

(A) + TOM

132 WHEURANGI RD
ONE TREE HILL
AUCKLAND N.Z.

Dear Robert,

Thank you for doing such an excellent job with the 'ARCADEIAN'. I have been intending to write to you for some time but just never got round to it until now.

I am a computer specialist working on IBM compatible machines. I used to be a hardware engineer, then a software engineer then a systems engineer with IBM now I work for NAT SEMI who have just acquired the company I was employed by.

I am presently building a 'PAL' modulator so that I can get color. The USA has a different color transmission system called NTSC so I have to modify my B&W. I have done some detailed analysis of the circuit and believe that with little modification the RAM memory could be bumped up to 8K or 16K. 8K would be simpler as 16K would overload the power supply.

RF modulator
article,
design?

When I have got the PAZ modulator working I will carry out the memory modification.

TOM One project that I would find very useful would be to list all the ~~input~~ inbuilt routines in both the resident ROM and the BASIC ROM. The Resident ROM appears to continually scan the input lines ^{I/O CHIP 019} S0-S17 looking for input. I suspect that when input is found an interrupt occurs to the Z-80 and a branch to a stacked routine address occurs where the input is processed. The reason I am sure that the input is continuously scanned is that no matter what is running on the Bally, pressing one of the keys will interrupt processing. If lines S15 and S16 were removed from earth (- voltage) then bits S10 to S17 would be a standard eight bit channel. This would allow interfacing to almost anything with out having to write your own ROM routines. With say, 8K of memory plus the 8 bit channel and using lines S00-S07 to select which channel device is to be activated you could run any I/O device using Bally Basic. The device itself would have to have an 8 bit bus as its interface.

One other step I will be taking is to speed up the processor. The 2-80 in our m/c's runs at 2 mega HERTZ a later 2-80 runs at 4 mega hertz. providing the custom chips can handle it I intend replacing the Basic timing of my m/c, by replacing the Master oscillator XTAL. I have to do this anyway so that I can get PAL color working. the main XTAL is 14.31818 MHZ, I will fit a 16 MHZ XTAL.

One thing that hasn't come through clearly in the newsletters is the games tapes as to whether the games being offered are written in Bally Basic or machine language.

Please find enclosed \$14 NZ as my subscription for the next newsletters.

PS. I am missing N^o 9 of The Arcadian please would you forward another copy. also my name is spelt D. MARKER. ✓

Best Regards.

Doug Marker
DOUG MARKER (ENTHUSIASTIC READER)