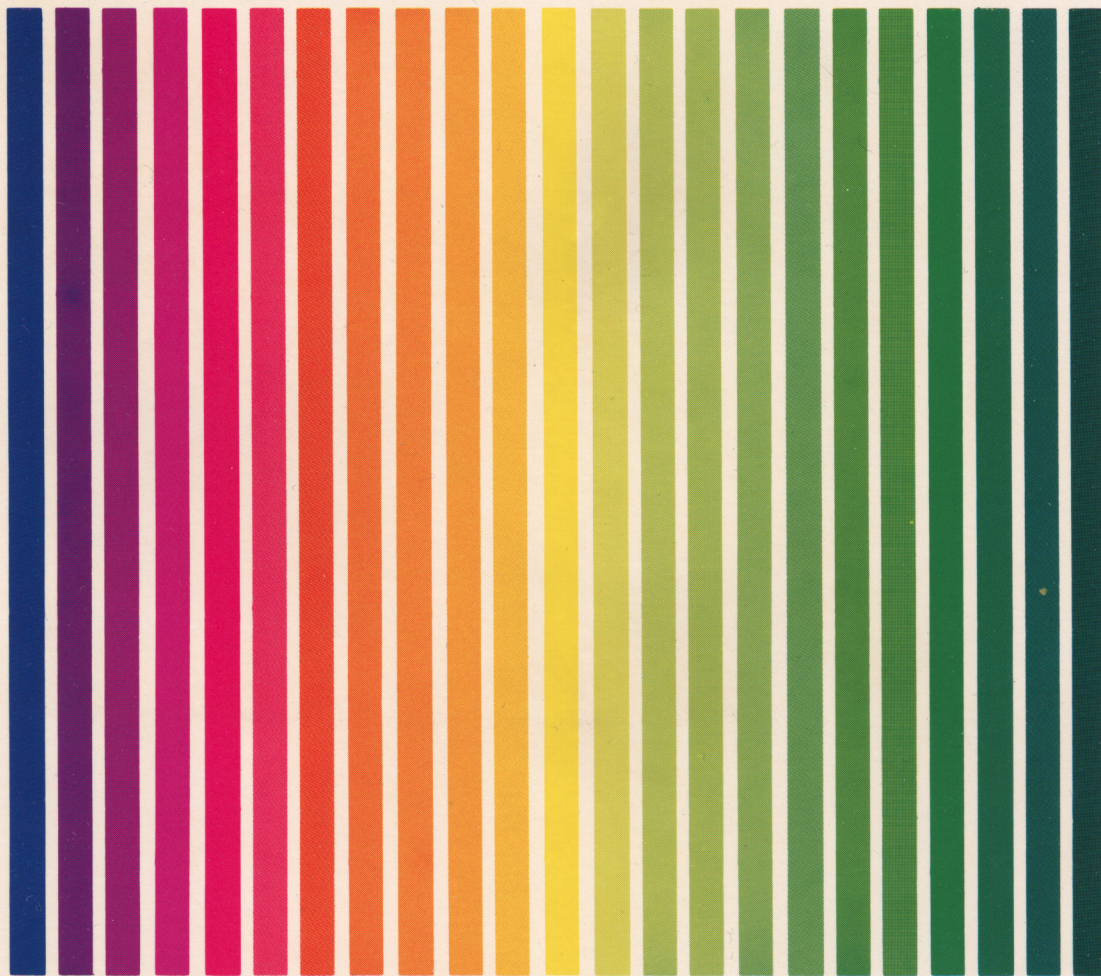


# APX ATARI® PROGRAM EXCHANGE



Ingrid Langevin

## FOG INDEX

Use the FOG Index to analyze text readability

Diskette: 32K (APX-20185)

User-Written Software for ATARI Home Computers

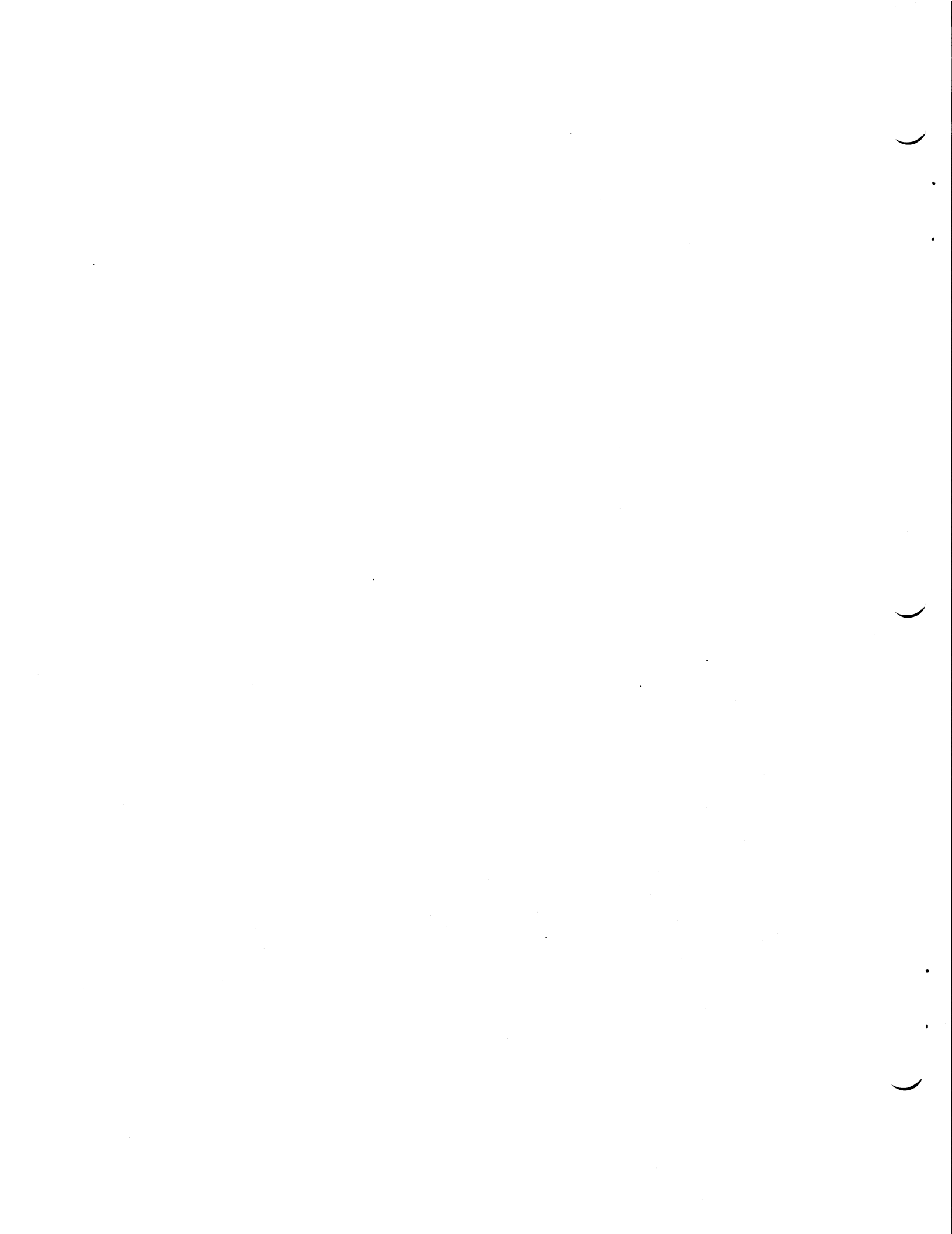


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Use the FOG Index to analyze text readability

Diskette: 32K (APX-20185)



# FOG INDEX

by

Ingrid Langevin

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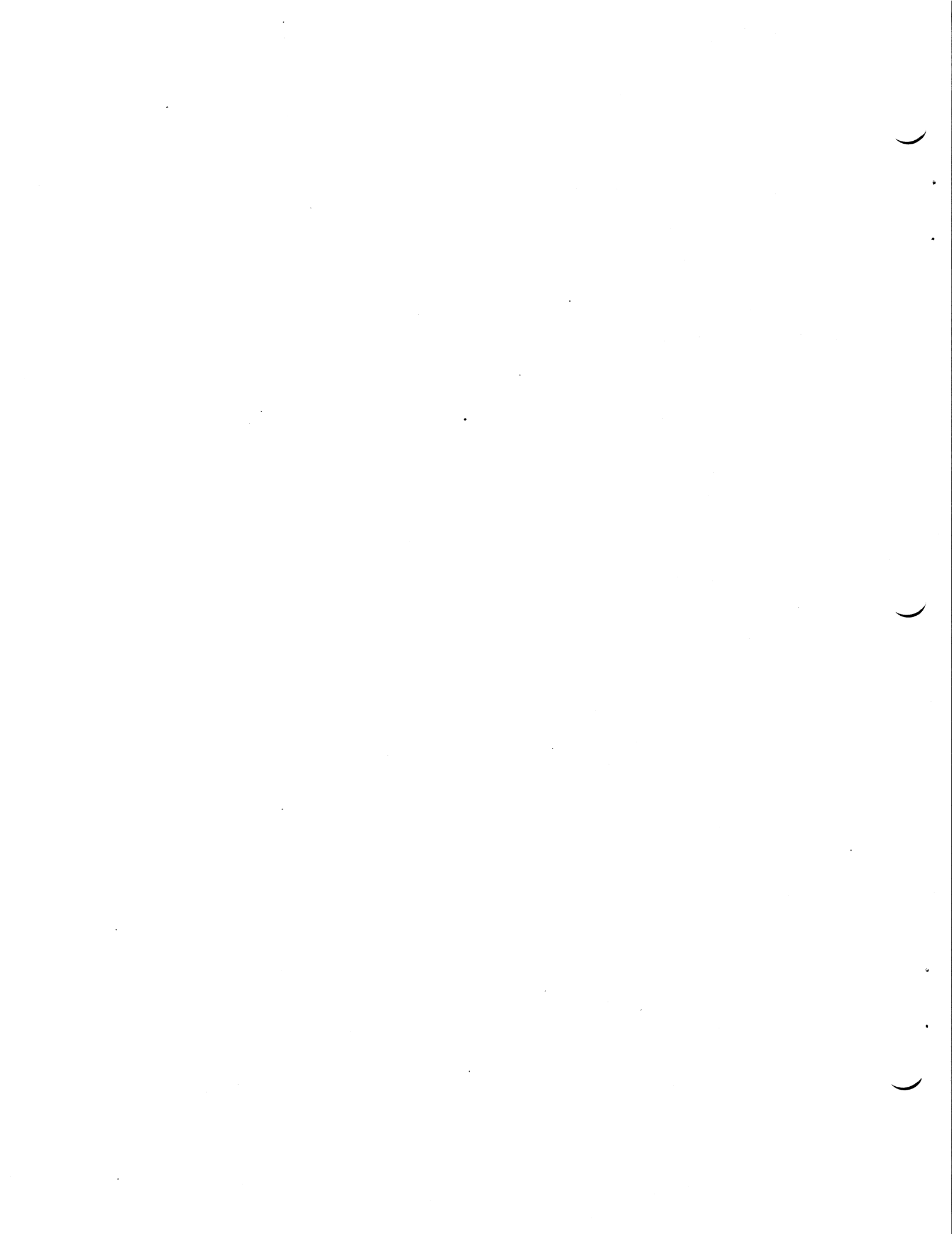
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# INTRODUCTION

## OVERVIEW

FOG INDEX uses the Gunning FOG Readability Formula, based on syllabification and number of words in a sentence, to analyze the reading level of text.

This easy-to-use program loads directly into computer memory and then prompts you for all of the information needed to analyze your text file. The amount of time required to analyze a 100-word sample varies with the length of the words in the sample; it can take between 1.5 and 2.5 minutes. Each word displays on your TV screen as the the program analyzes it, along with the total number of words read and the number of "big words" (according to the FOG definition). A printing option lets you print both a list of the "big words" and the readability statistics of the sample.

A text entry program, resembling an elementary word processor, is included in the program so that you can type in a 100-word text sample for analysis instead of using text stored on tape or diskette. You can also analyze text files created and stored on tape or diskette by word processors that use the ATARI Disk Operating System (DOS). Word processors found to be compatible with FOG INDEX are the ATARI Word Processor, the ATARI Program-Text Editor(tm), and Text Wizard(tm).

## REQUIRED ACCESSORIES

32K RAM  
ATARI 810 Disk Drive  
ATARI BASIC Language Cartridge

## OPTIONAL ACCESSORIES

ATARI 825 80-Column or equivalent printer  
ATARI Word Processor (CX404)  
ATARI Program-Text Editor (APX-20075)  
Text Wizard

## CONTACTING THE AUTHOR

Users wishing to contact the author about FOG INDEX may write to her at:

927 15th Street NW  
Suite 1012  
Washington, DC 20005

## GETTING STARTED

### LOADING FOG INDEX INTO COMPUTER MEMORY

1. Insert the ATARI BASIC Language Cartridge in the (left) cartridge slot of your computer.
2. Turn on your disk drive.
3. When the BUSY light goes out, open the disk drive door and insert the FOG INDEX diskette with the label in the lower right-hand corner nearest you.
4. Turn on your computer and your TV set.
5. FOG INDEX will automatically load into computer memory.
6. If you plan to use the printer option, turn on your printer and ATARI 850 Interface Module, making sure the printer is in ONLINE mode.

## USING FOG INDEX

### SELECTING YOUR OPTIONS

When the FOG INDEX program has loaded into computer memory, the title screen displays:

```
FOG INDEX  
  
ATARI PROGRAM  
EXCHANGE  
  
(C) INGRID LANGEVIN  
  
PRESS START TO BEGIN
```

Press the START button.

Entering text or specifying a stored text file

Now the display changes to:

```
MAIN MENU  
  
ENTER THE NUMBER CORRESPONDING TO YOUR SELECTION:  
  
(1) RUN THE FOG TEST  
(2) ENTER TEXT
```

To enter text, type 2 and press the RETURN key, and then turn to the section titled CREATING TEXT FILES for further instructions.

To analyze a text file stored on either cassette or diskette, type 1 and press the RETURN key. (Note. Pressing the RETURN key will henceforth be indicated by the notation [RETURN].)

Next the computer asks you where your text file is stored:

```
TEXT SELECTION MENU  
  
PLEASE ENTER THE NUMBER CORRESPONDING TO THE KIND  
OF TEXT FILE YOU WANT TO ANALYZE:  
  
(1) DISK  
(2) CASSETTE  
(3) IMMEDIATE MODE  
(4) RETURN TO MAIN MENU
```

If your file is stored on cassette, type 2 [RETURN]. Insert your tape in the program recorder and make certain it is rewound to the beginning. Then push the PLAY button on your program recorder and press RETURN on your computer. Analysis of your text file will begin at once.



Analysis of a file on cassette requires more time than analysis of a diskette file because of the slower access time for cassette.

If your file(s) are on a diskette, type 1 [RETURN]. The computer will ask you into which drive you will insert your text file diskette and then prompt you to do so. FOG INDEX lets you analyze anywhere from one to thirty diskette files (on one diskette) in sequence automatically. You do so by entering the file names, one after another, in response to the program's prompts and then turning on your printer and interface module. The computer can analyze the series unattended. All files in a series must be on the diskette you've placed in the indicated drive. FOG checks each text file name you enter to make certain it's on the diskette. If it can't find a text file, the program displays a message informing you of this fact.

#### Specifying sample size

Each time FOG INDEX locates a specified file on the diskette, the program asks you to indicate how many words you want to include in the sample. The message reads:

At this time, you may choose the  
number of words to include in the sample.

To do so, type the number corresponding  
to your selection and then press RETURN.

- (1) 100 words
- (2) More than 100 words
- (3) The entire file

After you make your selection, FOG INDEX asks you to enter the name of the next file you want analyzed. When you've entered the last name, type DONE [RETURN].

#### Specifying printed output

Next, the program asks whether you want printed output. The message is:

DO YOU WANT A PRINTED COPY OF THE  
BIG WORDS AND READABILITY STATISTICS? (Y/N)

Type Y [RETURN] if you want printed output, or N [RETURN] if you don't. Analysis of your text file(s) then begins.

## ANALYSIS DISPLAY SCREEN

As the program starts checking the text, the screen display looks like this:

CURRENT WORD	BIG WORDS
events	1

NOW ANALYZING WORD 4

This display means that the program is now analyzing the word "events", which is the fourth word in the text, and that so far it has found one FOG "big word" in the sample.

## EXCLUDED WORDS

FOG excludes from syllabification capitalized words that aren't located at the beginning of a sentence or following a colon. These words are considered proper nouns and are included in the computation of sentence length but not in the computation of Factor 1. (For more information on the FOG formula, see COMPUTATION OF THE FOG INDEX.)

## SAMPLE BIG WORD LIST

An example of the list of "Big Words" from the file LINCOLN.TXT, included as a sample text file, is as follows:

### LIST OF BIG WORDS IN D1:LINCOLN.TXT

continent  
liberty  
dedicated  
proposition  
dedicated  
battlefield  
dedicate  
altogether

## ENDING THE ANALYSIS

The program stops reading words as soon as any of these conditions occurs:

1. It reaches the end of the file.
2. It reaches the end of the sentence containing the hundredth word, if you chose to analyze a 100-word sample.
3. It reaches the end of the sentence containing word X if you chose to analyze a sample of X words.

## THE READABILITY STATISTICS

The readability statistics table for the sample file LINCOLN.TXT looks like this:

### READABILITY STATISTICS

```
-----  
Name of file:  D1:LINCOLN.TXT  
Total number of words read: 101  
Number of words in sample: 101  
Number of sentences in the sample: 5  
Average sentence length: 20.2  
Average word length (letters): 4.4  
Number of Big Words: 8  
FOG INDEX: 11
```

## ANALYZING ANOTHER FILE

If you chose the printer option, the computer automatically moves to the next text file in your series, since the statistics will print for further study. If you didn't choose the printer option, press the RETURN key when you're finished studying the statistics and want to proceed to the next file.

## ENTERING TEXT INSTEAD OF USING A STORED FILE

If you're using the FOG text entry program to enter text but you want to save your work on diskette or cassette as well as have them analyzed immediately, follow these steps:



1. Choose option (2) ENTER TEXT from the main menu.
2. On the text entry menu, choose (1) to store your file on diskette, or (2) to store it on cassette.
3. Enter and edit your text, and then press CTRL-S. FOG INDEX will save your text on diskette or cassette and return you to the main menu.
4. Choose (1) RUN THE FOG TEST from the main menu.
5. On the FOG test menu, choose (3) IMMEDIATE MODE.

# CREATING TEXT FILES

## INTRODUCTION

You can create text files for FOG INDEX in two ways. First, you can enter the text using any word processor that works with ATARI DOS. If you already have a text file created by a word processor that you want to analyze, please refer to the instructions in the previous section, USING FOG INDEX.

If you don't have a word processor, you can create a text file using the text entry program within FOG INDEX by choosing option 2, ENTER TEXT, from the main menu. A menu of options for saving your sample then displays:

PLEASE ENTER THE NUMBER CORRESPONDING TO WHERE  
YOU WANT TO STORE YOUR TEXT FILE:

### STORAGE MEDIUM MENU

- (1) DISK
- (2) CASSETTE
- (3) IMMEDIATE MODE
- (4) RETURN TO MAIN MENU

If you don't want to save your sample, but simply want it analyzed, choose option 3 for immediate mode. The program then asks you to assign a name to your sample; this is for identification purposes, and will be displayed in the readability statistics. In this way, by choosing immediate mode and the printer option, you can obtain a printed copy of the "big words" and the readability statistics in the sample for permanent reference.

## TYPING THE SAMPLE

As soon as you've made your selection, the screen changes color and a diamond appears in the upper left-hand corner, indicating you can now enter text. The computer switches to lower case at this time, so you'll need to press the SHIFT key to type capital letters. Enter your text normally. To conserve space on the screen, words will wrap from one line to the next. Paragraphs have no significance for the FOG test, so ignore them while typing your text. The program ignores presses of the RETURN key.

Continue typing until your file contains at least a hundred words. Then stop after the punctuation mark at the end of the sentence with the hundredth word. If your sample contains less than a hundred words, type the whole thing. You can enter words until the screen is filled. When it is, the screen changes color and a heart appears in the upper left-hand corner, indicating you can't enter any more text. If there are any trailing words after the final punctuation mark in the text, delete them using the DELETE BACK S key.

You don't have to fill the screen. To find out how many words you've entered so far, press CTRL-N. The cursor moves to the bottom of the screen and the message COUNTING ... PLEASE STANDBY appears. After a few seconds the program displays the number of words you've entered and then the cursor returns to its previous location in your text.

When you've entered as many words as you want, check your sample and correct any errors. The editing functions of FOG INDEX are similar to those of the ATARI screen editor. You can move around the screen by pressing CTRL and the arrow key pointing in the direction you want to move. You can also insert a character by pressing CTRL-INSERT, or delete a character by pressing CTRL-DELETE.

When you've finished editing your text, press CTRL-S. If you're in the immediate mode, analysis of your text begins at once. If you indicated that you wanted to save your text sample, the program saves your text on the medium you selected. You can then retrieve it for processing by going through the main menu.

If you prefer to save your samples on diskette, it's practical to enter a number of samples and then analyze them in a series. For information about analyzing a series of text files, refer to USING FOG INDEX.



## COMPUTATION OF THE FOG INDEX

The FOG Index is based on a factor of word complexity as measured by number of syllables (F1) and a factor of sentence length (F2). It may be expressed as follows:

$$\text{FOG INDEX} = .4*(F1+F2)$$

where

F1 = percentage of "big words" (words of three or more syllables or polysyllables)

and

F2 = average sentence length (in words).

Proper nouns aren't included in the computation of F1. Also, when classifying words, a verb that becomes three syllables by having a "d" at the end isn't classified as a "big word".

In testing to date, FOG has correctly identified syllables 99 percent of the time. Because of the great variety of word structures in English, it's impossible to achieve 100 percent accuracy. Therefore, you can expect that very rarely a word not containing three or more syllables will appear on the "big word" list or that a word that should be classified as a "big word" will be omitted. This marginal error has no significant impact on the computation of the FOG Index.

## USING MINIREAD

A simple text-reading program has been included on your FOG INDEX diskette, should you want to look at a text file you're analyzing. This program displays, and, if requested, prints the contents of the text file without any attempt at formatting the text.

To use this utility, interrupt FOG INDEX by pressing the BREAK key. Making certain the FOG INDEX diskette is in drive 1, type:

```
RUN "D1:MINIREAD"
```

The program asks whether you want a printed copy of the text file you're going to read. After you've indicated your choice, the program asks you to indicate the drive into which you'll insert your text file diskette and then prompt you to do so. Next, you enter the name of the text file you want to read. The program then checks that the file is on the diskette. If the text file can't be found on the diskette in the drive you indicated, the program prints a message informing you of this fact. If the computer finds the file, the text displays immediately, and, if the printer option is in effect, prints.

After the indicated text file has been read, you can choose to read another file or to exit from the MINIREAD program by typing DONE.

To return to FOG INDEX, make sure the FOG INDEX diskette is in drive 1, and then type:

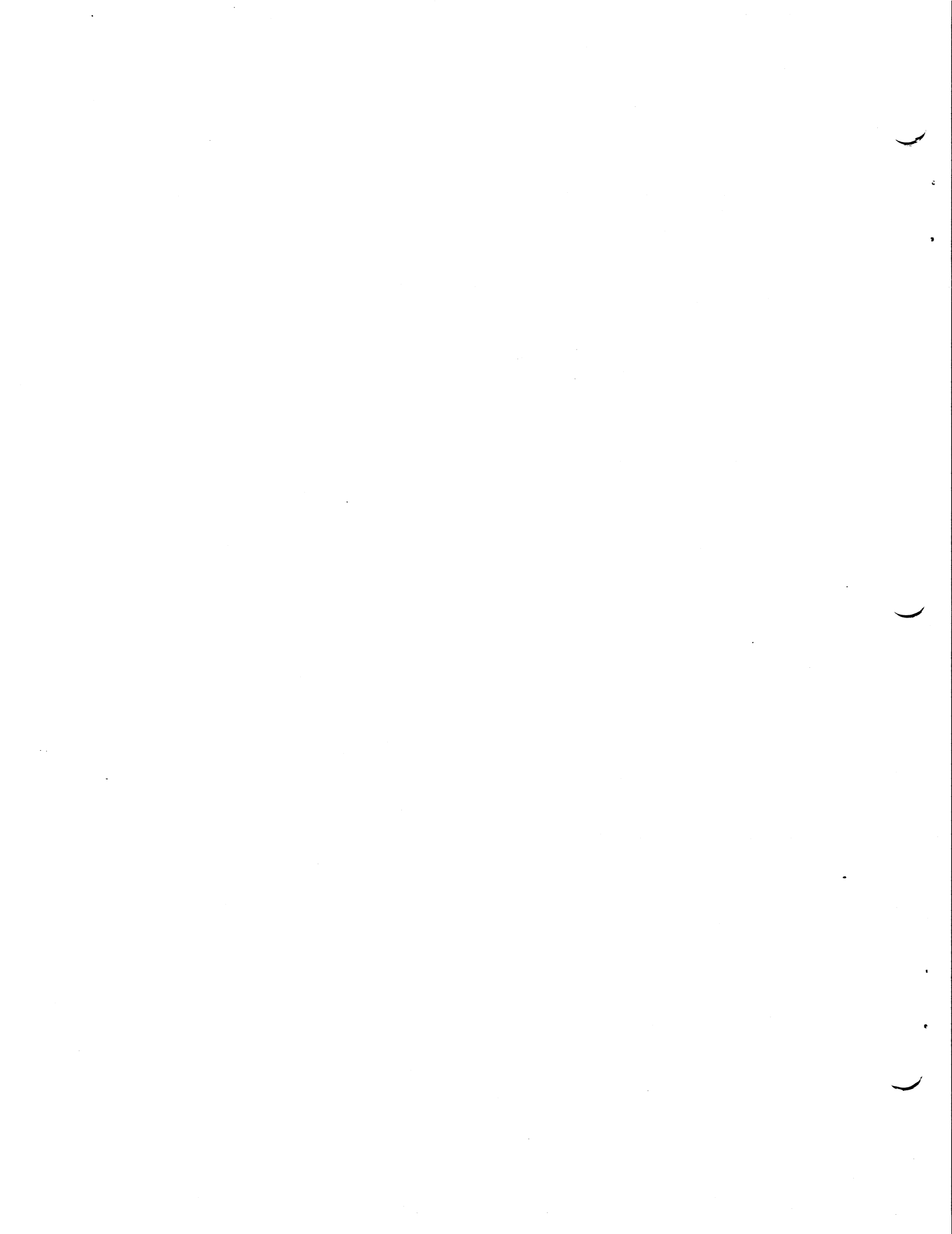
```
RUN "D1:FOG1"
```

Turn off your computer for a couple of seconds and then turn it back on, following the loading instructions in GETTING STARTED.

A MINIREAD printout of the file LINCOLN.TXT follows:

```
D:\LINCOLN.TXT
```

```
Four score and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty and dedicated to the proposition that all men are created equal. Now we are engaged in a great civil war, testing whether that nation or any nation so conceived and so dedicated can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field as a final resting place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this.
```



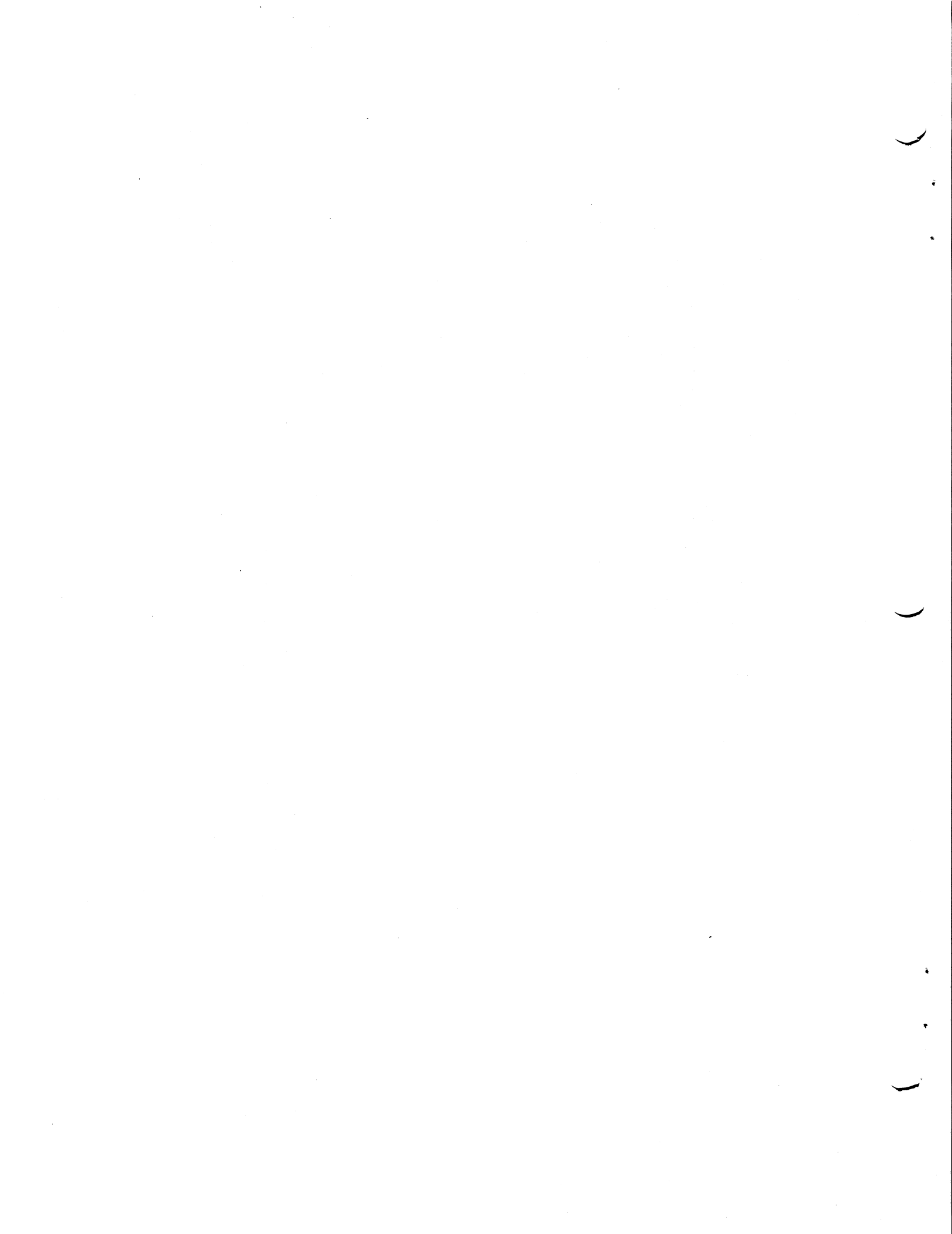
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## Review Form

We're interested in your experiences with APX programs and documentation, both favorable and unfavorable. Many of our authors are eager to improve their programs if they know what you want. And, of course, we want to know about any bugs that slipped by us, so that the author can fix them. We also want to know whether our

instructions are meeting your needs. You are our best source for suggesting improvements! Please help us by taking a moment to fill in this review sheet. Fold the sheet in thirds and seal it so that the address on the bottom of the back becomes the envelope front. Thank you for helping us!

1. Name and APX number of program.

---

---

2. If you have problems using the program, please describe them here.

---

---

---

3. What do you especially like about this program?

---

---

---

4. What do you think the program's weaknesses are?

---

---

---

5. How can the catalog description be more accurate or comprehensive?

---

---

6. On a scale of 1 to 10, 1 being "poor" and 10 being "excellent", please rate the following aspects of this program:

- \_\_\_\_\_ Easy to use
- \_\_\_\_\_ User-oriented (e.g., menus, prompts, clear language)
- \_\_\_\_\_ Enjoyable
- \_\_\_\_\_ Self-instructive
- \_\_\_\_\_ Useful (non-game programs)
- \_\_\_\_\_ Imaginative graphics and sound

7. Describe any technical errors you found in the user instructions (please give page numbers).

---

---

---

8. What did you especially like about the user instructions?

---

---

---

9. What revisions or additions would improve these instructions?

---

---

---

10. On a scale of 1 to 10, 1 representing "poor" and 10 representing "excellent", how would you rate the user instructions and why?

---

---

11. Other comments about the program or user instructions:

---

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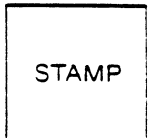
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