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UNITED STATES DEPARTMENT OF THE INTERIOR

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SAUDI ARABIAN MISSION

MISCELLANEOUS DOCUMENT 5

PROGRAM PDP002:

GENDOC

by

M. A. M. Donzeau

U. S. Geological Survey
OPEN FILE REPORT 80-127
This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards or nomenclature.

PREPARED FOR
DIRECTORATE GENERAL OF MINERAL RESOURCES
MINISTRY OF PETROLEUM AND MINERAL RESOURCES
JIDDAH, SAUDI ARABIA
1979

U. S. GEOLOGICAL SURVEY

SAUDI ARABIAN PROJECT

MISCELLANEOUS DOCUMENT 5

(INTERAGENCY REPORT 283)

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Jiddah, Saudi Arabia

1979

The work on which this report is based was performed in accordance with a cooperative agreement between the U. S. Geological Survey and the Ministry of Petroleum and Mineral Resources, Kingdom of Saudi Arabia.

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Program Documentation Manual

Program Number	:	PDPØØ2
Program Name	:	GENDOC
Programmer	:	M. A. M. Donzeau
Language	:	FORTRAN IV PLUS
Computer/System	:	PDP-11/45
Date	:	14 February 1978
Institution	:	U. S. Geological Survey/Saudi Arabian Project
Location	:	Jiddah, Saudi Arabia

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PROGRAM PDPØØ2: GENDOC

by

M. A. M. Donzeau

ABSTRACT

This program is designed to retrieve items of general documentation file, sequentially or by index.

Items are considered as alphanumerical text, and can be from one line to many pages length. To each item is associated one ID (1 to 20 characters), and from 1 to 10 keywords (of 1 to 12 characters each).

When the sequential option is chosen, the program prints the list of ID or full items (with ID and keywords) in the same order as they are stored on the general documentation file.

The indexed lists are lists of ID or full items, indexed by ID or by keywords. Retrieval is performed from complete ID (or keyword), or from a few first characters of ID (or keyword).

In the case of index by keywords, the program can retrieve items holding all the keywords of a specified list, or items holding one keyword only of a specified list (in this latter case, a retrieval is made for each keyword of the list).

SOURCE DECK LOCATION AND UPDATE STATUS

The FORTRAN source program GENDOC.FTN, the object module GENDOC.OBJ, and the task image GENDOC.TSK are on the system disk of the DGMR PDP-11/45 computer under the UIC [22,342].

No updates have been made to the program at this time.

DESCRIPTION OF COMPUTED QUANTITIES

There are no quantities computed by this program.

DESCRIPTION OF THE PROGRAM

Files used with GENDOC

This program uses any general documentation file built by the program GENADD (PDPØØ1). It is a sequential unformatted file. Each item of this file is made up of one ID record, followed by one or more text records.

Every ID record has a variable length of 144 bytes maximum, and contains the following fields: ID (1 to 20 characters), number of text records, number of keywords, list of keywords (maximum 10 keywords of 1 to 12 characters each).

Every text record has a fixed length of 80 bytes.

The program GENDOC uses another kind of file, called the keyword file. This is a sequential formatted file built or read with the "index-by-keyword" option. The first record holds the creation date of the file, and has a fixed length of 12 bytes. Each following record has a fixed length of 16 bytes, and holds one keyword and its number of occurrences. The keywords are stored alphabetically.

Program structure

The main program flow-chart is shown in figure 1, and the flow-charts of the main routines in figures 2 to 11. The program options are given in figure 12.

The program GENDOC is made up of two independent parts: the sequential procedure, and the index procedure.

Sequential procedure

The sequential procedure outputs a sequential list of all ID's or of all the items of the general documentation file.

The file is read entirely. Each time an ID record is encountered, the ID only (ID list), or the ID and text (item list) are printed.

Index procedure

The index procedure is divided into two main parts: the index by ID and the index by keyword.

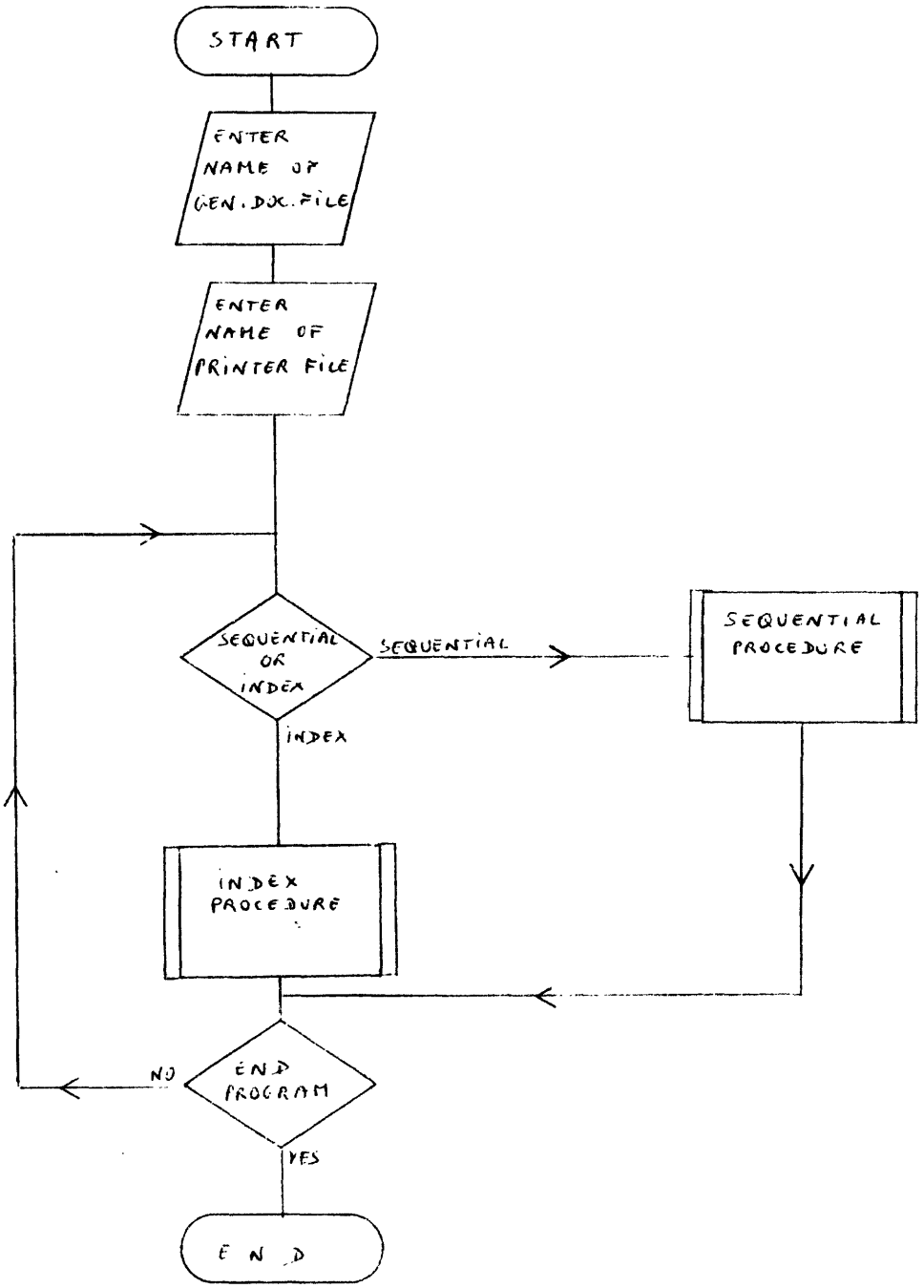


Figure 1.--GENDOC main program flow chart.

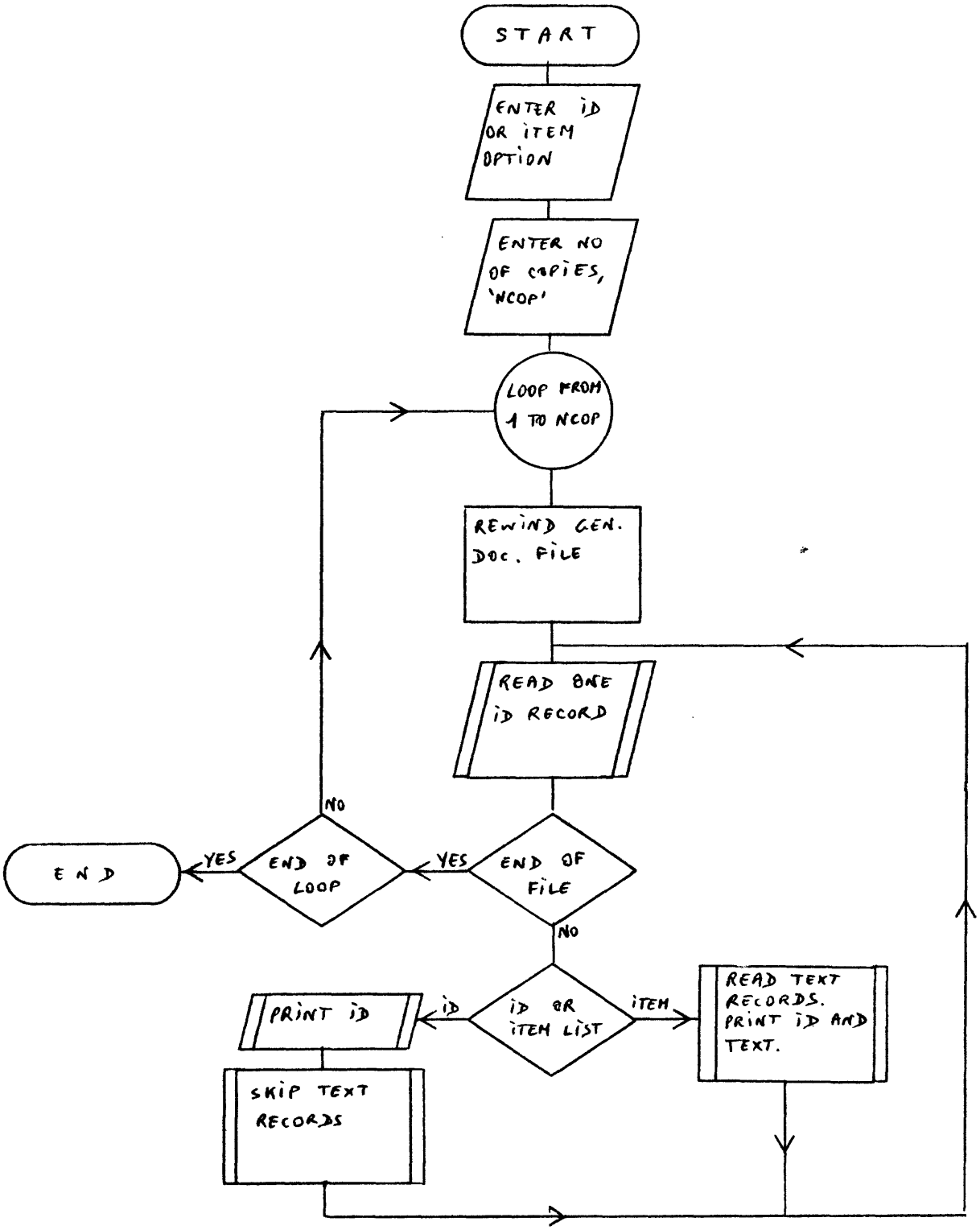


Figure 2.--SEQUEN subprogram flow chart.

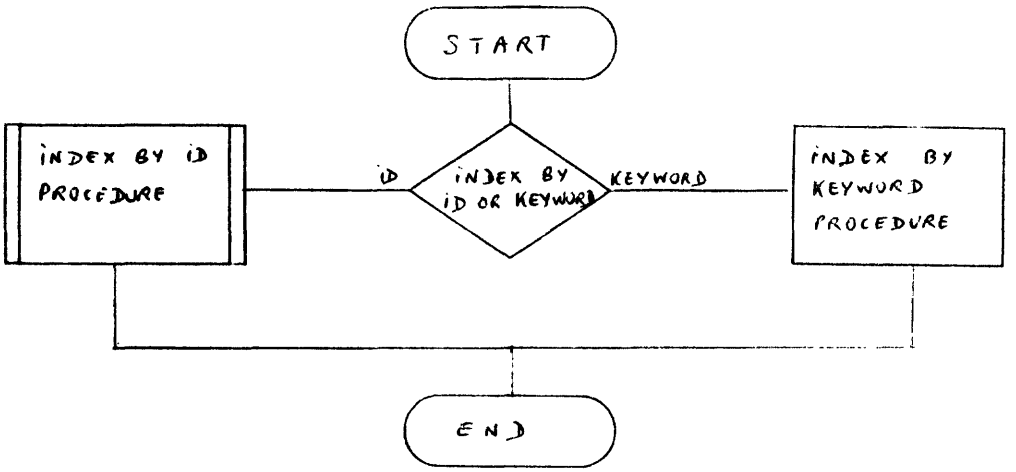


Figure 3.--INDEX subprogram flow chart

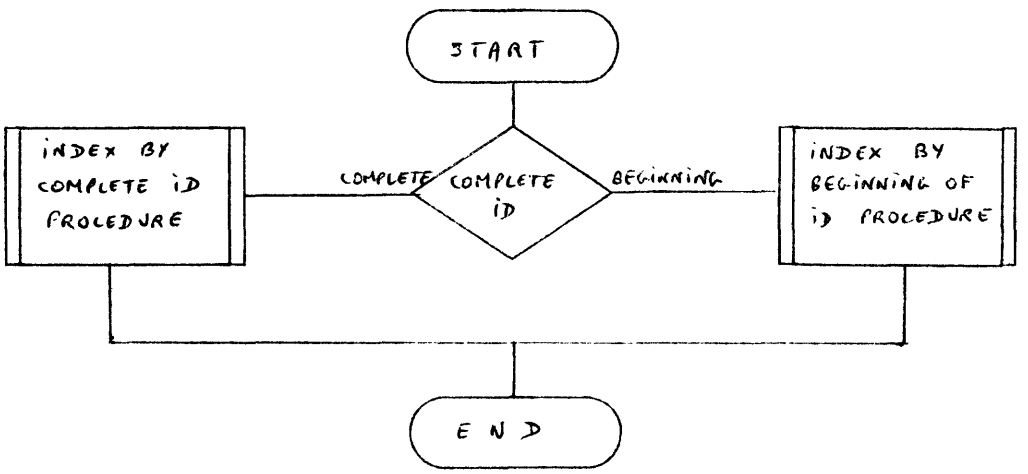


Figure 4.--INDEXI subprogram flow chart

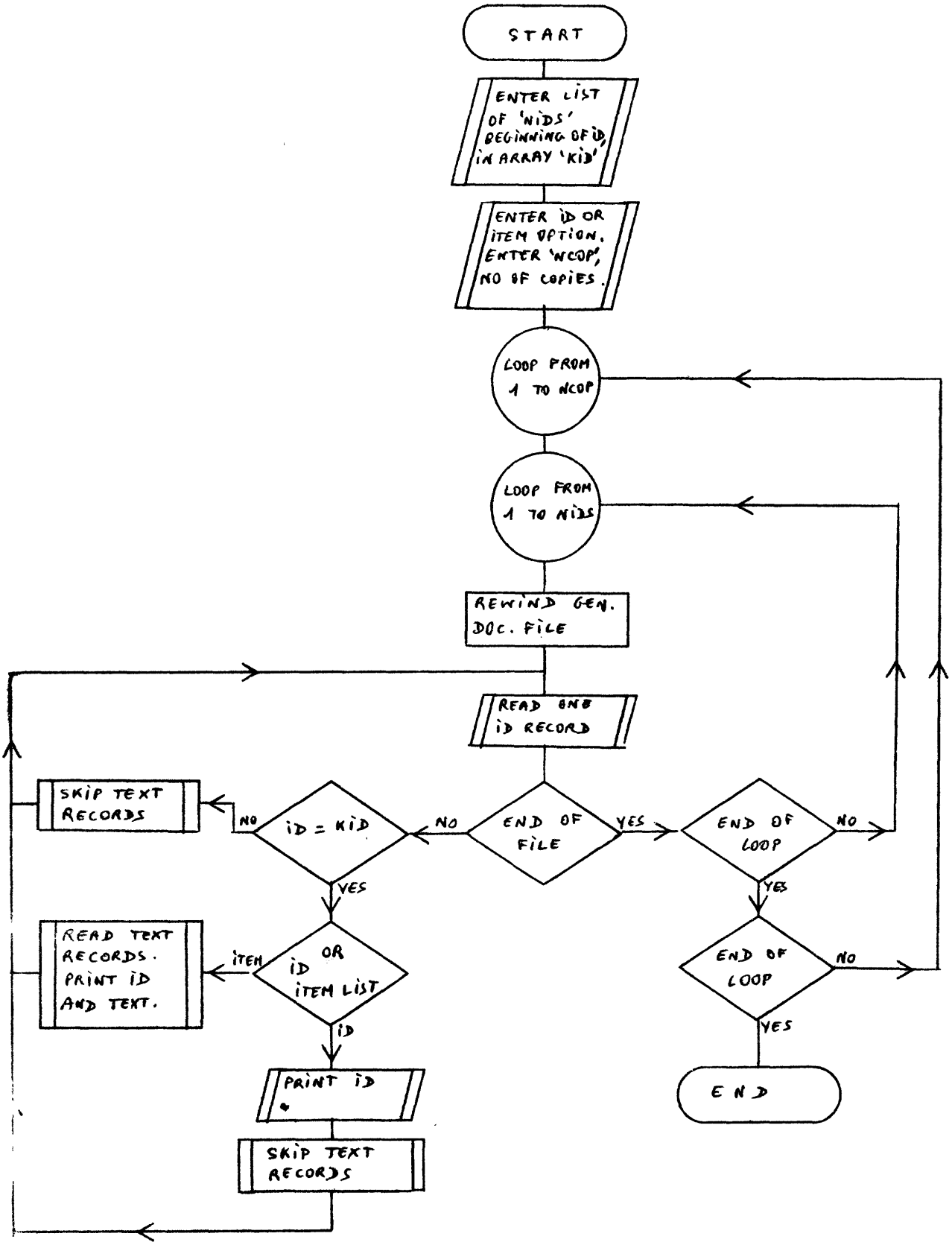


Figure 5.--INBEGI subprogram flow chart.

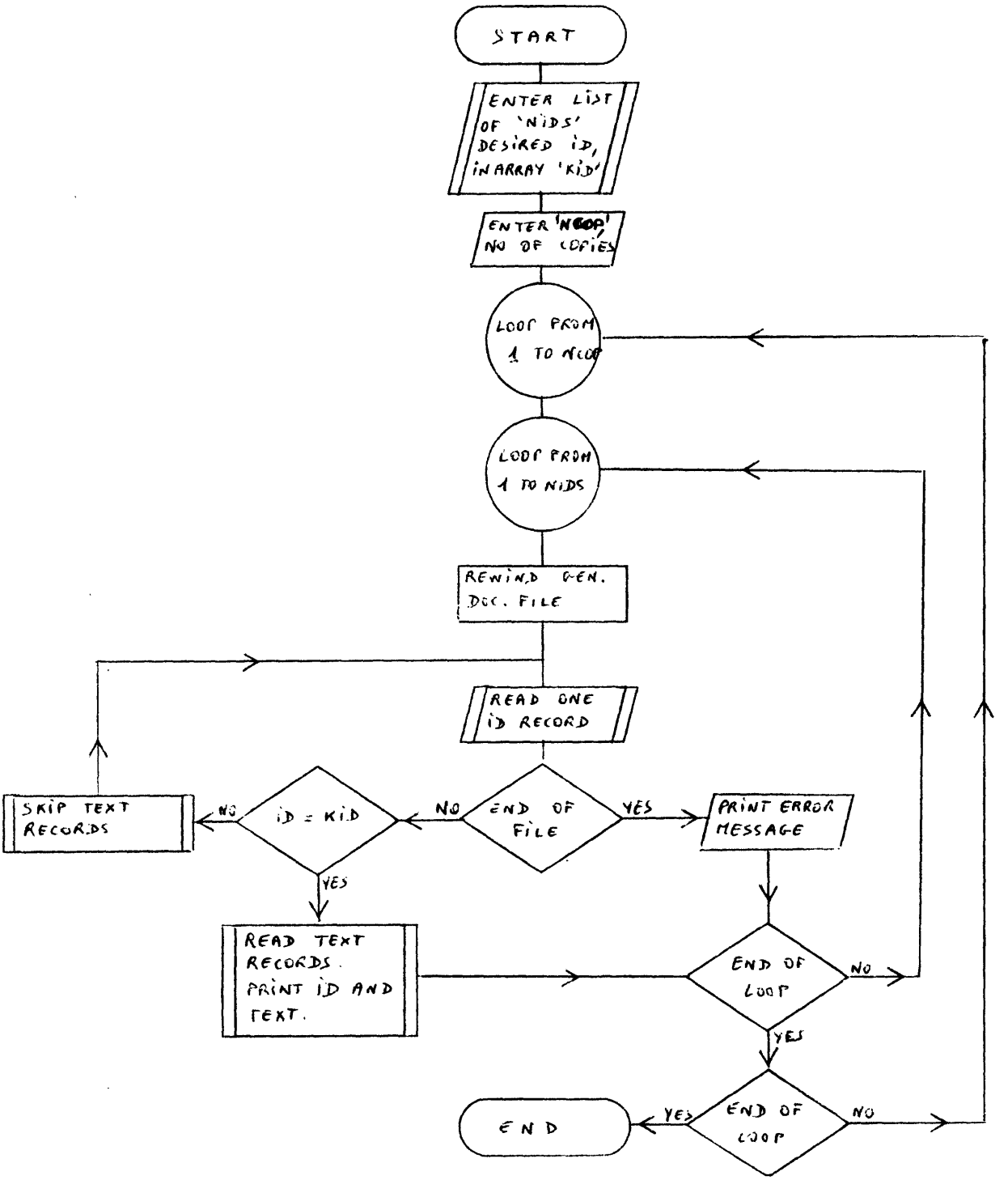


Figure 6.--INCOMI subprogram flow chart.

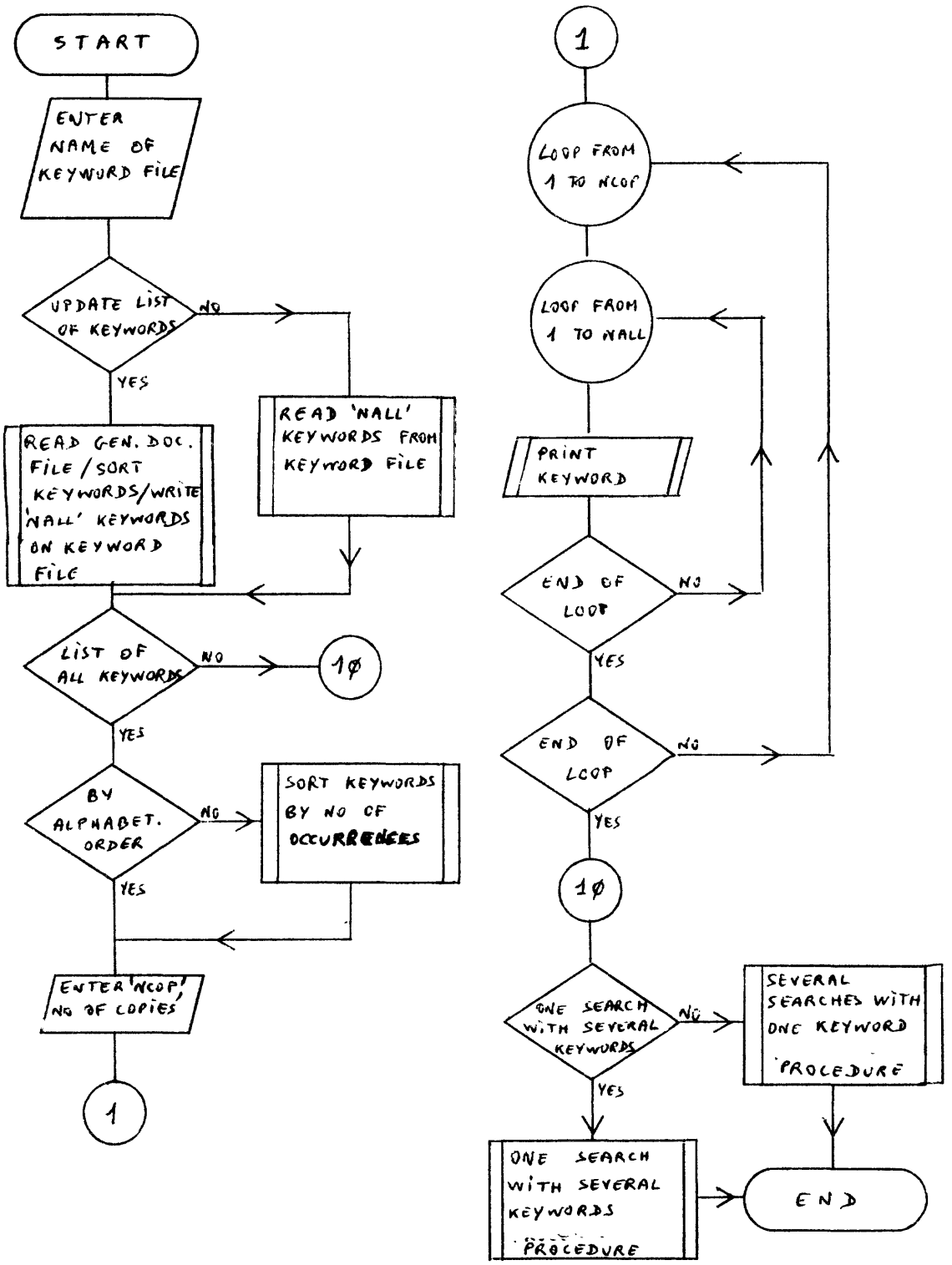


Figure 7.--INDEXK subprogram flow chart.

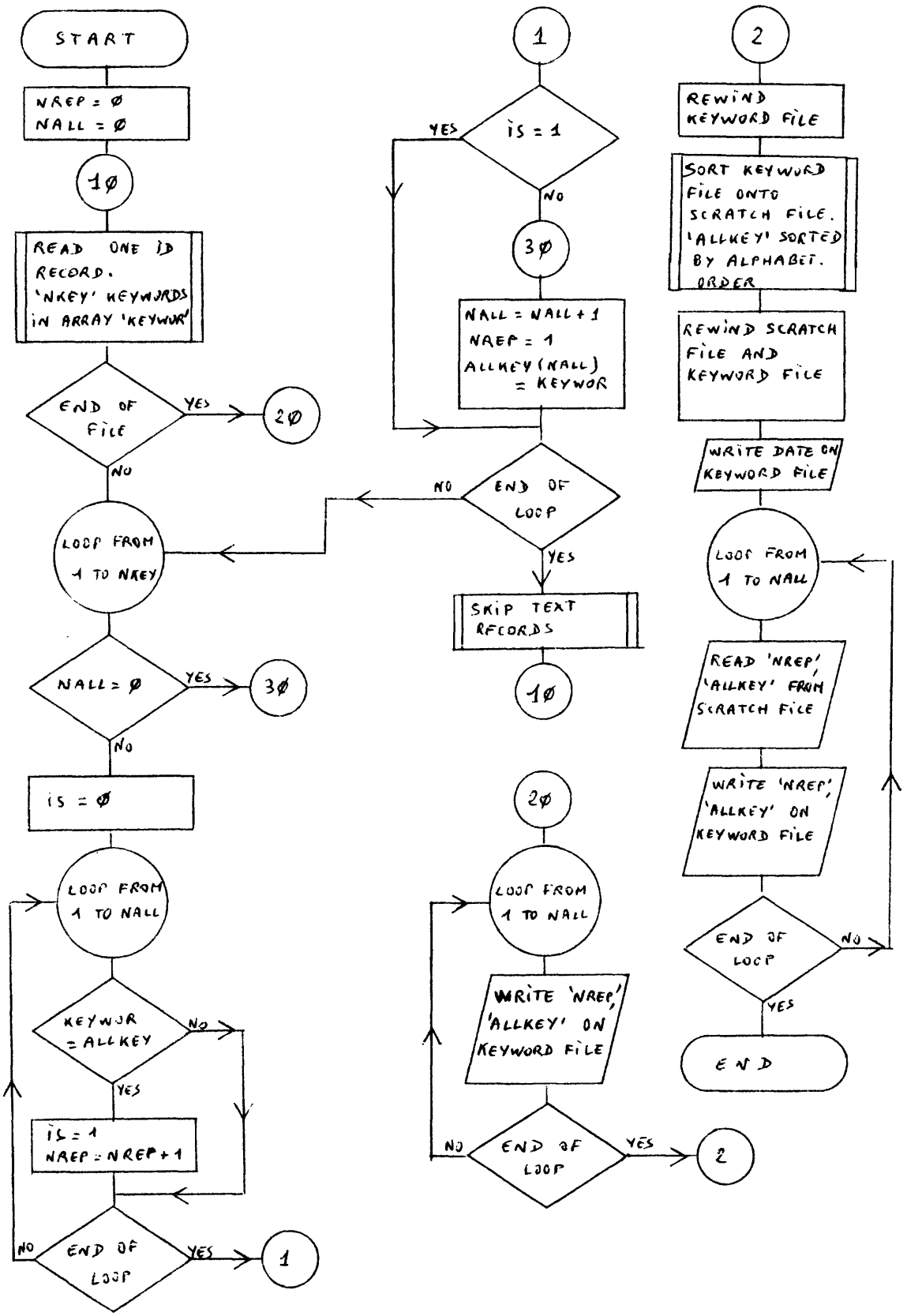
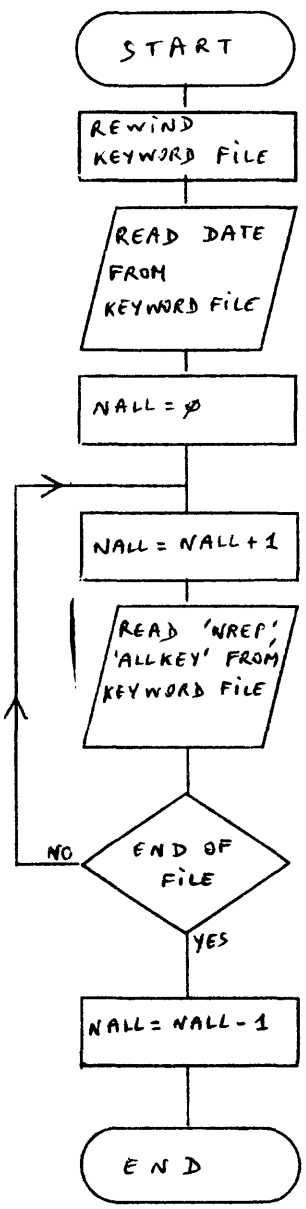
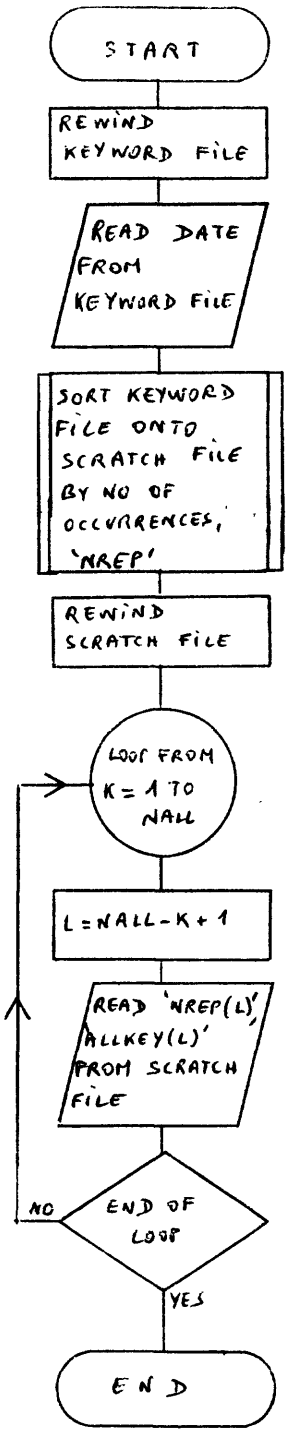


Figure 8.--ULKEY subprogram flow chart: ULKEY entry.



RLKEY Entry



OCKEY Entry

Figure 9.--ULKEY subprogram flow chart: RLKEY and OCKEY entries.

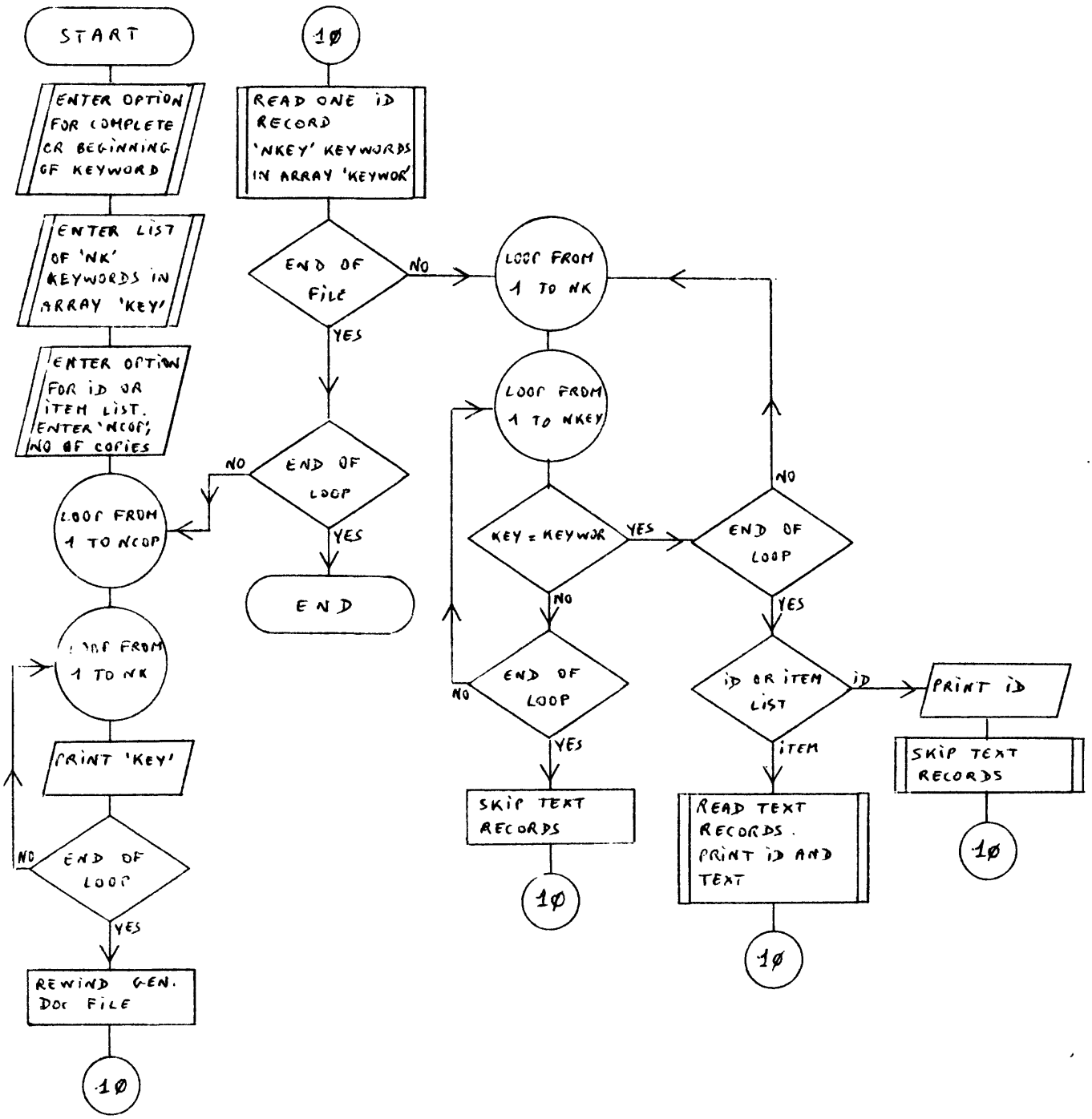


Figure 10.--INDSEV subprogram flow chart.

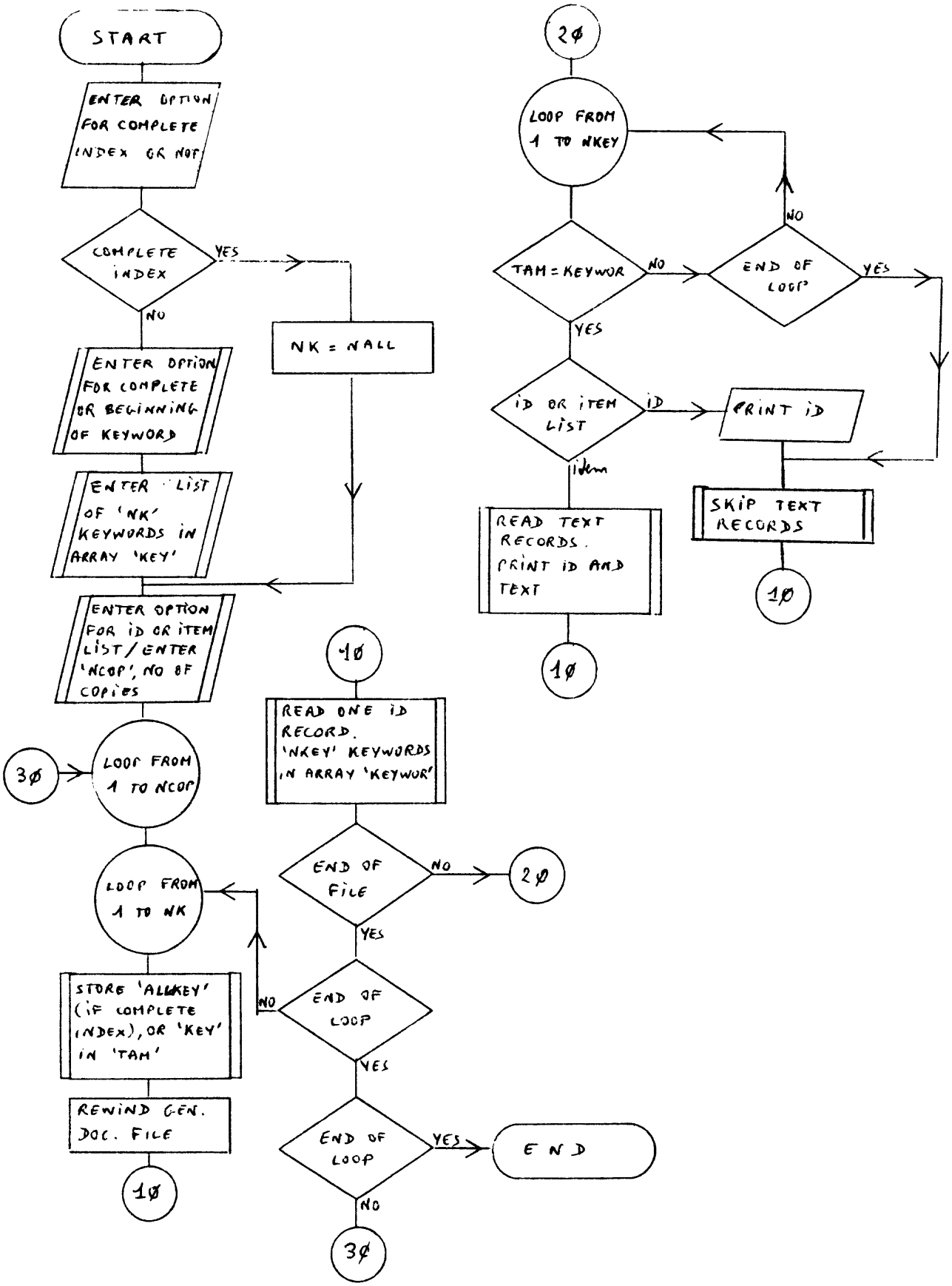


Figure 11.--INDONE subprogram flow chart.

- Sequential Procedure
  - ID List (1)
  - Item List (2)
- Index Procedure
  - By ID
    - Complete ID
      - Item List (3)
    - Beginning of ID
      - ID list (4)
      - Item List (5)
  - By Keyword
    - List of all keywords
      - Alphabetical
      - By no. of occurrences
    - No list of all keywords
- One search with several keywords
  - Complete keyword
    - ID list (6)
    - Item List (7)
  - Beginning of keyword
    - ID List (8)
    - Item List (9)
- Several searches with one keyword
  - complete index
    - ID List (10)
    - Item List (11)
  - Enter keywords
    - Complete keyword
      - ID List (12)
      - Item List (13)
    - Beginning of keyword
      - ID List (14)
      - Item List (15)

Figure 12. The 15 options of GENDOC program

In the index-by-ID procedure, a list of a few selected ID's is entered from the keyboard. The list is made up of full ID's or of beginnings (a few first characters) of ID's, but the two kinds must not be mixed up in the same list. In the first case, only the item list is printed, while in the other case either ID or item list may be printed.

For each full (or beginning of) ID of the list, the general documentation file is read from the beginning until the full (or beginning of) ID is reached. Then the ID only (ID list asked and beginning of ID entered), or the ID and text (item list asked and beginning of ID entered, or complete ID entered) are printed.

The index-by-keyword procedure begins with the building, or reading of the keyword file. The list of all keywords may be printed, either alphabetically, or by decreasing number of occurrences. Then this procedure leads to two main paths:

1) ID or item list of the items holding all keywords of a specified list.

The list of the selected keywords is entered from the keyboard; it is made up of full keywords or of beginnings of keywords (a first few characters), but the two kinds must not be mixed in the same list. This list is limited to no more than 10 keywords, as each ID record contains a maximum of 10 keywords. As soon as one keyword (or beginning of keyword) is entered, it is compared to the list of all keywords (read from the keyword file). The program will not take a keyword not present in the keyword file.

Then the general documentation file is read entirely. Each time an ID record is encountered, its keywords are compared with the list of specified keywords. If all the specified keywords are present in the ID record, the ID only (ID list) or the ID and text records of this item (item list) are printed. When the end of file is encountered the search is finished.

2) ID or item list of items holding one keyword of a specified list.

The list of selected keywords is entered from the keyboard; it is made up of full keywords or of beginnings of keywords (a first few characters), but the two kinds must not be mixed up in the same list. This list is limited to 50 now, but the limit may be increased. As soon as one keyword is entered, it is compared to the list of all keywords (read from the keyword file). The program will not take a keyword if it is not present in the keyword file.

Then, for each selected keyword, the general documentation file is read entirely. Each time an ID record is encountered, each of its keywords is compared to the selected keywords. If the selected keyword is present in the ID record, the ID only (ID list), or the ID and text records of this item (item list) are printed. When the end of the file is encountered, the search continues for the next selected keyword of the list.

Printouts

The four possibilities for the printout of the item lists are:

1) each item is printed beginning at the top of a page, and keywords are printed ahead of the text.

2) each item is printed beginning at the top of a page, but keywords are not printed.

3) each item is printed following the previous item, with one blank line between them as a separator, and the keywords are printed after the text.

4) same as 3), but the keywords are not printed.

The first two options are to be used when the texts are very long, while the last two will be used when the texts are only a few lines.

Program execution and length

Control and execution of the program is accomplished interactively through the terminal display. Input is made via the system disk (general documentation file, keyword file), output is via the line printer (lists of ID or items) and the system disk (keyword file). All printout is set up for a maximum printer width of 80-characters.

The FORTRAN source program requires 47 blocks of disk space, the object module 65 blocks, and the task image 97 blocks.

The execution time is given in the examples.

PROGRAM OPERATION

Enter "RUN GENDOC (Ø)"[1/] to start execution. Operation of the program is largely self-explanatory. Enter information asked in questions appearing on the terminal display. Questions requiring a "YES" or "NO" answer are answered by "Y" or "N". Questions requiring a numerical answer are asked again if a non-numerical character is entered.

[1/] The symbol (Ø) means ALT mode, or ESC key.

 (no [illegible])

EXAMPLE

The resulting printouts of the 15 options of the program using the same general documentation file follow.

First, the contents of the general documentation file is shown on page 25, as it is output from program GENADD (PDPØØ1). The dump of the keyword file, which is created by job no. 6, is shown just after.

The 15 jobs, with indication of execution time are:

- job no. 1: sequential procedure, ID list (2 secs)
- job no. 2: sequential procedure, item list (2 secs)
- job no. 3: index procedure, index by ID, complete ID, item list (6 secs)
- job no. 4: index procedure, index by ID, beginning of ID, ID list (11 secs)
- job no. 5: index procedure, index by ID, beginning of ID, item list (11 secs)
- job no. 6: index procedure, index by keyword, one search with several keywords, complete keyword, ID list (3 secs). This list is preceded by the list of all keywords classified alphabetically (4 secs to create the file, 2 secs to print the list)
- job no. 7: index procedure, index by keyword, one search with several keywords, complete keyword, item list (3 secs). The list is preceded by the list of all keywords classified by decreasing number of occurrences (2 secs to sort the keywords)
- job no. 8: index procedure, index by keyword, one search with several keywords, beginning of keywords, ID list (6 secs)
- job no. 9: index procedure, index by keyword, one search with several keywords, beginning of keywords, item list (6 secs)
- job no. 10: index procedure, index by keyword, several searches with one keyword, complete index, ID list (22 secs)

- job no. 11: index procedure, index by keyword, several searches with one keyword, complete index, item list (24 secs)

- job no. 12: index procedure, index by keyword, several searches with one keyword, enter complete keywords, ID list (11 secs)

- job no. 13: index procedure, index by keyword, several searches with one keyword, enter complete keywords, item list (12 secs)

- job no. 14: index procedure, index by keyword, several searches with one keyword, enter beginning of keywords, ID list (15 secs)

- job no. 15: index procedure, index by keyword, several searches with one keyword, enter beginning of keywords, item list (15 secs)

CONTENTS OF GENERAL DOCUMENTATION FILE

```
GPA;BOX#1/2/3/4/5;01    2   4     MISC        AIR MAG     AIR RAD     LOC:ALL S.A.
   1          MISC: STRIP FILM NEG, SINGLE FR; AL AYS, AL LISAN, AL AQIQ, ETC., (10
   2             AREAS SCATTERED ACCROSS SHIELD); USGS, HUNTING; 1962
GPA;BOX#06;01           2   6     GEOLOGY     ORE DEPOSIT ALLUVIAL PR.LOC:25/37D  LOC:25/38C
                                  LOC:I-204
   1          N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE;
   2             204-2-AYS-3
GPA;BOX#06;02           2   8     GEOLOGY     GEOCHEMISTRYORE DEPOSIT ALLUVIAL PR.GROUND RAD
                                  LOC:25/40A  LOC:25/40B  LOC:I-205
   1          HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCES & GEOL, DELFOUR;
   2             205-2-MUS-HUL-2
GPA;BOX#06;03           2   5     AIR MAG     AIR RAD     LOC:24/44C  LOC:24/44D  LOC:I-206

   1          AIR MAG & AIR RAD SHEET 101 - INTERP, LAMBOLEZ; 1:100,0000; 1968, 68
   2             JED 46, A1-REG-4-3, AMSC-101
GPA;BOX#06;04           2   5     AIR MAG     AIR RAD     LOC:23/41A  LOC:23/41B  LOC:I-210

   1          AIR MAG & AIR RAD SHEET 112 - INTERP, LAMBOLEZ; 1:100,0000; 1969, 69
   2             JED 22, AMSC-112
GPA;BOX#06;05           2   5     AIR MAG     AIR RAD     LOC:23/44A  LOC:23/44B  LOC:I-211

   1          AIR MAG & AIR RAD SHEET 115 - INTERP, MAILLARD; 1:100,0000; 1968, 68
   2             JED 54, A1-REG-4-2, AMSC-115
GPA;BOX#07;01           2   5     GEOLOGY     GRAVITY     LOC:28/34C  LOC:28/34D  LOC:I-200

   1          AL LISAN - GEOL,GRAV INVEST, AGOCS, KAHR; GEOL 1:100,0000; GRAV
   2             1:10,000; 1962, 200-1-LIS-1
GPA;BOX#07;02           2   5     GRAVITY     GROUND MAG  ORE DEPOSIT LOC:25/38C  LOC:I-204

   1          AL AYS - CHROMITE OCCURRENCES, GEOPHYS INVEST, AKHRAS; GRAV, GROUND
   2             MAG 1:1,000; 1966, 204-1-AYS-1 (3 COPIES)
GPA;BOX#08;03           2   4     GROUND MAG  ORE DEPOSIT LOC:22/39B  LOC:I-210
   1          METHGAL - IRON DEPOSIT, TECH LTR #34, DAVIS, ALLEN; GROUND MAG; 1965,
   2             210-3-MTH-1
GPA;BOX#08;04           1   3     GRAVITY     LOC:22/39C  LOC:I-210
   1          RABIGH - GRAVITY WORK, ZIDAN; 1:1,000 ; 1965, 210-1-RAB-1
```

6-JUN-78

4AIR MAG
4AIR RAD
2ALLUVIAL PR.
1GEOCHEMISTRY
3GEOLOGY
3GRAVITY
2GROUND MAG
1GROUND RAD
1LOC:22/39B
1LOC:22/39C
1LOC:23/41A
1LOC:23/41B
1LOC:23/44A
1LOC:23/44B
1LOC:24/44C
1LOC:24/44D
1LOC:25/37D
2LOC:25/38C
1LOC:25/40A
1LOC:25/40B
1LOC:28/34C
1LOC:28/34D
1LOC:ALL S.A.
1LOC:I-203
2LOC:I-204
1LOC:I-205
1LOC:I-206
3LOC:I-210
1LOC:I-211
1MISC
4ORE DEPOSIT

JOB NO. 1 SEQUENTIAL ID LIST 26-JUN-78
********** **********

```
 1- GPA;BOX#1/2/3/4/5;01
 2- GPA;BOX#06;01
 3- GPA;BOX#06;02
 4- GPA;BOX#06;03
 5- GPA;BOX#06;04
 6- GPA;BOX#06;05
 7- GPA;BOX#07;01
 8- GPA;BOX#07;02
 9- GPA;BOX#08;03
10- GPA;BOX#08;04
```

FILE GPATES.GDF HOLDS 10 ITEMS
****

JOB NO. 2 SEQUENTIAL ITEM LIST 26-JUN-78
********** **********

1) GPA;BOX#1/2/3/4/5;01
MISC: STRIP FILM NEG, SINGLE FR; AL AYS, AL LISAN, AL AQIQ, ETC., (10 AREAS SCATTERED ACCROSS SHIELD); USGS, HUNTING; 1962
-MISC -AIR MAG -AIR RAD -LOC:ALL S.A.-

2) GPA;BOX#06;01
N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE; 204-2-AYS-3
-GEOLOGY -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D -LOC:25/38C -
-LOC:I-204 -

3) GPA;BOX#06;02
HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCES & GEOL, DELFOUR; 205-2-MUS-HUL-2
-GEOLOGY -GEOCHEMISTRY-ORE DEPOSIT -ALLUVIAL PR.-GROUND RAD -
-LOC:25/40A -LOC:25/40B -LOC:I-205 -

4) GPA;BOX#06;03
AIR MAG & AIR RAD SHEET 101 - INTERP, LAMBOLEZ; 1:100,0000; 1968, 68 JED 46, A1-REG-2-3, AMSC-101
-AIR MAG -AIR RAD -LOC:24/44C -LOC:24/44D -LOC:I-206 -

5) GPA;BOX#06;04
AIR MAG & AIR RAD SHEET 112 - INTERP, LAMBOLEZ; 1:100,0000; 1969, 69 JED 22, AMSC-112
-AIR MAG -AIR RAD -LOC:23/41A -LOC:23/41B -LOC:I-210 -

6) GPA;BOX#06;05
AIR MAG & AIR RAD SHEET 115 - INTERP, MAILLARD; 1:100,0000; 1968, 68 JED 54, A1-REG-2-2, AMSC-115
-AIR MAG -AIR RAD -LOC:23/44A -LOC:23/44B -LOC:I-211 -

7) GPA;BOX#07;01
AL LISAN - GEOL,GRAV INVEST, AGOCS, KAHR; GEOL 1:100,0000; GRAV 1:10,000; 1962, 200-1-LIS-1
-GEOLOGY -GRAVITY -LOC:28/34C -LOC:28/34D -LOC:I-200 -

8) GPA;BOX#07;02
AL AYS - CHROMITE OCCURRENCES, GEOPHYS INVEST, AKHRAS; GRAV, GROUND MAG 1:1,000; 1966, 204-1-AYS-1 (3 COPIES)
-GRAVITY -GROUND MAG -ORE DEPOSIT -LOC:25/38C -LOC:I-204 -

9) GPA;BOX#08;03
METHGAL - IRON DEPOSIT, TECH LTR #34, DAVIS, ALLEN; GROUND MAG; 1965, 210-3-MTH-1
-GROUND MAG -ORE DEPOSIT -LOC:22/39B -LOC:I-210 -

10) GPA;BOX#08;04
RABIGH - GRAVITY WORK, ZIDAN; 1:1,000 ; 1965, 210-1-RAB-1
-GRAVITY -LOC:22/39C -LOC:I-210 -

FILE GPATES.GDF HOLDS 10 ITEMS
****

JOB NO. 3 INDEXED ITEM LIST 26-JUN-78
****
INDEX BY ID

1) GPA;BOX#06;01
N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE;
204-2-AYS-3
-GEOLOGY -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D -LOC:25/38C -
-LOC:I-204 -

2) GPA;BOX#7;1 IS NOT IN THE FILE GPATES.GDF
****

3) GPA;BOX#08;02 IS NOT IN THE FILE GPATES.GDF
****

JOB NO. 4 INDEXED ID LIST 26-JUN-78

****

INDEXED ID LIST

****

INDEX BY ID

ID BEGINNING WITH : GPA;BOX#06

****

1- GPA;BOX#06;01
2- GPA;BOX#06;02
3- GPA;BOX#06;03
4- GPA;BOX#06;04
5- GPA;BOX#06;05

5 ID BEGIN WITH : GPA;BOX#06

****

JOB NO. 5 INDEXED ITEM LIST 26-JUN-78
****
INDEX BY ID

ID BEGINNING WITH : GPA;BOX#06
****

1) GPA;BOX#06;01
N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE;
204-2-AYS-3
-GEOLOGY -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D -LOC:25/38C -
-LOC:I-204 -

2) GPA;BOX#06;02
HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCES & GEOL, DELFOUR;
205-2-MUS-HUL-2
-GEOLOGY -GEOCHEMISTRY-ORE DEPOSIT -ALLUVIAL PR.-GROUND RAD -
-LOC:25/40A -LOC:25/40B -LOC:I-205 -

3) GPA;BOX#06;03
AIR MAG & AIR RAD SHEET 101 - INTERP, LAMBOLEZ; 1:100,0000; 1968, 68
JED 46, A1-REG-2-3, AMSC-101
-AIR MAG -AIR RAD -LOC:24/44C -LOC:24/44D -LOC:I-206 -

4) GPA;BOX#06;04
AIR MAG & AIR RAD SHEET 112 - INTERP, LAMBOLEZ; 1:100,0000; 1969, 69
JED 22, AMSC-112
-AIR MAG -AIR RAD -LOC:23/41A -LOC:23/41B -LOC:I-210 -

5) GPA;BOX#06;05
AIR MAG & AIR RAD SHEET 115 - INTERP, MAILLARD; 1:100,0000; 1968, 68
JED 54, A1-REG-2-2, AMSC-115
-AIR MAG -AIR RAD -LOC:23/44A -LOC:23/44B -LOC:I-211 -

5 ID BEGIN WITH : GPA;BOX#06
****

26-JUN-78

JOB NO. 6 LIST OF ALL KEYWORDS
********** **********

THERE ARE 31 DIFFERENT KEYWORDS.
LIST MADE ON 26-JUN-78 HAS BEEN READ/STORED ON FILE GPATES.KEY

KEYWORD	NB OF OCCURRENCES
1- AIR MAG	4
2- AIR RAD	4
3- ALLUVIAL PR.	2
4- GEOCHEMISTRY	1
5- GEOLOGY	3
6- GRAVITY	3
7- GROUND MAG	2
8- GROUND RAD	1
9- LOC:22/39B	1
10- LOC:22/39C	1
11- LOC:23/41A	1
12- LOC:23/41B	1
13- LOC:23/44A	1
14- LOC:23/44B	1
15- LOC:24/44C	1
16- LOC:24/44D	1
17- LOC:25/37D	1
18- LOC:25/38C	2
19- LOC:25/40A	1
20- LOC:25/40B	1
21- LOC:28/34C	1
22- LOC:28/34D	1
23- LOC:ALL S.A.	1
24- LOC:I-200	1
25- LOC:I-204	2
26- LOC:I-205	1
27- LOC:I-206	1
28- LOC:I-210	3
29- LOC:I-211	1
30- MISC	1
31- ORE DEPOSIT	4

26-JUN-78

JOB NO. 6
****

INDEXED ID LIST
****
INDEX BY KEYWORD

LIST OF SELECTED KEYWORDS :

1- GEOLOGY
2- LOC:I-204

ID LIST :

1- GPA;BOX#06;01

1 ITEMS HOLD THE 2 SELECTED KEYWORDS
****

26-JUN-78

JOB NO. 7 LIST OF ALL KEYWORDS
********** **********

THERE ARE 31 DIFFERENT KEYWORDS.
LIST MADE ON 26-JUN-78 HAS BEEN READ/STORED ON FILE GPATES.KEY

KEYWORD	NB OF OCCURRENCES
1- AIR MAG	4
2- AIR RAD	4
3- ORE DEPOSIT	4
4- GEOLOGY	3
5- GRAVITY	3
6- LOC:I-210	3
7- ALLUVIAL PR.	2
8- GROUND MAG	2
9- LOC:25/38C	2
10- LOC:I-204	2
11- GEOCHEMISTRY	1
12- GROUND RAD	1
13- LOC:22/39B	1
14- LOC:22/39C	1
15- LOC:23/41A	1
16- LOC:23/41B	1
17- LOC:23/44A	1
18- LOC:23/44B	1
19- LOC:24/44C	1
20- LOC:24/44D	1
21- LOC:25/37D	1
22- LOC:25/40A	1
23- LOC:25/40B	1
24- LOC:28/34C	1
25- LOC:28/34D	1
26- LOC:ALL S.A.	1
27- LOC:I-200	1
28- LOC:I-205	1
29- LOC:I-206	1
30- LOC:I-211	1
31- MISC	1

JOB NO. 7 INDEXED ITEM LIST 26-JUN-78
****
INDEX BY KEYWORD

LIST OF SELECTED KEYWORDS :

1- GEOLOGY
2- LOC:I-204

1) GPA)BOX#06)01
N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE)
204-2-AYS-3
-GEOLOGY -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D -LOC:25/38C -
-LOC:I-204 -

1 ITEMS HOLD THE 2 SELECTED KEYWORDS
****

26-JUN-78

JOB NO. 8

****

INDEXED ID LIST

****

INDEX BY KEYWORD

LIST OF SELECTED BEGINNINGS OF KEYWORDS :

1- GEO
2- LOC:I-20

ID LIST :

1- GPA;BOX#06;01
2- GPA;BOX#06;02
3- GPA;BOX#07;01

3 ITEMS HOLD THE 2 SELECTED BEGINNINGS OF KEYWORDS

****

JOB NO. 9 INDEXED ITEM LIST 26-JUN-78
****
INDEX BY KEYWORD

LIST OF SELECTED BEGINNINGS OF KEYWORDS :

1- GEO
2- LOC:I-20

1) GPA;BOX#06;01
N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE;
204-2-AYS-3
-GEOLOGY -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D -LOC:25/38C -
-LOC:I-204 -

2) GPA;BOX#06;02
HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCES & GEOL, DELFOUR;
205-2-MUS-HUL-2
-GEOLOGY -GEOCHEMISTRY-ORE DEPOSIT -ALLUVIAL PR.-GROUND RAD -
-LOC:25/40A -LOC:25/40B -LOC:I-205 -

3) GPA;BOX#07;01
AL LISAN - GEOL,GRAV INVEST, AGOCS, KAHR; GEOL 1:100,0000; GRAV
1:10,000; 1962, 200-1-LIS-1
-GEOLOGY -GRAVITY -LOC:28/34C -LOC:28/34D -LOC:I-200 -

3 ITEMS HOLD THE 2 SELECTED BEGINNINGS OF KEYWORDS
****

26-JUN-78

JOB NO. 10 INDEXED ID LIST
****
COMPLETE INDEX BY KEYWORD

KEYWORD : AIR MAG
****

1- GPA;BOX#1/2/3/4/5;01
2- GPA;BOX#06;03
3- GPA;BOX#06;04
4- GPA;BOX#06;05

4 ITEMS HOLD THE KEYWORD : AIR MAG
****

KEYWORD : AIR RAD
****

1- GPA;BOX#1/2/3/4/5;01
2- GPA;BOX#06;03
3- GPA;BOX#06;04
4- GPA;BOX#06;05

4 ITEMS HOLD THE KEYWORD : AIR RAD
****

KEYWORD : ALLUVIAL PR.
****

1- GPA;BOX#06;01
2- GPA;BOX#06;02

2 ITEMS HOLD THE KEYWORD : ALLUVIAL PR.
****

KEYWORD : GEOCHEMISTRY
****

1- GPA;BOX#06;02

1 ITEMS HOLD THE KEYWORD : GEOCHEMISTRY
****

KEYWORD : GEOLOGY
****

1- GPA;BOX#06;01
2- GPA;BOX#06;02
3- GPA;BOX#07;01

3 ITEMS HOLD THE KEYWORD : GEOLOGY
****

KEYWORD : GRAVITY
****

1- GPA;BOX#07;01
2- GPA;BOX#07;02
3- GPA;BOX#08;04

3 ITEMS HOLD THE KEYWORD : GRAVITY
****

KEYWORD : GROUND MAG
****

1- GPA;BOX#07;02
2- GPA;BOX#08;03

2 ITEMS HOLD THE KEYWORD : GROUND MAG
****

KEYWORD : GROUND RAD
****

1- GPA;BOX#06;02

```
   1 ITEMS HOLD THE KEYWORD : GROUND RAD
*****************************************


KEYWORD : LOC:22/39B
************************

                                1- GPA;BOX#08;03

   1 ITEMS HOLD THE KEYWORD : LOC:22/39B
*****************************************


KEYWORD : LOC:22/39C
************************

                                1- GPA;BOX#08;04

   1 ITEMS HOLD THE KEYWORD : LOC:22/39C
*****************************************


KEYWORD : LOC:23/41A
**********************

                                1- GPA;BOX#06;04

   1 ITEMS HOLD THE KEYWORD : LOC:23/41A
*****************************************


KEYWORD : LOC:23/41B
************************

                                1- GPA;BOX#06;04

   1 ITEMS HOLD THE KEYWORD : LOC:23/41B
*****************************************
```

```
KEYWORD : LOC:23/44A
**********************

                                1- GPA;BOX#06;05

   1 ITEMS HOLD THE KEYWORD : LOC:23/44A
*****************************************



KEYWORD : LOC:23/44B
**********************

                                1- GPA;BOX#06;05

   1 ITEMS HOLD THE KEYWORD : LOC:23/44B
*****************************************



KEYWORD : LOC:24/44C
**********************

                                1- GPA;BOX#06;03

   1 ITEMS HOLD THE KEYWORD : LOC:24/44C
*****************************************



KEYWORD : LOC:24/44D
**********************

                                1- GPA;BOX#06;03

   1 ITEMS HOLD THE KEYWORD : LOC:24/44D
*****************************************



KEYWORD : LOC:25/37D
**********************

                                1- GPA;BOX#06;01
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```
   1 ITEMS HOLD THE KEYWORD : LOC:25/37D
*****************************************


KEYWORD : LOC:25/38C
************************

                                1- GPA;BOX#06;01
                                2- GPA;BOX#07;02

   2 ITEMS HOLD THE KEYWORD : LOC:25/38C
*****************************************


KEYWORD : LOC:25/40A
*************************

                                1- GPA;BOX#06;02

   1 ITEMS HOLD THE KEYWORD : LOC:25/40A
*****************************************


KEYWORD : LOC:25/40B
*************************

                                1- GPA;BOX#06;02

   1 ITEMS HOLD THE KEYWORD : LOC:25/40B
*****************************************


KEYWORD : LOC:28/34C
*************************

                                1- GPA;BOX#07;01

   1 ITEMS HOLD THE KEYWORD : LOC:28/34C
*****************************************
```

```
KEYWORD : LOC:28/34D
**********************

                                1- GPA;BOX#07;01

   1 ITEMS HOLD THE KEYWORD : LOC:28/34D
*****************************************



KEYWORD : LOC:ALL S.A.
**********************

                                1- GPA;BOX#1/2/3/4/5;01

   1 ITEMS HOLD THE KEYWORD : LOC:ALL S.A.
*****************************************



KEYWORD : LOC:I-200
**********************

                                1- GPA;BOX#07;01

   1 ITEMS HOLD THE KEYWORD : LOC:I-200
*****************************************



KEYWORD : LOC:I-204
**********************

                                1- GPA;BOX#06;01
                                2- GPA;BOX#07;02

   2 ITEMS HOLD THE KEYWORD : LOC:I-204
*****************************************



KEYWORD : LOC:I-205
**********************

                                1- GPA;BOX#06;02
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```
   1 ITEMS HOLD THE KEYWORD : LOC:I-205
*******************************************


KEYWORD : LOC:I-206
**********************

                                1- GPA;BOX#06;03

   1 ITEMS HOLD THE KEYWORD : LOC:I-206
*******************************************


KEYWORD : LOC:I-210
**********************

                                1- GPA;BOX#06;04
                                2- GPA;BOX#08;03
                                3- GPA;BOX#08;04

   3 ITEMS HOLD THE KEYWORD : LOC:I-210
*******************************************


KEYWORD : LOC:I-211
**********************

                                1- GPA;BOX#06;05

   1 ITEMS HOLD THE KEYWORD : LOC:I-211
*******************************************


KEYWORD : MISC
**********************

                                1- GPA;BOX#1/2/3/4/5;01
```

1 ITEMS HOLD THE KEYWORD : MISC
****

KEYWORD : ORE DEPOSIT
****

1- GPA;BOX#06;01
2- GPA;BOX#06;02
3- GPA;BOX#07;02
4- GPA;BOX#08;03

4 ITEMS HOLD THE KEYWORD : ORE DEPOSIT
****

JOB NO. 11 INDEXED ITEM LIST 26-JUN-78
****
COMPLETE INDEX BY KEYWORD

KEYWORD : AIR MAG
****

1) GPA;BOX#1/2/3/4/5;01
MISC: STRIP FILM NEG, SINGLE FR; AL AYS, AL LISAN, AL AQIQ, ETC., (10
AREAS SCATTERED ACCROSS SHIELD); USGS, HUNTING; 1962
-MISC -AIR MAG -AIR RAD -LOC:ALL S.A.-

2) GPA;BOX#06;03
AIR MAG & AIR RAD SHEET 101 - INTERP, LAMBOLEZ; 1:100,0000; 1968, 68
JED 46, A1-REG-2-3, AMSC-101
-AIR MAG -AIR RAD -LOC:24/44C -LOC:24/44D -LOC:I-206 -

3) GPA;BOX#06;04
AIR MAG & AIR RAD SHEET 112 - INTERP, LAMBOLEZ; 1:100,0000; 1969, 69
JED 22, AMSC-112
-AIR MAG -AIR RAD -LOC:23/41A -LOC:23/41B -LOC:I-210 -

4) GPA;BOX#06;05
AIR MAG & AIR RAD SHEET 115 - INTERP, MAILLARD; 1:100,0000; 1968, 68
JED 54, A1-REG-2-2, AMSC-115
-AIR MAG -AIR RAD -LOC:23/44A -LOC:23/44B -LOC:I-211 -

4 ITEMS HOLD THE KEYWORD : AIR MAG
****

KEYWORD : AIR RAD
****

1) GPA;BOX#1/2/3/4/5;01
MISC: STRIP FILM NEG, SINGLE FR; AL AYS, AL LISAN, AL AQIQ, ETC., (10
AREAS SCATTERED ACCROSS SHIELD); USGS, HUNTING; 1962
-MISC -AIR MAG -AIR RAD -LOC:ALL S.A.-

2) GPA;BOX#06;03
AIR MAG & AIR RAD SHEET 101 - INTERP, LAMBOLEZ; 1:100,0000; 1968, 68
JED 46, A1-REG-2-3, AMSC-101
-AIR MAG -AIR RAD -LOC:24/44C -LOC:24/44D -LOC:I-206 -

3) GPA;BOX#06;04
AIR MAG & AIR RAD SHEET 112 - INTERP, LAMBOLEZ; 1:100,0000; 1969, 69
JED 22, AMSC-112
-AIR MAG -AIR RAD -LOC:23/41A -LOC:23/41B -LOC:I-210 -

4) GPA;BOX#06;05
AIR MAG & AIR RAD SHEET 115 - INTERP, MAILLARD; 1:100,0000; 1968, 68
JED 54, A1-REG-2-2, AMSC-115
-AIR MAG -AIR RAD -LOC:23/44A -LOC:23/44B -LOC:I-211 -

4 ITEMS HOLD THE KEYWORD : AIR RAD
****

KEYWORD : ALLUVIAL PR.
****

1) GPA;BOX#06;01
N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE;
204-2-AYS-3
-GEOLOGY -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D -LOC:25/38C -
-LOC:I-204 -

2) GPA;BOX#06;02
HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCES & GEOL, DELFOUR;
205-2-MUS-HUL-2
-GEOLOGY -GEOCHEMISTRY-ORE DEPOSIT -ALLUVIAL PR.-GROUND RAD -
-LOC:25/40A -LOC:25/40B -LOC:I-205 -

2 ITEMS HOLD THE KEYWORD : ALLUVIAL PR.
****

KEYWORD : GEOCHEMISTRY
****

1) GPA;BOX#06;02
HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCES & GEOL, DELFOUR;
205-2-MUS-HUL-2
-GEOLOGY -GEOCHEMISTRY-ORE DEPOSIT -ALLUVIAL PR.-GROUND RAD -
-LOC:25/40A -LOC:25/40B -LOC:I-205 -

1 ITEMS HOLD THE KEYWORD : GEOCHEMISTRY
****

KEYWORD : GEOLOGY
****

1) GPA;BOX#06;01
N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE;
204-2-AYS-3
-GEOLOGY -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D -LOC:25/38C -
-LOC:I-204 -

2) GPA;BOX#06;02
HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCFS & GEOL, DELFOUR;
205-2-MUS-HUL-2
-GEOLOGY -GEOCHEMISTRY-ORE DEPOSIT -ALLUVIAL PR.-GROUND RAD -
-LOC:25/40A -LOC:25/40B -LOC:I-205 -

3) GPA;BOX#07;01
AL LISAN - GEOL,GRAV INVEST, AGOCS, KAHR; GEOL 1:100,0000; GRAV
1:10,000; 1962, 200-1-LIS-1
-GEOLOGY -GRAVITY -LOC:28/34C -LOC:28/34D -LOC:I-200 -

3 ITEMS HOLD THE KEYWORD : GEOLOGY
****

KEYWORD : GRAVITY
****

1) GPA;BOX#07;01
AL LISAN - GEOL,GRAV INVEST, AGOCS, KAHR; GEOL 1:100,0000; GRAV
1:10,000; 1962, 200-1-LIS-1
-GEOLOGY -GRAVITY -LOC:28/34C -LOC:28/34D -LOC:I-200 -

2) GPA;BOX#07;02
AL AYS - CHROMITE OCCURRENCES, GEOPHYS INVEST, AKHRAS; GRAV, GROUND
MAG 1:1,000; 1966, 204-1-AYS-1 (3 COPIES)
-GRAVITY -GROUND MAG -ORE DEPOSIT -LOC:25/38C -LOC:I-204 -

3) GPA;BOX#08;04
RABIGH - GRAVITY WORK, ZIDAN; 1:1,000 ; 1965, 210-1-RAB-1
-GRAVITY -LOC:22/39C -LOC:I-210 -

3 ITEMS HOLD THE KEYWORD : GRAVITY
****

KEYWORD : GROUND MAG
****

1) GPA;BOX#07;02
AL AYS - CHROMITE OCCURRENCES, GEOPHYS INVEST, AKHRAS; GRAV, GROUND MAG 1:1,000; 1966, 204-1-AYS-1 (3 COPIES)
-GRAVITY -GROUND MAG -ORE DEPOSIT -LOC:25/38C -LOC:I-204 -

2) GPA;BOX#08;03
METHGAL - IRON DEPOSIT, TECH LTR #34, DAVIS, ALLEN; GROUND MAG; 1965, 210-3-MTH-1
-GROUND MAG -ORE DEPOSIT -LOC:22/39B -LOC:I-210 -

2 ITEMS HOLD THE KEYWORD : GROUND MAG
****

KEYWORD : GROUND RAD
****

1) GPA;BOX#06;02
HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCES & GEOL, DELFOUR; 205-2-MUS-HUL-2
-GEOLOGY -GEOCHEMISTRY-ORE DEPOSIT -ALLUVIAL PR.-GROUND RAD -
-LOC:25/40A -LOC:25/40B -LOC:I-205 -

1 ITEMS HOLD THE KEYWORD : GROUND RAD
****

KEYWORD : LOC:22/39B
****

1) GPA;BOX#08;03
METHGAL - IRON DEPOSIT, TECH LTR #34, DAVIS, ALLEN; GROUND MAG; 1965, 210-3-MTH-1
-GROUND MAG -ORE DEPOSIT -LOC:22/39B -LOC:I-210 -

1 ITEMS HOLD THE KEYWORD : LOC:22/39B
****

KEYWORD : LOC:22/39C
****

1) GPA;BOX#08;04
RABIGH - GRAVITY WORK, ZIDAN; 1:1,000 ; 1965, 210-1-RAB-1
-GRAVITY -LOC:22/39C -LOC:I-210 -

1 ITEMS HOLD THE KEYWORD : LOC:22/39C
****

KEYWORD : LOC:23/41A
****

1) GPA;BOX#06;04
AIR MAG & AIR RAD SHEET 112 - INTERP, LAMBOLEZ; 1:100,0000; 1969, 69
JED 22, AMSC-112
-AIR MAG -AIR RAD -LOC:23/41A -LOC:23/41B -LOC:I-210 -

1 ITEMS HOLD THE KEYWORD : LOC:23/41A
****

KEYWORD : LOC:23/41B
****

1) GPA;BOX#06;04
AIR MAG & AIR RAD SHEET 112 - INTERP, LAMBOLEZ; 1:100,0000; 1969, 69
JED 22, AMSC-112
-AIR MAG -AIR RAD -LOC:23/41A -LOC:23/41B -LOC:I-210 -

1 ITEMS HOLD THE KEYWORD : LOC:23/41B
****

KEYWORD : LOC:23/44A
****

1) GPA;BOX#06;05
AIR MAG & AIR RAD SHEET 115 - INTERP, MAILLARD; 1:100,0000; 1968, 68
JED 54, A1-REG-2-2, AMSC-115
-AIR MAG -AIR RAD -LOC:23/44A -LOC:23/44B -LOC:I-211 -

```
   1 ITEMS HOLD THE KEYWORD : LOC:23/44A
*****************************************


KEYWORD : LOC:23/44B
*********************

   1) GPA;BOX#06;05
      AIR MAG & AIR RAD SHEET 115 - INTERP, MAILLARD; 1:100,0000; 1968, 68
         JED 54, A1-REG-2-2, AMSC-115
         -AIR MAG      -AIR RAD      -LOC:23/44A  -LOC:23/44B  -LOC:I-211   -

   1 ITEMS HOLD THE KEYWORD : LOC:23/44B
*****************************************


KEYWORD : LOC:24/44C
*********************

   1) GPA;BOX#06;03
      AIR MAG & AIR RAD SHEET 101 - INTERP, LAMBOLEZ; 1:100,0000; 1968, 68
         JED 46, A1-REG-2-3, AMSC-101
         -AIR MAG      -AIR RAD      -LOC:24/44C  -LOC:24/44D  -LOC:I-206   -

   1 ITEMS HOLD THE KEYWORD : LOC:24/44C
*****************************************


KEYWORD : LOC:24/44D
*********************

   1) GPA;BOX#06;03
      AIR MAG & AIR RAD SHEET 101 - INTERP, LAMBOLEZ; 1:100,0000; 1968, 68
         JED 46, A1-REG-2-3, AMSC-101
         -AIR MAG      -AIR RAD      -LOC:24/44C  -LOC:24/44D  -LOC:I-206   -

   1 ITEMS HOLD THE KEYWORD : LOC:24/44D
*****************************************
```

KEYWORD : LOC:25/37D
****

1) GPA;BOX#06;01
N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE;
204-2-AYS-3
-GEOLOGY -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D -LOC:25/38C -
-LOC:I-204 -

1 ITEMS HOLD THE KEYWORD : LOC:25/37D
****

KEYWORD : LOC:25/38C
****

1) GPA;BOX#06;01
N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE;
204-2-AYS-3
-GEOLOGY -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D -LOC:25/38C -
-LOC:I-204 -

2) GPA;BOX#07;02
AL AYS - CHROMITE OCCURRENCES, GEOPHYS INVEST, AKHRAS; GRAV, GROUND
MAG 1:1,000; 1966, 204-1-AYS-1 (3 COPIES)
-GRAVITY -GROUND MAG -ORE DEPOSIT -LOC:25/38C -LOC:I-204 -

2 ITEMS HOLD THE KEYWORD : LOC:25/38C
****

KEYWORD : LOC:25/40A
****

1) GPA;BOX#06;02
HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCES & GEOL, DELFOUR;
205-2-MUS-HUL-2
-GEOLOGY -GEOCHEMISTRY-ORE DEPOSIT -ALLUVIAL PR.-GROUND RAD -
-LOC:25/40A -LOC:25/40B -LOC:I-205 -

1 ITEMS HOLD THE KEYWORD : LOC:25/40A
****

KEYWORD : LOC:25/40B
****

1) GPA;BOX#06;02
HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCES & GEOL, DELFOUR;
205-2-MUS-HUL-2
-GEOLOGY -GEOCHEMISTRY-ORE DEPOSIT -ALLUVIAL PR,-GROUND RAD -
-LOC:25/40A -LOC:25/40B -LOC:I-205 -

1 ITEMS HOLD THE KEYWORD : LOC:25/40B
****

KEYWORD : LOC:28/34C
****

1) GPA;BOX#07;01
AL LISAN - GEOL,GRAV INVEST, AGOCS, KAHR; GEOL 1:100,0000; GRAV
1:10,000; 1962, 200-1-LIS-1
-GEOLOGY -GRAVITY -LOC:28/34C -LOC:28/34D -LOC:I-200 -

1 ITEMS HOLD THE KEYWORD : LOC:28/34C
****

KEYWORD : LOC:28/34D
****

1) GPA;BOX#07;01
AL LISAN - GEOL,GRAV INVEST, AGOCS, KAHR; GEOL 1:100,0000; GRAV
1:10,000; 1962, 200-1-LIS-1
-GEOLOGY -GRAVITY -LOC:28/34C -LOC:28/34D -LOC:I-200 -

1 ITEMS HOLD THE KEYWORD : LOC:28/34D
****

KEYWORD : LOC:ALL S.A.
****

```
   1) GPA;BOX#1/2/3/4/5;01
      MISC: STRIP FILM NEG, SINGLE FR; AL AYS, AL LISAN, AL AQIQ, ETC., (10
         AREAS SCATTERED ACCROSS SHIELD); USGS, HUNTING; 1962
         -MISC          -AIR MAG      -AIR RAD      -LOC:ALL S.A.-


   1 ITEMS HOLD THE KEYWORD : LOC:ALL S.A.
*****************************************



KEYWORD : LOC:I-200
*********************


   1) GPA;BOX#07;01
      AL LISAN - GEOL,GRAV INVEST, AGOCS, KAHR; GEOL 1:100,0000; GRAV
         1:10,000; 1962, 200-1-LIS-1
         -GEOLOGY      -GRAVITY      -LOC:28/34C   -LOC:28/34D   -LOC:I-200    -


   1 ITEMS HOLD THE KEYWORD : LOC:I-200
*****************************************



KEYWORD : LOC:I-204
*********************


   1) GPA;BOX#06;01
      N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE;
         204-2-AYS-3
         -GEOLOGY      -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D   -LOC:25/38C   -
         -LOC:I-204    -

   2) GPA;BOX#07;02
      AL AYS - CHROMITE OCCURRENCES, GEOPHYS INVEST, AKHRAS; GRAV, GROUND
         MAG 1:1,000; 1966, 204-1-AYS-1 (3 COPIES)
         -GRAVITY      -GROUND MAG   -ORE DEPOSIT -LOC:25/38C   -LOC:I-204    -


   2 ITEMS HOLD THE KEYWORD : LOC:I-204
*****************************************
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KEYWORD : LOC:I-205
****

1) GPA;BOX#06;02
HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCES & GEOL, DELFOUR;
205-2-MUS-HUL-2
-GEOLOGY -GEOCHEMISTRY-ORE DEPOSIT -ALLUVIAL PR.-GROUND RAD -
-LOC:25/40A -LOC:25/40B -LOC:I-205 -

1 ITEMS HOLD THE KEYWORD : LOC:I-205
****

KEYWORD : LOC:I-206
****

1) GPA;BOX#06;03
AIR MAG & AIR RAD SHEET 101 - INTERP, LAMBOLEZ; 1:100,0000; 1968, 68
JED 46, A1-REG-2-3, AMSC-101
-AIR MAG -AIR RAD -LOC:24/44C -LOC:24/44D -LOC:I-206 -

1 ITEMS HOLD THE KEYWORD : LOC:I-206
****

KEYWORD : LOC:I-210
****

1) GPA;BOX#06;04
AIR MAG & AIR RAD SHEET 112 - INTERP, LAMBOLEZ; 1:100,0000; 1969, 69
JED 22, AMSC-112
-AIR MAG -AIR RAD -LOC:23/41A -LOC:23/41B -LOC:I-210 -

2) GPA;BOX#08;03
METHGAL - IRON DEPOSIT, TECH LTR #34, DAVIS, ALLEN; GROUND MAG; 1965,
210-3-MTH-1
-GROUND MAG -ORE DEPOSIT -LOC:22/39B -LOC:I-210 -

3) GPA;BOX#08;04
RABIGH - GRAVITY WORK, ZIDAN; 1:1,000 ; 1965, 210-1-RAB-1
-GRAVITY -LOC:22/39C -LOC:I-210 -

3 ITEMS HOLD THE KEYWORD : LOC:I-210
****

KEYWORD : LOC:I-211
****

1) GPA;BOX#06;05
AIR MAG & AIR RAD SHEET 115 - INTERP, MAILLARD; 1:100,0000; 1968, 68
JED 54, A1-REG-2-2, AMSC-115
-AIR MAG -AIR RAD -LOC:23/44A -LOC:23/44B -LOC:I-211 -

1 ITEMS HOLD THE KEYWORD : LOC:I-211
****

KEYWORD : MISC
****

1) GPA;BOX#1/2/3/4/5;01
MISC: STRIP FILM NEG, SINGLE FR; AL AYS, AL LISAN, AL AQIQ, ETC., (10
AREAS SCATTERED ACCROSS SHIELD); USGS, HUNTING; 1962
-MISC -AIR MAG -AIR RAD -LOC:ALL S.A.-

1 ITEMS HOLD THE KEYWORD : MISC
****

KEYWORD : ORE DEPOSIT
****

1) GPA;BOX#06;01
N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE;
204-2-AYS-3
-GEOLOGY -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D -LOC:25/38C -
-LOC:I-204 -

2) GPA;BOX#06;02
HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCES & GEOL, DELFOUR;
205-2-MUS-HUL-2
-GEOLOGY -GEOCHEMISTRY-ORE DEPOSIT -ALLUVIAL PR.-GROUND RAD -
-LOC:25/40A -LOC:25/40B -LOC:I-205 -

```
3) GPA;BOX#07;02
   AL AYS - CHROMITE OCCURRENCES, GEOPHYS INVEST, AKHRAS; GRAV, GROUND
      MAG 1:1,000; 1966, 204-1-AYS-1 (3 COPIES)
      -GRAVITY     -GROUND MAG  -ORE DEPOSIT -LOC:25/38C  -LOC:I-204   -

4) GPA;BOX#08;03
   METHGAL - IRON DEPOSIT, TECH LTR #34, DAVIS, ALLEN; GROUND MAG; 1965,
      210-3-MTH-1
      -GROUND MAG  -ORE DEPOSIT -LOC:22/39B  -LOC:I-210   -


4 ITEMS HOLD THE KEYWORD : ORE DEPOSIT
*****************************************
```

JOB NO. 12 INDEXED ID LIST 26-JUN-78
****
INDEX BY KEYWORD

KEYWORD : GEOLOGY
****

1- GPA;BOX#06;01
2- GPA;BOX#06;02
3- GPA;BOX#07;01

3 ITEMS HOLD THE KEYWORD : GEOLOGY
****

KEYWORD : LOC:I-204
****

1- GPA;BOX#06;01
2- GPA;BOX#07;02

2 ITEMS HOLD THE KEYWORD : LOC:I-204
****

JOB NO. 13 INDEXED ITEM LIST 26-JUN-78
********* ********** **********
INDEX BY KEYWORD

KEYWORD : GEOLOGY
****

1) GPA;BOX#06;01
N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE;
204-2-AYS-3
-GEOLOGY -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D -LOC:25/38C -
-LOC:I-204 -

2) GPA;BOX#06;02
HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCES & GEOL, DELFOUR;
205-2-MUS-HUL-2
-GEOLOGY -GEOCHEMISTRY-ORE DEPOSIT -ALLUVIAL PR.-GROUND RAD -
-LOC:25/40A -LOC:25/40B -LOC:I-205 -

3) GPA;BOX#07;01
AL LISAN - GEOL,GRAV INVEST, AGOCS, KAHR; GEOL 1:100,0000; GRAV
1:10,000; 1962, 200-1-LIS-1
-GEOLOGY -GRAVITY -LOC:28/34C -LOC:28/34D -LOC:I-200 -

3 ITEMS HOLD THE KEYWORD : GEOLOGY
****

KEYWORD : LOC:I-204
****

1) GPA;BOX#06;01
N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE;
204-2-AYS-3
-GEOLOGY -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D -LOC:25/38C -
-LOC:I-204 -

2) GPA;BOX#07;02
AL AYS - CHROMITE OCCURRENCES, GEOPHYS INVEST, AKHRAS; GRAV, GROUND
MAG 1:1,000; 1966, 204-1-AYS-1 (3 COPIES)
-GRAVITY -GROUND MAG -ORE DEPOSIT -LOC:25/38C -LOC:I-204 -

2 ITEMS HOLD THE KEYWORD : LOC:I-204
****

JOB NO. 14 INDEXED ID LIST 26-JUN-78
****
INDEX BY KEYWORD

KEYWORD BEGINNING WITH : GEO
****

1- GPA;BOX#06;01
2- GPA;BOX#06;02
3- GPA;BOX#07;01

3 ITEMS HOLD A KEYWORD BEGINNING WITH : GEO
****

KEYWORD BEGINNING WITH : LOC:I-20
****

1- GPA;BOX#06;01
2- GPA;BOX#06;02
3- GPA;BOX#06;03
4- GPA;BOX#07;01
5- GPA;BOX#07;02

5 ITEMS HOLD A KEYWORD BEGINNING WITH : LOC:I-20
****

JOB NO. 15 INDEXED ITEM LIST 26-JUN-78
****
INDEX BY KEYWORD

KEYWORD BEGINNING WITH : GEO
****

1) GPA;BOX#06;01
N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE;
204-2-AYS-3
-GEOLOGY -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D -LOC:25/38C -
-LOC:I-204 -

2) GPA;BOX#06;02
HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCES & GEOL, DELFOUR;
205-2-MUS-HUL-2
-GEOLOGY -GEOCHEMISTRY-ORE DEPOSIT -ALLUVIAL PR.-GROUND RAD -
-LOC:25/40A -LOC:25/40B -LOC:I-205 -

3) GPA;BOX#07;01
AL LISAN - GEOL,GRAV INVEST, AGOCS, KAHR; GEOL 1:100,0000; GRAV
1:10,000; 1962, 200-1-LIS-1
-GEOLOGY -GRAVITY -LOC:28/34C -LOC:28/34D -LOC:I-200 -

3 ITEMS HOLD A KEYWORD BEGINNING WITH : GEO
****

KEYWORD BEGINNING WITH : LOC:I-20
****

1) GPA;BOX#06;01
N. AL AYS - PRELIM RPT ON MINERAL RESOURCES & GEOL, HENRY &LEFEYRE;
204-2-AYS-3
-GEOLOGY -ORE DEPOSIT -ALLUVIAL PR.-LOC:25/37D -LOC:25/38C -
-LOC:I-204 -

2) GPA;BOX#06;02
HYLAYFAH/MUSAYNAAH - PRELIM RPT ON MINERAL RESOURCES & GEOL, DELFOUR;
205-2-MUS-HUL-2
-GEOLOGY -GEOCHEMISTRY-ORE DEPOSIT -ALLUVIAL PR.-GROUND RAD -
-LOC:25/40A -LOC:25/40B -LOC:I-205 -

3) GPA;BOX#06;03
AIR MAG & AIR RAD SHEET 101 - INTERP, LAMBOLEZ; 1:100,0000; 1968, 68
JED 46, A1-REG-2-3, AMSC-101
-AIR MAG -AIR RAD -LOC:24/44C -LOC:24/44D -LOC:I-206 -

```
4) GPA;BOX#07;01
   AL LISAN - GEOL,GRAV INVEST, AGOCS, KAHR; GEOL 1:100,0000; GRAV
      1:10,000; 1962, 200-1-LIS-1
      -GEOLOGY      -GRAVITY      -LOC:28/34C  -LOC:28/34D  -LOC:I-200   -

5) GPA;BOX#07;02
   AL AYS - CHROMITE OCCURRENCES, GEOPHYS INVEST, AKHRAS; GRAV, GROUND
      MAG 1:1,000; 1966, 204-1-AYS-1 (3 COPIES)
      -GRAVITY      -GROUND MAG  -ORE DEPOSIT -LOC:25/38C  -LOC:I-204   -


5 ITEMS HOLD A KEYWORD BEGINNING WITH : LOC:I-20
*************************************************
```

SOURCE PROGRAM LISTING

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```
0001            PROGRAM GENDOC
        C       -------------
        C   PRINT SEQUENTIAL OR INDEXED LISTS OF ID OR ITEMS OF GENERAL
        C         DOCUMENTATION FILE.
        C   M.D. 31-MAY-77 / UPDATE JAN 78
        C
0002            LOGICAL*1 FILEN1,FILEN3,FILEN4
0003            LOGICAL*1 ID,KEYWOR,DAT,DAT1,ALLKEY,KEY,TAM
0004            COMMON/UNIT/IO1,IO2,IO3,ITT,IOW,FILEN1(20),FILEN3(20),FILEN4(20)
0005            COMMON/IDREC/ID(20),NEND,NKEY,KEYWOR(12,10),NTEX
0006            COMMON/PRINTS/NLINE,NPAGE,JO,DAT(10),NID,IPL,IKEY,IOPT,ICOM,ICAS,
               1NCOP
0007            COMMON/KEYS/DAT1(10),NALL,ALLKEY(12,250),NREP(250)
0008            COMMON/BIDON/NCHAR(50),KEY(12,50),TAM(12)
0009            DATA IO1/1/,IO2/2/,IO3/3/,ITT/5/,IOW/4/
        C
0010    2000     FORMAT(' THIS PROGRAM PRINTS SEQUENTIAL/',
               1'INDEXED LIST OF ID/ITEMS OF GENERAL'/' DOCUMENTATION FILE.'/)
0011    2001     FORMAT(/' JOB NO.',I3/1X,10(1H*))
0012    2002     FORMAT(/' ENTER THE FOLLOWING ABOUT ITEM LIST PRINTOUTS :'/
               3' - WANT TO GO TO NEXT PAGE (1), OR LINE (2) BETWEEN ITEMS ?')
        C
0013            CALL DATE (DAT)
0014            WRITE(ITT,2000)
0015    10      CALL TTINAA ('FILENAME OF GENERAL DOCUMENTATION FILE',38,
               1 FILEN1,20,ITT)
0016            CALL ASSIGN (IO1,FILEN1)
0017            CALL TTINAA ('FILENAME OF PRINTER FILE',24,FILEN4,20,ITT)
0018            CALL ASSIGN (IOW,FILEN4)
0019    5       WRITE(ITT,2002)
0020            CALL TTINSI ('ENTER 1 OR 2',12,IPL,ITT)
0021            CALL TTINAA ('WANT TO PRINT KEYWORDS WITH EACH ITEM (Y OR N)',46,
               1IKEY,2,ITT)
        C
0022    12      JO=0
0023    15      JO=JO+1
0024            WRITE(ITT,2001) JO
0025            CALL TTINSI ('SEQUENTIAL (1), OR INDEX (2) PROCEDURE',38,IS,ITT)
0026            GOTO (110,120) IS
0027    110     CALL SEQUEN
        C       -----------
0028            GOTO 8000
0029    120     CALL INDEX
        C       ----------
        C
0030    8000    CALL TTINAA ('WANT TO END PROGRAM (Y OR N)',28,IAN,2,ITT)
0031            IF (IAN.EQ.'N') GOTO 15
0032            CALL CLOSE (IO1)
0033            CLOSE (UNIT=IOW)
0034            STOP '*** END OF PROGRAM ***'
0035            END
```

```
0001            SUBROUTINE READID
      C         ----------------
      C   READ ONE ID RECORD
0002            LOGICAL*1 KEYWOR,ID
0003            COMMON/UNIT/IO1,IO2,IO3,ITT,IOW
0004            COMMON/IDREC/ID(20),NEND,NKEY,KEYWOR(12,10),NTEX
0005    2000  FORMAT(' *** ERROR WHILE READING ID RECORD :'/
             1' ID: ',20A1,' NTEX:',I5,5X,' NKEY:',I3/' KEYWOR: ',(T10,60A1))
      C
0006            NEND=0
0007            READ (IO1,END=500,ERR=600) ID,NTEX,NKEY,
             1((KEYWOR(I,J),I=1,12),J=1,NKEY)
0008            RETURN
      C
0009    500     NEND=1
0010            RETURN
0011    600     WRITE(ITT,2000) ID,NTEX,NKEY,KEYWOR
0012            STOP ' *** CORRECT THIS ID RECORD. ***'
0013            END
```

```
0001              SUBROUTINE REATEX
        C         ================
        C    READ TEXT RECORDS TO SKIP THEM
0002              LOGICAL*1 ID,KEYWOR
0003              COMMON/UNIT/IO1,IO2,IO3,ITT,IOW
0004              COMMON/IDREC/ID(20),NEND,NKEY,KEYWOR(12,10),NTEX
        C
0005              DO 10 I=1,NTEX
0006    10        READ (IO1,END=500,ERR=600)
0007              RETURN
        C
0008    500       STOP ' *** END OF FILE NOT EXPECTED. ***'
0009    600       STOP ' *** ERROR WHILE READING ID RECORD. ***'
0010              END
```

```
0001            SUBROUTINE WRITID (LID,N0,J,IREP,NREP)
        C       ----------------
        C   PRINT LIST STORED IN ARRAY LID, AND NB OF OCCURRENCES NREP IF IREP=1
0002            LOGICAL*1 LID(1),DAT
0003            COMMON/UNIT/IU1,IO2,IO3,ITT,IOW
0004            COMMON/PRINTS/NLINE,NPAGE,JO,DAT(10),NBID,IPL,IKEY,IOPT,ICOM,ICAS,
              1NCOP
0005            DIMENSION NREP(1)
0006    2200  FORMAT(T28,I4,'- ',<N0>A1)
0007    2201  FORMAT(1H+,T60,I4)
        C
0008            IF (NLINE.GE.60) CALL PAGES
        C                        ----------
0009            WRITE(IOW,2200) J,(LID(I),I=1,N0)
0010            NLINE=NLINE+1
0011            IF (IREP.EQ.0) RETURN
0012            WRITE(IOW,2201) NREP(J)
0013            RETURN
0014            END
```

```
0001              SUBROUTINE WRITEX
        C         ----------------
        C    PRINT ID, KEYWORDS, TEXT FOR ONE ITEM
0002              LOGICAL*1 ID,KEYWOR,DAT,BID(79)
0003              COMMON/UNIT/IO1,IO2,IO3,ITT,IOW
0004              COMMON/IDREC/ID(20),NEND,NKEY,KEYWOR(12,10),NTEX
0005              COMMON/PRINTS/NLINE,NPAGE,JD,DAT(10),NID,IPL,IKEY,IOPT,ICOM,ICAS,
                 1NCOP
0006     2000      FORMAT(I4,')',T15,20A1/1X,4(1H*)/)
0007     2001      FORMAT(1X,'KEYWORDS :',T15,<N1>(12A1,'-'))
0008     2002      FORMAT(1X,'********',T15,<N2>(12A1,'-')///)
0009     2003      FORMAT(1H1)
0010     2004      FORMAT(/I5,') ',20A1)
0011     2005      FORMAT(1X,8(1H*)///)
0012     2006      FORMAT(1X,79A1)
0013     2007      FORMAT(' *** END OF FILE NOT EXPECTED. LAST READ TEXT',
                 7' RECORD :')
0014     2008      FORMAT(' *** ERROR WHILE READING TEXT RECORD :')
0015     2009      FORMAT(T10,70A1)
0016     2010      FORMAT(10X,<N1>('-',12A1),'-')
        C
0017              N1=NKEY
0018              N2=NKEY-6
0019              IF (NKEY.GT.5) N1=5
0020              IF (IPL.EQ.1) GOTO 50
0021              IF ((NLINE+NTEX+4).GE.60)  CALL PAGES
        C                                    ----------
0022              WRITE(IOW,2004) NID,ID
0023              NLINE=NLINE+2
0024              GOTO 30
0025     50       CALL PAGES
        C         ----------
0026              WRITE(IOW,2000) NID,ID
0027              IF (IKEY.EQ.2) GOTO 30
        C
0028              WRITE(IOW,2001) ((KEYWOR(I,J),I=1,12),J=1,N1)
0029              IF(NKEY.LT.5) GOTO 40
0030              WRITE(IOW,2002) ((KEYWOR(I,J),I=1,12),J=6,NKEY)
0031              GOTO 30
0032     40       WRITE(IOW,2005)
        C
0033     30       DO 10 I=1,NTEX
0034              READ (IO1,END=500,ERR=600) BID
0035              IF (BID(1).EQ."014) CALL PAGES
        C                                ----------
0036              WRITE(IOW,2006)  BID
0037              NLINE=NLINE+1
0038     10       CONTINUE
        C
0039              IF ((IPL.EQ.1).OR.(IKEY.EQ.2)) RETURN
0040              WRITE(IOW,2010) ((KEYWOR(I,J),I=1,12),J=1,N1)
0041              NLINE=NLINE+1
0042              IF (NKEY.LT.6) RETURN
0043              N1=N2
0044              WRITE(IOW,2010) ((KEYWOR(I,J),I=1,12),J=6,NKEY)
0045              NLINE=NLINE+1
```

```
0046                RETURN
          C
0047      500       WRITE(ITT,2007)
0048                GOTO 650
0049      600       WRITE(ITT,2008)
0050      650       WRITE(ITT,2009) BID
0051                STOP ' *** CORRECT THE FILE. ***'
0052                END
```

```
0001            SUBROUTINE PAGES
      C         ----------------
0002            LOGICAL*1 DAT
0003            COMMON/UNIT/IO1,IO2,IO3,ITT,IOW
0004            COMMON/PRINTS/NLINE,NPAGE,JO,DAT(10),NID,IPL,IKEY,IOPT,ICOM,ICAS,
               1NCOP
0005    2200     FORMAT(1H1,T68,'PAGE',I4/)
      C
0006            NPAGE=NPAGE+1
0007            WRITE(IOW,2200) NPAGE
0008            NLINE=2
0009            RETURN
0010            END
```

```
0001            SUBROUTINE SEQUEN
        C       ----------------
        C   SEQUENTIAL PROCEDURE
        C
0002            LOGICAL*1 FILEN1,FILEN3,FILEN4
0003            LOGICAL*1 ID,KEYWOR,DAT,DAT1,ALLKEY,KEY,TAM
0004            COMMON/UNIT/IO1,IO2,IO3,ITT,IOW,FILEN1(20),FILEN3(20),FILEN4(20)
0005            COMMON/IDREC/ID(20),NEND,NKEY,KEYWOR(12,10),NTEX
0006            COMMON/PRINT8/NLINE,NPAGE,JO,DAT(10),NID,IPL,IKEY,IOPT,ICOM,ICAS,
             1NCOP
0007            COMMON/KEYS/DAT1(10),NALL,ALLKEY(12,250),NREP(250)
0008            COMMON/BIDON/NCHAR(50),KEY(12,50),TAM(12)
        C
0009    2200  FORMAT(' JOB NO.',I3,T20,'SEQUENTIAL ID LIST',T67,10A1/
             11X,10(1H*),T20,18(1H*)///)
0010    2201  FORMAT(//' FILE ',20A1,' HOLDS',I4,' ITEMS'/
             11X,40(1H*))
0011    2202  FORMAT(' JOB NO.',I3,T20,'SEQUENTIAL ITEM LIST',T67,10A1/
             21X,10(1H*),T20,20(1H*)///)
        C
0012            CALL TTINSI ('PRINT ID LIST (1), OR ITEM LIST (2)',35,IOPT,ITT)
0013            CALL TTINSI ('NUMBER OF COPIES',10,NCOP,ITT)
0014            DO 200 I=1,NCOP
0015            NPAGE=0
0016            CALL PAGES
        C       ----------
0017            IF (IOPT.EQ.1) WRITE(IOW,2200) JO,DAT
0018            IF (IOPT.EQ.2) WRITE(IOW,2202) JO,DAT
0019            NLINE=NLINE+5
0020            NID=0
0021            REWIND IO1
0022    120     CALL READID
        C       -----------
0023            IF (NEND.EQ.1) GOTO 300
0024            NID=NID+1
0025            IF (IOPT.EQ.2) GOTO 310
0026            CALL WRITID (ID,20,NID,0,NREP)
        C       -----------
0027            CALL REATEX
        C       -----------
0028            GOTO 120
0029    310     CALL WRITEX
        C       -----------
0030            GOTO 120
        C--------------------
0031    300     IF (IOPT.EQ.2) GOTO 320
0032            IF (NLINE.GE.56) CALL PAGES
        C                        ----------
0033            GOTO 330
0034    320     IF ((IPL.EQ.1).OR.(NLINE.GE.56)) CALL PAGES
        C                                        ----------
0035    330     WRITE(IOW,2201) FILEN1,NID
0036    200     CONTINUE
0037            RETURN
0038            END
```

```
0001            SUBROUTINE INDEX
      C         ----------------
      C    INDEX PROCEDURE
0002            COMMON/UNIT/IO1,IO2,IO3,ITT,IOW
      C
0003            CALL TTINSI ('INDEX BY ID (1), OR BY KEYWORD (2)',34,IOPT,ITT)
0004            GOTO (110,120) IOPT
0005      110   CALL INDEXI
      C         -----------
0006            RETURN
0007      120   CALL INDEXK
      C         -----------
0008            RETURN
0009            END
```

```
0001            SUBROUTINE READS0
        C       ----------------
        C   READS ID/ITEM LIST, & NO OF COPIES
0002            LOGICAL*1 DAT
0003            COMMON/UNIT/IO1,IO2,IO3,ITT,IOW
0004            COMMON/PRINTS/NLINE,NPAGE,JO,DAT(10),NID,IPL,IKEY,IOPT,ICOM,ICAS,
          1NCOP
        C
0005            CALL TTINSI ('PRINT ID LIST (1), OR ITEM LIST (2)',35,IOPT,ITT)
0006            ICAS=2
0007            IF ((IOPT.EQ.2).AND.(IPL.EQ.1)) ICAS=1
0008            CALL TTINSI ('NUMBER OF COPIES',16,NCOP,ITT)
0009            RETURN
0010            END
```

```
0001            SUBROUTINE ENTKEY (KEY,N1,N2,NK,NCHAR,ICHECK,ALLKEY,M1,M2,ITT)
      C         ----------------
      C     ENTER KEYWORDS FROM ITT
      C           KEY        ARRAY TO STORE KEYWORDS, LOGICAL*1
      C           N1,N2      DIMENSIONS OF KEY
      C           NK         NO OF KEYWORDS  (<=N2)
      C           NCHAR      ARRAY CONTAINING NO OF CHARACTERS OF EACH KEYWORD
      C           ICHECK     =0, NO CHECK OF KEY WITH ALLKEY
      C                      =1, CHECK OF KEY WITH ALLKEY
      C           ALLKEY     ARRAY CONTAINING LIST OF ALL AVAILABLE KEYWORDS
      C           M1,M2      DIMENSIONS OF ALLKEY
      C
0002            LOGICAL*1 KEY(N1,N2),ALLKEY(M1,M2),BLANC(20)
0003            LOGICAL*4 KEND,LEND
0004            DIMENSION NCHAR(N2)
0005            DATA BLANC/20*1H /,KEND/'END '/
0006      1000  FORMAT(Q,20A1)
0007      2000  FORMAT(' MORE THAN ',I4,' ENTRIES.'/' ONLY THE FIRST ',I4,
               1' ENTRIES ARE KEPT.')
0008      2001  FORMAT(10X,I3,' : '$)
0009      2002  FORMAT(' THIS ENTRY IS NOT IN THE FILE.')
      C
0010            DO 100 I=1,N2
0011      100   CALL MOVE (BLANC,KEY(1,I),N1)
      C ------------------- ENTER KEYWORDS ----------------------------------
0012            NK=0
0013      600   NK=NK+1
0014            IF(NK.LE.N2) GOTO 604
0015            WRITE(ITT,2000) N2,N2
0016            NK=N2
0017            RETURN
0018      604   WRITE(ITT,2001) NK
0019            READ (ITT,1000) NC,(KEY(I,NK),I=1,NC)
0020            NCHAR(NK)=NC
0021            CALL MOVE (KEY(1,NK),LEND,4)
0022            IF (LEND.EQ.KEND) GOTO 605
0023            IF (ICHECK.EQ.0) GOTO 600
      C ----------------  ENTERED KEYWORD IS COMPARED WITH ALLKEY
0024            DO 601 J=1,M2
0025            IF (IEQ(KEY(1,NK),ALLKEY(1,J),NC).EQ.1) GOTO 600
0026      601   CONTINUE
0027            WRITE(ITT,2002)
0028            NK=NK-1
0029            GOTO 600
      C
0030      605   NK=NK-1
0031            RETURN
0032            END
```

```
0001            FUNCTION IEQ (A,B,N)
        C       ************
        C   FINDS IF ARRAY A IS EQUAL TO ARRAY B
0002            LOGICAL*1 A(1),B(1)
        C
0003            IEQ=0
0004            DO 100 I=1,N
0005            IF (A(I).NE.B(I)) RETURN
0006    100     CONTINUE
0007            IEQ=1
0008            RETURN
0009            END
```

```
0001            SUBROUTINE INDEXI
      C         ----------------
      C    INDEX BY ID
0002            COMMON/UNIT/IO1,IO2,IO3,ITT,IOW
0003    2000    FORMAT(/' ENTER ID  (ENTER ''END'' TO END LIST) : ')
0004    2001    FORMAT(/' ENTER FIRST CHARACTERS OF ID  (ENTER ''END'' TO END',
             2' LIST) : ')
      C
0005            CALL TTINSI ('ENTER COMPLETE ID (1), OR FIRST CHARACTERS OF ID (2)',
             1$2,IOPT,ITT)
0006            GOTO (110,120) IOPT
0007    110     WRITE(ITT,2000)
0008            CALL INCOMI
      C         ----------
0009            RETURN
0010    120     WRITE(ITT,2001)
0011            CALL INBEGI
      C         -----------
0012            RETURN
0013            END
```

```
0001            SUBROUTINE INBEGI
        C       ----------------
        C   INDEX BY ID, BEGINNING OF ID, ID OR ITEM LIST.
0002            LOGICAL*1 FILEN1,FILEN3,FILEN4
0003            LOGICAL*1 ID,KEYWOR,DAT,KEY,KID,TAM
0004            COMMON/UNIT/IO1,IO2,IO3,ITT,IOW,FILEN1(20),FILEN3(20),FILEN4(20)
0005            COMMON/IDREC/ID(20),NEND,NKEY,KEYWOR(12,10),NTEX
0006            COMMON/PRINTS/NLINE,NPAGE,JO,DAT(10),NID,IPL,IKEY,IOPT,ICOM,ICAS,
              1NCOP
0007            COMMON/KEYS/KID(20,50)
0008            COMMON/BIDON/NCHAR(50),KEY(12,50),TAM(12)
0009    2000  FORMAT(/' ITEMS ARE PRINTED AS FOLLOWS :')
0010    2001  FORMAT(T15,I4,'- ',20A1)
0011    2002  FORMAT(I4,') ',20A1)
0012    2200  FORMAT(' JOB NO.',I3,T20,'INDEXED ID LIST',T67,10A1/
             91X,10(1H*),T20,15(1H*)/T22,'INDEX BY ID'///)
0013    2201  FORMAT(' JOB NO.'I3,T20,'INDEXED ITEM LIST',T67,10A1/
             11X,10(1H*),T20,17(1H*)/T23,'INDEX BY ID'///)
0014    2202  FORMAT(' ID BEGINNING WITH : ',<NC>A1/1X,<20+NC>(1H*)/)
0015    2203  FORMAT(//I4,' ID BEGIN WITH : ',<NC>A1/1X,<20+NC>(1H*)////)
        C
0016            CALL ENTKEY (KID,20,50,NIDS,NCHAR,0,BIDON,1,1,ITT)
        C       -----------
0017            CALL READS0
        C       -----------
        C
0018            DO 170 I=1,NCOP
0019            NPAGE=0
0020            CALL PAGES
        C       ----------
0021            IF (IOPT.EQ.1) WRITE(IOW,2200)JO,DAT
0022            IF (IOPT.EQ.2) WRITE(IOW,2201)JO,DAT
0023            NLINE=NLINE+6
0024            IF (I.EQ.1) WRITE(ITT,2000)
        C
0025            DO 175 NIDT=1,NIDS
0026            NC=NCHAR(NIDT)
0027            IF ((ICAS.EQ.1).OR.(NLINE.GE.53)) CALL PAGES
        C                                         ----------
0028            WRITE(IOW,2202) (KID(K,NIDT),K=1,NC)
0029            NLINE=NLINE+7
0030            REWIND IO1
0031            IF (I.EQ.1) WRITE(ITT,2002) NIDT,(KID(K,NIDT),K=1,NC)
0032            NID=0
0033    190     CALL READID
        C       -----------
0034            IF (NEND.EQ.1) GOTO 165
0035            IF (IEQ(ID,KID(1,NIDT),NC).EQ.0) GOTO 176
0036            NID=NID+1
0037            IF (I.EQ.1) WRITE(ITT,2001) NID,(ID(K),K=1,20)
0038            IF (IOPT.EQ.2) GOTO 210
0039            CALL WRITID (ID,20,NID,0,NREP)
        C       -----------
0040    176     CALL REATEX
        C       -----------
0041            GOTO 190
```

```
0042    210     CALL WRITEX
        C       -----------
0043            GOTO 190
        C
0044    165     IF (NID.EQ.0) GOTO 220
0045    220     IF ((ICAS.EQ.1).OR.(NLINE.GE.52)) CALL PAGES
        C                                         ----------
0046            WRITE(IOW,2203) NID,(KID(K,NIDT),K=1,NC)
0047            NLINE=NLINE+8
0048    175     CONTINUE
        C
0049    170     CONTINUE
0050            RETURN
0051            END
```

```
0001            SUBROUTINE INCOMI
        C       ----------------
        C   INDEX BY ID, COMPLETE ID, LIST IS ITEM LIST ONLY
0002            LOGICAL*1 FILEN1,FILEN3,FILEN4
0003            LOGICAL*1 ID,KEYWOR,DA!,DAT1,ALLKEY,KEY,TAM,KID
0004            COMMON/UNIT/IO1,IO2,IO3,ITT,IOW,FILEN1(20),FILEN3(20),FILEN4(20)
0005            COMMON/IDREC/ID(20),NEND,NKEY,KEYWOR(12,10),NTEX
0006            COMMON/PRINTS/NLINE,NPAGE,JO,DAT(10),NID,IPL,IKEY,IOPT,ICOM,ICAS,
             1NCOP
0007            COMMON/KEYS/KID(20,50)
0008            COMMON/BIDON/NCHAR(50),KEY(12,50),TAM(12)
0009    2000  FORMAT(/' ITEMS ARE PRINTED AS FOLLOWS :')
0010    2001  FORMAT(T15,I4,'- ',20A1)
0011    2002  FORMAT(' THIS ID IS NOT IN THE FILE ',20A1)
0012    2200  FORMAT(' JOB NO.',I3,T40,'INDEXED ITEM LIST',T67,10A1/
             41X,10(1H*),T20,17(1H*)/T23,'INDEX BY ID'///)
0013    2201  FORMAT(//I5,') ',20A1,T40,'IS NOT IN THE FILE ',
             $20A1/T40,39(1H*)//)
        C
0014            CALL ENTKEY (KID,20,100,NIDS,NCHAR,0,BIDON,1,1,ITT)
        C       -----------
0015            CALL TTINS (' NUMBER OF COPIES',16,NCOP,ITT)
0016            DO 170 I=1,NCOP
0017            NPAGE=0
0018            CALL PAGES
        C       ----------
0019            WRITE(IOW,2200) JO,DAT
0020            NLINE=NLINE+5
0021            IF (I.EQ.1) WRITE(ITT,2000)
0022            DO 175 NID=1,NIDS
0023            REWIND IO1
0024            IF (I.EQ.1) WRITE(ITT,2001) NID,(KID(K,NID),K=1,20)
0025    190     CALL READID
        C       ----------
0026            IF (NEND.EQ.1) GOTO 165
0027            IF (IEQ(ID,KID(1,NID),20).EQ.0) GOTO 176
0028            CALL WRITEX
        C       -----------
0029            GOTO 175
0030    176     CALL REATEX
        C       -----------
0031            GOTO 190
0032    165     WRITE(ITT,2002) FILEN1
0033            IF ((IPL.EQ.1).OR.(NLINE.GE.54)) CALL PAGES
        C                                        ----------
0034    168     WRITE(IOW,2201) NID,(KID(K,NID),K=1,20),FILEN1
0035            NLINE=NLINE+6
0036    175     CONTINUE
0037    170     CONTINUE
0038            RETURN
0039            END
```

```
0001            SUBROUTINE INDEXK
        C       ----------------
        C   INDEX BY KEYWORD
0002            LOGICAL*1 FILEN1,FILEN3,FILEN4
0003            LOGICAL*1 ID,KEYWOR,DAT,DAT1,ALLKEY,KEY,TAM
0004            COMMON/UNIT/IO1,IO2,IO3,ITT,IOW,FILEN1(20),FILEN3(20),FILEN4(20)
0005            COMMON/IDREC/ID(20),NEND,NKEY,KEYWOR(12,10),NTEX
0006            COMMON/PRINTS/NLINE,NPAGE,JO,DAT(10),NID,IPL,IKEY,IOPT,ICOM,ICAS,
           1NCOP
0007            COMMON/KEYS/DAT1(10),NALL,ALLKEY(12,250),NREP(250)
0008            COMMON/BIDON/NCHAR(50),KEY(12,50),TAM(12)
0009    2000  FORMAT(/' SELECT FROM THESE TWO OPTIONS :'/
           1T10,'1- ONLY ONE SEARCH WITH SEVERAL KEYWORDS'/
           2T10,'2- SEVERAL SEARCHES WITH ONE KEYWORD EACH TIME')
0010    2200  FORMAT(' JOB NO.',I3,T20,'LIST OF ALL KEYWORDS',T97,10A1/
           11X,10(1H*),T20,20(1H*)///)
0011    2201  FORMAT(' THERE ARE',I4,' DIFFERENT KEYWORDS.'/' LIST MADE ',
           2'ON ',10A1,5X,' HAS BEEN READ/STORED ON FILE ',20A1,
           3 //T34,'KEYWORD',T57,'NB OF OCCURRENCES'/)
        C
0012            CALL TTINAA ('NEED TO UPDATE/CREATE LIST OF ALL KEYWORDS (Y OR N)',
           181,IAN,2,ITT)
0013            CALL TTINAA ('FILENAME OF KEYWORD FILE',24,FILEN3,20,ITT)
0014            OPEN (UNIT=IO3,NAME=FILEN3,TYPE='UNKNOWN')
0015            IF (IAN.EQ.'N') GOTO 540
        C---------------------------- UPDATE LIST OF ALL KEYWORDS ----------------
0016    200     CALL MOVE (DAT,DAT1,10)
0017            CALL ULKEY
        C       ----------
0018            GOTO 530
        C------------------- READ LIST OF ALL KEYWORDS --------------------------
0019    540     CONTINUE
0020            CALL RLKEY
        C       ----------
0021    530     CALL TTINAA ('WANT A LIST OF ALL KEYWORDS (Y OR N)',36,IAN,2,ITT)
0022            IF (IAN.EQ.'N') GOTO 580
        C---------------------------- PRINT LIST OF ALL KEYWORDS -------
0023            CALL TTINSI ('BY ALPHABETICAL (1), OR NB OF OCCURRENCES (2) ORDER'
           1 ,51,NOC,ITT)
0024            IF (NOC.EQ.1) GOTO 800
0025            CALL OCKEY
        C       ----------
0026    800     CALL TTINSI ('NUMBER OF COPIES',16,NCOP,ITT)
0027            DO 560 J=1,NCOP
0028            NPAGE=0
0029            CALL PAGES
        C       ----------
0030            WRITE(IOW,2200) JO,DAT
0031            WRITE(IOW,2201) NALL,DAT1,FILEN3
0032            NLINE=NLINE+10
0033            DO 100 I=1,NALL
0034    100     CALL WRITID (ALLKEY(1,I),12,I,1,NREP)
        C       -----------
0035    560     CONTINUE
0036    580     CLOSE(UNIT=IO3)
0037            WRITE(ITT,2000)
```

```
0038              CALL TTINSI ('ENTER 1 OR 2',12,IS,ITT)
0039              GOTO (610,620) IS
0040      610     CALL INDSEV
          C       -----------
0041              RETURN
0042      620     CALL INDONE
          C       ----------
0043              RETURN
0044              END
```

```
0001            SUBROUTINE READS1
        C       ----------------
        C   READS COMPLETE KEYWORD OR BEGINNING OF KEYWORD
0002            LOGICAL*1 DAT
0003            COMMON/UNIT/IO1,IO2,IO3,ITT,IOW
0004            COMMON/PRINTS/NLINE,NPAGE,JO,DAT(10),NID,IPL,IKEY,IOPT,ICOM,ICAS,
              1NCOP
0005    2000     FORMAT(/' ENTER KEYWORDS  (ENTER ''END'' TO END LIST) :')
0006    2001     FORMAT(/' ENTER BEGINNING OF KEYWORDS  (ENTER ''END'' TO END',
              2' LIST) : ')
        C
0007            CALL TTINSI ('ENTER COMPLETE KEYWORD (1), OR FIRST CHARACTERS OF
              1 KEYWORD (2)',63,ICOM,ITT)
0008            GOTO (110,120) ICOM
0009    110     WRITE(ITT,2000)
0010            RETURN
0011    120     WRITE(ITT,2001)
0012            RETURN
0013            END
```

```
0001            SUBROUTINE ULKEY
        C       ================
        C   UPDATE/CREATE LIST OF ALL KEYWORDS
0002            PARAMETER NMAX=250
0003            LOGICAL*1 ID,KEYWOR,DAT,ALLKEY
0004            COMMON/UNIT/IO1,IO2,IO3,ITT,IOW
0005            COMMON/IDREC/ID(20),NEND,NKEY,KEYWOR(12,10),NTEX
0006            COMMON/KEYS/DAT(10),NALL,ALLKEY(12,250),NREP(250)
0007    1000  FORMAT(I4,12A1)
0008    1001  FORMAT(10A1)
        C
0009            DO 100 I=1,NMAX
0010    100     NREP(I)=0
0011            OPEN (UNIT=IO2,TYPE='SCRATCH')
0012            NALL=0
0013            REWIND IO1
0014            REWIND IO3
0015    460     CALL READID
        C       ===========
0016            IF (NEND.EQ.1) GOTO 500
        C-------------------- TAKE KEYWORDS WHICH ARE NOT ALREADY IN 'ALLKEY' --
0017            DO 400 I=1,NKEY
0018            IF (NALL.EQ.0) GOTO 200
0019            IS=0
0020            DO 410 J=1,NALL
0021            IF (IEQ(KEYWOR(1,I),ALLKEY(1,J),12).EQ.0) GOTO 410
0022            IS=1
0023            NREP(J)=NREP(J)+1
0024    410     CONTINUE
0025            IF (IS.EQ.1) GOTO 400
0026    200     NALL=NALL+1
0027            IF (NALL.GT.NMAX) GOTO 9200
0028            NREP(NALL)=1
0029            CALL MOVE (KEYWOR(1,I),ALLKEY(1,NALL),12)
0030    400     CONTINUE
0031            CALL REATEX
        C       ===========
0032            GOTO 460
        C-------------------- SORT ----------------------------------------------
0033    500     DO 420 I=1,NALL
0034    420     WRITE(IO3,1000) NREP(I),(ALLKEY(K,I),K=1,12)
0035            REWIND IO3
0036            CALL SORTK (IO3,IO2,ITT,16,5,16)
        C       ==========
0037            REWIND IO2
0038            REWIND IO3
0039            WRITE(IO3,1001) DAT
0040            DO 430 I=1,NALL
0041            READ (IO2,1000,END=9100) NREP(I),(ALLKEY(K,I),K=1,12)
0042    430     WRITE(IO3,1000) NREP(I),(ALLKEY(K,I),K=1,12)
0043            CLOSE(UNIT=IO2)
0044            RETURN
        C
0045            ENTRY RLKEY
        C       ===========
        C   READ LIST OF ALL KEYWORDS
```

```
0046            REWIND IU3
0047            READ (IO3,1001,END=9100,ERR=9000) DAT
0048            NALL=0
0049    542     NALL=NALL+1
0050            READ (IO3,1000,END=546,ERR=9000) NREP(NALL),(ALLKEY(I,NALL),I=1,12)
0051            GOTO 542
0052    546     NALL=NALL-1
0053            RETURN
        C
0054            ENTRY OCKEY
        C       -----------
        C   SORT LIST OF ALL KEYWORDS BY NB OF OCCURENCES
0055            OPEN (UNIT=IO2,TYPE='SCRATCH')
0056            REWIND IO3
0057            READ (IO3,1001) DAT
0058            CALL SORTR (IO3,IO2,ITT,16,1,4)
        C       ----------
0059            REWIND IO2
0060            DO 900 K=1,NALL
0061            L=NALL-K+1
0062    900     READ (IO2,1000,END=9100,ERR=9000) NREP(L),(ALLKEY(I,L),I=1,12)
0063            CLOSE(UNIT=IO2)
0064            RETURN
        C
0065    9000    STOP ' *** ERROR IN KEYWORD FILE. ***'
0066    9100    STOP ' *** END OF KEYWORD FILE NOT EXPECTED. ***'
0067    9200    STOP ' *** NO OF KEYWORDS TOO BIG. ***'
0068            END
```

```
0001            SUBROUTINE INDSEV
        C       ----------------
        C   INDEX BY KEYWORD, ONE SEARCH WITH SEVERAL KEYWORDS
0002            LOGICAL*1 FILEN1,FILEN3,FILEN4
0003            LOGICAL*1 ID,KEYWOR,DAT,DAT1,ALLKEY,KEY,TAM
0004            COMMON/UNIT/IO1,IO2,IO3,ITT,IOW,FILEN1(20),FILEN3(20),FILEN4(20)
0005            COMMON/IDREC/ID(20),NEND,NKEY,KEYWOR(12,10),NTEX
0006            COMMON/PRINTS/NLINE,NPAGE,JO,DAT(10),NID,IPL,IKEY,IOPT,ICOM,ICAS,
           1NCOP
0007            COMMON/KEYS/DAT1(10),NALL,ALLKEY(12,250),NREP(250)
0008            COMMON/BIDON/NCHAR(50),KEY(12,50),TAM(12)
0009    2000     FORMAT(/' ITEMS ARE PRINTED AS FOLLOWS :')
0010    2001     FORMAT(T15,I4,'- ',20A1)
0011    2200     FORMAT(' JOB NO.',I3,T20,'INDEXED ID LIST',T67,10A1/
           11X,10(1H*),T20,15(1H*)/T20,'INDEX BY KEYWORD'///)
0012    2201     FORMAT(' JOB NO.'I3,T20,'INDEXED ITEM LIST',T67,10A1/
           21X,10(1H*),T20,17(1H*)/T20,'INDEX BY KEYWORD'///)
0013    2202     FORMAT(' LIST OF SELECTED KEYWORDS :'/)
0014    2203     FORMAT(' LIST OF SELECTED BEGINNINGS OF KEYWORDS :'/)
0015    2204     FORMAT(//)
0016    2205     FORMAT(' ID LIST :'/)
0017    2206     FORMAT(//1X,I4,' ITEMS HOLD THE',I3,' SELECTED KEYWORDS'/1X,
           740(1H*))
0018    2207     FORMAT(//1X,I4,' ITEMS HOLD THE',I3,' SELECTED BEGINNINGS OF',
           8' KEYWORDS'/1X,54(1H*))
        C
0019            CALL READS1
        C       -----------
0020            CALL ENTKEY (KEY,12,10,NK,NCHAR,1,ALLKEY,12,NALL,ITT)
        C       -----------
0021            CALL READS0
        C       -----------
0022            DO 720 K=1,NCOP
0023            NPAGE=0
0024            CALL PAGES
        C       ----------
0025            IF (IOPT.EQ.1) WRITE(IOW,2200) JO,DAT
0026            IF (IOPT.EQ.2) WRITE(IOW,2201) JO,DAT
0027            IF (ICOM.EQ.1) WRITE(IOW,2202)
0028            IF (ICOM.EQ.2) WRITE(IOW,2203)
0029            NLINE=NLINE+8
0030            IF (K.EQ.1) WRITE(ITT,2000)
0031            DO 100 I=1,NK
0032    100     CALL WRITID (KEY(1,I),12,I,0,NREP)
        C       -----------
0033            WRITE(IOW,2204)
0034            NLINE=NLINE+2
0035            IF (IOPT.EQ.2) GOTO 610
0036            WRITE(IOW,2205)
0037            NLINE=NLINE+2
0038    610     REWIND IO1
0039            NID=0
0040    650     CALL READID
        C       -----------
0041            IF (NEND.EQ.1) GOTO 660
        C
```

```
0042              DO 670 J=1,NK
0043              NC=NCHAR(J)
0044              DO 680 J1=1,NKEY
0045              IF (IEQ(KEY(1,J),KEYWOR(1,J1),NC).EQ.1) GOTO 670
0046      680     CONTINUE
0047              CALL REATEX
          C       -----------
0048              GOTO 650
0049      670     CONTINUE
          C
0050              NID=NID+1
0051              IF (K.EQ.1) WRITE(ITT,2001) NID,ID
0052              IF (IOPT.EQ.2) GOTO 700
0053              CALL WRITID (ID,20,NID,0,NREP)
          C       -----------
0054              CALL REATEX
          C       -----------
0055              GOTO 650
0056      700     CALL WRITEX
          C       -----------
0057              GOTO 650
          C
0058      660     IF ((ICAS.EQ.1).OR.(NLINE.GE.56)) CALL PAGES
          C                                           ----------
0059              IF (ICOM.EQ.1) WRITE(IOW,2206) NID,NK
0060              IF (ICOM.EQ.2) WRITE(IOW,2207) NID,NK
0061      720     CONTINUE
0062              RETURN
0063              END
```

```
0001            SUBROUTINE INDONE
        C       ----------------
        C    INDEX BY KEYWORD, SEVERAL SEARCHES WITH ONE KEYWORD
0002            LOGICAL*1 FILEN1,FILEN3,FILEN4
0003            LOGICAL*1 ID,KEYWOR,DAT,DAT1,ALLKEY,KEY,TAM
0004            COMMON/UNIT/IO1,IO2,IO3,ITT,IOW,FILEN1(20),FILEN3(20),FILEN4(20)
0005            COMMON/IDREC/ID(20),NEND,NKEY,KEYWOR(12,10),NTEX
0006            COMMON/PRINTS/NLINE,NPAGE,JO,DAT(10),NID,IPL,IKEY,IOPT,ICOM,ICAS,
           1NCOP
0007            COMMON/KEYS/DAT1(10),NALL,ALLKEY(12,250),NREP(250)
0008            COMMON/BIDON/NCHAR(50),KEY(12,50),TAM(12)
0009    2000    FORMAT(/' ITEMS ARE PRINTED AS FOLLOWS :')
0010    2001    FORMAT(I4,') ',20A1)
0011    2002    FORMAT(T15,I4,'- ',20A1)
0012    2200    FORMAT(' JOB NO.',I3,T20,'INDEXED ID LIST',T67,10A1/
           91X,10(1H*),T20,15(1H*))
0013    2201    FORMAT(' JOB NO.'I3,T20,'INDEXED ITEM LIST',T67,10A1/
           11X,10(1H*),T20,17(1H*))
0014    2202    FORMAT(' KEYWORD : ',<NC>A1/1X,<10+NC>(1H*)/)
0015    2203    FORMAT(' KEYWORD BEGINNING WITH : ',<NC>A1/1X,<25+NC>(1H*)/)
0016    2204    FORMAT(//1X,I4,' ITEMS HOLD THE KEYWORD : ',<NC>A1/1X,
           4 <30+NC>(1H*)////)
0017    2205    FORMAT(//1X,I4,' ITEMS HOLD A KEYWORD BEGINNING WITH : ',<NC>A1/
           6 1X,<43+NC>(1H*)////)
0018    2206    FORMAT(T16,'COMPLETE INDEX BY KEYWORD'///)
0019    2207    FORMAT(T20,'INDEX BY KEYWORD'///)
        C
0020            CALL TTINSI ('WANT COMPLETE INDEX (1), OR ENTER KEYWORDS (2)',46,
           1 IEN,ITT)
0021            GOTO (110,120) IEN
0022    110     ICOM=1
0023            NK=NALL
0024            GOTO 300
0025    120     CALL READS1
        C       -----------
0026            CALL ENTKEY (KEY,12,50,NK,NCHAR,1,ALLKEY,12,NALL,ITT)
        C       -----------
0027    300     CALL READS0
        C       -----------
0028    1500    DO 1720 K=1,NCOP
0029            NPAGE=0
0030            CALL PAGES
        C       ----------
0031            IF (IOPT.EQ.1) WRITE(IOW,2200) JO,DAT
0032            IF (IOPT.EQ.2) WRITE(IOW,2201) JO,DAT
0033            IF (IEN.EQ.1) WRITE(IOW,2206)
0034            IF (IEN.EQ.2) WRITE(IOW,2207)
0035            NLINE=NLINE+6
0036            IF ((K.EQ.1).AND.(IEN.EQ.2)) WRITE(ITT,2000)
0037            DO 1670 J=1,NK
0038            CALL IND11 (IEN,NC,J)
        C       ----------
0039            IF ((ICAS.EQ.1).OR.(NLINE.GE.53)) CALL PAGES
        C                                         ----------
0040    1510    IF (ICOM.EQ.1) WRITE(IOW,2202) (TAM(I),I=1,NC)
0041            IF (ICOM.EQ.2) WRITE(IOW,2203) (TAM(I),I=1,NC)
```

```
0042              NLINE=NLINE+3
0043              IF (K.EQ.1) WRITE(ITT,2001) J,(TAM(I),I=1,NC)
0044              REWIND IO1
0045              NID=0
0046      1650    CALL READID
          C       -----------
0047              IF (NEND.EQ.1) GOTO 1660
          C
0048              DO 1680 J1=1,NKEY
0049              IF (IEQ(TAM,KEYWOR(1,J1),NC).EQ.0) GOTO 1680
0050              NID=NID+1
0051              IF ((K.EQ.1).AND.(IEN.EQ.2)) WRITE(ITT,2002) NID,ID
0052              IF (IOPT.EQ.2) GOTO 1700
0053              CALL WRITID (ID,20,NID,0,NREP)
          C       -----------
0054              CALL REATEX
          C       -----------
0055              GOTO 1650
0056      1700    CALL WRITEX
          C       -----------
0057              GOTO 1650
0058      1680    CONTINUE
          C
0059              CALL REATEX
          C       -----------
0060              GOTO 1650
          C
0061      1660    IF ((ICAS.EQ.1).OR.(NLINE.GE.52)) CALL PAGES
          C                                           ----------
0062              IF (ICOM.EQ.1) WRITE(IOW,2204) NID,(TAM(I),I=1,NC)
0063              IF (ICOM.EQ.2) WRITE(IOW,2205) NID,(TAM(I),I=1,NC)
0064              NLINE=NLINE+8
0065      1670    CONTINUE
0066      1720    CONTINUE
0067              RETURN
0068              END
```

```
0001            SUBROUTINE IND11 (IEN,NC,J)
        C       ---------------------------
        C   COMPLETE INDEX OR A FEW KEYWORDS
        C
0002            LOGICAL*1 DAT1,ALLKEY,KEY,TAM
0003            COMMON/KEYS/DAT1(10),NALL,ALLKEY(12,250),NREP(250)
0004            COMMON/BIDON/NCHAR(50),KEY(12,50),TAM(12)
        C
0005            GOTO (100,200) IEN
0006    100     NC=12
0007            CALL MOVE (ALLKEY(1,J),TAM,12)
0008            RETURN
0009    200     NC=NCHAR(J)
0010            CALL MOVE (KEY(1,J),TAM,NC)
0011            RETURN
0012            END
```