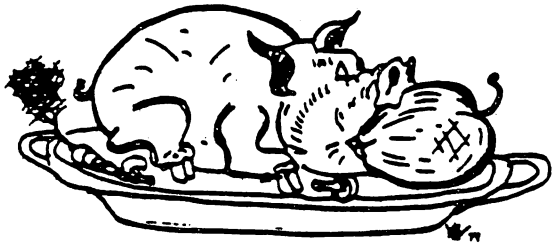

H.A.A.U.G.

HOUSTON AREA APPLE USERS GROUP

THE APPLE BARREL

VOLUME 5 NO. 6 AUGUST 1982

PRESIDENT, MIKE KRAMER VICE PRES., BRIAN WHALEY

EDITOR, MIKE KRAMER

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Houston Area Apple Users Group
APPLE BARREL
2218 Running Springs
Kingwood, TX 77339

CLUB NOTES

The HOUSTON AREA APPLE USERS GROUP is an Apple user club, not affiliated with Apple, Inc., or any retail computer store. HAAUG is a member of the International Apple Core and supports its publications and purposes. General membership meetings are held on the second Thursday of each month in the rear chapel of Memorial Lutheran Church, 5800 Westheimer, between Chimney Rock and Jungman Library, beginning at 6:30 P.M. An additional general meeting is held at 2:00 P.M. the last Saturday of each month at the University of Texas School of Public Health in the Medical Center at 6905 Bertner at Holcomb. This meeting features tutorials, problem-solving sessions, and access to the HAAUG software library. The meeting is held in the main floor meeting room to the left of the entrance. Bring your Apples!!

---==*==---

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The APPLE HOTLINE has been established to provide an easy means to learn of meeting topics, news, etc. It can also be used to obtain answers to puzzling Apple - related questions. If you get a recording, leave your name, date, and time. You should get a return call within 24 hours.

MEMBERSHIP INFORMATION

Dues are $20 per 12-month period. Please make checks payable to Houston Area Apple Users Group and mail to Lee Gilbreath, 3609 Glenmeadow, Rosenberg, TX 77471.

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SPECIAL INTEREST GROUPS

Members who share interests are encouraged to join or form Special Interest Groups to more fully explore their fields. These groups meet separately from the regular meetings at times convenient for the members. If you would like to become involved in a special interest group, either call the HOTLINE. Lists of members with specific interests can be generated on request from the HAAUG MEMBERSHIP SURVEY data base.

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THOUGHTS FROM THE PRES

This month's issue of the Apple Barrel includes a complete copy of the Software Library Directory for your use. The Directory is available at every Saturday meeting on a diskette which includes programs for listing the Directory either to the screen or printer. Many of you, however, do not have a printer and find it difficult to note your choices from a screen listing. Several times Jim Good has brought 200 or so copies of the directory for those who didn't have them. Human nature being what it is, we take a hand out whether we need it or not, and often throw it in the trash. It seemed that a mailout would be the best way to freeze the Directory at a point in time and send everyone a copy. If response is favorable and the Treasurer doesn't complain about the $500 printing cost for printing the directory, we will plan to distribute the directory as part of the Apple Barrel twice a year.

Speaking of the Apple Barrel, some you may have noticed that the Apple Barrel is later than usual this month. As I've mentioned once or twice in the past, the Apple Barrel consists of articles written by our members. Unfortunately, a very small number of you submit articles. We hear frequently from Steve Knouse, Guy Neill, Ed Seeger, Nick Fotheringham, and a few others (forgive me if your name deserved mention), but we desperately need new authors. You do not need to be a programmer to write a review of a new piece of software or hardware. In fact the novice who has good or bad experience with a product owes it to his fellow members to tell them about it. If you do write an article about a significant piece of original work, there is always a chance that it will be picked up by the IAC and published in the Apple Orchard. They pay $60 a page!!! For that matter, the Apple Barrel now gives a brand new diskette for each page, which amounts to $4 - $5 a page if you pay list price.

To date the Apple Barrel has been free form, which means I twist arms whenever possible and take whatever articles I can get. Sometimes we have a newsletter that looks like a Van Hoozer memorial issue. I think the Apple Barrel could be improved significantly and be mailed on a regular scheduled date if others would become more directly involved. One improvement would be to have a group of editors whose responsibility would be to write or obtain by whatever means an article in a particular category for each issue by a set deadline date. Categories that come to mind are BASIC, PASCAL, CP/M, assembly language, hardware, games, and product reviews. There is also a need for an advertising coordinator who would be responsible for contacting potential advertisers, billing them after publication, and handling checks as they come in. If advertising were pursued aggressively the Apple Barrel could become a break even operation. The Apple Barrel has come a long way, but it has a ways to go. We need your help. I have some potential volunteers in mind, but I'd welcome any who volunteer on their own. Any takers?

Mike Kraus

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APPLE SLICES

Steve Knouse

This month I will deal exclusively with Visicalc tips.

Last month I gave you some print set up strings to set an IDS560 for various character pitches and line spacing. One of those was wrong and is corrected below. There are also strings to shift into draft (200 cps) and correspondence (110 cps) modes.

Function	Type	Sent to Printer
Set 10 characters per inch	^H1D	ASCII 29 (Hex 1D)
Set 12 characters per inch	^H1E	ASCII 30 (Hex 1E)
Set 16.8 characters per inch	^H1F	ASCII 31 (Hex 1F)
Set 8 lines per inch	^EB,6,$	ESCAPE B , 6 , $
Set 6 lines per inch	^EB,8,$	ESCAPE B , 8 , $
Set Correspondence mode	^ER,1,$	ESCAPE R , 1 , $
Set Draft mode	^ER,2,$	ESCAPE R , 2 , $

Remember these strings are entered in the print command (/PP) after pressing " to enter a set up sting.

When setting up a spread sheet I put the name of the file and the date and time the sheet was last modified in the first row. If the model is to be updated periodically, is to be used by other people or is very complicated to update, I put loading, saving, and printing instructions in the next few rows. Loading instructions include each DIF file that is used (with load coordinates), each set of cells which must be updated, and recalculation instructions (especially where there are forward references which require more than one recalculation). Instructions for saving should include the DIF files with the upper left and lower right coordinates and the orientation (by row or column). Printing instructions also include the upper left and lower right corners and any necessary set up strings.

As a general rule ALWAYS save before printing. For some reason more things have gone "bump in the night" while printing than during any other time. If the model is lost while printing it can always be reloaded.

When using continuous feed paper, printing long models is easier if pages of the template are set up one below the next so each will print on a separate sheet. For example when using 11 inch paper and line spacing of 6 lines per inch, there are 66 lines per page. If my instructions are in rows 1 through 10, I set up the first page in rows 11 through 76, the second in rows 77 through 142, and the third in rows 143 through 208. Then I can print three pages with one print command. This usually means I loose some rows but as long as I have the work space this makes no difference. At work I use an IDS560 which does a one inch skip at the end of a page. Using the same 11 inch paper and six

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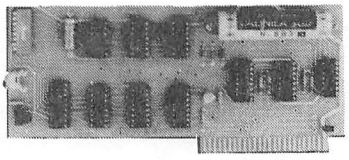

- Twenty-seven page operating manual included with many examples of programs to use with your Apple in any configuration.
- Includes disk containing a DOS Dater and many other time oriented utilities plus over 25 user contributed programs at no extra cost.

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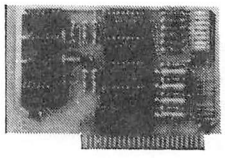

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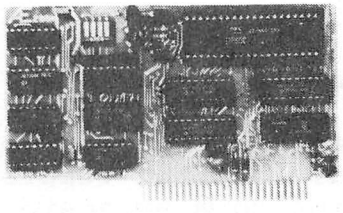

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lines per inch there are 60 lines per page and I can get four pages down the work sheet (rows 11 through 250 in this example). Spacing between pages is taken care of by the printer. If I need more than 66 (or 60) lines per page I set the line spacing for 8 lines per inch and get 88 (or 80) lines per page.

When laying out a model I also keep in mind the number of columns I can get across a page. This is calculated by multiplying the the line width of the printer in inches by the number of characters per inch and dividing by the column width. The result is rounded down to the next whole number. For example using my IDS560 which has a 13.2 inch line width and the Visicalc's default column width of 9 characters, I can get 14, 17 or 24 columns at 10, 12 or 16.8 characters per inch respectively. The printer is set for the number of characters per inch using the set up strings above.

Another thing to keep in mind when setting up a template is the default or global format. I set this for whatever format the majority of my numbers will need. Then I specify the format of the remaining numbers.

Another problem we faced at work was the drudgery of setting up multiple, similiar templates on the save spread sheet. For instance we often have to do the same calculations for each of five divisions and sum the results to get company totals. It is easier to set up all six templates on one spread sheet than to use DIF files to do the consolidation. You can set up one template and then duplicate it by replicating each row or column, whichever results in the least number of replications; or by saving the template, inserting multiple rows and reloading the template. A far easier method is to set up only the horizontal and vertical titles, save the sheet as a DIF file and reload it below the first. Doing this the first time will give you two copies and four copies the second time. The formulae must still be set up and replicated but this is usually less trouble than replicating the titles.

One final planning note. When summing a column of numbers include the titles above and below the sum. The titles have a value of zero so they will not affect the total, but you will be able to insert a row at the beginning or end of the column and this row will automatically be included in the sum.

Send in tips, techniques or questions to:

Steve Knouse
14150 Limerick Lane
Tomball, TX 77375

Submissions should be typed or preferably be in machine readable form (i.e. in a standard text or binary file from your word processor) and will be returned if accomapanied by a self addressed, stamped envelope.

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---

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Lower Case for Apple Keyboards
A Construction Project

By Richard Parrish

If you have a lower case adapter such as the Dan Paymar chip installed in your computer , you probably discovered that it is practically useless in Applesoft with out doing something funny to fool it into printing lower case to the screen , especially when it can't even be typed in from the keyboard . Even if you could type in lower case , Applesoft converts all letters from the keyboard to uppercase ! Well , not always , but most people buy an LCA to use with a word processor to avoid the crummy way these programs differentiate between upper and lower case letters anyway . It is a very cheap alternative to purchasing an 80 column card , being under forty dollars . But that keyboard ! Most people solve that problem by buying a keyboard enhancer which costs under $ 150.00 and usually has a buffer , definable keys and does strange things to the RESET key . Some 80 column boards have a wire running from the SHIFT key on the keyboard to TTL input PB(2) on the game I/O connector for use with special software that gets a letter from the keyboard and checks PB(2) if the SHIFT key is being pressed to convert to upper-case . It is called a SHIFT KEY MOD and costs about as much as three feet of wire .

What all of this means is that the shift key must act on the alpha characters on the keyboard , by software or hardware or both , to gain lower case . If you have a way to get lower case on the screen , this project is of some practical value . This is a construction project that involves doing strange things to your computer . If your Apple is under warranty or you are not familiar with a soldering iron then DO NOT attempt this modification on your own . This is for your information , I cannot be held responsible , you may make use of this information at your own risk .

Apple Computer , in all of its wisdom , has always been improving upon its products without leaving anyone behind due to obsolescence . The REV. 0 motherboards from way back in 1976-7 are just as functional as the brand new REV. D motherboards in APPLES currently available . I have seen a motherboard of unknown revision with some of its circuit using wire wrapping sockets and wire , something found in prototypes . One improvement made was in the keyboard . Old keyboards were on one assembly with the keyswitches and encoder on the same board . The new design uses a more modular two board assembly with the encoder circuit separate . Chances are that the circuit for the keyboard in your reference manual is different from the keyboard you have . The most obvious way to tell the difference is whether you can switch between RESET and CTRL-RESET , the latter makes a nice fail-safe . The important thing is that with the newer keyboard , there already exists a way to get lower case . On the encoder board , adjacent to the RESET select switch is a place for another switch . This switch , if installed and two jumper pads cut , can select between the standard keyboard you are used to and a full upper/lower case ASCII keyboard . In upper/lower case mode , the charat , left brace , and the 'at' sign yield to N,M and P . This makes sense when you realize that to get a capitol p you must press SHIFT-P which normally gives the 'at' sign in a standard Apple . To go back to your normal keyboard , just flip the switch .

The switch is a double pole double throw side mount toggle switch (C & K part number U21) and it costs about three dollars . It is very important to get this particular switch or it will not fit in the tight confines of an Apple . The encoder board was designed around this switch if used this way and will work better than ANY other . The only place I know to have the correct switch is Ace Electronics , located at 5400 Mitchelldale . I don't know if any other surplus electronic stores have it but ACE did .

To install the switch , you will need to take off the bottom plate of your

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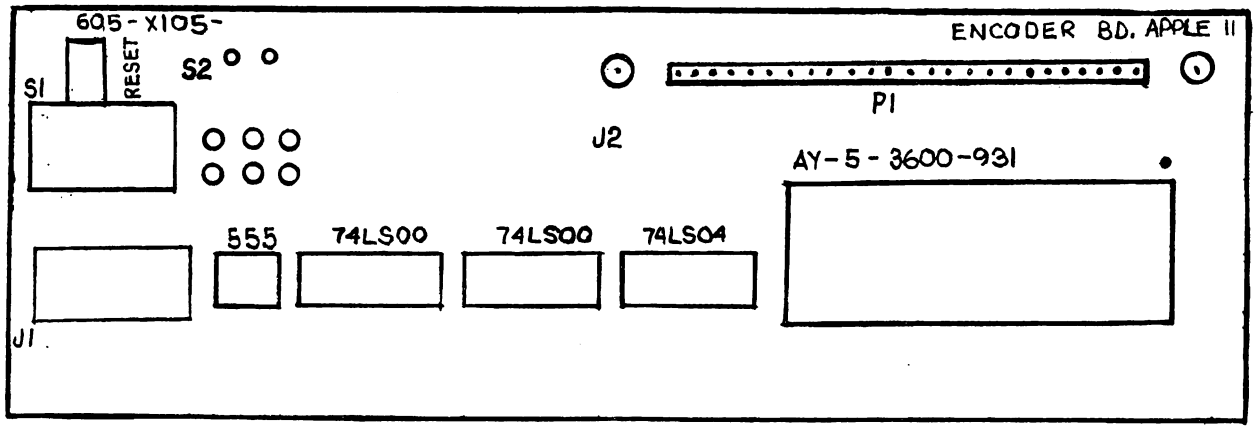
Apple II by removing exactly ten screws . The keyboard connects to the motherboard by a cable which must be disconnected for the base plate to become free . The plastic case is free to come off exposing the bottom of the keyboard . The encoder attatches to the keyboard by a long connector and two press-fit spacers . Pliers will release the encoder from the spacers . Be careful with the pins that make the contacts . With the encoder free , you can see a place labeled S2 on the circuit board next to the Reset / CTRL Reset switch (S1). Cut the two foil pads to disable the selection of a standard keyboard making it swtch selectable . When I say cut , I mean scratch a line through the copper foil trace to break any electrical connection , be careful not to scrape off any other foil traces . Solder in the switch . There are six pins and two small lugs that are soldered to the encoder PC board for a good mechanical and electrical connection .

Plug the encoder back into the keyboard in the plastic case . When putting the case back onto the bottom plate , don't forget to plug the keyboard cable back into the motherboard . Screw the bottom plate back in (all ten screws !) and without any peripherals plugged in the I/O slots, power-up . Make sure the keyboard is plugged in right by pressing RESET a few times . You should hear a beep each time . Now try to type in this Applesoft program :

```
10 REM trick applesoft to print lowercase
20 TEXT : HOME
30 GET A$
40 PRINT CHR$ (ASC (A$) );
50 GOTO 30
```

If you didn't get this far , you did something wrong ! Check your work . Those that did will notice that this program accepts and prints lowercase letters . If all you see is uppercase letters then flip the toggle switch . To get uppercase , use the shift key ! Play around with the keyboard until you are satisfied . Pay attention to what happens to the p,m, and n keys with the switch in either position . Your new keyboard can be used with most of the word processors that can take advantage of a lower case video adapter . The trick is to go into CAPS LOCK and the screen will show what is typed according to whether the shift key is pressed or not . This works with SUPER TEXT II , APPLE WRITER , and most of the other programs out .

If you have any problems , give me a call after seven on weekdays and Saturdays at 448-5952 . If you can't find the right switch , I can sell you one for what it costs me at the next meeting , when possible .



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THE MODEM WORLD - a Review by Tim Fitzhenry

I would like to take the opportunity to make a small review of the modem world in Houston. Here in Houston, as far as the modem goes, you can do quite a bit. For instance, if you wanted to send electronic mail, and read or leave computer classified adds, you could use one of the Houston B.B.S.s For those of you who don't know what a B.B.S. is, it is a Bulletin Board System. They offer anything from public messages (classified..etc.) to private mail, and electronic shopping (you can even purchase computers over the modem!). As far as who runs these boards, just regular people with micros and a modem and the necessary software. At present, there are eight bulletin boards in Houston. Now, other than B.B.S.s, there are several timesharing systems in Houston. With them you pay an hourly or monthly fee, and get their services over the modem. Some of their services include: programming (BASIC, FORTRAN, COBOL, APL, Pascal, etc.), games, mail, etc.

There are two nationalally used timesharing services, they are: The Source and CompuServe.

The Source offers everthing from national bulletin board (several categories), travel services, electronic shopping, electronic mail, to wine tasting guides. The Source charges a one time hookup fee of $100 plus hourly rates of $20.75 from 07:00 to 18:00, $7.75 from 18:00 to 0:00, and $5.75 from 0:00 to 07:00. Rates on weekends are $7.75 from 07:00 to 0:00 and $5.75 from 0:00 to 07:00.

The other service, know as CompuServe offers about the same services, plus multi-user games. They (CompuServe) are distributed through Radio Shack stores for $19.95 as the hookup fee, which includes the Dow Jones news services, and one free hour on both CompuServe and Dow Jones. The hourly rates on CompuServe are $22.75 an hour from 07:00 to 18:00 and $5.00 from 18:00 to 07:00. The weekend rates are $5.00 an hour all of the time.

To call these services would be very expensive since The Source is located in McLean Va., and CompuServe is located in Columbus, Oh. In order to get around this, The Source uses TELENET, from GTE, and TYMNET, from Tymshare Corp. These networks use microwaves to connect from here to there. To call The Source using one of those services, you would just dial the local number, and login. It then transfers you to The Source. CompuServe uses it's own net-work (ComLink) or TYMNET. The procedure is the same to reach CompuServe.

Getting back to the Bulletin Boards, the numbers for those are:

Number	Computer	Hours	Number	Computer	Hours
455-9502	Apple][plus	24 hours	495-8850	TRS-80 I	24 hours
331-2599	TRS-80 I	24 hours	556-1531	Apple][plus	24 hours
444-7041	TRS-80 III	24 hours	664-7468	Apple][plus	24 hours
480-1840	Cromemco	24 hours	783-4136	Apple][plus	24 hours

If you have any other questions, such as obtaining software, or anything else, give me a ring at 455-9455 after six p.m. weekdays.

Tim Fitzhenry - Sysop - The Great Apple Bulletin Board System

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DO IT YOURSELF JOYSTICK

BY DICK FAIRMAN

For all of you adventuresome Apple owners, here is a construction project that I found quite enjoyable and inexpensive.

The project is a Joystick Controller that plugs into the game socket of your Apple computer. Most of the parts can be obtained from local hobby electronics stores such as Radio Shack. You will have to excercise your soldering talents some and be a little handy at drilling a few holes in a plastic box and associated aluminum cover. Beyond that, making the Joystick Controller should be a snap.

The circuit diagram is illustrated in Figure 1. There are three main sections to the circuit. You may elect to build any one section or all sections without interfering with the operation of any other section. The first section is located in the box in the lower right entitled "JOYSTICK CONTROL". This is composed of a Joystick Control, which may be obtained at Radio Shack for under $5.00. A couple of ceramic disk capacitors, approximately 0.0039 microfarads are also required. The value of these is not critical. You might substitute 0.001 microfarad capacitors and still make the Joystick work.

The second section is entitled "PUSHBUTTONS". These are required with most games. Usually one or two of these are used. It is important to purchase the normally closed versions, so that when they are depressed the computer will respond properly with most games.

The third section is the "ANNUNCIATORS". This is built from four light emitting diodes (LEDS), a few resistors and an integrated circuit. I used a Fairchild FSC 9667. This circuit may be difficult to obtain. Almost any open collector driver chip such as a Texas Instruments SN75492 may be used. The pin numbers will have to be changed if you use the Texas Instruments chip. The annunciators will light if you poke the correct locations in memory. Consult the Apple reference manual for details.

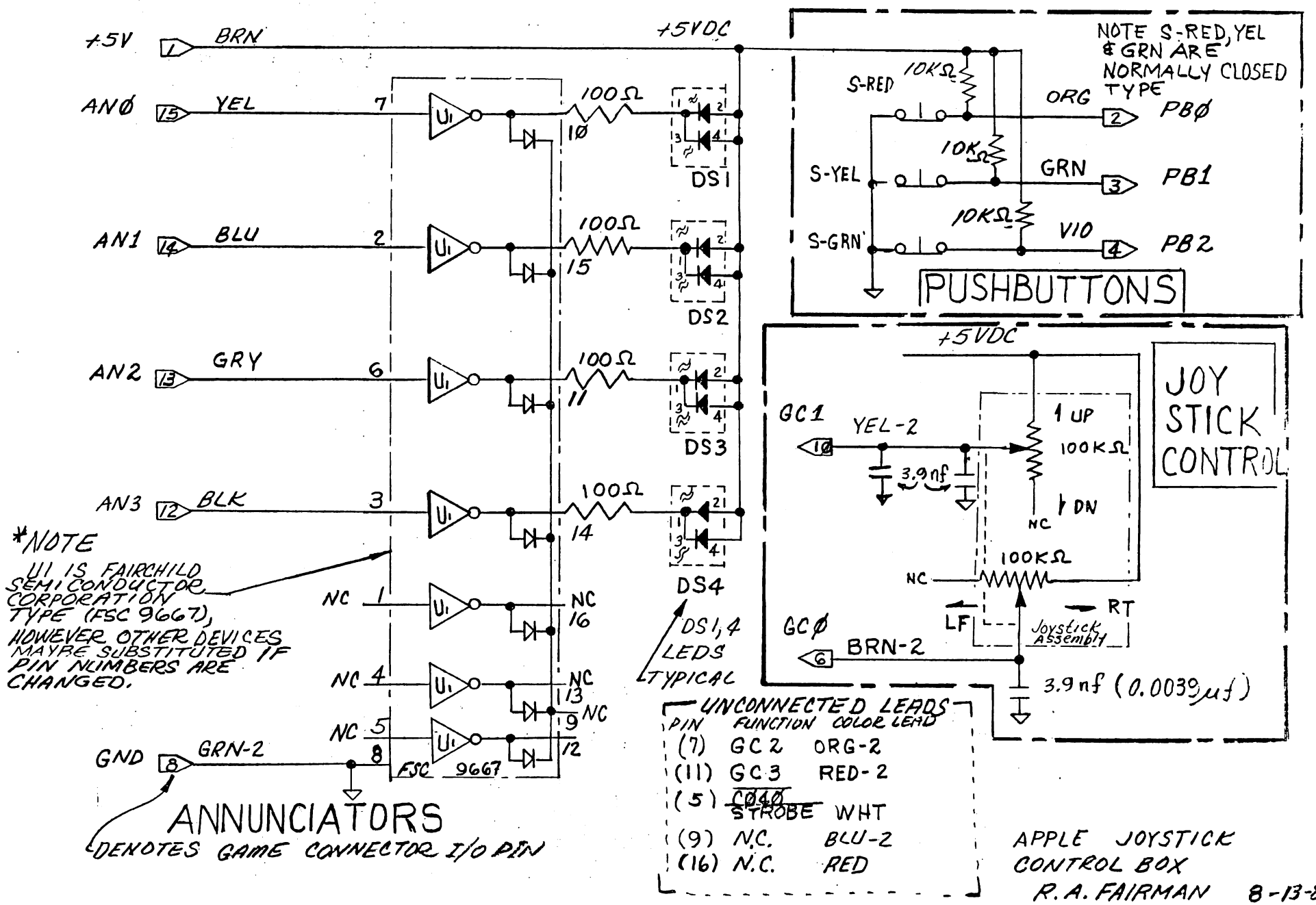
+5V
BRN
+5VDC
AN0
YEL
AN1
BLU
AN2
GRY
AN3
BLK
GND
GRN-2
100Ω
DS1
DS2
DS3
DS4
NC
*NOTE
U1 IS FAIRCHILD SEMICONDUCTOR CORPORATION TYPE (FSC 9667), HOWEVER OTHER DEVICES MAYBE SUBSTITUTED IF PIN NUMBERS ARE CHANGED.
DS1,4 LEDS TYPICAL
FSC 9667
ANNUNCIATORS
DENOTES GAME CONNECTOR I/O PIN
NOTE S-RED, YEL & GRN ARE NORMALLY CLOSED TYPE
S-RED
S-YEL
S-GRN
10KΩ
ORG
GRN
VIO
PB0
PB1
PB2
PUSHBUTTONS
JOY STICK CONTROL
GC1
YEL-2
1 UP
100KΩ
3.9nf
1 DN
GC0
BRN-2
LF
RT
Joystick Assembly
3.9nf (0.0039μf)
UNCONNECTED LEADS
PIN FUNCTION COLOR LEAD
(7) GC2 ORG-2
(11) GC3 RED-2
(5) ~~C040~~ STROBE WHT
(9) N.C. BLU-2
(16) N.C. RED
APPLE JOYSTICK CONTROL BOX
R.A. FAIRMAN 8-13-82

FIGURE 1

Figure 2 shows a suggested type of enclosure with attached cable and connector. I used flat ribbon cable to connect all of the leads to the socket. Use of colored coded cable lessens the chance of making a wrong connection.

If this type of construction project is just too much for you, then I might suggest seeing Brian Whaley, who sells a Joystick Controller box with one Joystick and a Pushbutton.

I've enjoyed building this project. My children use it a lot when playing games. It is also great for certain graphics routines. It has had a lot of service and has not failed even once.

ELECTRONIC BANKING

by Harry Berkey

Many banks and savings and loan associations provide the option of paying bills through a push-button phone. In the May issue of Microcomputing there was an article about Dave Posh of Austin who uses his Vector Graphic system as a smart terminal to do the same thing. A listing of his program was included. If you are interested in seeing something similar implemented in Houston, you should help convince University Savings that there are enough interested people with computers to make it worth while. Write to Jeanne Giesel, University Savings, 8080 West Park, 77063, or call at 780-0600.

APPLE /// CONFIGURATION SEMINAR

What: Seminar on the Apple /// System Configuration Program

When/Where: Thursday, September 23, 1982, 7:30 P.M. at Computercraft, 5050 W. FM 1960, 1 mile west of Steubner - Airline.

Saturday, September 25, 1982, 12:00 noon at Computer Galleries, 2493 S.Braeswood at Kirby.

Cost: Free on a first-come-first served basis to current HAAUG members. New members can join at seminar at a cost of $20, but should arrive 15 minutes early.

Instructor: Steve Knouse

This will be a hands on class in configuring program diskettes to match the input and output devices connected to your Apple ///. Bring copies (if possible) of your program disks to work on. Be sure to bring the boot disk if the program came with one and some blank diskettes.

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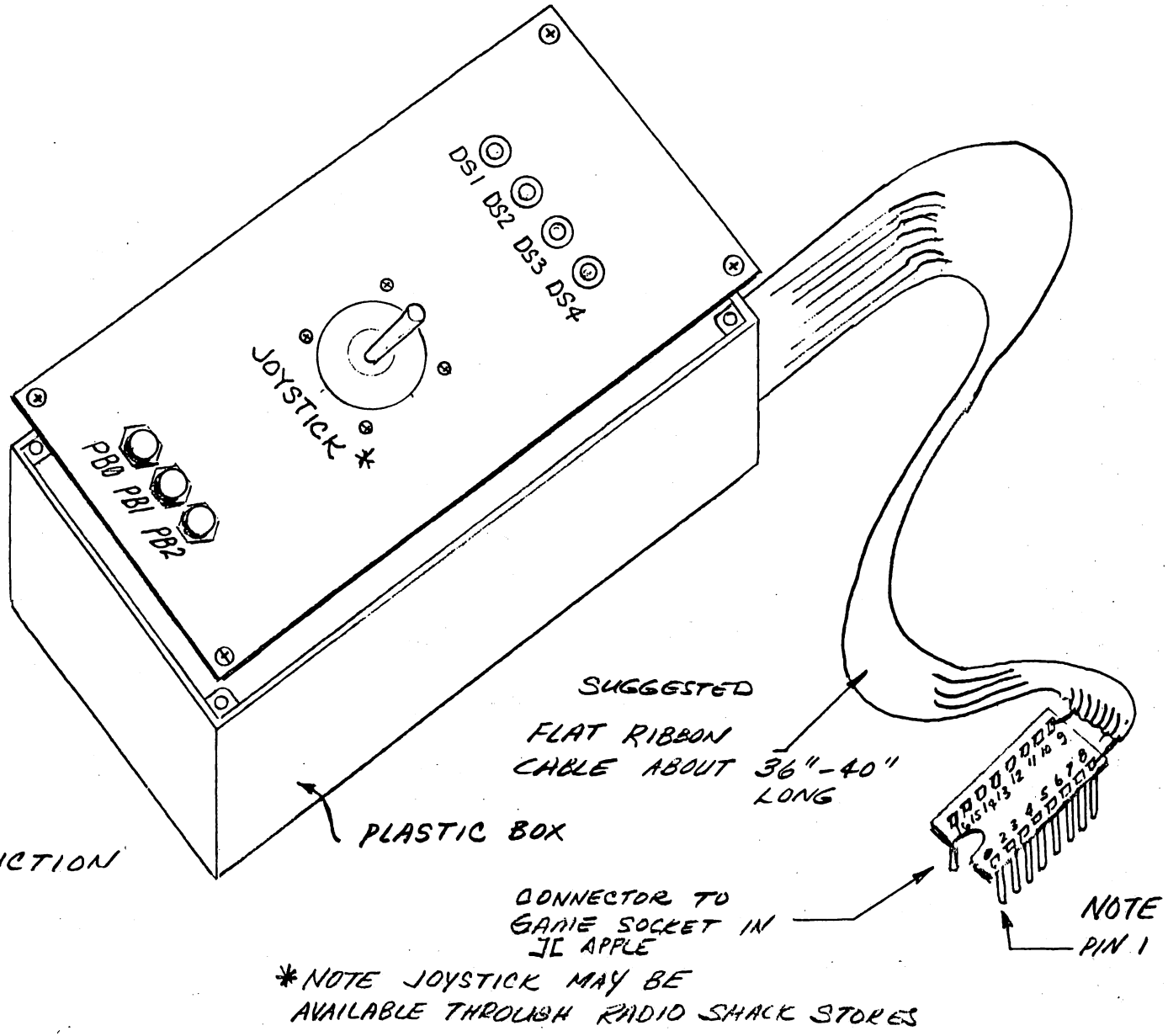
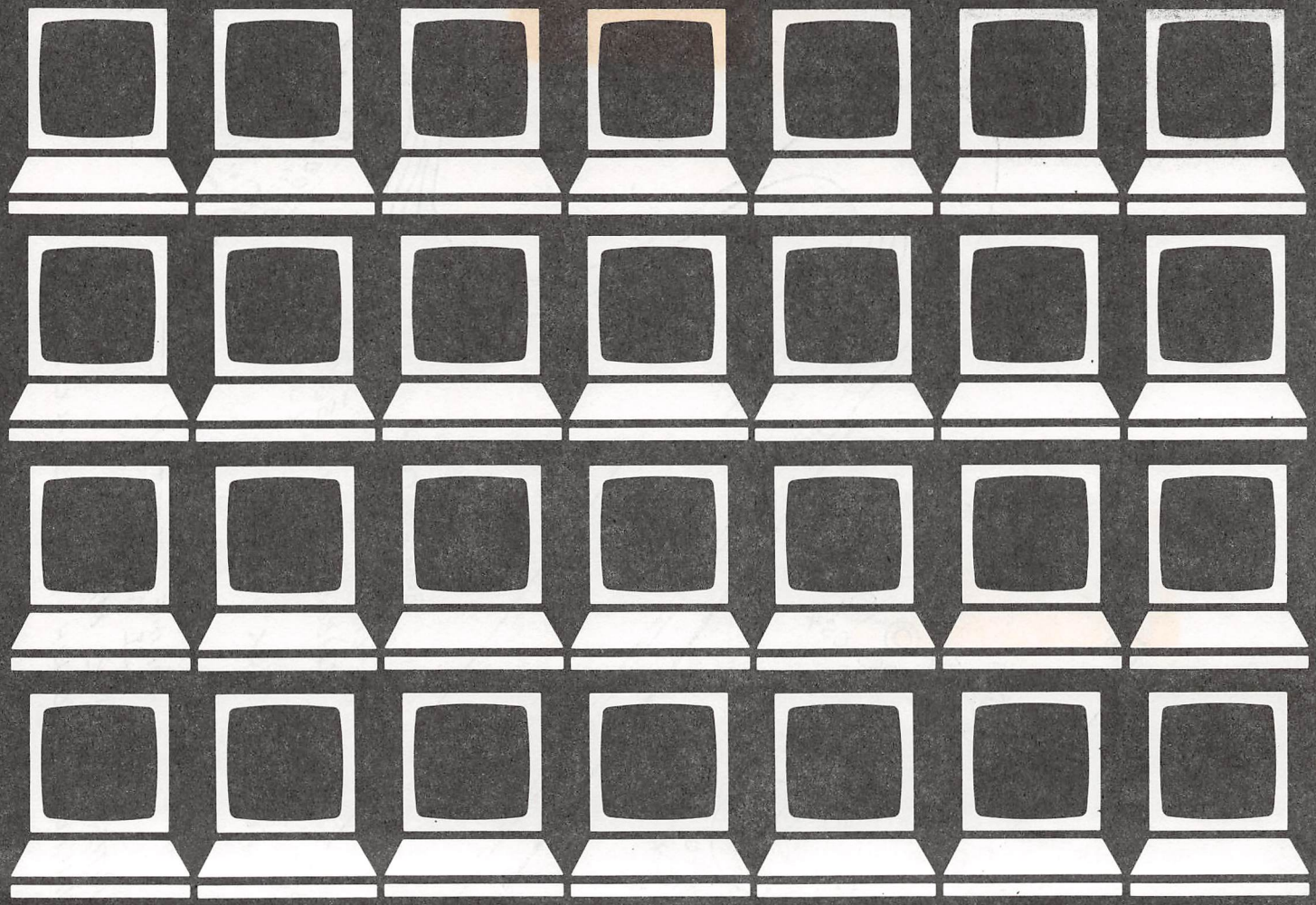


TYPICAL CONSTRUCTION

R.A. FAIRMAN
8-13-82

FIGURE 2



THOUSANDS OF COMPUTERS ARE GATHERING IN HOUSTON

The Gulf Coast Computer Show will be held Thursday through Sunday, October 28-31 at the Houston Civic Center. This show is the largest presentation of computers and computer accessories ever opened to the public in this area. The show includes mini and micro computers, data and word processing equipment, peripherals, accessories, supplies, software, and video games.

Under one roof you'll see—and be able to buy at special show prices—all of the hardware and software made by every major computer manufacturer for business, industry, the professions, government, education, home and personal use.

If you already own an IBM, DEC, Xerox, TRS-80, or other computer, the show has over five thousand different kinds of compatible products for these computers including printers, hard disks, modems, memory cards, video displays, and synthesizers, plus publications, support services and more!

The Applefest section of the show features over one hundred different companies selling thousands of Apple compatible products and software including investment programs, word processors, teaching systems, accounting packages and arcade games.

The show's robots, computers and electronic gadgetry will entertain, educate and enthrall kids, spouses and people who don't know a program from a memory disk. Admission is $5 for adults and $3 for children.

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Wanted: ROMwriter or equivalent. Call Mike Kramer at 358-6687.

---===*===---

CALL FOR ARTICLES

Articles and program listings should be submitted in hardcopy form, and, if possible, on disk in Applewriter][or ///, Apple DOS text, Professional Easywriter, Wordstar, Palantir, or Pascal compatible files. If not submitted on disk, articles must be free of typing or spelling errors as they cannot be retyped. Diskettes will be returned to the author provided his name and address are on them. Printed material should be printed using normal size characters, a new ribbon and enhanced print if your printer is so equipped. Margins should be set at 10 and 70 for articles. Listings should be printed in 40 column mode and may be printed in compressed print. Thermal paper should be avoided because it does not reproduce well. Authors of published articles will receive a blank diskette per page as compensation. If the last page of an article is a half page or longer it will qualify for a diskette. The Apple Barrel reserves the sole right to determine which articles are used.

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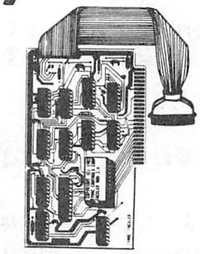

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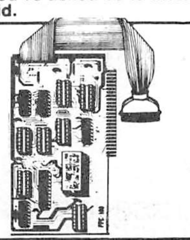

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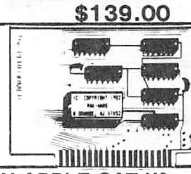

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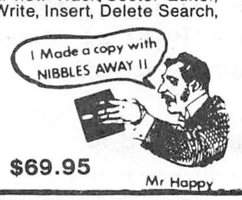

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1:00	CP/M_____	BASIC____	PASCAL___	EDUC.____
1:30	NEW MEMB	BASIC____	PASCAL___	EDUC.____
2:00	GEN MEET	__________	__________	__________
2:30	SPECIAL_	SOFTWARE	ADVANCED	BUSINESS
3:00	SPECIAL_	SOFTWARE	ADVANCED	BUSINESS
3:30	GAME SIG	SOFTWARE	ADVANCED	BUSINESS
4:00	GAME SIG	SOFTWARE	ADVANCED	__________
4:30	GAME SIG	SOFTWARE	STAT SIG	__________
5:00	__________	SOFTWARE	STAT SIG	__________
5:30	__________	SOFTWARE	STAT SIG	__________
6:00	__________	SOFTWARE	STAT SIG	__________

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