quikLoader

quikStart

Thank you for purchasing the quikLoader. The purpose of this note is to allow you to immediately make use of the quikLoader, without having to go through the technical manual.

1) Make sure you have the right computer. The quikLoader is designed for the APPLE][,][+, or //e.

2) **TURN OFF THE COMPUTER!!** This is very important to avoid damage to the quikLoader, the computer, or both.

3) Plug the quikLoader into any vacant slot (except Ø of the][ ). NOTE: If you have a //e with an 80 column card, you have been told not to plug anything into slot three. You may ignore this restriction.

4) Turn on the computer. Instead of the usual "BEEP", you will hear a "WHOOP". The screen will then show the usual prompt character. In the time it took to hear the "WHOOP", DOS was transfered into the usual place in memory, and, if applicable, Integer was transfered to the language card. NOTE: (for][+ users.) If you do not have a language card installed, Integer will not be transfered. Also if your language card has not been modified according to the instructions in the manual, Integer will not be available for use. If you promise that you will never need the use of the language card, it is not necessary to modify it, although we suggest that it be done. Also, the manual mentions the USER 1 jumper. It is not necessary, in general, to make this modification if you use smaller than a 27128 EPROM.

5) To call up the quikLoader Katalog (as opposed to disk Catalog);

APPLE][or][+	APPLE //e
Press "Q", then reset, or control-reset	Press and hold control, then "Q", then reset. Release reset, then control and "Q".

You will now see a catalog (actually, we call it Katalog, to avoid confusion) of programs available for your instant use. To run one of these programs, just press the index letter ("A" through "W") that appears on the left. The program will be instantly transfered into memory, and start running. To give just an idea of what else the quikLoader can do, press "Z" instead of one of the other letters. Press "Z" again to get rid of the extraneous material. The manual will explain the meaning of the numbers that will appear. The quikLoader has many more features that you will want to take advantage of. Please read the manual when you get a chance. In the meantime, if you run the program "QUIKLOADER/QLOS HELP" (index letter "C" on the quikLoader Katalog), you will have a quick synopsis of available commands.

PROGRAMMING QLOS COMPATIBLE EPROMS

A PRIMER

This paper will give the beginning programmer a quick lesson in programming QLOS compatible EPROMs. It is not meant to replace the technical manual packed with the quikLoader.

We will make certain assumptions before we start. We will use a 2764 EPROM, as it is the least cost per bit at this writing. The working array of the PROM programmer starts at $2000. This means that, although we will be putting the information in the area between $2000 and $3FFF, we have to remember that in actual use, the computer will be seeing the PROM in the area between $E000 and $FFFF. A last assumption is that our katalog will be at location $FF00. While this is not the best location for the purpose of saving space, it is a convienent round number. Remember, $FF00 translates to $3F00 in our working array.

There are three parts to a quikLoader compatible PROM; the TOP OVERHEAD, which may be considered invariable for the time being, the KATALOG entry, and the actual file. We will show this by example.

For this first example, we will start with a very simple APPLESOFT program. Let's start off by having our PROM programmer in the computer with a 2764 set in place.

1) Turn on the computer.
2) Type in the following;
```
10 FOR X = 1 TO 10:PRINT X:NEXT
```
3) Type "CALL -151". This will put you into the monitor.
4) Type "69.6A". (Don't include the quote' marks.) This gives us the ending address of the program, low byte first. Since the computer answered "14 08", this tells us that the ending address of the program is at $814. Since all normal APPLESOFT programs start at $801, simple subtraction tells us that the length of the program is $13. We will need this information.
5) Let's move this program to the bottom of our working array;

```
2000<801.814M
```

6) We will call this program "TEST". Our Katalog entry will start at $3F00. Page 22 of the technical manual tells us that we want the following format;

```
ID  SLO SHI LLO LHI DLO DLI NAME  86
```

ID = $81 (APPLESOFT PROGRAM)
SLO & SHI = Source address in the PROM for the program, in this case 00 E0. REMEMBER: The low byte is first, and the address is offset, since we are using a working array.
LLO & LHI = Length of file, low byte first.
DLO & DHI = Destination in RAM. These numbers are meaningless for APPLESOFT files, as these programs are assumed to reside starting at $801.
NAME = TEST. The name is entered using the hexadecimal code where "A" = $C1, "B" = $C2, etc.
86 = Code for termination of katalog entry.

Thus, our katalog entry, starting at $3F00 is:

```
81 00 E0 13 00 00 00 D4 C5 D3 D4 86
```

7) The TOP OVERHEAD is just copied as follows, starting at $3FE7:

```
A6 26 AD 0A 02 9D 81 C0 4C 98 FF
00 00 00 60 00 00 00 FF FB 03
```

The bytes at location $3FF8 & $3FF9 are the location of the katalog entry. PLEASE NOTE: The addresses on all EPROMS used with the quikLoader are all referenced with the top, i.e. A 2764 starts at $E000, and ends at $FFFF.

8) Now, program the PROM, following the instructions given with the PROM programmer.

9) After turning the computer off, install the PROM in the quikLoader, into any empty socket, remembering that pin one goes next to the white dot on the quikLoader board.

10) If you call up the quikLoader katalog (CTRL-Q RESET), you will see that the program "TEST" is now available for loading and/or running.

SAVING A BINARY FILE

We will now try a short machine language program. To get into the monitor, type "CALL -151", or, better yet, just hit "M" reset (if your quikLoader is installed).

Type the following:

```
2000: CE 00 30 AE 00 30 CA D0 FD AD 30 C0 4C 00 20
```

The katalog entry is:

```
3F00: 82 00 E0 0F 00 00 20 CE CF C9 D3 C3 86
```

The top overhead for this is the same as before.

Program the PROM, and you will have a program called "NOISE" available to you. Before you run it, be sure you know how to "RESET" out of the program, or at least turn off the computer.

NOTE: If you are going to program a PROM from a binary file on disk, first BLOAD the file. Enter the monitor, and type "AA60.AA61. This will give you the length of the file, low byte first. AA72.AA73 will give the destination address.

Obviously, to maximize your enjoyment and utility of the quikLoader, it is necessary to study the technical manual. We hope that this cursory treatment of programming will start you on your way to more exotic programs.
While we cannot be expected to teach basic programming skills, we are usually available for some technical help. Call us at (805) 685-1931.

```
****************************************
*                                      *
*  SCRG QUIK LOADER/QLOS HELP SCREEN   *
*                                      *
****************************************

KEYBOARD/RESET COMMANDS

A-MOTHERBOARD RESET IF POWER BYTE OK
  POWER UP RESET IF POWER BYTE BAD
  UNDEFINED KEY FORCES A-RESET

Z-MOVE INTEGER; MOVE AND INITIALIZE DOS
N-(NUMBER 0-7) DO ROUTINE ON CHIP N
Q-QUIK LOADER KATALOG
H-"Z RESET" THEN EXECUTE HELLO
B-(BOOT ONLY) MOVE AND INITIALIZE DOS
D-DISK BOOT
C-CATALOG DISK
M-ENTER MONITOR (DITTO RETURN)
S-SOFT RESET (SLOT-0 RAM CARD RESET)
X-GO TO MINI-ASSEMBLER
Y----------LOAD A, B, OR I FILE
Z----------TOGGLE PARAMETER DISPLAY
RIGHT ARROW-SCROLL FORWARD
LEFT ARROW--SCROLL BACKWARDS
SPACE-------FAST SCROLL
ESC---------ESCAPE FROM KATALOG

A.W EXECUTE P-FILE
    RUN OR LOAD A, B, OR I FILE
```