT BE COMPUTED DIRECTLY. IT IS CONSTRUCTED A COLUMN  
 /\* AT A TIME. SINCE IT IS A SPARSE MATRIX, ACTUAL VALUES  
 /\* ARE STORED IN A SINGLE VECTOR OF LOCATIONS. POSITIONS IN /\*  
 /\* THE MATRIX TO BE PASSED ARE MARKED IN A BIT MATRIX OF THE /\*  
 /\* SAME DIMENSIONS AS THE DATA MATRIX. WHERE THERE IS A NON /\*  
 /\* ZERO ENTRY, THE CORRESPONDING BIT IS SET TO 1; OTHERWISE/\*  
 /\* TO 0. WHEN ALL COLUMNS HAVE BEEN SO COMPUTED THE MATRIX /\*  
 /\* TO BE PASSED IS RECONSTRUCTED A ROW AT A TIME BY /\*  
 /\* EXTRACTING THE NON-ZERO ELEMENTS FROM THE STORAGE VECTOR /\*  
 /\* AND INSERTING THEM IN THEIR PROPER POSITIONS . /\*

```

224   1   1 DCL BIG(NUNIT,NMAT) BIT(1) PACKED CONTROLLED;
225   1   1 DCL FPTOT FIXED DEC(6) INITIAL(0);
226   1   1 DCL COL(NUNIT) FIXED DEC(2) CONTROLLED;
227   1   1 DCL COLIN(NMAT) FIXED DEC(4) CONTROLLED;
228   1   1 DCL UNIT FIXED DEC(4) INITIAL(1);
229   1   1 UNIT = 50;
230   1   1 DCL NUNIT FIXED DEC(4) INITIAL(100);
231   1   1 DCL LFIELD(FPTOT) FIXED DEC(2) CONTROLLED;
232   1   1 DCL K3 FIXED DEC(5) INITIAL(1);
233   1   1 DCL ROW(NMAT) FIXED DEC(2) CONTROLLED;
234   1   1 DCL POSN FIXED DEC(5) INITIAL(0);

```

PRESKAT: PROCEDURE OPTIONS(MAIN) :

PAGE 6

STATE LEVEL NEST

159 1 OUT1:

PUT PAGE;

/\* AT THIS POINT ALL OF THE INPUT RECORDS HAVE BEEN CHECKED \*/  
/\* AND THE STRUCTURES OF SELECTED WORDS COMPILED. \*/

```

160      1 DO I = 1 TO NMAT;
161      1   IF *ATCH(I) = 0 THEN 30 TO OUT2;
162      1 END;
163      1 OUT2: NMAT = I - 1;

164      1 /* EACH VECTOR OF LOCATIONS IS CHECKED FOR SEQUENTIAL ORDER */
165      1 DO I = 1 TO NMAT;
166      1   DO J = 1 TO (NLOC(I) - 1);
167      1     IF LOC(I,J) > LOC(I,J+1) THEN DO;
168      1       TEMP = LOC(I,J);
169      1       LOC(I,J) = LOC(I,J+1);
170      1       LOC(I,J+1) = TEMP;
171      1   END;
172      1   DO J2 = J TO 2 BY -1 WHILE (LOC(I,J2) < LOC(I,J2-1));
173      1     IF LOC(I,J2) < LOC(I,J2-1) THEN DO;
174      1       TEMP = LOC(I,J2);
175      1       LOC(I,J2) = LOC(I,J2-1);
176      1       LOC(I,J2-1) = TEMP;
177      1   END;
178      1 END;
179      1 END;
180      1 END;
181      1 END;
182      1 END;

183      1 /* THE MAIN DATA STRUCTURE IS PRINTED FOR MANUAL REFERENCE */
184      1 DO K = 1 TO NMAT;
185      1   PUT SKIP(2);
186      1   PUT EDIT(LOCAT(K)) (A(6), X(2), F(5), X(2), P(3), SKIP(1), MAX)
187      1   (X(2), P(5));
188      1 END;
189      1
190      1 /* THE MATRIX OF CO-OCCURRENCES EXPRESSED IN ABSOLUTE TERMS */
191      1 /* IS COMPUTED IN THE NEXT BLOCK OF CODE. THE PROCEDURE */
192      1 /* WORKS BY CRABBING OUR EACH PAIR OF LOCATION VECTORS */
193      1 /* CHECKING PAIRS OF LOCATIONS FOR A DIFFERENCE IN VALUE LESS */
194      1 /* THAN THE SPECIFIED ENVIRONMENT PARAMETER. */
195      1 DO I1 = 1 TO NMAT;
196      1   DO I2 = 1 TO NMAT;
197      1     TEST1: IF I1 = I2
198      1       THEN DO;
199      1         COUNT = NLOC(I1);
200      1         GOTO 12END;
201      1     END;
202      1     COUNT = 0;
203      1     J2 = 1;
204      1     DO J1 = 1 TO MAX(LOC(I1,J1), LOC(I2,J1));
205      1       TEST2: IF J2 > MAX THEN GO TO I2END;
206      1       IF LOC(I2,J2) = 0 THEN GO TO 12END;
207      1     END;
208      1   END;
209      1 END;
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PRETEXT: PROCEDURE OPTIONS (MAIN) ;

STMF LEVEL NEST

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235      1      NMUNIT = 19967/UNIT + 1;
236      1      PUT PAGE; PUT SKIP; PUT DATA(NUNIT);
239      1      DO I = 1 TO NMAT;
240      1      PTOT = PTOT + NLOC(I);
241      1      END;
242      1      PUT SKIP; PUT DATA(PTOT);

244      1      ALLOCATE BIG;
245      1      ALLOCATE COL(NUNIT);
246      1      ALLOCATE ROW(NMAT);
247      1      ALLOCATE COLTOT(NMAT);
248      1      ALLOCATE LFIELD(FTOT);
249      1      BIG(*,*) = 0;
250      1      ROW(*) = 0;
251      1      COLTOT(*) = 0;

252      1      DO J = 1 TO NMAT;
253      1      COL(*) = 0;

254      1      DO I = 1 TO MAX;
255      1      IF LOC(J,I) = 0;
256      1      THEN IF I > 1      /* JUST FOR PRASER, CHAPT. U */
257      1      THEN GO TO OUTS;
258      1      COL((LOC(J,I)/UNIT) + 1) = COL((LOC(J,I)/NMAT) + 1) + 1;
259      1      END;

260      1      OUT5: DO I4 = 1 TO NMUNIT;
261      1      IF COL(I4) = 0 THEN DO;
262      1      2      B13(I4,J) = '1.B';
263      1      2      PUT SKIP; PUT DATA(BIG(I4,J));
264      1      2      LFIELD(X3) = COL(I4);
265      1      2      PUT DATA(LFIELD(X3));
266      1      2      X3 = X3 + 1;
267      1      2      COLTOP(J) = COLTOP(I) + 1;
268      1      2      END;
269      1      2      END;
270      1      2      END;
271      1      2      END;
272      1      1      END;

273      1      DCL CR FIXED DEC(3) INITIAL(0);
274      1      DO I = 1 TO 15 WHILE(CR < 0);
275      1      CT = 80*I - NMAT*2;
276      1      END;
277      1      CT = CR/2;
278      1      NUMB = I - 2;
279      1      PUT SKIP; PUT DATA(NMAT, NUMB, CT2);
280      1      NAMED2 = NMAT - 12*NAMED12;
281      1      NAMELEFF = NMAT - 233;
282      1      COUNT3XT: FACTOR ANALYSIS OF CHAPT. 1 OF PORRA
283      1      PUT FILE(PATPASS) EDIT('COUNTS XT', 'BLANK') (A, F(4),
284      1      IT--UNIT=, UNIT, BLANK)(X(18), '1');
285      1      PUT FILE(PATPASS) EDIT(NMAT, UNIT, 'J', ('NUMB,
286      1      (I40(F2,D))'), ',',

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PAGE 8

PRETEXT: PROCEDURE OPTIONS(MAIN);

PAGE: 5

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STMT LEVEL NESTT
      CR2, *(F2,0)), BLANK);
      (F(5), F(5), X(21), A(3), X(4), A, F(2), A, F(2), A, X(19), A(1));
      DO I = 1 TO NAMED12;
      DO J = 1 TO 12;
      PUT FILE(PATPASS) EDIT(WORD(12*(I - 1) + J)) (A(5));
      END;
      PUT FILE(PATPASS) EDIT('') (A(8));
      END;
      DO I = (12*NAMED12 + 1) TO NMAT;
      PUT FILE(PATPASS) EDIT(WORD(I)) (A(6));
      CT1 = CT1 + 1;
      END;
      PUT FILE(PATPASS) EDIT((120) * *) (A(80 - CT1*6));
      PUT PAGE;
      DO J = 1 TO NMUNT;
      ROW(*) = 0;
      DO T = 1 TO NMAT;
      IP BIG(J,T) = 1
      THEN DO;
      POSIT = 0;
      DO I3 = 1 TO (I - 1) WHILE ((I-T)>= 1);
      POSIT = POSIT + COLFOR(I3);
      END;
      DO J3 = 1 TO J;
      IF BIG(J3,I) = 1 THEN POSIT = POSIT + 1;
      END;
      ROW(I) = LFIELD(POSIT);
      PUT SKIP; PUT DATA(POSIT, LFIELD(POSIT));
      END;
      DO J3 = 1 TO J;
      IF BIG(J3,I) = 1 THEN POSIT = POSIT + 1;
      END;
      PUT FILE(PATPASS) EDIT(ROW(*)) ((NMAT) F(2));
      PUT FILE(PATPASS) EDIT((120) * ) (A(80 - CT));
      PUT EDIT(ROW(*)) (SKIP, (NMAT) (X(2), F(2)));
      END;
      END PRETEXT;

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