

PEEK (65)

The Unofficial OSI Users Journal

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#2

Column One

A month ago in this spot, I announced the birth of PEEK(65). Today I am happy to say that the baby is doing well. We have almost a thousand subscribers, a few advertisers and lots of stories to tell. In fact, there is so much material we will not be able to get it all in this issue. Case in point: memory maps. This issue will feature a fine, nearly complete OS-65U memory map. We also have a partial memory map for one of the various BASIC-in-ROM chips which we will print next month. And letters! we have spent a good part of the last month reading and filing the many letters our new subscribers sent in, laughing with some, wincing at others. Please keep them coming. I consider the Letters to the Ed. to be the most important part of PEEK(65). Now, let me get out of here and leave room for all the neat stuff we have for you!

Your faithful Ed.
Al Peabody

RUMORS

You guys haven't been sending in many hot rumors to keep this column going, but I've dug up a couple:

A voice recognition module is on the way which will be able to understand human speech by several speakers and will sell initially for less than \$2K with the price dropping to +\$1K.

A company in England will soon make a replacement BASIC-in-ROM chip which will plug right into your OSI board and solve all your problems. OSI a) will or b) won't recognize or service or take over and sell the chip, which may not exist anyway!

OSIO

Last month, we announced the formation of OSIO, the national OSI Owners' Organization. This month I am glad to report that quite a few PEEKers have joined OSIO. Let me try to clarify the difference between PEEK(65) and OSIO. PEEK(65) is strictly a correspondence deal. You tell us what you want to say or would like to learn, and we try to publish, if not the answer at least the question, so others can have a try at answering it. OSIO is a different breed of cat. They hope to establish chapters all over the country, to meet together and talk over topics of mutual interest and, perhaps most importantly, to reach a point of real political power in relations with the factory.

Wallace Kendall the President of OSIO has a nice story in this month's issue which speaks to the same distinction. Take a look at it. I went to a meeting of OSIO a few days ago, and found the mutual support very helpful, personally. Write to Wallace and see how you can start local chapters in your town.

At the last OSIO meeting, we were shown a brochure on a new printer which looks like a winner. It is called the Okidata Micro-line 80, and it seems to fill the gap between the "toy" printers and more powerful but much more expensive ones.

Here are the characteristics. It uses 8.5 X 11" paper, single sheets, roll or tractor feed, prints with a real ribbon, not on aluminum foil, produces very nice looking print, runs very quietly, is extremely rugged (100% duty cycle!), does graphics, double size print and squeezed but legible print to allow 132 columns in 8.5". It prints at 80 cps and is about as big as a Smith-Corona portable typewriter. You can get it at your local computer store for \$945 list, or order it directly from PEEK(65). We have made arrangements with the distributor to pick up a bunch of them for resale to our readers: \$875 plus \$20 shipping. Interested?

Tech Notes

Dick McGuire

The subject of this month's column is how to interface a serial NEC to a CA-10X board and take advantage of the handshaking function of the printer so it can be run at 1,200 baud. In fact, any printer with reverse channel handshaking can be supported in this way. We are informed that "Wordstar" will support proportional spacing at about 30cps via the CA-10 at 1,200 baud. Of course the main advantage of such a hook up is that you may install remote printers at some distance from the CPU and still run them at their highest speed!

Many printers provide a "Reverse Channel" indication when the printer's internal buffer is full and can accept no more data until some has been printed. This reverse channel will be found on pin 19 of the RS 232C connector. The NEC, at least, has a switch on the control panel (not visible with the covers on) to allow either a High or a Low (+ or - 12V) on this pin. Select reverse channel active high (+12V on pin 19 when the buffer is full).

On the CA-10X board, wire pin 19 of the connector to the RECEIVE pin for the port in question on J2. Cut the jumper to ground on pins 23 and 24 of the 6850 ACIA for the port to be used and cut the trace from the output of the 1489 chip for that port (this signal currently goes to pin 2 of the ACIA) and jumper it to pins 23 and 24. Hook it up and go! You will need no additional software as the handshake is entirely done with the hardware.

We had to do this as our NEC was being driven by a specially modified 430 board which is not supported by OS65U ver 1.2. Bye the bye, our old 430 board with 1200 baud handshake is for sale for \$75 for any of you who are not going to implement ver 1.2.

PS: According to a friend who has taken the time to benchmark several BASIC operations, Garbage collection can be greatly reduced (by as much as 35%) by simply declaring any no longer needed string as a null string (ie A\$=""). If you don't do this the operating system will spend time moving your useless data around every time it collects garbage.

Software Sources

Progressive Computing
Games and Utilities
3336 Avondale Court
Winsdor, Ontario
Canada N9E 1X6

Aurora Software Associates
Games
353 S 100 #6
Springville, UT 84663

Olensky Bros., Inc
Games
3763 Airport Blvd
Mobile, Al 36608

The 6502 Program Exchange
Gen'l 6502 pgms. Deliver on tape in KC
format
2920 W. Moana
Reno, NV 89509

Bill's Micro Services
OSI CIP programs
210 S. Kenilworth
Oak Park, Il 60302

Practical Computer Systems
OS-65U utility programs
PO Box 1961
Springfield, Il 62705

Computer Corner of New Jersey
Business, Games and Utilities for all
OSI line
439 Rt 23
Pompton Plains, NJ 07444

Digital Technology, Inc.
Rockley Rd.
Morgantown, WV 26505

Lifeboat Associates
Suite 505, 2248 Broadway
New York, NY 10024
C-3 and OS-CP/M required

The Exchange

EDITMF -- DMS Master File Editor

This software package will allow the user to search DMS files with the search limited to the end of the data. It will tell the operator how many records are filled and the record capacity of the file. The field labels are displayed with

the present contents. The input routine is in assembly code and the operator has cursor control as to which field is to be altered. This allows rapid entry of data and a comprehensive display of the record. Included is a copy of all subroutines needed to open data files, read records, write records and fetch the data. The coding is well documented and all control codes are poked into a table in BASIC, which facilitates using alternate terminals. It is currently set up for an ACT-V serial terminal. The program is available from PEEK(65) on 8" disk for \$50.

Classified Ads

RATE: 10¢/wd. DEADLINE: first of month

SOUND GENERATOR Create sounds for your amusement games such as gunshots, explosions, bounces, race car motors. Use your keyboard as a musical organ and write your own songs. The SOUND GENERATOR can create over 500 different sounds under computer control. This and whatever else your mind can dream up. Complete documentation on how to build, how to interface to OSI computer and where to get parts. Plus a demo program with all the basic sounds of a musical organ.

Send check or money order for \$9.95 to O. Dare, 7908 Marfield Pl., suite I, Balt., Md 21236

GRAPHICS GAMES for Challenger 1P and Superboard II. **BATTLESTAR** You are the commander of the battlestar. Your mission is to seek out and destroy the Cylon warriors before they destroy you and invade Earth!!! **ENTRAPMENT** Compete against the computer of another player is a fast reflex and strategy game where you attempt to trap your opponent. **CRUISE MISSILE** Set the angle and velocity of the missile for the long range target and watch it in flight as it heads toward the target. **DEPTH CHARGE** You are the captain of the SS Challenger. Your ship has to destroy the enemy before they surface and destroy your ship. **IN BETWEEN** The card game where you try to break the bank and win over \$1000.

Send check or money order for \$9.95 to O. Dare, 7908 Marfield Rd., Suite I, Balt., Md 21236

WP-6502

Got a ClP and want a good word processor? Dwo Quong Fok Low Sow, 371 Broome St., New York, has one for you. It's WP6502, "Pro Word Processing for OSI, PET, Apple & Atari". The best part is it only costs \$75 for video or \$100 for serial. It is available on tape, mini or 8" floppies and will run on ANY OSI computer with the possible exception of the Superboard. Our version runs under OS-65D, and Joe Ming of DQFLS promises a 65U version before long.

This is a memory mapped system which does not use line numbers. It has several advanced features such as Global Search and Replace, an advanced pagination routine which does not leave widow lines, block move and delete and several embedded commands to force top of form, a new paragraph, a dynamic left margin and several others.

WP6502 assumes a very dumb terminal and printer, and as such leaves out some useful stuff such as underlining. Another disadvantage in the disk version is that you must exit the program and use the KERNEL to access the disk. WP6502 also will not justify the right margin because "...we feel it looks terrible on a printer without proportional spacing." DQFLS plans to add proportional spacing support

We found the system very easy to implement; however a word of caution is needed here. Read ALL the documentation before trying to put it up on your system. The manual was (apparently) written before the serial version was and there is (supplied) additional documentation which you MUST read. Speaking of the manual (\$2), it is worth the price just to read a very entertaining and funny manual. This is a very fine word processor, and we recommend it highly.

FAST Sort

We hear a lot of talk about the slow sort speed in BASIC. BPS, 322 W. 57th. St, New York, has a very quick Sort/Merge program written in Assembler Language available for \$98 to run under OS-65U. This program will sort an entire floppy disk in just under 30 mins. It has several drawbacks however. Before you use it on DMS files you'll have to use FDUMP to figure out

record lengths, offsets and the beginning of the data (BODF). There is an interactive program on the disk so you can tell the sort what all this stuff is and it wouldn't be hard to rewrite it to get at the info directly. Another major drawback is that is will only work with fixed length fields which are left justified. In other words names will be sorted by length which is less than ideal, but it works just great on ZIP codes and other stuff which will fill up the field. It allows sorting on five keys and is an in-place sort and will stick the sorted stuff back where it got it from.

The author informs me that he is dickering with OSI to sell them this package, and if the dickering is successful he will modify it to sort variable length strings.

Regardless of its drawbacks, BPSORT is a superfast sort which will work on any length file and is well worth the money if you can use it.

PROJECTS INC. FAST FLOPPY COPY

The fast floppy copy will allow end users of the Ohio Scientific CD-23 and CD-74 hard disks to quickly copy systems and files from the hard disk to 8" floppies. The software package provides two utilities which facilitate both copying hard disk systems and restoring them from the floppies. The system can be either the master system or a slave system. When the system is used the operator is told how many diskettes will be needed to hold the system and files and is instructed to place numbered diskettes in the floppy disk drives. The system initializes the diskettes and copies the hard disk information onto the floppies. There is no need to initialize the diskettes prior to using them as the hard disk manager does this automatically.

When restoring a system to the hard disk the software will automatically initialize the area of the hard disk where the system and files normally reside. The operator is then instructed to place numbered diskettes in the floppy disk drives. Should the operator make a mistake and place the wrong disk in the drive the software will inform the operator of the error and ask that it be corrected. Once corrected the reloading will continue without any need to repeat previously

completed steps. This error checking makes the hard disk manager very appropriate for an end user environment where the operators are not programmers.

The package is available from Projects, Inc., 55 Woodland Drive, Staunton, VA. The price is \$195 for each copy, complete with full documentation and support

I have a couple of "wanted" items for your magazine:

- (1) A line editor for BASIC in either assembler language or BASIC - its purpose would be to correct BASIC lines instead of retyping in a whole line.
- (2) Complete information on either the full size floppys or Mini-floppys such that it could be emulated by a serious builder. OSI does not sell separate information on these products as do successful manufacturers, an example is Apple. What beautiful books and readily available!

I have a 6502 assembler single trace utility program which grew from an article in (I believe) issue 8 of KILOBAUD. It requires the system have an I/O chip with a timer/intercept function, such as 6830, 6532, 6522, ect. If you would be interested in having it, let me know & I'll clean it up and get it commented. It is quite long - about 6 pages of source listings using the Microcode assembler.

I am looking forward to more comments on the Duo Quong word processor in the next issue of PEEK (65).

Lester L. McClure
Reisterstown, MD

There you have it, demon programmers: two items needed by the OSI community, and an item or three you could incorporate into a system of your own. Users, get busy and tell us what else you want!

LETTERS

Ed:

I have an OSI CIP and a Heath #14 printer, a very harmonious combo indeed. If you would be interested in an article on how easily these two interface and operate at 4800 Baud, let me know.

David L. Flannery
Englewood, Ohio

*SURE! That's what PEEK(65)
is all about. -- Ed.*

Ed:

Enclosed is my check for \$8.00 in response to your advertisement in the February issue of Kilobaud Microcomputing. I have been looking for such a publication like a wanderer in a desert looking for an oasis!

Robert J. Miller
Madison, Wisconsin

Ed:

As Ohio Dealers, we were most interested to read the first copy of your new Journal which was kindly passed on to us by a Friend in New York.

We would be most interested in subscribing to the Journal and would welcome information on this and any other points you may feel of interest.

We would be most appreciative of any information you may have on WordStar and how to address the CA-10 rather than the CA-6. As to software, we do have a couple of 65U programs we have written In-House, unfortunately, they are for UK taxes and business systems.

David Phillips
Millbank Computers LTD
Kingston-Upon-Thames, Surrey

Ed:

We learned that the PEEK (65) is now "born". Congratulations!

We are very much interested in getting a copies starting from January 1980. We have been looking desperately for an OSI journal in Hong Kong for the last six months. The lack of software has delayed our intention in establishing a local user's group. We sincerely hope that the PEEK (65) is what we have been longing for and that the local OSI users will benefit from your journal.

We also wish to enquire whether we are eligible to become your distributor in Hong Kong to handle local subscriptions.

Please note that we are currently selling the superboards and CIP of the OSI computers and we hope we shall sell the C4 and C8 series in the summer.

Looking forward to hearing from you and cooperating with you in the future.

Anthony Kuanne
Hong Kong

Mr. Kuanne wins the prize for the most distant reader of PEEK(65). Naturally we will be happy to have him represent us. Drop in and say hello next time you are there!

Ed:

Just got my first issue of PEEK and am pleased with the born issue.

I have a OSI CIP with 8K. I got it for Christmas, and have been having a ball with it. I bought several programs from AARDVARK; one of them is a cursor control program. With it you have control over the cursor position and you can edit. No more retyping a whole line to correct a syntax error, it is great.

I also bought \$7.50 worth of so called useful information about the CIP. What a waste. This was a real rip that was being sold by Bill's Micro Service, Oak Park, IL.

I talked by telephone to R. D. Harper of Computer Works, Inc. in Normal, IL. He is working on an expansion memory board for the CIP that will add 8K and give the CIP a total 16K Ram.

There are two mod's that I would like to see some information on for the CIP. I would like to modify the video to print 40 or 64 characters to the line, and I would like the cassette port speeded up.

I would like to see a RTTY program so I could use the computer with my 2 meter rig.

Paul Bowen
Overland, Missouri

Ed:

I think that your magazine would be easier on the eye if you ignored justifying the right margin and kept a reasonably uniform spacing within each line. Pretty choppy job on number 1. Birthing pains, no doubt!

Enjoyed Tech Notes. What are the OSI Tech newsletters and how could I get a list of them and/or selected numbers?

Also, I would like some more information on PEEK(65) as well as more on OSIO. No editor, publisher, etc. was mentioned. No backgrounds of any participants given. How much overlap will there-be?

Phil Hooper
Northfield, Vermont

When we get our copy of WORDSTAR, we hope to do a more readable job of justifying. WP-2 does poorly on short lines with long words as you can see. The Tech Newsletters have been sent out to all OSI dealers every two weeks or so since last May, and are a goldmine of information. We will print extracts from the tables of contents next month, and will provide text of articles which OSI will release at cost to our readers, as well as continuing to extract them in Tech Notes as appropriate. See OSIO and PEEK(65) stories elsewhere in this issue.

--Ed

Ed:

I have a C2-8P with 20K RAM. I bought it in May 1978, and to date it hasn't been down for service for a minute. A few months ago I updated my 540 board to include lower case and graphics, and a few days ago I bought a printer interface card for a COMPRINT 912. The cable on the interface card is the best example of design overkill I have ever encountered -- 36 conductors, of which more than half are at ground! I still don't have my printer running after 3 days of effort, and I am sure that I haven't figured out that danged cable properly.

I use my computer in my profession. Mostly I simulate spaces from architectural drawings, use the machine to determine acoustic environments, and let the machine tell me what I should recommend to correct it. The programs were originally written in FORTRAN (I have been programming since 1966) and run on the University Control Data main frame. I bought OSI to eliminate the travel to the University Center and overcome the fees for CPU time. It was a wise investment! My unit easily paid for itself in the first year.

Please do develop a catalog of useful POKES. I only know a few common ones:

POKE 515,255	= LOAD
POKE 515,0	= UNLOAD
POKE 517,1	= SAVE
POKE 517,0	= UNSAVE
POKE 56832,0	= doubles width of characters on screen
POKE 56832,1	= returns width of characters to normal

And, of course the POKE fast screen clear that appeared in the February issue of KILOBAUD MICROCOMPUTING. These few are convenient and helpful, and I am sure there are many more that would sharpen our programs.

Ian A. Morton
Saint Paul, Minnesota

Ed:

Please enter my subscription to PEEK (65) for one year. I am most interested in hearing about other OSI user's experiences. My system (C2-8P) didn't work from day one, and has been back to Ohio more than it has been in New York. OSI has been particularly nasty to me and they still deny the existence of the bug in the Basic which causes programs containing subscripted strings to hang up. I believe a strong users group is a necessity and I will do anything I can toward that end.

I have considered journalizing my experiences and submitting the result to a microcomputer magazine for publication. I would appreciate any comments you have on this idea.

Allen Cohen
Staten Island, New York

I asked what the string handling problem is at the last OSIO meeting, and saw a demonstration on a CLIP in the room. The program:

```
10 DIM A$(88)
20 DIM B$(88)
30 DIM C$(88)
40 FOR I=1 TO 88
50 A$=STR$(I)
60 B$=STR$(I)
70 C$=STR$(I)
80 NEXT I
```

When we typed RUN, the screen started flashing about once a second, and nothing else for a good two minutes, then finally, "OK."

Remember, BASIC needs about 10 bytes per element to store the data on string arrays, to say nothing of the elements themselves. It is possible that 3 arrays this big on a CLIP are just too much, and that it is doing a tremendous amount of garbage collection. Any better suggestions will be printed!

--Ed

Ed:

I have not been able to get any documentation from OSI or any dealer that I can make work to copy track 0 from the OS - 65D V3 disk onto another disk (tracks 1 thru 39 copy OK). Its troublesome to have to change disks all the time when one disk would work to start up from reset and

then operate your program. Solve this for me and I will be glad to donate a years subscription to anyone you choose.

Arthur Fink
Bremerton, Washington

The first one to write in the answer in detail wins a year's subscription. Mr. Fink will be the judge!

--Ed

Dealer RIPOFF!

In last month's PEEK(65), our company offered a program called KYUTIL for sale to OSI dealers. We knew we were new on the software scene, but we also knew KYUTIL is a great program, with a high-speed machine language sort included. So we offered to send any interested dealer a "demonstration disk" for only \$25, and only asked \$20 royalty for each copy sold. We figured that at these low prices, people were likely to take a risk on us, and also to pay us the royalty if they did sell any. Wrong. Sure, lots of dealers took the risk. As soon as they learned there was a machine language sort on the disk, and all the other neat things KYUTIL would do, they ordered it by the dozens. Many dealers even called us up and requested that we send them copies air mail special delivery, saying they had customers who needed KYUTIL right away!

Now comes the sad part. Of all the many copies of KYUTIL we have sent out, and of all the many people who said they had customers who needed KYUTIL or machine language sorts right away quick, we have received exactly one royalty check. Also, more than one customer has called us and asked for clarification about how to run one part or another of KYUTIL, though our manual is quite clear. SO:

We know KYUTIL is being sold;
We know our manual isn't being provided along with it;

We know OSI dealers are ripping us off, selling the program we worked months to develop without paying us the very low royalty of \$20 we asked.

Question: If we can't trust OSI dealers to remit even a small royalty how can we sell our software? Your comments would be welcome.

The Missing Links

By Wallace Kendall, 9002 Dunloggin Rd.,
Ellicott City, MD 21043

In a previous incarnation, before I was retired to pasture, I had the responsibility for both producing and purchasing several kinds of property. When I bought my computer, I knew little more than this about it. Other owners have told me they were equally ignorant.

People have been buying things like desks for a long time, and over the centuries methods for communicating, for reaching agreements, for settling arguments, have been hammered out. For manuscripts, films, pictures, art as well, enough lawsuits have gone through the courts to give at least a little guidance. And the people who buy those items are usually experienced.

Unfortunately, many of the people who are buying microcomputers these days have not had much experience in that activity. "Anybody can operate it" -- but anybody who buys a computer wants to operate it well, and that takes a good deal of information. Manufacturers and dealers, even when they have a good deal of essential information, do not seem to have the resources to explain their products adequately, even to eager customers with cash in hand.

Do they explain the products to prospective purchasers? Forget it!

So the person who is thinking of buying a small computer should first take a college course and learn about microcomputers, right?

Good luck. Just possibly you may be able to find a computer science department that recognizes the existence of microcomputers. If you do find one, it just possibly may use the microcomputer you are interested in.

"They all use BASIC," you may be told airily. Sure they do. But they don't all use the same BASIC, and there are video systems and serial systems, and the

operating systems are different, and the file-handling systems are different, and there are different terminals and different printers and different memory maps and different pointers.

Once you know all about these things, it's no trouble to change from one system to another. If you're trying to learn, it's a jungle out there.

The general magazines are useful; of course, you may need to read them carefully for a year or two before the scattered pertinent articles begin to form a body of useful knowledge.

But there is hope. The manufacturers seem gradually to be putting together the kinds of information you must have to operate a computer. The routines available in the ROM's, the addresses of all the pointers, the complete memory map, the detailed schematics -- these are the minimums. (Perhaps some day in the future all of this will be delivered with the computer or with the software.)

That will not be enough for the true amateur, the personal computer owner who has no technical background. Even with detailed information, he will always need a lot of hand-holding.

Enter the missing link(s): the users' group and the dedicated publication. If the manufacturer and the software house will provide the essential information and some support, these channels can convey the information efficiently to computer owners, old and new -- and even to many prospective owners.

PEEK (65) is a narrow-band publication. I hope OSI owners will find that it zeros in on their specific interests, and that it is useful and interesting throughout.

OSIO hopes to become a truly national organization, with chapters in many states, many active members, and a wide range of educational and service activities.

The information gap has been painfully obvious to us all. Perhaps now we've found the missing links.