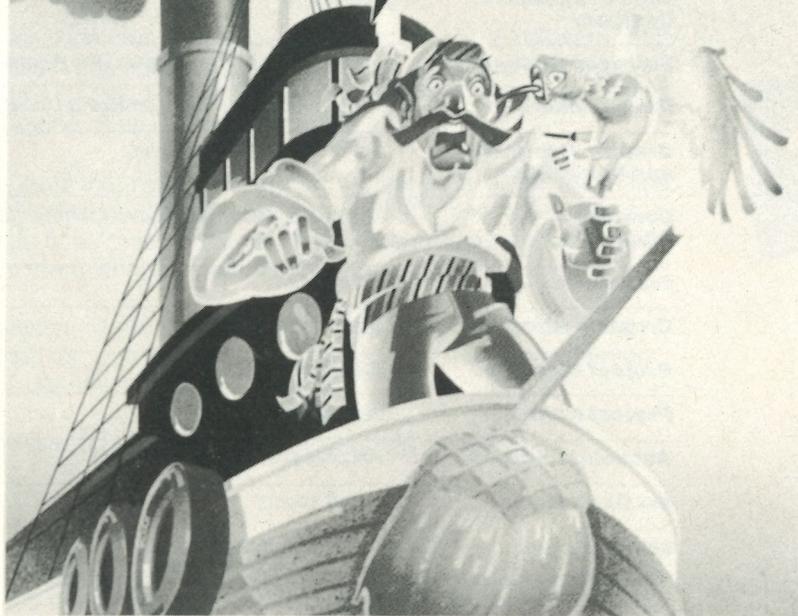


# MICROZINE™

*A Computer Learning  
Library on a Disk™*



 **Scholastic**  
*The most trusted name in learning.*

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ISBN: 0-590-95491-1 12 11 10 9 8 7 6 5 4 3 2 1 5 6 7 8 9/8

PRINTED BY OFFSET ALPINE PRINTING PTY. LTD., CORNER DERRY AND WETHERILL STREETS, SILVERWATER, N.S.W. 2141

## From the Editor's Keyboard

Hello, and welcome to *Microzine*.

In *Microzine*, our goal is to give you a variety of software. This *Microzine* has a word/picture processor, a computer language based on LOGO, a really great Twistaplot™, and a computer adaptation of an old, familiar game.

It appears that we're not alone in feeling good about *Microzine*. Judging from the mail we've received, it's clear that a lot of people find *Microzine* to be an exciting product and one that gives them what they want in computer software.

As always, if you have ideas for improving *Microzine*, write and tell us. Use the Feedback page to let us know what you think. Just fill it out and send it in.

Have a good time and learn as much as you can!



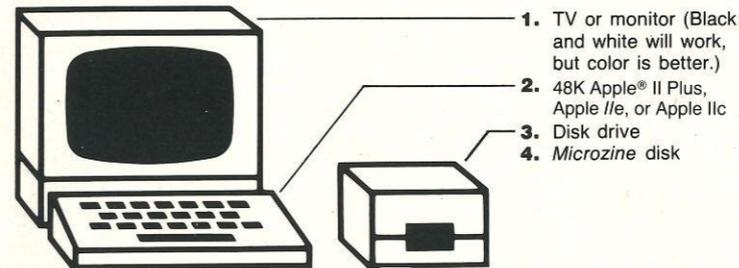
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## Getting Started

Read this handbook for clear instructions on how to use each *Microzine* feature. Then try everything. Experiment. You can't break the programs, so have fun. If you have any problems, come on back. You'll probably find the answers in this handbook.

### Equipment You Need



**NOTE:** To save your stories in "Story Teller" and procedures in "Amazing Robot II," you will need a blank disk. (See Initializing a Data Disk, page 43.)

### How to Load Microzine

1. Open the disk drive door.
2. Hold the disk with the label facing you.
3. Insert the disk slowly with either side facing up.
4. Close the drive door.
5. Turn on the computer and monitor (or TV).

*NOTE:* Never remove or insert a disk while the disk drive's red light is on.

If *Microzine* does not appear on the screen:

- make sure the disk drive door is closed.
- turn the computer off. Turn it back on and try again.
- have someone who knows how to hook up the drive check to see if it's hooked up correctly.

### Using the Table of Contents

The Table of Contents is the list of programs, or features, in *Microzine*. You will use this list to select the feature you want. To get this list, follow the instructions on the opening *Microzine* screen to press any key.

When the Table of Contents appears on your screen, you'll notice that the first feature is highlighted. Use the arrow keys to highlight each feature. When the feature you want to see is highlighted, press RETURN. (If the feature you select is on the other side of the disk, you will be told to turn the disk over and press RETURN.) The feature will soon appear on the screen. Take a look at Using *Microzine* on the next page. Then turn to the feature in this handbook.

Go ahead and choose the feature.

### Using Microzine Menus

When you are given a menu, or list of choices, use the arrow keys to highlight the choice you want. Then press RETURN. If the menu has numbers, type the number of your choice, then press RETURN.

#### Y/N

When you see (Y/N) at the end of a question, it means the computer is waiting for you to answer "yes" or "no." Type Y for yes or N for no, and press RETURN.

#### Entering Information

Whenever you are asked to enter information, simply type it in and press RETURN.

If you make a mistake while typing, use ← (back arrow) key to move back, then retype correctly.

#### ESC to Quit

Press ESC to quit what you are doing. You will then see the question, "Do you want to quit this feature?", or be sent to a menu. If you answer yes to the question, you will be sent to the Table of Contents. If you press ESC again on the menu, you will be sent to the Table of Contents.

#### Apple IIe/IIc

To use *Microzine* on the Apple IIe or IIc, press CAPS LOCK so that it is locked down.

*NOTE:* you will not always need the CAPS LOCK down on "Story Teller." (See page 15 for details.)





## **Pirates of the Soft Seas**

### **A Twistaplot™ Adventure**

An uneventful vacation suddenly turns into an exciting treasure hunt as you try to outwit a band of pirates and find their hidden software. Can you solve the puzzles and find all five treasure chests?

#### **What You'll Find**

As you go through the story, you'll be challenged by clues to find the location of the five treasures hidden on Disk Isle.

#### **Names**

You'll be asked to type in your name, and then type B if you are a boy or G if you are a girl. You must also type the name of a friend and whether your friend is a boy or a girl. Press RETURN after you type in each piece of information.

#### **Solving the Puzzles**

You will need scratch paper to help you solve some of the puzzles. Keep some handy as you go through the Twistaplot.

You might also tape a piece of clear acetate over the screen. Use a grease pencil to write in the solutions to the puzzles on the acetate.

#### **Finding the Treasure**

After you have solved the puzzles, the computer will ask if you think you know where the treasure is hidden. Type Y for yes, or N for no.

If you type Y, the computer will show you a map of Disk Isle.

Use the arrow keys to move yourself and your friends over the spot where you think the treasure is hidden. Then press RETURN.

If you type N, the computer will ask if you want to see the puzzles again. Type Y for yes, or N for no.

If you type N again, the computer will ask if you want to read the story again. Type Y for yes, or N for no.

#### **Skip Ahead**

At the bottom of some screens, you will see "S to skip." If you press S, you can skip over parts of the story you have already read.

Do not skip over parts of the story you haven't read, or you may lose track of the story.

## Story Teller

You've read plenty of stories in books — and even a few Twist-aplots in *Microzine*. But have you ever wanted to write stories yourself? "Story Teller" helps you do that.

"Story Teller" is a simple word/picture processor, or computerized writing tool. With "Story Teller," you can write and illustrate stories, and edit them anytime. You can also give your stories colorful covers. And if you have a printer, you can print your stories.

### Data Disk

To use "Story Teller," you need a data disk initialized by the "Computer Stuff" feature in *Microzine*. (See page 43.) A data disk initialized with this *Microzine* will hold up to 16 10-page stories on one side. If there are other files on the disk, such as from "Amazing Robot II," it will hold fewer stories.

**NOTE:** Once you put a data disk in the disk drive, "Story Teller" assumes that that same disk is in the drive. If you want to put a different data disk in, quit "Story Teller" and go back to the Table of Contents. Then choose "Story Teller" again.

### Printer

To print stories, you will need a printer that is compatible with the Apple II Plus, IIe, or IIc. The computer will ask if you have a printer. To print stories, you must type Y for yes.

### Printer Slot

Type in the number of the computer slot that the printer is plugged into. (Most printers are plugged into slot number 1.)

### Printing Drawings

For drawings in a story to be printed, you need two things: 1) a dot matrix printer, and 2) a graphics interface card such as the Grappler™ which allows computer graphics to be printed.

The computer will ask if you have a graphics interface card such as the Grappler™ or the PKASO/U®. If so, it will give you a choice of codes to use. If you choose Other Code, you will then have to enter the code your card needs to print a picture. Without a graphics interface card, a printer will only print type characters. It won't be able to print pictures.

### Sample Story and Introduction

The computer will ask if you want to see an introduction and sample story made with "Story Teller."

### "Story Teller" Menu

The "Story Teller" main menu gives you these options: Make a New Story; Edit a Story; Read a Story; and Erase a Story. If you say you have a printer, there is also a Print a Story option.

If you make a wrong choice on the main menu, press ESC before doing anything else. You will be sent back to the main menu. If you want to get back to the *Microzine* Table of Contents, press ESC on the main menu.

## **Make a New Story**

With the Make a New Story option, you can create a story cover and begin writing the story.

### **Make a Cover**

*Border* — Choose a border, or NO BORDER, for the cover from the border menu.

*Colors* — Choose colors for the cover from the color menus.

*NOTE:* The border must be different from the background color.

Certain combinations of colors may result in blocks or lines of other colors showing up on the screen. Use the SPACE BAR to move the cursor over these blocks or lines to erase them.

*Title Letters* — The letters in your story title will be black if you chose any cover color except black.

If you chose black as the cover color, you will be given a choice of colors for the title. Choose a color from the color menu.

### **Change the Border and Colors**

After choosing the border and colors of the cover, the computer will show what the cover looks like with the title "THIS IS A SAMPLE." Then it will ask if you want to change the border or colors.

### **Type the Title**

After choosing the cover's border and colors, type the title of the story. (See Type below.)

Press ESC when you are finished typing the title.

### **Checkerboard Pattern**

When typing on the cover, you can use the DELETE key on the Apple IIe or IIc to create a checkerboard pattern.

### **Working Menu**

After you finish typing the title and press ESC, you will be ready to type your story. (See Type below.) For the "working menu," or other functions you can use to help make a story, press ESC. You will have a choice of six functions: Type; Draw; Erase; Page; Quit; and Help.

### **Type**

The type function allows you to type characters on the screen. You will create your "Story Teller" stories page by page. Each story can have up to ten pages. On each page, you can fit 17 lines. On each line, there is room for 38 characters or spaces.

### **Planning Line by Line**

"Story Teller" doesn't know where words end. If a word is too big to fit on one line, it will be continued on the next line without being hyphenated.



To avoid having words run over to the next line without hyphenation, do one of the following:

- Look for a shorter word to fit on the line, then continue on the next line.
- Finish the line with the last word that fits and continue on the next line.
- Hyphenate the last word on the line and continue on the next line.

### **Moving the Cursor**

Apple II Plus

CTRL K to move up  
CTRL J to move down  
← to move left  
→ to move right

Apple IIe/IIc

↑ to move up  
↓ to move down  
← to move left  
→ to move right

### **Moving from Page to Page**

The next page will appear if you:

- Move the cursor down past the last line on the page.
- Write or space past the end of the last line on the page.

The previous page will appear if you:

- Move the cursor up past the first line on the page.
- Move the cursor backward past the first character on the first line of the page.

*NOTE:* Also, see Page on page 17.

### **Capitalizing Letters**

Apple IIe/IIc

- Pressing the SHIFT key while typing a character will capitalize the character.
- Locking the CAPS LOCK key down will capitalize all letters until the key is pressed again to unlock it.

Apple II Plus

- Pressing CTRL A once will capitalize the next character typed.
- Pressing CTRL A twice will capitalize all letters until CTRL A is pressed again.

### **Deleting/Replacing**

Single characters: To delete a character, move the cursor to the character and hit the SPACE BAR. To replace single characters, type over them.

Pressing CTRL E will erase a character at the cursor and move the rest of that line one space to the left. It will not affect other lines.

Many characters (up to one line): Move the cursor to the beginning of the text you want to delete on a line. Press RETURN. The rest of the line will be deleted.

*NOTE:* Also see Erase a Story on page 19 and Erase on page 17.

### **Inserting**

CTRL I allows you to insert characters one at a time on a line up to the number of spaces left at the end of that line. You cannot insert characters if no spaces are left at the end of the line.

### **Saving**

To save a whole story, see Quit on page 18.

## Draw

The Draw function allows you to make pictures.

*NOTE:* To use this function on the IIe or IIc, press CAPS LOCK.

### Drawing Pieces

You can choose from the menu of drawing pieces by pressing the letter of the piece you want. Form pictures by combining the drawing pieces in different ways.

Illustrate parts of your story, or even draw a picture instead of using a word.

*NOTE:* See Type on page 13 for directions on planning line by line, moving the cursor, moving from page to page, deleting and replacing, inserting, and saving.

Also see Drawing with Letters on page 22.



## Erase

The Erase function allows you to erase up to one whole page at a time from your story.

Move the cursor to the start of the text you want to erase. Then press S.

Next, move the cursor to the end of the text you want to erase. The text to be erased will be underlined. Using the down arrow key on the IIe or IIc, or CTRL J on the II Plus, will underline whole lines of text at once. Press E when you have underlined all the text you want to erase.

You will be asked if you are sure you want to erase the text. After you answer, you will be able to continue typing your story.

## Page

The Page function allows you to turn to any page you want to see or work on.

The computer will ask which page you want. Type in the number and press RETURN.

## **Quit**

The Quit function allows you to get back to the main menu. Before you do, you may save your story and name it.

The computer will ask if you want to save your story. If you do, it will ask what you want to name the story. Type in a name up to ten characters long. When you press RETURN, you will get back to the main menu.

If you give a story the same name you gave another story on the data disk, the computer will tell you. It will not accept the same name. Choose another.

If you don't save your story, it will be lost. "Story Teller" will send you back to the main menu. You will not be able to get your story back.

*NOTE:* You must save a story to print it.

## **Help**

The Help function gives you a list of the command keys you will need to use to write a "Story Teller" story.

## **Edit a Story**

The Edit a Story option allows you to edit a story you have saved earlier on a data disk. If you have no stories saved on the data disk, the computer will tell you.

Choose the story you want to edit, and follow the rules under Type, on page 13.

When you select the Quit function within the Edit a Story mode, the changes you have made will be automatically saved. You will be sent directly back to the main menu.

## **Read a Story**

The Read a Story option lets you read a story you have stored on a data disk.

Choose the story you want to read. The computer will show the cover. Press RETURN to see each following page. To jump ahead or back, type the number of the page you want to see.

Press ESC to quit and get back to the main menu.

## **Erase a Story**

The Erase a Story option lets you erase a whole story from your data disk.

Choose the story you want to erase. The computer will ask if you are sure you want to erase the story. If not, you will get back to the main menu.

If you want to erase the story, the computer will erase it and send you back to the main menu. Be sure you want to erase. You will not be able to get the story back if you erase it.

## Print a Story

The Print a Story option lets you print a story you have stored on a data disk using a printer that is compatible with the Apple II Plus, IIe, or IIc. (See Printer, Printer Slot, and Printing Drawings on pages 10-11.)

Choose the story you want to print.

To stop printing, press ESC.

**NOTE:** If you do not have a dot matrix printer and graphics interface card, you will get a blank space where you made pictures. You can draw your pictures in that space.

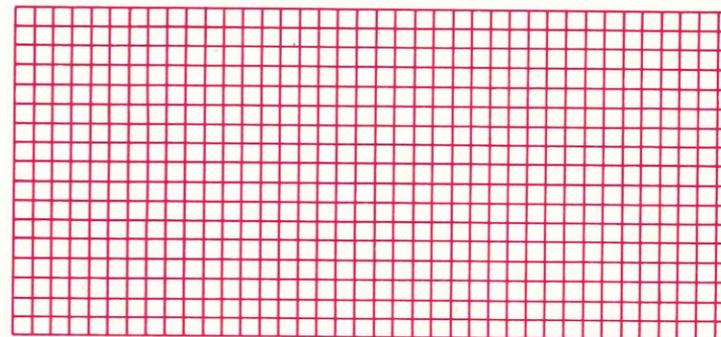
If you make pictures with letters (See Drawing with Letters on page 22.) they can be printed without a dot matrix printer or graphics interface card.

## Tips for Using Story Teller

### Planning Stories

Before you begin writing and drawing your story, plan your pages.

Use the grid on the next page or draw your own (17 spaces high by 38 spaces wide). This is how much space you have on each "Story Teller" page.



Write a story putting characters in the spaces just as if you were typing onto the computer screen.

When you reach a place for a drawing, look at the menu of drawing pieces on the computer. Figure how they could fit together to make a picture. Sketch it on your grid.

Then follow your plan to type and draw your story on the screen.

### Centering

To center a title on a line of the cover or a page, use the SPACE BAR to move to the middle of the line. (For the cover, that is nine or ten spaces; for a page, that is 19 spaces.)

Count the number of characters and spaces in your title or heading. Divide that number by two. Then use the ← (BACK ARROW) key to move back that many times, and type.

### **Drawing with Letters**

Use letters, punctuation marks, and other characters to draw pictures, too. This way, you can have drawings printed without a dot matrix printer and graphics interface card.

### **Story Ideas**

There are countless things to write stories about: your favorite things to do, school, pets, sports, favorite subjects, and best memories.

You can also make stories up, such as space adventures or fairy tales.

Stories that you make up are called fiction. Stories that use real people and situations that actually happened are called nonfiction.

### **Writing a Book**

You could write a "book" with up to 160 pages on one data disk. Your "book" could be a collection of your best stories, or it could be one big story.

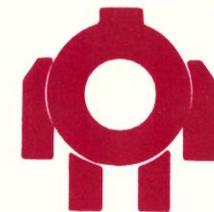
To write a story more than 10 pages long, let each group of 10 pages be a chapter.

### **Rebuses**

You can make up rebuses, or picture puzzles. They can be one page or many pages long. Have your friends try to solve them. Leave space on the bottom of the pages for the solutions to be typed in.

## **Amazing Robot II**

Make your robot draw beautiful graphics at your command. Solve puzzles and learn a programming language at the same time. It's easy and fun with "Amazing Robot II." "Amazing Robot II" is a smaller, less complicated version of LOGO, a popular computer language.



### **Data Disk**

You will be teaching your robot *procedures*. You can save procedures and run them as often as you want. To save them, you'll need a data disk initialized by the "Computer Stuff" program. Now is the time to initialize a disk. (To do this, go to the Table of Contents, choose Computer Stuff and see page 43. Then come back here.)

### **List of Commands**

After the title screen, you will be given the option to see the list of commands your robot understands. Following the command list is a list of their abbreviations. Your robot understands both the full command and the abbreviation of that command.

On the command list, # stands for a number, and \$ stands for a one-word name.

The commands are also listed at the end of this section and on a card inside your *Microzine* package. Rest the card above your keyboard as you program your robot. It will be a handy reference tool.

### Screen Menu

The Screen Menu lists 11 screens. You must choose a screen on which to move your robot. The Open Screen is blank. It's best to use this one if you want to draw with your robot. The other ten screens are puzzles for you to solve with your robot.

### Moving Your Robot

If you start with the Open Screen, your robot will appear in the Home, or starting, position. Home is approximately in the center of the screen. Notice the colon (:) at the bottom of the screen. This is where your commands will appear when you type them. You can type either one or more than one command on a line.

### Numbers

You can use positive or negative numbers in your commands. You cannot use decimals or fractions.

### Forward and Back (FD and BK)

To move your robot forward, type FORWARD or FD, the number of steps you want it to move, and then press RETURN. Type FD 20 and press RETURN. Your robot will move forward 20 robot steps.

To move your robot backward, type BACKWARD or BK and the number of steps you want it to move. Then press RETURN. Type BK 20. Your robot will move 20 steps back.

If your robot walks off the screen, it will "wrap around" and come back on the opposite side of the screen.

### Right and Left (RT and LT)

To make your robot turn, type RIGHT or LEFT (or RT or LT), and the number of degrees you want your robot to turn.

Your robot can turn 360 degrees, or in a complete circle. Look at the illustration at right.

Type RT 90. Your robot will turn 90 degrees to the right. Type LT 90. Your robot will turn 90 degrees to the left.

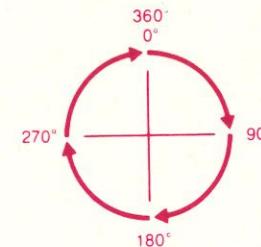
Now type RT -90. Your robot turns 270 degrees to the right. When you type in a negative number, the robot subtracts that number from 360 degrees. Then it turns the number of degrees left over. For example, when you typed RT -90, the robot subtracted 90 from 360 and turned 270 degrees.

*NOTE:* The robot cannot turn less than 8 degrees at a time. For example, if you type RT 7, the robot will not move. But it remembers your command. Then if you type RT 1, the robot adds 7 and 1 together and it turns 8 degrees.

### Repeat and Again

Using REPEAT and AGAIN, you can tell your robot to repeat a command, or a series of commands, without typing the commands each time. This makes it easier to program your robot.

Your robot repeats the commands between REPEAT and AGAIN the number of times you tell it. In the example below, it repeats FORWARD 50 and RIGHT 90 four times.



Here is an easy way to make your robot move in a square:

REPEAT 4 FORWARD 50 RIGHT 90 AGAIN

*NOTE:* You must type REPEAT and AGAIN on the same line. (Later, you will learn about procedures. In a procedure you can use REPEAT and AGAIN on different lines.)

### Stopping the Robot

Press ESC to stop your robot while it is moving. If your robot is turning, it will stop in the middle of that command and return to the position from which it started the turn.

### Help (?)

To see the list of commands at any time, type HELP or ?.

### Home (HM)

To make your robot return to the start position, type HOME or HM.

### Fill 0 (FL 0)

To clear the screen at any time, type FILL 0 or FL 0.

### Quit (QT)

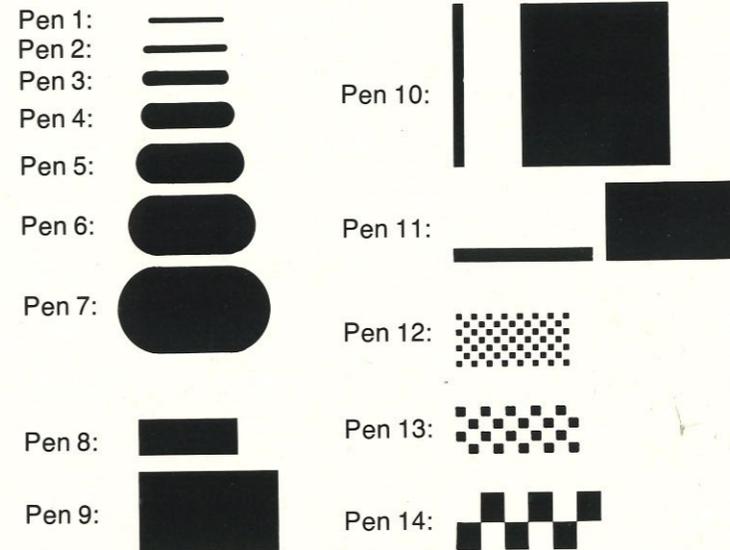
To quit "Amazing Robot II," type QUIT or QT to get to the Screen Menu. Then press ESC to get back to the Table of Contents.

## Drawing with Your Robot

### Pen Style

The robot has 14 different pen styles. To choose one, type PEN and the number of the style you want.

The pen styles are:



*NOTE:* The robot always starts with Pen 1 on the Open Screen. If you want a different pen style, you must change it before you start to draw.

### **Pen Color (CL)**

The robot can draw in eight different colors. To choose a pen color, type COLOR or CL and the number of the color you want.

The colors are:

#### Group 1

- 0 — Black 1
- 1 — Green
- 2 — Violet
- 3 — White 1

#### Group 2

- 4 — Black 2
- 5 — Orange
- 6 — Blue
- 7 — White 2

Group 1 colors work well together and Group 2 colors work well together. If you put a color from one group next to a color from the other group, you might find that they don't work well together.

*NOTE:* The robot always starts with COLOR 3 on the Open Screen. If you want a different pen color, you must change it before you start to draw.

### **Background Color**

You can change the background color for the screen using the same numbers as the ones used for pen colors. To choose a background color, type FILL or FL, and the number of the color you want.

*NOTE:* When you change the background color, you will erase anything the robot has drawn on the screen, so choose the background color first.

### **Penup and Pendown (PU and PD)**

To move your robot without drawing a line, type PENUP or PU.

To make your robot draw again, type PENDOWN or PD.

*NOTE:* The robot always starts with the pen down. If you want the robot to move without drawing a line, you must type PENUP first.

### **Hide and Show (HD and SH)**

To hide the robot from view, type HIDE or HD. The robot will draw faster if it is hidden.

To see the robot again, type SHOW or SH.

### **Procedures**

A procedure is a series of commands. Every procedure must be given a name. The robot then remembers the series of commands by that name.

### Writing Procedures

Here is how to write a procedure:

- Decide on a name for your procedure. You should give it a name that will help you remember what the procedure does. You can use letters or numbers in the name, but you can't use letters followed by numbers. For example, you could name a procedure SQUARE or 20 or 20SQUARE, but not SQUARE20.
- Type BEGIN and the name of your procedure, then press RETURN.  
You'll notice that the colon (:) has now been replaced by a >. That means that the robot will remember the following commands as a procedure.
- Now type in the commands one at a time, pressing RETURN after each one.
- After you've entered your last command and pressed RETURN, type END. (Your robot will not remember the procedure unless you type END.)  
Notice the > is gone and the : has returned. You are no longer working on a procedure.

### Procedure Practice

Go to the Open Screen and type in this procedure:

```
BEGIN TRIANGLE  
FORWARD 50  
RIGHT 120  
FORWARD 50  
RIGHT 120  
FORWARD 50  
END
```

When you are done, the computer will say TRIANGLE DEFINED. That means that your robot now understands what TRIANGLE means. It has learned a new command!

Now type TRIANGLE. Your robot carries out the procedure and draws a triangle.

### Combining Procedures

Programming is easier when you break it down into short, simple steps. That is why combining procedures is helpful. You can combine short, simple procedures into longer, more complicated procedures.

For example, if you wanted your robot to write "HI," you could write three short procedures and combine them into one procedure called HI.

To do this, you would write one procedure called H:

```
BEGIN H  
PEN 3  
CL 1  
FL 2  
LEFT 90  
FORWARD 20  
BACK 10  
RIGHT 90  
FORWARD 10  
LEFT 90  
FORWARD 10  
BACK 20  
END
```



Then you would write a procedure called MOVEOVER:

```
BEGIN MOVEOVER
PENUP
RIGHT 90
FORWARD 15
LEFT 90
PENDOWN
END
```

Then you would write a procedure called I:

```
BEGIN I
FORWARD 20
HIDE
END
```

To combine these procedures into one procedure called HI, you would do this:

```
BEGIN HI
H
MOVEOVER
I
END
```

Now type FL 0 to clear the screen. Type SHOW. Then type HI and watch your robot complete all three procedures, performing the new procedure HI.

### **Editing Procedures (ED \$)**

To edit, or make changes in a procedure, type EDIT and the name of the procedure. Then press RETURN. The Edit Screen will appear. This screen lists the procedure's commands. Notice the : has been replaced with a >. This means you are working on a procedure.

You can also use the Edit Screen to write new procedures. This way you can see more of the procedure lines listed at one time instead of a few lines at a time when the Open Screen is on the monitor, too. Type EDIT (with no name) and you will be sent to the Edit Screen. You must type I (for Insert) before each line when you write a new procedure on the Edit Screen. (See Edit Commands on page 34.)

The Edit Screen is also useful to compare several procedures at once. Type EDIT and the names of the procedures. All the procedures will then appear on the screen. This is helpful when you want to combine several procedures.

Use the keys and the commands below to work on the Edit Screen.

### **Moving the Cursor**

Arrow keys move the cursor from line to line.

RETURN: Moves the cursor to the next line. Note that the robot will only remember the information to the left of the cursor.

ESC: Moves the cursor to the next line. Note that the robot will remember all the information on the line to the right and to the left of the cursor.

### **Edit Commands**

*To Edit:* Move the cursor next to the line you want to correct. Press E for edit and correct that line by retyping.

*To Delete:* Move the cursor next to the line you want to delete and press D.

*To Insert:* Move the cursor to the line below where the new line will go and press I. A space will open up. Type the new line.

*To Quit:* Once your procedure is the way you want it, press Q to quit and return to the Open Screen. The computer will add "END" to your procedure at this point if you forgot to add it.

*To Start Over:* When you press CONTROL X the line will reappear as it was before you started to edit it.

### **Editing Practice**

Here is one example of how a procedure could be edited. Type in this procedure:

```
BEGIN SQUARE
REPEAT 4
FORWARD 50
RIGHT 90
AGAIN
END
```

Now type in EDIT SQUARE. Move the cursor to BEGIN SQUARE and type E. Move the cursor over the S in SQUARE, type TWOSQUARES, and press RETURN.

The cursor is next to REPEAT 4. Type I. Insert the line SQUARE. (Press RETURN after each command.)

Move the cursor next to FORWARD 50 and type E. Move the cursor over 50 and type 25.

Your new procedure should look like this:

```
BEGIN TWOSQUARES
SQUARE
REPEAT 4
FORWARD 25
RIGHT 90
AGAIN
END
```

Type Q to define your new procedure. Type FL 0 to clear the screen. Then type TWOSQUARES and watch the robot perform the new procedure.

### **Reedit (RE)**

When you are writing a procedure you might make certain mistakes which will give you an error message. Notice that the > has changed back to a :. The robot is no longer remembering your command. If you want to finish writing that procedure, type REEDIT or RE. The procedure will then appear on the Edit Screen and you can fix the mistake and continue.

### **Saving Procedures (SV \$)**

Your robot can remember procedures if you save them in a file. A file is an area on a data disk where information is stored. Many procedures can be stored in one file.

If you want to save a procedure, you must do so before you leave the Open Screen, go to another feature in *Microzine*, or turn off the computer.

To save a procedure, put your data disk in the disk drive. Then type SAVE or SV and the name of the file you want it saved under and press RETURN. The procedure is now saved.

Typing SAVE saves all of the procedures the robot currently knows about. For example, when you wrote the procedures H, MOVEOVER, and I, you could save them all under one of the procedure names, such as H, or you could save them all under another file name, such as GREETING.

### **Loading Procedures (LD \$)**

To run a procedure you saved on a data disk, put the disk which has that procedure file on it in your disk drive. Type LOAD or LD and the name of the file. Then press RETURN.

The procedures in that file will be listed. Then type in the name of the procedure you want to see, press RETURN, and your robot will do the rest.

### **Other Procedure Commands**

Here are some other helpful procedure commands:

**CAT:** Type CAT (for CATalog) to see what files are on your data disk. The file names of all your saved procedures will be listed in the order you saved them.

**ERASE (ER):** Type ERASE or ER and the name of the file and all the procedures saved in that file will be erased.

**FORGET (FG):** Type FORGET or FG and the name of the procedure and the robot will then forget that procedure. (Typing FORGET will not erase procedures that you saved in files on a data disk.)

**NAMES (NM):** Type NAMES or NM and the computer will list alphabetically all the procedures that are currently in the robot's memory. (It won't list the procedures saved on your data disk.)

**NEW:** Type NEW. This will erase all the procedures in the robot's memory. It will not erase the procedures saved in files on your data disk.

### **Error Messages**

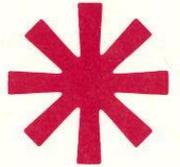
If you make a mistake, the computer will display an error message. Here is a list of all the error messages in "Amazing Robot II," and what they mean.

**AGAIN WITHOUT REPEAT** — You cannot use the command AGAIN without also using the command REPEAT and vice versa. The two commands work as a pair.

**CAN'T CHANGE THE PRIMITIVE** — A *primitive* is a command name such as FORWARD or END. You cannot use a command name as the name of your procedure. For example, you cannot name a procedure "END."

**CAN'T EDIT ANY MORE LINES** — There are only 148 lines available for writing and editing procedures. This message means that you've used up 148 lines.

**DISK ERROR** — This error message may be caused by leaving the door to the disk drive open, using a write-protected disk, or inserting the data disk incorrectly.



**DISK FULL** — There is no more room on your data disk to save procedures. If you want to save more procedures, insert another initialized data disk.

**DON'T KNOW** — You have entered a word that the robot doesn't understand or you have typed a word incorrectly.

**INTERRUPTED** — This message appears when you press ESC while the robot is executing a command. (Interrupted is not an error message.)

**IS NOT A VALID NUMBER** — You cannot use decimals or fractions. This message tells you to check the numbers you've typed in.

**NEEDS A FILE NAME** — This message will be displayed if you try to SAVE, LOAD, or ERASE a file without entering the name of the file.

**OUT OF MEMORY** — There are only 148 lines available for writing and editing procedures. This message means that you have used up 148 lines.

**PROCEDURE SHOULD START BEGIN NAME** — When you are in the edit mode, the first line of your procedure should always start with BEGIN or BE and the name of your procedure.

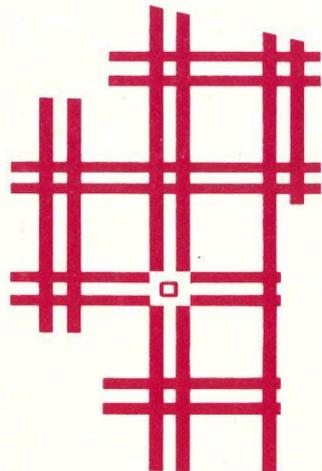
**REPEAT NEEDS A POSITIVE NUMBER** — You cannot use a negative number with the REPEAT command.

**REPEAT WITHOUT AGAIN** — You cannot use the command REPEAT without also using the command AGAIN and vice versa. The two commands work as a pair.

**SHOULD BE IN A PROCEDURE** — You can only use the word END if you are writing a procedure.

**TOO MANY NESTED PROCEDURES OR REPEATS** — You cannot combine more than 50 procedures in one procedure, or use more than 50 REPEAT-AGAIN commands. If you do, the computer will display this message.

**TOO MANY PROCEDURES DEFINED** — The computer can only hold 28 new procedure names in its memory at one time. You can save as many procedures as you want on a disk, however. If this error message is displayed, save some of your procedures on disk. Then type FORGET and those procedure names and continue writing new procedures.



## Fences

"Fences" is an electronic version of an old game — "Dots." In this version, you can challenge a friend or the computer. The player who claims the most squares wins.

### Board Size

There are two board sizes in "Fences": 9 blocks and 16 blocks.

### Playing "Fences"

The computer will ask if you want instructions. Then it will ask your name and if you want to play against the computer. Finally it will ask which board size you want. Then, the board will appear on the screen. The computer will tell whose turn it is.

To play "Fences", you will have to move the white square marker around the board. Use these keys:

	Apple II Plus	Apple IIe/IIc
Up	A	↑
Down	Z	↓
Left	←	←
Right	→	→

### Drawing a Fence

To draw a fence, you must follow two steps. First move the marker to the place where you want to draw a fence and press the SPACE BAR. Then press the key that would move the marker in the direction you want the fence to go. The computer will then draw a fence for you in that direction.

If you press the SPACE BAR and then decide you want to move the marker some more before drawing a fence, press the SPACE BAR again. You can then move the marker without drawing.

### Computer's Turn

When it is the computer's turn, it will decide on a move then draw a fence.

### Claiming a Square

The player that draws the fourth side of a square gets that square. The square gets filled in with that player's color.

### Winning

At the end of each game, the computer counts the number of squares each player claimed. The player with the most squares wins.

## Computer Stuff

### Changing Number of Disk Drives

*Microzine* assumes you have one disk drive. If you have two, choose CHANGE DISK DRIVE SETUP. Then follow the instructions given.

If you do not know the slot number your drive is connected to, ask somebody who does know. Or, just press RETURN. The computer will then assume the answer is slot 6.

The advantage of having two drives is that when you need to use a data disk (in "Story Teller" or "Amazing Robot II," for example) you will be able to put it in the second drive. You will not have to take the *Microzine* disk out of its drive.

If *Microzine* has been changed to assume two drives and you have only one, choose CHANGE DISK SETUP and change back to one drive. You don't have to change the number of drives each time you use *Microzine* — it remembers.



### Initializing a Data Disk

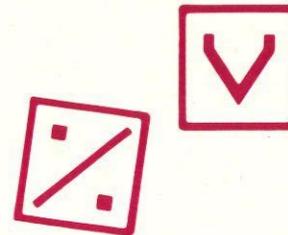
To use "Story Teller" or "Amazing Robot II," you need a data disk. A data disk is a blank disk (or one that you don't mind erasing) that has been initialized by *Microzine*. To initialize the disk, take the second choice on the menu.

The computer will tell you that you need a blank disk, or one you don't mind erasing. Press RETURN and the computer will tell you to put the disk in the drive. If you're using one drive, take the *Microzine* disk out of the drive and put in your disk. If you're using two drives, just put your disk in the second drive. Then press RETURN.

The computer then tells you that the disk will be erased. It asks, "Do you want to go ahead?" Type Y if you do and press RETURN. Type N if you don't want to go ahead.

The computer tells you when the disk has been initialized. Press RETURN then put *Microzine* back in the drive. Press RETURN again and you will be sent back to the menu.

You now have a data disk. You can use it for "Story Teller," "Amazing Robot" or any *Microzine* feature where a data disk is needed.





## Funstuff

### Your Own Puzzles

You solved puzzles in "Pirates of the Soft Seas," but can you make your own puzzles for others to solve? Pick another location on Disk Isle where another treasure chest might be hidden. Then make up three puzzles that give clues to where the treasure can be found. Can your friends solve your puzzles? You can also use "Story Teller" to create your own rebuses.

### Robotricks

Here are a few stunts you might want to try with the robot:

- Geometricks: Can you command your robot to draw a hexagon? A pentagon?
- Look at this procedure. Can you guess what it will draw before you have your robot draw it?

```
BEGIN GUESSWHAT  
REPEAT 5  
FORWARD 50  
RIGHT 144  
AGAIN  
END
```

- Can you figure out how to put a triangle procedure and a square procedure together so that they form a house with a pointed roof?

### Gift Stories

Use "Story Teller" to write stories as gifts for your favorite people. Show the stories to them on the screen or print them out if you have a printer. You can also use "Story Teller" to create your own greeting cards.

### Potluck Story

You and your friends can write stories together with "Story Teller." Plan the story before writing it on the computer.

Or, for some surprises, you and your friends can each write one page at a time without the others seeing. The person writing a page can read only what has been written on the previous page. When the last person has finished, read the story you have created together.

### Drawing Challenge

Have a drawing contest with your friends using the DRAW function in "Story Teller." Pick something to draw. Then let each person have a page and a time limit to draw it. See how your pictures come out!

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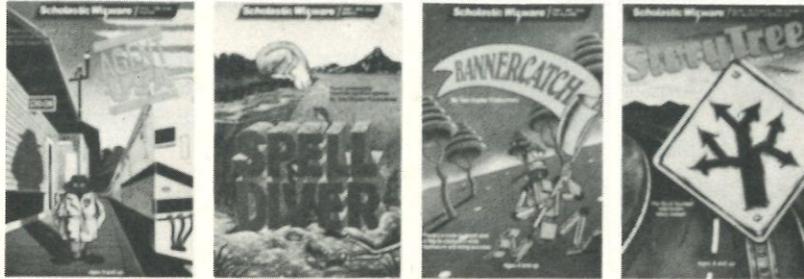
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Please fill out the questionnaire below. Then tear it out and mail to:

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We're anxious to hear from you!

Please rate the features in *Microzine* on a scale from 1 to 4 (1 = Most Favorite and 4 = Least Favorite).

\_\_\_\_\_ "Pirates of the Soft Seas"

\_\_\_\_\_ "Story Teller"

\_\_\_\_\_ "Amazing Robot II"

\_\_\_\_\_ "Fences"

The handbook is

\_\_\_\_\_ helpful.

\_\_\_\_\_ not helpful.

\_\_\_\_\_ I didn't use it.

Why? \_\_\_\_\_

I wish *Microzine* had \_\_\_\_\_

\_\_\_\_\_ age is \_\_\_\_\_ .

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