

## LESSONS

Conventions used in this manual: words or letters to be typed are in bold letters, function keys are enclosed in angle brackets <.>, and the symbol for ENTER or CR is  $\downarrow$

References to Mini-micro CDS/ISIS Reference Manual (Version 2.3) are: See Manual: .... [example: See Manual: Introduction or See Manual: pp. 11-18]

The lessons are designed around topics and therefore do not all take the same amount of time; some are very short, others longer. You may be able to do several lessons at one sitting or stop in the middle of a lesson. You can break at any time by exiting from the CDS/ISIS Services (main) menu (press **X** to exit). If there are records pending Inverted File updating and you don't want to wait for the update or are not sure if you want to update the Inverted File, press **N** at the prompt.

Most lessons start at the CDS/ISIS Services menu, so use Lessons 3 and 4 to start CDS/ISIS and select the AIM Database as needed.

## What to do First

### Lesson 1: Installing CDS/ISIS (on an IBM compatible computer)

This lesson is only for those who do not already have CDS/ISIS installed on their computer. For those who have CDS/ISIS already installed please go to Lesson 2.

CDS/ISIS can be set up to install different types of files into different directories. This is most useful because if any problems arise you can narrow it down to a particular file or files easier than if all are in one directory. Copying all the files of a particular database from the hard-disk to a floppy disk (as a back-up precaution) is also much easier if all the files from each database are kept in their own database.

Steps included in installing CDS/ISIS in separate directories are:

1. Creating directories

From the DOS Prompt:

Type: **CD \**  $\downarrow$  (to get to the root directory of the hard drive)  
Type: **MD ISIS**  $\downarrow$  (to create the main CDS/ISIS directory)  
Type: **CD ISIS**  $\downarrow$  (to change to the ISIS directory)  
Type: **MD SYS**  $\downarrow$  (to create subdirectory for system programs)  
Type: **MD MENU**  $\downarrow$  (to create subdirectory for menus)  
Type: **MD MSG**  $\downarrow$  (to create subdirectory for message files)  
Type: **MD DATA**  $\downarrow$  (to create subdirectory for database files)  
Type: **MD PROG**  $\downarrow$  (to create subdirectory for PASCAL programs)  
Type: **MD TEMP**  $\downarrow$  (to create subdirectory for temporary files)

2. Installing CDS/ISIS files

Insert disk 1 into drive A<sup>1</sup>

From the DOS prompt:

Type: **CD \ ISIS**  $\downarrow$   
Type: **COPY A:INSTALL.BAT**  $\downarrow$   
Type: **INSTALL \ISIS\SYS \ISIS\MENU \ISIS\DATA \ISIS\PROG**  $\downarrow$   
Change disks as instructed

---

<sup>1</sup> It is assumed that drive A will be used for the installation CDS/ISIS and MHI Database, if this not the case then use the appropriate drive letter in place of A:

### 3. Modifying the PATH

The PATH allows executable or program files (files ending with the extension .EXE, .COM, .BAT) to be called up from within another directory. Because the CDS/ISIS program files are placed in different directories they need to get back to the main program via the PATH. The PATH is located in the file called AUTOEXEC.BAT which is found in the root directory of the hard drive.

To change the AUTOEXEC.BAT file, a text editor is needed. Examples of text editors are EDLIN (which comes with DOS), Norton Editor, PCTools, etc. A very simple text editor called RPED is included on the AIM distribution disk. Afterwards, restart your machine for the new AUTOEXEC.BAT to take effect.

To the PATH statement in the AUTOEXEC.BAT file add **C:\ISIS\SYS**.

To use RPED put the AIM Distribution disk in drive A  
From the DOS prompt:  
Type: **A:** *;* (to change to drive A)  
Type: **RPED** *;* (to run text editor)  
Press: **<F1>** (to edit existing file)  
Type: **C:\AUTOEXEC.BAT** *;* (to open the file)  
Move cursor to the end of line starting with the word PATH=  
Type: **;**C:\ISIS\SYS****  
Press: **<ESC>** (to end editing)  
Press: **<F4>** (to exit RPED)

### 4. Creating a SYSPAR.PAR file

The SYSPAR.PAR file tells the CDS/ISIS in which directory to look for particular files. Each line begins with the number of a parameter. The SYSPAR.PAR file should be located in the C:\ISIS directory. (For descriptions of parameters See *Manual: pp. 13-18*)

To use RPED, place AIM Distribution disk in drive A.  
From the DOS prompt:  
Type: **A:** *;* (to change to drive A)  
Type: **RPED** *;* (to run RPED)  
Press: **<F3>** (to create new file)  
Type: **C:\ISIS\SYSPAR.PAR** *;*  
Type: **1=\ISIS\PROG\** *;*  
Type: **2=\ISIS\MENU\** *;*  
Type: **3=\ISIS\MSG\** *;*  
Type: **4=\ISIS\TEMP\** *;*  
Type: **5=\ISIS\DATA\** *;*  
Press: **<ESC>** (to end editing)  
Press: **<F4>** (to exit RPED)

*(If you find RPED easier to use than other text editors, you should copy the file RPED.EXE from the AIM Distribution disk to any directory on your hard disk. If you place the file in any directory listed in your PATH statement you can call up the program from any other drive or directory.)*

## **Lesson 2: Installing the AIM Databases**

The procedures involved in installing the AIM Databases on the hard disk are simple. First thing to do is copy the redirection parameter files to the C:\ISIS\DATA directory, second is to copy the database files into a directory for each database .

A redirection parameter file tells the CDS/ISIS program where to look for particular files of a specific database. Database files can be in one or more drives or directories but it is better to keep them all together. The redirection parameter file for the AIM database is called AIM.PAR and contains the following lines:

```
1=C:\ISIS\DATA\AIM\  
2=C:\ISIS\DATA\AIM\  
3=C:\ISIS\DATA\AIM\  
4=C:\ISIS\DATA\AIM\  
5=C:\ISIS\DATA\AIM\  
6=C:\ISIS\DATA\AIM\  
7=C:\ISIS\DATA\AIM\  
8=C:\ISIS\DATA\AIM\  
9=C:\ISIS\DATA\AIM\  
10=C:\ISIS\DATA\AIM\  

```

What happens is the SYSPAR.PAR tells the ISIS.EXE program to look for databases in the C:\ISIS\DATA directory (Parameter 5), while the redirection parameter file (in this case AIM.PAR) then sends it to the C:\ISIS\DATA\AIM directory.

### Installing AIM Databases to hard disk

From the DOS prompt

```
Type: C: ; (to change to drive C)  
Type: CD \ISIS\DATA ; (to change to DATA directory)  
Type: MD AIM ; (to create AIM subdirectory for database)  
Type: CD AIM ; (to change to AIM subdirectory)  
Type: COPY A:\AIM*.* ; (to copy files to AIM subdirectory)  
Type: CD\ISIS\DATA ; (to change to DATA subdirectory)  
Type: COPY A:\AIM.PAR ; (to copy redirection parameter file to DATA  
subdirectory)
```

If you decide to put the AIM database in a drive or directory other than C:\ISIS\DATA\AIM then the AIM.PAR needs to be edited to reflect the appropriate drive and directory. You can follow this pattern to install the PER, PRO and SRV databases to the hard disk now or at a later time.

## **Lesson 3: Starting CDS/ISIS**

To start CDS/ISIS you must change to the directory where the SYSPAR.PAR is found and then call up the ISIS program.

From the DOS prompt:

```
Type: CD\ISIS ; (to change to ISIS directory)  
Type: ISIS ; (to run ISIS program)
```

If all went well in the installation the CDS/ISIS Services menu should be on the screen.

To close CDS/ISIS:

At the CDS/ISIS Services Menu:

```
Press: X (to exit from CDS/ISIS)
```

#### **Lesson 4: Selecting the AIM database**

From the CDS/ISIS Services Menu:

Press: **C** (to change or select database)

Type: **AIM** ; (to select AIM database)

The name of the Database should appear in the lower left corner, along with the default worksheet and format, and the maximum number of records (MFN).

*If this doesn't appear then check to see that the AIM database files are in the right directory where the AIM.PAR files says they should be. If you installed CDS/ISIS without parameter 5 of the SYSPAR.PAR specifying 5=\\ISIS\\DATA\\ or specifying any other directory then the AIM.PAR redirection file will have to be changed to conform. Then try again!*

#### **Lesson 5: Importing Records to the AIM Database**

You will notice that the Max MFN: 0, that is there are no records yet in the AIM Database so we are going to add some by importing a selection of records from the Malawi Health Information [MHI] database to use as samples for searching, retrieving, etc. Don't worry, you will also be adding new records to the database as well!

Place AIM Distribution disk in drive A

From the CDS/ISIS Services Menu:

Press: **M** (to change to Master File Services)

Press: **I** (to change to Import worksheet)

Make AIM is selected as database to import records to

Press: ;

Press: **<F6>** (to delete value MST.ISO)<sup>2</sup>

Type: **MHI.ISO** ; (to enter name of file to be imported)

Press: ; ; ; ; ; ; ; (to accept default values)

Press: ; (to continue)

In reply to *Master file exists and will be cleared, ok?* prompt:

Press: **Y** (if prompted to clear Master File)

In reply to *Backup drive and/or directory?* prompt:

Type: **A:\** (to specify location of AIM.ISO file)

Make sure disk is in drive A

Press: ; (to begin importing records)

At prompt for mounting a new diskette

Press: **X** (to end importing)<sup>3</sup>

The 114 records imported can now be displayed but not searched for yet. It is a good idea to browse through the records to see that they imported properly and then update the inverted file so they can be searchable later on. First let's look to see that the records are okay.

From the Master File Services menu:

Press: **X** or **<F2>** (to return to Services menu)<sup>4</sup>

Press: **S** (to go to Information Retrieval Services menu)

Press: **B** (to browse records)

---

<sup>2</sup> F6 is an editing key that will delete all information in a field of a worksheet from the point of the cursor.

<sup>3</sup> It is important to press **X** and not ; if there are no more records to be imported otherwise CDS/ISIS will reload the same records again and again.

<sup>4</sup> F2 will take you from any menu back to the main CDS/ISIS Services menu without having to exit through the intermediate menus, if any.

---

At Starting MFN for browse? prompt:

- Press: **1** or *;* (to start browsing from first record)
- Press: *;* (to browse forward through records)
- Press: **X** (to return to finish browsing)

If all records display properly we can make the records searchable by generating an Inverted File (to be discussed in more detail later.) To test to see that the Inverted File works, let's try a search before generating the file to compare the results with afterwards.

From the Information Retrieval Services menu:

- Press: **S** (to enter search formulation)
- At Search expression? prompt:  
Type: **MALARIA** *;* (to search for records on Malaria)

The results should appear as:

```
Set 1: MALARIA
P= 0 MALARIA ** Not found **
T= 0 - #1: MALARIA
---->
```

(this indicates that no postings or records were found for MALARIA)

At the ---> prompt:

- Press: *;* (to return to Information Retrieval Services menu)

Now to generate the Inverted File.

- Press: **X** or **<F2>** (to return to main menu)
- Press: **I** (to change to Inverted File Services menu)
- Press: **F** (for full inverted file generation)
- At Inverted file exists and will be cleared, ok? prompt:  
Press: **Y** (to begin generation)
- At MFN limits? prompt:  
Press: *;* (to generate all records)

The Inverted File will now be generated. The Field Select Table [FST] defines what information from which fields will be indexed and how it will appear. The extracted terms will then be sorted. It shouldn't take more than a minute or two to generate the file, but speed varies depending on the power of your computer.

At the --> prompt:

- Press: *;* (to return to Inverted File Services menu)
- Press: **X** or **<F2>** (to return to main menu)
- Press: **S** (to go to Information Retrieval Services menu)
- Press: **S** (to enter search formulation)
- Type: **MALARIA** *;* (to search for records on Malaria)

The results should appear as:

```
Set 2: MALARIA
P= 5 MALARIA
T= 4 - #2: MALARIA
---->
```

(This indicates that 5 postings of the term MALARIA was found in 4 separate records and the results called set #2)

At the ---> prompt:

Press: *i* (to return to Information Retrieval Services menu)

Press: **D** (to display results of search)

Press: *i* (to browse through records)

Press: **X** or **<F2>** (to return to main menu)

## **Working With a Database**

### **Lesson 6: Structure of the Database**

The CDS/ISIS database is comprised of roughly four components: a Field Definition Table [FDT], which specifies the names of the fields and the type of information that will go into the fields; the Field Select Table [FST], which defines what information from what fields will be extracted from the record and placed in the Inverted File for searching; the Data Entry Worksheet, which allows you to enter information into the fields of each new record created or modification of existing records; and the Print/Display Format [PFT], which extracts information from the records for presentation on the computer monitor or for printing.

There can be only one FDT for a database, however, there can be many worksheets or print/display formats if desired. (The AIM Database has two display formats -- one rather like a catalogue card, the other more like a records from an online database; and you can choose the one you prefer.) You can have separate worksheets for data entry of monographs as opposed to analytics; or you can have different display format depending on how the information may be used.

It's possible also to have more than one FST. Although only one is used for generation of the Inverted File, other FSTs can be used or reformatting (assigning information from one field to another) when exporting to or importing from a database that uses a different FDT.

Copies of all these files for the AIM Database are given in the chapter on Definition of AIM Database, along with sample outputs from the display formats.

This lesson is intended to show you how to move around the various parts of the database and see what they look like. In later lessons you will be modifying or editing these components as well as actually creating a new database which will go into more detail. Don't feel you have to understand everything at once.

#### *Field Definition Table*

To view the FDT for AIM Database

From the CDS/ISIS Services Menu:

Make sure AIM Database is selected

Press: **D** (to change to Data Base Definiton Services menu)

Press: **U** (to modify database definiton)

Press: **A** (to update FDT)

On you screen should appear the first page of the FDT, which will look like this:

| Field Definition Table (FDT) |     |                      |      |     |     | Data Base: AIM     |
|------------------------------|-----|----------------------|------|-----|-----|--------------------|
| ?                            | Tag | Name                 | Len  | Typ | Rep | Delimiters/Pattern |
| —                            | 1   | Identifier           | 9    | X   |     |                    |
| —                            | 5   | Availability         | 15   | X   |     |                    |
| —                            | 6   | Target audience      | 50   | X   | R   |                    |
| —                            | 15  | Bibliographic level  | 1    | X   |     |                    |
| —                            | 20  | Source of record     | 50   | X   |     |                    |
| —                            | 22  | Date record entered  | 8    | X   |     |                    |
| —                            | 23  | Date record verified | 8    | X   |     |                    |
| —                            | 40  | Language of item     | 50   | X   | R   |                    |
| —                            | 50  | Physical medium      | 15   | X   | R   |                    |
| —                            | 60  | Type of document     | 3    | X   |     |                    |
| —                            | 100 | ISBN                 | 100  | X   | R   | abc                |
| —                            | 101 | ISSN                 | 12   | X   |     |                    |
| —                            | 115 | Accession Number     | 250  | X   | R   |                    |
| —                            | 120 | Document number      | 100  | X   | R   |                    |
| —                            | 200 | Title                | 1000 | X   |     | ab                 |
| —                            | 230 | Other Variant Titles | 1000 | X   | R   | ab                 |

|                    |                     |                 |                 |
|--------------------|---------------------|-----------------|-----------------|
| A - Insert (after) | B - Insert (before) | C - Change line | D - Delete line |
| P - Previous page  | N - Next page       | T - Top         | E - Bottom      |
|                    |                     | X - Exit        | ↵ - Next line   |

The information that will go into each field of a record is defined by the fields of the Table as follows<sup>5</sup>:

- TAG** = A unique number for identifying a field
- NAME** = Descriptive name for information to be entered in the filed
- LEN** = Expected maxium length of field (up to 1650 characters)
- TYP** = Type of character (A=*Alphabetic only*, N=*Numeric only*, P=*Pattern*, X=*Any*)
- REP** = Repeatability (R=*Repeatable*, Blank=*Not repeatable*)
- DELIMITERS/PATTERN** = Subfield delimiters or pattern to be used

To view pages of the FDT:

- Press: **N** (to move to second page)
- Press: **N** (to move to third page)
- Press: **P P** (to move back to first page)
- After reviewing FDT:
- Press: **X X** (to retun to menu)

The AIM Data Entry Manual at the end gives a full description of each field, its purpose, rules for entry and examples.

*Field Select Table*

From the Data Base Definition Services menu (EXDBU) you can select a FST, Worksheet or PFT to create, update, copy or delete if you know the name. To view all of the files defined for the database you can select the option to list all parameter files associated with the database.

- Press: **K** (to list parameter files)

<sup>5</sup> See Manual: pp. 31-39

Your screen should appear like this:

```

Files defined for Data Base AIM

Worksheet Descriptions
1.AIM

Display formats
2.AIM      3.AIM2

Field Select Tables
4.AIM      5.AIM-EX

M/D/C + file number to Modify/Delete/Copy  -  <CR> for menu
    
```

The names of each type of file are given. You can modify, delete or copy a file by typing M (modify), D (delete), or C (copy) and the number before name, then ;

To view FST:

Type: **M4 ;** (to open up AIM.FST file)

Your screen should appear like this:

```

Data Base Name: AIM          FST for Inverted File          FST name: AIM
-----
| ID | IT | Data extraction format
-----
- 200  4  MHL, V200^A
- 230  4  MHL, V230^A
- 300  0  V300/)
- 310  1  V310
- 320  4  MHL, V320^A/V320^B/V320^G
- 400  4  MHL, V400^B
- 480  4  MHL, V480^A
- 500  2  V500
- 600  2  V600
- 620  1  (V620/)
- 625  1  (V625/)
- 630  1  (V630/)
- 640  0  v640
- 700  4  MHL, V700
- 710  0  MHL,(V710^A/),(V710^B/)
- 711  1  V711

A - Insert (after)  |B - Insert (before)  | C - Change line      | D - Delete line
P - Previous page  |N - Next page        | T - Top              | E - Bottom
                   | X - Exit            |                      | J - Next line
    
```

The type of information that will be extracted from each field of a record and placed in the Inverted File for searching is defined by the fields of the Table as follows<sup>6</sup>:

**ID** = A field identifier  
**IT** = An indexing technique (0-4)  
**DATA EXTRACTION FORMAT** = CCS/ISIS Formatting Language

To view the second page of the FST:

Press: **N** (to go to next page)  
 Press: **P** (to return to first page)  
 After reviewing FST:  
 Press: **X X** (to return to menu)

<sup>6</sup> See Manual: pp. 75-85

*Data Entry Worksheet*

To view the data entry worksheets:

From the Data Base Definition Services menu (EXDBU):  
 Press: **K** (to access parameter files menu)  
 Press: **M1** *;* (to retrieve worksheets)

On your screen should appear this:

```

          AFRICAN INDEX MEDICUS DATABASE WORKSHEET
    *****
Source of record _____ Bibliographic level  _
Physical medium  010      Type of material  _____
Lang of item    English   Availability      _____
Target audience _____ Record selector  _____
    *****
Title _____
Variant Titles _____
Personal authors _____
Aut. affiliation _____
Corporate author _____
Meeting _____

|M - Modify   | R - Right just | S - Shift     | D - Delete     | C - Center
|A - Add field|<TAB> - Previous | J - Next      | X - Exit       |
              |                | AIM / 1
    
```

You will notice that some fields already have information in them. These are default values that will automatically be inserted into a field when a new record is created. These default values can be changed if needed when entering data or modifying a record, or changed/deleted permanently by editing the worksheet. Later you will be editing the worksheet where you can enter the source code for your institution (where it says MOH-LDC), or remove all default values if you prefer.

For now we will just look at the worksheets.

You can move from field to field by pressing *;* to move forward and **<TAB>** to move back a field.

Press: *;* until you move past the Meeting field

The menu at the bottom of the screen should change to this:

```

| J - Next page | B - Previous page | R - Restore screen |
| E - Edit      | S - Exit and Save | C - Cancel         | --->
    
```

Pressing *;* will move you to the next page of the worksheet (there are 4 pages altogether), pressing **B** will move you back a page (except on page 1, of course).

Press: *;* (to move to page 2 of the worksheet)  
 After studying the fields:  
 Press: *;* *;* *;* *;* , **etc** (until you get to the action prompt)  
 Press: *;* (to move to page 3 of the worksheet)

After studying the fields:

Press: *;* *;* *;* *;*, **etc** (until you get to the action prompt)  
Press: *;* (to move to page 4 of the worksheet)

If you want to move back a page:

Press: *;* *;* *;* *;*, **etc** (until you get to the action prompt)  
Press: **B** (to move back a page of the worksheet)

When finished reviewing the worksheet:

Press: **C** (to return to Data Base Definition Services menu EXDBU)

### Print/Display Format

A print or display format [PFT] can be viewed or edited from with the Data Base Definition Services or from the Information Retrieval Services. Here we will look at the formats from the Data Base Definition Services program and in the next lesson we will use the formats from the Information Retrieval Services program.

To call up a display format:

From the Data Base Definition Services menu (EXDBU):

Press: **K** (to list database parameter files)  
Type: **M2 ;** (to open AIM.PFT file)

On your screen should appear:

```
Data Base Name: AIM                               Format name: AIM
-----
c35,mfn(4)/mhl,if v15<>'s' and v15<>'S' then v300+| ; |/(v310//)/v320^a," "v320^
b," ("d320,v320^j" : "v320^i," : "v320^g,")d320/v200^a(5,0)," / "v200^b,(| ==
|v230),else mhu, v200^a, mhl," -- "v300+| ; |," -- "v310, fi" -- "v260^a," / "v2
60^b," -- "v520," -- "v450,if v15<>'a' and v15<>'A' then " -- S.l."n400^a," -- "
v400^a," : s.n."n400^b," : "v400^b," , n.d."n440," , "v440.4,else fi " -- "v460^a, "
: "v460^b," ; "v460^c," ; "v460^d," -- ISBN: "v100+| - |," -- ISSN: "v101 if v6
0<>'120' then mdl " -- IN: "d700,v710+| ; |,v711+| ; |,mhl,v712^a," , "v712^b,"
("d712,v712^j" : "v712^i," : "v712^g,")d712," -- "v700," -- "v715^a," : "v715^b,
" , "v716.4," -- "d490,v490^a," : "v490^b else if v60:'120' then " -- IN: "v740," :
("v716.4") , "v490^a," : "v490^b fi fi /"Document No.: "v120+| ; |/"("v480^a," /
"v480^b," ; "v480^c,")d480/(v500(0,5)//if v15:'a' or v15:'A' then "Class No.:
("v610^a)"else "Class No.: "v610^a," ["v610^b"] fi /v600(5,5)/mhu,v620+| / |
,| / |v625,| / |v630/mhl,("Location : "v910^a(5,5)," , "v910^b(5,5)," , Missing:
"v910^c(5,5)," - "v910^d(5,5)//)"Source : "v20

EDIT: Insert
```

If you haven't seen the CDS/ISIS Formatting Language before this must look daunting, but don't be discouraged. The language that CDS/ISIS uses for its displays and print formats, as well as its use in the Field Select Table, enables the user great flexibility in the way information that appears in a record can be extracted and selectively displayed on the terminal or printed output, or put into the Inverted File for searching capabilities.

What appears to be one long great complicated command is actually a series of small, not so complicated commands. Once you are able to recognize the individual command units it becomes easier to see how the formatting of information takes place.

In the next lesson we will be looking at the CDS/ISIS Formatting Language in some detail.

When you have ceased to be overawed by the format on the screen:

Press: *;*

(to return to Data Base Definition Services menu EXDBU)

Press: **<F2>**

(to return to main menu)

## **Lesson 7: How to Display Data**

### *Browse*

To view records in the database you must go to the Information Retrieval Services program.

Make sure the database AIM is selected

From the main menu:

Press: **S** (to change to Information Retrieval Services menu)

Press: **B** (to browse (view) records)

At the *Starting MFN for browse?* prompt:

Press: *;* (to start browsing from first record)

Press: *;* *;* *;* *;*, etc. (to scroll forward through records)

Press: **X** (to finish browse)

In CDS/ISIS you can only move forward through records. To go back to a record you have already passed, you can press B from within the browse mode and at the prompt, type in the number of the record you want to go back to.<sup>7</sup>

To start at a record other than the first, type in record number [MFN] at the *Starting MFN for browse?* prompt.

Press: **B** (to start browse)

At *Starting MFN for browse?* prompt:

Type: **26** *;* (to start browsing from record 26)

Press: *;* *;* *;* *;*, etc. (to scroll forward through records)

Press: **B** (to restart browse)

At *Starting MFN for browse?* prompt:

Type: **16** *;* (to browse from a record with an earlier MFN)

Press: **X** (to stop browsing)

### *Using an Existing Format*

The way in which records are displayed (what information, from which fields, where on the screen, etc.) is determined by the display/print format [PFT] which is created using the CDS/ISIS Formatting Language.

When a database is first defined at least one PFT must be created. This PFT will bear the name of the database and be the default format used by CDS/ISIS when the database is selected. You can see in the lower right corner of the menu the currently selected format. In this case it is the default format called AIM.

You can create many different formats in order to display or print out information in different ways. This database comes with two formats: AIM (the default) and AIM2.

Formats can be created, copied or modified from the Data Base Definition Services, as we have seen in the last lesson, but they can also be edited in the Information Retrieval Services. This is useful because you can quickly edit format changes and see the results without having to go from Data Base Definition Services back to the main menu and then to Information Retrieval Services and vice versa every time you want to adjust your format.

We will now change from AIM to AIM2 to see the difference in the display

---

<sup>7</sup> There is a Pascal program called SHOW which displays records one at a time and has a scrolling feature for records that are longer than the screen. It also can browse records backwards through the database file no matter from which record the browse is started.

---

To view the format that is selected:

Press: **F** (to view format)

While the cursor is at the beginning of the first line of the format:

Press: **<F6>** (to delete format)

Type: **@AIM2** ; (to insert the already defined AIM2 format)

At the bottom right of the Information Retrieval Services menu it should read:

**Format : AIM2**

To view the newly selected format:

Press: **F** (to view format)<sup>8</sup>

Press: ; (to return to Information Retrieval Services menu)

Press: **B** (to begin browse)

Press: ; ; ; ; , etc. (to scroll through records)

Press: **X** (to end browse)

You can see the difference in the two displays from the two different formats. Which one do you prefer to use? or would you rather create something totally different? The choice is yours.

CDS/ISIS will retain AIM2 as the selected format unless you change it to another format or leave CDS/ISIS. If you leave CDS/ISIS then AIM format will be selected as the default when CDS/ISIS is restarted.

If you want to change back to the first, AIM, format:

Press: **F** (to view format)

While the cursor is at the beginning of the first line of the format:

Press: **<F6>** (to delete format)

Type: **@AIM** ; (to insert the already defined AIM format)

At the bottom right of your screen it should read: **Format : AIM**

Optional: Now you can change formats whenever you want. If you would like format AIM2 to be the default format so you don't have to change to it every time the AIM database is selected then:

From the DOS prompt:

Type: **CD\ISIS\DATA\AIM** ; (to change to the directory where AIM files are)

Type: **REN AIM.PFT AIM3.PFT** (to rename to AIM format)

Type: **REN AIM2.PFT AIM.PFT** (to make AIM2 format become the default)

Type: **REN AIM3.PFT AIM2.PFT** (to make original format AIM2)

### Creating a Format<sup>9</sup>

Before creating a new format we have to do a bit of learning. Though the CDS/ISIS Formatting Language looks very complicated, with a bit of practice the basic elements of it will become pretty familiar.

Our first task will be to make a copy of the AIM format so we can look at and alter the format to see how changing elements of the format will affect the output, and without accidentally changing the AIM.PFT format.

---

<sup>8</sup> You can compare the two formats along with selected outputs of records in the Definition of AIM Database section of this manual

<sup>9</sup> You may not be able to do all the exercises in one sitting. If you want to stop and then restart at a later time from where you left off you need to save any of the format changes before exiting CDS/ISIS. To save the changes, make sure you are in the TEST format, press F to retrieve format, while the format is on the screen press <F8> to save it, then ; to get return to menu, then you can exit safely. When restarting CDS/ISIS the default format, MHI, will be selected so you must change to the TEST format.

---



To make a copy of the AIM format:

*Press: <F2>* (to return to main menu)  
*Press: D* (to change to Data Base Definition Services)  
*Press: U* (to change modify database)  
*Press: K* (to list database parameter files)  
*Type: C2* (to copy AIM.PFT)  
At *Copy to?* prompt:  
*Type: TEST* (to give the new format the name TEST)  
The new format will appear on the screen  
*Press: ;* (to accept new format and return to menu)

Now to change the format to TEST

*Press: <F2>* (to return to main menu)  
*Press: S* (to change to Information Retrieval Services)  
*Press: F* (to retrieve format)  
*Press: <F6>* (to delete previous format)  
*Type: @TEST ;* (to change to new format)

Since the TEST format is a copy of the AIM format the output will look the same until we make some changes to it. For the rest of the lessons make sure that the TEST format is selected. At the bottom right corner of the screen should appear: Format :TEST

In order for CDS/ISIS to display or print information it needs to know exactly what information to display, where and how to display it.

#### **THE FIELD SELECTOR**

The WHAT to display is determined by the Field Selector. The Field Selector specifies the Tag number of the field from which information is to be extracted, with a "v" in front to show it is a field of variable length (remember the field is variable because in every record the length varies according to the information put into it) or the Master File Number [MFN]. (The MFN is automatically assigned to a record when it is created, but will not automatically be displayed with the record unless the MFN selector is used.)

The field for Place of Publication and Publisher is 400. The field has two subfields: ^a for Place of Publication; ^b for Publisher.

We will work with just this field for a while. Let's clear the TEST format.

*Press: F* (to retrieve format)  
*Press: <F6>* (to delete format)

To display only the information in Field 400 in all the records in the database:

*Type: V400 ;*

Now to see the result:

*Press: B* (to browse records)  
At *Starting MFN for browse?* prompt:  
*Press: ;*

On your screen should appear:

```
^aLondon^bMacmillan
^aArlington, VA^bFamily Planning Logistics Management Project
^aEdinburgh^bELBS/Churchill Livingstone
^aLilongwe^bInter-Ministerial Food and Nutrition Committee
^aZomba^bUniversity of Malawi, Centre for Social Research
More...
```

What you see is a listing of only the information from the Place of Publication/Publisher field (Tag 400) for those records which have information in that field. To identify the separate subfields a and b, the caret "^" is used. Therefore we see in the first record displayed ^aLondon which is the place of publication and ^bMacmillan which identifies the publisher.

Notice there is no space between the subfield delimiters and the text entered.

We can limit the information to be displayed from the field to a particular subfield.

*Press: F* (to retrieve format)  
*Press: <END>* (to quickly move to the end of the format)  
*Type: ^A ;* (to limit display to only Place of Publication)  
*Press: B* (to start browse)  
At *Starting MFN for browse?* prompt:  
*Press: ;* (to start browse from first record)

Now you should get a list of place names. Note that when you specify information from a particular subfield it does not display the delimiter as it did before. There is no ^a before the place because when a subfield is specified in a Field Selector only the information after the delimiter specified and before the next delimiter is extracted for display.

The other type of Field Selector is used to display the Master File Number [MFN] of the record that the information is coming from. The Field Selector is: MFN and the number of digits of the MFN displayed can be limited to the number placed in parentheses behind the MFN.

Example: For record number 1, MFN will display 000001  
For the same record, MFN(3) will display 001

Let's add MFN to our format so we know which record the information displayed comes from.

*Press: F* (to retrieve format)  
*Make sure you are in Insert mode -- if not press <INSERT>*  
From the beginning of the format:  
*Type: MFN," "* (to insert record number before place)  
*Press: ;*  
*Press: B* (to start browse)  
At *Starting MFN for browse?* prompt:  
*Press: ;* (to start browse from first record)

On your screen should appear:

```
000001 London
000002
000003
000004 Arlington, VA
000005 Edinburgh
More ...
```

Note that the MFN appears for every record whether or not there is anything in Field 400 to be displayed.

To limit the MFN to only 3 digits:

- Press: **F** (to retrieve format)
- Make sure you are in Insert mode -- if not press <INSERT>
- Move the cursor 3 spaces to the right (under the comma)
- Type: **(3)** (to insert record number before place)
- Press: *;*
- Press: **B** (to start browse)
- At Starting MFN for browse? prompt:
- Press: *;* (to start browse from first record)

See the difference. It is often easier to read numbers without too many extra 0's in front.

## MODE

Now that you know WHAT information to display you need to tell HOW you want CDS/ISIS to display it. This is done by use the mode command. The mode command consists of three letters: the first specifies that it is the mode command, the second what type of mode, the third, what the case of the output will be.

The first parameter to start a mode command is always: **M**

The second parameter which defines the modes can be:

- P** [Proof mode] in which information is displayed exactly as typed into the worksheet.
- H** [Heading mode] which replace subfield delimiters with punctuation and suppresses the display of certain control characters.
- D** [Data mode] which is the same as H but puts a full stop and two spaces ". " at the end of the field (except if a suffix-literal is used).

The third parameter which specifies the case can be:

- L** [Lower case] in which letters are displayed in lower or upper case exactly as entered in the worksheet.
- U** [Upper case] in which all letters are converted into capitals.

The default mode if none is specified is **MPL**

Let's see how changing the mode will affect our display.

- Press: **F** (to retrieve format)
- Make sure you are in Insert mode -- if not press <INSERT>
- From the beginning of the format:

Type: **MPL**, (to insert Proof, Lower case mode)  
Press: **<END>** (to move to end of format)  
Press: **<BkSp> <BkSp>** (to delete ^a)  
Press: **;**  
Press: **B** (to start browse)  
At Starting MFN for browse? prompt:  
Press: **;** (to start browse from first record)

On your screen should appear:

```
001 ^aLondon^bMacmillan
002
003
004 ^aArlington, VA^bFamily Planning Logistics Management Project
005 ^aEdinburgh^bELBS/Churchill Livingstone
More . . .
```

If we change the mode to Data, the subfield delimiters will be replaced by punctuation and a period will be placed at the end of the field; by changing the case to Uppercase, all the letters will display as capitals.

Press: **F** (to retrieve format)  
Make sure you are in Insert mode -- if not press **<INSERT>**  
From the beginning of the format:  
Move cursor one space until it is under the P  
Press: **<DELETE> <DELETE>** (to delete P and L)  
Type: **DU** (to make it Data mode and Uppercase)  
Press: **;**  
Press: **B** (to start browse)  
At Starting MFN for browse? prompt:  
Press: **;** (to start browse from first record)

On your screen should appear:

```
001 LONDON, MACMILLAN.
002
003
004 ARLINGTON, VA, FAMILY PLANNING LOGISTICS MANAGEMENT PROJECT.
005 EDINBURGH, ELBS/CHURCHILL LIVINGSTONE.
More . . .
```

Changing the mode to Heading will delete the period at the end of the field and changing the case to Lowercase will make all the letters display as originally typed in the worksheet.

Press: **F** (to retrieve format)  
Make sure you are in Insert mode -- if not press **<INSERT>**  
From the beginning of the format:  
Move the cursor one space until it is under the H  
Press: **<DELETE> <DELETE>** (to delete the D and U)  
Type: **HL** (to make the mode Heading and Lowercase)

Press: *;*  
Press: **B** (to start browse)  
At Starting MFN for browse? prompt:  
Press: *;* (to start browse from first record)

On your screen should appear:

```
001 London, Macmillan
002
003
004 Arlington, VA, Family Planning Logistics Management Project
005 Edinburgh, ELBS/Churchill Livingstone
More . . .
```

### SPACING COMMANDS

We have the WHAT and the HOW, now we need to tell CDS/ISIS the WHERE to place information. Spacing commands can specify where on the screen you want the information to be placed.

The commands for spacing are:

**Xn** Insert *n* spaces before next field  
**Cn** Tabulate over to position *n* (from the left of the screen)  
**/** Skip to a new line (conditionally)  
**#** Skip to a new line (unconditionally)  
**%** Delete any unformatted blank lines

The indent spacing command is attached to the end of the field selector. It specifies the number of spaces we want to indent the information of the field on the first line and any subsequent lines. The number of spaces are separated by a comma and placed in brackets.

Example: if we want the information from field 400 to indent 5 spaces on the first line and return to the left margin (0 spaces) if it runs to more than one line, the selector would look like: `V400(5,0)`

Lets say we want the MFN to appear in the centre of the screen. The screen is 80 characters long and the MFN 3 characters long, there the MFN should start 39 spaces from the left of the screen. We can do this by tabulating over to position 39 using the spacing command `C39` before the MFN.

We also want the publication information to appear on the next line, so we use the spacing command `/` before the `v400`

Press: **F** (to retrieve format)  
Make sure you are in Insert mode -- if not press <INSERT>  
From the beginning of the format:  
Move the cursor 4 spaces to the right until it is under the M  
Type: **C39**, (to insert spacing command)  
Move the cursor seven spaces to the left until it is under the "  
Type: **/** (to make following information move to a new line)  
Press: *;*  
Press: **B** (to start browse)  
At Starting MFN for browse? prompt:  
Press: *;* (to start browse from first record)

On your screen should appear:

|   |     |
|---|-----|
| London, Macmillan   | 001 |
|   | 002 |
|   | 003 |
|   | 004 |
| Arlington, VA, Family Planning Logistics Management Project |     |
|   | 005 |
| Edinburgh, ELBS/Churchill Livingstone                       |     |
| More . . .  |     |

If we do not want a comma and a space between the place of publication (400^a) and the publisher (400^b) but would prefer 5 spaces, we can use the spacing command X5

- Press: F* (to retrieve format)
- Make sure you are in Insert mode -- if not press <INSERT>*
- From the beginning of the format:
- Press: <END>* (to move to end of format)
- Type: ^A,X5,V400^B* (to insert 5 spaces between the two subfields)
- Press: i*
- Press: B* (to start browse)
- At Starting MFN for browse? prompt:
- Press: i* (to start browse from first record)

On your screen should appear:

|               |  |     |
|---------------|--|-----|
| London        | Macmillan                                    | 001 |
|               |  | 002 |
|               |  | 003 |
|               |  | 004 |
| Arlington, VA | Family Planning Logistics Management Project |     |
|               |  | 005 |
| Edinburgh     | ELBS/Churchill Livingstone                   |     |
| More . . .    |  |     |

## LITERALS

Information that is not in the record itself can be attached conditionally to a field or unconditionally displayed. These are called literals and can be placed before or after the field they are attached to.

- "...." A conditional literal will display what is between the double quotation marks only if the field is present.
  - [...]
  - '....'
- A repeatable literal when attached to a repeatable field selector will display the whatever is in between the vertical bars for each occurrence. You can suppress the first or last occurrence of the literal by placing a plus sign "+" between the literal and the field selector.
- An unconditional literal will display whatever text is in between the single quotation marks regardless of whether it is attached to a field selector or if it is attached to a field selector, whether the field has any information to be displayed.

Let's say we want to call the field for place of publication and publisher "IMPRINT", and we want to separate the subfields with a colon and two spaces.

Press: **F** (to retrieve format)  
Make sure you are in Insert mode -- if not press <INSERT>  
From the beginning of the format:  
move the cursor 16 spaces to the right until it is under the "  
Press: <DELETE> 4 times (to delete conditional spaces)  
Type: 'IMPRINT: ' (to insert unconditional literal)  
Move the cursor 7 spaces to right until it is under the X  
Press: <DELETE> 3 times (to delete X5,)  
Type: ": " (to insert conditional literal)  
Press: *;*  
Press: **B** (to start browse)  
At Starting MFN for browse? prompt:  
Press: *;* (to start browse from first record)

On your screen should appear:

```
IMPRINT: London: Macmillan 001
IMPRINT: 002
IMPRINT: 003
IMPRINT: Arlington, VA : Family Planning Logistics Management Project 004
IMPRINT: Edinburgh: ELBS/Churchill Livingstone 005
More . . .
```

Note that in every record the word *IMPRINT:* appears because it is unconditional, the colon between the place of publication and the publisher appears only when there is something in field 400^b to which the conditional literal is attached.

To see how a repeatable literal works, we need to use a repeatable field. CDS/ISIS supports repeatable fields by allowing you to place more than one occurrence of information in a field. In the worksheet this information is separated by a percentage sign "%". An example of a repeatable field is 300, the Personal Author field, where there might be more than one author entered for the item being catalogued.

We will insert a field label and separate the different authors with a space, semicolon, space.

Press: **F** (to retrieve format)  
Make sure you are in Insert mode -- if not press <INSERT>  
From the beginning of the format:  
Move the cursor 15 spaces to the right until it is under the /  
Type: /'AUTHOR : 'V300| ; | (to skip to a new line, insert label for author, author information and repeatable literal between occurrences of authors)  
Press: *;*  
Press: **B** (to start browse)  
At Starting MFN for browse? prompt:  
Press: *;* (to start browse from first record)

On your screen should appear:

---

```
                                001
AUTHOR :   Aarons, Audrey ; Hawes, Hugh ; Gayton, Juliet ;
IMPRINT:   London: Macmillan

                                002
AUTHOR :   Asiedu, Kwame ;
IMPRINT:

                                003
AUTHOR :   Atherton, F. ;
IMPRINT:

                                004
AUTHOR :   Atkinson, B. ;
IMPRINT:   Arlington, VA: Family Planning Logistics Management Project

                                005
AUTHOR :   Barker, D.J.P. ; Bennett, F.J. ;
IMPRINT:   Edinburgh: ELBS/Churchill Livingstone

More . . .
```

Note that the conditional repeatable literal (the semicolon) appears after every occurrence of an author, including the last because it is attached to the end of the field selector. Also note that the label for AUTHOR : was placed between the double quotes used for a non-repeatable literal, otherwise the label would also be repeated for each occurrence.

To suppress the semicolon from appearing after the last occurrence of an author we can place the plus sign "+" between the field selector and the vertical bar:

```
Press: F (to retrieve format)
Make sure you are in Insert mode -- if not press <INSERT>
From the beginning of the format:
Move the cursor 32 spaces to the right until it is under the vertical bar "|"
Type: + (to insert suppression command)
Press: ␣
Press: B (to start browse)
At Starting MFN for browse? prompt:
Press: ␣ (to start browse from first record)
```

On your screen should appear the same display as the previous example, but without the semicolon after the last author's name.

#### DUMMY AND NULL SELECTORS

Dummy and null selectors will display information on a conditional basis. The condition is that in a dummy selector text between double quotes will be displayed if there is any information in the field of the record; in a null selector the text between double quotes is only displayed if the field is empty in the record.

```
The format for a dummy selector: "...Dtag
The format for a null selector: "...Ntag
```

Let's say that if the field contains a place of publication and publisher we want the record to display IMPRINT: ; if there is nothing in the field then we want it to display NO IMPRINT

We will change the unconditional literal 'IMPRINT: ' to make it conditional upon there being information in the field by changing the single quotes to double quotes and use the null selector to display NO IMPRINT

```
Press: F (to retrieve format)
Make sure you are in Insert mode -- if not press <INSERT>
```

Move the cursor 39 spaces to the right until it is under the '  
 Type: "NO IMPRINT"N400, (to insert null selector)  
 Press: <DELETE> (to delete single quote)  
 Type: " (to insert double quote)  
 Move the cursor 10 spaces to the right until it is under the '  
 Press: <DELETE> (to delete single quote)  
 Type: " (to insert double quote and make literal conditional)  
 Press: ;  
 Press: B (to start browse)  
 At Starting MFN for browse? prompt:  
 Press: ; (to start browse from first record)

On your screen should appear:

|            |   |     |  |
|------------|---|-----|--|
| AUTHOR :   | Aarons, Audrey ; Hawes, Hugh ; Gayton, Juliet               | 001 |  |
| IMPRINT:   | London: Macmillan   |     |  |
|            |   |     |  |
| AUTHOR :   | Asiedu, Kwame   | 002 |  |
| NO IMPRINT |   |     |  |
|            |   |     |  |
| AUTHOR :   | Atherton, F.  | 003 |  |
| NO IMPRINT |   |     |  |
|            |   |     |  |
| AUTHOR :   | Atkinson, B.  | 004 |  |
| IMPRINT:   | Arlington, VA: Family Planning Logistics Management Project |     |  |
|            |   |     |  |
| AUTHOR :   | Barker, D.J.P. ; Bennett, F.J.                              | 005 |  |
| IMPRINT:   | Edinburgh: ELBS/Churchill Livingstone                       |     |  |
|            |   |     |  |
| More . . . |   |     |  |

In records 2 and 3 the words NO IMPRINT display because they meet the condition of the null selector of having no information in field 400 of their records.

## IF COMMANDS

An IF command statement allows you to specify conditions which need to be met and different formats will be displayed depending on these conditions.

The format of the statement is:

**IF condition THEN format-1 ELSE format-2 FI**

A condition can be if a field is present or absent, or if a string of text appears in a certain field, or other results of a string or numerical function. Typical functions on which conditions for a format might be based are:

|                           |   |
|---------------------------|---|
| <b>P(Vtag)</b>            | If information in the field is present  |
| <b>A(Vtag)</b>            | If information in the field is absent   |
| <b>Vtag:'....'</b>        | The field contains a matching string of characters found between the single quotes            |
| <b>Vtag&lt;&gt;'....'</b> | The field does not contain the matching string for characters found between the single quotes |

Expressions can also be combined using Boolean operators **AND**, **OR**, **NOT**.

---

The **FI** is used to close the **IF** command statement. **IF** commands can be nested within other **IF** commands, and for every **IF** there must be a **FI**.

In this database we have different levels of information: monographs, serials and abstracts or analytics from the monographs and serials. The field in which the level is entered is 15; and the codes for the levels are: A for analytics; M for monographs; S for serials.

In the display we want authors of monographs and analytics to come before the title but in serials we want their titles to be displayed in capitals with the editor's names following.

The title field for all records is 200.

We can use an IF command statement to distinguish between serials and all other levels of information and have two formats to be displayed depending on the level.

To distinguish between levels (the *condition*) we use the expression:

**V15:'S'**

If the condition is true then first format (*format-1*) will display the title in capitals and then the editors:

**MHU,"TITLE: "V200/MHL/"EDITORS: "V300+| ; |**

If the condition is not true (i.e. the item is not a serial) then the second format (*format-2*) will be:

**MHL,"AUTHORS: "V300+| ; |/"TITLE: "V200**

So the total **IF** command statement would appear:

**IF V15:'S' THEN MHU,"TITLE : "V200/MHL/"EDITORS: "V300+| ; | ELSE  
MHL,"AUTHORS: "V300+| ; |/"TITLE : "V200 FI**

Press: **F** (to retrieve format)

Make sure you are in Insert mode -- if not press <INSERT>

From the beginning of the format:

Move the cursor 16 spaces to the right until it is under the '

Press: <DELETE> 22 times (to delete author field)

Type: **IF V15:'S' THEN MHU,"TITLE : "V200/MHL/"EDITORS: "V300+| ; | ELSE  
MHL,"AUTHORS: "V300+| ; |/"TITLE : "V200 FI**

(to insert IF command)

Press: *;*

Press: **B** (to start browse)

At Starting MFN for browse? prompt:

Press: *;* (to start browse from first record)

On your screen should appear:

```
                                001
AUTHORS : Aarons, Audrey ; Hawes, Hugh ; Gayton, Juliet
TITLE   : CHILD-to-child
IMPRINT : London: Macmillan

                                002
AUTHORS : Asiedu, Kwame
TITLE   : Project HOPE
NO IMPRINT

                                003
AUTHORS : Atherton, F.
TITLE   : Iodine deficiency disorders (I.D.D.): a survey in Dowa District
NO IMPRINT

                                004
AUTHORS : Atkinson, B.
TITLE   : Logistics systems and contraceptive supply status review: Malawi
child spacing and AIDS control programs
IMPRINT : Arlington, VA: Family Planning Logistics Management Project

More . . .
```

*Note that none of the records on the screen are serials and therefore the second part of the format is used. To see the difference between this and a serial we need to go to a serials record.*

Press: **B** (to start browse)  
At Starting MFN for browse? prompt:  
Press: **47** (to start browse from record number 47)

On your screen should appear:

```
                                047
TITLE   : MALAWI QUARTERLY
EDITORS : Liomba, N.G. ; Molyneux, M.E.
IMPRINT : Lilongwe: Medical Association of Malawi

                                048
TITLE   : HEALTH RESEARCH & LIBRARY UPDATE
EDITORS : Lippman, M.J.
IMPRINT : Lilongwe: Ministry of Health

                                049
AUTHORS : Llewellyn-Jones, Derek
TITLE   : Fundamentals of obstetrics and gynaecology - Volume 1: obstetrics
IMPRINT : London: ELBS/Faber & Faber

                                050
AUTHORS : Llewellyn-Jones, Derek
TITLE   : Fundamentals of obstetrics and gynaecology - Volume 2: gynaecology
IMPRINT : London: ELBS/Faber & Faber

More . . .
```

Placing a set of formatting commands that affect repeatable fields with parentheses will allow each occurrence of the group to be formatted separately.

Press: **F** (to retrieve format)  
*Make sure you are in Insert mode -- if not press <INSERT>*  
From the beginning of the format:  
Move the cursor down 1 line and 9 spaces to the right until it is under the "  
Type: ( (to open repeatable group)  
Move the cursor 23 spaces to the right until it is under the "  
Type: ) (to close the repeatable group)  
Press: **;**  
Press: **B** (to start browse)

At Starting MFN for browse? prompt:

Press: `;` (to start browse from first record)

You will see that because the spacing command to move to a new line `/` was included within the parentheses it was carried out for each occurrence, thereby putting each author on a new line.

There are other formatting commands, but these are the basics and should provide you with enough to evaluate a PFT. Because the CDS/ISIS Formatting Language uses the tag number to identify the variable selector it can sometimes be difficult to know what field the tag refers to so a printed copy of the PFT and FDT is in the section *Definition of AIM Database* and a complete description of all the fields is in the section *AIM Manual for Data Entry* for your reference.

If we look at the PFT for AIM we can break it down to its various components and you will see that it isn't so complicated. Let's examine parts of it so you can see how they work.

1. **c35,mfn(4)/mhl**

This is simple. It just says that Master File Number (MFN) will be displayed to 4 digits (the number 4 in brackets attached to the end of the MFN selector) starting from a tab of 35 spaces (c35). Then we move to a new line (`/`) and switch from the default MPL mode to the Heading, Lowercase mode (MHL)

- \* Look at any record to see where the MFN is placed.

2. **if v15<>'s' and v15<>'S' then v300+| ; |(v310)/v320^a," , "v320^b," ("d320,v320^j" : ",v320^i," : "v320^g,")"d320/v200^a(5,0)," / "v200^b,(|==|v230),else mhu, v200^a, mhl," -- "v300+| ; |," -- "v310, fi**

Here is an IF command that determines whether the bibliographic level is or is not a serial (v15<>'s' and v15<>'S') then formats the authors and title appropriately. If it isn't a serial the personal authors will be displayed on one line separated by a semicolon (v300+| ; |), on the next line the corporate authors will appear each on a line to themselves using the repeatable group formatting technique ( (v310/ ) ). On another line will appear information on a meeting with main parts of the name separated by a comma (v320^a," , "v320^b) then the meeting number, date and place separated by colons (v320^j" : ", v320^i," : "v320^g) and this is placed between brackets by using the dummy selectors " ("d320 before meeting number and ")d320 after the place. Dummy selectors are used because if the conditional brackets were attached v320^j and there was no number for the meeting then the opening bracket would not appear, and the same for the closing bracket if no place was given and the conditional attached to v320^g.

After the author information is completed we move to a new line where the title begins with an indent of 5 spaces but returns to the left margin if it goes for more than one line (/v200^a(5,0). If there is a statement of responsibility it will display after the title separated by a slash ( / "v200^b). Parallel, variant or other language titles will follow with each one separated by a double plus sign ( (|==|v230)

If the item is a serial then the second part of the IF command takes over and we switch to Heading, Uppercase mode (else, MHU). The serial title will appear in capital letters starting from the left margin then the editors and corporate bodies will appear after a dash and separated by semicolons ( " -- "v300+| ; |," -- "v310). The IF command then ends with a FI .

For non-serials

- \* Look at record 1 to see how personal authors are displayed
- \* Look at records 67 and 109 to see how corporate authors and meeting information appears
- \* For these records note how the title indents
- \* Look at record 46 to see how another language title displays.

For serials

- \* Look at record 18 to see how the title and editors appear

3. " -- S.l."n400^a," -- "v400^a,": s.n."n400^b,": "v400^b,

Here we use the null selector to substitute information if a field is empty. In this case the information is for the place of publication and publisher. (*Note that this section itself appears within an IF command and does not apply to analytics.*) If there is nothing entered in the worksheet for place of publication then the abbreviation for sine loco (no place) will be displayed (" -- S.l."n400^a). If a place of publication is entered then it will display (" -- "v400^a). The same for the publisher; if no publisher is given then the null selector will display the abbreviation for sine nomine (no name) after a colon (": s.n."n400^b) otherwise the name of the publisher will be displayed (": "v400^b)

- \* Look at record 1 to see how place of publication and publisher appear if entered into worksheet
- \* Look at record 29 for an example of no place of publication but with a publisher
- \* Look at record 30 for an example of a place of publication but no publisher
- \* Look at record 31 for an example of neither place of publication or publisher entered into the worksheet

Now try creating some of your own display and print formats.

## **Lesson 8: Searching**

The reason for having a database and entering records into it is so they can be retrieved by the user for display or printing. This retrieval, or searching, in CDS/ISIS allows you to select the criteria you want for a search to extract only the records you need.

There are several ways in which a database can be searched. Some database managers will search every field of every record for the search term entered. This can be a slow process. Other database managers create index files which are alphabetical listings of terms and the records they are associated with. This is a much faster way to search because looking up one term will point out all the records containing that term.

This is the method used by CDS/ISIS; but CDS/ISIS goes one step further. By employing a user created Field Select Table [FST], the index file, called the Inverted File in CDS/ISIS, contains terms from as many or as few fields as thought reasonable. This keeps the Inverted File from getting too large, reduces the time needed to update the file with terms from new or modified records. The FST also allows you to extract terms from a field in different ways, such as indexing each word in the field separately or keeping all the words together as one term, or even allowing you to selectively extract a word or words from a field without extracting others.

You can also search any string of characters or words from any field by using a free text search. A free text search examines the field specified in every record of the database for the matching string of characters. It takes slightly longer than a search that uses the Inverted File (on a 386/33 MHz computer a free text search of 1000 records takes about 15 seconds) but is still quite reasonable.

A search is made by creating a search expression. The search expression can be entered directly or terms can be selected from the Terms Dictionary (a listing of the terms contained in the Inverted File). Search terms can be linked to other terms by Boolean Operators or qualifiers that expand or limit the scope of the search.

For these exercises make sure the AIM database is selected. If so it will say *Data base: AIM* in the lower left corner of the main menu. If not then Press C to change database and at the *Data Base Name:* prompt type: **AIM** ; .

### *Entering Search Expressions*

From the main menu change to the Information Retrieval Services menu by pressing **S**.

### **PRECISE TERM**

Entering a precise term to be searched is simple.

From the Information Retrieval Services menu:

Press: **S** (to enter search formulation)

At the *Search expression?* prompt:

Type: **CHILD** ; (to search for records that contain the term CHILD)

On your screen should appear:

```
Set 1: CHILD
P= 13 CHILD
T= 12 - #1: CHILD
---->
```

This shows that a search named Set 1 used the search expression "CHILD". The P refers to the number of postings, or how many times the term appears in the Inverted File. The T refers to how many different records the term is associated with. In this case the term "CHILD" is posted in the

---

Inverted File 13 times but in only 12 different records. These results were then put into a search history named #1.<sup>10</sup>

To display the records you can either return to the Information Retrieval Services menu by pressing  $\downarrow$  at the ---> prompt and then pressing **D** or just by pressing **D** at the ---> prompt without returning to the menu. You can scroll down through the records by pressing  $\downarrow$

If you do not want to see the records found in the search just press  $\downarrow$  at the ---> prompt to return to the Information Retrieval Services menu.

### RIGHT TRUNCATION

Right truncation allows you find all occurrences of what comes before the truncation symbol with any variation of what comes after. The symbol used for truncation is the dollar sign "\$".

Let's say we want to find anything about children and we know there are many possible terms which contain the root "child" in them. We do not have to search separately for every possible combination of "child" and whatever letters come after. We can right truncate using the search term CHILD\$.

From the Information Retrieval Services menu:

Press: **S** (to enter search formulation)

At the Search expression? prompt:

Type: **CHILD\$**  $\downarrow$  (to search for records that contain the root CHILD)

On your screen should appear:

```
Set 2: CHILD$
P= 13 CHILD
P= 7 CHILD HEALTH SERVICES
P= 3 CHILD SPACING
P= 1 CHILD SURVIVAL
P= 1 CHILD-TO-CHILD
P= 3 CHILDREN
T= 16 - #8: CHILD$
T= 16 - #2: #8
---->
```

By right truncating the term child we have expanded the search to include all other terms beginning with the root "CHILD" and number of postings as well as the total number of records they are associated with are listed. In this case the truncation is similar to running 6 separate searches and combining them or one search with six combined search terms. The results of the search are named set #2.

Again, to display the records either return to the Information Retrieval Services menu by pressing  $\downarrow$  at the ---> prompt and then pressing **D** or just by pressing **D** at the ---> prompt without returning to the menu. You can scroll down through the records by pressing  $\downarrow$

If you do not want to see the records found in the search just press  $\downarrow$  at the ---> prompt to return to the Information Retrieval Services menu.

<sup>10</sup> If you have to break off during the lessons or need to repeat a search then the set numbers might be different on your screen than here in the text. For now don't worry about it.

**BOOLEAN OPERATORS**

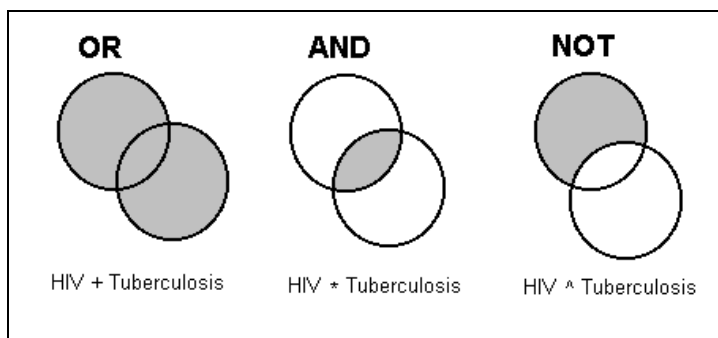
Operators allow you to combine two or more terms by indicating a specific relationship between them. The three operators are + OR, \* AND, and ^ NOT.

The + Operator will find records in which either one or the other or both terms are present.

The \* Operator will only find records in which both terms are present.

The ^ Operator will find all records containing the first except if the second is present.

The following diagram shows the relationships between the operators and how they affect a search. Each circle represents all the records in the database which contain the term below it; and where the circles intersect represents the records which contain both terms.



Let's test the Boolean Operators with the terms in the diagram and see what happens:

From the Information Retrieval Services menu:

Press: **S** (to enter search formulation)

At the *Search expression?* prompt:

Type: **HIV + TUBERCULOSIS**  $\downarrow$  (to search for records that contain either the term HIV or the term TUBERCULOSIS)

On your screen should appear:

```
Set 3: HIV + TUBERCULOSIS
P= 26 HIV
P= 16 TUBERCULOSIS
T= 25 - #4: HIV + TUBERCULOSIS
T= 25 - #3: #4
---->
```

From the Information Retrieval Services menu:

Press: **S** (to enter search formulation)

At the *Search expression?* prompt:

Type: **HIV \* TUBERCULOSIS**  $\downarrow$  (to search for records that must contain both the terms HIV and TUBERCULOSIS)

On your screen should appear:

```
Set 4: HIV * TUBERCULOSIS
P= 26 HIV
P= 16 TUBERCULOSIS
T= 4 - #5: HIV * TUBERCULOSIS
T= 4 - #4: #5
---->
```

From the Information Retrieval Services menu:

Press: **S** (to enter search formulation)  
At the *Search expression?* prompt:  
Type: **HIV ^ TUBERCULOSIS** *¿* (to search for records that contain the term HIV but not the term TUBERCULOSIS)

On your screen should appear:

```
Set 5: HIV ^ TUBERCULOSIS
P= 26 HIV
P= 16 TUBERCULOSIS
T= 14 - #6: HIV ^ TUBERCULOSIS
T= 14 - #5: #6
---->
```

### PROXIMITY OPERATORS

Proximity and field level search operators act as AND operators but allow you to limit the search to the field or occurrence in the field or even the number of words apart between the words.

- (G)** will retrieve records in which both terms occur in the same field
- (F)** will retrieve records in which both terms occur in the same occurrence
- .** will retrieve in which at most number of periods apart  
(. for adjacent; . . for at most two words apart; . . . for at most three words apart, etc.)
- \$** will retrieve records in which terms are exactly the number of dollar signs apart  
(\$ for adjacent; \$ \$ for exactly two words apart; \$ \$ \$ for exactly three words apart, etc.; there should be exactly one space before and after the \$ or . operators)

We can look at some of the differences.

From the Information Retrieval Services menu:

Press: **S** (to enter search formulation)  
At the *Search expression?* prompt:  
Type: **CHILD (G) HEALTH** *¿* (to search for records that must contain both the terms CHILD and HEALTH in the same field)

On your screen should appear:

```
Set 6: CHILD (G) HEALTH
P= 13 CHILD
P= 41 HEALTH
T= 3 - #7: CHILD(G)HEALTH
T= 3 - #6: #7
---->
```

Three records were found in which CHILD and HEALTH occurred in the same field. Display the records by pressing **D** and you will notice that both these terms appear in the title for each of the records.

To limit the search so the terms must be adjacent to one another we do the following:

From the Information Retrieval Services menu:

Press: **S** (to enter search formulation)  
At the *Search expression?* prompt:  
Type: **CHILD . HEALTH** *¿* (to search for records that must contain both the terms CHILD and HEALTH in the same field and be adjacent to one another)

On your screen should appear:

```
Set 7: CHILD . HEALTH
P= 13 CHILD
P= 41 HEALTH
T= 2 - #8: CHILD . HEALTH
T= 2 - #7: #8
---->
```

Of the three records we retrieved before with CHILD and HEALTH in the title only two records had the terms CHILD and HEALTH adjacent to one another.

### QUALIFIERS

Qualifiers can limit a search to a specific field or fields. You can do this by attaching */(tag)* to the search term.

We are looking for a book and only know that it has the word "attitudes" in the title (Field 200):

From the Information Retrieval Services menu:

Press: **S** (to enter search formulation)

At the *Search expression?* prompt:

Type: **ATTITUDES/(200) ;** (to search for records that contain the term ATTITUDES but must appear in the title field)

On your screen should appear:

```
Set 8: ATTITUDES/(200)
P= 2 ATTITUDES
T= 2 - #8: ATTITUDES
---->
```

Two records were found with the word "attitudes" in the title. We can display them to see which record is the correct one.

### FREE TEXT SEARCH

A Free Text Search allows you to search for a string of characters or use a Boolean expression so you can set specific search requirements in any field, whether indexed by the FST or not. (For the AIM databases, copies the FSTs are found in the Database Definition section of this manual to give an idea of what fields are or are not indexed.)

The Free Text Search expression begins with a question mark "?" and the Boolean expression follows.

Let's say we want to see all records that are serials or periodicals. We know the field for Bibliographic Level is 15 and the code for serials is S. To search for all periodical records we do the following:

From the Information Retrieval Services menu:

Press: **S** (to enter search formulation)

At the *Search expression?* prompt:

Type: **? V15:'S' ;** (to search for records that contain the character S in field 15)

On your screen should appear:

```

Set 9: ? V15:'S'

-----MFN-----  ---Hits---  -----%-----  ---Recs---
| 114 | | 9 | | 7.89 | | 114 |
-----

---->
    
```

This information shows us the number of records being searched, the number of times the character string was found, the total number of records processed. In this case 9 records contained the character "S" in field 15 which means there are 9 serial or periodical records in the database.

To display the records you can press D from the ---> prompt or press ↵ to return to the Information Retrieval Services menu.

Another example. As part of a network you want to export new records added to your database on a regular basis. Your last export was on 24 March 1992. The field for Date of Entry is 22 and the information is entered into the field in ISO 2014 format (the four digits for the year first, then the 2 digits for the month, then the two digits for the day) so it will look like: 19920324. To find all of the records entered after that date:

From the Information Retrieval Services menu:

Press: **S** (to enter search formulation)

At the *Search expression?* prompt:

Type: **? VAL(V22)>19920324 ;** (to search for records that contain a numerical value greater than 19920324 in field 22)

On your screen should appear:

```

Set 10: ? VAL(V22)>19920324

-----MFN-----  ---Hits---  -----%-----  ---Recs---
| 114 | | 23 | | 20.18 | | 114 |
-----

---->
    
```

### Selecting Terms from Dictionary

If you do not want to type in all the terms or you want to see if a term has been indexed you can use the Terms Dictionary to pick out terms for you which can then be placed into the search expression and edited before being executed.

To get to the Terms Dictionary press **T** from the Information retrieval Services menu or while browsing records. At the *Key:* prompt type in the letter or you want to start searching the dictionary from. If you press ; from the prompt it will start the dictionary list from the beginning.

You can move forward by pressing the <PgDn> key (and backwards, in version 3.0, to the point you started from by pressing <PgUp>). If you select a term near the beginning of the alphabet and want to select another near the end, instead of press <PgDn> so many times, just press **T** again and at the *Key:* prompt type in the new letter you want to go to.

To select your first term move the cursor to the term wanted( the *↵* or *←* to move forward; the **<TAB>** or *←* to move backwards) and press S. To select other terms, move the cursor in front of the term wanted and press the Boolean operator or Proximity operator.

To search for records on HIV and Tuberculosis we can:

From the Information Retrieval Services menu:  
 Press: **T** (to call up Terms Dictionary)  
 At the *Key?* prompt:  
 Type: **H** *↵* (to start dictionary from the letter H)  
 Press: **®** (to move to right hand column)  
 Press: *↵* 5 times (to move cursor in front of HIV)  
 Press: **S** (to select term)  
 Press: **T** (to restart Terms Dictionary)  
 At the *Key?* prompt:  
 Type: **TUB** *↵* (to start dictionary at TUB)  
 Press: *↵* 3 times (to move cursor in front of TUBERCULOSIS)  
 Press: **\*** (to connect the terms by the AND Boolean operator)  
 Press: **X** (to leave Terms Dictionary)

You will see that the two terms have been entered in the search expression. They can be run directly by pressing *↵* to accept expression or the expression can be modified if need be.

We saw that in the Terms Dictionary there were terms for Tuberculosis and Tuberculosis, Pulmonary. Instead of entering both terms we can just right truncate Tuberculosis with the dollar sign so both terms will be searched.

Press: **<END>** (to move to end to search expression)  
 Type: **\$** (to right truncate the term TUBERCULOSIS)  
 Press: *↵* (to run search)

On your screen should appear:

```
Set 11: HIV * TUBERCULOSIS$
P= 16 TUBERCULOSIS
P= 5 TUBERCULOSIS, PULMONARY
T= 11 - #13: TUBERCULOSIS$
P= 26 HIV
T= 4 - #14: HIV * #13
T= 4 - #11: #14
---->
```

### Combining Searches

Searches can be combined simply by using their set number. In the example above the search resulted in 4 records containing both the terms HIV and TUBERCULOSIS. If we further want to narrow it down to just records about Malawi we can add the term Malawi to the search expression:

From the Information Retrieval Services menu:  
 Press: **S** (to enter search formulation)  
 At the *Search expression?* prompt:  
 Type: **#11 \* MALAWI** *↵* (to combine the previous search with the term MALAWI if your last search on HIV and Tuberculosis was not numbered set 11 then type in the actual set number)

On your screen should appear:

```
Set 12: #11 * MALAWI
P= 15 #11
P= 177 MALAWI
T= 3 - #13: #11 * MALAWI
T= 3 - #12: #13
---->
```

Combining searches is useful especially if your requirements call for one search that uses terms from the Inverted File and another which is a Free Text Search.

### ANY Terms<sup>11</sup>

ANY Terms are user defined collective terms combined with the Boolean operator OR. The terms associated with the ANY Term is found in the ANY file and can be edited to meet individual needs.

What this means is that one ANY Term can replace a whole lot of individual terms. For example: In Malawi there are 24 districts divided into three regions. If we want to locate records for only the Southern Region we can create an ANY Term for Southern Region that will be associated with each of the individual districts found in it. ANY Terms for the districts and regions of Malawi are included with this database so let's give it a try:

From the Information Retrieval Services menu:

Press: **S** (to enter search formulation)

At the *Search expression?* prompt:

Type: **ANY SOUTHERN REGION** ; (to find all records have as a descriptor "Southern Region" or any one of the districts found in the region)

On your screen should appear:

```
Set 13: ANY SOUTHERN REGION
P= 0 SOUTHERN REGION ** Not found **
P= 1 MANGOCHI
P= 0 MACHINGA ** Not found **
P= 11 ZOMBA
P= 0 CHIRADZULU ** Not found **
P= 4 BLANTYRE
P= 0 MWANZA ** Not found **
P= 15 THYOLO
P= 12 MULANJE
P= 0 CHIKWAWA ** Not found **
P= 1 NSANJE
T= 31 - #24: ANY SOUTHERN REGION
T= 31 - #13: #24
---->
```

So what we end up with is 31 records containing one of the 10 districts of the Southern Region and for those districts with no posting a **\*\*Not found\*\*** was reported.

This ANY search is the same as the search expression:

SOUTHERN REGION OR MANGOCHI OR MACHINGA OR ZOMBA OR CHIRADZULU OR BLANTYRE OR MWANZA OR THYOLO OR MULANJE OR CHIKWAWA OR NSANJE

but ANY SOUTHERN REGION is a lot easier to type!

<sup>11</sup> For creating an ANY File see: Manual: p. 226

### *Saving Search Results*

In order to print out the results of a search or export a selection of records as specified in a search, the results of the search must be saved. This is very easy to do.

You can save the last search executed, so when you get the required results press **P** from the Information Retrieval Services menu and then at the prompt, type in the save file name. The name can be up to 6 characters long.

We will run a couple of searches and then save them for printing and sorting in the next lesson.

From the Information Retrieval Services menu:

Press: **S** (to enter search formulation)

At the *Search expression?* prompt:

Type: **HIV + ACQUIRED\$** *¿* (to find all records on HIV or Acquired Immunodeficiency Syndrome - we can truncate and the word "Acquired" so we don't have to type too much)

At the ---> prompt:

Press: *¿* (to return to Information Retrieval Services menu)

Press: **S** (to save search results)

At the *Please enter save file name:* prompt:

Type: **HIV** *¿* (to name the save file HIV)

Let's do one more:

From the Information Retrieval Services menu:

Press: **S** (to enter search formulation)

At the *Search expression?* prompt:

Type: **? V15:'S'** *¿* (this is a Free Text Search to find all records with an S in the field for bibliographic level: in other words serials records)

At the ---> prompt:

Press: *¿* (to return to Information Retrieval Services menu)

Press: **P** (to save search results)

At the *Please enter save file name:* prompt:

Type: **SERIAL** *¿* (to name the save file SERIAL)

That's all there is to saving search results.

## **Lesson 9: How to Print/Download Records**

Producing output of records from a databases in CDS/ISIS can be difficult or easy depending on how much control you want over the results.

You can simply print whatever records are on your screen by sending it to the printer using the **<Print Screen>** key. *[Note: this will not work if you are running CDS/ISIS under Windows. If you are, then pressing **<Print Screen>** will copy the screen into the clipboard for pasting into another program].*

Test this by printing any record from the screen.

Make sure the database AIM is selected

Make sure printer is on and ready

From the main menu:

Press: **S** (to change to Information Retrieval Services menu)

Press: **B** (to browse (view) records)

At the *Starting MFN for browse?* prompt:

Press: **↓** (to start browsing from first record)

Press: **<Print Screen>** (to print records being displayed)

Press: **X** (to finish browse)

So much for the simple way of printing.

CDS/ISIS allows you a lot of control over how your output is formatted. You can select which records you want printed, a display format that may be the same or different from the one you use for display on the monitor, you can sort the records according to specifications you determine, you can have title that appear on every page and every page numbered or not, as you please. You can send the results of the print run to the printer (printing), or to a file on a diskette or hard-disk (downloading).

Of course with all these options on what, how and where you want your output formatted it isn't as easy to get the results you want. It takes time to think about how you want your output to appear. If it is something you will be doing again and again you can create user print and sort worksheets that will have most of the default values you need already defined for your print runs. CDS/ISIS is not forgiving and doesn't remember, so if you make a mistake you must start over again!

The first exercise will be simple print run.

Make sure the database AIM is selected

Make sure the printer is turned on and ready

From the main menu:

Press: **P** (to select Printing and Sorting Services)

Press: **P** (to select the System Print Worksheet)



First Page Number: **0** (to choose no numbering for pages)  
Data indentation: **5** (to indent text 5 spaces from left margin)  
Print File Name: **LPT1** (to sent output to printer)

Then execute print run.

The printed output (part of page 1 only) should appear like this:

| First Fifty Records   |   |
|---|---|
| (Titles)  |   |
| 01 CHILD-to-child   | 13 Socio-economic aspects of female-headed households and rural development: with special reference to the Phalombe area of Southern Malawi |
| 02 Project HOPE   | 14 Prevalence for HIV infection in pregnant women on Malawi.  |
| 03 Iodine deficiency disorders (I.D.D.): a survey in Dowa District  | 15 Serial sero-prevalence studies and estimates of HIV I antibodyin pregnant women in Malawi.   |
| 04 Logistics systems and contraceptive supply status review: Malawi child spacing and AIDS control programs |   |
| 05 Practical epidemiology   |   |

At *Print run completed* prompt:

Press: ↵ (to return to Printing and Sorting Services menu)

Let's do the same print run but we will sort the titles alphabetically.

CDS/ISIS let's you sort using up to four different keys. The information that makes up the key is extracted from the record in the same way a term is extracted and placed in the Inverted File or displayed on the terminal. The sort keys can also be used to create headings.

Right now we will not use any headings because the heading would be the same as our format.

Make sure the database AIM is selected

Make sure the printer is turned on and ready

From the Printing and Sorting Services menu:

Press: **P** (to select the System Print Worksheet)

Fill in the work just as in the last exercise, except:

In Third Title *type*: **Sorted Alphabetically**

In the Sort? field change the N to **Y**

After pressing ↵ to verify worksheet the Sort worksheet will appear :

|  |   |
|--|---|
| Number of Headings <u>  1  </u>                              | Stopword file name <u>  ___  </u>         |
| Heading format: _____  |   |
| _____  |   |
| Length of first sort key<br>FST for first sort key    _____  | Heading processing indicator <u>  0  </u> |
| _____  |   |
| Length of second sort key<br>FST for second sort key  _____  | Heading processing indicator <u>  0  </u> |
| _____  |   |
| Length of third sort key<br>FST for third sort key    _____  | Heading processing indicator <u>  0  </u> |
| _____  |   |
| Length of fourth sort key<br>FST for fourth sort key   _____ | Heading processing indicator <u>  0  </u> |
| _____  |   |

You move through the Sort Worksheet the same way as in the previous worksheet: Press ; to move forward a field, <TAB> to move back a field.

Change the following fields:

|   |   |
|---|---|
| Number of Headings: <b>0</b>                | (to keep sort key from being a heading)     |
| Length of First Sort Key: <b>50</b>         | (to sort key up to 50 characters)           |
| FST for First Sort Key: <b>1 0 mhl,v200</b> | (to select title as sort key)               |
| Press: <PgDn>                               | (to move quickly to menu at bottom of page) |
| Press: ;                                    | (execute print run)                         |

Your sorted output (part of page 1 only) should appear as:

|  |   |
|--|---|
| First Fifty Records  |   |
| (Titles)   |   |
| Sorted Alphabetically  |   |
| 35 A dynamic<br>theatrical group<br><br>22 AIDS in Malawi<br><br>21 AIDS.<br><br>20 AIDS: a Christian<br>response<br><br>30 Atlas of medical<br>helminthology and<br>protozoology<br><br>23 Care of the newborn<br>in developing countries | 49 Fundamentals of<br>obstetrics and gynaecology<br>- Volume 1: obstetrics<br><br>50 Fundamentals of<br>obstetrics and gynaecology<br>- Volume 2: gynaecology<br><br>48 Health Research &<br>Library Update<br><br>43 HIV seropositivity<br>and tuberculosis in a<br>large general hospital in<br>Malawi. |

Let's say we want to have an Author/Title list of records on HIV/AIDS and have this list sorted alphabetically by Authors. We have already run a search to find the HIV/AIDS records and the results are stored in a Save File called HIV.

We can use the sorted author names (these include personal, corporate and meeting names) as headings and have the titles and MFNs come underneath.

Fill in the Print Worksheet the same as the example above except for the following Fields:

Save File Name: **HIV** (to use HIV save file search results)  
First Title: **HIV/AIDS** (for first title)  
Second Title: **Author/Title List** (for second title)  
Third Title: **Sorted by Author** (for third title)

Fill in the Sort Worksheet with the following information:

Number of Headings: **1** (to use the first sort key as a heading)  
Heading Format: **MHL,V1#** (to format how the heading should appear)  
Length of First Sort Key: **30** (to sort key up to 30 characters)  
FST for First Sort Key: **1 0 MHL,(V300/),(V310/),V320^A**

*[The information extracted from the First Sort Key FST (Personal Author V300, Corporate Author V310, and Meeting Name V320^A) will be placed in the heading format as V1. This is why the author fields are not placed in the print format on the previous worksheet.]*

Execute the Print Run and you should have something like this:

HIV/AIDS

Author/Title List

Sorted by Author

|   |   |
|---|---|
| Asiedu, Kwame<br>02 Project HOPE  | Kristensen, J.K.<br>44 The prevalence of<br>symptomatic sexually<br>transmitted diseases and<br>human immunodeficiency<br>virus infection in<br>outpatients in Lilongwe,<br>Malawi. |
| Atkinson, B.<br>04 Logistics systems<br>and contraceptive supply<br>status review: Malawi<br>child spacing and AIDS<br>control programs | Malawi, Ministry of Health,<br>Malawi AIDS Control Programme<br>61 AIDS education<br>reference manual for<br>health workers   |
| Chipangwi, J.D.<br>14 Prevalence for HIV<br>infection in pregnant<br>women on Malawi.   | 62 A five year medium<br>term plan for the<br>prevention and control of<br>AIDS in Malawi [1989-1993]   |
| 15 Serial<br>sero-prevalence studies<br>and estimates of HIV I<br>antibody in pregnant women<br>in Malawi.                              | 63 AIDS education<br>guide for non-health<br>workers  |
| Cullen, Trevor<br>20 AIDS: a Christian<br>response  | 64 HIV/AIDS<br>counselling training<br>manual   |
| Delay, P.<br>21 AIDS.   | 65 AIDS News: a<br>Newsletter for Health<br>Workers   |
| 22 AIDS in Malawi   |   |
| Kelly, P.<br>36 HIV seropositivity<br>and tuberculosis in a<br>rural Malawi hospital.   | Msapato, K.M.<br>77 Study of knowledge<br>and aspects of attitudes<br>of school teenagers in<br>Mzimba district about HIV<br>infection / AIDS.                                      |
| Kishindo, P.<br>40 Knowledge,<br>attitudes and beliefs on<br>AIDS.  |   |

Downloading files is the same as printing. Instead of sending the output to the printer it is sent to a text file on the hard-disk. To do this just enter a file name in the *Print File Name* field of the Print Worksheet.

The file is then found on the hard-disk in the directory where you have specified temporary or work files placed (Parameter 4 of the SYSPAR.PAR). If you followed the example for installing CDS/ISIS in the first lesson then this directory will be C:\ISIS\TEMP.

An example for printing an index using a special CDS/ISIS print format is given in the *Mini-Micro CDS/ISIS Reference Manual* so won't be used here.

---

If you are making an index and want the sort key to use information from different fields and using different techniques then you can create a special FST to be inserted in the FST for sort key.

Example: If you want your index to contain personal and corporate authors, meeting names, individual words from titles, and subject descriptors then you might want an FST something like this:

| Data Base Name: AIM |    | FST for Sorting                 |  | FST name: INDEX |  |
|---------------------|----|---------------------------------|--|-----------------|--|
| ID                  | IT | Data extraction format          |  |                 |  |
| 1                   | 4  | MHL,V200^A,V320^A               |  |                 |  |
| 1                   | 0  | MHL,(V300/)                     |  |                 |  |
| 1                   | 1  | (V310/),(V620/),(V625/),(V630/) |  |                 |  |
| 1                   | 2  | V600,V500                       |  |                 |  |

Notice that all three lines have an ID of 1 which refers to the First Sort Key. The Title Field (200) and the name of the meeting (320) use Index Technique 4, which extracts every word individually. The line for Personal Author (300), takes all the words of each occurrence and makes it one term using Index Technique 0. The Corporate Author (310) and Descriptor fields (620,625,630) are indexed using Technique 1, which will index each subfield as one term. Terms that were bracketted with angle brackets <...> in the Abstract and Note Fields (600 and 500) are extracted with Index technique 2. Other fields, such as place of publication, author affiliation, second level fields, variant titles, etc. could be added to the FST for Sorting if it was desired in the index, even if such fields were not entered in the FST for the creation of the Inverted File.

**PLEASE NOTE:** for users of the AIM database special User Defined Printing and Sorting Worksheets have been created. To access them from any menu in CDS/ISIS Press: **[Shift]+[F7]**, the same key combination as in WordPerfect. The only field to be completed is the Save File Name and records will then be printed using the AIM display format and sorted by author and title. You can still change the options if you so desire.

## **Lesson 10: How to Enter Data**

Entering data into a worksheet is not very difficult. Like filling in the worksheets for printing and sorting, you move around from field to field by pressing `;` to move forward and `<TAB>` to move back. To quickly move to the menu for verification and then continue to the next page of the worksheet press `<PgDn>`.

When creating a worksheet for data entry in CDS/ISIS there is an opportunity to add a two line help message for the field. This help message is accessed by pressing `<F1>`. For the AIM database there is a help message for every field giving the tag number and information on subfields, repeatability, and sometimes examples. You should make it a habit to press `<F1>` before entering into each field until you become very familiar with the data entry rules.

Samples of the four pages of the on-line worksheet for data entry are in the section on *Definition of AIM Database* and a sample of a printed version for preparation to data entry is at the end.

If the help message supplied isn't clear enough, there is a manual for data entry into the AIM database which describes every field in detail with examples. It is appended to the end of the lessons.

Things to remember when entering data:

To access help: Press `<F1>`

To delete the contents of a field from the cursor: Press `<F6>`

To mark the beginning of a block of text for cutting: Press `<F3>`

To mark the end of a block of text for cutting: Press `<F4>`

To paste a block of text that has been cut: Press `<F5>`

To separate occurrences in a repeatable field: insert `%` between occurrences

To designate a subfield: insert a caret `^` and the subfield delimiter before text

In fields indexed with Technique 2: use angle brackets `<...>` to select words to be indexed

*Important: With the subfield delimiters and repeatable occurrences there should be no spaces between the separating characters.*

*Example:       for two authors in a repeatable field: Jones, M.%Smith, P.  
                  for two subfields: ^aLondon^bMacmillan*

It is good practice to study the item to be catalogued in preparation to entering it into the database. Check to see if it has been catalogued before; give it a classification number, decide what the subject descriptors are, etc. It's best to come to the computer with all the information prepared for cataloguing in order to save time and trouble. It's possible to make photocopies of the sample printed worksheets at the end of this manual to fill in prior to cataloguing or create a preliminary data entry worksheet of your own.

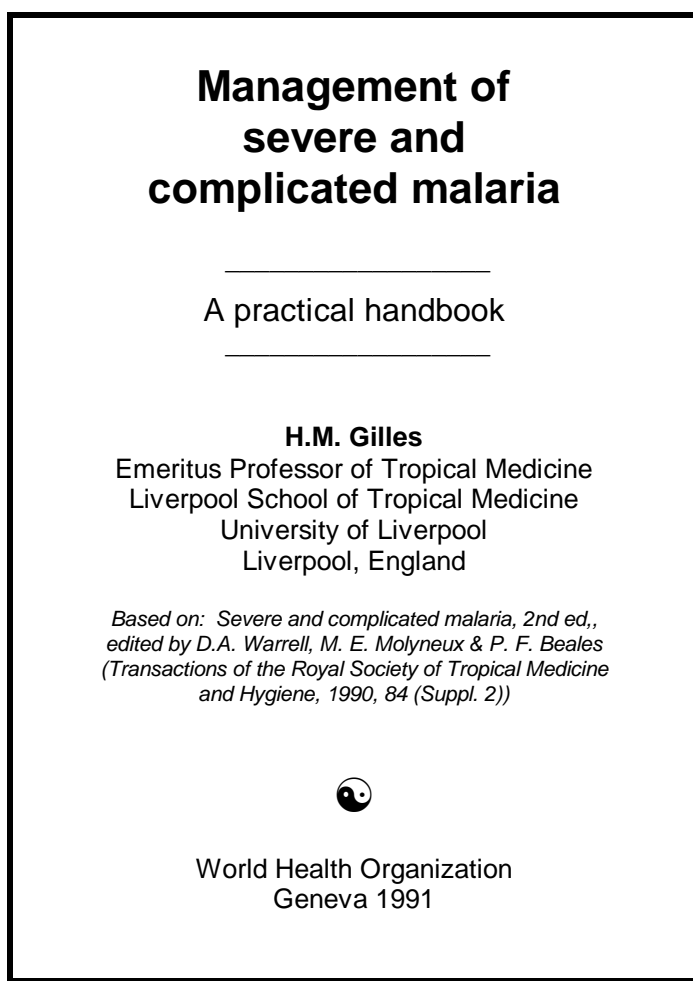
Look to check if there is any Cataloguing in Publication data on the verso of the title-page; this will help you avoid redoing the cataloguing. However you don't have to automatically have to accept their cataloguing information if you feel it's insufficient or incorrect.

A sample flow chart suggesting procedures in entering data follows:



Entering New Records<sup>12</sup>

The first exercise will be a Monograph with a single Personal Author:



To enter a new record:

Make sure AIM is the selected database

From the main menu:

Press: **E** (to select Data Entry Services)

Press: **N** (to enter a new record)

When the first page of the worksheet appears, enter or change information in the following fields:

Source of Record: enter your institution code or leave blank if you do not have one

Bibliographic Level: **M**

Title: **^aManagement of severe and complicated malaria: a practical handbook**

Personal Authors: **Gilles, H.M.**

Press: **<PgDn>** or **;** (until you get the menu at bottom of page)

After verifying information is correctly entered:

Press: **;** (to move to next page)

On the second page of the worksheet:

---

<sup>12</sup> If you can't finish all the data entry exercises in one sitting don't worry. When you exit CDS/ISIS you will be prompted if you want to update the Inverted File: answer N (No) for now. We will update inverted file later in the lesson after new records have been entered.

---

Place/Publisher: **^aGeneva^bWorld Health Organization**

Date of Publication: **19910000**

Physical Description: **^aiv, 56 p.^bill.**

ISBN: **^a92-4-154436-8**

Notes: **Based on: Severe and complicated malaria, 2nd ed., edited by D.A. Warrell, M.E. Molyneux and P.F. Beales. Transactions of the Royal Society of Tropical Medicine and Hygiene, 1990, 84 (Suppl. 2)**

Press: **<PgDn>** or **;** (until you get the menu at bottom of page)

After verifying information is correctly entered

Press: **;** (to move to next page)

On the third page of the worksheet:

There is nothing to change

Press: **<PgDn>** (to get the menu at bottom of page)

Press: **;** (to move to next page)

On the fourth page of the worksheet:

Abstract: **This handbook provides practical guidance on the diagnosis and management of severe and complicated malaria. After outlining general nursing care needed by these patients, it considers in turn the possible complications, including <anemia>, <kidney failure>, <hypoglycemia>, and <pulmonary edema> and gives specific advice on their management.**

Classification<sup>13</sup>: **^aWC 039 GIL^bNLM**

Descriptors-Controlled<sup>14</sup>: **^aMalaria^bTherapy%^aMalaria^bHandbooks**

Location of Document: enter ^a(your institution code) or leave blank

Person Entering Data: **enter your initials**

Date Record Entered: **enter today's date in ISO format (YYYYMMDD, example: 23 September 1992 is 19920923)**

After entering the date and verifying the information is correct:

Press: **;** (to enter record in Master File)

To view the record you just entered:

Press: **X** (to return to main menu)

Press: **S** (to go to Information Retrieval Services )

Press: **B** (to browse records)

At Starting MFN for browse? prompt:

Type: **115 ;** (to browse the new record)

Note any mistakes to be corrected.

When finished:

Press: **X** (to end browse)

Press: **X** (to return to main menu)

If this or future records do not display properly, make sure that information in Bibliographic Level (Tag 15) and Type of Material (60) is entered correctly, as well as subfield and repeatable delimiters.

Note: the terms to be extracted from the abstract field by being placed in brackets will appear in the display without brackets due to Heading Mode (MHL); the Type of Material field did not have to be changed as the default value of 100 is for monographs.

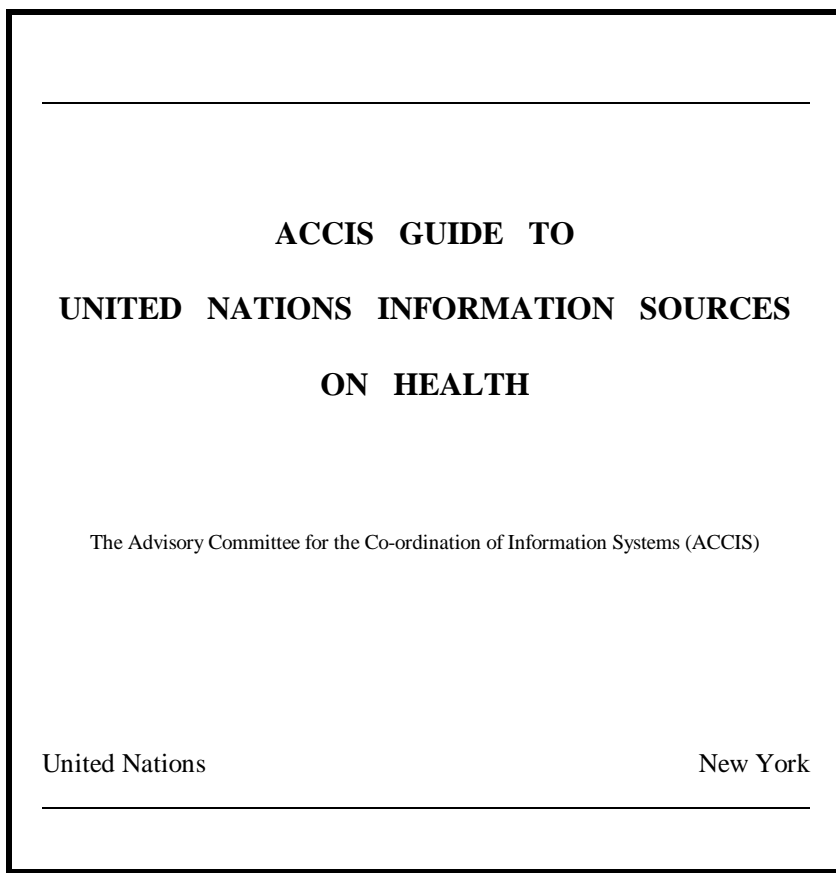
---

<sup>13</sup> Your institution may use something other than the National Library of Medicine classification scheme or a different form of cutting. For the sake of the exercises we will use mostly the NLM. Also, computers sort numbers from left to right; therefore WC 100 would come before WC 39. In order for numbers to sort properly you must enter WC 39 as WC 039.

<sup>14</sup> Controlled Descriptors used here are NLM Medical Subject Headings [MeSH].

---

The next exercise is a Monograph with a Corporate Author:



To enter the new record:

Make sure AIM is the selected database

From the main menu:

Press: **E** (to select Data Entry Services)

Press: **N** (to enter a new record)

When the first page of the worksheet appears, enter or change information in the following fields:

Source of Record: enter your institution code or leave blank if you do not have one

Bibliographic Level: **M**

Title: **^aACCIS guide to United Nations information sources on health**

Corporate Authors: **^aUnited Nations^bAdvisory Committee for the Coordination of Information Systems**

Press: **<PgDn>** or *↓* (until you get the menu at bottom of page)

After verifying information is correctly entered:

Press: *↓* (to move to next page)

On the second page of the worksheet:

Place/Publisher: **^aNew York^bUnited Nations**

Date of Publication: **19920000**

Physical Description: **^avii, 227 p.**

ISBN: **^a92-1-100363-6**

Press: **<PgDn>** or *↓* (until you get the menu at bottom of page)

After verifying information is correctly entered

Press: *↓* (to move to next page)

On the third page of the worksheet:

There is nothing to change

Press: **<PgDn>**

(to get the menu at bottom of page)

Press: **;**

(to move to next page)

On the fourth page of the worksheet:

Abstract: **This is a guide to sources of information within the United Nations system on health. It is intended to be used by public health workers and planners, by researchers and students, and by information professionals seeking to locate authoritative, economical and varied sources of health information for their clientele.**

Classification: **^aZ 699.5 ACCIS^bLC**

Descriptors-Controlled: **^aInformation Services^bDirectory%^aInformation Centers^bDirectory%^aLibraries^bDirectory**

Location of Document: enter ^a(your institution code) or leave blank

Person Entering Data: **enter your initials**

Date Record Entered: **enter today's date in ISO format (YYYYMMDD, example: 23 September 1992 is 19920923)**

After entering the date and verifying the information is correct:

Press: **;**

(to enter record in Master File)

To view the record you just entered:

Press: **X**

(to return to main menu)

Press: **S**

(to go to Information Retrieval Services )

Press: **B**

(to browse records)

At *Starting MFN for browse?* prompt:

Type: **116 ;**

(to browse the new record)

Note any mistakes to be corrected.

When finished:

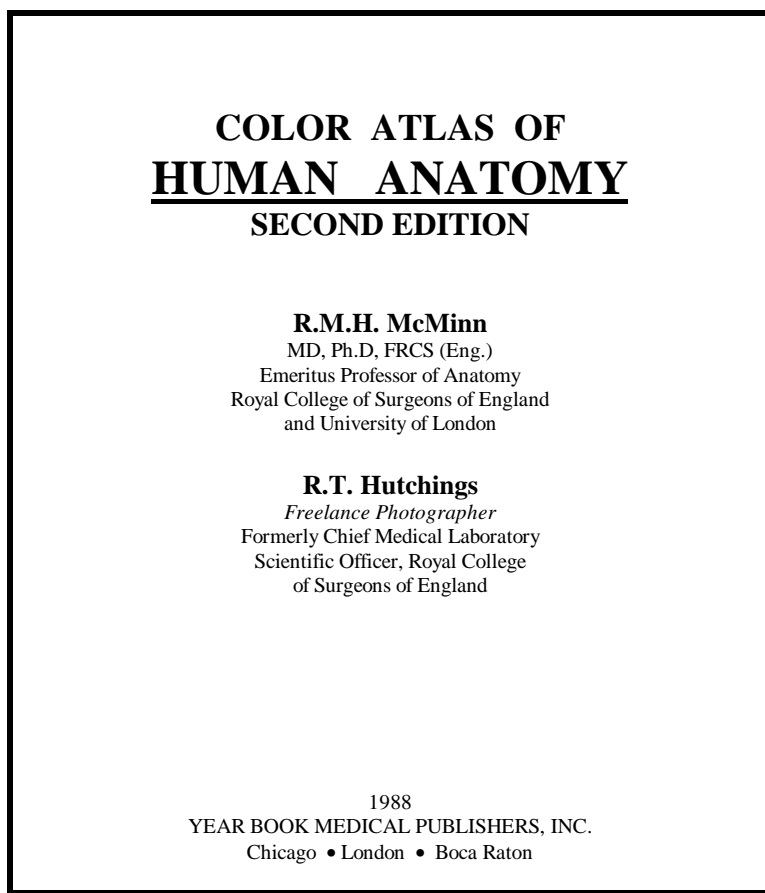
Press: **X**

(to end browse)

Press: **X**

(to return to main menu)

The next exercise is a Monograph with multiple Authors:



To enter the new record:

Make sure AIM is the selected database

From the main menu:

Press: **E** (to select Data Entry Services)

Press: **N** (to enter a new record)

When the first page of the worksheet appears, enter or change information in the following fields:

Source of Record: enter your institution code or leave blank if you do not have one

Bibliographic Level: **M**

Title: **^aColor atlas of human anatomy**

Personal Authors: **McMinn, R.M.H.%Hutchings, R.T.**

Press: **<PgDn>** or *;* (until you get the menu at bottom of page)

After verifying information is correctly entered:

Press: *;* (to move to next page)

On the second page of the worksheet:

Edition: **^a2nd ed.**

Place/Publisher: **^aChicago^bYear Book Medical Publishers**

Date of Publication: **19880000**

Physical Description: **^a358 p.^bplates**

ISBN: **^a0-8151-5855-6**

Press: **<PgDn>** or *;* (until you get the menu at bottom of page)

After verifying information is correctly entered  
Press: *;* (to move to next page)

*On the third page of the worksheet:*

There is nothing to change  
Press: **<PgDn>** (to get the menu at bottom of page)  
Press: *;* (to move to next page)

*On the fourth page of the worksheet:*

Abstract: **The object of this atlas is to assist undergraduates and postgraduates in the study of human anatomy by showing structures of the interior of the body as they actually exist in suitably prepared specimens observed by students in the dissecting room and in examinations.**

Classification: **^aQS 017 MCM^bNLM**

Descriptors-Controlled: **^aAnatomy^bAtlases%^aHuman**

Location of Document: enter ^a(your institution code) or leave blank

Person Entering Data: **enter your initials**

Date Record Entered: **enter today's date in ISO format (YYYYMMDD, example: 23 September 1992 is 19920923)**

After entering the date and verifying the information is correct:

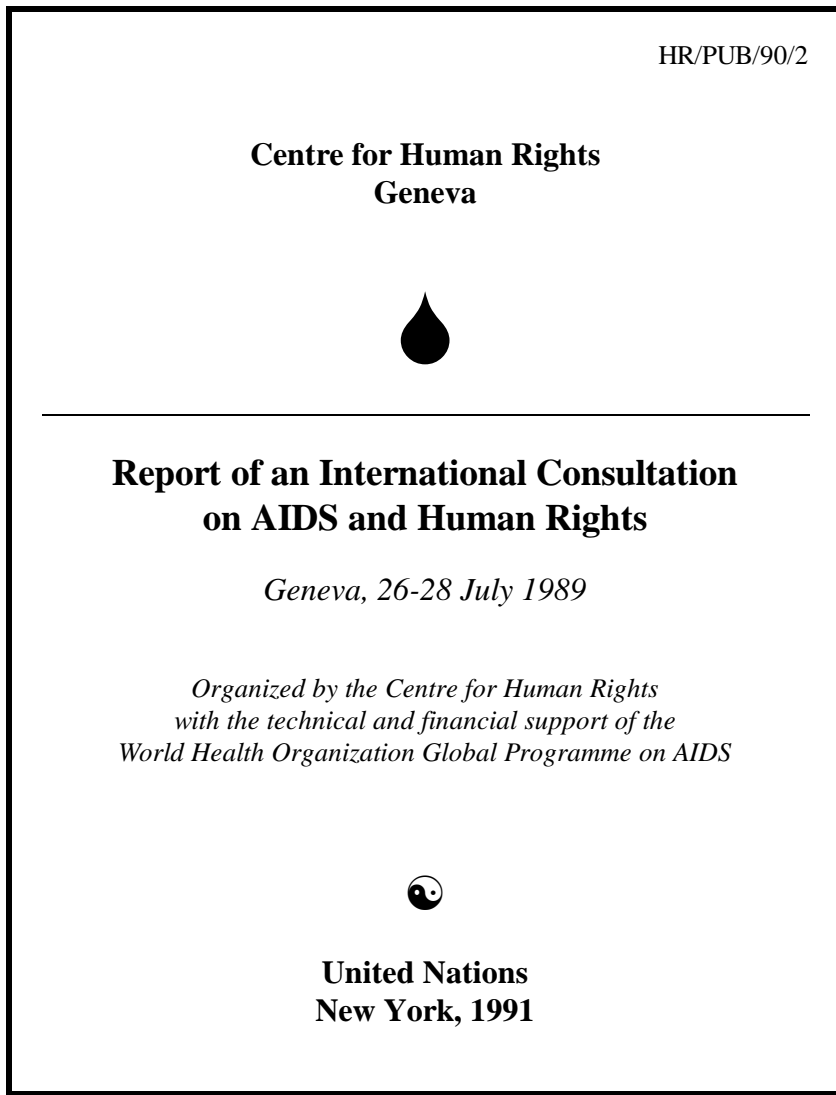
Press: *;* (to enter record in Master File)

To view the record you just entered:

Press: **X** (to return to main menu)  
Press: **S** (to go to Information Retrieval Services )  
Press: **B** (to browse records)  
At *Starting MFN for browse?* prompt:  
Type: **117 ;** (to browse the new record)  
Note any mistakes to be corrected.  
When finished:  
Press: **X** (to end browse)  
Press: **X** (to return to main menu)

Note: Multiple authors appear in the display separated by semicolon because of repeatable literal attached to author field selector ( v300+| ; | )

The next exercise is a Monograph report from a Meeting:



To enter the new record:

Make sure AIM is the selected database

From the main menu:

Press: **E** (to select Data Entry Services)

Press: **N** (to enter a new record)

When the first page of the worksheet appears, enter or change information in the following fields:

Source of Record: enter your institution code or leave blank if you do not have one

Bibliographic Level: **M**

Type of Material: **115**

Title<sup>15</sup>: **^aReport of an international consultation on AIDS and human rights**

Corporate Authors: **^aCentre for Human Rights%<sup>a</sup>World Health Organization<sup>b</sup>Global Programme on AIDS**

Meeting: **^aInternational Consultation on AIDS and Human Rights<sup>g</sup>Geneva<sup>i</sup>1989**

Press: **<PgDn>** or **;** (until you get the menu at bottom of page)

---

<sup>15</sup> Although AACR2 rules state you should write out the whole title, if the title is the same as the meeting name with only the word "report" or "proceedings" attached to it, you may shorten the title to the one word and place the whole name in the Meeting field.

After verifying information is correctly entered:

Press: *ι* (to move to next page)

On the second page of the worksheet:

Place/Publisher: **^aNew York^bUnited Nations**

Date of Publication: **19910000**

Physical Description: **^a57 p.**

Document Number: **HR/PUB/90/2**

Notes: **Organized by the Centre for Human Rights with technical and financial support of the World Health Organization Global Programme on AIDS.**

Press: **<PgDn>** or *ι* (until you get the menu at bottom of page)

After verifying information is correctly entered

Press: *ι* (to move to next page)

On the third page of the worksheet:

There is nothing to change

Press: **<PgDn>** (to get the menu at bottom of page)

Press: *ι* (to move to next page)

On the fourth page of the worksheet:

Abstract: **The meeting was seeking a consensus to affirm that protection offered by existing international human rights instruments should also consequently govern the public health policies and practices which governments might wish to adopt in order to limit the spread of HIV infection and AIDS with their population.**

Classification: **^aWD 308 CHR^bNLM**

Descriptors-Controlled: **^aAcquired Immunodeficiency Syndrome^bLegislation & Jurisprudence%^aHIV Infections^bLegislation & Jurisprudence%^aHuman Rights%^aHealth Policy**

Location of Document: enter ^a(your institution code) or leave blank

Person Entering Data: **enter your initials**

Date Record Entered: **enter today's date in ISO format (YYYYMMDD, example: 23 September 1992 is 19920923)**

After entering the date and verifying the information is correct:

Press: *ι* (to enter record in Master File)

To view the record you just entered:

Press: **X** (to return to main menu)

Press: **S** (to go to Information Retrieval Services )

Press: **B** (to browse records)

At *Starting MFN for browse?* prompt:

Type: **118 ι** (to browse the new record)

Note any mistakes to be corrected.

When finished:

Press: **X** (to end browse)

Press: **X** (to return to main menu)

Note: Each corporate entry is placed on a separate line because of repeatable grouping of corporate author field selector (v310); meeting information is placed within brackets after name using dummy selectors: v320^a," , "v320^b," ("d320,v320^j" : ",v320^i," : "v320^g,")"d320/v200^a(5,0)



On the third page of the worksheet:

Journal Title: **World Health Forum**  
Date of Publication: **19920000**  
Part State. (Citation): **^a13(1)^b23-30**  
Press: **<PgDn>** (to get the menu at bottom of page)  
Press: **;** (to move to next page)

On the fourth page of the worksheet:

Abstract: **With a view to boosting the efforts of field staff in Thailand, cassette tapes on health education have been produced in the languages of <hill tribes>.**  
Classification<sup>16</sup>: **^aWA 590 VRY^bNLM**  
Descriptors-Controlled: **^aHealth Education^bTrends%^aTape Recording^bMethods**  
Geographic Descriptors: **^aThailand^bChang Mai**  
Location of Document: enter ^a(your institution code) or leave blank  
Person Entering Data: **enter your initials**  
Date Record Entered: **enter today's date in ISO format (YYYYMMDD, example: 23 September 1992 is 19920923)**  
After entering the date and verifying the information is correct:  
Press: **;** (to enter record in Master File)

To view the record you just entered:

Press: **X** (to return to main menu)  
Press: **S** (to go to Information Retrieval Services )  
Press: **B** (to browse records)  
At *Starting MFN for browse?* prompt:  
Type: **119 ;** (to browse the new record)  
Note any mistakes to be corrected.  
When finished:  
Press: **X** (to end browse)  
Press: **X** (to return to main menu)

Note: In display format classification number will appear in brackets using an IF command: if v15:'a' or v15:'A' then "Class No. : ("v610^a)" else "Class No. : "v610^a," ["v610^b"]" fi

and IN: will appear before citation also because of an IF command: if v60:'120' then "IN: "v740," ("v716.4"), "v490^a," "v490^b" fi .

---

<sup>16</sup> A classification is normally used for designating the physical location and the physical location of this article would not be found under the classification for Health Education (the article's subject) but under the classification of the serial it is in. However, the since the classification scheme is arranged by subject the classification number can be used like a general broad subject heading and is useful when it comes to sorting different types of materials in one listing. In the display format, classification numbers for analytics appear in brackets to denotes the difference between it and a number used as a shelf-mark

---

The next exercise is a Serials entry:

---

## Drug and Therapeutics Bulletin

---

FORTNIGHTLY FOR DOCTORS AND PHARMACISTS FROM THE PUBLISHERS OF *WHICH?*

© Consumers' Association 1992 ISSN 0012-6543

Vol 30 No 8 13 April 1992 Practice Synopses..... Pages 30 & 31

---

|                               |                                      |
|-------------------------------|--------------------------------------|
| XXXXXXXXXXXXXXXXXXXX          | XXXXXXXXXXXXXXXXXXXX                 |
| XXXXXXXXXX XXX XXXXXXXX XXXX  | XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXX |
| XXXXXXXXXX XXXXXXXXXXXXXXXXXX | XXXXXXXXXX XXXXXXXXXXXXXXX           |

To enter the new record:

Make sure AIM is the selected database

From the main menu:

Press: **E** (to select Data Entry Services)

Press: **N** (to enter a new record)

When the first page of the worksheet appears, enter or change information in the following fields:

Source of Record: enter your institution code or leave blank if you do not have one

Bibliographic Level: **S**

Type of Material: **120**

Title: **^aDrug and therapeutics bulletin**

Personal Authors: **Collier, J.**

Corporate Author: **^aConsumer's Association**

Press: **<PgDn>** or **;** (until you get the menu at bottom of page)

After verifying information is correctly entered:

Press: **;** (to move to next page)

On the second page of the worksheet:

Place/Publisher: **^aLondon^bConsumer's Association**

Serial Numbering and Date: **Vol. 1, No. 1 (1962)-**

ISSN: **0012-6543**

Serial Frequency: **^aFortnightly**

Press: **<PgDn>** or **;** (until you get the menu at bottom of page)

After verifying information is correctly entered

Press: **;** (to move to next page)

On the third page of the worksheet:

There is nothing to change

Press: **<PgDn>** (to get the menu at bottom of page)

Press: **;** (to move to next page)

On the fourth page of the worksheet:

Classification: **^aW 001DTB^bNLM**

Descriptors-Controlled: **^aDrugs^bPeriodicals% ^aPharmacology^bPeriodicals**

Location of Document: enter ^a(your institution code) or leave blank

Person Entering Data: **enter your initials**

Date Record Entered: **enter today's date in ISO format (YYYYMMDD, example: 23 September 1992 is 19920923)**

After entering the date and verifying the information is correct:

Press: **¿** (to enter record in Master File)

To view the record you just entered:

Press: **X** (to return to main menu)

Press: **S** (to go to Information Retrieval Services )

Press: **B** (to browse records)

At *Starting MFN for browse?* prompt:

Type: **120 ¿** (to browse the new record)

Note any mistakes to be corrected.

When finished:

Press: **X** (to end browse)

Press: **X** (to return to main menu)

Note: Because Bibliographic Level is S for serial see how display differs: title appears first and in capital letters due to IF command: if v15<>'s' and v15<>'S' then v300+| ; |(v310)/v320^a," "v320^b," ("d320,v320^j" : ",v320^i," : v320^g,)"d320/v200^a(5,0)," / "v200^b,(| ==|v230),else mhu, v200^a, mhl," -- "v300+| ; |," -- "v310, fi (since the first condition of the IF command is that v15 must not be s or S, it displays the second format which follows the ELSE

### *Modifying Existing Records*

Now that you have entered records and they have become part of the Master File, if you want to change any information in the records you will need to edit them.

We will correct a few mistakes that appear in the database.

In record number 4 the subject descriptor "Contraceptive Devices, Male" is misspelled. To edit the record:

From the main menu:

Press: **E** (for Data Entry Services)

Press: **E** (to edit existing record)

At the *MFN or MFN range (n1 n2) to be modified* prompt:

Type: **4** *;* (to select record 4 for editing)

Press: *;*, 3 times (to go to last page of record worksheet)

Press: **M** (to modify a field on the page)

The cursor will appear at the first field

Press: *;* (to move to next field)

Make sure you are in Insert Mode

Move cursor 34 times to left until it is under the a

Type: **r** (to correct spelling mistake)

Press: **<PgDg>** (to get to menu at bottom of page)

Press: **X** (to finish editing record)

At the *MFN or MFN range (n1 n2) to be modified* prompt:

Press: *;* (to return to data Entry Services menu)

Another record that needs to be modified is 66. The subject descriptor "Periodicals" is misspelled.

From the main menu:

Press: **E** (for Data Entry Services)

Press: **E** (to edit existing record)

At the *MFN or MFN range (n1 n2) to be modified* prompt:

Type: **66** *;* (to select record 66 for editing)

Press: *;*, 3 times (to go to last page of record worksheet)

Press: **M** (to modify a field on the page)

The cursor will appear at the first field

Press: *;* (to move to next field)

Make sure you are in Insert Mode

Move cursor 34 time to left until it is under the s

Press: **<DELETE>** (to correct spelling mistake)

Press: **<PgDg>** (to get to menu at bottom of page)

Press: **X** (to finish editing record)

At the *MFN or MFN range (n1 n2) to be modified* prompt:

Press: *;* (to return to data Entry Services menu)

If you noticed any mistakes in the records you just entered, now is the time to go back and correct them.

When finished:

Press: **X** (to return to main menu)

### *Updating Inverted File*

When records are added or modified the changes are immediately made apparent in the display. However, new or edited records are not automatically indexed for the Inverted File; this has to be done manually.

If you have changed or added records to the database you will be prompted to update the inverted file when you leave CDS/ISIS or try to perform some other services, like exporting records.

New records that haven't been updated will not be available for searching.

If you have not yet updated the Inverted File, we can test this by trying to search for one of the records added in the exercises on data entry.

From the main menu:

Press: **S** (to go to Information Retrieval Services)

Press: **S** (to run a search)

At the *Search expression?* prompt:

Type: **HUMAN RIGHTS** *;* (to execute a search using the descriptor Human Rights)

If you haven't updated the Inverted file you will get a **\*\* Not found \*\*** message

At the *--->* prompt:

Press: *;* (to return to Information Retrieval Services menu)

Press: **X** (to return to main menu)

To update the Inverted File you must:

From the main menu:

Press: **I** (to go to Inverted File Services)

Press: **U** (to update Inverted File)

At the *Inverted file update completed --->* prompt:

Press: *;* (to return to Inverted File Services menu)

Press: **X** (to return to main menu)

To test whether the inversion worked run the same search on "Human Rights" again and see if you retrieve the new record. (If not, then check to make sure the term is entered correctly)

When you change a record like we did in records 4 and 66, you would think that the updated inverted file would delete the misspelled terms. Unfortunately it does not.

If you look in the Terms Dictionary you will still find the misspelled terms "CONTACEPTIVE DEVICES, MALE" and "PERSIODICALS" as well as the correct terms "CONTRACEPTIVE DEVICES, MALE" and "PERIODICALS". If you try search these incorrect terms the result will be no records found because the terms are no longer associated with any record.

Let's try.

From the main menu:

Press: **S** (to go to Information Retrieval Services)

Press: **T** (to go to Terms Dictionary)

Type: **CON** *;* (to start dictionary from the letters "con")

Move cursor down 8 times until it is before the term CONTACEPTIVE DEVICES, MALE

Press: **S** (to select term)

Press: **X** (to leave Terms Dictionary)

Press: *;* (to execute search)

On your screen should appear:

```
Set 2: CONTACEPTIVE DEVICES, MALE
P= 0 CONTACEPTIVE DEVICES, MALE
T= 0 - #2: CONTACEPTIVE DEVICES, MALE
---->
```

You will see that the **\*\* Not found \*\*** message is not displayed because the term itself is found in the Inverted File, but the 0 shows no records associated with it.

At the ----> prompt:

- Press: *i* (to return to Information Retrieval Services menu)
- Press: **X** (to return to main menu)

To delete the unwanted terms from the Inverted File we can do either of two things: perform a Full Inverted File generation; or, make a back-up of the Inverted File and load the back-up in place of the original. When CDS/ISIS makes a back-up of an Inverted File it verifies that all terms are associated with a record; those that aren't are deleted from the back-up. When the back-up is reloaded in place of the original, the unwanted terms are not included.

The choice of doing a Full Inverted File generation or backing-up and reloading the Inverted File may depend on time. The larger the database the longer it takes to do a full generation. Since we already did a full generation after importing the records we will try the back-up method now.

From the main menu:

- Press: **I** (to go to Inverted File Services)
- Press: **B** (to create a back-up)

On your screen should appear:

```
CONTACEPTIVE DEVICES, MALE --> now deleted
PERSIODICALS --> now deleted
Total number of terms: 912
Total number of postings: 2137

Inverted file backup completed ---->
```

You will see which terms get deleted from the back-up.

At the *Inverted file backup completed* ----> prompt:

- Press: *i* (to return to Inverted File Services menu)
- Press: **C** (to load Inverted File back-up)

At the *Inverted file exists and will be cleared, OK (Y/N)?* prompt:

- Press: **Y** (to start loading back-up)

At the *Inverted file load completed* ----> prompt:

- Press: *i* (to return to Inverted File Services menu)
- Press: **X** (to return to main menu)

If you really want to make sure the unwanted terms have been removed from the Inverted File you can look them up in the Terms Dictionary as before. You shouldn't find them.

## Lesson 11: Database Management

### Backing-Up Master File

Backing-up your Master File is insurance. It protects your database from getting accidentally erased or corrupted. It is often a good idea to have even more than one back-up copy of the Master File: one on the hard disk<sup>17</sup> and one on floppy disk stored safely away from the computer.

The Master File can become corrupted if you import records from an ISO file that has come from a floppy disk with bad sectors. It isn't unusual for a hard-disk to have bad sectors and if they aren't "marked" then CDS/ISIS may try to copy part of the Master File onto the bad sectors and become corrupted. A power failure or interruption in processing of a CDS/ISIS operation can also corrupt a Master File. These things do not happen often, but they do happen (I know, they have all happened to me!).

Back-up the Master File often. After you've added new records or before you import records from another database perform a back-up operation. If something goes wrong with the operation then you just restore your backed-up copy of the Master File. Even 10 new records can be a whole day's work, a thousand records can be a whole year's work, so protect it.

Backing-up is simple to do:

From the main menu:

Press: **M** (to get to Master File Services)

Press: **B** (to back-up Master File)

At the *Backup drive and/or directory?* prompt:

Type: **C:\ISIS\DATA\** (to back up to C:\ISIS\DATA directory)

or

Type: **A:\** (to back up to a floppy disk in drive A)

At the *Mount diskette number 1 on drive C:\ISIS\DATA\* prompt:

Press: **;** (to execute back-up)

or

At the *Mount diskette number 1 on drive A:\* prompt:

Insert diskette in drive A

Press: **;** (to execute back-up)

On your screen should appear:

```
Backup drive and/or directory? C:\ISIS\DATA\  
Mount diskette number 1 on drive C:\ISIS\DATA\  
Press <CR> when ready or C to cancel  
Next MFN to be assigned: 121  
  
Back-up file has:  
    120 records  
    0 records logically deleted not inserted  
    0 records physically deleted not inserted  
  
file size      81K, reclaimed      1K  
  
---->
```

Note that if records are deleted they will not be included in the back-up. Records that are logically deleted in the Master File become physically deleted when the Master File is backed-up and then restored. The back-up reorganizes data and compresses it. Restoring the back-up will then compress the new Master File making more room on your hard-disk.

<sup>17</sup> It's not advisable to keep the back-up file in the same directory as the Master File. If you set up CDS/ISIS so that the files of each database are in a separate directory branching down from the C:\ISIS\DATA directory, you may want to put it into the backup in the DATA subdirectory or create another directory just for database backups.

*Important: If the process of backing-up is interrupted or terminated before finishing do not use the back-up file; it may be corrupted. Perform another back-up until it is successful. Never try to restore a back-up file that is suspected of being corrupt.*

At the ---> prompt:

Press: ↵

(to return to Master File Services menu)

If you are backing-up a very large Master File to a floppy disk, make sure you have enough formatted blank diskettes handy. It may also be faster to back-up once to your hard-disk and then copy the file to a floppy from the hard-disk than to back-up twice (once to hard-disk and once to floppy)

If you need restore to a backed-up Master File, press **R** from the Master File Services menu and then supply the drive/directory where the file is located. A reorganization of the Master File (option C from the Master File Services menu will do both a back-up and restore operation in one go.)

### *Importing/Exporting Records*

CDS/ISIS allows you to exchange records with other databases. This is important if you belong to a network or system where information needs to be transferred from one place to another. You may receive records or have to send records out on a regular basis.

The key to simple exchange of records rests in having databases with identical, or at least very similar, structures. If the structures are identical then records can be exported and imported without any problem. In the case where the Field Definition Table [FDT] is the same but the length of the field in the data entry worksheet is different there may be a problem if you try to edit the records.

If the database you are exporting to or importing from has similar types of information but uses different Tag numbers in the FDT the you may want to create a Reformatting FST to convert the records from one database structure to another.

When exporting records you can use a Save File which contains the results of a search. For example we want to export all our serials records to another library. We have already run a search in the exercises on Searching & Retrieving Records (The Free Text Search expression was: ? v15:'S') and saved the results in a Save File named SERIAL.

To export the records:

From the Master File Services menu:

Press: E

(to export records)

Fill in the worksheet until it looks like this:

```

Data interchange services - Export parameters

Data base name AIM

ISO file parameters
-----
Output ISO file name SER.ISO          Field separator #
Record separator #

Selection parameters
-----
MFN limits 1/32000      Save file name SERIAL      Hit file (Y/N)? N

Reformatting parameters
-----
Reformatting FST _____      Gizmo conversion file _____
Renumber records from _____
    
```

Press: **<PgDn>** (to get menu at bottom of worksheet)  
 Press: **;** (to verify worksheet information)  
 At the *Backup drive and/or directory?* prompt:  
 Type: **A:\** (to export records to floppy disk)  
 Insert disk into drive A  
 Press: **;** (to execute export)

On the screen should appear:

```

Backup drive and/or directory? A:\
Mount diskette number 1 on drive A:
Press <CR> when ready or C to cancel
MFN 18 unloaded
MFN 47 unloaded
MFN 48 unloaded
MFN 58 unloaded
MFN 65 unloaded
MFN 66 unloaded
MFN 79 unloaded
MFN 80 unloaded
MFN 82 unloaded
Do you want to keep save file after this run (Y/N)?
    
```

At the *Do you want to keep save file after this run (Y/N)?* prompt:  
 Press: **Y** (to keep Save File)  
 At the *Total output records 9 --->* prompt:  
 Press: **;** (to return to Master File Services menu)

The exported records are now copied to the diskette on drive A.

If you export new records on a regular basis you can run and save a Free Text search that will find all records entered since the last export. Example: If your last export of records was on 23 September 1992 the search expression would be:

**? V22>'19920923'**  
 or  
**? VAL(v22)>19920923**

Field Selector for the Date of Entry filed is V22 and the date is given in ISO format (YYYYMMDD). The results of this search can be saved as NEW and the Save File name used in the export worksheet. Every time you want to export you just need to change the date.

---

To Import records follow the same procedures as exporting. If the records are from a database with a different structure they can be converted using a Reformatting FST.

If you are importing records there are two important things to remember: 1) if records are to be added to the database make sure the **Load/Merge/Update** parameter in the worksheet is changed to **M** (Merge) otherwise you may wipe out your database; and 2) after the records have been imported make sure you press **X** (no more disks), otherwise the same records will be imported again.

***To protect against losing your Master File, back-up records before doing any importing.***

## **Database Definition**

### **Lesson 12: Creating a New Database**

The key to creating a new database is proper planning beforehand. What kind of information do you want to keep in it, how are you going to use that information, etc. You can always modify the database structure afterwards, and as you work with a database you may find that your original intentions or needs have changed since it was created. This is natural. However, restructuring a database with many records could mean a lot of work editing records to conform to a new structure; so it is better to plan ahead as much as possible.

What other types of databases might be needed? you may ask. We hope that you find the AIM Database suitable as a bibliographic database that will meet most, if not all, your library's needs. Other types of databases which may be useful include:

a database that tracks research projects with fields that include description of the project, principal investigators, contact address, funding amount and resources, expected dates of starting and completion, project status; *or*,

a database of personnel in your institution or specialists in your field in the country or region including fields on name, position, previous employment, educational qualifications, home address, travel abroad, publications written; *or*,

a database on systems and services such as suppliers of computer or library supplies, international databases, "centres of excellence" and information sources with fields on contact name and address, description of services, costs; *or*,

a simple database of names and addresses of friends and colleagues including fields on home and work addresses, and any special notes on the relationship.

In fact, the first three of these databases have already been created and are included on the AIM Distribution Disk. The database for research projects is called PRO, the database for personnel information is called PER, and systems/services is called SRV. Complete database definitions and manual for data entry are included in this manual. Therefore, for this exercise we will create the last database, one that will serve as a personal reference directory for names and addresses.

To begin with, let's examine the kinds of information that will go into each record. Of course, the main item is the name of the person. There will also be addresses for home and work. An address can contain several individual bits of information such as street number or PO Box number, the city, the state, the country, and the postal code. Besides the address will need to reserve fields for telephone, fax, and telex numbers that a person can be contacted by. Sometimes a person can have two or more telephone numbers so we have to think about repeatability. We will need a field for notes about our relationship with the person or to remind ourselves of where we met (such as at a conference or workshop) or any other information we might need but can easily forget. It is useful to have a field for the date the record was entered or last modified.

That should just about be enough to get us started.

When creating a database in CDS/ISIS you must perform all the major parts in one session; that is, create a Field Definition Table [FDT], a data entry worksheet [FMT], a Field Select Table [FST], and a print/display format [PFT]. The first worksheet, FST and PFT become the defaults and are automatically given the same name as the database.

If an FDT, FMT, FST or PFT is not made at the time the new database is defined, then it will not be accepted by CDS/ISIS. If you feel that you cannot finish all the work in one sitting then what you can do is enter at least one field in the FDT, one field in the data entry worksheet, one field in the FST and one field in the PFT. Once these are saved then the database is accepted by CDS/ISIS. You can go back later and add the other fields at your leisure.

*Naming a New Database*

---

You can name a database up to 6 letters in CDS/ISIS, though 5 or less is better. Let's call this database REP; short for repertory (which, according to the *Concise Oxford Dictionary*, is a place for finding something, store or collection, esp. of information, instances, facts, etc.)

Before we create the database we need to make the redirection parameter file which will instruct CDS/ISIS to look for the REP database files directory in its own directory. The redirection parameter file will be named REP.PAR and placed in the C:\ISIS\DATA directory. From the C:\ directory we will create a subdirectory called REP for the database files.

To create the REP subdirectory:

If you are in CDS/ISIS press **X** until you exit to DOS

From the DOS prompt:

Type: **CD \** ; (to change to root directory)

Type: **MD REP** (to make REP subdirectory)

To create the redirection parameter file (**REP.PAR**):

You will need to use a text editor (EDLIN, DOS Edit, RPED, etc.)

To use the text editor supplied with AIM distribution disk:

Place AIM distribution disk in drive A

Type: **A:** ; (to change to drive A)

Type: **RPED C:\REP.PAR** ; (to create REP.PAR file)

Type the following:

**1=C:\REP\  
2=C:\REP\  
3=C:\REP\  
4=C:\REP\  
5=C:\REP\  
6=C:\REP\  
7=C:\REP\  
8=C:\REP\  
9=C:\REP\  
10=C:\REP\**

Press: **<ESC>** (to finish editing file)

Press: **<F4>** (to exit RPED)

Restart CDS/ISIS

*Before beginning to create the new database read over the following sections which describe what we will be doing at each stage.*

From the main menu:

Press: **D** (for Data Base Definition Services)

Press: **C** (to define new database)

### *Field Definition Table*

Let's take a closer look at how we want our database to be defined by a field by field breakdown:

We have to decide the field name, give each field a number (tag), decide what the probable maximum length will be, what the type of character will be (alphabetic only, numeric only, or both), whether the field will be repeatable and what subfields, if any will be used. Since characters such as dashes or brackets, which may be used in the field for telephone number, are not considered numeric, even if the information in the field is numerical in substance, it is easier and safer to define all fields as alphanumeric.

---

For convenience sake we will divide the fields into 5 categories and base our tag numbers on the category. the Name section will be the 100's, Work section 200's, Home section 300's, Notes section 400's, Maintenance section 500's.

Name: In the Name section there will be only one field; for the name of the person being entered. We will give this field Tag 100. This field will not be repeatable because there will only be one name per record. The maximum probable length can be 50 characters; we do not need to have subfields for this field.

Work: The Work section can be divided into several fields:

Corporate Name: This will be the name of the institution or company that the person being entered works for. The Tag number will 200, a good length will be about 100 characters. The field will not be repeatable but it can be divided further into main body and sub body (the sub body could be the unit within the larger main institution such as the Library & Documentation Centre may be the sub body of the larger institution the Ministry of Health). Therefore main body will be subfield A and sub body will be subfield B

Address: The Address will be tag 210 and can be broken in to several individual units of information. A good length can be 300 characters. The subfields will be A for Street or PO Box; B for City; C for State; D for Country; and, E for Postal Code.

Telephone: The Telephone field can be tag 220 and it can be repeatable. A good length is about 50.

Fax: The Fax field can be 230 and like the telephone field can be repeatable an also be 50 characters long.

Telex: The Telex field will be tag 240 and have the same characteristics as the telephone and fax fields.

Home: Like the section above, the Home section can also be broken up into several fields, though two, corporate name and telex won't be needed.

Address: The home Address field will be tag 310 have the same characteristics as the work address field including the subfields: A for Street/PO Box; B for City; C for State; D for Country; and, E for Postal Code.

The tag for home Telephone field will be 320, and for Fax 330. The other characteristics are the same.

Note: The Note field, tag 400, can contain any other kind of information you feel useful so its length will be fairly long, 750 characters, and it should be repeatable in case you want to enter more than one note.

Maintenance Section: The only field in the maintenance section is the Date of Entry for the record. For filing purposes, consistency and easier searching it will be best to have the date entered in ISO format using the four digits of the year first, then the two digits of the month, and finally the two digits for the day (example: the date 23 September 1992 will be entered 19920923). Therefore the field need only be 8 characters long. Every time you charge or modify the record you should charge this date so you know how current the information is.

Now that we know exactly what is going into the database it is very easy to create our Field Definition Table. Remember, if you want to add more fields you feel important you can always do so later.

The FDT will automatically appear when you select to define a new database. To enter information in the FDT you type it into a field and press ↵ to move to the next field on the line. If there is only one space available, such as the field for type of character or repeatability then as soon as you type

---

in a letter the cursor will move to the next field. If a field is to be left blank, such as if the field is not repeatable or there are no subfields then press ↵ to move on.

After entering information on the line for Delimiters/Pattern field (or pressing ↵ to leave blank) the cursor will move to the next line. Pressing <TAB> will move you back a field with a line.

To enter the first line in the FDT:

Type: **100** ; (to enter tag number)  
 Type: **Name** ; (to enter name of field)  
 Type: **50** ; (to enter length of field)  
 Press: **X** (to define character as alphanumeric)  
 Press: ; (to leave Repeatable field blank)  
 Press: ; (to leave Delimiter field blank)  
 Now you should be on the next line.

Type: **200** ; (to enter tag number)  
 Type: **Corporate Name** ; (to enter name of field)  
 Type: **100** ; (to enter length of field)  
 Press: **X** (to define character as alphanumeric)  
 Press: ; (to leave Repeatable field blank)  
 Type: **ab** ; (to define Delimiters for Corporate Name)  
 Now you should be on the next line.

Continue this until all the fields are filled and the FDT appears like this:

| Field Definition Table (FDT) |     |                |     |     |     | Data Base: REP     |
|------------------------------|-----|----------------|-----|-----|-----|--------------------|
| ?                            | Tag | Name           | Len | Typ | Rep | Delimiters/Pattern |
| —                            | 100 | Name           | 50  | X   |     |                    |
| —                            | 200 | Corporate Name | 100 | X   |     | ab                 |
| —                            | 210 | Work Address   | 300 | X   |     | abcde              |
| —                            | 220 | Work Telephone | 50  | X   | R   |                    |
| —                            | 230 | Work Fax       | 50  | X   | R   |                    |
| —                            | 240 | Work Telex     | 50  | X   | R   |                    |
| —                            | 310 | Home Address   | 300 | X   |     | abcde              |
| —                            | 320 | Home Telephone | 50  | X   | R   |                    |
| —                            | 330 | Home Fax       | 50  | X   | R   |                    |
| —                            | 400 | Notes          | 750 | X   | R   |                    |
| —                            | 500 | Date of Entry  | 8   | X   |     |                    |

After entering the last field, tag 500, the cursor will move to a new line, pressing ↵ without entering a tag number will bring you back to the menu at the bottom of the screen. If all the fields are entered correctly press ↵ to exit the FDT and move on to the creation of the data entry worksheet.

If you need to make corrections, press **M** to modify and the cursor will appear on the first line. Move the cursor to the line you need to edit by pressing ↵ to move down the list and <TAB> to move up. When you get to the line you need to change, press **C**, then press ↵ to get to the field on the line that needs editing. After editing press ↵ until you move to the next line.

If you forgot a field press ↵ until you pass the last line and a new line will appear.

### *Data Entry Worksheet*

When you are finished with the FDT you will automatically switch to the creation of a default data entry worksheet. The creation of a data entry worksheet involves specifying where on the screen you want a field to appear, how it is to appear, what help messages (if any), any default values.

For each field you want to enter information in the database you will be prompted for the information. The prompts will be:

Tag: this response will be entering the Tag number of the field you want to have in the worksheet. Press ↵ to execute.

Enter L/C position of field name: the field name is the label used to identify the field. This will be automatically supplied by CDS/ISIS from the name of the field as it appears in the FDT. The L/C position refers to the Line (lines are numbered from 1 at the top of the screen to 21 at the bottom) and Character (characters are numbered from 1 at the left margin to 80 on the right) position you want the label to start at. The next available position is shown in brackets and will be used as a default if you press ↵.

Example: if you want the field label to start on the fifth line from the top of the screen and 25 characters from the left you would respond 5/25 and ↵.

After entering the field name position the label itself will appear starting from that position. If you want to, you can edit the label. After changing the label, or if you want to accept it as is, press ↵.

Enter L/C position of field value: the field value is the space in the worksheet where you will enter the information for the field in each record. The L/C position information is entered the same way as in the L/C position for the field name: L for lines from top of screen, C for characters from left margin of screen. The next available position is given (usually the space immediately after the field name) and is accepted if you press ↵ without typing in a L/C position.

Attribute: this refers to the way the field will appear on the screen; normal is a dotted line, reverse will make the color of the line and background the opposite normal. You choose an attribute by pressing the number next to it. Normal will be used if you press ↵ without typing a number.

Field length: the length of field is entered here. The number of characters as defined in the FDT is displayed and will be used if you press ↵ without changing the number. Sometimes the exact number of characters of the field length as defined in the FDT will end the field in the middle of the screen. For appearance sake you may want the field to end exactly at the end of a line. You can do this by specifying how many lines you want the field to be on the screen in two ways: using L and the number of lines or S and the number of lines. L3, for example will create a field with exactly 3 lines. When you type in information in the field and get to the end of the third line you will not be able to enter any more information. S3 will also create 3 lines on the screen, but will allow you to enter more information if it needs to go beyond 3 lines, this is called a scrolling field.

Help message: here you can enter up to two lines of text that can be used as a help message for guiding data entry persons. When entering data into the worksheet, the help message is accessed by pressing <F1>. Useful information in a help message is the tag number, repeatability, index technique, subfields, etc. After typing in the help message, press ↵.

Defaults: after entering a help message the cursor will appear in the field. You can enter default information if desired. Default information will appear already in the field whenever a new record is created, though it can be modified or deleted if necessary when entering information into the record. Default values are useful if the same information is likely to be

needed in most records created; such as the code for source of record or location of item catalogued in a bibliographic database.

In the data entry worksheet you can also add Title fields that can tell you what type of worksheet you are dealing with or naming a section within the worksheet. A Title field is created by typing T at the Tag prompt instead of a Tag number.

To create the worksheet for our new database:

At the *Tag* prompt:

Type: **100** *¿*

At the *Enter L/C position of field name* prompt:

Type: **2/1** *¿*

Press: *¿* (to leave label unchanged)

At the *Enter L/C position of field value* prompt:

Type: **2/18** *¿*

At the *Attribute* prompt:

Press: **1** (to select Reverse)

At the *Field length* prompt:

Type: **S1** (for a one line scrolling field)

In the *Help message* box:

Type: **Tag 100. Enter surname first, forenames. Example: Smith, John H.** *¿*

Press: *¿* (to leave default value blank)

For the next field:

At the *Tag* prompt:

Type: **200** *¿*

At the *Enter L/C position of field name* prompt:

Type: **4/1** *¿*

Press: *¿* (to leave label unchanged)

At the *Enter L/C position of field value* prompt:

Type: **4/18** *¿*

At the *Attribute* prompt:

Press: **1** (to select Reverse)

At the *Field length* prompt:

Type: **S1** (for a one line scrolling field)

In the *Help message* box:

Type: **Tag 200. Enter: ^aMain body ^bSub body** *¿*

Press: *¿* (to leave default value blank)

For the next field:

At the *Tag* prompt:

Type: **210** *¿*

At the *Enter L/C position of field name* prompt:

Type: **5/1** *¿*

Press: *¿* (to leave label unchanged)

At the *Enter L/C position of field value* prompt:

Type: **5/18** *¿*

At the *Attribute* prompt:

Press: **1** (to select Reverse)

At the *Field length* prompt:

Type: **S2** (for a one line scrolling field)

In the *Help message* box:

Type: **Tag 210. Enter: ^aStreet/PO Box ^bCity ^cState ^dCountry ^ePostal Code** *¿*

Press: *¿* (to leave default value blank)

---

For the next field:

At the *Tag* prompt:

Type: **220** ¿

At the *Enter L/C position of field name* prompt:

Type: **7/1** ¿

Press: ¿ (to leave label unchanged)

At the *Enter L/C position of field value* prompt:

Type: **7/18** ¿

At the *Attribute* prompt:

Press: **1** (to select Reverse)

At the *Field length* prompt:

Type: **S1** (for a one line scrolling field)

In the *Help* message box:

Type: **Tag 220. Repeatable. Enter telephone numbers separated by %** ¿

Press: ¿ (to leave default value blank)

For the next field:

At the *Tag* prompt:

Type: **230** ¿

At the *Enter L/C position of field name* prompt:

Type: **8/1** ¿

Press: ¿ (to leave label unchanged)

At the *Enter L/C position of field value* prompt:

Type: **8/18** ¿

At the *Attribute* prompt:

Press: **1** (to select Reverse)

At the *Field length* prompt:

Type: **S1** (for a one line scrolling field)

In the *Help* message box:

Type: **Tag 230. Repeatable. Enter fax number separated by %** ¿

Press: ¿ (to leave default value blank)

For the next field:

At the *Tag* prompt:

Type: **240** ¿

At the *Enter L/C position of field name* prompt:

Type: **9/1** ¿

Press: ¿ (to leave label unchanged)

At the *Enter L/C position of field value* prompt:

Type: **9/18** ¿

At the *Attribute* prompt:

Press: **1** (to select Reverse)

At the *Field length* prompt:

Type: **S1** (for a one line scrolling field)

In the *Help* message box:

Type: **Tag 240. Repeatable. Enter telex numbers and call back separated by %** ¿

Press: ¿ (to leave default value blank)

For the next field:

At the *Tag* prompt:

Type: **310** ;

At the *Enter L/C position of field name* prompt:

Type: **11/1** ;

Press: ; (to leave label unchanged)

At the *Enter L/C position of field value* prompt:

Type: **11/18** ;

At the *Attribute* prompt:

Press: **1** (to select Reverse)

At the *Field length* prompt:

Type: **S2** (for a one line scrolling field)

In the *Help* message box:

Type: **Tag 310. Enter: ^aStreet/PO Box ^bCity ^cState ^dCountry ^ePostal Code ;**

Press: ; (to leave default value blank)

For the next field:

At the *Tag* prompt:

Type: **320** ;

At the *Enter L/C position of field name* prompt:

Type: **13/1** ;

Press: ; (to leave label unchanged)

At the *Enter L/C position of field value* prompt:

Type: **13/18** ;

At the *Attribute* prompt:

Press: **1** (to select Reverse)

At the *Field length* prompt:

Type: **S1** (for a one line scrolling field)

In the *Help* message box:

Type: **Tag 320. Repeatable. Enter telephone numbers separated by % ;**

Press: ; (to leave default value blank)

For the next field:

At the *Tag* prompt:

Type: **330** ;

At the *Enter L/C position of field name* prompt:

Type: **14/1** ;

Press: ; (to leave label unchanged)

At the *Enter L/C position of field value* prompt:

Type: **14/18** ;

At the *Attribute* prompt:

Press: **1** (to select Reverse)

At the *Field length* prompt:

Type: **S1** (for a one line scrolling field)

In the *Help* message box:

Type: **Tag 330. Repeatable. Enter fax numbers separated by % ;**

Press: ; (to leave default value blank)

For the next field:

At the *Tag* prompt:

Type: **400** ;

At the *Enter L/C position of field name* prompt:

Type: **16/1** ;

Press: ; (to leave label unchanged)

At the *Enter L/C position of field value* prompt:

Type: **16/18** ;

At the *Attribute* prompt:

Press: **1** (to select Reverse)

At the *Field length* prompt:

Type: **S3** (for a one line scrolling field)

In the *Help* message box:

Type: **Tag 400. Enter terms to be indexed in between angle brackets <...>** ;

Press: ; (to leave default value blank)

For the next field:

At the *Tag* prompt:

Type: **500** ;

At the *Enter L/C position of field name* prompt:

Type: **20/1** ;

Press: ; (to leave label unchanged)

At the *Enter L/C position of field value* prompt:

Type: **20/18** ;

At the *Attribute* prompt:

Press: **1** (to select Reverse)

At the *Field length* prompt:

Press: ; (to accept 8 characters as field length)

In the *Help* message box:

Type: **Tag 500. Enter date is ISO format: YYYYMMDD** ;

Press: ; (to leave default value blank)

When you have finished adding fields, pressing  $\downarrow$  at the Tag prompt without entering a number will call up the menu at the bottom of the screen and your finished worksheet should look like this:

|  |                         |                          |                   |                    |       |          |                   |            |  |         |  |  |  |
|--|-------------------------|--------------------------|-------------------|--------------------|-------|----------|-------------------|------------|--|---------|--|--|--|
| Name   | _____                   |                          |                   |                    |       |          |                   |            |  |         |  |  |  |
| Corporate Name   | _____                   |                          |                   |                    |       |          |                   |            |  |         |  |  |  |
| Work Address   | _____                   |                          |                   |                    |       |          |                   |            |  |         |  |  |  |
| WorkTelephone  | _____                   |                          |                   |                    |       |          |                   |            |  |         |  |  |  |
| Work Fax   | _____                   |                          |                   |                    |       |          |                   |            |  |         |  |  |  |
| Work Telex   | _____                   |                          |                   |                    |       |          |                   |            |  |         |  |  |  |
| Home Address   | _____                   |                          |                   |                    |       |          |                   |            |  |         |  |  |  |
| HomeTelephone  | _____                   |                          |                   |                    |       |          |                   |            |  |         |  |  |  |
| Home Fax   | _____                   |                          |                   |                    |       |          |                   |            |  |         |  |  |  |
| Notes  | _____<br>_____<br>_____ |                          |                   |                    |       |          |                   |            |  |         |  |  |  |
| Date of Entry  | _____                   |                          |                   |                    |       |          |                   |            |  |         |  |  |  |
| <table style="width: 100%; border: none;"> <tr> <td style="border-right: 1px solid black; padding: 0 5px;">  <math>\downarrow</math> - Next page</td> <td style="border-right: 1px solid black; padding: 0 5px;">  B - Previous page</td> <td style="border-right: 1px solid black; padding: 0 5px;">  R - Restore screen</td> <td style="padding: 0 5px;">  ----&gt;</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 0 5px;">  E - Edit</td> <td style="border-right: 1px solid black; padding: 0 5px;">  S - Exit and Save</td> <td style="border-right: 1px solid black; padding: 0 5px;">  C - Cancel</td> <td></td> </tr> <tr> <td colspan="4" style="text-align: center; padding: 0 5px;">REP / 1</td> </tr> </table> |                         | $\downarrow$ - Next page | B - Previous page | R - Restore screen | ----> | E - Edit | S - Exit and Save | C - Cancel |  | REP / 1 |  |  |  |
| $\downarrow$ - Next page   | B - Previous page       | R - Restore screen       | ---->             |                    |       |          |                   |            |  |         |  |  |  |
| E - Edit   | S - Exit and Save       | C - Cancel               |                   |                    |       |          |                   |            |  |         |  |  |  |
| REP / 1  |                         |                          |                   |                    |       |          |                   |            |  |         |  |  |  |

Pressing **S** will save the worksheet and then you will move on to the next part. If you need to change any of the fields, press **E** to edit the page of the worksheet. Move to the field that needs changing by pressing **↓** to move forward and **<TAB>** to move back. When you get to the field press **M** to modify it.

### Display & Print Formats

The display format could be something like this:

```
(01)  LIPPMAN, M.J.

Work:
      WHO Regional Office for Africa
      Library and Documentation Centre
      PO Box 6
      Brazzaville
      Congo
        tel:  242-83-38-60
        fax:  242-83-18-79
        telex: 5217KG

Home:
      1850 Wood Road
      Scotch Plains, New Jersey
      U.S.A. 07076
        tel:  908-233-7471 / 407-482-4989

Notes:
      This is a sample record, but the addresses are correct in case you want
      to contact me for anything.  It is always nice to hear from people.

                                         date of record:  30-11-1992
```

Let's analyze the display and see how we can make it come out on the screen.

1. First we want the Master File Number displayed to only two digits and placed in brackets: `'(MFN(2))'` followed by three spaces and the name in uppercase `X3,MHU,V100` then skip down two lines and switch to Heading Lowercase mode `/#,MHL`, (If you ever get more than 100 records in this database, then you can change the PFT to `'(MFN(3))'` to accomodate the larger Master File Numbers)
2. We want the section headed `Work` and `Home` only to appear if there is any information in the fields so we will use dummy operators `"Work:"D200/` then the corporate name with each part on a new line and indented 5 spaces `V200^A(5,5)/v200^B(5,5)/`
3. Then the address with `Street/PO Box` on one line `V210^A(5,5)/` the city and state on one line separated by a comma `V210^B(5,5)," V210^C(5,5)/` the country and postal code on one line separated by 3 spaces `V210^D(5,5)," V210^E(5,5)/`
4. The telephone, fax and telex will indent 8 spaces and repeatable occurrences will be separated by a slash `" tel: "V220+| / |/" fax: "V230+| / |/" telex: "V240/`
5. The formatting for the `Home` section will be the same except the tag number will change.
6. The `Note` field will be a repeatable group separating each note by two lines after indenting 5 spaces `"Note:"D400/(V400(5,5)/`
7. The `Date of Record` will display with the day, month and year after indenting 35 characters `X35,"date of record: "V500*6.2,"-V500*4.2,"-V500.4##`

8. The whole format will look like this:

```
('MFN(2)'),X3,MHU,V100/#,MHL,"Work:"D200/V200^A(5,5)/V200^B(5,5)/V210^A(5,5)
/V210^B(5,5)," "V210^C(5,5)/V210^D(5,5)," "V210^E(5,5)/" tel: "V220+| / |/" fax:
"V230+| / |/" telex: "V240/"Home:"D310/V310^A(5,5) /V310^B(5,5),"
"V310^C(5,5)/V310^D(5,5)," "V310^E(5,5)/" tel: "V320+| / |/" fax: "V330+| / |/"
"Notes:"D400/(V400(5,5))/#X35,"date of record: "V500*6.2,"-"V500*4.2,"-"V500.4##
```

When the blank PFT appears on the screen type in the above, but remember, the display format is typed in without the line endings or breaks, just all in one go.

### Field Select Table

It is best to keep the Field Select Table [FST] for the Inverted file as simple as possible but not so it is impractical. Choose the most important fields to be indexed based on how you think you will search for information. Do you think it will be important to have the Postal Code indexed, do you search for someone by that method often, if no then it's not a good idea to put it into the FST. It may be a good idea to index the Note field but do you think it's important to index every word (using Index Technique 4) or might it not be better to select specific terms by bracketing <...> the words to be extracted (using Index Technique 2). For a corporate name do you want each word indexed separately (Index Technique 4) or each subfield as a whole term (Index Technique 1); i.e. do you want Ministry of Health, Library and Documentation Centre to be: MINISTRY, OF, HEALTH, LIBRARY, AND, DOCUMENTATION, CENTRE; or do you want them to appear in the Inverted File as MINISTRY OF HEALTH and LIBRARY AND DOCUMENTATION CENTRE.

Suggestions for useful searching would include indexing the Name (the whole name as one term); Corporate Name (main and sub bodies separately indexed as whole terms); City, State and Country subfields of the work and home Address fields; and the Note field (selecting individual terms by bracketing them). All other fields can best be searched using the Free Text Search method.

Entering information into the FST is similar to entering in the FDT. You press ↵ to move from field to field within a line, <TAB> to move back.

Remember, CDS/ISIS uses the FST to extract information from a record. The information comes from the record in the form of a line of text which is determined by the data extraction format. This format uses the same CDS/ISIS Formatting Language that is used for the display and print formats. Each line of text is then subjected to the Index technique which will determine if the line will be broken up word by word (Index Technique 4); all the words together as one term (Index Technique 0); all the words of each subfield taken together as one term (Index Technique 1); select words placed in angle brackets <...> (Index Technique 2) or between slashes /.../ (Index Technique 3).

The process is a line by line extraction and then the lines are subjected to the Index Technique. The result is then sorted and placed in the Inverted File.

The new FST is blank with the cursor at the first line.

Type: **100** *i* (to enter ID for line)  
Press: **0** (to choose Index Technique 0)  
Type: **V100** *i* (to enter format for extraction)  
This should put you on the next line.

Type: **200** *i* (to enter ID for line)  
Press: **1** (to choose Index Technique 1)  
Type: **V200** *i* (to enter format for extraction)  
This should put you on the next line.

Type: **210** ; (to enter ID for line)  
 Press: **0** (to choose Index Technique 0)  
 Type: MHL,V210^B/V210^C/V210^D ; (to enter format for extraction)  
 This should put you on the next line.

Type: **310** ; (to enter ID for line)  
 Press: **0** (to choose Index Technique 0)  
 Type: MHL,V310^B/V310^C/V310^D ; (to enter format for extraction)  
 This should put you on the next line.

Type: **400** ; (to enter ID for line)  
 Press: **2** (to choose Index Technique 0)  
 Type: V400 ; (to enter format for extraction)  
 This should put you on the next line.

The FST appears like this:

| Data Base Name: REP |    | FST for Inverted File    |  | FST name: REP |
|---------------------|----|--------------------------|--|---------------|
| ID                  | IT | Data extraction format   |  |               |
| 100                 | 0  | V100                     |  |               |
| 200                 | 1  | V200                     |  |               |
| 210                 | 0  | MHL,V210^B/V210^C/V210^D |  |               |
| 310                 | 0  | MHL,V310^B/V310^C/V310^D |  |               |
| 400                 | 2  | V400                     |  |               |

Press: ; (to get back menu at bottom of screen)  
 If everything is correct:  
 Press: ; (to end editing of FST)

The database REP is now complete and ready for data entry. Press <F2> to get back to the main menu.

Let's test it by entering a record, displaying it and generating the Inverted File.

From the main menu:  
 Press: **E** (to go to Data Entry Services)  
 Press: **N** (to enter new record)

When the worksheet appears, enter information in the following fields:

Name: **Lippman, M.J.** ;  
 Corporate Name: **^aWHO Regional Office for Africa^bLibrary and Documentation Centre** ;  
 Work Address: **^aPO Box 6^bBrazzaville^dCongo** ;  
 Work Telephone: **242-83-38-60** ;  
 Work Fax: **242-83-18-79** ;  
 Work Telex: **5217KG** ;  
 Home Address: **^a1850 Wood Road^bScotch Plains^cNew Jersey^dU.S.A.^e07076** ;  
 Home Telephone: **908-233-7471%407-482-4989** ;  
 Notes: **This is a <sample> record, but the addresses are correct in case you want to contact me for anything. It is always nice to hear from people.** ;  
 Date of Entry: **19921130** ;

If everything is all right:

Press: *;* (to accept record)  
Press: **X** (to return to main menu)  
Press: **S** (to go to Information Retrieval Services)  
Press: **B** (to browse database)  
At Starting MFN for browse? prompt:  
Press: *;* (to start browse from the first, and only record)

If the record looks good we will now generate the Inverted File.

Press: **X** (to end browse)  
Press: **X** (to return to main menu)  
Press: **I** (to go to Inverted File Services)  
Press: **F** (to perform a Full File generation)  
At the Inverted file exists and will be cleared, OK (Y/N)? prompt:  
Press: **Y** (to create new Inverted File)  
At the MFN limits? prompt:  
Press: *;* (to generate all records)  
At the Full inverted file generation completed ---> prompt:  
Press: *;* (to return to Inverted File Services menu)  
Press: **X** (to return to main menu)

To test to see if our FST is working properly:

Press: **S** (to go to Information Retrieval Services)  
Press: **T** (to go to Terms Dictionary)  
At the Key: prompt:  
Press: *;* (to start from beginning to dictionary)

The Terms Dictionary list should look like this:

```
— BRAZZAVILLE
— CONGO_
— LIBRARY & DOCUMENTATION CENTRE
— LIPPMAN, M.J.
— NEW JERSEY
— SAMPLE
— SCOTCH PLAINS
— U.S.A.
— WHO REGIONAL OFFICE FOR AFRICA
— *****
```

Notice how the Index Techniques worked. The Name field was indexed using Index Technique 0 and the whole field was indexed as one term; the Corporate Name field was indexed using Technique 1 and each of the two subfields were indexed as whole terms producing WHO REGIONAL OFFICE FOR AFRICA (as the term from subfield A) and LIBRARY & DOCUMENTATION CENTRE (as the term from subfield B). Our Note field was indexed using Technique 2 which produces terms that have been placed between angle brackets, thus we get the term SAMPLE (though on our screen the brackets do not appear because we are using Heading Mode, which suppresses their display).

Our database seems to be n working order and you can add records with the names and addresses of all your friends and colleagues.

### *Modifying a Database*

No matter how thorough you have been when creating databases, they always seem to need changing. This occurs because as you use your database you find that your needs, as well as your users' needs change. To meet these needs you may have to add new fields to your database, you may want to create new display and print formats, you may need to create new FST's to be used for sorting or for reformatting records that come from another database to make it compatible with yours.

In these exercises you have learned to create an FDT, data entry worksheet, display and print format [PFT], and FST for generating the Inverted File, so you have all tools needed to do modification if necessary.

Please be aware of any consequences when you alter a database format. Some things to remember:

1. Adding new fields to the FDT will mean adding them to the data entry worksheet if information is to be inputted; changes to the PFT and FST are needed if you want the new fields displayed or indexed.
2. Changing an FST may require doing a Full File Generation of the Inverted File because updating the Inverted File will only affect new or modified records.
3. Shortening the length of a field in a data entry worksheet will make existing records with data longer than the maximum length already in those fields incapable of being edited.
4. If your database is part of a network that shares information, adding new fields may conflict with databases of your partners in the network. Find out who is using what fields for what purposes before making changes.
5. Make back-up copies of your database files and Master File, before making any changes to the database format so you have some insurance if things go wrong.

