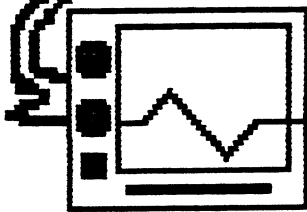


**THE ATLANTA COMPUTER
SOCIETY
PRESENTS**

COCO NUTS



Alive in '95

VOL.1 NO.11

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Next Month's Meeting

- March 14, 1995 Executive meeting Shoney's Jimmy Carter Blvd. Norcross, Ga.
- March 21, 1995 ACS Meeting at Shoney's So. Cobb Dr. Smyrna, Ga.
- March 28, 1995 ACS Meeting at Shoney's Jimmy Carter Blvd. Norcross, Ga.

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PRESIDENT'S PRINTOUT
By Ken Fish

The ACS COMES ALIVE IN '95!!!!

What an attention grabbing headline. For those of you who missed the last general meeting, I'll explain why we are making such a statement. The ACS BBS has added another new area to the board. This is the Linux/ BSD areas. With files, programs, commands and informatin on these systems. Both run on a minimum 386 machine and have (to my understanding) a kernal type environment like our beloved OS9. Tom Kocourek gave a small talk on the features and system requirements for these systems at the general meeting as well as telling some of the workings of the systems themselves. He has been busy uploading lots of files to our board and says that there is quite a bit of useable stuff there for people to look at.

I the CoCofest department, the attending members voted to have a 'fest this year and Newton White was asked to begin the negotiations with the Northlake Holiday Inn for the rooms again. We are looking for any and all advertising ideas to announce the 'Fest earlier this year, so send in your advertising suggestions, whether pictures or straight word copy or both for consideration. We want to increase our attendance rate over last year (even though last year was a success, it would be nice to have more attendees), and in that effort we voted to expand the 'fest. We will be inviting vendors from the following areas of MS-DOSdom : Any vendors in the CoCo emulator field, any vendors in the OS9000 field, and any from the BSD/Linux field who wish to attend and show their products.

The reason for this is the fact that ACS stands for Atlanta COMPUTER Society, not Atlanta CoCo Society. If this club is to survive we NEED to add more members and one way to

accomplish this is to have more usefull things to offer the DOS people (like how to make their machines run like a CoCo! I personally can't think of anything better to do with their machines! <grin>)

Does this mean that the ACS is abandoning the CoCo? I can give you an emphatic "HELL NO!!!". As long as I am able, I will continue to advocate the CoCo. Personally, it is ALL I use. I don't have anything but my beloved CoCo and the peripherals which go to it. I don't plan on getting any clone machine for myself in the near future either. We will still have the SIGS, Echos and Files on our board for the CoCo, and will be looking for more uploads in that area. We will still have the CoCo SIG meeting for the club. But, by adding these MS-DOS areas we hope to revive our flagging membership. Who knows? Maybe some of the people who are attracted by the new areas will remember they have a CoCo in the closet and break it out!

I hope all of you the best of years in '95. I think it will be the year that the ACS Comes Alive...again. Time will tell. But you can also tell me, and are invited to do so, by writing to the newsletter. We vote on subjects like these at the general meetings, and then ask for comments and responses to be sent to the newsletter. If you don't attend meetings for one reason or another you can still give your opinion in a letter here. If you don't participate then you have no-one but yourself to blame if you don't like the direction the club is going. Even out of state members opinions are important to us, but if you don't voice them somehow we don't know them. So let us know what you think, after all it is YOUR club!

'Til Later

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EDITOR'S ECHO
By Russ Keller

Last month's source code for the program was changed, thanks to Tom Kocourek, to long int from float. the %f's were changed to ld for long integers. I bought the book Teach Yourself C in 21 days and long integer was in there. The C-compiler from microware refers to C-programing guide by K&R. The book costs 35 dollars and is thin. Volume 1 is available from Microcenter. I may get it quickly so I have the reference as volume 2 is for microsoft C. I use the editor VED from Bob Van Der Poel for editing because I am used to using it. I can indent as I type in a C program without thinking. The above book seems to follow all rules thus far with Microware C.

K&R C-programing guide was obtained and all I have to do is STAY HOME and work my way through the books!

MODULAR PROGRAMMING Part 5
by Carl England

This month's module is another long one. But it differs from the other modules in that it can also be used as a stand-alone program. To use it as a stand alone program (suitable for adding to your utilities disk) add these lines:

```
00070      ORG      386
00080      JMP      DFAULT
00090      ORG      $E00
```

What does it do? It configures your system to match the needs of your printer, drives and monitor.

Lines 240 thru 440 are where you set up your system's defaults. I purposely put the defaults at the beginning of the module so that they would be easy to locate and modify if necessary.

The palette colors are only active on a CoCo3. There are two BAUD rate columns. One is for slow (normal) CPU speed and the other is for double speed. High speed operation is only available on the CoCo3 because running the CoCo1 or CoCo2 at double speed makes the display unreadable. There are four step rates available for your drives. Most drives operate best at 6ms. If yours doesn't work try the next slower rate. Even though the DISK BASIC ROM only supports 35 tracks on your drive, most drives are actually 40 (sometimes 42 but no guarantees) track drives. If you are using a 730K drive (like a 3 1/2 inch drive), you have 80 (82?) tracks available to you. Also, unless you are using a real dinosaur of a drive, you probably have a double-sided drive. If you set your system for double sided drives, then the back of drive 0 becomes drive 2, and the back of drive 1 becomes drive 3.

Lines 500 thru 620 check to see if you are using a CoCo3. If you are not, the ROMs are copied into RAM and you are switched to all RAM mode so that patches to the code can be made.

Lines 640 thru 730 set the text screen colors on the CoCo3. The 32-, 40- and 80-column screens are all set to the same colors. The border matches the background.

Lines 750 and 760 set the printer Baud rate.

The remainder fo the program makes the necessary patches to DISK BASIC. The DISK version number is checked to ensure that the correct tables are used for patching the ROM. (DISK BASIC 1.1 was a complete re-write and almost none of the routines are at the same locations as the original DISK BASIC 1.0).

Because larger disk space

requires more memory for the File Allocation Table (FAT), I chose to relocate it to high RAM. That meant that the RAM normally used for the FAT was available and so I chose to put the patches there.

The fast CPU patch works well with your printer (set the baud rate at half normal as note in module). Using cassette with this patch installed allows you to CSAVE and CLOAD programs at 3000 BAUD! It also gives reliable disk operation using Listing

all functions except the DOS command. DO NOT use high speed when running another operating system unless you know it is compatible. Using it with DISK EDTASM (or any program that loads with RUN"DOS") will probably result in unreliable operation.

The "Head-Banger Bug" which is sometimes encountered when running double-sided drives (especially when the drive masks are just poked into memory) has been eliminated.

```

00100 *****
00110 *
00120 *          MODULE: DEFAULT
00130 *
00140 * SETS SYSTEM DEFAULTS
00150 *
00160 * INPUT CONDITIONS:  NONE
00170 * OUTPUT CONDITIONS: PRINTER BAUD RATE SET
00180 * DRIVE TRACKS, SIDES & STEP RATE SET
00190 * CPU SPEED SET (COCOS ONLY)
00200 * SCREEN COLORS SET (COCOS ONLY)
00210 *
00220 *****
00230
00240 PALLET  FCB    $3F0C    FOREGROUND/BACKGROUND
00250 *          COLORS RANGE: 00 THRU 3F
00260 BAUD    FCB    18      2400 BAUD
00270 *    BAUD:  300 SLOW = 180 FAST = ---
00280 *          600          87      180
00290 *          1200         41      87
00300 *          1800         25      ---
00310 *          2000         23      ---
00320 *          2400         18      41
00330 *          3600         10      25
00340 *          4800          7      18
00350 *          7200          3      10
00360 *          9600          1      7
00370 *          19200        ---      1
00380 SPEED  FCB    255     0=SLOW, 255=FAST
00390 STEP   FCB    0       6 MS
00400 *          1       12 MS
00410 *          2       20 MS
00420 *          3       30 MS
00430 TRACKS FCB    40     40 TRACK
00440 SIDES  FCB    2       2=DOUBLE, 1=SINGLE
00450
00460

```

```

00470
00480 **** TEST FOR COCO2 OR COCO3 ****
00490 **** IF COCO2 THEN SWITCH TO RAM ****
00500 DFAULT LDA $E2BD
00510 CMPA #50
00520 BEQ DF2
00530 ORCC #$50
00540 LDX #$8000
00550 DF1 CLR $FFDE
00560 LDD ,X
00570 CLR $FFDF
00580 STD ,X++
00590 CMPX #$E000
00600 BNE DF1
00610 ANDCC #$AF
00620 BRA DF3
00630 **** SET UP DEFAULT SCREEN COLORS FOR COCO3 ****
00640 DF2 LDD PALLET
00650 STD $FFBC
00660 STA $FFB8
00670 STB $FFB0
00680 STB $FF9A
00690 STB $E035
00700 STB $E03E
00710 STB $E047
00720 STB $E073
00730 STB $E07C
00740 **** SET BAUD RATE ****
00750 DF3 LDA BAUD
00760 STA 150
00770 **** TRANSFER PATCHES TO LOW RAM ****
00780 LDU #DF10
00790 LDX #$800
00800 LDB #$2C
00810 DF4 LDA ,U+
00820 STA ,X+
00830 DECB
00840 BNE DF4
00850 **** MUST USE SEPARATE TABLES FOR DISK X.0 AND X.1 ****
00860 LDX #DF13
00870 LDA $C155
00880 CMPA #49
00890 BNE DF5
00900 LDX #DF15
00910 **** PATCH DIRECTORY TO ALLOW 158 GRANULES ****
00920 DF5 LDD ,U++
00930 STD [,X++]
00940 LDD ,U++
00950 STD [,X++]
00960 LDD ,U++
00970 STD [,X++]
00980 **** PATCH DIRECTORY TO ALLOW 128 FILES ****
00990 LDA #18

```

```

01000          STA      [,X++]
01010 **** PATCH STEP RATE ****
01020          LDA      STEP
01030          STA      [,X++]
01040          ADDA     #$14
01050          STA      [,X++]
01060          ADDA     #$3C
01070          STA      [,X++]
01080 **** PATCH NUMBER OF TRACKS ****
01090          LDA      TRACKS
01100          DECA
01110          STA      [,X++]
01120          INCA
01130          STA      [,X++]
01140          STA      [,X++]
01150          STA      [,X++]
01160 **** PATCH NUMBER OF GRANULES ****
01170          DECA
01180          ASLA
01190          STA      [,X++]
01200          STA      [,X++]
01210          STA      [,X++]
01220          STA      [,X++]
01230          STA      [,X++]
01240          STA      [,X++]
01250          STA      [,X++]
01260 **** PATCH FAT LENGTH ****
01270          SUBA     #$44
01280          ASLA
01290          ADDA     #$4A
01300          STA      [,X++]
01310          CLR      $76
01320          STA      $77
01330 **** MOVE FAT TO LARGER MEMORY AREA ****
01340          LDD      #$DA00
01350          STD      [,X++]
01360          LDD      #$DA00
01370          TFR      D,U
01380          ADDD     $76
01390          ADDD     $76
01400          ADDD     $76
01410          ADDD     $76
01420          STD      $76
01430 DF6       CLR      ,U+
01440          CMPU     $76
01450          BNE     DF6
01460 **** PATCH DOUBLE SIDED DRIVES ****
01470          LDA      SIDES
01480          CMPA     #2
01490          BNE     DF7
01500          LDU     #DF11
01510          LDD      ,U++
01520          STD      [,X++]

```

```

01530      LDD      ,U++
01540      STD      [,X++]
01550      STD      [,X++]
01560      LDD      ,U++
01570      STD      [,X++]
01580      STD      [,X++]
01590      STB      [,X++]
01600      STB      [,X++]
01610 **** PATCH HIGH SPEED CPU ****
01620 DF7    LDA      SPEED
01630      BEQ      DF9
01640      LDA      $E2BD
01650      CMPA     #50
01660      BNE      DF9
01670      LDX      #DF14
01680      LDA      $C155
01690      CMPA     #49
01700      BNE      DF8
01710      LDX      #DF16
01720 DF8    LDU      #DF12
01730      LDD      ,U++
01740      STD      [,X++]
01750      LDD      ,U++
01760      STD      [,X++]
01770      LDD      ,U++
01780      STD      [,X++]
01790      LDA      ,U+
01800      STA      [,X++]
01810      LDD      ,U++
01820      STD      [,X++]
01830      LDA      ,U+
01840      STA      [,X++]
01850      CLR      $FFD9
01860 DF9    RTS
01870 **** PATCH FOR HIGH SPEED OPERATION ****
01880 DF10   PSHS     U,Y,X,B,A
01890      LDD      8,S
01900      PSHS     D
01910      LDD      #$811
01920      STD      10,S
01930      CLR      $FFD8
01940      LDA      #5
01950      RTS
01960      CLR      $FFD9
01970      RTS
01980      STA      $FF48
01990      CLR      $FFD8
02000      RTS
02010 **** 158 GRANULES ALLOWED PATCH ****
02020      PSHS     A
02030      CLRA
02040      LDA      D,X
02050      COMA

```

02060		PULS	A, PC
02070	****	HEAD-BANGER	BUG PATCH ****
02080		LDX	#\$97E
02090		LDB	\$EB
02100		ANDB	#1
02110		RTS	
02120	****	158 GRANULES	ALLOWED PATCH ****
02130		JSR	\$81C
02140		FDB	\$2730
02150		NOP	
02160	****	DOUBLE SIDED	DRIVES PATCH ****
02170	DF11	FDB	\$4142
02180		JSR	\$824
02190		NOP	
02200	****	HIGH SPEED	CPU PATCH ****
02210	DF12	JSR	\$800
02220		NOP	
02230		NOP	
02240		NOP	
02250		NOP	
02260		JSR	\$815
02270	****	PATCH TABLES	FOR DISK BASIC X.0 ****
02280	DF13	FDB	\$C798
02290		FDB	\$C79A
02300		FDB	\$C79C
02310		FDB	\$C6A5
02320		FDB	\$D6CD
02330		FDB	\$D723
02340		FDB	\$D526
02350		FDB	\$D446
02360		FDB	\$D572
02370		FDB	\$D595
02380		FDB	\$D1B0
02390		FDB	\$C708
02400		FDB	\$C78B
02410		FDB	\$C7A0
02420		FDB	\$C7BF
02430		FDB	\$CC4C
02440		FDB	\$CDD9
02450		FDB	\$D35F
02460		FDB	\$C72A
02470		FDB	\$C72D
02480		FDB	\$D7AC
02490		FDB	\$D6C5
02500		FDB	\$D70C
02510		FDB	\$D6C7
02520		FDB	\$D70E
02530		FDB	\$D6C9
02540		FDB	\$D710
02550	DF14	FDB	\$D66C
02560		FDB	\$D66E
02570		FDB	\$D699
02580		FDB	\$D69B


```
02590      FDB      $D50B
02600      FDB      $D50D
02610 **** PATCH TABLES FOR DISK BASIC X.1 ****
02620 DF15      FDB      $C7C8
02630      FDB      $C7CA
02640      FDB      $C7CC
02650      FDB      $C6D2
02660      FDB      $D7C0
02670      FDB      $D816
02680      FDB      $D613
02690      FDB      $D534
02700      FDB      $D65F
02710      FDB      $D682
02720      FDB      $D29D
02730      FDB      $C735
02740      FDB      $C7BB
02750      FDB      $C7D0
02760      FDB      $C7EF
02770      FDB      $CD26
02780      FDB      $CEB5
02790      FDB      $D44D
02800      FDB      $C75A
02810      FDB      $C75D
02820      FDB      $D89F
02830      FDB      $D7B8
02840      FDB      $D7FF
02850      FDB      $D7BA
02860      FDB      $D801
02870      FDB      $D7BC
02880      FDB      $D803
02890 DF16      FDB      $D75F
02900      FDB      $D761
02910      FDB      $D78C
02920      FDB      $D78E
02930      FDB      $D5FB
02940      FDB      $D5FD
02950      END      DFAULT
```

Next month I'll show you how to put this module on track 34 of your disk so that you can set your system defaults by just typing DOS.
'till later.....Carl