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To Whom It May Concern:

    Copies of this manual and associated ZGrass information were
presented to me as a gift from a very good friend. They are being passed
on to other friends of mine in an effort to allow those people interested in
ZGrass to have a head start on it. The information is being passed on at a
cost-of-production basis for the purpose of enlightenment and the expansion
of human knowledge. I believe ZGrass is one of the first languages which
will allow a nonprofessional computer hacker the ability to interface his
ideas, both visual and conceptual, with a computer terminal and do so in
a fun, enjoyable environment.

    There are several minor differences between this manual and the
version which will accompany the early production models of the Viper
expansion unit. At a later date, the extended memory and high resolution
modification for the Viper (approximately one year) will give the ability
to do what this copy of the manual shows that you can do.

    The hardware section in the manual deals with the applications for
Datamax, yet information pertaining to system controls and checks, disc
manipulation, et cetera are directly applicable and will be very useful in
your understanding of the versatility of ZGrass. The information about
the Paint Program will be useful in understanding how ZGrass was used in
designing many of the current arcade games. We have been in contact with
and are playing games with the people who own the software rights (Real
Time Design) and at this time have no definite commitment from them on
production, however, I am confident that when the machine is produced,
they will see the light, become greedy, and make software available to
the masses, i.e., us.

    The manual refers to (a) 256K dynamic screen RAM and (b) high
resolution graphics, i.e., 320 x 202 pixels. Both of these differences will
be resolved with the high resolution memory expansion board. We are also
attempting to make arrangements with several producers of bit pad digitizers,
touch pad input devices, mouses [mice(?)], voice synthesizers, voice
recognition devices, light pens, et cetera, so that a simple hookup could
be made available.

    We have had conversations with Jane Veeder, a graphic computer
artist from Chicago (see article) who has worked intimately with ZGrass,
its designers, and its manufacturers for several years, and have discussed
plans of tutorials and/or additional software developments by students of the
University Version-1.

    There was a delay in the mailing of this information until we could
get a commitment from Alternative Engineering that the machine would be
produced. Ed Larkin has given me his gentleman's oath as president of
Alternative Engineering that the machine will be produced and be first class.
We wait as everyone else.

Arcade/Basic literature available:

- All issues of <u>Arcadians</u>, dating September 1, 1978, to current.

- All issues of <u>Cursor/Basic Express</u> from January 1980 to its demise in August 1981.

- Bally Service Manual Model PA-1.

- Early Bally Source Book.

- Hacker's Manual.

- Peek n' Poke Manual.

ZGrass information available:

- Working paper by Anderson Research Design defining the 3 x 5 character set as used in ZGrass and the techniques of high density bit packing which allows us to store approximately 2400 bytes in 1800 bytes of memory space.

- Early working paper by Dr. Tom DeFanti, J. Fenton, and Nola Donato, titled, "BASIC, ZGrass--A Sophisticated Graphics Language for the Bally Home Library Computer.

- Article on "ZGrass Graphics Language" by Tom Meeks.

- Article titled, "Language Control Structures for Easy Electronic Visualization," by Dr. Tom DeFanti, November 1980, <u>BYTE</u>.

The above literature is available at .10/page. If you have sources of information other than the above, please keep us informed.