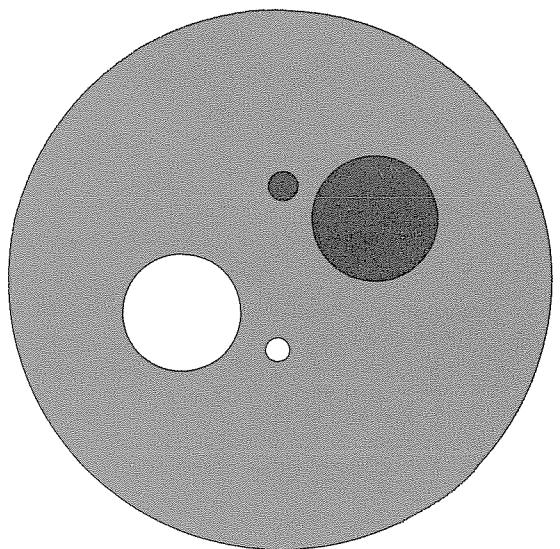


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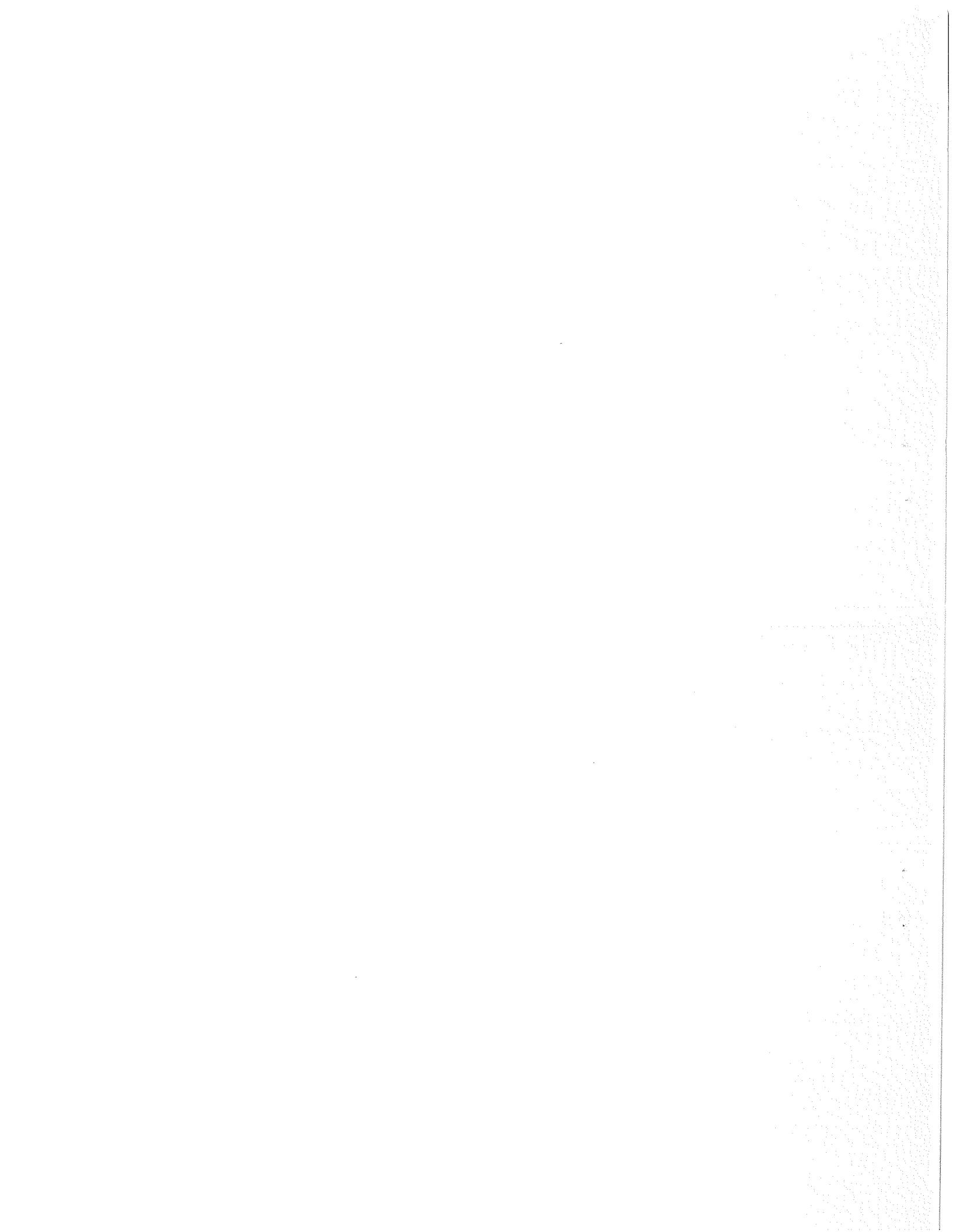
LEXICO Guide No. 2

COMMUNICATING WITH LEXICO

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1. General Description

This guide describes how a user establishes and maintains communication with the LEXICO system and discusses system capabilities intended to facilitate that communication. The user enters commands to LEXICO from a remote terminal. The procedures for signing on and initiating interaction with LEXICO vary with the characteristics of the user's terminal, his project number and password, etc. The general procedures for terminal interaction are described in the MACC Timesharing Guide, Chapter 3. However, they are outlined in Section 2 below and summarized in Figure 2. Users who are familiar with sign-on procedures need not read Section 2. They should know, however, that the control statement for initiating interaction with LEXICO is @LEXICO.

LEXICO performs many tasks on-line; the results are displayed immediately at the user's terminal. However, some tasks require so much time, generate so much output, or cost so much that they are performed off-line. In this case, the user enters commands at the terminal and the jobs are recognized at once, but the tasks are actually performed later and results are printed at the computing center.

In general, the user may enter three types of input to LEXICO:

- (1) commands to the system;
- (2) requests for assistance in understanding error messages, defining terms, or interacting further with the system; and
- (3) answers to the system's questions.

Figure 1 diagrams the interaction of LEXICO and its users.

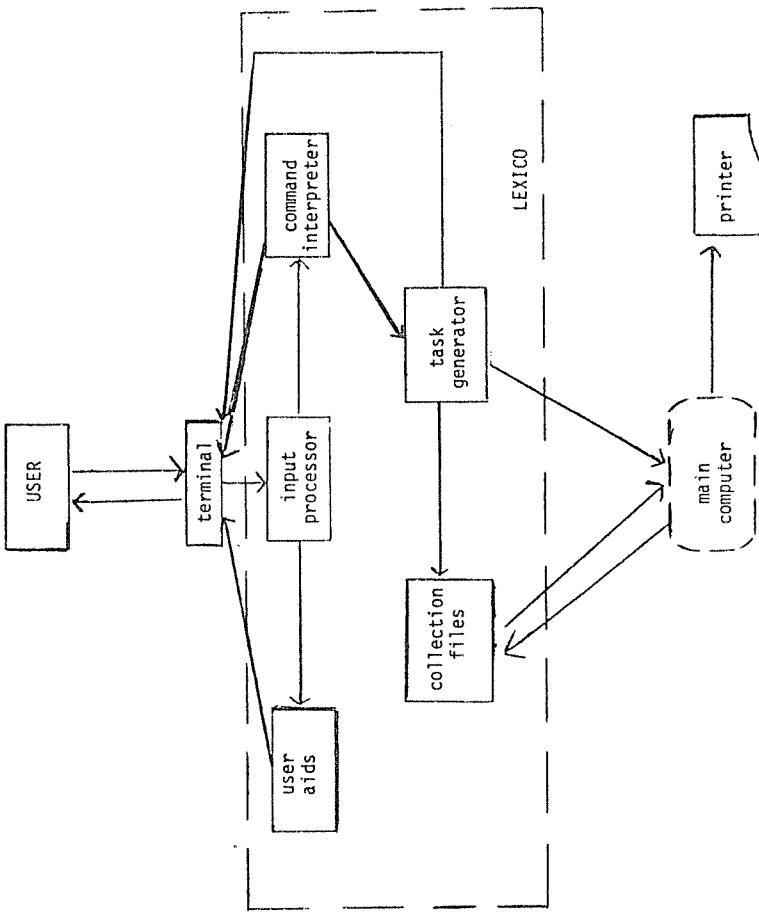


Figure 1
User-system Relationships

2. Terminal Interaction

To use an interactive terminal, a user must have a project number (account number), a user number (used to identify him to the computing system), and a password. The project number and user number are assigned by MACC. The password is a string of 1-6 letters and numbers chosen by the user during his first interactive session.

A user of LEXICO must first establish communication with the computing system. The method for doing so varies slightly with the specific type of terminal. The first step is to turn on the terminal and, perhaps, to set various switches. On the Decwriter terminals available in room B109 at MACC, the four switches to the left of the keyboard should be set to ON, LINE, 300, and CAPS LOCK. The next step, on terminals using telephone lines, is to dial the computer. The phone number is (608) 263-1108 (3-1108 from campus phones).

Most lines entered at the terminal are not processed until a special key is pressed. On most terminals, this key is labelled RETURN or CR; on the Decwriter it is the RETURN key. The single exception to this is the line UWTT discussed below. On most terminals, the CTRL key and X key may be depressed simultaneously instead of the RETURN key to indicate a line (or part of a line) should be ignored. Similarly, CTRL-H indicates the previous character should be cancelled. On the Decwriter, the BACKSPACE key may also be used for the latter purpose.

Once in contact with the computer, the user should enter UWTI to indicate he is ready to begin interaction. On terminals such as the Decwriter, which permit lines up to 132 characters wide, he may alternately enter UWLG. The computing system should respond with a line something like

MACC 31.63 TTY02039

Other possible responses, and appropriate actions, are shown in Figure 2. Now the user may identify himself with a run statement of the form
@RUN name,project,user,tord,pages
Here, name, which may be omitted, is the user's name (with no blanks); project is his project number; and user is his user number. Tord is a time or dollar limit; if the interactive session being initiated uses as much computer time (not clock time), or costs as much, as the maximum specified here, it will be immediately terminated, without completing any current process. Similarly, pages limits the amount of output that may be received at the terminal. It is recommended that a user of LEXICO specify limits of at least \$20.00 and 100 'pages';
@RUN name,project,user,\$20.00,100

It should be noted that there may be a dollar limit associated with the project number. In that case, it may not be exceeded by the limit specified in the run statement.

1. Using terminal session	Logon to system. Press RETURN	Logon to system. Press RETURN
2. Enter UNIT of ULLG	LOGG AL10A TTY UD2039 CONTINUE at Step 3	LOGG AL10A TTY UD2039 CONTINUE at Step 3
3. Enter name-project/user/lotd/paces	ANNI1101234 NAME1103672 TIME105150 CONTINUE at Step 4	ANNI1101234 NAME1103672 TIME105150 CONTINUE at Step 4
4. Enter personal password	AND RUM ACTIVE* CONTINUE at Step 3	AND RUM ACTIVE* CONTINUE at Step 3
5. Enter LEXICO.	ENTERING INACTIVE* and continue at Step 3	ENTERING INACTIVE* and continue at Step 3
6. Continue interacting with LEXICO.	ENTERING NAME? FOR A LIST OF AVAILABLE USER AIDS, ENTER HELP and continue at Step 6	ENTERING NAME? FOR A LIST OF AVAILABLE USER AIDS, ENTER HELP and continue at Step 6
7. Enter FIN	REPEAT Step 4 CONTINUE at Step 4	REPEAT Step 4 CONTINUE at Step 4
8. Enter GETTERM and turn terminal inactive	*TERMINAL INACTIVE*	*TERMINAL INACTIVE*

After receiving a correctly-entered run statement, the computing system will ask for the user's password. He may enter any string of 1-6 letter and numbers during his first session. This string will become his password and must be entered in all succeeding sessions.

After the user's password has been entered, the computing system responds

CONTINUE

The user then enters

@LEXICO.

(the period is necessary) to indicate he wishes to work with the LEXICO system.

He may then proceed as discussed in the rest of this guide and the other LEXICO guides. When he is through, he enters

@FIN

and waits until the terminal has printed the cost of the concluded interactive session and the message:

TERMINAL INACTIVE

He then enters

@@TERM

and turns the terminal off.

3. Commands

3.1 Introduction

Instructions to LEXICO are entered in the form of commands (also called statements). The construction of specific commands is described in the guides pertaining to the tasks a user may perform. However, the format of every command follows certain conventions. Each command is composed of reserved words, which identify the command, and punctuation. Some commands also contain parameters--either numbers or character strings. Many commands have abbreviated forms.

Here are some examples of commands, as they might be entered during an interactive session:

```
UPDATE; COLLATE STANDARD;
ADD STOPORDS AUS AUSSER BEI
MIT NACH SEIT
VON ZU; END; EDIT 2; CHANGE 'NO' To 'ON';
```

3.2 Entering Commands

Every command ends with a semicolon. As illustrated in the examples in Section 3.1, a command may extend over several lines or several commands may be entered on one line. However, commands may not be entered on the same line as answers to system questions or requests for user aids.

Any number of blanks may occur between the words of a command, or before, after, and between commands. Blanks are optional around punctuation. However, blanks at the end of a line are ignored. Therefore, if a command extends over more than one line, it may be necessary for succeeding lines to begin with a blank. For example, if a text contains

```
FOUR SCORE ADN SVEN YEARS AGO
```

the command

```
CHANGE 'ADN SVEN' TO 'AND
SEVEN';
```

would result in

FOUR SCORE ANDSEVEN YEARS AGO

However,

```
CHANGE 'ADN SEVN' TO 'AND
SEVEN'; ;
```

would correct the error:

FOUR SCORE AND SEVEN YEARS AGO

3.3 Block Structure

Many tasks are specified to LEXICO as functional blocks, or groups of commands. A block begins with a block header, a command that identifies the task. The format of each block header is described in appropriate sections of other user guides. The block types and the tasks they are used to perform are:

CREATE	create a collection
UPDATE	modify collection defaults
ADD	add one or more texts to a collection
CONCORD	concord a text
ADDCONCORD	add one or more texts to a collection and concord them
UPDATE TEXT	modify text defaults
EDIT	edit a text
CLEANUP	correct entries in the word list of a text and separate homographs

Following the block header, commands are entered to specify how the designated task is to be performed (e.g., delimiter specifications, printing options, collating sequence). These commands are also described in other guides. The special code *MNU may be entered at any time to obtain a list of the commands which may be used within the current block. After all commands and declarations have been made within a block, the statement

```
END ;
```

is used to terminate it. In general, this completes the task (as in a CREATE or EDIT block) or allows the task to be scheduled for later processing (as in an ADD block--see Section 7 below). In most cases, if the block has been entered for testing purposes, or if errors exist which cannot be corrected immediately, the command

```
IGNORE;
```

may be used instead of the END statement. This nullifies any specifications made in the block. However, UPDATE, EDIT, and CLEANUP blocks cannot be IGNORED.

Many tasks are completely specified in one command (e.g., LOOKUP, RESPELL, SHOW DIRECTORY). These single-statement blocks do not require END statements. Block headers and single-statement blocks are collectively referred to as task commands. The task commands are listed, with the guides describing them, in Section 10 below.

The following is an example of a block entered to add a text to a collection and to generate a concordance of that text. The indentation of commands is not required, but is done here to distinguish the block header and END statement from the parameter declarations.

```
ADCONCORD 'BEDWULF';
CITATION DELIMITERS # ! . ;
INPUT ON CARD FILE BEDWULF . ;
ADD STOPORDS 'AND' 'BIT' 'OR'
'FOR' 'NOR' 'EITHER' 'NEITHER' ;
SEQUENCE ON 'x' ; TEXT OUTPUT ON
PRINTER ;
END ;
```

3.4 Strings

In many commands, the user specifies one or more character strings (e.g., text names, stopwords, spelling rules). In general, a string may be up to 100 characters long. However, depending on its use, there may be other restrictions on its length (e.g., text names may be no longer than twelve characters).

Any string may be enclosed by single quotation marks (apostrophes). In some cases, a string must be enclosed in quotes. This is true if it contains any of the reserved characters comma, semicolon, apostrophe, blank, hyphen, or colon; if it begins with a digit; or if it is a reserved word. Reserved words (e.g., CREATE, SHOW, TEXT) are the keywords used to identify LEXICO commands. Different words are reserved in different blocks; a complete list of reserved words is given in Section 11.

For the user's convenience, the reserved words COMMA, SEMI, QUOTE, BLANK, MINUS, and COLON denote the reserved characters. For example, the two commands

```
WORD DELIMITERS BLANK SEMI;
WORD DELIMITERS ' ' ';' ;
```

are equivalent.

To include an apostrophe in a character string, enclose the entire string in single quotes and enter two apostrophes within the string. For example,

```
ADD STOPWORD 'DON''T';
```

The null string, or string with no characters, is represented by two consecutive single quotes. For example, to correct

```
FOURZ SCORE AND SEVEN YEARS AGO
```

enter

```
CHANGE 'Z' TO ';
```

It should be noted that one of the most common errors in formatting LEXICO commands is the omission of a quotation mark. Since LEXICO will not issue an error message until the quote marks are balanced, this situation may occur but not be obvious. If the user does not receive an expected response, he should check for unbalanced quotes. If this has occurred, he should enter an apostrophe followed by a semicolon, wait for the system's response, and then continue.

3.5 > in Column 1

Whenever LEXICO expects a command (or part of a command, if one was begun on the previous input line), the system displays the symbol '>' in column 1. In addition, when the system is waiting for a task command, it displays

```
TASK COMMAND:  
>
```

3.6 Correcting Errors

Whenever the system detects a format error in a command, an error message is displayed indicating the position of the error within the command. Often, the error actually occurs in the word following the one displayed. To correct the error, the user may enter a semicolon followed by the correctly formatted command. The semicolon and correct

command may be entered on one line or on separate lines. For example, by input on card file 'textfile':

```
UNRECOGNIZED KEYWORD OR PUNCTUATION OUT OF CONTEXT: CADR  
>  
>input on card file 'textfile';  
  
>add stopword add;  
KEYWORD OR PUNCTUATION OUT OF CONTEXT : STOPWORD  
>add stopword 'add';
```

The error may also be corrected by entering only the portion of the command beginning with the word displayed in the error message:

```
>show all bastype rules;  
KEYWORD OR PUNCTUATION OUT OF CONTEXT : BASTYPE  
>basetype rules;
```

However, if the error occurred in the first word of the command, a semicolon is required.

4. User Aids

4.1 Introduction

This section describes the special requests a user may enter to obtain LEXICO's assistance in understanding error messages, defining terms, or interacting further with the system. These capabilities are especially suited for the novice user, but, of course, may be used by anyone. Since an understanding of these features can make use of the LEXICO system much easier, more efficient, and more intelligible, it is recommended that this section be read diligently.

Whenever LEXICO is waiting for input, the user may enter one of the following special codes instead of the expected command or answer to a question. The system will respond by providing explanatory messages, examples, or definitions. The user aids are:

- *ERR to obtain more information on an error
- *EXQ or *EQU to explain a question in more detail
- *MNU to obtain a list of allowable commands
- *EXA for examples of correct input
- *HLP to obtain help of a general nature
- *CST to enter the cost of the current interactive session
- **** to enter a comment

In general, the response to these codes varies with the task being performed by the user and whether or not an error occurred in the last input. User aids are unlike commands in that only one of these codes may be entered on a line, and they may not be preceded by blanks. Each of the user aids is described in detail below.

4.2 Explain ERROR (*ERR)

Whenever an error is made by the user, the system displays a brief description of the error. In response to *ERR, a more detailed explanation is given. *ERR may be entered several times for progressively more detailed explanations. The final message will give a reference to

appropriate sections of the user guides. When no error has occurred, or when a list of explanations has been exhausted, entering *ERR has no effect.

4.3 Explain Question (*EXQ or *EQU)

LEXICO often prompts the user with a question or a request for additional information. This is always indicated by an indented arrow:
 ->

By successively entering *EXQ (or *EQU), progressively more detailed explanations of the solicited information are displayed. When no further explanations are available, the user is referred to appropriate sections of the user guides. When a list of explanations has been exhausted, entering *EXQ has no effect.

4.4 Example (*EXA)

When LEXICO displays a question, prompt, or error message, it is sometimes possible to obtain examples of correct input by entering *EXA. If no examples are available, or if all examples have been displayed, entering *EXA has no effect.

4.5 Help (*HLP)

By entering *HLP, a user can obtain help of a general nature, viz., a description of other user aids and, in the case of errors, corrective measures.

4.6 Menu (*MNU)

Entering *MNU causes the system to display all commands allowed in the block in which the user is working. Between blocks, this user aid displays all task commands. This is useful as a reminder of both the capabilities of the system and the form of the commands. *MNU may be entered at any time, even if the system has asked a question. However, in the latter case, the question must be answered before any of the displayed commands may be entered.

4.7 Cost(*CST)

Entering *CST causes LEXICO to display the cost so far accumulated by the current interactive session, along with the dollar limit for the run. If *CST is entered more than once during a single session, the cost accumulated between its occurrences is also displayed.

4.8 Comment (**)**

Any text placed after **** is ignored by the system. This code is useful for documenting or annotating an interactive session with the system.

5. Data

After some commands are entered, LEXICO asks a question of the user. For example, at the beginning of each interactive session, it asks for a collection name with the prompt

```
COLLECTION NAME?  
->
```

Every prompt is followed by the indented arrow
->

When this arrow is displayed, the user should either answer the question or ask for assistance with an appropriate user aid. The answer to only one question may be entered on a single line, and the answer may not be preceded by blanks. In addition, it is not possible to enter a command or a request for a user aid on the same line as the answer to a question.

In general, data solicited in this manner should not be followed by semicolons. However, there are a few instances (e.g., the assignment of individual occurrences of a word to a single base of a homograph) where a semicolon is required. In all such cases, the system reminds the user that the punctuation is needed.

There are many occasions when the system will ask a yes-or-no question. To answer affirmatively, the user should enter the letter Y. Similarly, the code for 'no' is N. The system, however, will remind the user of these codes when they are required.

6. Messages from the Computing System

While interacting with LEXICO, a user may receive a message from the computing system; that is, a message not generated by LEXICO. For example, on weekends the computer operators often send warnings to all terminal users as the end of production approaches. Other messages from the computing system indicate errors such as exceeding the time or dollar limit. It is possible, though very unlikely, that an error within the LEXICO system will cause the user to receive a terse message consisting of a strange term such as 'IGDM' or 'ERR \$' and some numbers.

Since these messages are not sent through LEXICO, they cannot be explained by *ERR or *EXQ. When they occur, it may happen that execution of LEXICO is terminated. If the user suspects this has happened, he should enter

*ERR

If the response is

DATA IGNORED - IN CONTROL MODE*ERR

he is no longer in contact with the LEXICO system. In this case, he should enter

*FLW

and then begin another interactive session. If the user receives a message he is unable to explain, he should see a MACC consultant. The consultant will, if necessary, refer him to LEXICO system maintenance.

7. Deferred Task Execution

The tasks performed by the LEXICO system fall into two categories: (1) on-line--those tasks which can be performed quickly and inexpensively, so that immediate interaction via a remote terminal is worthwhile; results of the user's commands are displayed at his terminal.

(2) off-line or batch--those tasks which require so much time, generate so much output, or cost so much, that they are performed without user intervention; results are printed at the computing center, away from the user's terminal. (These are also called 'deferred tasks'.)

A few tasks may be performed either way. Although off-line tasks are not actually performed until some later time, they may be requested by the user from a terminal. The user specifies how these tasks should be performed and, if necessary, corrects errors in their specifications.

When a deferred task has been requested, either by a single statement block, or by a block with declarations and an END statement, the user must select a priority that determines how soon the task will be performed and the resulting cost factor. The system prompts for this priority with the question

WHEN: (I, T, O, N)
->

The task is scheduled and processed according to the following chart (which may be displayed interactively by entering *EXQ):

user may enter

I	meaning that the task will be performed <u>immediately</u>	and will be charged at the highest rate
T	at the normal rate	
O	at less than the normal rate	
W	on the weekend	
anything else	at the lowest possible rate	

the task will not be performed

More information about these priorities is given below in Section 8.

When the user enters one of the above codes, the system responds with a message of the form

```
RUN IDENTIFICATION: X00852      (SAVERN0807*6125728)
```

After the task has been completed, the user may retrieve the results from the computing center by requesting the output for the job with the displayed run identification. In this case, he would ask for the output from X00852. The information in parentheses is normally useful only to the system programmer. However, if after an off-line job has been started, the user calls the 1110 operator and asks to have it cancelled, he must also delete a file with this name. The deletion of files is described in Section 8.2. For example, if the user requested that X00852 be cancelled, he should enter

```
@DELETE SAVERN0807*6125728.
```

8. Using Files and Tapes With LEXICO

8.1 Introduction

Some users may wish to produce multiple copies of LEXICO output, delay printing, or have output transcribed to microfiche or magnetic tape. To allow them to do so, LEXICO has limited facilities for directing text listings, concordance listings, and slips to disk files or tape. The commands for using these devices are described in the appropriate guides. In general, LEXICO does little error checking when these features are used. Thus, if the user directs a concordance listing to a file, he must be sure a file with that name exists. If he requests a tape, he must be sure there is a tape with the specified MACC tape number and that he is authorized to use it.

8.2 Files

All text input to LEXICO must be transcribed to a disk file (see Guide 4, Section 6). In addition, some LEXICO output may be directed to files. The MACC Computing Handbook contains a complete description of files and how they are named, created, and deleted; also, MACC consultants can provide advice to the user of files. However, a brief description is given here.

A file is identified by a name and a qualifier, separated by an asterisk. Both may contain letters, numbers, the symbols '-' and '\$' and may be up to twelve characters each in length. If no qualifier is given, the computing system chooses the user number from the RUN statement as a qualifier. In most control statements, file names must be followed immediately by periods.

The statements described below may be entered in an interactive run as soon as the CONTINUE response to the user's password has been received. The symbol '@' must be in column 1. Any number of blanks may precede

the qualifier. The statements may also be submitted in a deck of cards.

A file may be created by entering

`@CAT,P qualifier*name.`

For example, user 5678 may enter

`@CAT,P TEST*ING.`

and

`@CAT,P ING.`

to create files `TEST*ING.` and `5678*ING.` respectively. Files remain available only until production terminates on the day they are created, unless the statement

`@SAVE,S qualifier*name.`

is entered. (Again, the qualifier and asterisk may be omitted). This causes the file to remain available indefinitely. The project number is billed for the space it uses daily. A saved file is removed with the statement

`@DELETE qualifier*name.`

LEXICO sometimes restricts the combined qualifier and file name to twelve characters. Such restrictions are included in the description of commands referring to file names. The terminating period may or may not be included. For example:

```
CONCORDANCE OUTPUT ON '5678*ING!';
/
TEXT OUTPUT ON TEST*ING.;
```

and

are valid LEXICO commands referring to the files created above.

2.3 Tapes

Information is stored on magnetic tape in units called files. When data is written on tape, it may be written after existing files or over

them. In the latter case, the old data is destroyed. Information can be retrieved from the beginning of a tape through the last file written.

Thus, it is not possible to write over the middle file on a tape and still be able to retrieve the last files. Nor is it possible to leave room for later use in the middle of a tape.

LEXICO writes SDF files in @COPY,G format to 7-track tape in odd parity at high density (800 bpi). When a tape is needed, LEXICO prompts for the MACC tape number of the tape and the number of files preceding the one to be used; if the first file is to be used, the response to the latter question should be 0. The MACC tape number is an identifying number assigned by MACC to every tape that may be used at the computing center.

Files written by LEXICO may be copied to other tapes. Because of the ease with which tapes can be accidentally overwritten, and since tapes can, with age and frequent use, become hard to read, it is wise to have extra copies of tapes that would be expensive to reproduce.

9. Cost of Using LEXICO¹

The charges for using LEXICO fall into three broad categories:

The cost of interacting with the on-line system, the cost of executing deferred tasks, and file charges. The cost of each interactive session is displayed at the end of the run. The user should be aware that after 5:00 P. M. on weekdays the rates for interactive computing are reduced to 60% of the daytime rates; after 11:00 P. M., this falls to 30%. The 'evening' rate is charged during the day on weekends and the 'night time' rate is charged after 5:00 P. M. on Saturdays and Sundays.

The cost of each off-line job is printed at the end of its output.

The cost of overnight jobs is 70% of those run at the 'today' priority, weekend jobs are billed at 40% of this rate, and jobs run immediately cost twice the normal rate. Jobs run at overnight priority are not run before 5:00 P. M. during the week. However, unless the computing system is unusually busy, they are run during the day on Saturday and Sunday.

If the computing system is not very busy, a few jobs submitted at the weekend priority may be processed after midnight on week nights.

File charges refer to the cost of storing a user's collection.

An approximation of this charge may be displayed with the SHOW DIRECTORY command described in Guide 3, Section 3.3. There is an additional file charge of about 18¢ for each deferred task scheduled.

10. Task Commands

The following table shows the LEXICO task commands and the guides in which each is discussed:

<u>Task Command</u>	<u>Guide</u>
CREATE ;	3
UPDATE ;	3
SHOW DIRECTORY ;	3
CREATE BACKUP ;	3
RESTORE COLLECTION ;	3
DELETE COLLECTION ;	3
COLLECTION cname ;	3
DELETE BACKUP ;	3
PACK TEXTS ;	3
PACK CONCORDANCES ;	3
PACK BASETYPE RULES ;	3
ADD tname ;	4
ADDCONCORD tname ;	4, 6
UPDATE TEXT text ;	3
EDIT text ;	5
CONCORD text ;	6
LIST TYPES REVERSED FOR text ;	3
LIST TYPES BY FREQUENCY FOR text ;	3
LIST TYPES FOR text ;	7
SLIPS FOR text ;	7
RESPELL text ;	7
CLEANUP text ;	7
LOOKUP text ;	7
LIST textlist ;	3
STATUS OF textlist ;	3
CLEAR TEXTS textlist ;	3
CLEAR CONCORDANCES textlist ;	3
DELETE TEXTS textlist ;	3
LIST SPELLING RULES ;	7
LIST ALL BASETYPE RULES ;	7
LIST ALL BASETYPE RULES FOR letter ;	7

1. The charges described here were current at MACC as of January 1, 1977.
 Since billing rates are adjusted periodically, the user should check with MACC for the latest billing schedule.

11. Reserved Words

The table below shows all of LEXICO's reserved words and the blocks in which each is reserved. Some words have abbreviations or synonyms shown in parentheses, which are reserved in the same blocks. In addition, the words

BEFORE
BY
EXCEPT
FOR
FROM
INFO
OF
ON
OR
OUT
THRU
TO
WITH

may be used interchangeably throughout the system.

ABTR	
ADD	
ADCONCORD	
AHB	
AIR	
ALL	
ASR	
AUTOSTOP	
B	
BAGJUP	
BASE (BASES)	
BASETYPE	
BEFORE	
BLANK	
BOTTCH	
BRFLF (BR)	
BTR	
BY	
CARD (CARDS)	
CHARISTIC	
CHARSSALL (CA)	
CHARGETH (CT)	
CHARACTER (CHARACTERS)	
CITATION (CITATIONS,	
CIT)	
CLEAR	
CLEANUP	
COLLATE	
COLLECTION	
COLON	
COMLINE (CO)	
CODEA	
CONCORD	
CONCORDANCE (CONCORDANCES)	
COPY	
CREATE	
C1	
C2	
C3	
DIR	
DELETE (D)	
DELIMITER (DELIMITERS,	
DELIM)	
DIB	
DIBR	
DIRECTORY (DIR)	
DISPLAY	
DO	
DOCONT (DO,RCY)	
DSS	
DTABL (DT1)	
EDIT	
END	
ENSHIP	
EXCEPT	
FILE	
FOR	
FREQU	
FREQU	
FRSTSTPUP	
GOTO (G)	
HEXADEC (HEXADEC)	
ISK	
ID	
IGNORE	
INPUT	
INSRT (1)	
INTO	
LENGTH	
LEVEL	
LIMIT	
LIST (LISTS)	
LOGUP	
DEMY	
HERO	
NIRUS	
NEW	
TEXT (T)	
NO (NOT, DDMOT)	
NOT (NOTES)	
NUMBER	
OE	
OF	
OFFSET	
CH	
PHYSICAL	
QUOTE	
RB	
REJECT	
RENAME (RN)	
RENAME (R2)	
RENAME (R3)	
REPLACE	
RESPELL (RESPelled)	
REST	
RESTORE	
REVERSE (REVERSED)	
RHS	
ROUTE	
RT	
RULE (RULES)	
SENT	
SEQUENCE	
S2D (S, SH-DISPLAY)	
SELTS	
SH	
SPCLS	
SPELLING	
SPLIT (SP)	
SQUEEZE	
STATS	
STATUS	
STOP	
STOPWORD (STOPWORDS)	
TXT (TEXTS)	
TUJ	
TOP (1)	
TYPE (TYPES)	
UNATCHED	
UF (1)	
UPDATE	
WITH	
WORD (WORDS)	

