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**ABSTRACT**

This document is a self-paced training packet developed for a pilot project at the University of Houston-University Park to teach pharmacy faculty members to do their own online searching. The training begins with general topics such as the kinds of searches that can be done effectively online, the selection of appropriate databases to search, and the use of documentation. Basic search concepts such as database structure, Boolean operations, and search strategy formulation are also covered. Exercises give the opportunity for hands-on practice searching DIALOG databases and Chemical Abstracts (CAS) online. Separate handouts provided include an introduction to the pilot project; procedures for searching pharmacy reports online; summaries of basic and CAS commands on DIALOG and Boolean operators; a search strategy worksheet; and an evaluation form. (Author/KM)

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# PHARMACY RESEARCH ONLINE

## A Guide for Faculty

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# INTRODUCTION

This year, the Library has begun a one-year pilot project to allow faculty in the College of Pharmacy to do their own online searching of indexes to the journal literature. As a participant in this project you will have the control and convenience of doing your own computerized literature searching on an IBM XT located in the Pharmacy Library. You will have access to two major online services: DIALOG Information Services and CAS Online.

## WHAT IS ONLINE SEARCHING?

Using printed indexes to identify bibliographic citations is a familiar process to researchers. Citations can also be identified by online searching, i.e., using a computer to search a bibliographic database.

The search process starts with a question that is refined into a search strategy. The online searcher then uses a computer to connect to an online service. An online service provides access to many databases. The databases are often computerized versions of standard printed indexes such as Index Medicus and Chemical Abstracts. Each online service has unique commands that are used to perform the search strategy in a database. The result of the online search is a list of references, or bibliographic citations, that answer the searcher's question.

This packet of training materials has been designed to assist you in learning the concepts and skills necessary to search online systems effectively. It provides:

- A comparison of traditional and online searching
- An introduction to the structure of bibliographic databases
- Techniques to design an effective search strategy
- An introduction to online system commands
- Procedures for using the computer to search
- Sample searches to practice

# 1. WHY SEARCH ONLINE?

Convenience is undoubtedly a major factor in choosing to search online. Searching indexes through a computer terminal located close to your office is in most cases faster and easier than using the printed equivalents that may be located across campus in the Main Library. However, searching bibliographic databases by computer is not free, and unless you're working with an unlimited research budget, you'll need to learn to determine which topics can be searched most effectively by computer and which databases are likely to contain the most usable information.

## WHAT KINDS OF SEARCHES CAN BE DONE MOST EFFECTIVELY ONLINE?

A computer search can help solve a number of research problems, including the following:

- A complex topic involving several concepts
- New terminology that has not yet been adopted by the indexes
- Subjects seldom treated that may be listed under a broader subject heading in a printed index
- Research involving the use of specific instruments or other measurement devices or specific chemicals or methods that can be identified by name
- Information in articles published too recently to be included in printed indexes

In order to determine if your topic is appropriate for a computer search, it is important to consider the key concepts within your subject carefully. The number of concepts involved or the distinctiveness of the terms are major factors in deciding whether a computer search is appropriate. For example, the subject of environmental pollution of malathion in South America involves several concepts: environmental pollution, malathion, and South America. The computer can quickly sort through hundreds of articles on environmental pollution and pull out only those that mention malathion in South America.

Using the computer to find articles on environmental pollution in general would be far less appropriate, since so much has been written on the subject that it would be quite expensive to print all of the citations that could be identified in a computer search and since the single concept of environmental pollution

can be found easily in printed indexes. Single concepts or terms may be appropriate for computer searching if very little has been written on the subject or if you are looking for a new term that has not yet been picked up in the printed indexer. For example, slim disease or drug diversion are distinctive single concepts that are difficult to find in printed indexes, but easy to locate by computer. Since the computer can search every word in an article's title and abstract, as well as the assigned subject terms, it is invaluable as a tool to identify articles using new terminology.

## **WHICH DATABASES SHOULD YOU SEARCH?**

If you have a topic appropriate for a computer search, you next need to determine which of the hundreds of bibliographic databases are most appropriate for your topic. Research in some subject areas can be satisfied by using only one or two databases, while other areas may require searching in many different databases. Unfortunately, not all printed indexes have online equivalents, so researchers in some fields may have to rely completely on printed sources or use a combination of printed and online indexes. Conversely, some databases are available only online, so researchers interested in the information indexed in those databases must rely completely on computer searching.

When deciding on a database to search, it is important to check the descriptive information, or documentation, available at the Pharmacy Library to determine the characteristics listed below:

- Subject matter and types of publications indexed
- Dates of publications included
- Whether there is a printed equivalent
- Cost to search the database and any extra charges to print citations
- Frequency of updating

(See Chapter 2 for more information on database documentation.)

There are a number of useful databases available for searching the pharmaceutical and chemical literature. The major ones have been listed below along with their respective DIALOG file numbers. The DIALOG file number is used to tell the system which database you want to search. (See Chapter 4 for more information on selecting a database.)



DATABASE

DIALOG FILE NUMBER

1.	MEDLINE (Index Medicus)	154
2.	IPA (International Pharmaceutical Abstracts)	74
3.	CA (Chemical Abstracts)	311
4.	EMBASE (Excerpta Medica)	72
5.	PHARMACEUTICAL NEWS INDEX	42

## 2. PREPARING TO SEARCH

In order to develop an effective search strategy, you should know:

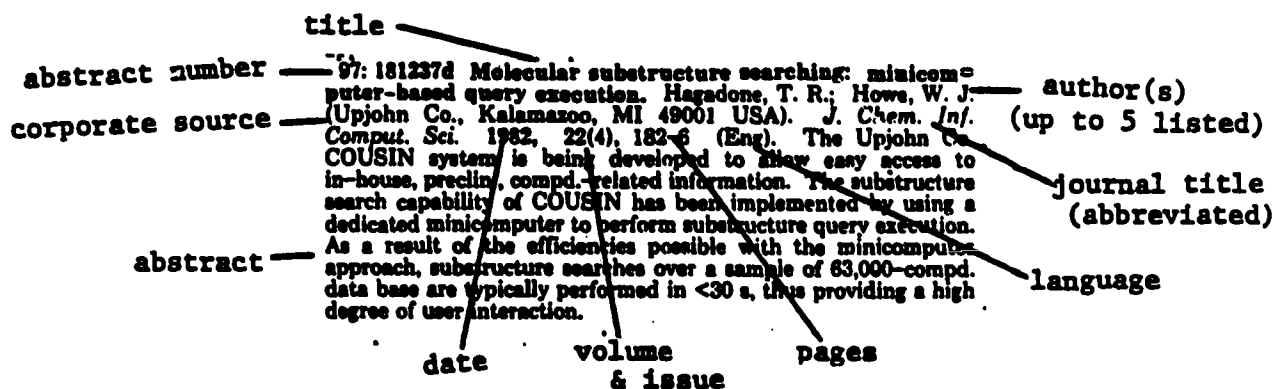
- The general structure of bibliographic databases
- The use of Boolean operators AND, OR, and NOT
- What kind of documentation is available

### DATABASE STRUCTURE

An online database is composed of RECORDS, each corresponding to a bibliographic citation to one item (i.e., one journal citation). Each part of the record - author, title, journal name - is known as a FIELD. When formulating his/her search, the searcher instructs the computer to search the author field, title field, journal name field, etc.

The following example shows a Chemical Abstracts citation (with fields labeled) displayed in both online and print indexes.

#### CHEMICAL ABSTRACTS Print Index Record



CAS ONLINE  
Online Record

abstract number

title AN CA97(21):101237d

author AU Masadone, T. R.; Howe, W. J.  
CS UpJohn Co.

corporate source LD Kalamazoo, MI 49001, USA location

journal title SD J. Chem. Inf. Comput. Sci., 22(4), 182-6  
SC 20-5 (History, Education, and Documentation) section code (CA section)

document type BT J  
(7 types available) CO JC1899 coden  
IS 0095-2338 ISBN or ISSN

publication year PY 1982  
LA Eng

language AS The UpJohn Co. COUSIN system is being developed to allow easy access to in-house, preclin., compd.-related information. The substructure search capability of COUSIN has been implemented by using a dedicated minicomputer to perform substructure every execution. As a result of the efficiencies possible with the minicomputer approach, substructure searches over a sample of 63,000-compd. data base are typically performed in <30 s; thus providing a high degree of user interaction. abstract

keywords KU mol substructure search system  
IT Computer program  
(for mol. substructure searching, COUSIN)

indexing terms

SEARCHABLE FIELDS

While the same fields appear in printed indexes, the online record typically has a greater number of searchable fields than its printed equivalent. In the following list of searchable fields in Chemical Abstracts, note the additional fields, or access points, searchable online as compared with the printed version of the same citation:

Chemical Abstracts

author  
subject  
keyword  
chemical formula  
patent  
indexing term

CAS Online

author  
subject  
keyword  
chemical formula  
title  
registry number  
journal name  
publication date  
abstract

## BASIC INDEX

The fields that have subject content are collectively known as the Basic Index. Typically the Basic Index will include the title and subject descriptor fields. If you do not specify which field is to be searched, all of the Basic Index fields will be searched. The Basic Index fields can also be searched individually by adding a two-letter suffix to the search term (described in Chapter 4).

## ADDITIONAL INDEXES

All of the other fields, such as the author, the journal name, abstract, date of publication, etc., are collectively known as the Additional Indexes. The additional indexes can be searched by adding a two-letter prefix to the search term (described in Chapter 4).

In a printed index, you are limited to the access points made available by the publisher e.g., the subject index, author index, keyword index. Furthermore, in a printed index, you may search only one field at a time -- you must choose whether to search the subject index, author index, etc. In an online database, however, virtually all the fields may be searched, and you may combine searches of several fields into one search. For example, you may search for articles on a topic limited to a specific year, in a particular language, by a particular author.

## **BOOLEAN OPERATORS**

The computer sees your search as a series of terms, linked together by the logical operators AND, OR, or NOT, taken from a system known as Boolean logic. Boolean operators allow you to combine two or more concepts in order to retrieve bibliographic references on a topic.

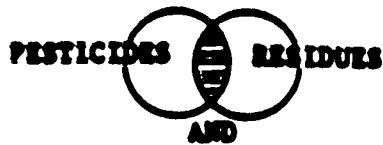
Computer searching parallels to a large degree the process involved in using a printed index. For example, consider manually searching subject indexes for references to documents about pesticide residues. First, the index heading "Pesticides" is located and then the entries listed under the heading are scanned to find those that mention "residues." This process reflects the fact that you are interested in documents that are indexed with both the terms "pesticides" and "residues."

## AND

This same search can be accomplished by the use of search terms and Boolean operators. To request the computer to go through the same process, you would type into the online terminal a search statement, sometimes referred to as a search strategy, which combines the terms of interest with the Boolean operator AND.

For Example:           pesticides AND residues

This strategy instructs the computer to compare the set of references that are indexed with the term "pesticides" with the set of references that are indexed with the term "residues," and to retrieve only those references that are indexed with both terms. The following Venn Diagram illustrates the resulting set (shaded area):



## OR

Just as in doing a manual search for a topic in a printed index, alternate terms should also be considered. In computer searching, a reference is retrieved only if there is an exact match between the terms in the search strategy and the terms found in the reference. Therefore, if "pollution" is an alternate term for "residue" in the search, it should be specified in the search strategy. Alternate terms, sometimes called related terms, synonymous terms, or synonyms, are combined in the strategy with the Boolean operator OR.

For Example:           residues OR pollution

The use of the OR operator instructs the computer to retrieve references that are indexed with either term, as represented by the Venn Diagram below.



## NOT

A third Boolean operator can be helpful in computer searching. The NOT operator is used to exclude references indexed with a specific term. For example, if you were interested in pesticide residues except when they occur in food, the following strategy might be used:

(pesticides AND residues) NOT food

The Venn Diagram for this profile is shown below:



A search strategy utilizing the AND, OR and NOT operators may involve combinations of terms from any searchable field of the bibliographic record, including the following:

**DESCRIPTORS**--subject terms used by the particular database you are searching.

**KEYWORDS**--important words or phrases, including new terminology or "buzz words" in your area of research. Keywords should be used when you are unable to locate an appropriate descriptor for your topic.

**CODES, TAGS, ETC.**,--numeric or other code designators representing specific subject areas or fields (oftentimes very specific in nature--e.g., chemical registry number, document type, etc.,)

For example, in Chemical Abstracts it is possible to search for chemicals by entering their registry number. If you were only interested in pesticide residues of Malathion, you could use the search strategy illustrated in the following Venn diagram:



Descriptors, keywords, codes, and tags may vary from one database to another. Therefore, it is important to consult the printed documentation provided by the database vendor or producer before you begin to construct your search strategy.

## DOCUMENTATION

In addition to a general knowledge about the use of Boolean operators, you will need specific information about database structure and the databases that you will be searching.

Documentation is information that tells you what is in a database and how to manipulate the contents of the database to get the results you want. You will find documentation available both in printed form and as part of the ProSearch software. Documentation can come from the database producer (CAS) or from an online service (DIALOG). Documentation is available at the Pharmacy Library.

### DATABASE PRODUCER DOCUMENTATION

The primary type of documentation supplied by the database producer is the thesaurus. A good thesaurus will tell you the subject terms, or descriptors, to use when searching by subject and when the descriptors were adopted. A thesaurus will give you a list of related descriptors. It can be one of the most valuable tools available for preparing a search strategy.

A database that has a thesaurus is said to have a "controlled vocabulary." That means that the indexers work only with the descriptors in the thesaurus when assigning subjects to the descriptor field. When using a thesaurus, you often have a large number of potential descriptors from which to choose. What you choose will depend upon a number of factors, such as whether you want everything on a subject, or only a few, highly relevant articles. The thesaurus vocabulary may change over the years, requiring you to consider the time period to be covered when choosing descriptors.

Some producers also send regular newsletters (Medline, for example) that offer helpful searching hints. Producers may also supply search aids, which may range from pamphlets to loose-leaf notebooks, which provide such information as the list of journals indexed and techniques for efficient searching.

## ONLINE SERVICE DOCUMENTATION

Online service documentation usually consists of information about the system (features common to all databases) as well as information about the specific features of each database available. The system information is available only in paper, but much of the database-specific information on DIALOG files is available on ProSearch by pressing the Data Sheet key (F7). (See Chapter 5 for more information on the ProSearch software.)

The documentation for specific databases will list the types of subjects covered, the types of materials included (journal articles, reports, etc. ), and the source of the content of the file (who produces it). The documentation will also give a sample record and a list of the fields in the record, including the two-letter code to be used for searching specific fields.



### 3. WRITING THE SEARCH STRATEGY

A search strategy is a logical statement that tells the computer which searching operations you wish to be performed. It employs your knowledge of system commands along with Boolean operators and search terms to precisely define the course of action.

Use a worksheet (sample on page 16) to prepare your search strategy. The worksheet will include places to list your concepts, along with synonyms and other words you plan to use. It will prompt you to think of limiting the search by date, by language, etc., depending upon what the documentation for your database says is possible. You will want to write your ideas on the worksheet.

Writing a search strategy involves the following steps:

1. Write down what you want to know as specifically as possible. This is your search statement.

Is there any literature on the study of hypertension among the older minority population?

2. Using the available documentation, decide which database(s) might have the answer you are looking for.

MEDLINE

3. Identify the important concepts in your search statement.

CONCEPT 1	CONCEPT 2	CONCEPT 3
hypertension	older population	minorities

4. For each concept identified in step 3, list other words or phrases that could be used to express the same idea or an equally useful idea.

CONCEPT 1	CONCEPT 2	CONCEPT 3
hypertension	aged geriatrics	minority groups Blacks Hispanic Americans Asian Americans

The need for care when choosing the terminology that best describes your topic cannot be overemphasized. You should consult appropriate

thesauri and searching guides in your subject area. They will provide not only synonyms but oftentimes will be useful in helping you better define your search by suggesting alternate terminology and searching codes specific to the database you will be searching. A few of the more useful ones are listed below:

<u>THESAURUS</u>	<u>DATABASE</u>
<u>Medical Subject Headings (MESH)</u>	Medline
<u>Permuted Medical Subject Headings (Permuted MESH)</u>	Medline
<u>Chemical Abstracts Index Guide</u>	Chemical Abstracts
<u>CA Heading List-- General Subjects</u>	Chemical Abstracts
<u>CA Heading List--Plants and Animals</u>	Chemical Abstracts
<u>Thesaurus of Subject Terms... to International Pharmaceutical Abstracts</u>	International Pharmaceutical Abstracts
<u>Guide to the Excerpta Medica Classification and Indexing System</u>	EMBASE

5. Decide if the words can be searched in the Basic Index or need to be limited to a specific field.

When you search a database, you may specify which fields of the record are to be searched for each term. You may also simply enter a term and not specify the fields to be searched. When you fail to specify the fields to be searched, the system will, by default, search the Basic Index. Fields that are included in the Basic Index, as well as those included in the Additional Indexes, are clearly labeled in examples given in the documentation for each database. Whether you choose to limit your term(s) to a field will depend upon how frequently the term might appear in the database you have chosen to search. The more common the term, the more likely you are to want to restrict your search to the descriptor and/or title field(s).

6. Consider non-subject parameters that you may want to include, such as limiting the search by date or by language. (Unless you specify otherwise, the system will always assume you want to search the full time-span offered by the database.) Consult the documentation to see what is possible.

I want only articles from 1980 through 1983.  
PY = 1980:1983 <DIALOG>

7. Decide on the Boolean connectors to be used in linking the terms you have chosen.

You now have four concepts: the original three and the date. The synonyms listed for each of the original concepts should be connected with OR; the concepts will be connected with AND.

8. Plan how you will alter the strategy if that becomes necessary when online. Your search may retrieve too much or too little information, or not retrieve what you had in mind. In such cases you should be ready to add or delete words or concepts as needed.

EXAMPLE: If you retrieve too much, you may want to leave out the specific minority groups (Blacks, Hispanics, Asians) and get only those articles that discuss minorities in general. Or, you may wish to concentrate on a specific minority group (Hispanics) to narrow the results.

EXAMPLE: If you retrieve too little, you may want to increase the list of terms within your concepts (add specific names, such as Chinese, Puerto Rican, etc.). Or you may wish to leave out the concept of minorities and look for studies on hypertension on the older population in general. Perhaps you may need to consider accepting a longer time span. MEDLINE uses three different files to cover the time period from 1966 to present.

Not all search strategies are equally complex or difficult. You may, in working through the steps outlined above, quickly skip some as inappropriate. Your strategy may be as simple as one word or phrase, such as:

- A single word or phrase from the Basic Index
- A single word or phrase from a specific field
- A single author's name
- A search of some other field, such as a registry number

When doing simple searches, however, it is important to choose a term or phrase that will uniquely identify what you are seeking. If one word or phrase is not adequate to indicate what you want, it is time to consider including additional concepts.

The initial search strategy developed in this chapter is illustrated on the following page. Before this search can be executed, it must be translated into commands recognized by the online service.

## SEARCH STRATEGY WORKSHEET

Statement   HYPERTENSION IN THE AGED MINORITY POPULATION  

at Databases   MEDLINE  

### Key Concepts

HYPERTENSION	AGED GERIATRICS	MINORITY GROUPS BLACKS HISPANIC AMERICANS ASIAN AMERICANS	
--------------	--------------------	--	--

Citations Dates?

Pages?

Citations Types?

Number citations expected?

Format of citations?

Online or Offline?

## 4. DIALOG SYSTEM COMMANDS

Each service has a unique set of commands. This chapter will introduce you to DIALOG online system commands. At the end of the chapter, you will find a complete search strategy worksheet showing system dependent information.

Chapter 5 will take you step-by-step through the actual search on DIALOG. CAS ( Chemical Abstracts ) system commands are covered in Chapter 6. Once you have experience on DIALOG, it will be easy to learn a second system.

### SELECTING A DATABASE

Each database on the DIALOG system is searched through a series of commands that you enter at the terminal. In response to the system prompt "?", you enter a command phrase telling the computer what to do, and then press the ENTER key to send the command to DIALOG. The system responds accordingly, following the response with another prompt "?".

Your first step is to select the database you want to search. This is done by entering BEGIN or B (for short), along with the file number of your database as found in the documentation. For example, you would select MEDLINE (File number 154) by entering:

```
BEGIN 154
```

```
OR
```

```
B 154
```

BEGIN may be used at anytime to change databases; however, it also erases all previously created sets.

### ENTERING YOUR SEARCH STRATEGY

Records are retrieved by entering the SELECT STEPS command or SS (for short), followed by terms in your search strategy (descriptors, keywords, etc.). Search terms, in general, are SELECTed individually rather than in multiword phrases, and are related to one another through the AND, OR, or NOT Boolean operators. Multiword phrases may be SELECTed by inserting a (W) between all words in the phrase. The (W) connector tells the computer that you are looking for TERM A immediately followed by TERM B. For example:

SS BIOPHARMACEUTICS (single-word example)  
 SS CYCLOSPORIN (single-word example)

SS MYOCARDIAL(W)INFARCTION (multiword example)  
 SS SUDDEN(W)INFANT(W)DEATH(W)SYNDROME (multiword example)

Other multiword connectors are:

(F) This requires that each term appear anywhere in the same field, e.g., CYCLOSPORIN(F)DOSAGE

(N) The NEAR connector functions like the (W) connector except that they can be in any word order, e.g., MYOCARDIAL(N)INFARCTION would retrieve both MYOCARDIAL INFARCTION and INFARCTION MYOCARDIAL

When using the (W) or (N) connectors it is possible to specify the number of intervening words you would be willing to accept in the phrase. This is done by placing an appropriate number to the left of the CONNECTOR.

For example:

MYOCARDIAL(1W)INFARCTION would retrieve both MYOCARDIAL INFARCTION and MYOCARDIAL ACUTE INFARCTION

CYCLOSPORIN(2N)ADVERSE would retrieve the term CYCLOSPORIN either next to or within one or two words of the term ADVERSE, in any order.

## SEARCHING FIELDS OF THE RECORD

Unless you specify otherwise, items will be retrieved when the terms you SELECT appear anywhere in the Basic Index of the record. The typical Basic Index fields in the bibliographic record are title, abstract, and subject descriptor. For these Basic Index fields, an abbreviated code (e.g., TI for Title) may be used in the SELECT statement to restrict retrieval to only that part of the record. The code follows the term, with a slash in between, as though it were a suffix:

SS CYCLOSPORIN/TI (searches only the title field)

SS CYCLOSPORIN/TI,AB (searches both titles and abstracts)

SS CYCLOSPORIN(F)ADVERSE/TI (searches for the terms CYCLOSPORIN and ADVERSE anywhere in the title)

SS MINORITY GROUPS/DE (searches for the phrase in the descriptor field)

Notice that multiword connectors such as (W) are not necessary when searching a phrase in the descriptor field. The computer treats a multiword descriptor as if it were a single search term.

Other fields are known as Additional Indexes and require the use of a prefix before search terms; thus their field restriction is automatic. Some typical Additional Index fields are author, journal name, and publication year. Some common examples of additional prefix fields are noted below.

<u>FIELD</u>	<u>PREFIX</u>	<u>EXAMPLE</u>
AUTHOR	AU=	AU=BROWN, JOHN
PUBLICATION YEAR	PY=	PY=1983
LANGUAGE	LA=	LA=FRENCH

When dealing with suffix or prefix codes, you should consult available documentation to find the correct entry format, e.g., the data sheet display screens.

## COMBINING TERMS WITH SET NUMBERS

Once you have entered your search terms or phrases, DIALOG responds with the posting (number of bibliographic record matches), along with an assigned SET NUMBER.

Every time one or more search terms are SELECTED, they are put into numbered sets for you to use. Once a set number is formed, it may be used as if it were a search term itself. When using set numbers in a SELECT statement be sure to place an S in front of its number, as shown below:

(What the searcher has actually entered at the terminal is indicated by UNDERLINING.)

<u>SET</u>	<u>ITEMS</u>	<u>DESCRIPTION</u>
? <u>SS</u>	<u>Alzheimers(w)disease</u>	
s1	107	alzheimers
s2	2165	disease
s3	94	alzheimers(w)disease
? <u>SS</u>	<u>therapy or treatment or diagnosis</u>	
s4	2334	therapy
s5	1654	treatment
s6	654	diagnosis
s7	4532	therapy or treatment or diagnosis



? SS s3 and s7

	94	s3
	4532	s7
s8	31	s3 and s7

Set numbers can also be selected and combined with any other search term to further refine your search as illustrated below:

? SS s8 and LA=RUSSIAN

	31	s8
s9	2352	LA=RUSSIAN
s10	13	s8 and LA=RUSSIAN

## TRUNCATION OF TERMS

Truncation allows you to tell the computer that a word may end with anything after the letter that you specify. A question mark is used to truncate the root of the term.

To permit any number of letters after the root, use a single question mark:

? SS ALZHEIMERS?  
? SS HORTICULT?  
? SS PY=198?

To permit a specified number of characters after the root, use the question mark in succession:

? SS CAT? ? zero of one character permitted (the space is essential here to show only one additional character following stem -- i.e., CAT or CATS retrieved here.)

? SS CHERR??? number of ? entered indicates maximum number of additional characters following stem (CHERRY or CHERRIES retrieved here.)

To permit any single character inside a term to vary, replace it with a question mark:

? SS wom?n (WOMEN or WOMAN retrieved here.)

## AUTHOR SEARCHING

When doing an author search it is a good idea to EXPAND the name online during your search session. The EXPAND command lets you easily identify the exact way your author's name is listed in the file that you are searching (for example, whether initials are used instead of complete spelling of first names).

To do an expand, type EXPAND AU= plus the stem of the author's name you wish to expand (e.g., EXPAND AU=LOKHANDW). You don't need to use the truncation symbol because truncation is implied whenever you use the EXPAND command.

If the name is a common one, you should narrow it down by including one or more initials (e.g., EXPAND Smith, N.). Consult the data sheets to see if commas are used after the last name.

Once you have EXPANDED and looked at the list to determine the author you want, merely SELECT the E number as you would any set number. For example, if you are looking for articles by Nila Banton Smith:

? EXPAND AU=SMITH, N

Ref	Items	Index-term
E1	1	AU=SMITH, NILA BANTON
E2	1	AU=SMITH, N. H. P.
E3		*AU=SMITH, N
E4	1	AU=SMITH, NICK L.
E5	20	AU=SMITH, NILA BANTON
E6	18	AU=SMITH, O. DALE
E7	12	AU=SMITH, PATRICIA

? SS E5

## PRINTING YOUR RESULTS

Once you have refined your search and you know which set you want to retrieve, you have options of either viewing them at the terminal or having them printed in DIALOG's office offline to be sent via the mail. Both ways require that you specify a set number, a format, and a group of records to be printed or viewed:

TO DISPLAY ONLINE:

set  
TYPE 8/3/1-21      records  
                                 to be printed  
                                 format

TO PRINT OFFLINE:

set  
PRINT 8/3/1-12      records  
                                 to be printed  
                                 format

When you enter a PRINT or TYPE command, the first number specifies the set from which records are to be printed; the second number specifies the format; the third number specifies how many records are to be printed (see example above). You will automatically see the record(s) most recently entered into the database.

**\*\*NOTE ON FORMAT\*\***

A database may offer up to nine different formats for you to choose. The formats allowed in each bibliographic database are listed in the appropriate DIALOG documentation. The more common ones are listed below:

FORMAT	CONTENT
2	Complete record except abstract
3	Bibliographic Citation
5	Complete Record
6	Accession number + title
7	Bibliographic citation + abstract
8	Accession #, title, + indexing

## LOGGING OFF DIALOG

To disconnect from DIALOG type LOGOFF HOLD. By including the word HOLD, DIALOG saves your search strategy for 10 minutes. If you log back on during that time period, DIALOG automatically places you where you left off. This is very handy when you need to logoff to check some terminology or refine your search strategy. You can quickly get back to where you were without losing any of your previously created search.

## SEARCH STRATEGY WORKSHEET

Statement HYPERTENSION IN THE AGED MINORITY POPULATION

Search Databases MEDLINE

### Key Concepts

<p>HYPERTENSION /de</p>	<p>AGED /de GERIATRICS/de</p>	<p>MINORITY GROUPS/de BLACKS /de HISPANIC AMERICANS/de ASIAN AMERICANS/de</p>	
-------------------------	-----------------------------------	---	--

Citation Dates? PY=1984:1985

Number citations expected?

Pages?

Format of citations? 7

Citation Types?

Online or Offline?

# 5. EXECUTING THE SEARCH

In previous sections you learned how to prepare for an online search, how to construct a basic search strategy, and how to translate your search strategy into commands recognized by the online system. In this section, you will learn how to access the online system and actually perform the search. You should be sitting at the computer for some hands-on practice.

The communications software that you will be using to access the online systems is called ProSearch. ProSearch will allow you to choose an online system and construct an initial search strategy. ProSearch will dial the phone and perform the logon procedures for the system you have selected. You can then review the results of your initial search strategy and modify the search if necessary.

## SAMPLE SEARCH

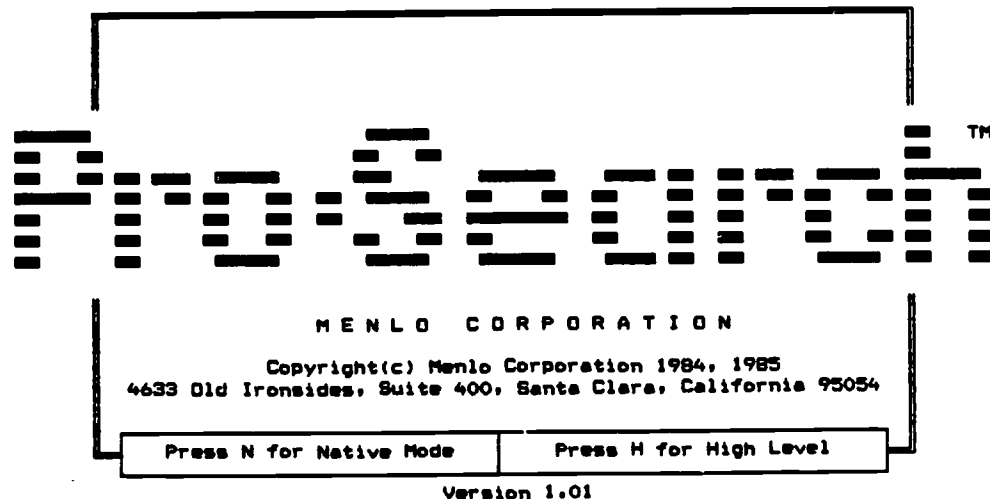
### 1. TURN ON THE COMPUTER

a. First turn on the computer and the monitor. Flip up the orange switch on the right side of the computer. Turn the top knob on the monitor to the right.

b. Type today's date (month-day-year) and press ENTER (↵). Type the current time (hours:minutes) and press ENTER. Time is entered on a 24-hour clock. For example, 3:00 p.m. is 15:00.

c. When you see the "C:\prosrch>" prompt, type "pro n" and press ENTER. (If the prompt is something else, first enter "cd\prosrch" to get the "c:\prosrch>" prompt.)

d. This ProSearch title screen will appear briefly:



## 2. CHOOSE AN ONLINE SERVICE

a. The Online Services Directory will appear after the ProSearch title screen:

Online Services Directory		
Service Name		Type-Ahead
BRS	(Automatic Logon Supported)	Yes
DIALOG	(Automatic Logon Supported)	Yes
DIALOG 2	(Automatic Logon Supported)	Yes
CAS Online via Telenet		Yes
RLIN		Yes

To select a service, use the cursor movement keys to move the desired service under the highlight bar, then press **↓**. To delete, change, or add a service, press the Command key (**F9**) and select the appropriate command.

Buffer= OK Full

Phone= Offline

b. Scroll through the list of online services by pressing the arrow keys (**↑**, **↓**). Press **ENTER** when **DIALOG 2** is highlighted. Next you will see a blue screen with a black line near the bottom.

## 3. SAVE YOUR SEARCH IN A DISK FILE

a. Press the Disk Key (**F7**) on the left side of the keyboard to begin saving your search on a disk file. You will see a list of files on the screen. You can scroll through one list by using the arrow keys (**↑**, **↓**).

-DIALOG 2 File 201-

Type-ahead

Retrieve File	Refs	Date	Time	Size
C:				
Name : Smith4	ROGER2	12/04/85	09:04 AM	3341
	SMITH1	12/07/85	10:45 AM	1554
	SMITH2	12/10/85	09:16 AM	3853
	SMITH3	12/10/85	02:02 PM	2233

Select the desired file using the cursor movement keys or type a file name then press **↓**. Press the command key, **F9**, to change the directory, print a file, view a file or erase a file.

Buffer= OK Full

Phone= Offline

b. For the file name, type the first six letters of your last name plus a number and press ENTER. For instance, if Smith already has three searches in the list (SMITH1, SMITH2, and SMITH3), he would type SMITH4. After pressing ENTER, you will see the blue screen with the black line near the bottom.

#### 4. ENTER THE INITIAL SEARCH STRATEGY

a. Type the initial search strategy for the "hypertension among the older minority population" search that was developed in Chapter 3. The following example shows how the search strategy is translated into DIALOG system commands.

```
b 154
ss hypertension/de
ss aged/de or geriatrics/de
ss minority groups/de or blacks/de
ss hispanic americans/de or asian americans/de
ss py=1984:1985
```

Buffer= 0X Full	Disk=30X Full	Phone= Offline
-----------------	---------------	----------------

Notice that the first command is "b 154" to choose File 154, MEDLINE.

b. The strategy can be revised or edited. Use the cursor control keys to move the cursor to the line you want to edit. Make the change and press ENTER. The following editing keys can be used to make changes at the cursor position. Some of the editing commands require that you hold down the CTRL key (next to "A") while pressing the letter key.

DEL - Delete character at the cursor.

Bksp - (above Enter key) Delete character to the left of the cursor.

Ctrl-T - Delete word to the right of the cursor.

CTRL-N - Insert a carriage return at cursor. (Use to insert a blank line.)

Ins - (lower right of keyboard) Enter insert mode to insert new characters within a line without typing over old characters. Press "Ins" again to leave insert mode.

## 5. CONNECT TO DIALOG

a. Press the Phone key (F5) to log on (connect) to the DIALOG system. ProSearch will dial the phone and perform the logon procedure. You will be prompted for a password if it has not been preprogrammed.

NOTE: THE COST METER IS NOW RUNNING AND WILL BE UNTIL YOU LOGOFF.

b. Your initial search strategy will be automatically executed.

```
File 154: MEDLINE - 80-84/APR
  Set  Items  Description
  ---  -
? ss hypertension/de
      S1  26782  HYPERTENSION/DE
? ss aged/de or geriatrics/de
      S2  193588  AGED/DE
      S3  1149    GERIATRICS/DE
      S4  193895  AGED/DE OR GERIATRICS/DE
? ss minority groups/de or blacks/de
      S5  273     MINORITY GROUPS/DE
      S6  1490    BLACKS/DE
      S7  1928    MINORITY GROUPS/DE OR BLACKS/DE
? ss hispanic americans/de or asian americans/de
      S8  356     HISPANIC AMERICANS/DE
      S9  118     ASIAN AMERICANS/DE
      S10 657     HISPANIC AMERICANS/DE OR ASIAN AMERICANS/DE
? ss py=1984:1985
      S11 550174  PY=1984:1985
```

## 6. COMPLETE THE SEARCH STRATEGY

a. Having responded to all of your search terms, the system will stop and wait for additional instructions. At the system prompt "?", enter commands to search additional terms if necessary and to combine sets.

```
? ss s7 or s10
      1928  S7
      657   S10
      S12  2469  S7 OR S10
? ss s12 and s1 and s4 and s11
      2469  S12
      26782 S1
      193895 S4
      550174 S11
      S13  23   S12 AND S1 AND S4 AND S11
```



b. When you have created a set containing the desired citations, use the system commands to either display the citations online or to have the citations printed offline and mailed.

? t 13/7/1-2

13/7/1  
1815945 86032945  
Coronary heart disease, hypertension and stroke among Japanese-American men in Hawaii: the Honolulu Heart Program.  
Yano Ki Reed DM; Kagan A  
Hawaii Med J (UNITED STATES) ,Aug 1985, 44 (8) p297-300, 312, ISSN 0017-8594 Journal Code: 81D  
Languages: ENGLISH

13/7/2  
1776351 85301351  
Beliefs about treatment of hypertension among Hispanic older persons.  
Allinger RL  
Top Clin Nurs (UNITED STATES) ,Oct 1985, 7 (3) p26-31, ISSN 0164-0534  
Journal Code: WAT  
Contract/Grant No.: NU 00624  
Languages: ENGLISH

## 7. DISCONNECT FROM DIALOG

a. When your search is complete, enter the DIALOG command for logging off, which is LOGOFF HOLD. The HOLD allows you to log back on within 10 minutes and continue the same search. After 10 minutes, your search strategy and the sets created will no longer be in the Dialog system.

? logoff hold

```
20Jan86 11:09:41 User092188
92.23 0.062 Hrs File154
          90.00 2 Types in Format 7
90.00 2 Types
90.37 Dialnet
92.60 Estimated cost this file
92.68 Estimated total session cost 0.068 Hrs.
Logoff: level 7.10.9 11:09:43
```

The logoff message will include a logoff time and a cost estimate for the search session. This information will be used to fill out the logbook.

## 8. PRINT THE SEARCH

a. After the search session, which may include logging on and off several times, press the Disk key (F7). This will close the file you have created.

b. To print the file, first turn the printer on. The power switch is on the right, toward the back. The green ready light should be on. If not, press the "online" button.

c. Press the Disk key (F7). Use the arrow keys to highlight the file that you wish to print and press the Command key (F9).

d. Select the print command by pressing the letter "P". Your search session, including the search strategy, the citations you displayed, and the logoff messages will be printed.

e. When printing is complete, press the Command key (F9) and then press "E" to exit the ProSearch program.

## GENERAL FEATURES OF PROSEARCH

As you can see from this practice search, the ProSearch program is easy to use. Following is a summary of the general features that you should understand as you use ProSearch.

### FREQUENTLY USED KEYS

Keys that are used frequently in Prosearch include:

ENTER (↵) - Pressed to enter a command.

ESCAPE (ESC) - Used to cancel a command or to back up one program step.

#### CURSOR MOVEMENT KEYS:

ARROW KEYS - Move the cursor or highlight bar one position.

HOME - Move to the beginning of a list.

END - Move to the end of a list.

PgUp - Move up several items in a list.

PgDn - Move down several items in a list.

### FUNCTION KEYS

ProSearch also makes use of the function keys on the left side of the keyboard.

HELP (F1) - Press this key at any time to display information about the screen you are on or the command you have selected.

BREAK (F2) - Sends a break to an online system. Used to stop the system from processing a command or to stop displaying a list of citations.

PHONE (F5) - Used to connect or disconnect from an online system.

DATA SHEET (F6) - Used to display information about a database such as fields available for searching. You will be prompted for a DIALOG file number. (Data not available for CAS.)

DISK (F7) - Used to begin or stop saving a search in a disk file.

PRINTER (F8) - Used to begin or stop printing the search as it is run.

COMMAND (F9) - Press at any time to enter the command mode and to display menu of available commands.

### COMMAND WINDOW

When the Command key (F9) is pressed, a list of available commands will be displayed near the bottom of the screen. A command can be selected by pressing the letter that is capitalized in the desired command.

buffer Print, buffer Save, change service, High level, Type-ahead, emulation, session, Clear, Exit Print records stored in the buffer.			
Buffer= 0% Full	Disk=27% Full		Phone= Offline

### STATUS LINE

The status line at the bottom of the screen shows the condition of various program features, such as whether the search is being simultaneously printed, whether the search is being saved in a disk file, and the status of the phone connection.

Buffer= 0% Full	Disk=27% Full	Printer	Phone= Offline
-----------------	---------------	---------	----------------

#### **\*\*IMPORTANT STATUS NOTES\*\***

When the "Disk = x% Full" message is displayed, your search is being safely saved in a file.

When the "Phone = Online" message is displayed, you are connected to an online system and being charged connect costs.

# 6. CAS ONLINE SYSTEM COMMANDS

Each file on CAS is searched through a series of commands that you enter at the terminal. In response to the system prompt "**=>**", you enter a command phrase telling the computer what to do, and then press the RETURN key to send the command to CAS. The system responds accordingly, following the response with another prompt "**=>**".

## SELECTING YOUR FILE

Your first step is to select the file you want to search. This is done by entering the command FILE followed by the filename. There are four files in CAS ONLINE: HOME, the file you first enter upon accessing the system where the news is located; CA, or Chemical Abstracts file; REGISTRY, and CAOLD, which contains only abstract numbers for registry numbers prior to 1967. For example, to search the CA file, the bibliographic file, you would enter the following:

**=> FILE CA**

The FILE command may be used at anytime to change files.

## ENTERING YOUR SEARCH STRATEGY

Records are retrieved by entering the SEARCH command or S (for short), followed by terms in your search strategy (indexing terms, keywords, etc.,). Terms, in general, are SEARCHED individually rather than in multiword phrases, and are related to one another through the AND, OR, or NOT Boolean OPERATORS. Multiword phrases may be searched by inserting a (W) between all words in the phrase. The (W) connector tells the computer that you are looking for TERM A immediately followed by TERM B. For example:

SEARCH (or S) BIOPHARMACEUTICS	(single-word example)
S CYCLOSPORIN	(single-word example)
S MYOCARDIAL (W) INFARCTION	(multiword example)
S SUDDEN(W)INFANT(W)DEATH(W)SYNDROME	(multiword example)
S 123-23-321	(registry number example)

Other multiword connectors are:

(L) This requires that each term APPEAR anywhere in the same field, (e.g., CYCLOSPORIN(L)DOSAGE).

(A) The ADJACENT connector functions like the (N) connector in DIALOG (e.g., MYOCARDIAL(A)INFARCTION would retrieve both MYOCARDIAL INFARCTION and INFARCTION MYOCARDIAL).

## SEARCHING FIELDS OF THE RECORD

Unless you specify otherwise, items will be retrieved when the terms you search appear anywhere in the Basic Index of the record. The typical Basic Index fields in the bibliographic record are title, keywords, and indexing terms. For these Basic Index fields, an abbreviated code (e.g., TI for Title) may be used in the SEARCH statement to restrict retrieval to only that part of the record. The code follows the term, with a slash in between, as though it were a suffix:

S CYCLOSPORIN/TI (searches only the title field)  
S CYCLOSPORIN/TI,AB (searches both titles and abstracts)  
S CYCLOSPORIN(L)ADVERSE/TI (searches for the terms CYCLOSPORIN and ADVERSE anywhere in the title)

Other fields are known as Additional Indexes and also require the use of a suffix after their search term. Some typical Additional Index fields are author, journal name, and publication year. Some common examples of additional suffix fields are noted below.

<u>FIELD</u>	<u>SUFFIX</u>	<u>EXAMPLE</u>
BASIC INDEX	NONE	S 7432-43-4 or S CYCLOSPORIN
AUTHOR	/AU	S BROWN, JOHN/AU
CORPORATE SOURCE	/CS	S DOW(W)CHEMICAL/CS
CONTROLLED VOCABULARY	/CV	S RING(W)CLOSURE/CV
(This relates to the IT field of the citation.)		
DOCUMENT TYPE	/DT	S J/DT (journal)
LANGUAGE	/LA	S FR/LA
CORPORATE SOURCE ADDRESS	/LO	S MIDLAND/LO (Dow Chemical address)

PUBLICATION YEAR	/PY	S 1983/PY
DOCUMENT TITLE	/TI	S HISTORY/TI
ABSTRACT	/AB	S EXECUTION/AB

When dealing with suffix codes, you should consult the appropriate documentation to find the correct entry format.

## AUTHOR SEARCHING

When doing an author search it is a good idea to EXPAND the name online during your search session. The EXPAND command lets you easily identify the exact way your author's name is listed in the file that you are searching (e.g., whether initials are used instead of first names being spelled out, etc.). To do an expand, type EXPAND plus the truncated version of your author's name (if the name is fairly uncommon), followed by the /AU suffix (e.g., EXPAND LOKHANDW/AU).

If the name is a common one, you should narrow it down by including one or more initials (e.g., EXPAND Smith, N.). Once you have EXPANDED and looked at the list to determine the author you want, merely SEARCH the E number as you would any set number. For example, if you are looking for articles by David D. Jones:

=>EXPAND JONES/AU

```
E1 JAMES, J/AU
E2 JONES/AU*
E3 JONES, A/AU
E4 JONES, BJ/AU
E5 JONES, DD
E6 JONES, DAVID D/AU
E7 JONES, DAVIID D/AU      (David is misspelled)
E8 JONES, JAMES/AU
E9 JONES, JOHN C/AU
E10 JONES, KE/AU
```

=>S E5 OR E6 OR E7

Typographical error is caught with E7.

## COMBINING TERMS WITH SET NUMBERS

Once you have entered your search terms or phrases, CAS responds with the posting (number of bibliographic record matches), along with an assigned QUERY NUMBER. Every time one or more search terms are selected, they are put into numbered sets for you to

use. Once a set number is formed, it may be used as if it were a search term itself. When using query numbers in a SEARCH statement be sure to place an 'L' in front of its number, as shown below:

(What the searcher has actually entered at the terminal is indicated by UNDERLINING)

-> S HISTORY AND MASS(W) SPECTRO?

23432 HISTORY  
5535445 MASS  
5432544 SPECTRO?

L1 23 HISTORY AND MASS(W)SPECTRO?

By using S STEPS query numbers are created for intermediate postings. These may be used in subsequent search commands rather than retyping the search statement.

-> S STEPS L1 AND REVIEW

L2 10933 REVIEW  
L3 5 L1 AND REVIEW

-> S L2 AND MASS(W)SPECTR?

MASS(W)SPECTR?

## TRUNCATION OF TERMS

Truncation allows you to tell the computer that a word may end with anything after the letter that you specify. Three characters are used in truncation: ?, #, and !.

To permit any number of letters after the root, use a question mark:

-> S MASS(W)SPECTRO?      Retrieves spectrometer,  
spectroscope, spectroscopy, etc.

To select one or no letters use a pound sign:

-> S HEART(W)ATTACK#      Retrieves the phrases heart attack  
and heart attacks.

-> S BEHAVIOR#R      Searches for both behavior and  
behaviour.

To select one letter only use the !:

-> S WOM!N      Will retrieve either the word WOMAN  
or WOMEN

## RANGE SEARCHING

A strong feature of CAS Online is range searching, or searching a subset of the database. This can be set for a number of parameters; however two of the most useful are Chemical Abstracts collective indexing periods and indexing dates.

- =>SET RANGE (1980,)                   To search from 1980 to the present.
- =>SET RANGE (1972,1979)               To search between 1972 and 1979.
- =>S FULVINIC(W)ACID RANGE (9CI)      To search for fulvinic acid in the 9TH COLLECTIVE INDEX.

## PRINTING YOUR RESULTS

Once you have refined your search and you know which set you want to retrieve, you have options of either viewing them at the terminal or having them printed at CAS's OFFICE offline to be sent via mail. Both ways require that you specify a query number, a format, and a group of records to be printed or viewed.

To display online:

=>DISPLAY L# BIB ABS 1-5

To print offline:

=>PRINT

It is best to just enter PRINT and allow the explanations to lead you along. Be certain to enter your personal mailing address or else the prints will come to the Library and not directly to you.



**\*\*NOTE ON FORMAT\*\***

CAS Online offers a combination of formats to use depending on the file. Those commonly used in the CA file are:

<u>FORMAT</u>	<u>CONTENT</u>
BIB	Bibliographic citation
ABS	Abstract
ALL	The complete record
TRIAL	Title and controlled vocabulary. This is useful to examine results during a search without cost. There is an additional print charge for the other formats.

## **DISCONNECTING**

When finished with the system, be certain to disconnect from the system or logoff. The command is LOGOFF YES.

=>LOGOFF YES

## 7. PRACTICE SEARCHES

The topics below are provided to give you a chance to practice online searching. These topics illustrate some of the common types of online searches.

This appendix includes completed search strategy worksheets and annotated printouts of actual searches for each of the topics.

1. TOPIC: Find English language articles on the use of cryotherapy in treating skin cancer.
2. TOPIC: Find the complete citation to the article written by G. Spira in 1985 on monoclonal antibodies.
3. TOPIC: Find any studies done in France on the use of Vincristine to treat Wilm's tumor.
4. TOPIC: Does caffeine consumption during pregnancy have adverse effects on the newborn? Only interested in human studies.

PRACTICE SEARCH #1

TOPIC: Find English language articles on the use of cryotherapy in treating skin cancer.

**SEARCH STRATEGY WORKSHEET**

Search Statement USE OF CRYOTHERAPY IN TREATING SKIN CANCER  
Relevant Databases MEDLINE

**Key Concepts**

<b>S Y N O N Y M S</b>	CRYOSURGERY /de	SKIN NEOPLASMS/de	LA - NONENGLISH	

Publications Dates?  
Languages? English only  
Publications Types?

Number citations expected? 50-75  
Format of citations? Format 3  
Online or Offline?

PRACTICE SEARCH #1

- ① BEGIN in Medline, File 154.
- ② SELECT the Medline descriptors for the main concepts.
- ③ SELECT non-English articles.
- ④ Exclude the non-English articles from Set 3 using NOT.
- ⑤ TYPE the first two records online in Format 3, bibliographic citation only.
- ⑥ LOGOFF HOLD to end the search.

```

      Set  Items  Description
      ---  ----  -
①  * b 154
      21feb86 11:19:16 User092108
      00.10  0.004 Hrs File1
      00.04  Unimat
      00.14  Estimated cost this file
      00.14  Estimated total session cost  0.004 Hrs.

File 154: MEDLINE - 80-86/MAR

      Set  Items  Description
      ---  ----  -
②  * as cryosurgery/de and skin neoplasms/de
      S1  1484  CRYOSURGERY/DE
      S2  8244  SKIN NEOPLASMS/DE
      S3  99  CRYOSURGERY/DE AND SKIN NEOPLASMS/DE
③  * as lanngnonenglish
      S4  +43844  LANNONENGLISH
④  * as e3 not s4
      99  S3
      +43844  S4
⑤  * t 5/3/1-2
      S5  64  S3 NOT S4

5/3/1
1823374  84042374
Warts and other human papillomavirus infections.
Mroczkowski TP; McEwen C
Medical Academy of Warsaw, Poland.
Postgrad Med (UNITED STATES) ,Nov 15 1985, 78 (7) p91-8. ISSN 0032-5481
Journal Code: PPK

5/3/2
1792804  84009204
Cryosurgery for polliostion.
Kuflik EB
University of Medicine and Dentistry of New Jersey, New Jersey Medical
School.
J Dermatol Surg Oncol (UNITED STATES) ,Sep 1985, 11 (9) p647-9. 155:
0148-0812 Journal Code: MZA
* logoff hold

21feb86 11:19:58 User092108
00.43  0.012 Hrs File154
00.00  0.00  E Types in Format 3
00.00  E Types
00.12  Unimat
00.53  Estimated cost this file
00.69  Estimated total session cost  0.016 Hrs.
Logoff: level 7.10.10 11:19:58
    
```

PRACTICE SEARCH #2

TOPIC: Find the complete citation to the article written by G. Spira in 1985 on monoclonal antibodies.

**SEARCH STRATEGY WORKSHEET**

Search Statement FIND THE COMPLETE CITATION TO THE ARTICLE WRITTEN BY G. SPIRA  
ON MONOCLONAL ANTIBODIES.

Relevant Databases MEDLINE, FILE 154

**Key Concepts**

<b>S Y N O N Y M S</b>	AU = SPIRA G ?	PY = 1985	MONOCLONAL (W) ANTIBOD ?

Publications Date? 1985

Language?

Publications Type?

Number citations expected? 1

Format of citations? FORMAT 3

Online or Offline?

PRACTICE SEARCH #2

- ① BEGIN in Medline, File 154.
- ② SELECT the author's name AND the term for antibodies in the title. Both terms are truncated.
- ③ SELECT articles written in 1985.
- ④ Use AND to select articles from Set 3 that were published in 1985.
- ⑤ TYPE the first two records online in Format 3, bibliographic citation only.
- ⑥ LOGOFF HOLD to end the search.

```

      Set  Items  Description
      ---  ----  -
1  154
      21feb86 11:32:45 User092108
      00.37   0.015 Hrs File1
      00.15 Telenet
      00.52 Estimated cost this file
      00.52 Estimated total session cost   0.016 Hrs.

File 154=MEDLINE - 80-86/MAR

      Set  Items  Description
      ---  ----  -
1  08  aumspira? and antibod?/ti
      S1      871  AU=SPIRA?
      S2     23679  ANTIBOD?/TI
      S3       12  AU=SPIRA? AND ANTIBOD?/TI
1  08  pv=1985
      S4     23561  PV=1985
1  08  s3 and s4
      S3       12  S3
      S4     23561  S4
1  08  s3 AND s4
      S3       2  S3 AND S4
1  08  5/3/1-2
      S/3/1
1725585  85257585
      Monoclonal antibodies: a potentially powerful tool in the diagnosis and
      treatment of infectious diseases.
      Spira G; Pollock RM; Bergelson A; Scherff MD
      Faculty of Medicine, Technion, Haifa, Israel.
      Eur J Clin Microbiol (GERMANY, WEST) .Jun 1985. 4 (5) 251-a. ISSN:
      0722-8211 Journal Code: ENY

      S/3/2
1688735  85212735
      Prevalence of HTLV-III/LAV antibodies among Haitians [letter]
      Pithonik AE; Spira TJ; Elie R; Fischl MA; Getchell JP; Arnoux E; Pierre
      SD; Laroche AC; Suurin JM; Halebranche R
      N Engl J Med (UNITED STATES) .Jun 27 1985. 312 (26) p1705-b. ISSN:
      0099-7498 Journal Code: NOM
1  logoff hold

      21feb86 11:33:54 User092108
      00.08   0.019 Hrs File154
      00.00   00.00 E Types in Format 3
      00.19 Telenet
      00.07 Estimated cost this file
  
```

PRACTICE SEARCH #3

TOPIC: Find any studies done in France on the use of Vincristine to treat Wilm's tumor.

**SEARCH STRATEGY WORKSHEET**

Search Statement FIND ANY STUDIES DONE IN FRANCE ON THE USE OF VINCRIStINE TO  
Relevant Databases MEDLINE, FILE 154 TREAT WILM'S TUMOR.

**Key Concepts**

S  
Y  
N  
O  
N  
Y  
M  
S

VINCRIStINE /de	CP= FRANCE	NEPHROBLASTOMA /de WILMS TUMOR	
-----------------	------------	-----------------------------------	--

Publications Dates?  
Languages?  
Publications Types?

Number citations expected? 5  
Format of citations? 3  
Online or Offline?

PRACTICE SEARCH #3

- ① BEGIN in Medline, File 154.
- ② SELECT the Medline descriptor "Vincristine."
- ③ SELECT the Medline descriptor "nephroblastoma" OR the phrase "Wilms Tumor" in the Basic Index. Remember, the Basic Index includes several fields, such as the title, the abstract, and the descriptors.
- ④ Combine the two concepts using AND.
- ⑤ SELECT articles published in France.
- ⑥ Use AND to select articles from Set 7 that were published in France.
- ⑦ TYPE the record in Format 3, bibliographic citation only.
- ⑧ LOGOFF HOLD to end the search.

```

      Set  Items  Description
      ---  ----  -
① * b 154
      21feb84 11:43:03 User092188
      00.10 0.004 Wra File1
      00.04 Uninet
      00.14 Estimated cost this file
      00.14 Estimated total session cost 0.005 Wra.

File 154:MEDLINE - 00-06/MAR

      Set  Items  Description
      ---  ----  -
② * as vincristine/00
      S1  S11  VINCRISTINE/DE
③ * as nephroblastoma/00 or wilms(tumor)
      S2  1035  NEPHROBLASTOMA/DE
      S3  633  WILMS
      S4  44905  TUMOR
      S5  495  WILMS(WITUMOR)
      S6  1079  NEPHROBLASTOMA/DE OR WILMS(WITUMOR)
④ * as s4 and s1
      1079  S4
      S11  S1
      S7  46  S4 AND S1
⑤ * as cp=france
      S8  31458  CP=FRANCE
⑥ * as s7 and s8
      46  S7
      31458  S8
      S9  1  S7 AND S8
⑦ * t 9/3/1
      9/3/1
      1175965  04012965
      [Diffuse superficial nephroblastomatosis. Chemotherapy. 1 case]
      Nephroblastomose diffuse superficielle. Traitement par chimiothérapie.
      1 observation.
      Lutz P; Kleinhaus D; Matter D; Touitou D; Clavert JM; Berland H; Vetter
      P; Levy JM
      Service de Pédiatrie II, Institut de Puericulture, Strasbourg.
      Presse Med (FRANCE) .Oct 1 1983. 12 (34) p2097-100. ISBN 0301-1518
      Journal Code: PHT
      ? logoff held
⑧ 21feb84 11:43:45 User092188
      00.29 0.011 Wra File154
      00.00 1 Types in Format 3
      00.00 1 Types
      00.11 Uninet
      00.20 Estimated cost this file
      00.24 Estimated total session cost 0.016 Wra.
      Logoff: level 7.10.10 11:43:45
  
```



PRACTICE SEARCH #4

TOPIC: Does caffeine consumption during pregnancy have adverse effects on the newborn? Only interested in human studies.

**SEARCH STRATEGY WORKSHEET**

Search Statement DOES CAFFEINE CONSUMPTION DURING PREGNANCY HAVE ADVERSE EFFECTS ON THE NEWBORN?  
Relevant Databases MEDLINE, FILE 15+ HUMAN STUDIES ONLY.

**Key Concepts**

S  
Y  
N  
O  
N  
Y  
M  
S

CAFFEINE /de	PREGNANCY /de	FETUS /de FETAL /de INFANT /de NEONAT ? /ti NEWBORN /ti	LIMIT TO HUMANS LIMIT (SET #)/HUMAN
--------------	---------------	---	--

Publications Dates?

Languages?

Publications Types?

Number citations expected? 30-50

Format of citations? Format 3

Online or Offline?

PRACTICE SEARCH #4

- ① BEGIN in Medline, File 154.
- ② SELECT the Medline descriptors "caffeine" AND "pregnancy."
- ③ SELECT the Medline descriptors and title words for the concept of "newborn."
- ④ Combine the major concepts using AND.
- ⑤ LIMIT Set 10 to human studies.
- ⑥ TYPE the first two records in Format 3, bibliographic citation only.
- ⑦ LOGOFF HOLD to end the search.

```

Set Items Description
-----
① * b154
      21feb86 11:56:06 User092188
      00.03 0.001 Hrs File154
      00.04 Estimated total session cost 0.001 Hrs.

File 154:MEDLINE - 80-86/MAR

Set Items Description
-----
② * as caffeine/de and pregnancy/de
      S1 2017 CAFFEINE/DE
      S2 88786 PREGNANCY/DE
      S3 141 CAFFEINE/DE AND PREGNANCY/DE
③ * as fetus/de or fetal/de or infant/de or neonat//ti or newborn/ti
Processing
      S4 9773 FETUS/DE
      S5 19009 FETAL/DE
      S6 101889 INFANT//DE
      S7 8911 NEONAT//TI
      S8 5766 NEWBORN//TI
      S9 122471 FETUS/DE OR FETAL/DE OR INFANT//DE OR NEONAT//TI OR
      NEWBORN//TI
④ * as s3 and s9
      141 S3
      122471 S9
      S10 88 S3 AND S9
⑤ * limit 10/human
      S11 S1 10/HUMAN
⑥ * t 11/3/1-2
11/3/1 86072967
1955967 86072967
Effect of caffeine on fetal heart rate and caffeine consumption habits
in pregnant patients.
Die Wirkung des Koffeins auf die fetale Herzfrequenz und die
Koffeinkonsum-Gewohnheiten der Schwangeren.
Hoch 861 Page J81 Sverdlovsk Ji Szell SJ
Klinik fur Geburtshilfe und Frauenheilkunde, Medizinischen Universitat.
Szeged.
Zentralbl Gynacol (GERMANY, EAST) .1985. 107 (20) p1249-53. ISSN
0044-4197 Journal Code: Y28
11/3/2
1761689 85284689
Effects of caffeine ingestion during pregnancy.
Furukashi M; Sato S; Suzuki M; Hirata M; Tanaka M; Takahashi T
Gynecol Obstet Invest .1985. 19 (4) p187-91. ISSN 0368-7348 Journal Code
FYA
⑦ * logoff hold
      21feb86 11:57:15 User092188
      00.68 0.019 Hrs File154
      00.00 2 Types in Format 3
      00.00 2 Types
      00.19 Uninet
      00.87 Estimated cost this file
      00.91 Estimated total session cost 0.020 Hrs.
Logoff level 7.10.10 11:57:16

```

**WELCOME TO  
PHARMACY RESEARCH ONLINE**

You have received this packet because you expressed an interest in the Pharmacy Research Online pilot project. Participants in the pilot project will be able to use a microcomputer located in the Pharmacy Library to do their own online searching of indexes to the journal literature.

Please complete and return the attached form by May 9th indicating whether or not you will be participating in the project. Please return the packet with the form if you will not be participating.

This packet is designed to be a self-paced introduction to online searching. Follow-up seminars will be scheduled later in May. At these seminars, the Pharmacy Librarian will answer your questions and offer tips on more effective searching.

This packet includes:

- \*\* Welcome to Pharmacy Research Online**
- \*\* Pharmacy Research Online Procedures**
- \*\* Pharmacy Research Online: A Guide for Faculty**
- \*\* Search Strategy Worksheets**
- \*\* Evaluation Questionnaire**
- \*\* Dialog Command Summary**
- \*\* CAS Online Command Summary**
- \*\* Interlibrary Loan Guide**
- \*\* Staffed Faculty Photocopy Service Guide**

We suggest the following steps as the most efficient way to use this packet.

1. Complete and return the attached form indicating that you will be participating in the project.
2. Review the Pharmacy Research Online Procedures.
3. Read the self-paced workbook entitled Pharmacy Research Online: A Guide for Faculty and work through the sample search in Chapter 5.
4. Try the practice searches in Chapter 7.

5. Complete and return the Evaluation Questionnaire.
6. Attend a follow-up seminar. The schedule and a sign-up sheet will be posted in the Pharmacy Library.

Please call the Pharmacy Librarian, Derral Parkin (x7348), if you have any questions about the project or have problems as you are learning to search. In addition, Derral is usually in the Pharmacy Library on Tuesdays and Thursdays from 10 a.m. until 12 noon and Fridays from 3 p.m. until 5 p.m.

**PHARMACY RESEARCH ONLINE**

Please fill out this form and return it to Derral Parkin, Lib - L.  
(The form is pre-addressed, just fold it and put it in intercampus  
mail.) Thank you.

\_\_\_\_\_ **YES.** I will be participating in the  
Pharmacy Research Online pilot project.

\_\_\_\_\_ **NO.** I will not be participating in the  
Pharmacy Research Online pilot project. I am  
returning the packet with this form.

If not, we would be interested in knowing why  
not:

**NAME:** \_\_\_\_\_

**DEPT:** \_\_\_\_\_

**PHONE:** \_\_\_\_\_

Please return this form by May 9th.

Thank you.

## PROCEDURES

### PHARMACY RESEARCH ONLINE

#### 1. HOURS OF OPERATION

The computer in the Pharmacy Library is generally available for online searching during normal Library hours until one half hour before closing. Project participants may reserve computer time by contacting the Circulation Desk, x1566.

#### 2. LOG BOOK

All searches must be recorded in the log book located near the computer. A completed sample log sheet is attached. The time and cost information is necessary for our accounting records. Your answers in the evaluation section will be used in the evaluation of the pilot project.

#### 3. OFFLINE PRINTS

Offline prints from Dialog will be received by the Library and sent to you through interoffice mail. Be sure to record the print transaction number on the log sheet.

? PR 16/7

**P116!** PRINT 16/7 (items 1-13) est. cost of \$1.82  
? 102off

Offline prints from CAS Online will be mailed directly to you. Just remember to fill in your name and address when prompted by the PRINT command.

#### 4. PRACTICE SUBSIDY

Each project participant is allowed a practice subsidy of \$112.50. This will give each person approximately 2 1/2 hours of practice time. Each person is responsible for not exceeding the \$112.50 of subsidized searching. The free practice time must be used before July 1, 1986.

#### 5. PAYMENT FOR SEARCHES

After using the \$112.50 practice subsidy or after July 1, whichever comes first, searchers will be responsible for paying for all search costs incurred. Payment may be made by check or IDT (cash will not be accepted). Deposit accounts may be set up for individuals or groups. All search costs and payment information must be recorded in the log book. Payment should be given to the Library staff.

## 6. DISK FILES CONTAINING SEARCHES

Project participants are asked to save all searches in a disk file as outlined in Chapter 5 of the "Pharmacy Research Online" workbook. The searches in disk files will be matched with the evaluation questions on the log sheets and used in the evaluation of the project. Searchers may make copies of their own searches using their own floppy disks.

## 7. DOCUMENTATION

The thesauri and other documentation necessary for online searching is kept in the Pharmacy Library. It can be used only in the Library.

## 8. USE OF THE COMPUTER FOR NON-COMPUTER SEARCHING USE.

Because the computer is also used for other Library-related tasks (word processing, database, etc.), participants should not use the computer for non-computer searching functions.

## 9. ASSISTANCE

The Library Technician is available to assist with searching problems. For assistance with search strategies, call Derral Parkin (x7348).

HOW TO COMPLETE THE LOG SHEET

DIALOG LOGOFF MESSAGE

? logoff held

21feb86 11:57:15 User092188  
 \$0.68 0.019 Hrs File154  
 \$0.00 2 Types in Format 3  
 \$0.00 2 Types  
 \$0.19 Uninet  
 \$0.87 Estimated cost this file  
\$0.91 Estimated total session cost 0.020 Hrs.  
 Logoff: level 7.10.10 11:57:16

CAS ONLINE LOGOFF MESSAGE

=> logoff yes

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	8.76	<span style="border: 1px solid black; padding: 2px;">8.76</span>
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)		
CA SUBSCRIBER	-1.68	<span style="border: 1px solid black; padding: 2px;">-1.68</span>

STN INTERNATIONAL LOGOFF AT 19:37:00 ON 07 APR 86

ACCOUNTING PORTION OF LOG SHEET

PHARMACY ONLINE LOGSHEET

DATE 4/28/86 NAME Janet Smith  
 DEPT Pharmacology PHONE x 6262

Please check the Online Service(s) used and record the time and cost information from the logoff messages.

DIALOG <input checked="" type="checkbox"/> LOGOFF TIME <u>11:57:15</u> TOTAL SESSION COSTS <u>.91</u> DATABASES SEARCHED: _____ <u>154 Medline</u> OFFLINE PRINT TRANSACTION NUMBER _____	CAS ONLINE <input checked="" type="checkbox"/> LOGOFF TIME <u>19:37:00</u> FULL EST. COST <u>8.76</u> DISCOUNT AMOUNT <u>1.68</u> COST = .10 x (FULL COST - DISCOUNT) <u>.71</u> = .10 x ( <u>8.76</u> - <u>1.68</u> ) OFFLINE PRINT REQUEST NUMBER _____
--	---

METHOD OF PAYMENT (give payment to Eric Waggoner, Derral Parkin or Dell Stewart-Davis)

- Deposit Acct: Name account is under? Smith
- \_\_\_\_\_ IDT: IDT number? \_\_\_\_\_
- \_\_\_\_\_ CHECK: Make your check payable to the University of Houston
- \_\_\_\_\_ Training Subsidy: Not to exceed \$112.50 per person

\*\*\*\*\*

ALSO FILL OUT THE EVALUATION PORTION OF THE LOG SHEET.





# DIALOG COMMAND SUMMARY

## BASIC COMMANDS

Command	Example	Function
<b>BEGIN</b>	begin 10 b 49	<b>BEGIN</b> connects you to the database in which you want to search. Enter the file number after the command. <b>BEGIN</b> may be used at any time to change databases; however, it also erases all your previous sets.
<b>SELECT</b>	select france s computer  ss wine? or drink ss s4 not champ?	<b>SELECT</b> retrieves records containing search term or terms you indicate and stores them in sets. Each set is assigned an S#. A set may be used in later <b>SELECTs</b> by indicating its S#. The abbreviation <b>SS</b> rather than <b>S</b> will produce a separate set for each search term <b>SELECTed</b> .
<b>TYPE</b>	type 7/6/2-3 t 8/5/1,3,7	<b>TYPE</b> requests that your results be displayed immediately. It is followed by a set number, a format number, and the group of records you wish to view.
<b>PRINT</b>	print 7/5/1-31 pr 12/7/1-64	<b>PRINT</b> requests that results be printed offline and mailed to you. Specify set/format/records desired.
<b>LOGOFF HOLD</b>	logoff hold	<b>LOGOFF HOLD</b> will disconnect you from <b>DIALOG</b> , but will have the system hold your most recent search for a minimum of ten minutes, so you can <b>RECONNECT</b> to the search by logging on again. It produces an estimate of the cost of your search session since logging on.

## LOGICAL CONNECTORS

**OR** - puts the retrieval of all the search items into one set, eliminating duplicate records.



**AND** - retrieves the intersection, or overlap, of the search terms: all terms must be in each record retrieved.



**NOT** - eliminates one search term (or group of search terms) from other search term(s).



## POSITIONAL CONNECTORS

Connector	Example	Function
(W) (nW)	plant(W)production production(1W)plant?	Terms must be adjacent to each other and in the order specified. A number in front of the W indicates maximum number of possible intervening words.
(N) (nN)	ronald(N)reagan	Terms must be adjacent to each other and in either order. A number in front of the N indicates the maximum number of possible intervening words.
(F)	economic(F)recovery	Terms must be in the same field of the same record, in any order.

## SUPPLEMENTARY COMMANDS

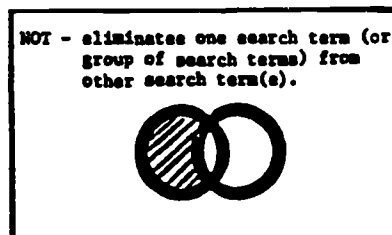
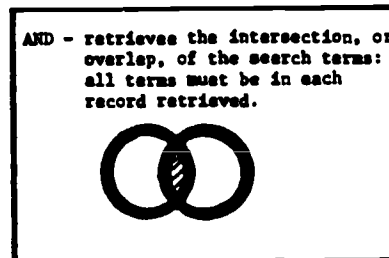
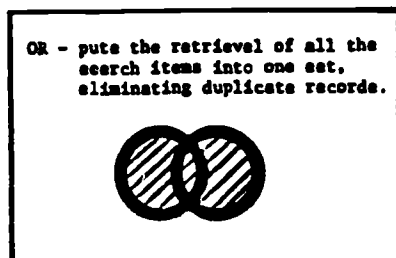
Command	Example	Function
<b>EXPAND</b>	expand iron e au=bronte	<b>EXPAND</b> displays the word list, or index, of the database. the entries in the list which displays may be <b>SELECT</b> ed by their E numbers
<b>PAGE</b>	page p	<b>PAGE</b> requests the following page or screen of an <b>EXPAND</b>
<b>LIMIT</b>	limit5/maj 18/eng	<b>LIMIT</b> restricts a set by some criteria defined by the database, most frequently English language, or time period. Its use varies in each database.
<b>PRINT-</b>	print- p078 pr- pl46	<b>PRINT-</b> cancels the print command whose <b>PRINT</b> transaction number you enter. <b>PRINT</b> transaction numbers are assigned by the computer at the time that the <b>PRINT</b> request is made.
<b>COST</b>	cost	<b>COST</b> produces a display of the estimated cost of your search session since logging on.
<b>D SETS</b>	display sets ds	<b>DISPLAY SETS</b> lists all the sets formed since the last <b>BEGIN</b> command.

# CAS COMMAND SUMMARY

## BASIC COMMANDS

Command	Example	Function
<b>FILE</b>	file ca file reg file caold	<b>FILE</b> connects you to the database in which you want to search. Enter the file name after the command. <b>FILE</b> may be used at any time to change databases. It does not erase your previous query numbers.
<b>SEARCH</b>	search titanium s coal/ti s 12 and analysis	<b>SEARCH</b> retrieves records containing the search term or terms you indicate, and stores them in query sets. Each query set is assigned an L#. A set may be used in later <b>SEARCH</b> statements by indicating its L#.
<b>DISPLAY</b>	display 12 bib 1 d 11 bib abs 1-3	<b>DISPLAY</b> requests that your results be displayed at your terminal immediately. It is followed by a query number, a format, and the group of records you wish to view.
<b>PRINT</b>	print	<b>PRINT</b> requests that results be printed offline and mailed to you. The simplest way to order prints is to enter the command <b>PRINT</b> and let the computer prompt you for the required information.
<b>LOGOFF YES</b>	logoff yes logoff y	<b>LOGOFF YES</b> ends the search session and connects you from STN. It produces an estimate of the cost of your session since logon.

## LOGICAL CONNECTORS



## POSITIONAL CONNECTORS

Connector	Example	Function
<b>(W)</b> <b>(nW)</b>	plant(W)production production(2W)plant	Terms must be adjacent to each other and in the order specified. A number in front of the W indicates maximum number intervening words.
<b>(A)</b>	linus(A)Pauling coffee(3A)analysis	Terms must be adjacent to each other and in either order. A number in front of the A indicates the maximum number of intervening words.
<b>(L)</b>	mass(L)spectroscope	Terms must be in the same field of the same record, in any order.

## SUPPLEMENTARY COMMANDS

Command	Example	Function
<b>EXPAND</b>	expand iron e Pauling/au	<b>EXPAND</b> displays the word list, or index of the database. The entries in the list which displays may be <b>SEARCHed</b> by their E numbers.
<b>HELP</b>	help	Obtain <b>HELP</b> while logged on. Displays general information about the help function or commands.
<b>DIS HIS</b>	display history d his	<b>DIS HIS</b> displays all of the sets formed during the search session.
<b>SET</b>	set steps on set range = (1980,)	<b>SET</b> defines the session parameters. See vendor documentation for exhaustive list of possible parameters.

# SEARCH STRATEGY WORKSHEET

Statement \_\_\_\_\_

Databases \_\_\_\_\_

## Key Concepts

--	--	--	--

Citations Dates?

es?

Citations Types?

Number citations expected?

Format of citations?

Online or Offline?

EVALUATION

When you have completed the Pharmacy Research Online training manual please answer the following questions by circling the appropriate number on the scale. Return the questionnaire to the Library through intercampus mail by folding. (Return address is printed on back of p. 2.)

1. Did the training manual clearly present the material?

Very Clear		Clear		Not Clear
1	2	3	4	5

2. Were the instructions in the self-paced manual clear?

Very Clear		Clear		Not Clear
1	2	3	4	5

3. Were you comfortable with this method of instruction?

Very Comfortable		Comfortable		Uncomfortable
1	2	3	4	5

4. Was this method of instruction compatible with your learning style?

Very Compatible		Compatible		Incompatible
1	2	3	4	5

5. Do you feel comfortable doing your own online research?

Very Comfortable		Comfortable		Uncomfortable
1	2	3	4	5

6. Do you have an improved understanding of microcomputers and their applications?

Improved		Slightly Improved		Not Improved
1	2	3	4	5

7. How confident do you feel in determining when to search online instead of searching the printed indexes?

Very Confident		Confident		Not Confident
1	2	3	4	5

8. Do you feel these training materials have improved your ability to articulate your research needs to a librarian?

Greatly Improved		Improved		Not Improved
1	2	3	4	5

9. To what extent did these training materials broaden your awareness of available services and resources within the library?

Greatly Increased		Increased		Not Increased
1	2	3	4	5

10. Are you interested in advanced training in search strategy development

Very interested		Interested		Uninterested
1	2	3	4	5

11. Are you interested in advanced training in specific databases?

Very Interested		Interested		Uninterested
1	2	3	4	5

12. Are you interested in advanced training in system commands?

Very Interested		Interested		Uninterested
1	2	3	4	5

13. Are you interested in advanced training in microcomputer applications?

Very Interested		Interested		Uninterested
1	2	3	4	5

14. How long did it take you to complete the training materials?

1-2 Hours	2-3 Hours	3-4 Hours	4-5 Hours	5 Hrs. or more
1	2	3	4	5

Comments:

Thank you.