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INSTALLATION GUIDE

Disk System

PRELIMINARY

Atari 800

CORVUS SYSTEMS

DISK SYSTEM
INSTALLATION GUIDE

For Atari 800 Computers

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Introduction

The Installation Guide for using Corvus hard-disk systems with Atari 800 Computers is intended solely to detail, step-by-step, how to install a single Corvus drive and initialize its single-user software. Therefore, it does not contain as much detailed explanation and description as the "Corvus Disk Systems User's Guide for Atari 800 Computers" does.

The following symbols are used throughout this guide.

- # The text following a number is an instruction which must be performed.
- ▷ An unfilled triangle sometimes follows an instruction. It indicates that the following information is an expanded description of the preceding instruction.

HARDWARE SETUP

- 1 Power off all equipment.



POWER OFF

- 2 Place the disk unit on a flat surface, either on its side or on its base. Be sure the disk drive has adequate ventilation. Do not place power cords, or other equipment that generates strong electro-magnetic fields, on top of the drive container, as it may damage the disk.

Since the Corvus disk system is a precision instrument, it must be handled carefully. The disk drive must not be operated when the unit is upside down, or if the long direction is at an incline.

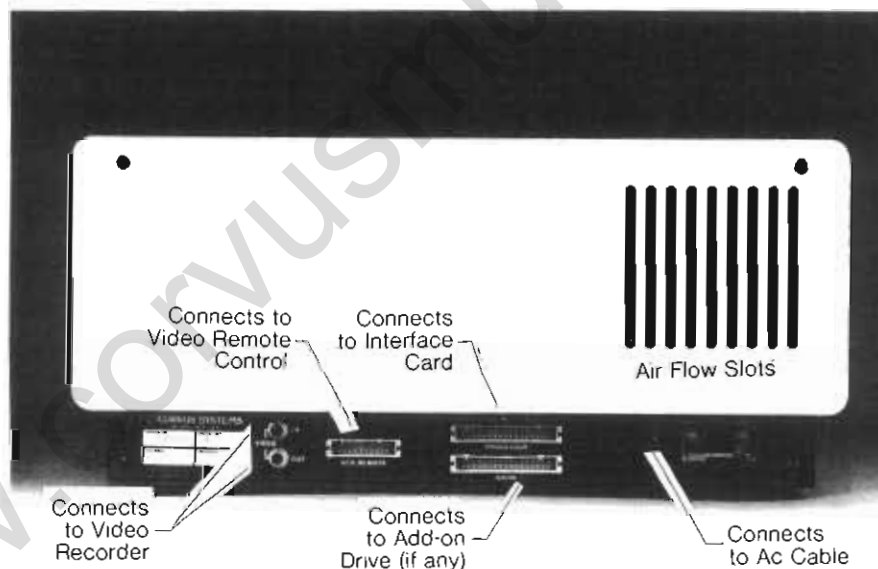


FIGURE 1 CORVUS DRIVE BACK PANEL

To ensure cool running equipment, the air flow slots at the rear of the drive container should not be blocked. Also, avoid putting the unit in a sealed container (such as a box or drawer).

- 3 Flip all of the drive controller switches to the left, which is the normal position.

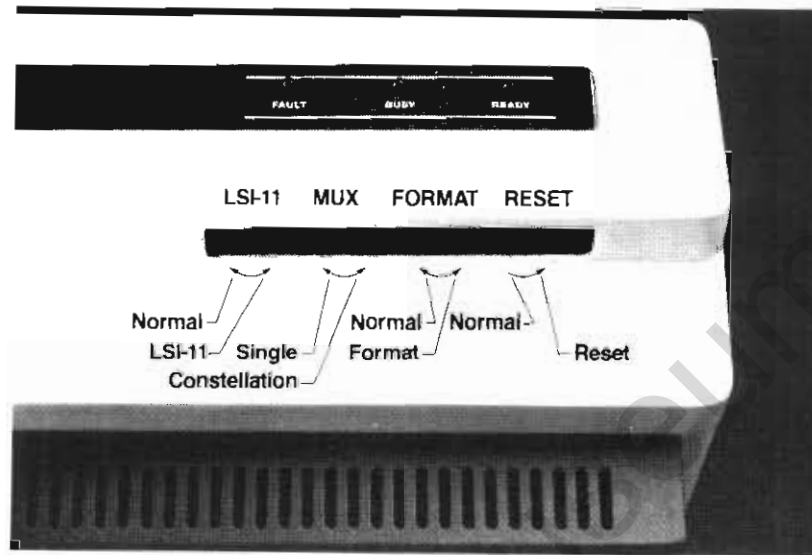


FIGURE 2 FRONT PANEL SWITCHES AND LIGHTS

- ▷ Approximately two inches below the indicator lights, the front panel protrudes slightly. Directly beneath the lights, and up under the lip of the protrusion, are four switches.
- 4 Verify that the voltage setting for the drive matches the local voltage (100v, 120v, 220v, or 240v). The disk works with 50 or 60 Hertz power in either voltage setting. The voltage setting, fuse, and local voltage must match. Any type of mismatch here, damages the drive hardware.

To verify the voltage setting, look at the back panel of the Corvus drive. At the bottom right, you will find the ac cord connector and fuse receptacle. The two voltage options (100/120, or 220/240 volts) are displayed directly below the fuse holder.

- 5 If the voltage setting is correct, continue to Step 6.
If you must change the voltage setting, proceed as follows:

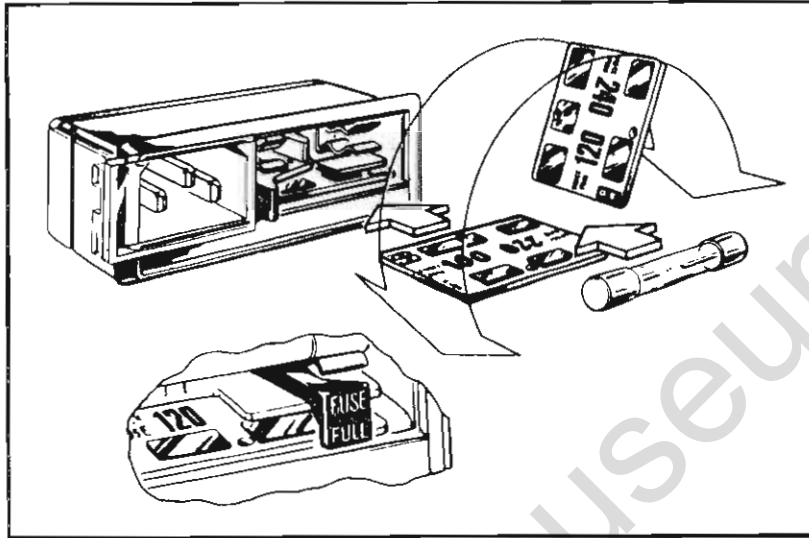


FIGURE 3 VOLTAGE SELECTION

- Slide open the cover door, pull the fuse-pull to the left, and remove the fuse.
- Using long-nose pliers, carefully pull the voltage circuit board out of the fuse housing. To set the Corvus drive to the proper operating voltage, position the circuit board so that the desired voltage appears on the top left side. Then push the board firmly into the module slot.
- Do not re-insert the fuse you removed if you have chosen a different voltage setting from the one you received with the drive. A 3 amp fuse is used with 100 and 120 volt systems. A 1.5 amp fuse is used with 220 and 240 volt systems. Be sure to use the correct fuse value.
- To return the fuse to its receptacle, push the fuse-pull lever to the right and insert a fuse into the holder. Slide the clear plastic cover door to the right to expose the ac cord connector.

- 6 Plug the unattached end of the 34-pin connector cable (the single connector stamped "3M No. 3414) into the PROCESSOR connector on the back panel of the drive cabinet. The cable should lead down and away from the drive.

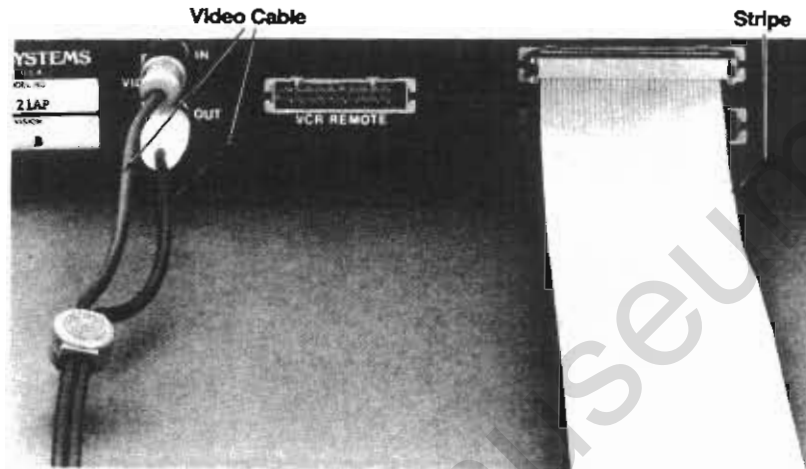


FIGURE 4 FLAT CABLE EXITING CORVUS DRIVE

- ▷ There are two 34-pin flat cable connectors on the rear of the drive. The top connector is labeled PROCESSOR, the bottom labeled DRIVE.

The interface cable plugged into the PROCESSOR connector should only be attached with the cable leading down and away from the drive. When you face the drive cabinet's back panel, the red stripe on the edge of the flat cable should be to your right.

The cables must not be coiled!

- 7 The other end of the 34-pin flat cable is already attached to the single 34-pin receptacle inside the Corvus interface box. The red stripe on the cable should face toward the right as it enters the Corvus interface utility box.

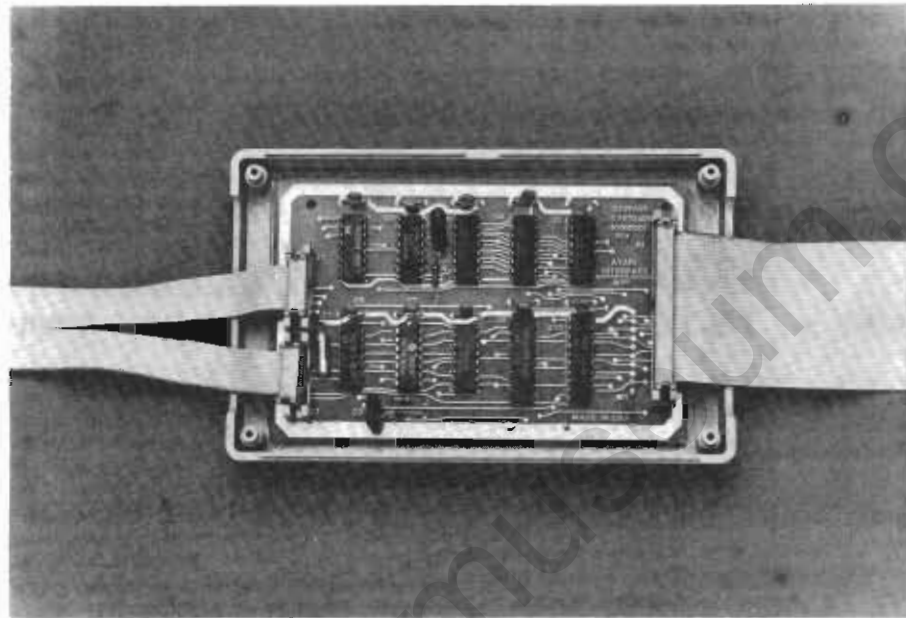


FIGURE 5 FLAT CABLES CONNECTED TO CORVUS/ATARI INTERFACE

- 8 Connect the two large, black clips (9-pin connectors) at the end of the split cable to the Atari 800 computer. The left fork connects to Game Port 3 on the front of the Atari 800, while the right fork attaches to Game Port 4. When you face the front of the computer, the red stripe along the edge of the 10-pin split cable should be to your left.
- 9 The other end of the split cable is already connected to the Corvus interface card inside the utility box. The two small gray clips (stamped "3M No. 3473") on the end of the split cable should already be attached to the twin 10-pin connectors on the interface card. If the clips are not already attached, connect them so that the red stripe on the edge of the 10-pin flat cable faces toward the left as it exits the Corvus interface utility box.



FIGURE 6 SPLIT CABLE ATTACHED TO ATARI 800 COMPUTER

- 10 Connect the ac cord to both the disk unit and a power receptacle.
- 11 Power on the Atari 800, then power on the Corvus drive.

The power switch on 10 and 20 MB drives is on the lower left corner of the drive front panel. On 6 MB drives, it's in the lower right corner of the back panel. Depress the upper half of the switch for ON, lower half for OFF.

- 12 When you Power On the drive, all three indicator lights on the front panel come on. After approximately 40 seconds, only the Ready light should stay on, indicating that the Corvus disk system is ready.
- ▷ Looking at the front of the drive cabinet, on the upper right hand corner, there are three lights labeled Fault, Busy, and Ready.

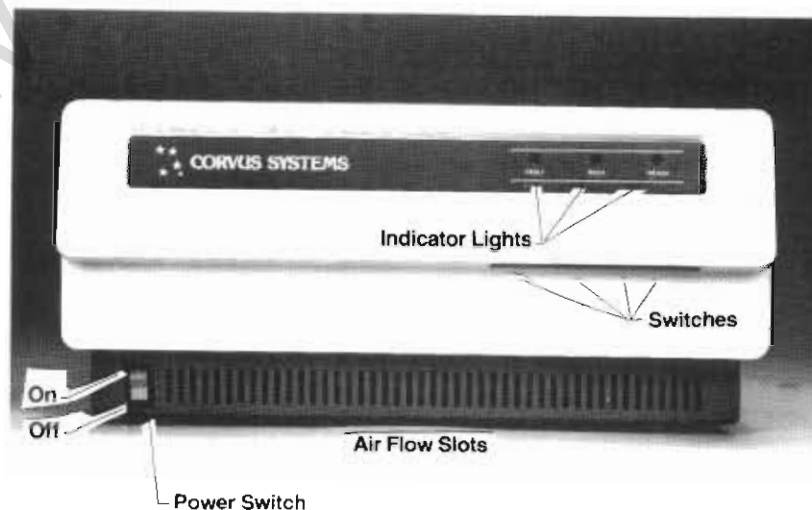


FIGURE 7 CORVUS DRIVE FRONT PANEL

Initialization for BASICs

To initialize your Corvus drive, the minimum amount of equipment needed is: an Atari 800 computer, an Atari 810 diskette drive, a Corvus hard-disk drive, a Corvus interface card, and flat cables connecting the interface card to the Atari 800 and to the Corvus drive.

Two floppies are provided for using your Corvus drive with an Atari 800 computer.

- 1 The first diskette is labelled:

```
AT UTILITIES - VOL 1 OF 2
FOR ATARI DOS 2.0
REL DATE: 2/17/82
SYSGEN
```

This diskette is referred to in this Guide as the Sysgen diskette. It contains the following files:

```
DOS.SYS (Corvus special version)
DUP.SYS (Corvus special version)
SYSGEN.COR
AUTORUN.SYS R050382.COR
SYSGEN BCI.OBJ
CORDOS.OBJ CORBOOT.OBJ
```

- 2 The second diskette is labelled:

```
AT UTILITIES - VOL 2 OF 2
FOR ATARI DOS 2.0
REL DATE: 2/17/82
CORVUS UTILITIES
```

This diskette is referred to in this Guide as the Corvus Utilities diskette. It contains the following files:

```
DOS.SYS (standard Atari version)
DUP.SYS (standard Atari version)
UTILS.COR R050382.COR
BCI.OBJ DIAG173.DAT
DIAG CF173.DAT
MIRROR MOUNT
WRITBOOT.OBJ
```

You should also have at least one formatted blank diskette.

We suggest that you have two extra blank diskettes, and use them to duplicate the SYSGEN and CORVUS UTILITIES diskettes. Store the original diskettes for future use, and use the duplicate diskettes to initialize your Corvus drive.

- 1 Place the CORVUS UTILITIES diskette in the diskette drive.
- 2 Power on the Atari 800 computer.
- 3 The CRT screen will display:

```
-----
|  READY  |
-----
```

When it does, check that your Corvus disk drive is working properly, by typing:

```
RUN "D:DIAG <return>
```

- 4 The console screen will now display the following:

```
-----
|  LOADING BASIC/CORVUS INTERFACE  |
|  PLEASE STAND BY . . . .        |
|  LOADING DIAG MODE PROGRAM      |
|  PLEASE STAND BY . . . .        |
|                                  |
|          VER 4.9B                |
|      CORVUS DRIVE DIAGNOSTICS    |
|          8-DEC-81                |
|                                  |
|  V(RSN  C(RC  P(ARMS  E(XER      |
|  U(PDATE F(ORMAT  Q(UIT  ?      |
|                                  |
-----
```

- 5 Press V <return>

```
-----
|          *** VERSION CHECK ***   |
|  DRIVE 1                          |
|  V17.3 CORVUS SYSTEMS 20-NOV-81  |
|                                  |
|  V(RSN  C(RC  P(ARMS  E(XER      |
|  U(PDATE F(ORMAT  Q(UIT  ?      |
|                                  |
-----
```

- 6 If a version number of 17.3 or higher appears in Step 5, your Corvus drive should work properly. Press Q <return>

```
-----
|  READY  |
-----
```

- 7 Power down your Corvus drive. Power down the Atari computer.



POWER OFF

- 8 To start initializing your Corvus disk drive, place the SYSGEN diskette in the diskette drive.
- 9 Power on the Atari 800 computer.
- 10 Power on the Corvus drive.
- 11 The CRT screen now displays:

```
-----  
| READY |  
-----
```

- 12 Type RUN "D:SYSGEN <return>

```
-----  
| LOADING BASIC/CORVUS INTERFACE |  
| PLEASE STAND BY . . . . . |  
| VER. 1.0 |  
| CORVUS DRIVE SYSTEM INIT |  
| 6-FEB-82 |  
| ENTER NUMBER OF CORVUS |  
| DRIVE TO BE INITIALIZED ? |  
-----
```

- 13 Press 1 <return>

```
-----  
| ERASE ALL DATA ON DRIVE 1? (Y/N) ? |  
-----
```

- 14 Press Y <return>

```
-----  
| WHAT IS THE MAXIMUM NUMBER OF OPEN |  
| FILES TO BE ALLOWED? (DEFAULT=4) ? |  
-----
```

15 Enter the number of open files you wish to allow (up to 8), then Press <return>

: WHAT IS THE MAXIMUM NUMBER OF LOGICAL :
: DRIVES TO BE ALLOWED? (DEFAULT=8) ? :

16 Type the number of logical drives in the system (up to 8), then Press <return>

: DO YOU WANT A TONE DURING I/O? :
: (DEFAULT IS NO TONE) (Y/N) ? :

17 If you wish a tone to sound during input/output, Press Y <return>. If you do not desire an audible tone, simply Press <return>

18 Two prompts will ask how many single-sized and how many double-sized volumes you want. A 6 megabyte Corvus drive has room for 59 single-sized or 29 double-sized volumes. 10 MB drives hold up to 115 single-size or 57 double-sized volumes. 20 MB drives contain up to 210 single-sized or 105 double-sized volumes.

▷ Because the program automatically calculates how many double-sized volumes may be created after you enter the number of single-sized volumes, the form of the second prompt depends on your response to the first prompt. In these two examples, the screen display is at left, a possible response at right.

: HOW MANY SINGLE SIZED VOLUMES DO YOU :
: WANT (MAX=59)? : 59 <return>
: :
: HOW MANY DOUBLE SIZED VOLUMES DO YOU :
: WANT (MAX=0)? : 0 <return>

: HOW MANY SINGLE SIZED VOLUMES DO YOU :
: WANT (MAX=59)? : 0 <return>
: :
: HOW MANY DOUBLE SIZED VOLUMES DO YOU :
: WANT (MAX=29)? : 29 <return>

- 19 The following shows the screen displays which appear after you respond to the prompts in Step 18. The process below takes time, so please be patient. The approximate time each process takes, before the next line appears on the screen, is shown to the right of the screen display.

```

-----
|   NOW CREATING CORVUS SYSTEM   |
|                                |
| CREATING VOLUME TABLE ..... DONE          30 seconds |
| WRITING VOLUME TABLE ..... DONE          4 minutes  |
| FORMATTING VOLUMES ..... DONE          1-4 minutes |
| WRITING DOS ..... DONE          3 minutes  |
| WRITING DUP ..... DONE          2 minutes  |
| WRITING BOOT CODE ..... DONE          30 seconds |
| WRITING MOUNT TABLE ..... DONE          10 seconds |
|                                |
| END OF PROGRAM                 |
|                                |
| READY                           |
|                                |
-----

```

- 20 Power off the Corvus drive, then power down the Atari.



POWER OFF

- 21 Place the CORVUS UTILITIES diskette in the diskette drive.
 22 Power on the Atari computer. The screen displays:

```

-----
| READY |
|-----|

```


23 Type DOS <return>

```

-----
:      DISK OPERATING SYSTEM II VERSION 2.05      :
:      COPYRIGHT 1980 ATARI                       :
:
:  A. DISK DIRECTORY          I. FORMAT DISK      :
:  B. RUN CARTRIDGE          J. DUPLICATE DISK   :
:  C. COPY FILE              K. BINARY SAVE      :
:  D. DELETE FILE(S)        L. BINARY LOAD       :
:  E. RENAME FILE           M. RUN AT ADDRESS    :
:  F. LOCK FILE             N. CREATE MEM. SAV   :
:  G. UNLOCK FILE           O. DUPLICATE FILE    :
:  H. WRITE DOS FILE
:
:  SELECT ITEM OR RETURN FOR MENU
:
-----

```

24 Press L <return>

```

-----
: LOAD FROM WHAT FILE? :
-----

```

25 Type WRITBOOT.OBJ <return>

```

-----
: This program formats the diskette on          :
: drive 1 then writes out the                   :
: CORVUS bootstrap                             :
:
: PRESS START to format & write boot           :
: PRESS OPTION to return to DOS                :
:
-----

```

26 Place the blank diskette in the diskette drive. Press the <START> key at the far right of the Atari keyboard. After about 30 seconds, the screen displays:

```

-----
: CORVUS BOOT DISK CREATED SUCCESSFULLY        :
:
: PRESS START to format and write boot         :
: PRESS OPTION to return to DOS                :
:
-----

```

- 27 Power off the Atari computer.



POWER OFF

- 28 Power on the computer, then power on the Corvus drive, leaving the diskette you just created in drive 1. If the drive is not immediately ready, the screen may temporarily flash the message:

```
-----
| NETWORK NOT READY |
-----
```

After a few seconds, the screen will display:

```
-----
| READY |
-----
```

- 29 Place the CORVUS UTILITIES diskette in the floppy drive.

```
-----
| READY |
-----
```

- 30 Type DOS <return>

```
-----
| DISK OPERATING SYSTEM   CORVUS A2.0D
|   COPYRIGHT 1981 CORVUS SYSTEMS
|
| A. DISK DIRECTORY       I. FORMAT DISK
| B. RUN CARTRIDGE       J. DUPLICATE DISK
| C. COPY FILE           K. BINARY SAVE
| D. DELETE FILE(S)     L. BINARY LOAD
| E. RENAME FILE        M. RUN AT ADDRESS
| F. LOCK FILE          N. CREATE MEM. SAV
| G. UNLOCK FILE        O. DUPLICATE FILE
| H. WRITE DOS FILE
|
|           -----
| SELECT ITEM OR | RETURN | FOR MENU
|           -----
-----
```

- 31 Press C <return>

```
-----
| COPY -- FROM, TO ? |
-----
```

32 Type B:*.*,1: <return>

```
-----  
: COPYING --- DB: BCI20.OBJ  
: COPYING --- DB: DIAG173.DAT  
: COPYING --- DB: DIAG  
: COPYING --- DB: CF173.DAT  
: COPYING --- DB: MIRROR  
: COPYING --- DB: MOUNT  
: COPYING --- DB: WRITBOOT.OBJ  
:  
: A. DISK DIRECTORY      I. FORMAT DISK  
: B. RUN CARTRIDGE      J. DUPLICATE DISK  
: C. COPY FILE          K. BINARY SAVE  
: D. DELETE FILE(S)    L. BINARY LOAD  
: E. RENAME FILE       M. RUN AT ADDRESS  
: F. LOCK FILE         N. CREATE MEM. SAV  
: G. UNLOCK FILE      O. DUPLICATE FILE  
: H. WRITE DOS FILE  
:  
: SELECT ITEM OR RETURN FOR MENU  
-----
```

33 Press B <return>

```
-----  
: READY :  
-----
```

Your Corvus drive is now configured for BASIC, and ready to use with your Atari 800 computer, with a maximum of 8 volumes on line. For the procedure to bring other volumes on line, see Chapter 1 of the "Corvus Systems User Guide for Atari 800 Computers."