

SEGA LOGO (FOR SC-3000) VER 1.0E
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Documentation v.0.1 - 2003/03/27
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Future updates to this documentation may be made available.

Purpose

This is an incomplete documentation for the Sega Logo software.
The full, original manuals are:
- Sega Logo Instruction Manual (150 pages)
- Sega Logo Reference Manual (150 pages)

Those manuals will be fully scanned someday, but being unable to do that for the moment, I'm providing a command list to let you look at the software. (Note: typos are original ones.)

In case, do not forget that you can check for references about the LOGO programming language on the internet.

----- CHAPTER 0 : INTRODUCTION -----

1. CONTROL CHARACTERS

1-1. Non-editing Control Characters

[CTRL]+[C] / [BREAK]	Terminate the currently executing procedure.
[CTRL]+[S]	Interrupts the currently executing procedure. Enter any key to continue.
[CTRL]+[Z]	Interrupts the currently executing procedure and displays a pause prompt.
	Enter [CTRL]+[Z] again to continue.
[CTRL]+[F]	Displays a full graphic screen.
[CTRL]+[X]	Displays a splitscreen.
[CTRL]+[T]	Displays a full text screen.
[CTRL]+[L]	Clemrs a text screen.
[CTRL]+[U]	Deletes all characters on the current lin and move the cursor to the beginning of the line.
[CTRL]+[Z]	Deletes all characters on the current line and moves the cursor to the beginning of the next line.
[INS DEL] [-]	Moves the cursor back one character.

1-2. Editing Control Characters

[<-]	Moves the cursor to the left.
[->]	Moves the cursor to the right.
[^^]	Moves the cursor up.
[vv]	Moves the cursor down.
[CTRL]+[M]	Same as RETURN;
[CTRL]+[F]	Scrolls a text display to the next page.

[CTRL]+[B]	Scrolls a text display to the previous page.
[CTRL]+[O]	Opens a new line next to the current line.
[CTRL]+[E]	Deletes the current line.
[SHIFT]+[INS DEL]	Generates the inserts mode. Enter [SHIFT]+[INS DEL] to exits.
[CTRL]+[C]	Exits screen editor. The screen editing session are discarded.
[CTRL]+[Z]	Exits screen editor. The screen editing session are defined.

2. LOGO OBJECTS

A Logo procedure can require inputs to execute.
The required input can be words, lists or numbers.

2-1. Words

A group of one or more consecutive characters.
Blank space separates a word and [], (), =, <, >, +, -, *, and / are also delimiters.
To treat these brackets and operations as a normal character, use \ (Yen) before the word.
And to distinguish Logo objects from Logo procedure names, you must enclose words with " (quotes)

```
?>PR "LOGO
      LOGO

?>PR "XY\[Z\]
      XY[Z]
```

2-2. Lists

A series of Logo objects enclosed in square brackets.
Each element of a list can be a word, a number, or another list.
A list which contains no object is called Empty List.

```
[X Y Z]
[I AM A GIRL]
[Aha!]
[ ]
[X [Y [Z [K]]]]
```

2-3. Numbers

A number is a kind of word, but [must be put in front of a number. A number without] is treated as a arithmetic number.

```
?> PR [1+2]
1 + 2

?> PR 1+2
3
```

2-4. Variables

A variable acts as a container which contains a object.
A variable can have any name and the "container" can contain

any object.

To create a variable, use "make" command. And to refer to a contents of a variable, use "thing" command.

3. TEXT AND GRAPHIC SCREEN

In Logo, you can use two screens: a text screen and a graphic screen.

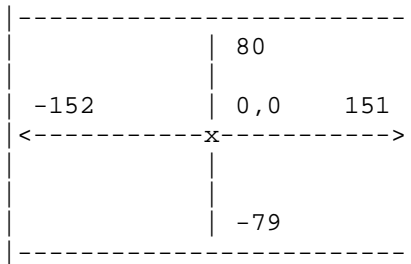
A text screen displays only text with up to 40 characters in one line and up to 24 lines in a screen.

A graphic screen displays drawing and text, and you can control background color and pen color.

To set a color, input a number of color to SETPC or SETBG command.

number	color		
0 :	Transparent	8 :	Red
1 :	Black	9 :	Light Red
2 :	Green	10 :	Yellow
3 :	Light Green	11 :	Light Yellow
4 :	Blue	12 :	Dark Green
5 :	Light Blue	13 :	Magenta
6 :	Dark Red	14 :	Grey
7 :	Cyan	15 :	White

GRAPHIC COODINATES



4. NUMBERS

Logo uses integers and decimal numbers.

Arithmetic operations are, +, -, *, and / that can be used as infix or prefix.

INFIX	1 + 2
PREFIX	+ 1 2

To compare numbers, =, <, >, <= and >= operations can be used.

CHAPTER 1 : TURTLE GRAPHICS

name	short form
BACK (command)	BK
BACKGROUND (operation)	BG
CLEAN (command)	-
CLEARSCREEN (command)	CS

DOT (command)	-
FENCE (command)	-
FORWARD (command)	FD
HEADING (operation)	-
HIDETURTLE (command)	HT
HOME (command)	-
LEFT (command)	LT
PEN (operation)	-
PENCOLOR (operation)	PC
PENDOWN (command)	PD
PENERASE (command)	PE
PENREVERSE (command)	PX
PENUP (command)	PU
POS (operation)	-
RIGHT (command)	RT
.SCRUNCH (operation)	-
SETBG (command)	-
SETHEADING (command)	SETH
SETPC (command)	-
SETPEN (command)	-
SETPOS (command)	-
.SETSCRUNCH (command)	-
SETX (command)	-
SETY (command)	-
SHOWNP (operation)	-
SHOWTURTLE (command)	ST
TOWARDS (operation)	-
WINDOW (command)	-
WRAP (command)	-
XCOR (operation)	-
YCOR (operation)	-

CHAPTER 2 : WORD AND LISTS

name	short form
ASCII (operation)	-
BUTFIRST (operation)	BF
BUTLAST (operation)	BL
CHAR (operation)	-
COUNT (operation)	-
EMPTYP (operation)	-
EQUALP (operation)	-
FIRST (operation)	-
FPUT (operation)	-
ITEM (operation)	-
LAST (operation)	-
LIST (operation)	-
LISTP (operation)	-
LPUT (operation)	-
MEMBERP (operation)	-
NUMBERP (operation)	-
SENTENCE (operation)	SE
WORD (operation)	-
WORDP (operation)	-

CHAPTER 3 : VARIABLES

name	short form
LOCAL (command)	-
MAKE (command)	-
NAME (command)	-
NAMEP (command)	-
THING (operation)	-

CHAPTER 4 : ARITHMETIC OPERATIONS

name	short form
+ (operation)	-
- (operation)	-
* (operation)	-
/ (operation)	-
= (operation)	-
< > <= >= (operation)	-
ARCTAN (operation)	-
COS (operation)	-
INT (operation)	-
RANDOM (operation)	-
REMAINDER (operation)	-
ROUND (operation)	-
SETRAND (command)	-
SIN (operation)	-
SQRT (operation)	-

CHAPTER 5 : PROPERTY LISTS

name	short form
GETPROP (operation)	-
PLIST (operation)	-
PUTPROP (command)	-
REMPROP (command)	-
SETPLIST (command)	-

CHAPTER 6 : CONDITIONALS AND FLOW OF CONTROL

name	short form
AND (operation)	-
GO (operation)	-
IF (command or operation)	-
IFFALSE (operation)	IFF
IFTRUE (operation)	IFT
LABEL (command)	-
NOT (operation)	-
OR (operation)	-
OUTPUT (command)	OP
PAUSE (command)	-
REPEAT (command)	-
RUN (command)	-
STOP (command)	-
TEST (command)	-
TOPLEVEL (command)	-
TRACE (command)	-

UNTRACE (command)	-
WHILE (command)	-

CHAPTER 7 : SCREEN COMMANDS

name	short form
CLEARTEXT (command)	-
FULLSCREEN (command)	-
PRINT (command)	PR
READCHAR (operation)	RC
READKEY (operation)	RK
READLIST (operation)	RL
SETCURSOR (command)	-
SHOW (command)	-
SPLITSCREEN (command)	-
TEXTSCREEN (command)	-
TYPE (command)	-

CHAPTER 8 : FILES ----- DISK

name	short form
APPEND (command)	-
CLOSE (command)	-
FERASE (command)	-
FILES (command)	-
LOAD (command)	-
OPEN (command)	-
SAVE (command)	-
SAVEALL (command)	-
SAVEENV (command)	-
SAVEVALUE (command)	-
SAVEPLIST (command)	-

CHAPTER 9 : FILES ----- CASSETTE

name	short form
CLOAD (command)	-
CSAVE (command)	-
PICKUP (command)	-
PICKUPALL (command)	-
RELEASE (command)	-
VERIFY (command)	-

CHAPTER 10 : DEFINING PROCEDURES

name	short form	
COPYDEF (command)	-	
DEFINE (command)	-	
DEFINEDP (operation)	-	
EDIT (command)	ED	
PRIMITIVEP (command)	-	
PRIMLIST (command)	-	<--- this is basically a
command/operation list		
TEXT (operation)	-	

TO (command) -

CHAPTER 11 : WORKSPACE

name	short form
ERALL (command)	-
ERASE (command)	ER
ERN (command)	-
ERNS (command)	-
NODES (operation)	-
POALL (command)	-
PONS (command)	-
POST (command)	-
PRINTOUT (command)	PO
RECYCLE (command)	-

CHAPTER 12 : MISCELLANEOUS COMMANDS

name	short form
BEEP	-
JNP (command)	-
OUTP (command)	-
.PEEK (command)	-
.POKE (command)	-
UTILITY (command)	-
BYE (command)	-
FORMAT (command)	-
ASSIGN (command)	-
PRON (command)	-
PROFF (command)	-

CHAPTER 13 : INDEX

ERROR MESSAGES

ALREADY PAUSING...(Procedure)
(word) ALREADY DEFINED
CAN'T BE EMPTY LIST/WORD
CAN'T DEVIDE BY ZERO
CAN'T FIND LABEL
(character) UNEXPECTED
(word) HAS NO VALUE
I DON'T KNOW WHAT TO DO WITH (object)
I DON't LIKE (object) AS INPUT
ILLEGAL PROCEDURE DEFINITION
INPUT EXHAUSTED
(word) IS A PRIMITIVE
(object) ISN'T A LIST
(object) ISN'T A NUMBER
(word) ISN'T A PROCEDURE
(object) ISN'T A WORD
(object) ISN'T TRUE OR FALSE
NAME TOO MANY
NUMBER OVERFLOW
OUT OF MEMORY

PRINT OFF LINE
(word) SHOULD BE USED ONLY INSIDE A PROCEDURE
TEXT BUFFER OVERFLOW
TOO FEW ITEMS IN (LIST)
TOO LONG ELEMENT
TOO LONG INPUT LINE
TURTLE OUT OF BOUNDS
UNDEFINED PROCEDURE NAME : (word)

[for disk use only]
NO PROCEDURE PICKED UP
TAPE READ ERROR

[for ROM cartridge use only]
(word) CAN'T BE OPENED
DISK FULL
DISK I/O ERROR
FILE ALREADY OPENED
FILE NOT FOUND
INVALID FILE NAME
NO FILE OPENED
TEST IS NOT CALLED
