

ATARI
COMPUTER ENTHUASISTS
of COLUMBUS, OHIO
NEWSLETTER

October 9, 1984

ISSUE 12

THE EDITOR'S COLUMN

Moving About by Charles Brown

The MPP-1000C Modem

"Atari Basic:
Faster and Better"

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ATARI DEMOPAC #7

Published by
Atari Computer Enthusiasts of Columbus, Ohio

for ACE of Columbus membership. Dues are on an annual basis and entitle the members to all club benefits (Newsletter, Disk or Tape of the month, group discounts, etc.). Monthly meetings, in the basement of State Savings, 6895 N. High Street, Worthington, Ohio are open to nonmembers.

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THE EDITOR'S COLUMN

When I took on the job of newsletter editor, I did not promise to put out an issue every month. You have received an issue monthly for several months. In September I exercised my prerogative to skip an issue for personal reasons. I was delighted that two articles were turned in during my absence. The articles contributed by Charles Brown and Scott Lytle appear in this issue.

Acting on the suggestion of one of the members, I have compiled a sequential index of all the ACEC newsletters. The index serves several purposes. It gives prospective authors suggestions of topics for articles to be submitted for publication: reviews, tutorials, personal views, questions and answers, etc. Prospective authors should restrict themselves to types of articles published previously. Back issues or articles are available under the following conditions: \$.05 or reproduction cost per page for articles published under the previous editor. Individual articles published since I became the editor are free if only 3 or fewer copies are requested by the membership per month; otherwise same price as above. In either case, articles are available at the next meeting unless you pay for the postage. I reserve the right to change the conditions under which they are available. The library of past issues will be available at each meeting for your inspection.

Another of my prerogatives as editor is to comment on articles. If you have the Basic XL cartridge or Basic A+, key in Charles' short program after reading his article and observe how fast information is flashed on the screen. The speed is comparable to the Atari Writer SELECT B or T commands to display the bottom or top of an Atari Writer file. The effect is impressive when you compare the simple Basic XL MOVE command to the machine language routine published by Carl Evans in "Atari Basic: Faster and Better" which should achieve the same effect; I'll have to level with you and admit that I have not tried Evans' MOVEing machine language routine. Evan's book is reviewed in this issue and is highly recommended. Until I read Charles' article I had ignored the MOVE command and now realize that it can be useful in some of my own programs.

Perhaps the most important issues facing the club tonight is selection of officers for the coming year. There is still time for interested persons to express an interest in running for an office. We need fresh people in several of our positions. You just cannot expect a person to hold down an office for more than a year. I'll stick out my neck and speak the officers as a group. We've enjoyed serving the club, but we would like to step down and accomplish some other things in life. Personally, my wife would like to have finish working on her kitchen. After the current officers finish their term of office you can still contribute to the club by contributing an article to the newsletter. Now you'll have time to write one.

Norman Knapp
ACEC

MOVING ABOUT
by Charles Brown

One of the most important commands in programming is the move command. This command is only available to us in Microsoft Basic and Basic XL. It would be well worth it to get one of these languages just so you could use this command. With it you can almost duplicate machine language programming.

In order to understand the move command you must know about your computer configuration and how it works. Everything that is in your computer is in a certain memory location. When you type in a Basic program it resides in a certain memory location. When you input something it resides in another location. Everything you see on a screen is in a screen memory location. Simply speaking you might say that everything has its own memory location.

What the move command does is to move bytes of memory from one location in the computer to another. The speed is comparable to machine language. I am sure someone could write a program in Basic to do it but it would not be as fast as the MOVE command. With this command you can move almost anything anywhere you want to in a wink of an eye. There are many uses for this command. The syntax for this command is MOVE A,B,C. The A would be the starting location from which you want to move C bytes to a new starting point at memory location B.

This is very powerful and dangerous command to use. In order to use this command you must know the memory locations for your computer. You must know where you are going to move the bytes and know that that location is empty. If you move something into a location that has something there you will write over that location, most likely lock up the computer, and lose the program. If you use this command make sure you are familiar with the location that you are moving your bytes to and that location is empty. One example of this is to move something to location 0. If you do that you will write over the operating system of your computer and that will definitely lock up your computer.

Some of you might be wondering what you can use this command for. I discovered an example the hard way. If some of you have tried my program on the disk of the month called Graphics 10 Double Joystick, I could have used the MOVE command in that program. When you are drawing your picture you are using graphics mode 10. Every time you leave the drawing mode and come back to it you are using a couple of machine language routines. My tutor Gary wrote two machine language routines to use with this program. The first one reads the data on the screen and moves that data to an empty location in memory. Then the second routine takes the data from the storage location and puts it back into the screen location, thus putting the picture back on the screen. If I would have written that program in Basic XL I could have used the MOVE command and would not have needed those two machine routines. This is but one example of the use of the MOVE command.

I am including a short program written in Basic XL that illustrates another use of the MOVE command. This program will move the entire contents of the computer's memory in blocks of 100 bytes into location 40560, which is the starting location of graphics mode 2. In doing this it will show the complete computer's memory on a graphics mode 2 screen 100 characters at a time. It will start at location 0

and go on to location 48000 and start over again. Hit the RETURN key to make it continue. The numbers in the text window show the actual locations you are looking at. You probably won't understand what is on the screen, but it might be interesting to look at your computer's memory.

I can assure you that I am no expert on this or any subject of computers. I am only hoping to show you some of the insights of this powerful command. I am sure you can find a lot more and even better uses for the MOVE command. Make sure that if you do start moving bytes around that you are moving them to empty locations.

```

5 MEMORY.SEE by Charles Brown
10 Graphics 2
20 A=0:B=100
30 Move A,40560,100
35 Print A
40 IF Peek(764)=12 Then Poke 764,255:Goto 60
50 Goto 40
60 A=A+B
65 If A>40800 Then A=0
70 Goto 30

```

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ATARI AID

Users of the a graphics tablet: Koala Pad, Super Sketch, or Atari Touch.

These devices work by reading the joystick and paddle functions for port 1. The following Basic programs illustrate this and can be used to trouble shoot (my first one was defective) them to check switches, buttons, surfaces, and arms.

```
10 ? STICK(0),STRIG(0):GOTO 10
```

will show what the joystick function responds to while

```
10 ? PADDLE(0),PADDLE(1),PTRIG(0),PTRIG(1):GOTO 10
```

will show what the paddle functions responds to.

With this information, a Basic programmer could write a touch pad menu program.

Contributed by Norman Knapp

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HARDWARE REVIEW

MPP-1000C Modem
 Micro Peripheral Products
 225 West Third St.
 Albany, Oregon 97321
 List price: \$149.95
 Modem Driver Program: \$20.00

Reviewed by Scott Lytle

Product description:

The MPP-1000C is a 300 baud, auto answer/autodial modem which provides one of the most inexpensive ways to add a "smart" modem to your Atari computer. The MPP-1000C connects directly to joystick port #2 and does not require an 850 interface. The telephone interface requires a modular telephone jack. The terminal software provided comes on an 8K cartridge. Minimum requirements are an Atari computer with 16K of ram. Disk drives, and a printer are optional. When used with the provided cartridge, it initializes with the following main menu:

```

A) Disk Directory
B) Modem <-> Disk Direct
C) Copy Buffer Device
D) Delete All Buffers
E) Create New Buffer
F) Full/Half Duplex
H) ASCII/ATASCII
I) NO/X-MODEM PROTOCOL
J) 38/40/80 Column
K) Modem <-> Printer Direct
L) Load buffer From Device
M) Dial/Answer Functions
P) No/Odd/Even Parity
T) Terminal Mode
V) Variable Baud Rate
  
```

When used with a disk drive you may keep a list of 10 frequently called numbers that may be automatically dialed by the modem. A disk drive will also allow you to upload and download files using XMODEM protocol.

The cartridge software is very versatile, and has more options than you may ever need or use. The only drawback, was it could not be used with some of the public domain terminal and BBS programs. I telephoned MPP and they sold me a package called MODEM DRIVER PROGRAMS that configures your MPP-1000C to emulate a Hayes smart modem connected thru an Atari 850 interface. Included free on the disk were several public domain terminal programs and a BBS program along with users manual. One of the programs even allows a complete disk to be sent over the phone sector by sector. Now I can use virtually any terminal program or start a BBS.

A recent product update from MPP stated that the MPP 1000C modem driver has been included in Atari's new Plato educational cartridge.

A free two hour subscription is also included in a CompuServe DemoPak.

Users comments:

In general, I am very pleased with the MPP-1000C modem. The only improvement I would like to see, would be a longer ribbon cable between the modem and the joystick port. That is only minor and cosmetic in nature, and is greatly outweighed when comparing the rest of it's features. Dollar for dollar, it offers more than any other modem for use with an Atari computer.

ACEC

BOOK REVIEW

"ATARI BASIC: Faster and Better"

by Carl M. Evans

IJG Inc., 1953 W. 11th Street

Upland, California 91786

1983

\$29.95

There have been many books published for the beginning Atari Basic programmer. On the other hand, most books available for the person interested in learning more advanced topics in Basic have been reference manuals and compilations of magazine articles. The book under review presents a systematic approach which allows a programmer to build up a library of useful subroutines and programs.

"Atari Basic" covers many topics in a readable and useful manner:

1. Programming efficiency
2. Using machine language routines in Basic
3. Number crunching
4. Using strings
5. Date and time manipulation
6. Boolean logic
7. Sorting
8. Keyboard techniques
9. Data entry
10. Graphics
11. Sound
12. Utilities

Some topics are covered more thoroughly than others while some receive a rather brief treatment. The most unique and valuable aspect of this book is that the numerous subroutines have unique line numbers. When they are stored on disk in the LISTed format a program can be built up by merging the required subroutines by using the ENTER command. The programmer should use the author's conventions concerning line numbering, variable names, counters, and constant names. This book contains 85 subroutines which requires a lot of work at the keyboard to store them all on disk. For the programmer with more money than time there is available from IJG a disk containing these subroutines. Two other disks from IJG contain the assembly language routines, and the application and demonstration programs.

The last chapter of this book lists the directories of each disk along with a short description of each subroutine and program. The descriptions of the subroutines are sufficient enough to allow the programmer to customize them. In the appendices the subroutines are listed by line number, alphabetically, and by chapter. These cross indexes allow the author to present to the programmer a uniform and consistent approach to programming in Basic which is unavailable elsewhere.

There are a few topics which are not adequately treated. The reader will want to supplement the chapters on sound and graphics with material from other sources. The chapter on date and time manipulation may be adequate for fiscal calculations from 1901 to 2099, but is inadequate for use in history, astronomy, and genealogy. For example, genealogists can be interested in dates

as early as 800 AD; from that time to the present there has been calendar reforms, exceptions to the normal leap year schedule, and changes in the date for New Year's day. If you are interested in such topics, the reviewer has written a perpetual calendar program which takes the first two factors in consideration. One topic which is not covered in the chapter on number crunching is that of matrix or array calculations, a topic inadequately treated in the microcomputer literature.

On the cover this book is presented as Volume 1 of the ATARI INFORMATION SERIES. Another book published by IJG (volume 2 of this series?) is "Secrets of Atari I/O." If other volumes in this series are as good as "Atari Basic: Faster and Better," this set of books will be a valuable Atari resource.

Reviewed by Norman Knapp

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ATARI HELPFUL HINTS

Hold down the HELP key while hitting SYSTEM RESET on an XL computer when using a TRANSLATOR disk so you can have a warmstart rather than a coldstart.

Contributed by Scott Lytle

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For sale:

- Atari 400 (in box) - \$50.00.
- "The Atari Assembler " book - \$10.00
- "Atari Sound and Graphics" book - \$8.00
- "Atari Software Protection Techniques" book - \$10.00

Call Scott Lytle (614)772-6956
P.O. Box 747 Chillicothe, OH 45601

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Atari Computer Enthusasists of Columbus Newsletter
compiled by Norman Knapp

This is a compilation of the tables of contents of all issues of the newsletters issued by the Atari Computer Enthusasists of Columbus, Ohio. No attempt has been made to compile a cross index by author and subject. Where it has been possible authorship and source is indicated.

Regular features are indicated by words in capitals. Titles of articles are italicized. Book titles are enclosed in quotation marks. Commercial program (referred to as software), public domain program, and hardware names appear in normal print.

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ATARI AID

Users of the 1200 XL and disk based languages: if pressing
 SYSTEM RESET to clear the screen causes loss of your program,
 the screen can be cleared by keying GR. 0 then RETURN, CTRL
 <, or SHIFT <.

The user of Atari Basic on the 800 will experience a similar
 problem if the SYSTEM RESET key is pressed too many times
 during a session during which a program is being keyed in.

All users should periodically send a program out to cassette
 or disk to avoid entirely losing it while keying it in.

Contributed by Norman Knapp

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