FIREDOC USERS MANUAL, 2ND EDITION

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U.S. Department of Commerce
National Institute of Standards and Technology
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Abstract

FIREDOC is the on-line bibliographic database which reflects the holdings (published reports, articles, books, and audiovisual items) of the Fire Research Information Services (FRIS), at the Building and Fire Research Laboratory, National Institute of Standards and Technology. This manual provides a step-by-step technique for entering and exiting the database via telecommunication lines, as well as a number of techniques for searching the database and processing the results of the searches.

This Second Edition incorporates changes from a recent STAR software upgrade, a section of Advanced Techniques and procedures for using FIREDOC with an IBM PC, XT, AT and compatible computers and with a Macintosh computer.

Key Words: databases; fire research; information retrieval; information dissemination; manuals
1. INTRODUCTION

FIREDOC is the on-line bibliographic database which reflects the holdings (published reports, articles, books and audiovisual items) of the Fire Research Information Services (FRIS), at the Building and Fire Research Laboratory, National Institute of Standards and Technology. Each holding in FIREDOC consists of the usual bibliographic information including the title, author, keywords, identifiers and abstract (if available). The database may be searched for the occurrence of words, terms, or names in the bibliographic information. The number of occurrences is reported and the bibliographic information for these occurrences may be listed. The FIREDOC database currently contains information on approximately 80 percent of the 35,000 holdings in the FRIS collection. All new additions to the collection are being added to the database and there is an ongoing effort to incorporate existing holdings. This manual provides the instructions necessary to access FIREDOC. The FIREDOC Vocabulary List (ref. 1) is a separate publication noting keywords to be used in FIREDOC.

FIREDOC resides on an Alpha Micro* computer using the bibliographic search program STAR. The system includes a number of direct connect terminals at the Building and Fire Research Laboratory and two telephone lines with up to 2400 baud modems. Telephone line users will normally communicate with the FIREDOC system using a personal computer and a compatible communications package such as: ProComm or DynaComm. ProComm is for MS-DOS hardware; DynaComm is for Macintosh hardware. The software packages have a TeleVideo 950 terminal emulator, which is required for compatibility with the STAR software. If other communications packages with a Televideo 950 emulator are successful, please let the author know. All communication costs will be absorbed by the searcher. FIREDOC is normally available for bibliographic searching 23 hours a day Monday through Friday and 24 hours on the weekend. FIREDOC is not available from 8:30 to 9:30 AM EST or EDT Monday through Friday when maintenance is performed on the system. Assistance is available by contacting the author by telephone at 301/975-6862 during regular working hours (8:30 AM - 5 PM EST or EDT), or by FAX at 301/975-4052, or in writing.

This manual covers the techniques for using the STAR system to search the FIREDOC database. Appendices D and E contain the information necessary to set up each communications package and to login and logout the Alpha Micro computer.

*Within this paper, certain commercial equipment, software, and/or tradenames are included solely for the purpose of identifying those computer hardware and software products with which compatibility is required or has been verified. This identification does not imply recommendation or endorsement by the National Institute of Standards and Technology.
Two communication packages have been identified as working with the STAR search program. Other communication packages which emulate a Televideo 950 terminal probably may be satisfactory. By using these examples in the Appendices, the user should be able to adapt other software. The communication packages are:

a. ProComm 2.4.2. It is a user supported product communications package which is compatible with the STAR system. ProComm will operate on IBM PC, XT, AT and compatible computers and supports Hayes and compatible modems. This package may be obtained from many electronic bulletin board systems; you are granted a limited license to use this product on a trial basis. If you wish to continue using the product you must register with Datastorm. For complete information, contact Datastorm Technologies, Inc., P. O. Box 1471, Columbia, MO 65205 Telephone: 314/443-3282. The cost is approximately $35.

b. DynaComm. It is a proprietary communications and terminal emulation software package developed for the Macintosh by Future Soft Engineering Inc., 1001 South Dairy Ashford, Suite 101, Houston, TX 77077 Telephone: 713/496-9400. The cost is approximately $300.
3. USING THE SEARCH PROGRAM

When you have successfully logged into STAR with the communications package of your choice (see Appendices D or E for instructions), you are ready to do a bibliographic search. The STAR program consists of two primary screens, the STAR Main Menu (Figure 1) and the STAR Search screen (Figure 2).

The search screen (Figure 2) contains a command line near the bottom, below which there are two lines listing acceptable commands. The only command that you cannot use is the Print command. All other commands are discussed later.

Throughout this document several special keys on the personal computer keyboard will be referred to by their common abbreviations. For example, the symbol \( <\text{Enter} > \) is used to indicate pressing the enter key. A list of selected special keys can be found in Appendix C. The numbers preceding the commands are used to indicate the input sequence and should not be entered. Entries may be in either upper or lower case.

<table>
<thead>
<tr>
<th>STAR</th>
<th>FILE MAINTENANCE</th>
<th>LOGOUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 SEARCH</td>
<td>21 DIRECTORY DISPLAY</td>
<td>31 LOGOUT</td>
</tr>
<tr>
<td>FIREDOC</td>
<td>22 TYPE FILE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23 ERASE FILE(S)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FILE TRANSFER</th>
<th>SHOW TERMINAL DRIVER</th>
<th>SET TERMINAL DRIVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>41 CLNCPY FILE</td>
<td>51 SHOW TERMINAL DRIVER</td>
<td>61 TV95X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>62 TV950</td>
</tr>
<tr>
<td></td>
<td></td>
<td>63 TV955</td>
</tr>
</tbody>
</table>

Enter menu selection (type "?" for help): 10

Figure 1. STAR Main Menu
To begin your search in the STAR Main Menu (Figure 1), use the arrow key to select

11 SEARCH FIREDOC  <Enter>

or type 11 where the cursor is blinking and it says "Enter Menu Selection" and then press <Enter>.

Caution: If you press 10 or select a heading by mistake and are at an almost blank menu, press Esc to return to the menu.

The search screen appears for FIREDOC.

<table>
<thead>
<tr>
<th>STAR Search</th>
<th>Database: FIREDOC</th>
<th>Search Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Srch#</td>
<td>Count</td>
<td>Enter your searches:</td>
</tr>
<tr>
<td>S1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Command: Help Recall Save Options Display Print Write Index MENU

Figure 2. Partial Search Screen

Lines S1 through S8 may be drawn or indicated by a few underline bars; it depends upon how the communications package you are using interprets the STAR screen write commands. The cursor moves to the line S1 and you are ready to begin a search. Before discussing the search procedures one should know how to exit STAR, do read Section 3.7. In addition, one must know how to leave the program. See the Appendix which contains the information about your communications package. It is essential that you know how to do the complete logout procedure.
3.1 Conducting a Search

The main search screen contains a header at the top with the database name FIREDOC. On the left of the screen are S1 to S8 which are the search numbers. You will enter search expressions next to these numbers. The bottom of the screen contains the command line and two lines of acceptable commands. The use of these commands will be discussed later. You will notice that the cursor is now positioned next to S1 and is ready to accept a search expression.

Each search expression is limited to one line (66 characters). If you go beyond the end of the line, the cursor automatically stops at the end of the line and beeps. At the bottom of the screen the computer will say: Field is full. To correct the problem, erase the last incomplete word and any "dangling" Boolean operators so that the computer can do the search expression. Search expressions which require more than one line can be accommodated using search numbers in the search expression which will be discussed later. To conduct a simple search:

WOOD <Enter>

(Caution: This is a fire research database. To avoid long delays, using the word FIRE or FIRES should be avoided. If you want information on fire detectors, you may use DETECTORS. If you have initiated an improper search, press CTRL C to abort the search. Other types of searching will be discussed later.)

You will see the search in progress, and the number of "hits" or records in the database which contain the word will be displayed under the word. When the search is completed the total number of hits will appear in the Count column. An example of a portion of the search screen is shown below.

<table>
<thead>
<tr>
<th>Srch#</th>
<th>Count</th>
<th>Enter your searches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>614</td>
<td>WOOD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>~614</td>
</tr>
</tbody>
</table>

The numbers on your screen may be different from the examples in this document as the size of the database changes daily. As you might expect, there are a large number of records which contain the word WOOD and you would normally not want to display all of these. In the following sections we will discuss how to narrow your search. Note at the completion of your search expression the cursor has moved to search number S2. To conduct another search, type in another word for example WATER. A sample of a portion of the search screen is shown below.

<table>
<thead>
<tr>
<th>Srch#</th>
<th>Count</th>
<th>Enter your searches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>614</td>
<td>WOOD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>~614</td>
</tr>
<tr>
<td>S2</td>
<td>751</td>
<td>WATER</td>
</tr>
<tr>
<td></td>
<td></td>
<td>~751</td>
</tr>
</tbody>
</table>
Although you have moved to your second search, the program retains the information about your first search. The program usually stores information on up to 24 searches at one time. You can see the other searches by using the arrow keys or the PgDn and PgUp keys. PgUp and PgDn cannot be used with ProComm. Note that only the search information moves and the top and bottom of the screen remains fixed.

If necessary, STAR can be expanded beyond 24 search lines. When you fill S24, to obtain additional search lines, for each one needed, press CTRL O.

You may edit and rerun search expressions by using the arrow keys to move to a particular search and make corrections. Using the left and right arrow to move across search expressions does not change the characters. The keyboard is normally in the typeover mode, that is new characters will replace old ones. For example, move the cursor to S1 and using the right arrow key to position the cursor over the W in WOOD. Type a F and the W will be replaced by a F. Now press <Enter> and search S1 will be rerun using the word FOOD.

There are several additional keys which are useful for correcting or modifying search expressions. The character under the cursor may be deleted using the space bar to blank out characters.

3.2 Searching Fields

The information stored in the database for each record or document is separated by fields. The available fields and their abbreviations are given below.

| AB  | abstract       |
| AU  | author         |
| BC  | book or conference title |
| CN  | contract number |
| CS  | corporate source, or where the author(s) work |
| ED  | editor         |
| ID  | identifier(s) (similar to a keyword) |
| JT  | journal name   |
| KW  | keyword(s)     |
| LA  | language (other than English) |
| ON  | order number for report |
| PL  | place of meeting |
| PUB | publisher      |
| PY  | year of publication of the work |
| RN  | report or book number |
| SP  | sponsor, or who paid to have the work done |
| TI  | journal article or report title ONLY |
Unless otherwise specified, only the title, abstract, identifier and keyword fields are searched. The search fields may be specified in either of two ways as illustrated by the following searches.

<table>
<thead>
<tr>
<th>Srch#</th>
<th>Count</th>
<th>Enter your searches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>S3</td>
<td>96</td>
<td>TI=SPRAYS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>^96</td>
</tr>
<tr>
<td>S4</td>
<td>96</td>
<td>SPRAYS/TI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>^96</td>
</tr>
</tbody>
</table>

Both of these searches are the same and the search for the word SPRAYS is limited to the title field.

### 3.3 Boolean Operators and Parentheses

The system supports the Boolean or logical operators AND, OR, and NOT. A discussion of Boolean operators is contained in APPENDIX A. For example, try the following search expressions:

<table>
<thead>
<tr>
<th>Srch#</th>
<th>Count</th>
<th>Enter your searches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>S5</td>
<td>22</td>
<td>WOOD AND WATER</td>
</tr>
<tr>
<td></td>
<td></td>
<td>^434 ^73</td>
</tr>
<tr>
<td>S6</td>
<td>485</td>
<td>WOOD OR WATER</td>
</tr>
<tr>
<td></td>
<td></td>
<td>^434 ^73</td>
</tr>
</tbody>
</table>

The S5 count shows the number of records in which both WOOD and WATER occur and the S6 count the number in which either WOOD or WATER occur. The numbers under WOOD and WATER show the number of records in which each word appears. Searches may be further defined by using Boolean operators and parentheses. For example, try the following search:

<table>
<thead>
<tr>
<th>Srch#</th>
<th>Count</th>
<th>Enter your searches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>S7</td>
<td>1</td>
<td>WATER AND (COMPARTMENTS OR ROOMS)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>^73 ^21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>^89</td>
</tr>
</tbody>
</table>

In this case the S7 count shows the number of records in which WATER can be found along with either COMPARTMENTS or ROOMS. Boolean operators and parentheses also may be combined with fields as shown in the following examples. To increase the precision of the search, use the Adjacency feature. That is, use the ADJ operator to indicate that the two words should be next to each other. Several examples follow. In S8 and S11 we are interested in information from the journal called Fire Technology; in S9 we are interested in information about carbon monoxide.

<table>
<thead>
<tr>
<th>Srch#</th>
<th>Count</th>
<th>Enter your searches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8</td>
<td>46</td>
<td>JT=(FIRE ADJ TECHNOLOGY)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>^488 ^77</td>
</tr>
</tbody>
</table>
Following the <Enter> after search S8, the screen will scroll up for each succeeding search until S24 is reached.

<table>
<thead>
<tr>
<th>Srch#</th>
<th>Count</th>
<th>Enter your searches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>S9</td>
<td>4</td>
<td>(CARBON ADJ MONOXIDE) AND TOXICITY/TI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>^63 ^23 ^74</td>
</tr>
</tbody>
</table>

The count for search S8 shows the number of records with the two words FIRE and TECHNOLOGY adjacent to each other in the journal title field. The count for S9 shows the number of records in which CARBON MONOXIDE appear in either the title, abstract, identifier or keyword fields and TOXICITY appears in the TITLE field. Note: Follow this format. If the field (in the example TI) is first, the computer assumes all words are from the same field.

3.4 Search Numbers in the Search Expression

Search numbers may be used in the search expression to accommodate long search expressions or as a means of narrowing a previous search. For example, try the following search using S8 and S6 from above.

<table>
<thead>
<tr>
<th>Srch#</th>
<th>Count</th>
<th>Enter your searches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>S10</td>
<td>13</td>
<td>S8 AND S6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>^46 ^485</td>
</tr>
</tbody>
</table>

This would be equivalent to:

<table>
<thead>
<tr>
<th>Srch#</th>
<th>Count</th>
<th>Enter your searches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>S11</td>
<td>13</td>
<td>(WOOD OR WATER) AND JT=(TECHNOLOGY)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>^433 ^73 ^77</td>
</tr>
</tbody>
</table>

You may use any combination of previously used search numbers along with search statements. For example, try the following search.

<table>
<thead>
<tr>
<th>Srch#</th>
<th>Count</th>
<th>Enter your searches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>S12</td>
<td>2</td>
<td>S8 AND KW=TOXICITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td>^46 ^89</td>
</tr>
</tbody>
</table>
3.5 Wildcard Characters in the Search Expression

The character * (known as the asterisk or star) may be used as a wildcard character (sometimes called a truncation or global character) at the end of a search word. NEVER USE THE WILDCARD CHARACTER AT THE BEGINNING OF A WORD. The use of this character indicates that a hit will occur when any character or string of characters is present in its place. The wildcard character is most commonly used to search for a word in both singular and plural forms and to search for authors whose names may be incomplete. It should be noted that the entire author's name, including initials, is considered as a single word. Therefore, searching the author field for a last name without initials and without the wildcard character will generally result in no hits. The best results for searching an author’s name is to use the last name, followed by a comma, a space, and the first initial followed by the wildcard symbol, as the second initial is not always used. For example, try the following searches.

<table>
<thead>
<tr>
<th>Srch#</th>
<th>Count</th>
<th>Enter your searches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>S13</td>
<td>120</td>
<td>SPRAY* ^120</td>
</tr>
<tr>
<td>S14</td>
<td>16</td>
<td>AU=LEVIN* ^16</td>
</tr>
<tr>
<td>S15</td>
<td>13</td>
<td>AU=LEVIN, B* ^13</td>
</tr>
</tbody>
</table>

Search S13 will find the records with any word or combination of words beginning with SPRAY in the title, abstract, identifier or keyword fields. Search S14 will find the records with authors whose names begin with LEVIN and S15 the records with authors with the last name of LEVIN and the first initial of B. The space after the comma is significant because the author’s name is always entered with the space. Try the following search.

<table>
<thead>
<tr>
<th>Srch#</th>
<th>Count</th>
<th>Enter your searches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>S16</td>
<td>0</td>
<td>AU=LEVIN,B* ^0</td>
</tr>
</tbody>
</table>

Additional information on searching the author field is presented in the next section.
3.6 Using the Index Feature

The index (or directory) contains an alphabetized list of all of the searchable words in the database along with the field in which the words appear. As you might expect, this is a rather large list. The index command allows one to examine selected parts of this list for searchable words.

Use of the index command is made when a search fails to turn up the expected number of hits. By using the index feature you may examine the searchable words in the database and revise the search strategy. To initiate the index feature, press Esc to move to the command line and type:

```
INDEX <Enter>
```

The STAR Index screen is drawn and you are looking at the beginning of the index. The Home and End keys move the display to the top or bottom of the index. The PgUp and PgDn keys move the index display one screen up or down. PgUp and PgDn cannot be used with ProComm. The up and down arrows start the index display scrolling up or down. To stop the scroll, press an arrow key.

You may notice that the index contains numbers and symbols as well as words. There are two commands, Near (N) and Field (F), which allow one to look at a part of the index of interest. The Near (N) command shifts the index display to the area of a given word. For example, try:

```
N FIRE <Enter>
```

The index display moves to those words near fire. The left side of the display shows the field in which the word is found. The Field (F) command limits the display to selected fields. For example, try:

```
N LEVIN <Enter>
F AU <Enter>
```

The first command displays words near the word LEVIN and the second command limits the display to the author field only. We now only see the authors whose names are near LEVIN. The Fields command with no fields indicated returns all fields. If a display is taking too long to create, you may abort the procedure by pressing Esc.

To return to the search screen, type:

```
SEARCH <Enter>
```

If you type MENU, you will lose your previous search expressions and be returned to the STAR Main Menu.
3.7 Using the Command Line

The command line at the bottom of the screen is used to enter commands to the STAR program. To move the cursor to the command line, press Esc. The statement Enter Command will appear. The cursor can be moved back to the search line with an Esc. Thus the Esc acts as a toggle between the search and command lines. An <Enter> is not required after the Esc key.

Below the command line are two lines of acceptable commands. Only Print should not be used. The commands in the first menu line are in upper and lower case and only the upper case letters should be typed to initiate these commands (e.g., Help, Recall, Save). The commands in the second menu line are: Options, Display, Write, Index, MENU. (REMEMBER, this line may not be visible with your communications package.) When you move to other screens in the STAR program, different menus will appear.

To enter a command type the uppercase part of the command name followed by an <Enter>.

The MENU command returns you to the STAR Main Menu. **WARNING!** When you return to the STAR Main Menu all of the search expressions you have entered will be cleared. You may want to wait and try this command later in your session.

The Index command is discussed in Section 3.6.

The Help command (type H <Enter> and then one <Enter>) provides instructions and guidelines on how to use the STAR program. Type E to return to the main search screen. The Help command on some of the screens discussed below has not been implemented and results in no action. If assistance is needed, use the FIREDOC Users Manual or contact the author.

The Print command should **NEVER** be used. This will cause the program to go into an endless wait to send a command to a nonexistent printer. To cancel the command, press CTRL C. See Section 3.11 for a discussion of how to obtain a printed copy.

The rest of the commands will be discussed in the following sections.

3.8 Saving and Recalling Searches

The search expressions created in a session may be saved in a file on the Alpha Micro computer for use at a later time. The program saves only the search expressions and not the search results. To save a search session, move to the command line and type S followed by a title (maximum of six alphanumeric characters) you wish to give the search and an <Enter>. You may later recall the search by this title so be sure to make a note of it. If you type S and no name, the program will ask
for a search name and place it in the upper right corner of the screen. Because of the limited space available in the computer, all saved searches will be deleted by 9:00 AM each Friday. After saving the current search expressions you may clear the current search by returning to the STAR Main Menu and then select 11 SEARCH FIREDOC <Enter> to begin a new session with S1. An example save command is:

```plaintext
S SMITH1 <Enter>
```

To recall a previously saved search session type R followed by the name with which it was saved. This will clear any existing search expressions and retrieve the saved expressions. An example recall command is:

```plaintext
R SMITH1 <Enter>
```

The search will scroll through on the screen and then return to the top of the search screen.

### 3.9 Displaying the Search Results

The Display command is used to list on the screen the references or hits from a search expression. Move to the command line by pressing the Esc key and type the following display command to view the results of search S10 above.

```plaintext
D S10 BIB1 <Enter>
```

The D in the command is for Display, the S10 the search number, and BIB1 is the format of the display. The screen will be redrawn and the information for each of the hits in the search will be written on the screen. To continue Display in ProComm, you press the down arrow key. (If you press the <Enter> key, the scrolling will stop and the last reference will appear. To start and stop the display, use the appropriate arrow keys. To abort the display, in the Command line type E <Enter> while the display is paused. The use of some communications packages will result in the display pausing at the end of each screen. To continue, press the down arrow key. From time to time you may see a line full of the symbol ^ ^ ^ in the display. This indicates the end of a page. When the display is complete, the cursor moves to the command line. To return to the search screen, type E for End.
There are four formats and the information which would be displayed for each is given below.

Example:

**FIREDOC Users Manual. Revised.**

Format: \( BIB_1 = \) Title of work and book/conference proceeding title
if appropriate

Example:

**Jason, N. H.**

**FIREDOC Users Manual. Revised.**
National Bureau of Standards, Gaithersburg, MD
Available from National Technical Information Services
PB90-271800

Format: \( BIB = \) Author(s); title of work; corporate source; journal title; report number;
pages; publication date; distribution; order number

Example:

**Jason, N. H.**

**FIREDOC Users Manual. Revised.**
National Bureau of Standards, Gaithersburg, MD
Available from National Technical Information Services
PB90-271800
information retrieval; fire research; information
dissemination; databases; manuals
information transfer

FIREDOC is the on-line bibliographic database which reflects the holdings
(published reports, articles, books, and audiovisual items) of
the Fire Research Information Services (FRIS), at the Center
for Fire Research, National Bureau of Standards. This manual
provides a step-by-step technique for entering and exiting the
database via telecommunication lines, as well as a number of
techniques for searching the database and processing the results
of the searches.

Format: \( BIB_2 = \) Author(s); title of work; date; corporate source(s); sponsor(s); date of
publication, journal title; report number; Library of Congress book
number; distribution; order number; language; contract number;
keyword(s); identifier(s); abstract.
Example:

Jason, N. H.

National Bureau of Standards, Gaithersburg, MD
Available from National Technical Information Services
PB90-271800

Format: PUBL = Author(s); title of work; corporate source(s); date of publication;
journal title; report number; Library of Congress book number; distribution;
order number; language; contract number.

With some practice you may be able to shorten the display command using the following rules. If
you omit the format then the most recent format you have selected will be used. If it is the first
display, then BIB1 is used. If you type D only then all hits of the most recent search will be displayed
and the most recent format you have selected will be used.

3.10 Using the Options Command

The Options command is used to examine the display and to write and to modify the formats if
desired. To view the options screen, move to the command line and type O <Enter>. An example
of the options screen is shown below.

Search (Record Set): S13
Report Format Name: BIB1
Output Fields: TI BC
Sort by: 
Page Format: SORTBIB1
Report Title: SMITH 01/10/91 14:33
Printer Name: HP
Disk File Name: SMTH1.LST

Using the cursor movement keys, the display options may be displayed as desired. The "Search
(Records Set)" is the number of the search expression. The Report Format Name may be either
BIB1, BIB, BIB2 or PUBL. If Report Format is to be changed, type in the new format and the
output fields will change to reflect the new format. The "Sort by" may remain blank (see Section
5.2 Advanced Display/Print Techniques if you are an experienced user) and the "Page Format" name should remain SORTBIBI. The Report Title will be included at the top of each displayed or printed page and may be modified as desired. The printer name refers to a printer connected directly to the Alpha Micro computer and cannot be altered. The "Disk File Name" will be discussed in the next section.

To return to the search screen, move to the command line and type:

E <Enter>.

3.11 Obtaining Printed Copies of Search Results

The Write command (***NEVER*** Print) is used to obtain a printed or disk copy of the search results. The STAR program contains no direct provision to log the display directly to the PC's printer or disk. To obtain a printed copy of the search results, you must write the search results to a file on the Alpha Micro Computer, remove the control characters from that file, transfer that file to your PC and print out that file. The following steps must be followed to obtain a printed copy of the search results.

After you have completed a search expression and you want printed results, press Esc to move the cursor to the command line and enter the Options command. Type

1. O <Enter>

As discussed in the options command section, ensure that the proper search and format have been selected.

2. Check format options

Move the cursor to the "Disk File Name" field. You will see a file name which begins with your User ID followed by .LST. The search results should be sent to a unique file name. Normally one will use his/her surname or some variation. For example, if your user ID is USER when you first look at the options screen, the file name USER.LST will appear. If your surname is SMITH you might use SMTH1.LST. The file name, that is, that part before the .LST, must be no more than five alphanumeric characters (letters and numbers). If several sets of search results are sent to the same file the results will be stacked in the file. Normally these files will be deleted each Friday so you may reuse your file name each week. If you need to write to a file several times in a week then you should vary the file name. Be sure you note the file names you have used as you will need to know them later. When you have completed the options you wish to change, press Esc to return to the command line.
3. Write output

To write the search results to a file, press Esc to go to the command line, then type W <Enter>. The program will display the status of the writing and the cursor will return to the command line when it is complete. Writing the results of a search is different than saving the search expressions with a Save command. The Write command writes the information which you see using the Display command to a file, while the Save command retains the search expressions in a file for retrieval with the Recall command.

When the writing is complete, type E <Enter> to return to the search screen. If you wish to conduct any additional searches, to save your search expressions or to display or to write your search results, these activities should be completed before moving to the next step which will clear all of your search expressions.

4. E <Enter>

Move to the command line and type MENU <Enter> to return to the STAR Main Menu.

5. MENU <Enter>

The response is STAR Session Ended.

You are back at the STAR Main Menu.

You must now remove the control characters from the file you wrote to before transferring that file to your PC. To remove the control characters you will use the routine CLNCPY. From the File Transfer section of the menu select:

6. 41 CLNCPY FILE <Enter>

In your case the oldfilename is the file name you wrote to, which in the example above was SMTH1.LST. The newfilename should be the same as the oldfilename with TXT substituted for LST. In our example the command becomes:

   Old file specification:   SMTH1.LST
   New file specification:   SMTH1.TXT

The response is:

   Copying SMTH1.LST to SMTH1.TXT
   Copy Complete. STAR heading line removed.
   X control characters removed.

Where "X" is the actual number of control characters removed. At the bottom of the screen the response is:

   Type CR to return to the menu. <Enter>
4. TROUBLESHOOTING

1. If, when you first try to logon to the Alpha Micro, you receive a series of strange characters, check your communications parameters and modem type carefully.

2. If you receive a message that the STAR system is not active, and it is within the operating hours schedule, the system may need to be activated. Telephone 301/975-6860 and inform the FRIS staff of your problem.

3. If you have not set your terminal emulator at TV950 or selected the correct communication parameters, you will receive meaningless characters on the screen. Return to the communications package to be sure that you did the setup correctly.

4. If you have entered STAR with the wrong terminal driver installed, the screens may be displayed in an unreadable manner. To exit STAR, and reset the driver, press Esc, then type MENU <Enter>, and then press 61 TV95X or type 61 at the blinking cursor. Next, press 11 SEARCH FIREDOC or type 11 at the blinking cursor.

5. If the cursor is in the middle of a blank screen or a search strategy, press Esc and in the Command line type MENU to return to the Star Main Menu and select 11 SEARCH FIREDOC.

6. If you have selected 11 SEARCH FIREDOC from the Menu and an almost blank screen appears, press Esc and in the Command line type MENU. At the Star Main Menu select 61 DRIVER TV 95X. Reselect 11 SEARCH FIREDOC.

7. If, during a session, the screen begins to flash and you cannot read the display, the communications program is out of synchronization with STAR. Although this rarely happens, it is possible to synchronize the two programs by returning to the STAR Main Menu, then to 11 SEARCH FIREDOC, and back to the STAR Main Menu. You will, however, clear the searches you have already entered.

8. If you have initiated an improper search, for example *WOOD, the system will attempt to search the entire database for a "match". To stop the search, press CTRL C.

9. If you are in ProComm and the Display is not advancing, press the down arrow key twice.

10. If you are at the STAR Main Menu and press ? of type Help and you get an almost blank screen, press Esc to return to the STAR Main Menu.
5. ADVANCED TECHNIQUES

There are many ways to save time when you are searching FIREDOC and also, some interesting ways to present your results. Listed below are some examples of things you can do:

5.1 Advanced Searching Techniques

1. Search for multiple authors:

   Enter your searches:
   \[ AU = (EVANS, D^* \ OR \ BUDNICK, *) \]
   \[ ^{62} \quad ^{18} \]

2. To search for an editor (use the formats noted below until the database has been corrected):

   \[ ED = JASON, N^* \ OR \ ED = JASON^* \]
   \[ ^{56} \quad ^{59} \]

   S2 also may be written as:

   \[ ED = (JASON, N^* \ OR \ JASON^*) \]
   \[ ^{56} \quad ^{59} \]

3. To narrow the search, but not knowing the specific years, range the numbers:

   \[ S1 AND PY = 1990:1991 \]
   \[ ^{100} \quad ^{1127} \]

4. Search for title words next to each other and an author:

   \[ TI = (CARBON \ ADJ \ MONOXIDE) \ AND \ AU = LE^* \]
   \[ ^{106} \quad ^{105} \quad ^{567} \]

5. Search for a report number:

   \[ RN = NISTIR \ 4441 \]
   \[ ^{1} \]

   S5 also may be written as:

   \[ RN = "NISTIR \ 4441" \]

The quotation marks tell the computer that the format may not be exactly as written, and it will increase your ability to recall a report number.
6. Search for a report number with partial information:

S6 5 RN=NIST-GCR-88* ^5

7. Search for papers by authors from Japan presented at a conference called UJNR.

S7 162 CS=(JAPAN OR JAPANESE) AND BC=UJNR ^863 ^15 ^306

S7 also may be written as:

S7 162 CS=JAPAN* AND BC=UJNR ^872 ^306

Caution is always advised when truncating a word, as you want to obtain meaningful information. There were more Corporate Source references, but the conference called "UJNR" limited the results and the net result is the same in either search. This is not always the case.

8. Search for an official keyword from the FIREDOC Vocabulary List.

S8 375 KW=SPRINKLER SYSTEMS ^375

Caution is advised when narrowing a search by keyword(s) as not all documents are indexed in-depth.

9. Other ways of searching for keyword(s):

S9 142 KW="BURNS (INJURIES)"
S10 2 KW=FT-IR

10. Combine a number of search statements. This is particularly useful if you have OR'd many synonyms together.

S11 107 S1:S4
5.2 Advanced Display/Print Techniques

Now we will look at different ways of presenting search results. All of the work is done in the Report Options screen. To go there after you have completed searching, press Esc and in the Command line press O. You should only adjust the following fields on the screen: Search (Record Set); Report Format Name; Output Fields; Sort by.

In our example, we want to Display the five references in S5. We want the authors to be arranged alphabetically, and only the author(s), title(s), corporate source and report number(s) to be listed. After making the necessary additions and deletions, the Report Screen will then look like:

- **Search (Record Set):** S5
- **Report Format Name:** PUBL
- **Sort by:** AUX

PUBL is discussed in Section 3.9. AUSB/S is the command to the computer to highlight in bold (this feature may not be possible with all computers). The numbers within the brackets are the spacing on the page. AUX is the combined author field and the Sort only will be by the first author of the reference; TI is the report title (if you are doing a book or conference proceedings title, the field is BC); CS is the corporate source or the name of the author's company; RN is the report number.

If you continue to search, remove the Sort by: command. To return to the STAR Screen, press Esc and type E <Enter>. When you are ready to Display again, it is recommended to initiate a new command.

6. ACKNOWLEDGEMENTS

Special appreciation and recognition is due Messrs. W. Douglas Walton, Emil Braun and Richard D. Peacock. Their contributions to the creation and testing of the Manual has been enormous. Craig Beyler (Hughes Associates, Inc.) identified the Macintosh software, DynaComm, and wrote the Appendix so other Mac users could use and enjoy FIREDOC. The efforts of other BFRL and NIST staff also are gratefully acknowledged, in addition to the users in the international fire community.

7. REFERENCES

APPENDIX A: BOOLEAN OPERATORS

You may use the three Boolean operators: AND, OR, NOT. Their function is depicted in the Venn diagrams noted below.

<table>
<thead>
<tr>
<th>Search Expression</th>
<th>Venn Diagram</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A AND B</td>
<td><img src="image" alt="Venn Diagram" /></td>
<td>the shaded part represents those records that contain BOTH terms</td>
</tr>
<tr>
<td>A OR B</td>
<td><img src="image" alt="Venn Diagram" /></td>
<td>the shaded part represents those records that contain EITHER term, including records that contain both terms</td>
</tr>
<tr>
<td>A NOT B</td>
<td><img src="image" alt="Venn Diagram" /></td>
<td>the shaded part represents those records that contain TERM A but not TERM B.</td>
</tr>
</tbody>
</table>
APPENDIX B: ABBREVIATIONS, COMMANDS, DISPLAY/PRINT FORMATS

Search field abbreviations:

AB  abstract
AU  author
BC  book title or conference proceeding title, location, date(s)
CN  contract number
CS  corporate source, or where the author(s) works
ED  editor
ID  identifier
JT  journal title
KW  keyword(s) from the FIREDOC Vocabulary List
LA  language (other than English)
ON  order number
PL  place of conference
PUB publisher
PY  year of publication of work
RN  report or book number
SP  sponsor, or who paid to have the work done
TI  title of report or journal article

Commands:

To move to the command line, press  Esc

To clear all search expressions, type the command MENU <Enter>.

A Sample display command is: D S1 BIB

To pause and restart the display, use up or down arrow keys

To abort the display, press Esc, and then type E <Enter>.
Display/Print formats. [These are unique groupings, solely for this purpose.]

BIB1 = Title of work and book/conference proceeding title
      if appropriate. [It appears as: TI BC]

BIB = Author(s); title of work, journal title, report number(s), page(s), publication date.
      [It appears as: AUX[5,60] TI CITE CITER CITEC CITEC1 DI ON]

BIB2 = Author(s); title of work; date; corporate source(s); sponsor(s); date of publication;
       journal title; report number(s); Library of Congress book number; who can access the
       document; order number; language, if not English; contract number; keyword(s);
       identifier(s); abstract.
       [It appears as: AUX[5,60] TI CITE CITER CITEC CITEC1 DI ON LA CN KW ID AB]

PUBL = Same content as BIB but formatted differently; the first author is at the
       far left margin and may be highlighted. The numbers within the brackets
       are column locations and can be adjusted.
       [It appears as: AUSB/S [5,60] AUX[15,60] TI[15,60] CS[15,60] CITE [15,60]
       CN[15,60] ]
APPENDIX C: DESIGNATION AND USE OF KEYS ON PC KEYBOARD

FUNCTIONS KEYS

<table>
<thead>
<tr>
<th>Key</th>
<th>Name</th>
<th>Operation</th>
<th>Resultant Action(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter</td>
<td>enter or carriage return</td>
<td>press</td>
<td>enters command; moves to return to following line</td>
</tr>
<tr>
<td>ESC</td>
<td>escape</td>
<td>press</td>
<td>moves cursor to command or search line; aborts search procedure</td>
</tr>
<tr>
<td>Home</td>
<td>home</td>
<td>press</td>
<td>moves Display to top of list (index)</td>
</tr>
<tr>
<td>Alt</td>
<td>alternate</td>
<td>press</td>
<td></td>
</tr>
<tr>
<td>Ctrl</td>
<td>control</td>
<td>press</td>
<td></td>
</tr>
<tr>
<td>End</td>
<td>end</td>
<td>press</td>
<td>moves display to bottom of list (display)</td>
</tr>
</tbody>
</table>

EDITING KEYS

<table>
<thead>
<tr>
<th>Key</th>
<th>Name</th>
<th>Operation</th>
<th>Resultant Action(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Del</td>
<td>delete</td>
<td>press</td>
<td>deletes character under cursor</td>
</tr>
<tr>
<td>Backspace</td>
<td>backspace</td>
<td>press</td>
<td>deletes character to left of cursor</td>
</tr>
<tr>
<td>PgUp</td>
<td>page up</td>
<td>press</td>
<td>ProComm: Download protocols; others: moves displays up one page</td>
</tr>
<tr>
<td>PgDn</td>
<td>page down</td>
<td>press</td>
<td>ProComm: Download protocols; others: moves display one page</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>moves cursor in direction noted</td>
</tr>
</tbody>
</table>

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APPENDIX D: DYNACOMM PROCEDURES

DynaComm is a communications and terminal emulation software package developed for the Macintosh by Future Soft Engineering, Inc., 1001 South Dairy Ashford, Suite 203, Houston, TX 77077, 713/496-9400.

Install DynaComm on your Mac following the instructions given in the manual. The following parameters should be set using the Settings pull down menu:

Phone number: 1-301-948-4997 or 1-301-948-4998  
Terminal Emulation: TeleVideo 925/950  
Communications: 1200 baud (or 2400 baud), 8 data bits, 1 stop bit, no parity, flow control: Xon/Xoff

Other settings are dictated by the modem in use. Save the settings using the Save command, using an appropriate file name like, FIREDOC COMM.

RUNNING DYNACOMM:

1. Double click the FIREDOC COMM icon (or whatever file which contains the communications setting).

2. Select Dial in the Phone pull down menu (or enter atdt 1-301-948-4997 or atdt 1-301-948-4998)

The host computer upon answering the telephone responds:

    CONNECT 1200 or  CONNECT 2400

Type

3.  <Enter>

The host computer responds:

    User ID:

4. Type the assigned User Identification number  <Enter>

The host computer responds:

    Password:

5. Type the password <Enter>  . The typed Password will not appear on the screen.

The STAR Main Menu will appear.
HOW TO SAVE YOUR SEARCH RESULTS

When you have completed your search and have successfully removed all of the control characters from the search (see Section 3.11), you are ready to download it onto your personal computer. After completing 41 CLNCPY you should be at the STAR Main Menu. Select

22 TYPE A FILE <Enter>

1. At the prompt type the name of the cleaned copy of your search created using CLNCPY.

2. Select the Receive Text File Command in the Transfers pull down menu.

3. Type in the name of the file to receive the search results in the dialog box and select the receive button.

4. When the screen returns to the STAR Type File screen, press <Enter> and the file will be displayed and transmitted to the file you specified.

5. When the search has been displayed, click the stop button to close the file.

If the resulting file is greater than 32K, DynaComm will not be able to display its full contents after receiving the file. However, the file is an ASCII text file and can be opened and read using many text editors and word processors.

HOW TO EXIT FIREDOC and DYNACOMM

1. Type

    MENU <Enter>

to return to the STAR Main Menu.

2. Select 31 LOGOUT or type

    31 <Enter>.

3. When asked to logon, select Hang up from the Phone pull down menu.

4. To exit DynaComm, select Quit from the File pull down menu.
APPENDIX E: PROCOMM PROCEDURES

ProComm is a user supported product produced by Datastorm Technologies, Inc. The address is: Datastorm Technologies, Inc., P. O. Box 1471, Columbia, MO 65205. The 24-hour, 7 days per week hotline is: 314/443-3282.

Install ProComm on your computer using the information provided in the ProComm documentation. To set the parameters in ProComm start the program by typing:

1. PROCOMM <Enter>

ProComm responds with an initial screen. Press any key to continue. The next several steps will set up ProComm to interact with the AlphaMicro computer using STAR. Press

2. Alt S 1 <Enter>

To initiate the modem setup. It should appear as:

1. Modem init string .... ATE0 S7=60 S11=55 V1 X1 S0=0!
2. Dial command ..... ATDT (for touch tone) or ATDP (for dial telephone)
3. Dialing cmd suffix ... !
4. Connect string ...... CONNECT
5. No connect string 1 .. BUSY
6. No connect string 2 .. VOICE
7. No connect string 3 .. NO CARRIER
8. No connect string 4 ..
9. Hangup string .......... "++"ATH0!
10. Redial timeout delay . 30
11. Redial pause delay ... 2

Use Esc to exit then select:

3. 2 <Enter>

For the terminal setup. It should appear as:

1. Terminal emulation ... TVI 950
2. Duplex ................ FULL
3. Flow control ......XON/XOFF
4. CR translation (in) .. CR
5. CR translation (out) . CR
6. BS translation ......DEST
7. BS key definition ... BS
8. Line wrap ..........OFF
9. Scroll ............ON
10. Break Length (ms) ... 350
11. Enquiry (CTRL-E) ..... OFF

Use Esc to exit. You may save the setup to disk for future use by pressing S. Use Esc to exit the setup menu. Press:

4. Alt P

For Line Settings.

Select:

8) 1200,N,8,1 OR 12) 2400,N,8,1

COM port where your modem is connected
24 if you wish to save the line settings for future use

Press Esc to exit.

You are now ready to start the dialing sequence. Press:

5. Alt D

To include the FIREDOC information in the dialing directory, press:

6. R <Enter>

The FIREDOC telephone number is 301/948-4997 or 301/948-4998. The other parameters are:

<table>
<thead>
<tr>
<th>baud</th>
<th>1200</th>
<th>OR</th>
<th>baud</th>
<th>2400</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>N</td>
<td></td>
<td>P</td>
<td>N</td>
</tr>
<tr>
<td>D</td>
<td>8</td>
<td></td>
<td>D</td>
<td>8</td>
</tr>
<tr>
<td>S</td>
<td>1</td>
<td></td>
<td>S</td>
<td>1</td>
</tr>
<tr>
<td>E</td>
<td>N</td>
<td></td>
<td>E</td>
<td>N</td>
</tr>
</tbody>
</table>

The modem dial cmd may require changing to accommodate tone or pulse dialing. For other than Hayes compatible modems see your modem manual for information. Press the correct directory number and then press <Enter>. The computer responds (all computer responses are underlined):

Dialing FIREDOC CONNECT 1200 OR Dialing FIREDOC CONNECT 2400

<Enter>

OR

<Enter> <Enter>
You are at the Login screen where you type in your User ID and the Login Password (this will not appear on the screen). If you have typed correctly, the next screen will be the FIREDOC search screen, Figure 2. If the correct User ID and Login Password are not provided, the Login screen will continue to be displayed and you will not be able to search FIREDOC.

HOW TO SAVE YOUR SEARCH RESULTS

When you have completed your search and have successfully removed all of the control characters from the search (see Section 3.11), you are ready to download it onto your personal computer. Press Esc to return to the command line and type MENU. You are returned to the STAR Main Menu. Select

22 TYPE A FILE <Enter>

The response is:

******************************************************************************Type a file******************************************************************************
Display a file on the terminal
******************************************************************************

1, File to display: SMTH1.TXT
then, you press

2. PgDn

Select 7, and then type the destination file name. For example, if you want the file to go to disk C, you would type: C: SMTH1.TXT. Press <Enter> twice to start the file transfer. When complete, press

3. Esc to terminate the ProComm download

and the computer responds:

Type CR to return to menu <Enter>

NOTE: If the wrong search is downloaded; press CTRL C to stop the search and return to the STAR Main Menu to repeat 22 TYPE A FILE.

HOW TO EXIT FIREDOC and PROCOMM

If you wish to exit STAR, at the STAR Main Menu, select

1. 31 LOGOUT <Enter>

30
You are returned to the LOGIN screen. If you want to continue searching, you must repeat the login process with the User ID and Login Password.

However, if you wish to exit ProComm at this time, press:

2. Alt H  (to hang up the telephone)

3. Alt X

At this point ProComm asks if you want to:

4. EXIT DOS? (Y/N)

Press:

5. Y <Enter>

to leave ProComm.

Your file is now in your personal computer and ready for editing and/or printing.
**FIREDOC Users Manual, 2nd Edition**

**Author(s):** Nora H. Jason

**U.S. Department of Commerce**
**National Institute of Standards and Technology**

**BIBLIOGRAPHIC DATA SHEET**

**Title and Subtitle**

FIREDOC is the on-line bibliographic database which reflects the holdings (published reports, articles, books, and audiovisual items) of the Fire Research Information Services (FRIS), at the Building and Fire Research Laboratory, National Institute of Standards and Technology. This manual provides a step-by-step technique for entering and exiting the database via telecommunication lines, as well as a number of techniques for searching the database and processing the results of the searches.

This Second Edition incorporates changes from a recent STAR software upgrade, a section of Advanced Techniques and procedures for using FIREDOC with an IBM PC, XT, AT and compatible computers and with a Macintosh computer.

**Key Words**

- databases
- fire research
- information retrieval
- information dissemination
- manuals

**Availability**

- Unlimited
- For official distribution. Do not release to National Technical Information Service (NTIS).

**Price**

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**Number of Printed Pages**

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