9 ADDITIONAL SEARCH FEATURES

So far, we have discussed some fairly basic search techniques—creating sets, truncation, Boolean and proximity operators, and the like—and these serve as the fundamental tools in the searcher's repertoire. But there are more. Again, we will specifically examine the additional search features provided by the DIALOG service, but recognize as always that other services may have similar ones or quite different features altogether.

Additional search features fall into three major categories: commands that assist in searching (here we will look at prefix searching, limits, KEEP, TARGET, and RANK); those that can affect the display of results (SORT, REPORT, and output formats); and those that deal with how results are distributed or accessed (the PRINT command, the ERA service, and the ability to create permanent or temporary search profiles).

Search Features

Over the years, DIALOG has developed a number of commands to allow searchers to go beyond "standard" searching. These range from the fairly simple, taking further advantage of the structure of records, to the more complex, using the power of the computer to find the most potentially useful descriptors and make use of ranked retrieval to support searches.

Prefix Codes

Most search services allow searchers to view the Basic Index as a means of helping with the selection of subject search terms, and we saw earlier that this is done in DIALOG using the EXPAND command. We also learned that it is possible to reduce postings and increase specificity by limiting a search to one particular subject field through the use of suffix codes. EXPAND can also be used with the other inverted files in order to verify the variant spelling and punctuation conventions for proper names (authors, journals, organizations, etc.) that exist in different files.

When we looked at record structures in chapter 5 we saw that each field can be identified by a two-letter code (AU, TI, JN, etc.). We later saw that searches in the Basic Index can be limited to particular subject fields by using these two-letter codes as suffixes linked to the search terms (/TI or /DE, for example). Similarly, non-subject fields can also be identified by their two-letter codes, but here the codes are used as prefixes rather than suffixes. The use of these codes makes it possible to limit a search to any individual field of the

record, and this device is a useful way of reducing postings and increasing specificity. As a reminder, here is a listing of the Additional Index fields for a record in PsycINFO (file 11) taken from the bluesheets for that file.

Fig. 9.1. Additional indexes available on PsycINFO records.

ADDITIONAL INDEXES

SEARCH PREFIX	DISPLAY CODE	FIELD NAME	INDEXING	SELECT EXAMPLES
AA=	AA	PsycINFO Record Identifier	Phrase	S AA=1997-07837-004
AG=	AG	Age Group	Phrase	S AG=ADULTHOOD
AI=	AI	Audience Intended	Phrase	S AI=PSYCHOLOGY?
AU=	AU	Author	Phrase	S AU=MARAS, PAM?
None	AZ	DIALOG Accession Number		
BN=	BN	International Standard Book Number	Phrase	S BN=1-85302-414-7
CL=	CL	Conference Location	Word	S CL=INDIA
CN=	CN	Book Publisher's Country	Phrase	S CN=AUSTRALIA
CS=	CS	Corporate Source or Author Affiliation	Word & Phrase	S CS=(GREENWICH(F)LONDON)
CT=	CT	Conference Title	Word	S CT=(INDIAN(W)SCIENCE(W) CONGRESS)
CY=	CY	Conference Year	Phrase	S CY=1995
DT=	DT	Document Type	Phrase	S DT=JOURNAL ARTICLE
GN=	GN	Geographic Name	Phrase	S GN=USA

JN=	JN	Journal Name	Phrase	S JN=EDUCATIONAL & CHILD PSYCHOLOGY
LA=	LA	Language	Phrase	S LA=ENGLISH
PD=	PD	Publication Date	Phrase	S PD=970400
PG=	PG	Population Group	Phrase	S PG=HUMAN
PU=	PU	Publisher	Word & Phrase	S PU=(CAMBRIDGE(W) UNIVERSITY(W)PRESS) S PU=CAMBRIDGE UNIVERSITY PRESS
PY=	PY	Publication Year	Phrase	S PY=1997
RT=	RT	Record Type	Phrase	S RT=ABSTRACT
SE=	SE	Series Title	Word	S SE=(STRESS(1W) EMOTION?)
SF=	SF	Special Feature	Phrase	S SF=REFERENCES
SH=	SH	Subject Codes and Headings	Phrase	S SH=3250
SN=	SN	International Standard Serial Number (ISSN)	Phrase	S SN=02671611
SO=	SO	Source Information	Word	S SO=(EDUCATIONAL AND 14 AND 1997)
SP=	SP	Sponsor	Word	S SP=(LONDON(W)BUSINESS (W)SCHOOL)
UD=	None	Update	Phrase	S UD=9999

The field to be searched can be specified by linking the appropriate prefix codes (which vary somewhat by database) to the search terms using an equal sign. For example,

```
s jn=runner's world
```

will search only the journal inverted file, while

```
s au=cohen, michael
```

searches only the author file. When a prefix code is used in the SELECT statement, the computer goes directly to the named field.

Actually, this isn't strictly true. In fact, there's only one inverted file, which contains the entries we've already discussed, words and phrases from titles, abstracts, descriptors, and so on. However, it also has the entries from these additional indexes, all interfiled in alphabetical order with the others. You can only retrieve those entries by using the appropriate prefix code. Searching on

```
?s au=cohen?
```

will not retrieve documents with the word "cohen" in titles or abstracts; you'd need to do

```
?s cohen
```

for that. Try EXPANDing on something like

```
?e au=zzz
```

and you'll see what I mean. – JWJ

Because many of these fields contain proper names, the problem when using prefix codes is that the exact form of the name to search may not be certain. Remember that data is entered into the database in the form in which it appears in the original document. Documents come from a variety of sources, and there is no authority control of fields other than the descriptors. There are two fields that are phrase-indexed and particularly difficult to search because there may be variant forms of a single author's name (e.g., forename or initials), in how it is punctuated (comma or space or both) or in the citing of a given journal's name (e.g., abbreviated or in full).

Thus, the same author may have more than one entry in the inverted file, due to inconsistencies in the use of initials, hyphens, Jr., Ed., or other variations in the form of entry. The same type of variation may occur in other fields too. Journals may be entered in full, or abbreviated, or even misspelled! Proper names of organizations, products, or corporate sources may all appear in variant forms.

In addition, the way in which author names are entered varies in different databases. Surname and first name may be separated by a space, a space and a comma, or just a comma. First names may be entered in full or as initials. Initials may be separated by periods or spaces or not separated at all. Given this variety, it is clear that database documentation is vital if online time is not to be wasted and relevant material missed.

The EXPAND command is a useful way to make sure that none of the variations in phrase-indexed fields will be inadvertently overlooked. For example, notice the variations on the name of D. J. Foskett in this example:

```
    Set    Items     Description
    ---    -----     -----------
?e au=foskett, d

    Ref    Items     Index-term
    E1         1     AU=FOSHEIM, ROBIN MELANIE, ED.
    E2         5     AU=FOSKETT, A. C.
    E3         0     *AU=FOSKETT, D
```

```
    E4          1    AU=FOSKETT, D.
    E5          8    AU=FOSKETT, D. J.
    E6          2    AU=FOSKETT, DOUGLAS J.
    E7          5    AU=FOSKETT, JOHN M.
    E8          1    AU=FOSKETT, WILLIAM
    E9          1    AU=FOSLER, R. SCOTT
    E10         1    AU=FOSMIRE, F. R.
    E11         1    AU=FOSMIRE, MONICA
    E12         3    AU=FOSNOT, CATHERINE TWOMEY

                     Enter P or E for more
?s e4:e6
    S1         11    AU="FOSKETT, D.":AU="FOSKETT, DOUGLAS J."
```

The name is not entered in full in the EXPAND command, and it is better not to use truncation when using EXPAND, due to the order in which the computer files the punctuation symbols.

Search terms can be similarly EXPANDed in all the other prefix-coded fields, though the exact fields available will vary by database. The Corporate Source (CS=) field, which gives information on authors' affiliations, is often difficult to search effectively because it is word-indexed in many files, making it necessary to use proximity operators (or even AND) for successful retrieval. Remember to SELECT the appropriate E numbers from the EXPAND list, so they are converted to sets for the search terms that they represent.

In addition to authors and journals, other interesting fields often appear in additional indexes, particularly in numeric or business files. We will discuss these further in the chapter on searching other kinds of databases.

Limiting

As an alternative to SELECTing a term using prefix codes and then ANDing the results with subject terms, some of the prefix codes can also be used as suffixes to limit previously SELECTed sets. It often proves helpful to inspect the initial postings figures before proceeding further with a search. Adding qualifiers to previously SELECTed sets is known as *post-qualification*. For example, these three statements all yield the same results:

```
File 154:MEDLINE 1985-1998/Mar W5

    Set    Items    Description
    ---    -----    -----------
?ss cholesterol and la=english
    S1     51214    CHOLESTEROL
    S2   3889538         LA=ENGLISH
    S3     44878    CHOLESTEROL AND LA=ENGLISH
?s s1/eng
    S4     44878    S1/ENG
?s cholesterol/eng
    S5     44878    CHOLESTEROL/ENG
```

Most databases on DIALOG offer one or more suffix codes that limit retrieval to specific criteria in addition to particular inverted files. Check the database bluesheets under "Limiting" for the codes that are applicable in a particular file. Common options include language, document type, publication year, and major descriptor. Here is a listing of the Limit options taken from the bluesheets for MEDLINE (file 154):

Fig. 9.2. Sample MEDLINE limit parameters.

Sets and terms can be restricted by Basic Index suffixes, i.e., /AB, /DE, /DF, /GS, /ID, /NA and /TI (e.g., S S2/TI), as well as by the following features:

SUFFIX	FIELD NAME	EXAMPLES
/ABS	Records with Abstracts	S S3/ABS
/ENG	English-Language Records	S S5/ENG
/HUMAN	Human Subject	S S7/HUMAN
/MAJ	Major Descriptor	S S8/MAJ
/NOABS	Records without Abstracts	S S4/NOABS
/NONENG	Non-English-language records	S S6/NONENG
/YYYY	Publication Year	S S2/1995:1996

Many of these limits are binary choices—either human or nonhuman, English or non-English. It is allowed to combine more than one qualifier for the same search term or set, separating them by commas. For example,

```
?ss carcinoma/human,1997

    S6    130303     CARCINOMA/HUMAN
    S7    341783     PY=1997
    S8     10796     CARCINOMA/HUMAN,1997
```

limits the search term "carcinoma" to human subjects and the publication year of 1997. These limiting suffix codes can be applied in a number of different ways:

- to single search terms
  e.g., *s video/pat*
- to groups of terms connected by logical or proximity operators
  e.g., *s (immigrant? AND worker?)/eng*
- to set numbers
  e.g. *s s6/maj*
- in combination with other field and/or suffix codes
  e.g. *s diplomacy/de,noneng,1990:92*

Be particularly careful when limiting a set that includes a combination of search terms that have previously been ANDed. The limit may not necessarily have been applied to every term as (probably) intended.

Look at the difference between these two strategies, for example:

```
?ss monkey and malaria

      S1         789     MONKEY
      S2        1384     MALARIA
      S3          92     MONKEY AND MALARIA

?ss s3/ti

      S4          18     S3/TI
```

Set 4 contains records where at least one of the terms (MONKEY or MALARIA) appears in the title. This is different from the results of the command

```
?s (monkey and malaria)/ti

      S5           6     (MONKEY AND MALARIA)/TI
```

which requires that BOTH terms appear in the title.

Post-qualification using suffixes is most effective when used on sets created using the OR operator or proximity operators. – GW

The LIMIT feature is thus a shortcut to enable certain field restrictions to apply to a search statement or even to a whole search strategy by LIMITing the final set number.

A more effective way to limit an entire search is by using the command LIMITALL (abbreviated to LALL). This is usually entered at the start of a search (but can also be used after reviewing postings) to restrict all subsequent sets to one or more suffix codes. Enter LIMITALL followed by a slash(/) and the suffix codes desired, once again separating multiple codes with commas. Up to 40 characters (including commas and spacing) can be entered following the slash. For example, the use of LIMITALL/eng will cause every subsequent set to include only items written in English, thus being equivalent to combining AND LA=eng with each of the search sets.

```
File 5:BIOSIS PREVIEWS 69-97/JUN BA9401:BARRM4301
     (C. BIOSIS 1992)

    Set    Items    Description
    ---    -----    -----------
?ss forest? or tree? or pine?
Processing
Processing
Processing
    S1    60996    FOREST?
    S2    52809    TREE?
    S3    32421    PINE?
    S4   125102    FOREST? OR TREE? OR PINE?
?limitall/de,ti,eng
>>>LIMITALL started
```

```
?ss s4 and seed()dispersal
    S4     49744
    S5     24249     SEED
    S6      5383     DISPERSAL
    S7       511     SEED(W)DISPERSAL
    S8       119     S4 AND SEED()DISPERSAL
```

Notice in this example how the postings for set 4 are reduced from 125,102 to 49,744 once the selected terms are LIMITed to descriptor or title fields and the English language. The LIMITs have also been automatically applied to sets 5, 6, and 7. This illustrates how the codes following the LIMITALL command are applied to all subsequent SELECT statements, until the LIMITALL is canceled (using LIMITALL CANCEL or LIMITALL-), or until a new LIMITALL command is entered, or the search is ended with LOGOFF.

Notice that when field suffixes (e.g. /TI,DE) are used in a LIMITALL command, all subsequent search terms must be SELECTed from the Basic Index. In this situation, the use of a prefix code, such as AU=, will produce zero results. Because there is no indication in the results that the terms have been SELECTed under the LIMITALL restriction (i.e., suffix codes do not appear with the search terms), it is important to remember that LIMITALL is in operation. LIMITALL may save considerable search time during long searches involving large sets by decreasing retrieval and thus reducing the number of records that must be processed.

KEEP

When preparing lists for electronic ordering, the KEEP command is a useful device. KEEP is used to place selected records into an auxiliary set, numbered set zero (S0), to build up the complete order from a series of searches. One can KEEP chosen records from various sets within a search, creating a single final set of search results, which one may possibly want to SORT.

The format of the command is KEEP (or K) followed by either

- a set number
  e.g., *keep s3*

or

- a set number with selected item numbers
  e.g., *keep s6/3,7,10*

which will put records 3, 7, and 10 from set 6 into set zero,

or

- a DIALOG accession number
  e.g., *keep ej247653*

Set S0 can be TYPEd or PRINTed as well as SORTed, and it can be used in subsequent SELECT commands to combine it with other terms or limit it with suffix codes. When KEEP is used to prepare a DIALORDER request, the system looks for set 0 and automatically places the records it finds there into the DIALORDER request. Once the order has been placed the system will delete set 0, but otherwise it can be manually deleted using the command KEEP CANCEL. The same command followed by a DIALOG accession number will delete a single record from set 0.

The use of the KEEP command to create a really nice set, which DIALOG calls S0, is a great feature to minimize the size of sets that you ask to be TYPEd or PRINTed. I must confess, though, that I don't teach it to my classes until the very end of the course. (The same goes for RANK and TARGET, for similar reasons.) Why? Because they want to create the perfect thirty-item set anyway, and this allows them to do it! It can also be a time-waster, especially if you flip through the articles you've retrieved, one at a time, KEEPing the ones you like, and then dealing with the final S0. KEEP is certainly a valid command, but use it with some discretion. – JWJ

TARGET

The TARGET command is DIALOG's attempt to provide non-Boolean access to its databases. They promote it as being of special use in searching full-text databases, especially those without controlled vocabulary features, and it can be quite helpful there. It would also be useful for novice searchers (perhaps even end users) and for experienced searchers who are in databases out of their normal areas of expertise.

It is, in essence, a ranked-retrieval service and looks a great deal like many Web-based engines with similar commands and features (though it predates the Web engines by many years). There is a command-line version, but the easiest way to use it would be simply to type TARGET at the command prompt and follow the menus:

```
File 11:PsycINFO(R) 1967-1998/Feb
     (c) 1998 Amer. Psychological Assn.

    Set    Items    Description
    ---    -----    -----------
?target
Input search terms separated by spaces (e.g., DOG CAT FOOD). You can
enhance your TARGET search with the following options:
  - PHRASES are enclosed in single quotes
       (e.g., 'DOG FOOD')
  - SYNONYMS are enclosed in parentheses
       (e.g., (DOG CANINE))
  - SPELLING variations are indicated with a question
       (e.g., DOG? to search DOG, DOGS)
  - Terms that MUST be present are flagged with an asterisk
       (e.g., DOG *FOOD)
```

The similarities are evident: Phrases are enclosed in quotations, and required words and phrases take asterisks (similar to the Web engines' +). TARGET also allows grouping of synonyms within parentheses and truncation. One will normally retrieve 50 records of varying relevance. Here's a sample search:

```
?*'head injur?' psychosocial children
Your TARGET search request will retrieve up to 50 of the statistically most
relevant records.
Searching 1997-1998 records only
. . . Processing Complete
    Your search retrieved 50 records.
Press ENTER to browse results C = Customize display Q = QUIT H = HELP
?c

BROWSE output includes: TI,JN,PD
Term frequency/relevance: off
Continuous display for COMPLETE TEXT: off
Custom display options:
 1  Change BROWSE output to Title Only (usually free)
 2  Customize BROWSE output with your own choice of display codes
 3  Reset BROWSE output to the default (i.e., title, journal, date)
 4  Change COMPLETE TEXT output to continuous display
 5  Show term frequencies and statistical relevance (%) for each item
Press ENTER for NO CHANGE, or enter option number(s)
(e.g., 1,5) to customize the display. Q = QUIT H = HELP
?5

DIALOG-TARGET RESULTS (arranged by percent RELEVANCE)
------- Item: 1 ------------------------------------
DIALOG(R)File 11:(c) 1998 Amer. Psychological Assn. All rts. reserv.

Mild *head *injury in *children and adolescents: A review of studies
  (1970-1995).
JOURNAL: Psychological Bulletin
19970900
 - Statistical Relevance: 95%
 - Term Frequency: HEAD INJUR? - 8 ; PSYCHOSOCIAL - 2 ; CHILDREN - 4
------- Item: 2 ------------------------------------
DIALOG(R)File 11:(c) 1998 Amer. Psychological Assn. All rts. reserv.

A typology of *psychosocial functioning in pediatric closed-*head *injury.

JOURNAL: Child Neuropsychology
19970800
 - Statistical Relevance: 92%
 - Term Frequency: HEAD INJUR? - 8 ; PSYCHOSOCIAL - 6 ; CHILDREN - 2
------- Item: 3 ------------------------------------
DIALOG(R)File 11:(c) 1998 Amer. Psychological Assn. All rts. reserv.

Effect of mild *head *injury during the preschool years.
JOURNAL: Journal of the International Neuropsychological Society
19971100
 - Statistical Relevance: 71%
 - Term Frequency: HEAD INJUR? - 14 ; PSYCHOSOCIAL - 0 ;
        CHILDREN - 8
----------------------------------------------------
Press ENTER to continue browsing or enter item number(s) to see full record
M = Modify search T = New TARGET C = Customize display Q = QUIT H = HELP
?1

DIALOG(R)File 11:PsycINFO(R)
(c) 1998 Amer. Psychological Assn. All rts. reserv.
```

01471818 1997-05606-001
Mild *head *injury in *children and adolescents: A review of studies (1970-1995).
AUTHOR: Satz, Paul; Zaucha, Kenneth; McCleary, Carol; Light, Roger
AUTHOR AFFILIATION: U California, School of Medicine, Neuropsychiatric Inst, Los Angeles, CA, USA
JOURNAL: Psychological Bulletin, Vol 122(2) , 107-131, Sep, 1997
ISSN: 0033-2909

DOCUMENT TYPE: Journal Article; Literature Review/Research Review
SPECIAL FEATURES: References
RECORD TYPE: Abstract
LANGUAGE: English
POPULATION GROUP: Human AGE GROUP: 100 (Childhood (birth-12 yrs)); 200 (Adolescence (13-17 yrs))

ABSTRACT: (journal abstract) In this article, the authors provide a

Press ENTER for next page. B = Browse M = Modify Q = Quit
?*[hit ENTER]*

comprehensive review of the research of mild *head *injury in *children and adolescents from 1970 to 1995. Because of marked variability in methodologies across studies, a preliminary box-score tally was computed, without regard to studies' scientific or methodological merit. These results revealed 13 adverse, 18 null, and 9 indeterminate findings related to neuropsychological, academic, or *psychosocial outcome. When studies were classified based on methodological merit, the stronger studies were generally associated with null outcomes across domains. However, a few of the less stronger neuropsychological studies (5 of 40) reported subthreshold and transitory alterations during the early postinjury period. At the present time, cautious acceptance of the null hypothesis is recommended until more definitive studies are conducted that address the problems raised in this review. ((c) 1997 APA PsycINFO, all rights reserved)

DESCRIPTORS: *Head *Injuries ; *Literature Review; Adolescents; *Children
IDENTIFIERS: neuropsychological or academic or *psychosocial outcomes,

Press ENTER for next page. B = Browse M = Modify Q = Quit
?*m*

Press ENTER to continue browsing or enter item number(s) to see full record
M = Modify search T = New TARGET C = Customize display Q = QUIT H = HELP
Your TARGET search includes the following search terms:
0 DATE(S) TO BE SEARCHED: 1997-1998
1 'HEAD INJUR?' <<<MUST be present
2 PSYCHOSOCIAL
3 CHILDREN
Enter 0 to change dates, a line number to change a term, the next number to add a new term, F to flag required terms, or press ENTER to run your TARGET search. Q = QUIT H = HELP
?*0*

DATES(S) TO BE SEARCHED: 1997-1998 (equivalent to Current year + 1)
Date options include:
1 Current year only

```
  2  Current year + 1
  3  Current year + 2
  4  Current year + 3
  5  Current year + 4
  6  Current year + 5
  7  All years of coverage
(When CURRENT is not available for a file, it will default to ALL years of
coverage.)
Enter a line number to change search dates, or press ENTER to retain pres-
ent date. Q = QUIT H = HELP
?3

Your TARGET search includes the following search terms:
  0  DATE(S) TO BE SEARCHED: 1996-1998
  1  'HEAD INJUR?'                                  <<<MUST be present
  2  PSYCHOSOCIAL
  3  CHILDREN
Enter 0 to change dates, a line number to change a term, the next number to
add a new term, F to flag required terms, or press ENTER to run your TARGET
search. Q = QUIT H = HELP
? [hit ENTER]

Your TARGET search request will retrieve up to 50 of the statistically most
relevant records.
Searching 1996-1998 records only
...Processing Complete
      Your search retrieved 50 records.
Press ENTER to browse results C = Customize display Q = QUIT H = HELP
? [hit ENTER]

DIALOG-TARGET RESULTS (arranged by percent RELEVANCE)
------- Item: 1 -----------------------------------
DIALOG(R)File 11:(c) 1998 Amer. Psychological Assn. All rts. reserv.

Mild *head *injury in *children and adolescents: A review of studies
  (1970-1995).
JOURNAL: Psychological Bulletin
19970900
 -  Statistical Relevance: 92%
 -  Term Frequency: HEAD INJUR? - 8 ; PSYCHOSOCIAL - 2 ; CHILDREN - 4
------- Item: 2 -----------------------------------
DIALOG(R)File 11:(c) 1998 Amer. Psychological Assn. All rts. reserv.

Cognitive, behavioral, and motoric sequelae of mild *head *injury in a
  national birth cohort. Traumatic *head *injury in *children .
19950000
 -  Statistical Relevance: 90%
 -  Term Frequency: HEAD INJUR? - 10 ; PSYCHOSOCIAL - 2 ; CHILDREN - 5
------- Item: 3 -----------------------------------
DIALOG(R)File 11:(c) 1998 Amer. Psychological Assn. All rts. reserv.

A typology of *psychosocial functioning in pediatric closed-*head *injury.

JOURNAL: Child Neuropsychology
19970800
 -  Statistical Relevance: 90%
 -  Term Frequency: HEAD INJUR? - 8 ; PSYCHOSOCIAL - 6 ; CHILDREN - 2
-------------------------------------------------
Press ENTER to continue browsing or enter item number(s) to see full record
```

```
M = Modify search T = New TARGET C = Customize display Q = QUIT H = HELP
? [hit ENTER]

------- Item: 4 -----------------------------------
DIALOG(R)File 11:(c) 1998 Amer. Psychological Assn. All rts. reserv.

The role of self-concept in *children 's *psychosocial adjustment to
  *head-*injury.
JOURNAL: Dissertation Abstracts International: Section B: the Sciences &
Engineering
19960500
 -  Statistical Relevance: 90%
 -  Term Frequency: HEAD INJUR? - 4 ; PSYCHOSOCIAL - 2 ; CHILDREN - 2
------- Item: 5 -----------------------------------
DIALOG(R)File 11:(c) 1998 Amer. Psychological Assn. All rts. reserv.

Traumatic *head *injury in *children .
19950000
 -  Statistical Relevance: 71%
 -  Term Frequency: HEAD INJUR? - 28 ; PSYCHOSOCIAL - 0 ;
          CHILDREN - 12
------- Item: 6 -----------------------------------
DIALOG(R)File 11:(c) 1998 Amer. Psychological Assn. All rts. reserv.

Age at injury as a predictor of outcome following pediatric *head *injury:
  A longitudinal perspective.
JOURNAL: Child Neuropsychology
19951200
 -  Statistical Relevance: 66%
 -  Term Frequency: HEAD INJUR? - 18 ; PSYCHOSOCIAL - 0 ; CHILDREN - 8
-------------------------------------------------
Press ENTER to continue browsing or enter item number(s) to see full record
M = Modify search T = New TARGET C = Customize display Q = QUIT H = HELP
?q

Ending TARGET search. Enter TARGET to do another search in the present
file(s), or BEGIN new file(s). Enter LOGOFF to disconnect from DIALOG
```

TARGET is an interesting addition to DIALOG, and we have used it successfully, but we would be concerned about relying solely on it and about encouraging end users to use it without professional assistance, primarily because of the connect time costs in exploration. It so resembles free Web searching that the temptation to play might be strong and expensive.

RANK

RANK is another interesting command that does pretty much what one would expect from the name. It will rank the records of a retrieved set based on some field. This either is the answer itself (Which are the most successful car dealerships in Wyoming?) or can be used in refining or improving the search. The form of the command is

rank ≤field codes≥

and is used after a set is created.

```
M = Modify search T = New TARGET C = Customize display Q = QUIT H = HELP
? [hit ENTER]

------- Item: 4 ------------------------------------
DIALOG(R)File 11:(c) 1998 Amer. Psychological Assn. All rts. reserv.

The role of self-concept in *children 's *psychosocial adjustment to
  *head-*injury.
JOURNAL: Dissertation Abstracts International: Section B: the Sciences &
Engineering
19960500
 -  Statistical Relevance: 90%
 -  Term Frequency: HEAD INJUR? - 4 ; PSYCHOSOCIAL - 2 ; CHILDREN - 2
------- Item: 5 ------------------------------------
DIALOG(R)File 11:(c) 1998 Amer. Psychological Assn. All rts. reserv.

Traumatic *head *injury in *children .
19950000
 -  Statistical Relevance: 71%
 -  Term Frequency: HEAD INJUR? - 28 ; PSYCHOSOCIAL - 0 ;
          CHILDREN - 12
------- Item: 6 ------------------------------------
DIALOG(R)File 11:(c) 1998 Amer. Psychological Assn. All rts. reserv.

Age at injury as a predictor of outcome following pediatric *head *injury:
  A longitudinal perspective.
JOURNAL: Child Neuropsychology
19951200
 -  Statistical Relevance: 66%
 -  Term Frequency: HEAD INJUR? - 18 ; PSYCHOSOCIAL - 0 ; CHILDREN - 8
-------------------------------------------------
Press ENTER to continue browsing or enter item number(s) to see full record
M = Modify search T = New TARGET C = Customize display Q = QUIT H = HELP
?q

Ending TARGET search. Enter TARGET to do another search in the present
file(s), or BEGIN new file(s). Enter LOGOFF to disconnect from DIALOG
```

TARGET is an interesting addition to DIALOG, and we have used it successfully, but we would be concerned about relying solely on it and about encouraging end users to use it without professional assistance, primarily because of the connect time costs in exploration. It so resembles free Web searching that the temptation to play might be strong and expensive.

RANK

RANK is another interesting command that does pretty much what one would expect from the name. It will rank the records of a retrieved set based on some field. This either is the answer itself (Which are the most successful car dealerships in Wyoming?) or can be used in refining or improving the search. The form of the command is

rank ≤field codes≥

and is used after a set is created.

As an example, imagine being interested in finding out more about a person's area of research, in this case Karen Drabenstott, a well-known researcher in information and library science who also wrote as Karen Markey. In ERIC, we search first to find articles she wrote:

```
File 1:ERIC 1966-1998/Mar
     (c) format only 1998 The Dialog Corporation

    Set    Items    Description
    ---    -----    -----------
?e au=drabensto

    Ref    Items    Index-term
    E1         1    AU=DRABEK, JOHN
    E2         3    AU=DRABEK, THOMAS E.
    E3         0    *AU=DRABENSTO
    E4         1    AU=DRABENSTOTT, JOHN, ED.
    E5         3    AU=DRABENSTOTT, JON
    E6         6    AU=DRABENSTOTT, JON, ED.
    E7         7    AU=DRABENSTOTT, KAREN M.
    E8         1    AU=DRABENSTOTT, KAREN M., WELLER, MARJORIE S.
    E9         3    AU=DRABENSTOTT, KAREN MARKEY
    E10       12    AU=DRABICK, LAWRENCE W.
    E11        1    AU=DRABIN-PARTENIO, INGRID
    E12        1    AU=DRABKIN, MARJORIE

             Enter P or PAGE for more
?s e7-e9

             7    AU=DRABENSTOTT, KAREN M.
             1    AU=DRABENSTOTT, KAREN M., WELLER, MARJORIE S.
             3    AU=DRABENSTOTT, KAREN MARKEY
    S1      11    E7-E9
?e au=markey

    Ref    Items    Index-term
    E1         1    AU=MARKESSINI, JOAN
    E2         2    AU=MARKEWICH, THEODORE S.
    E3         0    *AU=MARKEY
    E4         1    AU=MARKEY, ELLEN M.
    E5         3    AU=MARKEY, JAMES P.
    E6        25    AU=MARKEY, KAREN
    E7         1    AU=MARKEY, LOWELL
    E8         2    AU=MARKEY, MARTIN J.
    E9         1    AU=MARKEY, PENNY S.
    E10        2    AU=MARKEY, T. L.
    E11        1    AU=MARKEY, WILLIAM L.
    E12        1    AU=MARKEY, WILLIAM L., COMP.

             Enter P or PAGE for more
?s e6

    S2        25    AU="MARKEY, KAREN"

?s s1 or s2

             11    S1
             25    S2
    S3       36    S1 OR S2
```

Note the technique here, using EXPAND to find variant forms of the author's names, as well as pieces she cowrote or edited. We OR the two name-sets together to get the 36 hits in S3. On this set, we use RANK to find the descriptors most frequently found in those documents; this will give us a good indication of her research interests and productivity:

```
?rank s3/de
Started processing RANK
Completed Ranking 36 records
DIALOG RANK Results
----------------------
RANK: S3/1-36 Field: /DE File(s): 1
(Rank fields found in 36 records - 112 unique terms) Page 1 of 14

    RANK
    No.    Items     Term
    ---    -----     -----------
    1         19     SUBJECT INDEX TERMS
    2         18     SEARCH STRATEGIES
    3         16     LIBRARY CATALOGS
    4         16     ONLINE SYSTEMS
    5         14     INFORMATION RETRIEVAL
    6         14     ONLINE CATALOGS
    7         12     ONLINE SEARCHING
    8          9     TABLES (DATA)
P = next page Pn = Jump to page n
P- = previous page M = More Options Exit = Leave RANK

To view records from RANK, enter VIEW followed by RANK number,
format, and item(s) to display, e.g., VIEW 2/9/ALL.
Enter desired option(s) or enter RANK number(s) to save terms.
```

It would appear that Drabenstott focuses on a couple of areas: catalogs and the subject headings found there, and online retrieval systems and how they are searched. We will pursue the subject heading area a bit further, with an eye to seeing who else is working in this field. To do this, we ask for the relevant descriptors to be saved for later use.

```
?1 3 6
RANK numbers saved: 1,3,6
DIALOG RANK Results
-------------------------
RANK: S3/1-36 Field: /DE File(s): 1
(Rank fields found in 36 records - 112 unique terms) Page 1 of 14

    RANK
    No.    Items     Term
    ---    -----     -----------
    1         19     SUBJECT INDEX TERMS
    2         18     SEARCH STRATEGIES
    3         16     LIBRARY CATALOGS
    4         16     ONLINE SYSTEMS
    5         14     INFORMATION RETRIEVAL
    6         14     ONLINE CATALOGS
    7         12     ONLINE SEARCHING
    8          9     TABLES (DATA)
P = next page Pn = Jump to page n
P- = previous page M = More Options Exit = Leave RANK
```

```
To view records from RANK, enter VIEW followed by RANK number,
format, and item(s) to display, e.g., VIEW 2/9/ALL.

Enter desired option(s) or enter RANK number(s) to save terms.
?exit

RANK results will be erased; have you saved all the terms of interest?
(YES/NO)
?y

Creating temporary SearchSave ... TD029

Enter EXS to execute the SearchSave
?exs
Executing TD029
    S4      1260     "SUBJECT INDEX TERMS"/DE
    S5      1115     "LIBRARY CATALOGS"/DE (LISTS OF LIBRARY MATERIALS
                     ARRANGED IN SOME ...)
    S6       906     "ONLINE CATALOGS"/DE (MACHINE-READABLE CATALOGS THAT
                     CAN BE ACCESS...)
    S7      2782     S4:S6

?s s4 and (s5 or s6)
            1260     S4
            1115     S5
             906     S6
    S8       197     S4 AND (S5 OR S6)
```

The EXS command just slaps them all together in a big OR; we rearrange them to focus on subject headings in catalog systems. This produces S8, which we then use RANK on again, this time on the author field:

```
?rank s8/au
Started processing RANK
...Ranking 100 of 197 records
Completed Ranking 197 records
DIALOG RANK Results
-------------------------
RANK: S8/1-197 Field: AU= File(s): 1
(Rank fields found in 190 records - 180 unique terms) Page 1 of 23

    RANK
    No.    Items     Term
    ---    -----     -----------
    1         13     AND OTHERS
    2          9     COCHRANE, PAULINE A.
    3          7     MARKEY, KAREN
    4          5     CHAN, LOIS MAI
    5          5     MANDEL, CAROL A.
    6          4     DRABENSTOTT, KAREN M.
    7          4     LARSON, RAY R.
    8          3     DRABENSTOTT, KAREN MARKEY
P = next page Pn = Jump to page n
P- = previous page M = More Options Exit = Leave RANK

To view records from RANK, enter VIEW followed by RANK number, format, and
item(s) to display, e.g., VIEW 2/9/ALL.
```

```
Enter desired option(s) or enter RANK number(s) to save terms.
?p
DIALOG RANK Results
-----------------------
RANK: S8/1-197 Field: AU= File(s): 1
(Rank fields found in 190 records - 180 unique terms) Page 2 of 23

    RANK
    No.    Items     Term
    ---    -----     -----------
    9          3     FROST, CAROLYN O.
    10         3     HILDRETH, CHARLES R.
    11         3     MICCO, MARY
    12         3     VIZINE-GOETZ, DIANE
    13         3     WELLER, MARJORIE S.
    14         2     BATES, MARCIA J.
    15         2     BERMAN, SANFORD
    16         2     CONNELL, TSCHERA HARKNESS
P = next page Pn = Jump to page n
P- = previous page M = More Options Exit = Leave RANK

To view records from RANK, enter VIEW followed by RANK number, format, and
item(s) to display, e.g., VIEW 2/9/ALL.

Enter desired option(s) or enter RANK number(s) to save terms.
```

RANK can be used on sets as large as 50,000 records, but it will take a while and be expensive. It also will not work with any word-indexed fields but will with most phrase-indexed ones. Check documentation for further details.

Formatting Records and Sets

Once the appropriate set or sets is in the bag, more can be done with them than just typing them all out in format 9 and calling it a day. This section will discuss ways of formatting those sets to make them easier to read or more convenient to use by sorting them, using special formats, or creating reports.

Special Formats

Downloading the search results and entering them into a word-processing program is probably the most obvious way to help provide a more professional-looking output for the user. Records are downloaded as ASCII (American Standard Code for Information Interchange) files so that search results can be uploaded into nearly any standard word processor. This job can be greatly simplified if the citations are first SORTed online, and output in the most appropriate format.

> *A small point—your results are indeed downloaded in ASCII format if you're using a DOS-based machine (an IBM PC or compatible); if you're using a Macintosh, it'll be downloaded in straight text format. The thing to understand is that you'll have no formatting commands or characters in your downloaded output, and you'll have some extraneous-looking spaces and hard carriage returns, which is just how DIALOG produces it. Dump it into your word processor, and reformat it—it'll look fine. – JWJ*

We saw earlier that DIALOG provides a choice of predefined formats that are used to control the fields included in the search output. Standard formats are listed on the database bluesheets, but it is also possible to design one's own preferred format. Four alternative format options are available:

- User-defined (UDF) formats
- Preset customized formats
- Keyword in Context (KWIC) format
- Report format

One way of customizing the content of output records on some databases is through the use of a user-defined format (UDF). UDFs allow the use of two-character field codes to select the fields to include in the records to be output. These formats can be specified in three different ways:

- Using field codes separated by commas. For example: (Yes, this document does have the word MILLENIUM buried deep inside.)

```
File 11:PsycINFO(R) 1967-1998/May
     (c) 1998 Amer. Psychological Assn.

    Set    Items    Description
    ---    -----    -----------
?s millenium

    S1       16    MILLENIUM
?t 1/ti,ab/1


1/TI,AB/1
DIALOG(R)File 11:(c) 1998 Amer. Psychological Assn. All rts. reserv.

Health-promoting and health-compromising behaviors among minority
  adolescents.
SERIES TITLE: Application and practice in health psychology.

ABSTRACT: (jacket) Minority adolescents are at increased risk for
  numerous health problems but are less likely to have a regular
  source of medical care than either adults or children. During this
  critical developmental period, adolescents establish behavior
  patterns that set the stage for adulthood, creating a unique window
  of opportunity for clinicians and health care professionals to
  intervene and promote health. This [book] guides the efforts to
```

```
understand and develop innovative, effective, and culturally
sensitive approaches for minority youth populations.

"Health-Promoting and Health-Compromising Behaviors Among Minority
Adolescents" [is intended] not only [for] health psychologists but
[for] all clinical and counseling professionals who might treat
minority adolescents. ((c) 1997 APA PsycINFO, all rights reserved)
```

- Combining a pre-defined format number with field codes. For example:

```
?t 1/3,de/1
1/3,DE/1
DIALOG(R)FILE 11:PSYCINFO(R)
(C) 1998 AMER. PSYCHOLOGICAL ASSN. ALL RTS. RESERV.

01490283           1997-97130-000
HEALTH-PROMOTING AND HEALTH-COMPROMISING BEHAVIORS AMONG MINORITY
  ADOLESCENTS.
SERIES TITLE: APPLICATION AND PRACTICE IN HEALTH PSYCHOLOGY.
AUTHOR: WILSON, DAWN K., ED); RODRIGUE, JAMES R., ED); TAYLOR,
  WENDELL C., ED)
AUTHOR AFFILIATION: VIRGINIA COMMONWEALTH U, MEDICAL COLL OF VIRGINIA,
  DIV OF CLINICAL PHARMACOLOGY & HYPERTENSION, RICHMOND, VA, USA,
  XXII, P388, 1997
BOOK PUBLISHER: AMERICAN PSYCHOLOGICAL ASSOCIATION, WASHINGTON, DC,
  USA

DESCRIPTORS: *At Risk Populations; *Cross Cultural Treatment; *Health
  Promotion; *Health Behavior; *Minority Groups; Adolescents;
  Disorders;  Health Care Policy; Early Intervention
```

- Using the SET command to store a UDF for the length of a search. For example:

```
?set u1 ti,ab,de
User Defined Format 1 is set to TI AB DE.
    Type/Display Estimated Cost: $ 0.30 - (File 11).
```

When the output is TYPEd later, U1 can be used in place of a regular format number. Nine different formats can be defined in this way by using the SET command followed by the desired display codes.

The formats set remain available for use in any database having those fields during the current search session. All UDFs are erased when the search session is terminated with a LOGOFF command. It is possible to save a UDF long-term by SETting it as a parameter of one's user profile, though this may be counterproductive unless the range of files normally searched all use compatible field codes.

Other uses of the SET command are mentioned in association with the commands with which they are most commonly used. One of these is its use with the KWIC (Keyword in Context) option, which is available on a number of DIALOG databases. KWIC is a format option that displays only those portions of a record that contain the SELECTed search terms. It shows them in the context in which they occur, which is useful in helping to determine the relevance of search results. KWIC displays are generally taken from textual fields such as title, descriptors, or text, and the command is particularly useful with full-text records, where matching terms may be far apart and not related to one another at all.

To view only the KWIC portions of search results, enter either KWIC or K in place of the numbered format in the TYPE command. The amount of text shown when KWIC is used consists of the search term within a 30-word "window," with approximately 15 words on either side of the search term. Using the SET command, it is possible to change the size of the KWIC window to anything between 2 and 50 words. For example, one can enter the command

```
set kwic 50
```

at the beginning of the search, and the KWIC window will display 25 words before and after the search terms. The new size will remain in operation until LOGOFF, unless it is changed with another SET KWIC command. In the following example, notice how groups of three periods appear between windows to indicate that text has been omitted.

```
    Set    Items     Description
    ---    -----     -----------
?s self()esteem
          36191     SELF
           1299     ESTEEM
    S1     1251     SELF()ESTEEM
?t 1/kwic/1

1/KWIC/1
... being 11.5 years. All subjects were given the Children's Depression
Inventory, the Coopersmith Self Esteem Inventory and the Children's
Attributional Style Questionnaire. Teachers completed the Child Behaviour
Checklist and... Scale. The results indicated that in the older subjects,
the medicated group had lower social self - esteem than the nonmedicated
group and in younger subjects the medicated group had higher academic
self - esteem than the nonmedicated group. There were no significant
differences among the groups with respect to...
```

Because the KWIC format used alone displays only the portions of the text that contain the "hit" terms, it is usual to combine it with one of the predefined formats in order to retrieve the citation itself. For example,

```
?t 1/3,k/2

 1/3,K/2
08121915            92259915
  Sharing the memories. The value of reminiscence as a research tool.
  Newbern VB
  J Gerontol Nurs (UNITED STATES) May 1992, 18 (5) p13-8, ISSN 0098-9134
Journal Code: IAX
  Languages: ENGLISH
  Document type: JOURNAL ARTICLE
  ... is a tool for life review, storytelling, creation of a meaningful
myth, and maintenance of self - esteem that gerontological nurses cannot
continue to neglect.
```

will display the citation (format 3) and KWIC window of the second record in set 1.

Another SET command that is particularly useful in association with KWIC is the HILIGHT (HI) command. This system feature highlights the occurrence of the search terms

in the KWIC window so that they are easier to spot. The command to implement the HILIGHT feature is

```
set hi on
```

entered at the beginning of the search. Depending on the terminal type, highlighted terms may display more brightly (as in the above examples), in reverse video, or with a surplus character on either side (e.g., *self-esteem*) as a marker. The default HILIGHT is the asterisk (*), but it is possible to SET it to any preferred 1-3 characters by using the command

```
set hi #
```

where # is the character selected to HILIGHT the hit terms. This command is helpful in drawing attention to the search terms that have caused the document to be retrieved, and the KWIC format provides a context that helps to assess the relevance of the document. HILIGHT is canceled at LOGOFF or by entering SET HI OFF. Have a look at this example:

```
?set hi #
HILIGHT set on as '#'
?ss inferen?(2n)statistic?
    S2      6071    INFEREN?
    S3     43207    STATISTIC?
    S4       288    INFEREN?(2N)STATISTIC?

?t 4/5/2

 4/5/2
DIALOG(R)File 11:PsycINFO(R)
(c) 1998 Amer. Psychological Assn. All rts. reserv.

01532760           1998-07264-009
Aligning everyday and mathematical reasoning: The case of sampling
  assumptions.
SERIES TITLE: Studies in mathematical thinking and learning.
AUTHOR: Schwartz, Daniel L.; Goldman, Susan R.; Vye, Nancy J.; Barron,
  Brigid J.
AUTHOR AFFILIATION: Vanderbilt U, Learning Technology Ctr, Nashville, TN,
  USA

CORPORATE SOURCE: Cognition & Technology Group at Vanderbilt, USA
BOOK SOURCE: Lajoie, Susanne P. (Ed); et al. Reflections on statistics:
Learning, teaching, and assessment in Grades K-12 ., 233-273, xxip, 336,
1998
BOOK PUBLISHER: Lawrence Erlbaum Associates, Inc., Publishers, Mahwah, NJ,
  USA
ISBN: 0-8058-1971-1 (hardcover); 0-8058-1972-X (paperback)

DOCUMENT TYPE: Chapter; Empirical Study
SPECIAL FEATURES: References
RECORD TYPE: Abstract
AUDIENCE: Psychology: Professional & Research
LANGUAGE: English
POPULATION GROUP: Human AGE GROUP: 100 (Childhood (birth-12 yrs)); 180
  (School Age (6-12 yrs))
```

```
ABSTRACT: (chapter) We present results from 3 studies that examined and
  supported 5th- and 6th-grade children's evolving notions of sampling and
  #statistical# #inference#. Our primary finding has been that the context
  of a statistical problem exerts a profound influence on children's
  assumptions about the purpose and validity of a sample. In our design of
  instructional and assessment materials, we try to acknowledge and take
  advantage of the role that context plays in statistical understanding.

  In the 1st section of the chapter, we present evidence on the piecemeal
  and context-sensitive nature of statistical understanding. We use this as
  a basis for proposing that statistical instruction should often be
  situated in everyday contexts. In the 2nd section, we examine the
  commonsense basis of early statistical understanding. We present evidence
  that children understand statistical contexts by drawing on schemas for
  more familiar situations, such as advertising, that have family
  resemblances to various aspects of a #statistical# #inference#. In the
  3rd section, we describe the results of our efforts to build on
  children's piecemeal, context-sensitive common sense. ((c) 1998 APA
PsycINFO, all rights reserved)

DESCRIPTORS: *Mathematical Ability; *Mathematics Education; *School
  Learning; *Statistics; Childhood; Cognitive Development; Elementary
  School Students; Mathematics (Concepts)
IDENTIFIERS: development of understanding sampling & #statistical# #infer-
ence# for everyday contexts, 5th & 6th graders
SUBJECT CODES & HEADINGS: 3550 (Academic Learning & Achievement)

RELEASE DATE: 19980501
```

SORT

Records are normally output in descending order of their DIALOG accession numbers, which in most databases reflects reverse input or chronological order. That is, the record most recently input has the highest accession number, and is retrieved first.

In many databases (but not all), the SORT command can be used to alter the order in which records are output. The final search results can be rearranged by SORTing either alphabetically or numerically on a selected field. The SORT command creates a new set, which could then be used for output with a TYPE or PRINT command. The fields available for SORTing vary by database, so once again the DIALOG bluesheets will need to be checked thoroughly. Here is an example from the bluesheets for the Sociological Abstracts database.

Fig. 9.3. Sort Fields available on Sociological Abstracts.

SORTABLE FIELDS	EXAMPLES
Online (SORT) and offline (PRINT)	SORT S13/ALL/AU/TI
AU, CS, CT, JN, PY, TI	PRINT S5/5/1-24/AU

The format for the SORT command is

sort ≤n/all/ff,o≥

where *n* is the number of the SORTed set, *all* specifies to sort the entire set, *ff* is the field to be used for SORTing, and *o* is the desired order of the SORT. Output can be SORTed by fields such as author name, journal name, zip code, or sales figures, which are all identified by their two-character field codes (e.g., AU, JN, ZP, SA). SORT orders are either ascending/alphabetical (a) or descending (d), with alphabetical being the system default.

The SORT option enables the production of bibliographies in alphabetic order by author using

```
sort s5/all/au
```

or financial reports in descending order of total sales figures using

```
sort s5/all/sa,d
```

It is also possible to specify more than one field code in a SORT command, though this is not a frequently used option. When this multiple SORT option is used, codes are listed separated by either commas or slashes, and sorting precedence operates from left to right. For example, the command

```
sort s5/all/au,ti
```

sorts all items in set 5 first by author (AU), and within author by title (TI). A SORTed set cannot be used again with SELECT or SORT commands, but can only be used to TYPE or PRINT results. If a different sequence is desired, the original set that was SORTed must be SORTed again by a different field.

In order to get accurate results, though, the whole set must be SORTed. Even when only a subset of the data is needed (e.g., the top 50 companies), the entire retrieved set has to be SORTed.

A SORTed set is normally TYPEd or PRINTed straight away. However, when it is not necessary to inspect the set online, it is more efficient to combine the SORT parameters into the PRINT command. This is done by using a normal PRINT statement and adding at the end the two-letter codes of the fields to be used for SORTing following a slash (with a *d* if descending order is required). For example,

```
print s5/2/1-50/au
```

or

```
print s8/3/all/zp,d
```

SORTing is a good first step towards providing a "value-added" output for the user. It makes it possible to provide a customized bibliography, arranged alphabetically by author, or a business report arranged in order by a chosen criteria. It can also be used quite effectively with the REPORT command.

REPORT

Another output option available on a number of DIALOG databases, particularly files containing statistical, financial, or demographic data, is the REPORT command. It arranges selected data from a retrieved set of records into useful tables, displaying the information in columns. The extraction of selected fields of data from lengthy records in this way can save not only online time but also time for the user. This is definitely a value-added feature for busy managerial staff. Imagine having to read right through the long record at the end of the last chapter in order to gather one or two specific pieces of information!

Reports are only available online, and the results are most effective when used in combination with the SORT command, so that the data is presented in a logical order. In order to use this command the fields that are available for use with REPORT must first be checked in the bluesheets of the database being used. (An example showing the fields available for use with REPORT on one of the Dun and Bradstreet databases [file 520] is presented in Figure 9.4.) Then calculate the total lengths of the fields to be included. This is necessary because the number of fields that can be displayed readably is limited by the length of the print line. The display line is set to 75 characters, which matches the line length of most printers, but the maximum line length available on the system is 132 characters. Building a line of more than 75 characters, however, will cause the data to wrap around and spoil the appearance of the report. (It is worth pointing out that data that have been formatted using the REPORT command can be difficult to handle in a word processor and may need some rearranging).

Fig. 9.4. Fields for use with REPORT on Canadian Dun's Market Identifiers (File 520).

REPORT S2/CO,SL,EM/ALL

DISPLAY CODE	REPORT FIELD LENGTH	FIELD NAME
AN	11	DIALOG Accession Number
A1	32	Street Address
A2	32	Mailing Address
CE	21	Top Executive Name
CN	9	Country Name
CO	32	Company Name
CX	21	County Name
CY	32	City
DC	13	D-U-N-S Corporate Number
DH	13	D-U-N-S Headquarters Number

Fig. 9.4. Fields for use with REPORT on Canadian Dun's Market Identifiers (continued).

DN	13	D-U-N-S Number
DP	13	D-U-N-S Parent Number
EG	10	Employee Growth
EH	12	Employees Here
EM	12	Employees Total
HC	15	Headquarters City
HS	10	Headquarters State/Province
IP	32	Parent Company Name
IS	10	Parent State/Province
IY	15	Parent City
MC	7	SMSA Code
MN	22	SMSA Name
NW	13	Net Worth
OS	14	Organizational Status
PC	9	Primary SIC Code
PL	9	Primary SIC Code - Local (Canada)
PO	15	Top Executive Position
RD	12	Record Update Date
SA	14	Sales (U.S. $)
SG	8	Sales Growth
SL	14	Sales - Local Currency (Canadian $)
ST	10	State/Province
TE	14	Telephone Number
YR	8	Latest Year Organized
ZP	9	Postal Code

The REPORT command has a format similar to the other output formats:

report ≤n/ff,ff,ff/b-e≥

where *n* is the set number, *ff* are the field codes separated by commas, and *b-e* are the beginning and ending record numbers. There can be as many field codes in this expression as needed, so long as the resulting report can fit across the page. For example,

```
report s5/co,sa,ta,nt/1-10
```

presents a table of the first 10 records from set 5. The table will include company name, total sales figures, total assets, and net assets, with the sequence of columns in the order in which the field codes were entered in the REPORT command. Remember to SORT before using the REPORT command, so that the records in the REPORT are presented in a logical order. Here is an example:

```
File 100:Disclosure(R) Database 1998/Feb 11
(c) 1998 Disclosure Inc.

    Set    Items    Description
    ---    -----    -----------
?s pc=2731
    S1        13    PC=2731
?sort s1/all/sa,d
    S2        13    Sort S1/ALL/SA,D
?report s2/co,sa,ni/1-10

Align paper; press ENTER
?
                    DIALOG(R)File 100:Disclosure(R) Database
                    (c) 1998 Disclosure Inc. All rts. reserv.
                                          Net          Net
Company                                 Sales       Income
Name                                    (000s)      (000s)
--------------------------------     --------    --------
SCHOLASTIC CORP                       966,300         400
HOUGHTON MIFFLIN CO                   717,863      43,622
JOHN WILEY & SONS INC                 431,974      20,340
GOLDEN BOOKS FAMILY ENTERTAINM        255,005    -197,503
THOMAS NELSON INC                     243,436      26,077
WAVERLY INC                           170,961       6,347
STECK VAUGHN PUBLISHING CORP           85,505       3,170
PAGES INC DE                           29,887       1,529
WILLIAM H SADLIER INC                  23,686         707
GOODHEART WILLCOX CO INC               16,631       2,775
```

A useful feature is the ability to eliminate records that do not contain data in essential fields before entering the REPORT command. This can be done by using Boolean NOT to link the field code (sa) equals not available (na) to the final subject set

```
s s8 not sa=na
```

This removes all records that have no data in the total sales (sa) field. (It is a feature that is also useful with the SORT command in a lot of other situations). If no range of records is given, the system defaults to PRINTing all the records in the set, so be careful!

Getting Search Results

There are now many alternatives to viewing search results online. Over the last several years, DIALOG has developed a number of mechanisms to make distribution of results easier and more efficient. Two fairly basic, yet valuable, options are to have results faxed or E-mailed. Both require searchers to create address records within the DIALOG system, specifying fax numbers or E-mail addresses. Once these are available, a version of the PRINT command (previously used just to have an offline print copy of the search results made and mailed back) is used. Both have clear advantages: a fax copy saves the connect time and trouble of downloading a digital version from the direct search and then printing; an E-mail copy is in digital form (but still without spending the connect time) for post-processing before printing.

Perhaps more interesting, though, is the ERA service (Electronic Redistribution and Archiving), which enables companies or organizations to distribute multiple copies of DIALOG output without fear of violating copyright law or policies. More than 250 files within DIALOG can take advantage of ERA; the producers of these databases have reached an agreement with DIALOG to permit this redistribution and gain royalties from it.

Redistribution can be via print or digital copies of DIALOG output. The COPIES command (again used with PRINT) will produce up to 100 paper copies, which DIALOG will print and mail:

```
?print s2/9/1 copies 100
```

will send 100 copies of the first document in set S2 in format 9. Price depends on the file and number of copies requested.

Digital copies are requested with the REDIST command, used either with PRINT or TYPE:

```
?type s6/3/1-15 redist 75
```

will display as would be expected, but then grants the right to make up to 75 copies of this digital version for other people in the user's organization.

A third command, ARCHIVE, permits remote storage on a local area network for later consultation (as compared to actively making copies as with REDIST):

```
?type s15/3/all archive 15
```

will show all records in the set in format 3, and allow up to 15 people to access a remote copy of that set on the LAN.

Making or permitting such multiple copies is, of course, more expensive than making a single copy and sharing it. But it does have the advantage of being legal and allowing companies that are justifiably concerned about handling intellectual property properly in an increasingly digital and litigious world to know they are safely within the constraints of the law.

This chapter has covered a whole range of new commands, many of which can be used together in varying combinations—SORT with PRINT, SET with UDF, SORT with ORDER, and so on. Most of them are intended to improve the appearance of the search

output. The intention is to help provide a professional-looking, customized end product for the user. This factor is likely to become increasingly important as users become more aware of online information resources and as they learn to perform simple searches for themselves.

> *I believe that as people learn to do simple searches themselves, the role of the professional searcher will depend increasingly on the provision of a value-added end-product. – GW*