OS-9 IS MOTD AT RAINBOWfest CHICAGO

by Jeffrey Parker

Under hot and sunny skies in Schaumburg, Illinois, a small city on the outskirts of Chicago, thousands of people gathered to explore the possibilities at RAINBOWfest/Chicago. Even though it was Memorial Day weekend, the crowds gathered for the 11th RAINBOWfest, and showed the most response ever to OS-9. OS-9 was everywhere to be seen at the show, from Bill Moore of Microware, who was guest speaker at the OS-9 Users Group Breakfast on Sunday to Brian A. Lantz, well known OS-9 programmer and president of the Users Group. Not only were most of the OS-9 celebrities on hand, including former OS-9 Users Group president and current Director-at-Large Dale L. Puckett, but it seemed as though nearly every exhibitor at this RAINBOWfest had something for the users wanting to enhance OS-9.

Peripherals, add-ons and software were at a never-before-seen level of availability and all at huge discount prices, such as Bob Rosen's (Spectrum Projects) Thunder RAM 256K RAM board for only $99.00 and the OS-9 driver for just $19.99. It seemed like nearly every other exhibitor, from Sofco to Computer Systems Center had something for everyone to benefit by. Another very abundant product from several vendors were the five, ten and 20 meg hard drives. Their hard drives could allow OS-9 users to store applications programs on the hard drive instead of having to constantly swap disks. Of course storage capacity and speed of access is also greatly enhanced by these hard drives. Even Radio Shack was selling a hard drive controller for only $99.00!

See exclusive RAINBOWfest CHICAGO pictures . . . page 5.

MORE ON THAT NEW 68020 MACHINE — THE QT 20x —

by Bruce Warner

Since we told you about the new QT 20x from Frank Hogg Laboratory last month there has been a change in the specs for the new computer. Originally the specs showed four serial ports and two meg of RAM. Now the QT 20x has 2.5 Meg of RAM and six serial ports! The best thing is that the price remains the same. With the addition of the memory and two extra ports the new 20x can now be offered in a different format than before. But first I need to clear up just how the 20x is configured.

The original QTs, (the QT, QT Plus and QT 20) are all based on single-board computers. The new QT 20x is expandable by a bus, thus it is a bus-based computer, or is it? The 20x motherboard (9 by 12 inches) is actually a single-board computer with a 32-bit, 12.5 Mhz MC68020 CPU, two serial ports and 512K RAM. It also has a real-time battery backed clock, an eight-bit parallel port, a 5.25 inch floppy disk controller, a SCSI (SASI) peripheral interface. Both the floppy and SCSI are full DMA! In addition to all this the 20x motherboard has provision for the optional MC68881 floating-point coprocessor, a memory protection board and eight 80-pin full 32-bit expansion slots! All of this plus the software, OS9/68K, Basic09 and Runb, *DYNACALC, Stylograph, Mail Merge, Speller, QCom* communications, fbu hard disk backup, *Sculptor* run-time and the FHL office system! Whew!

Because the motherboard was expanded with its own 512K RAM and two serial ports, it can be used as a development computer by itself. The price for the motherboard is ONLY $2,195. The two Meg RAM/four serial port board is $995. Both can be purchased together for $2,995 which gives you the six serial ports and 2.5 Meg RAM!

Additional two Meg RAM/four Serial Port boards can be purchased when you order the 20x for only $800, a $195 savings. Up to a total of seven can be used. By the way all the serial ports have full modem control!

FHL also packages the 20x in two different cases. The first case is a PC clone case with a 150 watt supply, 20 meg hard drive and 5.25 inch 80-track floppy for $5,995 list ($4,495 direct). This system is also offered as a kit and as separate pieces. If you do the assembly yourself you can put one together for about $4,200, even less if you already have some of the parts. FHL can help you determine what parts you will need.

The other case is more expensive, has a bigger power supply and did not have a price set at press time. I do know that this case is rack-mountable and very nice looking. This version of the 20x is designed for dealer retail sales and is priced accordingly. Dealers who are interested should contact FHL for information.

PUTTING IT TOGETHER
The making of this month's MOTD

by Bruce N. Warner, Editor

There's something special about a RAINBOWfest. This year's Chicago fest was no exception. There was a lot of activity at the OS-9 booth, and plenty of happy OS-9ers buying their UG pins and signing new people up. One of the big attractions has been the MOTD. You'd be surprised how many people look at this little jewel and ask how they can get it every month. That's a very strong source of pride for me.

Things don't end at RAINBOWfest; I've received several calls since coming home from Chicago, most about the "New Color Computer." I'll tell you everything I know!

A New CoCo?

Lonnie Falk says that those who have signed a nondisclosure agreement with Tandy are saying "if" a new machine, and those that haven't are saying "when." The differences run rampant from that point. Sometimes I find it easier to hear what's going on from what people don't say. Watching the expressions of some people when the rumors are flying can be more revealing than a hundred rumors.

Don't expect to see the "New Color Computer" before you see the next two issues of the MOTD. That doesn't mean you'll see it then, it just means you won't see it before then.

Don't expect the "New Color Computer" to have a new CPU. The 6809 is what I've been told to expect. That makes sense if you're looking for software compatibility.

Don't expect the "New Color Computer" to have new ROM packs. Almost everything that it runs will use disk for program execution. This is one of the most accepted statements going. That and the universal outlook for Level II OS-9 with at least 256K of RAM.

There isn't much other information to be had. It appears that someone has definitely seen a new Color Computer, but won't 'fess up to the fact.

Who Said What?

In this issue you'll read about the OS-9 breakfast in Chicago. You'll also read about the RAINBOW community breakfast. For the OS-9ers, we were a little disappointed. It looks like we'll give the Princeton show another chance, but we'll need a real good turn out to keep it going. You can order your tickets now by sending $14 to:

> OS-9 Users Group
> Attn: Breakfast
> 9743 University Ave., Suite 330
> Des Moines, Iowa 50322

Making The Big Show

Thanks to grants from SoftWar and Frank Hogg Laboratories, I'm spending part of the month of June in Las Vegas, Nevada. That's where they hold the National Computer Conference every year. This is the big end user show. I'll have plenty of photos and information to share with you in the August issue.

That brings up another issue. I've been traveling for most of my 37 years on this planet. From Pakistan to San Francisco, Canada to Kenya. Most of the fun I've

had, though, has been traveling with the OS-9 Users Group. Here's a bunch of people that really go out of their way to open the doors for new people. Just ask some of the folks that stopped by the booth in Chicago. This was an unexpected delight.

Answers

If you ever feel like you're missing some of the answers to OS-9, stop and look at what you really know for a few minutes. Dale Puckett is probably the most knowledgeable person in the world when it comes to OS-9. It never ceases to amaze me that there are times when Dale comes to me for some answers. Brian Lantz has been dealing with OSK so much that he's forgotten some of the syntax for Level I OS-9 (all options start with a hyphen in OSK). Being a volunteer in the OS-9 booth is a real pleasure. So . . . if you're not going to come to get some information, or you're still relatively new to OS-9, join us in Princeton this fall. We'll be glad to have the help.

The most common asked questions in Chicago had to do with what you get by becoming a member of the UG. I had to stop and think about it. There's the MOTD, with a direct line to some of the best OS-9 authorities in the world; there's the software library that's available at a much lower rate than you can get from CompuServe downloads, and there's the fellowship that you get from becoming a member of the gang. There's more to it, but that's the beginning, and all you asked for was what I get out of it. Do you realize that the cost of membership covers both the cost of a year's subscription to the MOTD ($20) and your first library disk ($5)? Those two items alone would be worth the cost of membership. If we decide to allow nonmembers to order disks, they will be paying somewhere around $8 each for a disk. There's another one of those benefits you get from belonging to something. I can't believe anyone would question the value of their $25 each year.

New Disk Information

There are some new disks available in the software library. If you'll read Dave Kaleita's column, you'll see that the UG Library is expanding. This is due to a lot of hard work by Dave and Burt Schneider. The new library listing is in this issue, but also note the new price for the full library set. It's not $80 for the full eight disk set!

Saved By The Bull

No, it's not a typo. Having spent much of the last 20 years in broadcasting, I've been able to develop quite a pitch for help. That's compounded by the amount of charity work I've done, so I'm never afraid to spread it a little to get the job done. This month's spreading went to Dale Puckett and Fred Scoville. In a last minute effort, Dale and Fred came through with the necessary copy to fill up this issue.

No one man can feed himself and write the entire MOTD (it doesn't pay well enough). The amazing thing is the number of letters I keep getting that ask,

"What do you think about . . . ?" I haven't found one suggestion that didn't have some merit. There's been everything from a suggestion for a column on pipes to building your own 68020 OS-9 computer. Every suggestion has had some merit for the people that will be reading the MOTD. While they don't all appeal to me, personally, the readers of the MOTD are all at different levels, and each has something they are looking for that someone else can offer through an article. Write it! Submit it! If it's really that good, it will be printed. Don't feel that your time is wasted.

On Compuserve

Some of you may have noticed an abbreviated version of the MOTD on CompuServe. Here's the story. We have come up with an agreement with R. Wayne Day, SysOp of the OS-9 SIG, to allow the officers of the UG to be on line more often at a lower rate. This will allow many of you the opportunity to get involved with OS-9 at a much faster pace. We have also arranged to give the UG more exposure on CompuServe by providing an electronic version of the MOTD. This runs us into a position where we are not only discovering new information and releasing it first, but releasing it all over the world! CompuServe now has online communications with Japan, the largest users of OS-9 in the world. Any day now, we'll be talking with the Japanese users — online, with instant responses to your OS-9 questions from both the North American and Far East experts.

What does CompuServe get in return? More people on-line. That's the bottom line of any business, drumming up more business.

A Personal Note

I'd like to comment for just a second, how proud it makes me to be an officer of the UG. There's so much fun to be had when you get involved, and there's so much we all can share. It's hard to remember back to the first day I booted up OS-9. There are some of you out there that are going through that right now. Come on out to Princeton and share that information at the OS-9 booth. Join us at the breakfast and discover what's really happening. Buy an OS-9 T-shirt to tell the world that you're different, because you have to be different to be better.

A New Pen Comes to Our Pages

Jeff Parker called a few days ago and asked what the chances were of submitting a report of the Chicago RAIN-BOWfest. So you'll be able to get the details from a new vantage point. Jeff is a free lance writer from Sudbury, Mass. I know how valuable writing time is when freelancing, so Jeff's contribution is especially appreciated. It takes a real labor of love to donate extra work to the UG, even more when it's your every day work.

More Incredible!

Now there are *THREE!*

QT 20	68020
QT Plus	68000
QT	68008

TERMINAL NOT INCLUDED
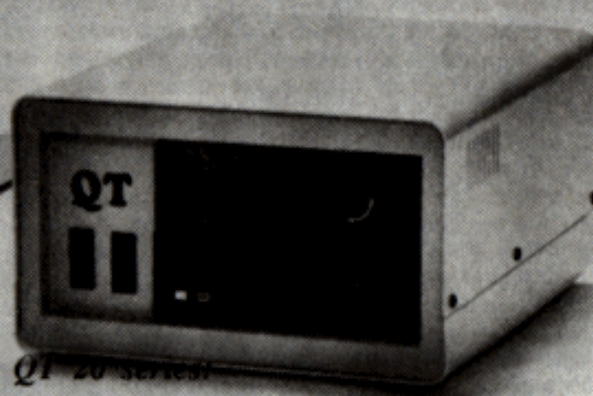
The QT

The QT 20 series

The **QT** family of multi-user, multi-tasking computers supports from 4 to 20 users. Currently 9 models are available, ranging in price from $ 1,595 to $ 8,795. Models are available with the Motorola 68008, 68000 or the new 32 bit 68020 CPU. CPU speeds range from 8 Mhz to 16.67 Mhz; RAM size from 128K to 2048K and ROM from 2K to 256K. All the **QT**'s have a built in SASI interface and will support any hard drive. All **QT**'s include OS9/68K, the multi-user operating system with Basic, utilities, word processing and spreadsheet programs. The **QT**'s take up less than one cubic foot of space.

The QT series:

The basic **QT** has 128K RAM, 68008 CPU, 8 Mhz and will support 4 users and 2 printer ports. The single floppy version is priced at $ 1,595 (Retail $ 2,095) and is field upgradeable to 512K RAM and 20 Meg hard drive. This system sells for $ 2,995 (Retail $ 3,595).

The QT Plus series:

This **QT** has 512K RAM, 68000 CPU, 10 Mhz and supports 4 users and 2 printer ports. The single floppy version is priced at $ 2,095 (Retail $ 2,695) and is field upgradeable to 1024K, 8 serial ports and hard disk. The **QT Plus** 4 user system with 512K RAM and 20 Meg hard drive is priced at $ 3,495 (Retail $ 3,995). The 512K upgrade costs $ 395 (Retail $ 495).

This **QT** has 2048K RAM, 68020 CPU, 12.5 Mhz and supports 4 users and 1 printer port. This system can be expanded to 20 users with 16.67 Mhz. The **QT 20** with a 20 Meg hard drive sells for $ 7,495 (Retail $ 8,795).

QT Price List 1986

CONFIG.	DIRECT	RETAIL
QT 1 Drive	$1,595	$2,095
QT 2 Drives	$1,750	$2,295
QT 20 Meg HD	$2,995	$3,595
QT+ 1 Drive	$2,095	$2,695
QT+ 2 Drives	$2,250	$2,895
QT+ 20 Meg HD	$3,495	$3,995
QT 20 20 Meg HD	$7,495	$8,795

OS9/68000 SOFTWARE
Available Now

Sculptor	$995 ($695 *for QT owners*)	
Microware C	$400	
Microware Pascal	$400	Add 3.50 Shipping

1976 **FHL** **FRANK HOGG LABORATORY** 1986

770 James St., Syracuse, NY 13203 **Telex 646740**

315/474-7856

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OS-9 U.G. SOFTWARE COMMENTARY

by Bert Schneider

This time I'll cover Disk #8, Miscellaneous Programs; Disk #9, "C" Programmer's Toolkit; and Disk #11, Word Processing Utilities Part 2. Next time I'll get to Disk #10, Math and Electronics. Oh, by the way, the version Adventure program I have (1 OCT 84) has a slight bug in it and has been fixed by a newer version. When I got to the bridge with the troll, I gave him some magazines (not MOTD, Byte, or RAINBOW) and all I got in return was a Fatal Error #38. I'll get you the new revision number as soon as possible.

This month's disks are a fantastic collection of some very useful utilities, no matter what you are using the computer for: entertainment, software development, or just text processing. Each of these are related in some way or another. I am trying patiently to work with these programs and type this month's article using only one drive. I tried to hook up a 10-megabyte hard disk only to find out that the drive was bad and the controller did not support pulse-mode operations (a requirement of LR Tech's interface for the Color Computer). The people at LR Tech have been very helpful and have put together an excellent product. It includes an SCSI interface card inside a metal enclosure along with documentation and OS-9 source code to configure your system with just about any hard drive and controller on the market. Hopefully, I shall have a good hard disk working on my system soon. I am told the CoCo becomes a new machine when running OS-9 from a hard disk. I think I'll have a bonfire with all of my floppies (maybe I had better not do that, I may have to back up the mega-monster once in a while).

Disk #8 is an interesting collection of miscellaneous programs. One of these programs actually got my wife interested in the computer! That in itself deserves an award of some kind. Dale Puckett, my wife just thinks your Checkbook program is the neatest thing since a balanced checkbook. Hats off to you!

NAME: checkbook
TYPE: misc
LANGUAGE: Basic09
SIZE: $55E
DESCRIPTION: Self-prompting program. Helps a frustrated person to balance his or her checkbook (maybe Uncle Sam could use this program).
USE: checkbook <cr>
AUTHOR: Dale L. Puckett

NAME: finance
TYPE: misc
LANGUAGE: Basic09
SIZE: $2306
DESCRIPTION: Finance is a menu-driven financial package that provides a quick look at future and present values of loans, investments, and computes amortizations. Very easy to use and provides quick answers to those all important questions like, how much will our house payment be if we buy a $120,000 house with nothing down at 12% interest.
USE: finance <cr>
AUTHOR: Dale L. Puckett

NAME: sieve
TYPE: demonstration
LANGUAGE: Basic09
SIZE: $179
DESCRIPTION: Sieve is a benchmark used to compare speed and efficiency of different computers and compilers. In 10 iterations, this program found 1,899 prime numbers and took 7 minutes and 48 seconds on the color computer.
USE: sieve <cr>
AUTHOR: Greg Morse

NAME: jerrybench
TYPE: demonstration
LANGUAGE: Basic09
SIZE: $34A
DESCRIPTION: This is another benchmark program that performs a 10 by 10 matrix multiplication.
USE: jerrybench <cr>
AUTHOR: Jerry Poumelle & Greg Morse

NAME: othello
TYPE: misc
LANGUAGE: C
SIZE: $397D
DESCRIPTION: The object of the game is for two players to alternate placing their marker someplace on an 8 by 8 grid, so that at least one of the opponent's pieces becomes surrounded by the moving player's pieces — causing the flanked pieces to flip 'color' and belong to the moving player. After 60 moves have been played (or if no player has a legal move left), the player with the most of his own pieces on the board wins.
USE: othello <cr>
AUTHOR: Bert Halstead, modified for BDS C by Leor Zolman, modified for Introl C on OS-9 by Eric Williams. Several features were added by Gilbert Shapiro

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Disk #9, C Programmer's Toolkit, has several excellent utilities to aid in the development and maintenance of C source code. I see each of them a necessary addition to one's commands directory. The code can also provide a newcomer to C a great opportunity to discover how to use C. Carl Kreider has done an excellent job of creating a collection of very useful routines.

NAME: cb
TYPE: C utility
LANGUAGE: C
SIZE: $10FA
DESCRIPTION: Formats C source code according to Kernighan and Ritchie recommended format.
USE: cb <file [>newfile]
AUTHOR: From CIPG's UNIX system: modified to run under BDS C by William C. Colley III and fixed to work under MW C by Carl Kreider

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NAME: findfunc
TYPE: C utility
LANGUAGE: C
SIZE: $1384
DESCRIPTION: Lists to standard output the functions found in each of the files listed.
USE: findfunc [-n] file . . . file
AUTHOR: Carl Kreider

NAME: makdir.a 09
TYPE: C utility
LANGUAGE: assembly
SIZE:
DESCRIPTION: A library routine used to create a directory without having to call Shell. I was unable to assemble this on my Color Computer. The version I have is 22 Sept 84.
USE: int makdir(name,pmode)
    char   *name;
    int   pmode;
AUTHOR:

NAME: ppc
TYPE: C utility
LANGUAGE: C
SIZE: $1587
DESCRIPTION: This routine paginates, titles, and numbers C source code. It recognizes the following directives in the form of comments beginning in column 1; /*page*/, /*noprint*/, and /*print*/.
USE: ppc [-n] file1 file2 . . filen
    -n supresses line numbers
AUTHOR: Carl Kreider

NAME: lib
TYPE: C utility
LANGUAGE: C
SIZE:
DESCRIPTION: This utility splits up Microware C library files into the relocatable object modules. After this is complete, a file is created that contains the names of the relocatable object files.
USE: lib library—file—name
AUTHOR: Carl Kreider

NAME: xc
TYPE: C utility
LANGUAGE: C
SIZE: $2625
DESCRIPTION: Provides the user with a cross reference of variables, functions, and reserved words. It can also print a listing with local and global line numbers.
USE: xc [-ilrx] file1 . . filen
    -i enable file inclusion
    -l enable listing of file(s)
    -r cross reference reserved words
    -x no xref listing
AUTHOR: Carl Kreider

Disk #11, Word Processing Utilities, Part 2 is a continuation of Disk #3. Programs written in C and Pascal include file processing filters, output routines, and text file processing. Each of these is very powerful and helps to augment the file processing capabilities you may already have or not have.

NAME: col
TYPE: file processing filter
LANGUAGE: Pascal
SIZE: $B02
DESCRIPTION: This program helps you to columnate the standard input to the standard output. You can select the number of columns you want your text formatted in (not the number of characters across a single line).
USE: list file ! col [number] >newfile

    list file ! col 2 >newfile
    (columnates text in file into
    two columns and stored under
    the new name of newfile)
AUTHOR: William R. Tyler

NAME: finds
TYPE: text file processing
LANGUAGE: C
SIZE: $135B
DESCRIPTION: This routine is used to search for a string of text in a file. The output prints out the line number and the line that the string or pattern was found in.
USE: finds file pattern
AUTHOR: Carl Kreider

NAME: pf
TYPE: text file output routine
LANGUAGE: C
SIZE: $132F
DESCRIPTION: PF formats and paginates your source code (or any other text files) out to the standard output. An optional header along with the current date and time is printed at the top of each page. A page number is centered at the bottom of each page.
USE: pf < pathname > /p
AUTHOR: Roland T. Waggoner

NAME: print
TYPE: text file output routine
LANGUAGE: C
SIZE: $178F
DESCRIPTION: YAFPP or yet another file printing program. This routine prints the page number at the top of each page along with the date and time and filename. An optional header can be printed as well.
USE: print file
    print -h header file
AUTHOR: James E. Jones

NAME: uplow
TYPE: text file processing
LANGUAGE: C
SIZE: $11CC
DESCRIPTION: A very powerful utility. It can change the case of all characters in a single bound. The case can be changed to either all upper case or all lower case depending on the needs of the programmer or user.
USE: uplow -u < file > newfile
    changes all to upper case
    uplow -l < file > newfile
    changes all to lower case
AUTHOR: Time Harris

NAME: wc
TYPE: file processing filter
LANGUAGE: C
SIZE: $11F2
DESCRIPTION: This word count utility provides the line, word, and character count. You can optionally get only the line or word count.
USE: wc < file
    wc -l < file   line count only
    wc -w < file   word count only
AUTHOR: Time Harris

Well, that about raps it up for another month. As you can see, there are many powerful and useful programs in the OS-9 User Group Library. Why waste time developing programs that are already in the library? By the same token, if you have created software that you feel others could benefit from, send it in to the User Group Librarian, Dave Kaleita.

There are a few strong individuals that have contributed significantly to the creation of this library. Let's not let them take all of the glory. Come on and send in your programs.
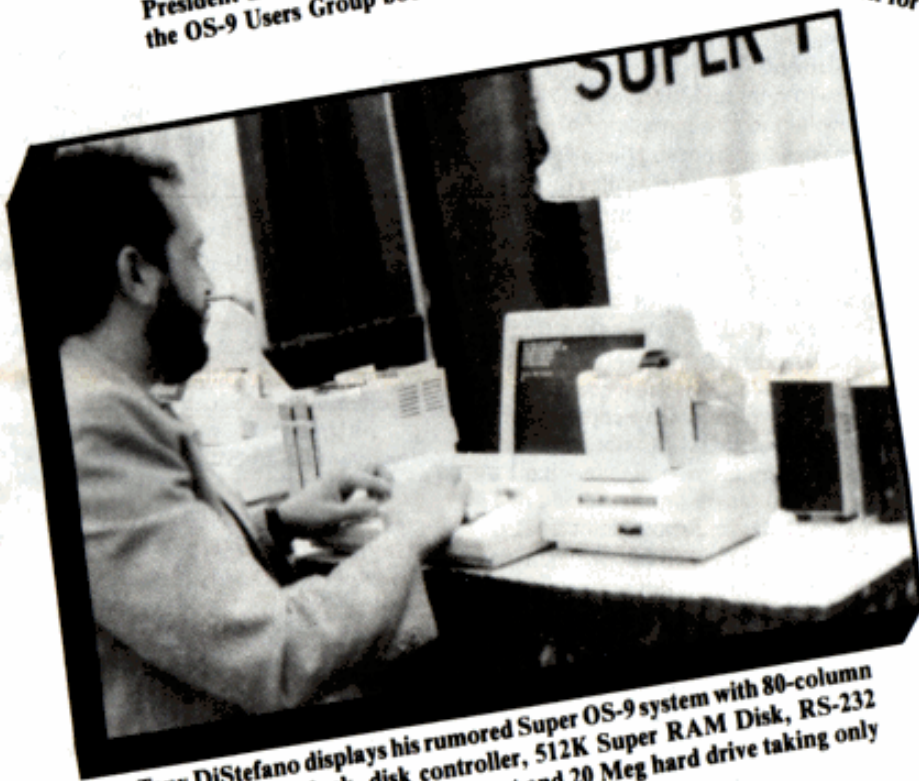
RAINBOWfest CHICAGO
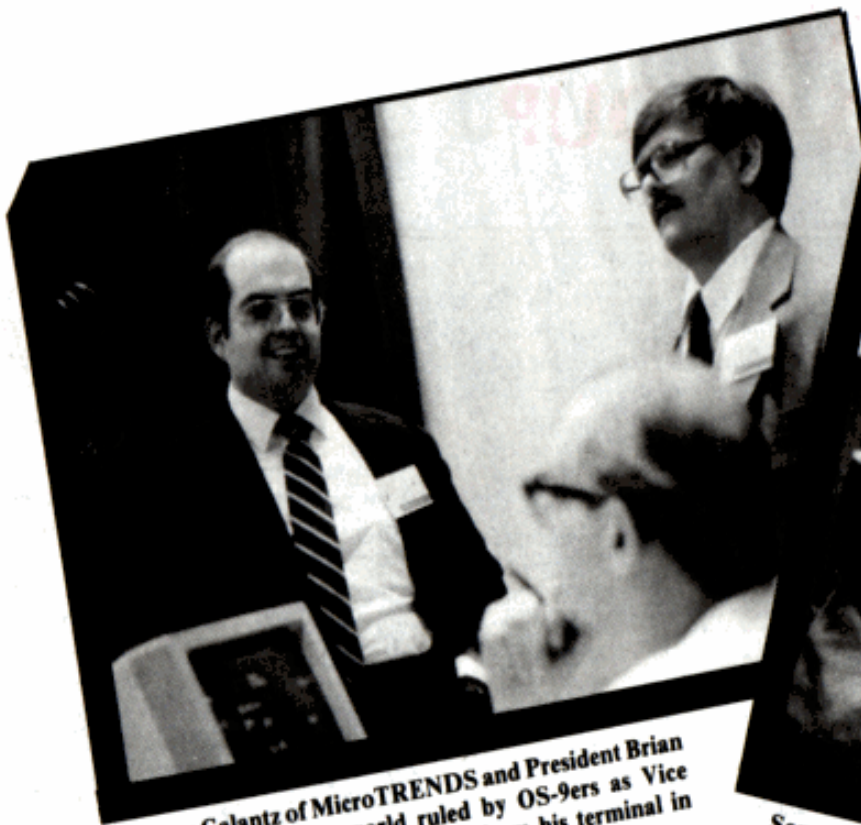
Peter Galantz of MicroTRENDS and President Brian Lantz dream of a world ruled by OS-9ers as Vice President Bill Turner looks on from his terminal in the OS-9 Users Group booth.


Some questions asked at the OS-9 Users Group booth required the help of an OS-9 system, even for masters of OS-9 like UG President Brian Lantz.

Tony DiStefano displays his rumored Super OS-9 system with 80-column card, real time clock, disk controller, 512K Super RAM Disk, RS-232 ACIA interface, parallel printer port and 20 Meg hard drive taking only two slots in the Multi-Pak Interface.

In the Falsoft booth, Janice Eastburn (l.) and Sandy Apple react to the camera of the UG Editor.
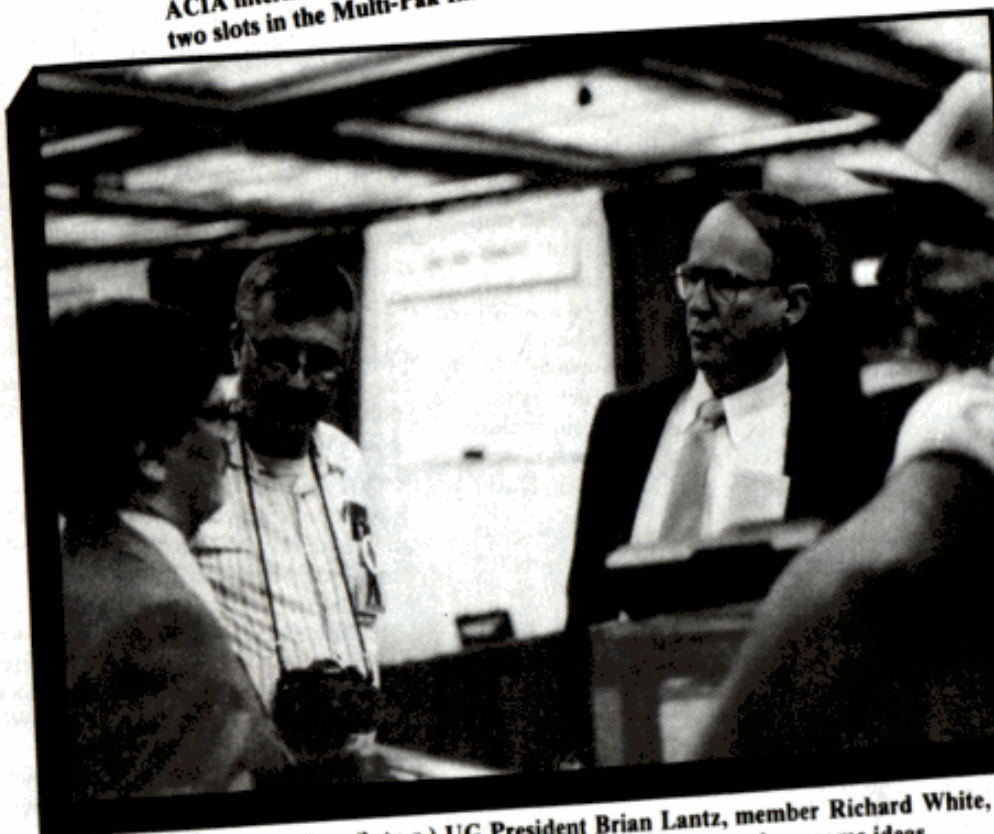
In a quick mini-meeting, (l. to r.) UG President Brian Lantz, member Richard White, Director-at-Large Dale Puckett and Vice President Bill Turner share some ideas.

During the show, Brian Lantz was busy at his terminal, running and modifying the database generator created under *Sculptor* on Brian's QT Plus from FHL.

photos by Bruce Warner

LETTERS TO THE USERS GROUP

Gentlemen;

I'm writing to you for a couple of reasons . . . one reason is that I like the MOTD newsletter, and I am happy to hear that it will be published monthly. As I am sure you know, there are only a few magazines that cater to OS-9 enthusiasts such as ourselves, and I hope that MOTD grows to become the leader of the pack.

I am also writing to request information regarding advertising rates, guidelines, and schedules.

I am interested in writing some articles for MOTD. Before I write an article, though, I would like some feedback from you concerning whether you think such an article would be appropriate for MOTD's readership. I put together a 68000-based Hazelwood Uniquad II system from components, and I would be happy to share my experiences in some sort of review for MOTD. I would enjoy reviewing some of the OS-9/68K software packages that are presently available. As an electrical engineer, I am currently designing an expansion board for my Uniquad that adds the functions of music synthesis, video graphics, EPROM burner, and a real-time clock. Would MOTD be interested in a hardware construction article for do-it-yourselfers?

I realize that the majority of the User Group is composed of faithful CoCo owners, but I hope that MOTD will reflect the growing popularity of the 16-bit version of OS-9. I know that supporting two versions of OS-9 creates a kind of schizophrenia in the newsletter, but I think that Microware made the software compatible enough to allow software migration in both directions.

Kurt Liebezeit

EDITOR'S NOTE: As I'm sure you know, OS-9 is not a machine dependent operating system (although the operating system itself is released separately for different machines due to hardware requirements), so the MOTD is definitely interested in any articles that have anything to do with OS-9. All of your ideas are great, and we'll consider each submission on its own merit.

I'd like to thank you for your kind words about the MOTD. All of the UG officers have been working very hard to give you a quality publication. We'll continue our work, and hopefully, you'll be even more pleased with the future of the MOTD.

In the enclosed issues there is a chart of the advertising rates. In short it's $400 per page for a black ink ad, and $480 for a black and red ad. Fractions of a page are sold at a similar fraction of the cost (e.g. ½ page ½ rate). The deadlines are the first of the month for the issue to be released the first week of the following month.

68XXX machines are very much a part of the OS-9 community. The only reason you don't see more about them in the MOTD is that we haven't received any submissions from any of the owners. If you know of other OSKers out there that are interested in getting something in print, tell them to write it down and send it in. We're always looking for OS-9 stuff

(6809, 68000, 68008, 68020, and any other OS-9 CPU that comes along).

Gentlemen;

In the January 1986 MOTD back page, was an advertisement for "The Last Work" by Unified Software. I wrote on the 25th of February asking for details. So far no answer.

The ad on the right side said Deluxe OS-9 Terminal Program for the Color Computer. They identified usable computers.

Most programs for Color Computers run $30, $40 or $50, so I had questions on what computers the program would run on, since programs for straight OS-9 L1 Version 1.2 computers run two to three times the above prices.

Do you know if their product would work on my Elektra 6809 OS-9 Level 1, Version 1.2 disk system?

P. S. Chadwick

EDITOR'S NOTE: I just got off the phone with Mike at Unified Software. In fact, "The Last Word" works only on the Color Computer. This was apparent to me from the ad's reference to WordPak or a Hi-Res screen. Neither of these is available on other OS-9 machines. Mike confirmed my guess, so the answer is "The Last Word" is a CoCo OS-9 program. Thanks for the letter.

Gentlemen:

I wanted to write to thank you for the excellent MOTD in its new format. I love the LARGE, READABLE print. I only wish it was 10 times longer!

My problem is that I have every book about OS-9 that has been published and still want more. Could you pass the word for the need for an assembly language boot specifically for OS-9? Please try to squeeze in more assembler tutorials, particularly dealing with setting up and using buffers, and using system calls. There is so much power that I know is there but can't get to.

In particular, I have been trying to write a text screen dump for my CoCo using Version 2.00 SS.Alfas and OS-9 GETSTT to get the address of the screen memory in the X reg, then using OS-9 I$WRITLN to print 32 characters. Then I LEAX 32,X and loop through the print portion until X is greater than the address of the cursor (returned in Y reg. by SS.ALPHAS). This seems to do something, but when I try to redirect to the printer either from the command line or in the program, I get errors. Any help would be appreciated.

Would it be possible to assign some knowledgeable OS-9ers to be helpers in various problem areas and correspond directly with them? If MOTD could list some names for help in assembly, hardware config, telecom, Basic09 etc. It would be a great help for those who really want to learn.

In closing I would like to thank Joe Dubuc for his very helpful interest in me. As a new member, my first impression of the OS-9 UG was very good and would be bard to top in any organization.

Richard S. Shultz

EDITOR'S NOTE: Thanks for the nice comments about the MOTD. There are a lot of knowledgeable people in the OS-9 community, what we have to remember is that they are in very high demand. I know for a fact that most of the UG officers are not only donating their time to the UG but working full time for someone and running their own business. Add to that the other voluntary activities, working at local churches and local computer groups, and the people that are already giving so much are suddenly overburdened. Rather than assign someone (or a group of people), I'd rather publish your questions and have people volunteer the answers in one of the closely following issues. Let's get more people involved in the MOTD. It's YOUR newsletter! I'm just the editor.

Gentlemen;

You said in the May 1986 MOTD that you would like to have some articles for the newsletter from us, the membership of the UG. Well, I have an idea for a small article each month. This article would be one on a few pipelines that users submit that use either supplied utilities or very common ones to do a task. I also read UNIX/WORLD every month and see that they do that every so often in their "Wizard's Grabbag" and it could turn out to be a very informative column. If you like this idea, do it! I can start the column now with my favorite pipeline that I use A LOT and maybe you could add one or two and maybe Brian Lantz and even throw in Dale Puckett and we could have enough pipelines to last several issues.

Here is mine:

grep Bruce addresses ! tr ~ \13

It requires a file in this setup:
Bruce Warner~OS-9 Users Group~ATTN: Editor MOTD~9743 University Place~Suite 330~Des Moines, Iowa 50322~~<cr>

It prints out this:

> Bruce Warner <cr>
> OS-9 Users Group<cr>
> 9743 University Place<cr>
> Suite 330 <cr>
> Des Moines, Iowa 50322 <cr>
> <cr>

This is a very useful pipeline and can give you a complete database with only GREP and TR or if you want you can throw in a sort program and get a sorted listing of your database according to the first entry. Quite helpful, as would be a column including pipelines such as this one — plus it would give the membership a chance to contribute to the newsletter.

Kevin Kuehl

EDITOR'S NOTE: Kevin, I think your idea is great! It's so great I'm writing the first "Heard it through the Pipeline" article for this month. If you'd like to send in the details of your database, we'll be happy to include your article. Shell commands are the programming area for nonprogrammers! If you'll send your article on disk, it will make my life very easy. I'll take 35 or 40 track, single or double sided, Color Computer or Standard OS-9. Having to type the entire MOTD is a real drag. If you prefer, you

can upload your column to me on CompuServe or DELPHI. My IDs are 70370,720 and OS9UGED, respectively.

Gentlemen:

You must think all I do is complain, eh? A lot goes on behind the scenes, as they say. I've been meaning to call you for weeks. For instance, over the last month I've gathered or had promised to me almost 100 pages of good copy for the MOTD.

That work was in response to the people who've called and told me how the MOTD's content was fading. I vigorously took your side, and also pointed out that whatever your 'token' payment was, it couldn't be enough to cover your time and efforts.

As you know, the OS-9 SIG members have gotten most all of the old OS-9 software to run under 2.0, either with patches, or by writing new drivers (including mine to allow use of *Dynastar* and *Stylograph*). Note should be made of this to the UG.

Thus, the June MOTD including your unfortunately titled "Know What You're Talking About" editorial came as a surprise both to myself and the others I've been in contact with.

We won't try to convince you of anything, but we really think you could've gotten both sides before writing it.

First, I think your list forgot Atari, who answer questions over on the ATARIDEV SIG. And the computers you mentioned are often sold by computer stores that offer more support than Radio Shack.

As to your "example of what they were willing to do," where in the world did *that* info come from? Were you around when all that happened? If so, you'll remember the tremendous support I had vs. zero for RS. If not, let me recap what happened.

Your version:

> "Their marketing staff got on CIS & asked for specifics. They weren't timid either. They went all out..."

Actual:

Fm: Mark 76004,373 To: MARK GRIFFITH 07 APR 86 "This is your big chance. Tell me what the bugs are. Put up or shut up. Ver 2.00.00 is as bug-free as is humanly possible. It has features not on any other OS-9 to date. If your <sic> such an expert you should be able to identify the bugs and document them, and suggest how to fix them. Otherwise you don't know what your <sic> talking about. Mark Siegel"

This hardly constitutes an official Tandy quest, Bruce, and certainly ticked off a lot of people. There was more of the same from Mr. Siegel.

"Extensive search . . . ONE bug"

Hardly 'extensive.' And more than one bug was brought up. Later, Mark returned with "The Official Tandy Clock Patch." It was longer than the TWO already in the DL's being used.

" . . . , so they can fix the problems," By their own admission, Tandy will

TURNER TALKS BACK

by Bill Turner

Topics for the month

1) Equipment maintenance
2) Software maintenance
3) What have you done to promote OS-9?
4) Explorer Post 227
5) What are you doing with your system?
6) Are you willing to assist others in your area?
7) What other computer organizations (or clubs) do you belong to?
8) Do you do make backups of your data on a regular schedule?

Equipment Maintenance

Does your computer get adequate ventilation? How many hours have you been using your disk drive or cassette equipment? When was the last time you had your equipment cleaned and/or checked out? How hot can your computer get? How low (or high) a line voltage can be tolerated by your equipment? Does all of your equipment have basically the same tolerances? (Probably not.)

Did you know that these are all controversial questions? Some individuals and companies operate on an "If it ain't broke, don't fix it" basis. I, however, prefer a preventative maintenance approach, and I frequently run "check-out" programs on my equipment, noting test results. If I see a pattern emerging, then I will normally look deeper. The problem however, is in getting information from the manafucturers on what the equipment tolerances should be. For instance, some 5.25-inch disk drive manufacturers say that the speed tolerance should be 295 to 305 RPM. Others have listed 290 to 310. One company, specified 290 to 301 RPM's. Who's right or wrong?

Do you have any information of this sort, or even a gut feel? I would appreciate it if you would jot it down on the back of a post card and send it to me at our Des Moines mailing address.

Software Maintenance

When was the last time that a software vender notified you of a problem in any of your software? Never? Then come join the party, because I'm in the same boat. This is one of the things that I do not like about the micro- and minicomputer industries. It appears that most companies will not notify you of any outstanding problems, not even for a subscription fee! Even those that maintain a "hotline" service, frequently do not keep a file of reported problems and the resolution. Possibly this is an area in which the user group can provide a service? What do you think?

What Have You Done to Promote OS-9?

Have you ever written an author or editor to correct a misunderstanding about computers in general or OS-9 in particular? Or have you offered to speak to your local computer group or club on why you like OS-9? Why not? You might even try some conversation over coffee to a small group of people. The only way that anyone is going to learn about OS-9 is from somebody else! You are that somebody else! Go find a local Atari club and tell them what they will find in OS-

9. Remember, that if more people use OS-9 (or OS-K), the bigger the incentive for venders and software writers to supply products capable of running under OS-9. Seems to be a paradox here.

Explorer Post 227?

Explorer Post who? Why is an explorer post memtioned in an OS-9 user group publication? Simple! I'm the advisor of an Explorer in Tampa — and we are going to be teaching young adults what OS-9 is and how to use it. Think about it; it seems that whatever system you first learn, remains your favorite . . . so if somebody is taught OS-9 as their first system, they might just stay with it. Why else does IBM give away MS-DOS systems to high schools? Suggestion: Call your local Boy Scout Council and ask if there are any local Explorer post that are computer related. If there are then go visit, or offer to speak at one of their meetings. If there isn't then ask the council how to start one. Get involved! If I can find the time, so can you. By the way, Explorer Posts are for both young men and women of high school age. Might be a good way for your kids to learn about career possibilities.

What Are You Doing With Your System?

What "novel" things are you doing with your equipment? Drop me a line and let me know. I get a lot of people asking me "now that I have a computer, what do I do with it?" I'm also interested in hearing about what your company may be doing with an OS-9 system. Or even, what you would like to do with it, if only you had a _____. (Fill in the blanks, and mail your answer to me. I may even use the answer in a future column.)

Are You Willing To Assist Others In Your Area?

I'm trying to compile a list of people that can be used as resource people. If you are willing to assist someone else, let me know what you feel qualified to do. I've found over the years that I have learned more, while attempting to help someone else, than when I've been working on my own problems.

What Other Computer Organizations (or Clubs) Do You Belong To?

The officers and I are trying to formulate ideas on how we can support local groups and or clubs with information on OS-9. I would like to discuss any ideas that you may have on this subject. This may sound like a broken record, but please drop me a line, and I'll get back with you for details. (With all the brain power we have in this organization, we should be able to come up with some real good ideas.)

Do You Make Backups of Your Data on a Regular Schedule?

You don't? Ouch. Hope, you don't get bitten by the bit bucket. Seriously though, you MUST take the time to do this boring, but necessary job. The company that I work for has estimated that it uses over 10% of its resources for the sole purpose of providing data backups. Very seldom do we have to restore data because of a hardware or software error.

Frequently, the reason for data restoration is simply to compensate for HUMAN error.

Brickbats and Bouquets

A BOUQUET to Steve Bjork for his tolerance of our good-natured kidding, and for his excellent workmanship in creating fast-moving graphical displays on machines that weren't really designed for real-time graphics. Another BOUQUET also goes to Steve for proving that real-time graphics can be produced under the control of OS-9. . . (Have you seen the bouncing, rotating sphere that Steve did?)

According to an article published by Don Lancaster in the May 1986 issue of Modern Electronics, "The new CDI (Compact Disk - Interactive) system that was announced by Phillips and Sony uses the Tandy Color Computer Operating System? Mr. Don, that quote gets you a

BRICKBAT for not having done your usual caliber of work in researching information. Oh, by the way, the CD-I system will use a ROMed version of OS-K (which is the 68000 version of OS-9). And in case you've forgotten, the Tandy Color Computer is based on the Motorola 6809 chip. However, it wasn't really Don's fault — he got the information from Infoworld, which made the original error. In all fairness, I've got to give Infoworld a BOUQUET for finally realizing that there is an alternative to CPM and MS-DOS, but then I'll also have to give them a BRICKBAT for not getting their facts straight. Net zero.

I'm also giving away BRICKBATS to everybody that hasn't communicated with an officer to express their opinions and feelings on the various topics that have been discussed in the MOTD. Or even on topics that haven't been discussed.

You can contact me via the following systems:

Compuserve-	userid	76270,11
Delphi-	userid	OS9VP
	userid	WB4ALM
Telemail-	userid	B.TURNER/GTE
Amateur Radio-	WB4ALM	

. . . and, of course, by dropping me a line through our Des Moines address.

A LITTLE 'C' ANYONE?

by Tim Grovac

As most of you know from many of my past articles, I am a frequent user of the C programming language. I am not a professional programmer and I don't have a lot of fancy degrees in computer programming, but I have spent years writing programs that make my computer do what I want it to do, and that's what programming is all about.

Recently a project at work came up which called for someone to program our UNIX-based computer systems in either C or PASCAL. Our regular programmers were all busy with other, more important projects, so I stepped forward and said that I would be glad to write the program in C. As the pros scoffed that it couldn't be done by a novice, I quietly came home to my OS-9 Level II system and worked out the flow charts and functions in Introl C. The project, estimated by an outside contractor to cost us about $190,000 and eight months of programming, took me about two months of evenings and weekends. The finished product, which was about 800 lines of C source code, ran perfectly on my home system and all the test data which I brought home never made it even hiccup. The big test, however, was yet to come. When I took the sample printouts to my boss he asked me how long it would take for me to get it running on the computers at work. An interesting question I mused . . . How much of the C

source would have to be changed for it to run on the UNIX system? Was my OS-9 version of C really compatible with the UNIX C? What about the UNIX function library vs. the Introl library? And finally, what about the UNIX documentation, would the UNIX version of C have good enough manuals for me to understand how to make the program work in a new environment? There was only one way to find out.

The Moment of Truth

"Two weeks," I said with confidence. "I can have this program up and running here in only two weeks." I had to figure at least two days just to retype the source without errors on the machine at work. The approval was given and I was excused from my regular duties for two weeks to finish this project. Come on OS-9 don't fail me now! It took me about two days to type in all the source code and figure out enough of the UNIX shell commands to manipulate the windows and the files. I was sorely disappointed at the UNIX C documentation. About all that it said was that it followed the K & R standard except for these exceptions — I was really hoping for some more encouragement. Well, I guess that I can't put this moment off any longer, the first compilation command was entered as I held my breath and waited: 65 errors and

six warnings. (Strong feeling of panic and a compelling urge to find somewhere to hide.) "OK", I consoled, "Let's not panic until we look at the error list and see how bad it is."

I was pleased to find that the first error was a missing bracket, something that can get the whole compiler out of phase. Six or seven other errors where typos also. Second try:four errors and four warnings. Now that's better. The errors consisted of two library functions that I had on my OS-9 C that the UNIX C didn't have. I had to write those into the program. The four warnings all centered around my use of pointers. The OS-9 version allowed me to pass a regular pointer to a structure pointer and vice versa, but the UNIX C was much more picky. Rather than leave the errors in the program I decided that it was probably bad programming technique anyway and rewrote that portion.

Yes, It Ran Fine

With the program properly entered and compiled I ran some test data to find that it ran identically as it did at home. What a relief! Almost identical code from an OS-9 machine to a UNIX machine. Different hardware didn't matter at all! Don't let anyone tell you that these big UNIX machines are mysterious and for professional programmers only. You're

probably a better programmer than they are. With a working knowledge of OS-9 the only transition to a UNIX machine is figuring out what they name their commands. Once you figure out that OS-9's 'chw' command is 'wd' and OS-9's 'dir' is UNIX's 'ld' you can roam your way all over the directories just like home.

Final Thought

Many of you may be professional programmers and I don't want to offend you with what I'm about to say. Mostly I'm talking about programmers for mainframe or minicomputers. Some will try to convince us 'novices' that programming a 'big' computer is different than programming a microcomputer. For years certain institutions have survived on the misconception that their computer was in some way mysterious and took a special 'wizard' to program it. For many years UNIX was considered to be one of these magical operating systems. I once heard a speaker tell a group that UNIX was so cryptic only those that had worked with it for years understood it. To all this I say "BUNK!" UNIX has now been in the microcomputer market for some time and many have found it to be inferior to many micro operating systems! It is true that UNIX is cryptic, in fact unnecessarily so. OS-9 does all the same things faster and more efficiently with less memory.

I HEARD IT THROUGH THE PIPELINE
A Lesson/Tutorial

by Bruce Warner

In one of our letters to the editor, Kevin Kuehl came up with the idea for a monthly column on pipelines. He offered his pipeline using grep and tr to create a small database. I started thinking about what I could offer with my daily use of pipes. Voila! How about a new use for OS9GEN?

The UG library contains a program called "d." It's similar to several commercial products including "ls" from Computerware's *OS-9 Text Tools and Utilities* and D.P. Johnson's *SDISK* Version 2.00.00 "fls." Each of these programs produces a directory with no header and each file listed on a separate line. With "d" and "ls" you can use any path for the directory, "fls" looks only for the current data directory.

Since the outputs are listed on single lines, you can pipe the output of these files into another procedure, like OS9GEN. I do this all the time to create specific system disks. Here's how I do it.

1) First I save all of the device descriptors, device drivers and file managing utilities I want in the OS-9 boot file in a directory called MY.MODS on my hard disk. This can be created on a RAM disk or a second floppy. It requires that you know exactly which drivers go with

which descriptors and what the different file managers do.

2) I change directories to MY.MODS. This is just easier for me to do. It also makes the explanation less complicated for those of you using "fls."

3) I place a freshly formatted disk in D0. This allows me to create the new boot disk in Drive zero.

4) Finally, I type the magic line to list the modules and pipe them through OS9GEN. This is what it looks like:

d ! os9gen /d0

You can replace "d" with the appropriate utility on your system. I used "d" because it is available in the UG library and is in the public domain. My copies of "fls" and "ls" were provided for review purposes for other computer publications.

That about wraps it up. Now you have a new way of creating an OS-9 boot disk without going through all the problems of savings the files then creating a bootlist and redirecting the input of OS9GEN. Just save and pipe!

Send in your favorite pipe. I'm sure we'll all be amazed by what you have to offer. There's a lot of power in OS-9 and pipes are just a small part of it.

PROGRAM OF THE MONTH

by Tim Harris

This month, we've included a new session on using pipes on your OS-9 system. To make things a little better, we're also including the source code listing for this month's pipe. If you have the Microware C Compiler, you can now have the D utility mentioned in this month's "I Heard it Through the Pipe-Line."

If you prefer you can purchase UG disk #21, which includes the D utility. UG Library disks are available by writing:

OS-9 Users Group
Attn: Disk Orders
9743 University Ave., Suite #330
Des Moines, IOWA 50322

```
/* d utility #1.2# : directory with pattern matching    */
/*                   lists current directory with one    */
/*                   entry per line.                      */
/*                                                        */
/* CoCo OS-9 v#1.##.##        Microware C Compiler        */
/*                                                        */
/* Copyright (c) 1984          Tim Harris                 */
/*                             651 Pammel Court           */
/*                             Ames, Iowa 5##1#           */
/*                                                        */
/* uses stdout for output so it may be piped or redirected */
/* can be used with other utilities, i.e., dl (delete)    */
/*                                                        */
/* Options:      -w           wild card matching          */
/*                            ? - single char wildcard    */
/*                            * - multiple char wildcard  */
/*               -?           help message                */
/*                                                        */
/* Calls:        d            lists current directory     */
/*               d -w *.c     lists files ending in '.c'  */
/*               d -?         generates help message      */
/*          d -w c*           lists files beginning with 'c' */
/*          d -w *c*          lists files with a 'c' in them */
/*          d -w a?c          lists files abc,aec,a.c,... */
/*          d -w ????         lists files with four chars */
/*                                                        */
/* Calls with other utilities:                            */
/*   d -w *.c ! dl -z     deletes all files ending in '.c' */
/*   d -w ??? ! wc -l     counts number of 3 char filenames */
/*   d ! sort             prints sorted directory         */
/*                                                        */

#include <stdio.h>
#include <ctype.h>
#define DREAD 129
#define ENTSIZ 32
#define TRUE 1
#define FALSE #

/* Types for pattype */
#define REG #        /* regular exact match w/ ? wildcard */

#define BOL 1        /* match at Beginning Of Line */
#define EOL 2        /* match at End Of Line */
#define MID 3        /* match in MIDdle of line */

char dname[2] = {'.','\#'};
int pattype = REG;       /* default to exact or ? match */
char pat[29];

main(argc,argv)
int argc;
char *argv[];
{

    char c,fname[3#],entry[32],*s;
    int i,dp,woption=FALSE;

    while (--argc > # && (*++argv)[#] == '-')
        for (s=argv[#]+1;*s!='\#';s++)
            switch(*s){
            case 'w':
                woption = TRUE;
                getpat(*++argv);
                break;
            case '?':
                help();
            default:
                printf(" d: illegal option %c\n",*s);
                exit(#);
            }

    if ((dp=open(dname,DREAD))==-1){
        printf(" Can't open default directory\n");
        exit(#);
    }

    while ((read(dp,entry,ENTSIZ))!=NULL){
        if (entry[#]!=#){
            i=-1;
            do{
                c=entry[++i];
                fname[i]=toascii(c);
            }while(isascii(c)!=FALSE && i<=29);
            fname[++i]='\#';
            if (fname[#]!='.')
                if (woption){
                    if ((isin(fname))!= -1)
                        puts(fname);
                }else
                    puts(fname);
        }
    }
    close(dp);
}

help()
{
    printf("\n d: directory utility\n");
```

```
    printf(" lists current data directory, one entry per line\n");
    printf(" options:  -w     wildcard matching\n");
    printf("                   ? - single char wildcard\n");
    printf("                   * - multichar wildcard\n");
    printf("           -?      help message\n");
    printf(" call:     d <-? || -w pattern>\n\n");
    exit(#);
}

getpat(s)
char s[];
{
    int ln,i,j=#;

    ln=strlen(s);
    ln--;
    if (s[#]=='*' && s[ln]=='*')
        pattype=MID;
    else{
        if(s[#]=='*')
            pattype=EOL;
        else
            if(s[ln]=='*')
                pattype=BOL;
    }
    for(i=#;s[i]!='\#';i++)
        if(s[i]!='*')
            pat[j++]=s[i];
    pat[j]='\#';
}

isin(s)
char s[];
{
    int i,j,k,ln,pl;

    switch(pattype){
    case REG:
        for(i=#;s[i]!='\#'&&(s[i]==pat[i] || pat[i]=='?');i++)
            ;
        if(pat[i]=='\#' && s[i]=='\#')
            return(i);
        else
            return(-1);
    case BOL:
        for(i=#;pat[i]!='\#'&&(s[i]==pat[i] || pat[i]=='?');i++)
            ;
        if(pat[i]=='\#')
            return(i);
        else
            return(-1);
    case EOL:
        pl=strlen(pat);
        ln=strlen(s);
        for(j=ln-pl,k=#;pat[k]!='\#'&&(s[j]==pat[k] || pat[k]=='?');j++,k++)
            ;
        if(pat[k]=='\#' && s[j]=='\#')
            return(j);
        else
            return(-1);
    case MID:
        for(i=#;s[i]!='\#';i++){

            for(j=i,k=#;pat[k]!='\#'&&(s[j]==pat[k] || pat[k]=='?');j++,k++)
                ;
            if(pat[k]=='\#')
                return(i);
        }
        return(-1);
    }
}
```

TWO GREAT BREAKFASTS
and reflections into the future
by Dale Puckett, Director-at-Large

Congratulations to Steve Bjork of SRB Software in Simi Valley, California. Steve just last February received the "most improved attitude award" from the Users Group when he finally started writing programs for OS-9. Steve delivered a great keynote address at the CoCo Community Breakfast Saturday morning, the first of two breakfasts during RAINBOWfest Chicago to spotlight)S-9.

In fact, most of Bjork's speech featured OS-9. He gave a sneak preview of the new "Model 13" from Tandy, complete with slides of the two "Mickey Mouse" processors it reportedly contains. A source close to SRB Software told MOTD Bjork shot the slides on location at Disneyland where he once worked.

Following his short "audiovisual" presentation, Bjork highlighted the progress the Color Computer has made since its introduction in 1979, spotlighting the new 80-column cartridge, the new Sound and Speech cartridge and the Deluxe RS-232 Pack from Tandy.

After praising all the new hardware that can now be added to any Color Computer, Bjork revealed the secret of why Tandy has moved all its CoCo software production to OS-9.

"When you add all these devices, you need an operating system. Without OS-9, all you have is Microsoft BASIC. Besides, Microsoft doesn't know how to write an operating system. Just look at MS-DOS," he said, generating a round of approving laughter from the crowd.

"Several years ago, following much research, Tandy picked up a then relatively obscure Operating System named OS-9," Bjork said. "Today Tandy only supports three operating systems: MS-DOS, OS-9 and Xenix.

"Tandy needed an operating system that could support all the new hardware they had planned. They also needed an operating system that could carry their software forward if or when they decided to introduce a new Color Computer," Bjork said. "OS-9 was the best candidate, so it got the job!"

Bjork went on to praise all the OS-9 programming languages, noting that they are almost completely bug free. "Few operating systems manufacturers can say that today," he said.

Turning to the future, Bjork made a very important point. "Nonexperienced users want the Color Computer much easier to use," he said. The OS-9 based *DeskMate* was a step in the right direction because it gives beginners a lot of easy-to-use functions at a very reasonable price.

And speaking of hardware, when a Color Computer user in the audience asked Bjork why he uses the deluxe RS-232 cartridge instead of the pseudo serial port on the back of the CoCo, Bjork replied, "I don't do 'bit banging.'"

Bjork talked about the problems associated with selling computers to people that have never used a computer.

"Some of these people can't even use a hammer!" he said. "We need to make it easier for them to run a computer. I'm no different. When I want to write a letter, I want to write a letter, not write a program to write a letter."

Bjork sparked the imagination of everyone in the audience when he talked about the new CD-I standard recently introduced by Sony and Phillips. CD-I, which features interactive audio, video and computer data is driven by a special version of OS-9. To get people thinking he talked about a "bird book," telling the audience they would be able to give their CD-I based portable computers the location, time of year and a description of the mystery bird they were looking at. The computer would then return the name of the bird. He guessed that it might even be possible to feed the sound of the bird into the computer and match it with the prerecorded sound of the bird stored on a compact disk.

Bjork called CD-I an appliance computer and said it would give birth to entertainment disks beyond our wildest imagination. As a technical aside, he mentioned that the VDG chip in the CD-I players uses 100K bytes of memory for each picture, compared to 6K in the present Color Computer, and challenged the audience to imagine the resolution this would provide.

By the way, Steve Bjork is now the OS-9 data-base section leader on RAINBOW's CoCo SIG on Delphi. Welcome aboard Steve and thanks for the inspiring words.

Amiga, Apple IIe, Atari ST-520, IBM PC, Macintosh, Robotics and the VME bus were the buzz words at the OS-9 community buffet Sunday morning at RAINBOWfest Chicago.

And what do all these big name appliance computers have to do with OS-9? They will all run it soon!

That's the word from James Moore, Jr., the coordinator of technical services at Microware. Bill told the 35 OS-9 aficionado who survived the Saturday night RAINBOWfest parties that until recently, the 68K world has not had an "across the board operating system. He then said that Microware's OSK is the ideal candidate.

"OSK gives you the ability to move software across many different machines," Moore said. "This will be great for software developers."

After spotlighting all the new OSK ports, Moore turned the audience's attention to CD-I, and predicted that the applications we'll use every day in our homes in 1988 haven't even been dreamed up yet. "The possibilities are staggering," he said.

Since he was speaking to a predominately Color Computer crowd, Moore went on to talk about the effect, CD-I would have on the typical Color Computer OS-9 user.

"You'll be way ahead in the game," Moore said. "CoCo OS-9 gives you a gateway to the 68K software used heavily in industry today. Since the 6809 and 68000 bear such a strong family heritage, it is very easy to port most applications from the 6809 to the 68000. Also, the 6809 is the best and probably the last eight bit processor. It is still a very important product. But most importantly, it is a mature product that has a lot of life left."

Moore predicted that as all the new OS-9 ports and systems appear, programmers with CoCo OS-9 experience will have an edge. Their knowledge will be directly applicable. "There is a window of opportunity opening up," told the audience. "Go for it."

At this second OS-9 User Group Community Buffet Breakfast, President Brian Lantz and Moore both noted that 1986 is the year that OS-9, an underground classic for several years, is seeing the light of day.

"We have seen a lot of interest from the popular press and the public in the past several months," Moore said. "Some are even naming OS-9 as a potential competitor to MS-DOS in the 68000 world."

With the world waking up to the wonders of OS-9 it's a shame that only 35 people joined Users Group members for the OS-9 Community Buffet Sunday. We hope to see a lot more of you at the OS-9 Buffet during RAINBOWfest Princeton.

TS EDIT

Screen Editor That's More Than Adequate For The Price

by Fred Scoville

During a Tandy half-price sale I purchased *TS EDIT* (Cat. No. 26-3624) for the Color Computer. Normally this product is priced at $34.95. For this I received two disks. Yes, for a single purchase you receive a Disk BASIC and an OS-9 version.

TS EDIT is a full-screen editor that can edit any text (ASCII) file and can be used as a word processor. This review was written using *TS EDIT*.

The features of the editor include:

1. Side scrolling
2. Lower case letters
3. Variable character display size
4. Global editing
5. Choice of background color
6. Multiple file merging

I like *TS EDIT*, but I am biased as I have several years experience using an editor called *VI* with the XENIX operating system. In essence, *TS EDIT* is a clone of *VI*.

The OS-9 disk contains two files, TSEDIT and TSPARS. Before using the editor the file TSPARS must be in the current data directory and TSEDIT must be in the current execution directory. Then to use *TS EDIT*, one types TSEDIT myfile. The file then appears on the monitor in the screen format specified by TSPARS ready for editing. A nice feature is that typing :$ command when not in an editing mode allows you to access the OS-9 shell from within the editor.

TSPARS is a five-character text file which specifies the parameters of the screen. The letters a, b, c, d and e are used to specify the following conditions:

a=color 0 Black on green
         1 Green on black
         2 Black on white (buff)
         3 White on black

b=display mode
         0 32x16 Lo-Res
         1 32x16 Lo-Res 80-column
           virtual scrolling
         2 32x16 Hi-Res
         3 32x16 Hi-Res 80-column
           virtual scrolling
         4 40x24
         5 50x24
         6 60x24
         7 60x32
         8 80x24
         9 80x32

c=mode 0 No word wrap (program mode)
         1 Word wrap (text mode)

d=tab mode
         0 no tabs
         1 tabs

e=tab width
         0 no tab
         1 tab every column
         2 tab every other column
         3 tab every fourth column
         4 tab every eighth column

It will be necessary to experiment with the color and display mode to find what is best for your monitor. The best way to do this will be to use the Disk BASIC version as with this version the parameters can be changed with the file loaded which can not be done with the OS-9 version. I always use the text mode so I do not get split words, the program mode is only appropriate for editing BASIC programs which have been saved in the ASCII mode.

The editor has 78 editing commands and this might cause the inexperienced to put *TS EDIT* away and say "too hard." My experience has shown that one only needs to remember four commands: i for insert, r for replace, x for delete and :w for write to disk. Using these commands, *TS EDIT* can be adequately used as a word processor/editor. When it is necessary to do more sophisticated things like block delete or block copy (*TS EDIT* calls these PUT and YANK) simply consult the well-organized three page commands glossary in the manual.

The commands are grouped into several types:

1. Cursor movement
2. Insert
3. Deletion
4. Change
5. Yank/Put
6. Disk access
7. Mark
8. Global
9. Miscellaneous
10. Line Control

One of the objections I have heard to this product is that the insert mode produces a two line buffer which puts the cursor in a position which is not the true relative position in the file. I find this a most boresome comment along the lines of arguments about what is the best word processor. Any word processor is the "best" if the user is familiar with it. Any missing features or lack of convenience is more than made up for by the ease of use due to experience.

The documentation is adequate with an excellent glossary and 20 pages of tutorial for the more sophisticated commands. The only problem with the documentation is that instructions for use of the tabs is omitted. To use the tabs simply type Ctrl I <clear> i on most color computers.

In summary, *TS EDIT* is inexpensive, works without any problem, and has good documentation. Although not fancy (icons) or menu driven, it can do anything required of a word processor and can beat the price.

I rate *TS EDIT* as follows:

Value — excellent
Ease of use — adequate
Documentation — good
Flexibility — excellent
Completeness — excellent
Error trapping — excellent (I could not make it crash)

LETTERS
TO THE USERS GROUP

continue to produce and sell the 'buggy' version.

As far as reporting problems, Microware was given a large list of most by Kent Meyers back in the very early part of the year. They also showed up on the OS9SIG and (I believe) read my diagnosis and fix for the Break key/Basic09, etc. bug.

Your rewriting history a'la Orwell has both amused and alarmed the rest of us. The general consensus we've gotten is that perhaps another OS-9 magazine (paper or disk) is in order. We'll see what happens.

Anyway, wishing you the best in the future. Keep up the good work. But *please* check around before putting out such misinformation.

Kevin Darling

EDITOR'S NOTE: Nobody's perfect, and no one's information is perfect either. I can only run on the information at hand. If you're willing to research problems, why not submit them to the UG? We have over 1,300 members, most of whom are interested in building OS-9, not finding faults with everyone involved. I personally don't have time to spend finding every bug in every program that has ever been written for the OS-9 operating system.

As far as the OS-9 SIG members are concerned, I sometimes wonder. I'd like to see all of us get more together on what OS-9 is and can be. I spend a lot of time and money to go to the National Computer Conference in Las Vegas. I neither drink nor gamble, so going to Las Vegas is not a joy ride for me. It's an expensive proposition that I'm willing to make

because I want to build up OS-9.

If you think OS-9 has problems, I have to teach MS-DOS all day long, and you haven't seen problems yet.

A final note. Please try to remember that we're a group made up of volunteers.

Gentlemen;

I hear you! I'd like to help the UG in several ways. First, if there'll be a UG booth at the next Princeton RAIN-BOWfest, I'll help man the booth, and I'll help at the OS-9 Breakfast, (but not by washing dishes!)

I'd like to contribute something to MOTD, but the only topic I've thought of so far is reviewing Tandy's PAN music maker for the Speech/Sound Pak (it uses OS-9 2.0). I've been writing a majority of the articles for the New England COCO-NUTS' newsletter for some time now, so I well appreciate the need for contributors!

In the January newsletter, you noted that you have the Display-80 Super Adapter. I have a DISTO Super Controller and I'm on the verge of ordering an enhanced Display-80. I was wondering if you'd tell me how you like it overall? Can you tell me the size and quality of the character set? And how does the Display-80 look on the USI Pi-2 (which I also have)? What is displayed above 80 Hex?

Finally, I've thought of another idea for MOTD. How about a table of contents? Since MOTD doesn't have to catch someone's eye at the corner drug store, why not stick it on the cover like Bill Sias did with CCN? It ain't pretty, but it certainly would be functional!

Bob Sullivan

EDITOR'S NOTE: Thanks for the offer of help, Bob. We can use all the help we can get, and your offer to help in Princeton is greatly appreciated. Reviews are always welcomed. I like to ask that reviewers keep in mind the cost and advertised functions of a product they review. If you'll keep that in mind, we'll be more than happy to consider your review for publication.

Without writing a review, I can say that I'm pleased with the DISTO Display 80 card. I have two, one standard and one enhanced. They are both working fine with the latest version of software. There had apparently been some problems with the earlier versions of the software. The characters look fine on the USI Pi2. The horizontal and vertical holds must be adjusted to reduce some distortion on the top line, but it's otherwise great. The characters are 5 by 7 plus spacing and descenders. I use both cards extensively. They look really great to me, but everyone has their own choice. I also have the WordPak-RS, *WordPak and* Word-Pak II. *My favorite is the DISTO Display 80. Since my company was contracted to write the OS-9 manual, I'll refuse to comment on the documentation, I'll just say that I haven't had any complaints with the finished product. There were some problems with the preliminary edition, as with the preliminary software.*

I plan on running a six- or 12-month table of contents. That will allow me to know the page numbers in advance. I'm using OS-9 Profile as my database, and will run the entire listing of the previous year's articles in the January issue each year. January is a very appropriate time for reminiscing, even more so for OS-9ers. This year, January will mark the 10th anniversary of Microware.

SOFTWARE EXCHANGE NEWS

by Dave Kaleita

Yes, Friends, it's true: Switzerland in the springtime is as lovely as you've heard. And the Summer Consumer Electronics Show in Chicago is definitely too big to see in three days. And you STILL can't get tickets to "Cats" in Manhattan a month before the performance.

As you might have deduced, I have done a LOT of traveling in the past month. In fact, I find it quite amazing that I have found the time to write anything for this month's MOTD! But here I am, and only a few days late for Bruce's deadline (I hope he gets this in time to print it!).

The big news with the Library this month is that there are now 14 new volumes available. The titles of these new volumes, as well as a complete listing of their contents, may be found elsewhere in this issue. Additionally, the multidisk archive set of the entire OS-9 Users Group Library (which, as you may recall is only available on standard format 80-track ds dd 5.25 inch disks) has now grown to a pretty crowded set of eight disks; the price for the set has been raised to $80 accordingly. For information on ordering any individual volume of the Library, or the eight-disk archive set, see the catalog listing elsewhere in this issue.

Which brings up an important point. . .

Many (nay, MOST) people have been sending their UG disk orders to ME in the past months. I don't know how this misunderstanding came to be, but please now be informed that I am not the one who fills the orders for UG Library disks. Furthermore, since I am not the one who fills your disk orders, I also have no way to check on them for you. All disk orders and correspondence about disk orders should be clearly marked "ATTN: DISK ORDER" on the envelope. Please DO NOT address your order correspondence to "Library", "Librarian", "Software",

"Software Library" or "Dave Kaleita." If you do, you can count on your order (or a reply to your correspondence) being delayed by at least an additional two to four weeks over the already-slow mail processing system we have. You may, of course, write me ("ATTN: Librarian") anytime you wish if you have any questions or comments about the contents of the Library itself — just don't send your disk orders to my attention. I have this nasty habit of losing such things.

Well, that's about it for now. I'll tell you about new additions to the UG Library as they occur in future issues of MOTD.

OS-9 USERS GROUP LIBRARY CATALOG UPDATE

by Dave Kaleita

Carl Kreider and I have been mighty busy the last few weeks getting the library back in order after completely reworking the format of the catalog database and the master library itself. As a result of our efforts, we were able to add 14 new volumes to the 39 that were previously available, bringing the total volumes in the OS-9 Users Group Library to 53! Following is a brief description of the programs that appear on these new volumes:

Volume #27, 68K Spelling Checker
(35 track, single-sided)

Title: SPELL—CHECKER From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: SPELLING CHECKER AND DICTIONARY MAINTENANCE PROGRAMS CONVERTED TO 68K FROM USER GROUP SET BY E. WILLIAMS. Program Type: WORD PROCESSING

Volume #28, 68K Utilities, Disk #1
(35 track, single-sided)

Title: DEDT From: HOCK, DARRYL A. Ver: 11/11/85 Lang: BASIC09.68000 Fmt: SOURCE Function: BINARY EDITOR FOR DISK FILES. EDITS FILES DIRECTLY ON THE DISK. Program Type: BINARY FILE PROCESSING

Title: CHOWN From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: UTILITY TO ALLOW THE CHANGING OF THE GROUP USER-ID OF ANY FILE OR DIRECTORY. Program Type: FILE MAINTENANCE

Title: DCOPY From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: MULTIPLE FILE DISK COPY UTILITY Program Type: FILE MAINTENANCE

Title: DMP From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: DISK DUMP AND PATCH UTILITY. Program Type: FILE MAINTENANCE

Title: FTELL From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE Function: Program Type: FILE MAINTENANCE

Title: LS From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: LIST DIRECTORY (SORTED) UNIX STYLE.

Program Type: FILE MAINTENANCE

Title: MV From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: UNIX STYLE FILE OR DIRECTORY MOVE WITHOUT COPYING THE FILE. Program Type: FILE MAINTENANCE

Volume #41, Programming Utilities, Disk #5
(35 track, single-sided)

Title: PRINTCOL From: DREXLER, KEN Ver: 11/26/85 Lang: BASIC09.6809 Fmt:

TEXT Function: FORMATS A TEXT STRING INTO A COLUMN SPECIFIED BY THE USER AND OUTPUTS IT TO A SPECIFIED PATH. Program Type: TEXT FILE OUTPUT ROUTINE

Title: RANDOMIZE From: MCLEAN, BRUCE Ver: 05/25/85 Lang: BASIC09.6809 Fmt: SOURCE Function: THE PROGRAM RANDOMIZES THE RANDOM NUMBER GENERATOR IN BASIC09 BY TIME OF DAY CLOCK. Program Type: MATHEMATICS

Title: DATES.B From: DREXLER, KEN Ver: 11/26/85 Lang: BASIC09.6809 Fmt: TEXT Function: SIX PROCEDURES FOR INPUTTING DATES, CONVERTING THEM FROM ONE FORMAT TO ANOTHER AND PRINTING THEM. Program Type: SYSTEM UTILITY

Title: MAKARG From: MORSE, GREG Ver: 01/10/86 Lang: BASIC09.6809 Fmt: SOURCE Function: SPLITS A STRING INTO AN ARRAY OF WORDS. RETURNS WORD COUNT AND WORD ARRAY. USED TO EXTRACT ARGUMENTS FROM A COMMAND LINE. Program Type: SYSTEM UTILITY

Title: HEXSTRINGS From: DREXLER, KEN Ver: 11/26/85 Lang: BASIC09.6809 Fmt: TEXT Function: TWO PROCEDURES: (1) CONVERT HEXIDECIMAL STRING TO A REAL NUMBER AND (2) CONVERT A REAL NUMBER TO A HEX STRING. Program Type: MATHEMATICS

Title: SHOMEM From: MORSE, GREG Ver: 05/21/85 Lang: ASM.6809 Fmt: SOURCE Function: DOES A HEX AND ASCII DUMP OF A REGION OF MEMORY TO STDERR. DESIGNED TO BE USED IN DEBUGGING ML PROGRAMS. Program Type: PROGRAMMING AID

Title: VERMOD From: HOOGENRAAD, ADRIANUS C. Ver: 02/27/85 Lang: ASM.6809 Fmt: SOURCE & OBJECT Function: THIS PROGRAM WILL COMPARE A MEMORY MODULE, DEVICE DESCRIPTOR, ETC. TO A SAVED DISK FILE Program Type: PROGRAMMING AID

Title: BDUMP From: CLARK, DAVE Ver: 08/01/85 Lang: BASIC09.6809 Fmt: SOURCE Function: DISPLAYS MEMORY IN HEX AND CHARACTERS. ALLOWS FOR INPUT OF FROM,TO,INC. INC PERMITS READABLE DISPLAYS FOR BLOCKED TABLES,ETC Program Type: PROGRAMMING AID

Title: DISASM.B From: MCLEAN, BRUCE Ver: 05/25/85 Lang: BASIC09.6809 Fmt: SOURCE Function: TAKES A BEGINNING AND ENDING ADDRESS, THEN OUTPUTS A DISASSEMBLY TO OUTPUT FILE OF YOUR CHOICE. Program Type: PROGRAMMING AID

Title: FILLFILE From: DREXLER, KEN Ver: 11/26/85 Lang: BASIC09.6809 Fmt: TEXT Function: BUILDS DISK FILES FILLED WITH A SPECIFIED CHARACTER. USED FOR PADDING OBJECT CODE BEFORE COPYING TO A ROM. Program Type: PROGRAMMING AID

Title: PEEK From: KREIDER, CARL R. Ver: 1.0 Lang: C—MW.6809 Fmt: SOURCE & OBJECT Function: DISPLAYS THE MEMORY MAP AND REGISTER STACK FOR A GIVEN PROCESS ID. Program Type: PROGRAMMING AID

OS-9 USERS GROUP LIBRARY CATALOG UPDATE

Title: HEXIFY From: BUCK, DAVID K. Ver: 02/21/85 Fmt: SOURCE & OBJECT Function: DUMPS A FILE IN HEX WITH ONE HEX BYTE PER LINE - GOOD FOR FINDING CTRL CHARS, ETC. Program Type: PROGRAMMING AID

Volume #43, System Utilities, Disk #5
(35 track, single-sided)

Title: DISKEDIT From: DREXLER, KEN Ver: 11/26/85 Lang: BASIC09.6809 Fmt: SOURCE Function: REVISED VERSION OF DISKEDIT.B09. IT ALLOWS THE EXAMINATION AND MODIFICATION OF DISK SECTORS. (SEE ALSO DEDT) Program Type: BINARY FILE PROCESSING

Title: ERRCMD From: DREXLER, KEN Ver: 05/25/85 Lang: ASM.6809 Fmt: SOURCE Function: CONVERTS AN OS-9 ERROR NUMBER INTO THE CORRESPONDING ENGLISH DESCRIPTION OF THE ERROR. Program Type: SYSTEM UTILITY

Title: ERROR.A From: DURHAM, PETER E. Ver: 03/26/85 Lang: ASM.6809 Fmt: SOURCE Function: LOOKS UP ERROR MESSAGES IN /D0/SYS/ERRMSG ON DEMAND. Program Type: SYSTEM UTILITY

Title: INIZ From: TYLER, WILLIAM R. Ver: 05/11/85 Lang: ASM.6809 Fmt: SOURCE Function: ATTACHES A DEVICE TO THE SYSTEM. USUALLY PLACED IN "STARTUP" FILE TO INITIALIZE HARDWARE. Program Type: SYSTEM UTILITY

Title: LINK From: TYLER, W. R. & RASPUTIN, O. Ver: 05/11/85 Lang: ASM.6809 Fmt: SOURCE Function: SIMILAR TO MICROWARE "LINK" COMMAND, EXCEPT DOES NOT ABORT ON ERROR UNTIL AN ATTEMPT IS MADE TO LINK ALL PASSED PATH NAMES. Program Type: SYSTEM UTILITY

Title: LOAD From: TYLER, W. R. & RASPUTIN, O. Ver: 01/25/85 Lang: ASM.6809 Fmt: SOURCE Function: SIMILAR TO MICROWARE "LOAD" COMMAND, EXCEPT DOES NOT ABORT ON ERROR UNTIL AN ATTEMPT IS MADE TO LOAD ALL PASSED PATH NAMES. Program Type: SYSTEM UTILITY

Title: UNLINK From: TYLER, W. R. & RASPUTIN, O. Ver: 05/17/85 Lang: ASM.6809 Fmt: SOURCE Function: SIMILAR TO MICROWARE "UNLINK" COMMAND, EXCEPT DOES NOT ABORT ON ERROR UNTIL AN ATTEMPT IS MADE TO UNLINK ALL PASSED PATH NAMES. Program Type: SYSTEM UTILITY

Title: DISPLAYHELP From: CLARK, DAVE Ver: 06/01/85 Lang: BASIC09.6809 Fmt: SOURCE Function: PREPARES MANUAL OF HELP FILES WITH SORTED INDEX. ALLOWS 150 FILE NAMES. NAMES ARE LOWERCASED BEFORE SORTING. Program Type: SYSTEM UTILITY

Title: PUTDOS From: DZIEDZIC, MIKE Ver: 2.1 Lang: BASIC09.6809 Fmt: SOURCE Function: MAKES A SS OR DS DISK BOOTABLE WITH RS DISK BASIC 1.0 OR 1.1. Program Type: SYSTEM UTILITY

Title: ERROR.C From: DURHAM, PETER E. Ver: 03/26/85 Lang: C—MW.6809 Fmt: SOURCE Function: LOOKS UP ERROR MESSAGES IN /D0/SYS/ERRMSG ON DEMAND. Program Type: SYSTEM UTILITY

Volume #44, Communication, Disk #5
(35 track, single-sided)

Title: COMM—BAS From: MCLEAN, BRUCE Ver: 05/25/85 Lang: BASIC09.6809 Fmt: SOURCE Function: A SMART TERMINAL PROGRAM THAT ALSO ALLOWS YOU TO SEND FILES. Program Type: COMMUNICATION

Title: SETPARAM—COCO From: GANN, GARY E. Ver: 01.00.00 Lang: BASIC09.6809 Fmt: SOURCE Function: EASY CHANGE OF DELUXE RS232 PARAMETERS Program Type: COMMUNICATION

Title: SMOD8 From: KREIDER, CARL R. Ver: 8 06/01/86 Lang: C—MW.6809 Fmt: SOURCE & OBJECT Function: MODEM PROGRAM WITH CIS B PROTOCOL SUPPORT Program Type: COMMUNICATION

Volume #45, CoCo Graphics, Disk #2
(35 track, double-sided)

Title: M-XY From: BRADY WILLIAM L. Ver: 10/10/85 Lang: BASIC09.6809 Fmt: DIRECTORY Function: MULTI-FILE MULTIMACHINE X-Y PEN PLOTTER DRIVER APPLICATIONS PACKAGE Program Type: GRAPHICS

Volume #46, Text Processing Utilities, Disk #1
(35 track, double-sided)

Title: SLED From: JOHNSON, RICHARD E. Ver: 1.02 Lang: C—MW.6809 Fmt: SOURCE & OBJECT Function: SLED, A SCREEN EDITOR, AND THE INCLUDED UTILITIES FORM A GOOD PROGRAM EDITING SYSTEM Program Type: TEXT FILE PROCESSING

Volume #47, Text Processing Utilities, Disk #2
(40 track, double-sided)

Title: RF From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: NROFF STYLE TEXT FORMATTER. Program Type: TEXT FILE OUTPUT ROUTINE

Volume #48, Communication, Disk #5
(35 track, double-sided)

Title: KERMIT From: LARSON, ROBERT A. Ver: 1.6 03/10/86 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: SERIAL LINE FILE TRANSFER WITH ERROR CORRECTION Program Type: COMMUNICATION

Volume #49, Text Processing Utilities, Disk #3
(40 track, double-sided, double-density)

Title: MICROEMACS From: LARSON, ROBERT A. Ver: 03/08/86 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: TEXT EDITOR Program Type: TEXT FILE PROCESSING

Volume #50, 68K Utilities, Disk #2
(35 track single-sided)

Title: MAX From: PARTINGTON, DAVID J. Ver: 6 Lang: ASM.68000 Fmt: SOURCE Function: RETURN THE MAXIMUM VALUE FOR TWO INTEGERS I.E. I MAX(A, B); Program Type: MATHEMATICS

Title: TIME From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: TIME THE EXECUTION OF A COMMAND. Program Type: PROGRAMMING AID

Title: ITOA From: PARTINGTON, DAVID J. Ver: 6 Lang: ASM.68000 Fmt: SOURCE Function: INTEGER TO ASCII CONVERSION ROUTINE FOR C ON 68000. Program Type: SYSTEM UTILITY

Title: BCMP From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE Function: TEXT OR BINARY FILE COMPARE PROGRAM. SIMPLE VERSION. Program Type: PROGRAMMING AID

Title: MIN From: PARTINGTON, DAVID J. Ver: 6 Lang: ASM.68000 Fmt: SOURCE Function: C FUNCTION TO RETURN THE MINIMUM OF TWO INTEGERS I MIN(A, B); Program Type: MATHEMATICS

Title: FSIZE From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE Function: FILE SIZE DISPLAY FOR INDIVIDUAL FILES OR FILES IN A DIRECTORY. Program Type: FILE MAINTENANCE

Title: CAT From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: UNIX STYLE FILE CONCATENATE FILTER. Program Type: FILE PROCESSING FILTER

Title: MORE From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: FILE LIST FILTER FOR PAGE MODE DISPLAY CAPABILITY. Program Type: FILE PROCESSING FILTER

Title: MORE1 From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: FILE LIST FILTER FOR THE VT100/VT200 TYPE TERMINALS THAT PROVIDES PAGE MODE OUTPUT. Program Type: FILE PROCESSING FILTER

Title: GREG From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: EXAMPLE OF A ROUTINE TO CONVERT JULIAN DATE FORMAT BACK TO GREGORIAN DATE FORMAT FOR 68000 OS-9 Program Type: SYSTEM UTILITY

Title: CXREF From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: C CROSS REFERENCE AND LIST PROGRAM. Program Type: PROGRAMMING AID

Volume #51, 68K Utilities, Disk #3
(35 track, single-sided)

Title: SECURITY From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: USER LOGIN AND PASSWORD PROGRAMS USING DES ENCRIPTION TECHNIQUE. Program Type: SYSTEM UTILITY

Title: WHO From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: UNIX STYLE WHO AND WHOAMI WHICH DISPLAY USERS BY NAME FROM THE PROCESS DIRECTORY. Program Type: SYSTEM UTILITY

Volume #52, Math & Electronics, Disk #2
(35 track, single-sided)

Title: DEFS.C From: PARTINGTON, DAVID J. Ver: 6 11/06/85 Lang: MISC.68000 Fmt: SOURCE Function: THIS IS A DIRECTORY OF C FUNTION LIBRARY FILES FOR USE WHEN COMPILING ANY OF DAVE PARTINGTON'S C—MW.68000 SOFTWARE. Program Type: SYSTEM SOFTWARE

Title: BESSEL From: MORSE, GREG Ver: 01/10/86 Lang: BASIC09.6809 Fmt: SOURCE Function: CALCULATES THE BESSEL FUNCTION OF INTEGER ORDER USING A NEW METHOD SUITED TO SMALL COMPUTERS. HIGH ACCURACY FOR LARGE ORDERS. Program Type: MATHEMATICS

Title: LEQB05 From: MORSE, G. & NASH, J.C. Ver: 03/26/86 Lang: BASIC09.6809 Fmt: SOURCE Function: SOLVES LINEAR, LEAST SQUARES, EIGENVALUE AND NON—LINEAR PROBLEMS BY THE SING. VALUE DECOMP METHOD. VERY STABLE NUMERICAL METH. Program Type: MATHEMATICS

OS-9 IS MOTD AT RAINBOWfest CHICAGO

Micro TRENDS Arrives/First Look at CD-ROM *JONATHAN*

Both Peter Gallanis and Jim Solomon of MicroTRENDS Inc. were on hand in a separate exhibit at the Hyatt Woodfield to show off their new brain child, *Jonathan*. *Jonathan* is a combination hardware/software package. It consists of an Apple IIe running OS-9/68000 by means of MicroTRENDS new 68000 series multiuser port. OS-9 is bootstrapped right off a floppy, which loads the Phillips CD-ROM driver. *Jonathan* was being used in this case to drive a CD-ROM containing the Grolier World Book Encyclopedia.

The program implementation was exceptional, being both extremely sophisticated and extremely easy to use. Online menus and help screens were instantly available, and the level of cross-referenced indexes rivaled only the level of sophistication seen before now on BIG mainframes. One might have expected some resentment with an Apple being used at a CoCo show, but the tried and true OS-9 devotee is interested in OS-9, not in the machine it is running on, right? Both Solomon and Gallanis fielded a high level of interest and many questions about *Jonathan*, and the soon to be released *Volkswriter Deluxe*/OS-9/68K. "Because we're right across the street," said Gallanis, "We really didn't want to miss the show."

Gallanis mentioned that the education market was the number one target for the present as far as *Jonathan* was concerned, but with ports coming out for several other machines, and CD-ROM technology advancing at a fast pace, Jim Solomon summed it up nicely when he

shrugged and said, "Whether we make the hardware port or not, we have the software and it's available now. Whether we make the hardware port or not, it will be our software running on whichever machine the port is made for." Solomon did not wish to be quoted when asked about their arrangements with TLM, makers of a multi-user 68000 based port for IBM PCs and ture compatibles. "We are on good terms with other manufacturers," said Solomon. "The possibilities are endless."

Author Puckett Gives Autographs, Enlightenment

Author and OS-9 Users Group Director-at-Large Dale L. Puckett was on hand for the entire RAINBOWfest. As usual, Dale had standing room only at both of his free seminars on OS-9 for beginners and Basic09 for beginnners. What was unusual was that over a hundred and fifty people attempted to squeeze into these seminars. Further, rather than a crowd of totally new users, there were many more advanced users who were looking to review some basics, learn new concepts and pick up valuable programming hints and tips. The response was very strong and very positive to Dale. As usual, Dale's vivacious wife Esther Puckett was onhand for both moral support and audio-visual support. Dale is also the well-known author of "The Complete RAINBOW Guide to OS-9" published by Falsoft and "The Basic09 Tour Guide" from Microware.

All The President's Men

Brian A. Lantz, well-known for his huge contributions to OS-9 software was manning the OS-9 Users Group member-

ship booth at RAINBOWfest. With him were MOTD editor Bruce Warner and Vice President Bill Turner. Purring quietly away under the booth was an FHL QT Plus running OS-9/68K, and it signed up nearly forty new members to the OS-9 Users Group.

All the officers, and quite a few other users were sporting the new high-tech looking OS-9 Users Group buttons, and there were considerable numbers of these throughout the crowd. Also available at the booth were the sign-up materials for new members and two different OS-9 Users Group T-shirts. Raffle tickets for donated prizes that would be awarded at the breakfast on Sunday were also being distributed. We've been getting quite a good response," said Bruce Warner, "And I am really pleased that so many new people are interested in joining the Users Group and discovering the advantages of OS-9."

"OS-9 is strong and getting stronger every day," said Lantz. "It is no longer that other 'strange operating system' just for the Color Computer. Now it is being widely used and people are beginning to realize that OS-9 is being used on many different machines, at very large installations, like AT&T and NASA. With the new TLM port, PC and Tandy MS-DOS users can get the best there is without having to openly admit their mistakes. I am thrilled that people who are realizing the power and versatility of OS-9 are coming to the Users Group for support. We do make a big difference, and we really can help." This proved true as many new users signed up for membership in the Users Group after getting their questions answered.

Many comments were made about the new look of the MOTD, which got a very positive response.

OS-9 Dominates Exhibitors' Wares as Vendors Respond to Demand

From J&M Systems Ltd., selling their 3-1/2 inch 20 megabyte hard drives with an OS-9 driver to Computer System Center's Dynacalc for OS-9 and OS-9/68K, to DISTO Super Products and other companies like Sofco, Synercon, Hard Drive Specialists, and Howard Medical, just to name a few, products for

OS-9 flowed freely. Demand was high, and bargains were made as vendors discounted their wares for the eager show attendees. Even William Dons, President of Gimix Corp., which makes custom configured 6809/68XXX/OS-9 and other custom systems, was seen roving the floor and talking with the Users Group Officers. One exhibitor, who asked not to be identified, said, "confidentially, I think there is more here for OS-9 than for MS-DOS, even though it's supposed to be a PCMfest too."

Moore Looks to Bright Future, Bigger User Base

Dr. James W. "Bill" Moore, Ph.D. of Microware Systems Corporation of Des Moines, Iowa spoke to an enthusiastic group of OS-9 users at the Special OS-9 breakfast on Sunday morning.

Bill, who is coordinator of technical services at Microware said that his job mostly involves education, but was hard to pin down exactly. When this author suggested that Moore's title could more appropriately be "thaumaturgical engineer," he laughed heartily and agreed. Bill asked not to be quoted on exactly what the future held in the way of interaction between Microware and its customers, nor could he speak of new developments yet to be released, but did say that he was hoping to develop a program involving regional seminars. While nothing is definite, he did speak of a burgeoning user base that would be in need of training and support, and he claimed that was largely what he was there (at Microware) to do.

Excitement on the Leading Edge of Technology

If you were unfortunate enough to miss the excitement and fascination of RAINBOWfest/Chicago, don't despair! That same excitement is available not just at a RAINBOWfest, but right in your home or office, everyday! Go online with CompuServe or Delphi and access the same Users Group and the same people who were at RAINBOWfest. By joining the OS-9 Users Group you can receive the MOTD in its printed and electronic forms. "Talk" via computer with celebrities like Brian Lantz, Steve Bjork, Dale Puckett or Bruce Warner. See and hear about all the news as it happens, including new developments in the industry and their impact on you! If worst comes to worst, though, don't be kicking yourself for missing the next RAINBOWfest, which will be held in October in Princeton, NJ. With things moving so quickly now, and the excitement so high, there's no telling what you might miss! Call now to reserve your place at RAINBOWfest Princeton.

A NOTE AND A FIX

by Jay Truesdale

I read your plea in my father's MOTD for articles, and am currently working on a more in-depth review/commentary on the DISTO RAMDisk Cartridge for the Color Computer. I travel a lot for my job so I'm not sure when I'll have it done.

In the meantime, you may be able to use the following in a future issue.

I downloaded the strip utility from the OS-9 User's Group database seeing it in the MOTD and I find it to be very useful. However there appears to be a couple of bugs in the program. I'm using a CoCo with a PBJ *WordPak II*, and when strip prints the number of bytes stripped, the cursor jumps to the top of the screen and doesn't print any meaningful numbers. I haven't seen anything on this posted on CIS yet, but here is what I think I found.

I looked over the code and found a logic error in the DISP routine which converts hex numbers to ASCII for output. Around line 345 there is a compare to the value $09 to determine

the range of the Hex digit. Immediately following is a "BLS" around the addition of an offset. It looks to me like this should be a "BLE" because otherwise the Hex digit 9 gets converted to a $40 for display which is the '@' character. This also occurs between labels DISP1 and DISP2.

After label DISP2, register X needs to be loaded with the address of the string of digits to be output by the OS-9 I$Write routine. I don't think the current "LDX #CHAR" puts the correct value in X. I'm not entirely sure how to access the data area yet, but I think it should be "LEAX CHAR,U." In any event, the program seems to work better this way.

EDITOR'S NOTE: Jay, I never professed to be an assembly programmer, just an editor! Thanks for your input and we hope to be hearing from you REAL soon!

PUTTING IT TOGETHER

One Last Rumor

I've heard a lot of rumors over the last six months. It seems that people think you can clear up the rumors because you're in a position to find out information before it hits the street. That can be true, but it doesn't have to be.

This rumor has to do with a meeting between the people at Microware and Microsoft. It seems that the MS-DOS people were trying to convince the Microware people that you can't put a multi-user multi-tasking system on a micro. This came as a total shock to the people at Microware. Jeanne Kaplan was heard to say, "I guess I'm like Bill Gates, no one ever accused me of being smart." I just

thank God that the people at Microware were too stupid to know it couldn't be done. Oh yeah, over nine years ago. Maybe that's the reason, they were dealing with outdated technology, kind of like using an Intel chip when there are Motorola chips available to do the same job with 1/10th the code and 20 times the speed of execution.

Time to Go

It's time for me to leave home for my part-time job. I work with children during the summer months. It's a lot of fun, even more so when you don't have any of your own. You have to really love kids to spend the whole day looking after 30 or more. If you'll all help, I'll be able to spend more time with the kids and less time at my computer. Just send in your articles in plenty of time so that I don't have to spend my whole life writing the copy for the MOTD.

OS-9 USERS GROUP LIBRARY CATALOG UPDATE

Continued from page 13

Title: MATRIXLIB—1 From: MORSE, GREG. Ver: 01/10/86 Lang: BASIC09.6809 Fmt: SOURCE Function: 5 ROUTINES FOR MATRICES. INPUT PRINTOUT ADD SUBTRACT MULT AND TRANSPOSE. MATRICES ARE 2-D ANY SIZE UP TO 2500 ELEMENTS. Program Type: MATHEMATICS

Title: ANTENNA From: JOHNSON, ROBERT E. Ver: 2 Lang: BASIC09.6809 Fmt: SOURCE Function: DESIGNS AMATEUR RADIO VHF LONG YAGI ANTENNAS Program Type: MATHEMATICS

Volume #53, 68K Utilities, Disk #4
(35 track, single-sided)

Title: PPR From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: UNIX STYLE PR COMMAND FOR FORMATTED PRINTING OF TEXT FILES. Program Type: TEXT FILE OUTPUT ROUTINE

Title: PAGE—SIZE From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE Function: FUNCTION FOR C WHICH RETURNS THE PAGE LENGTH OF AN SCF PATH I PAGE—SIZE(PATH—NUMBER); Program Type: SYSTEM UTILITY

Title: MEM—SAVE From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: PROGRAM TO SAVE A SELECTED AREA OF MEMORY TO A FILE. Program Type: SYSTEM UTILITY

Title: DATAIO From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE Function: REMOTE CONTROL INTERFACE FOR A DATAIO PROM PROGRAMMER. Program Type: MISC.

Title: RBMODE From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE Function: XMODE UTILITY FOR RBF TYPE DESCRIPTORS. Program Type: SYSTEM UTILITY

Title: SND—SIG From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: SEND A SIGNAL TO A PROCESS. Program Type: SYSTEM UTILITY

Title: SPLIT From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE Function: PROGRAM TO SPLIT MERGED OBJECT FILE INTO SPERATE MODULE IE. OS9BOOT FOR 68000. Program Type: SYSTEM UTILITY

Title: HEAD From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: LIST THE CONTENTS AT THE HEAD OF A FILE. Program Type: TEXT FILE OUTPUT ROUTINE

Title: TAB From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE Function: DETAB A TEXT FILE. Program Type: TEXT FILE PROCESS-ING

Title: TAIL From: PARTINGTON, DAVID J. Ver: 6 Lang: C—MW.68000 Fmt: SOURCE & OBJECT Function: DISPLAY THE TAIL OF A TEXT FILE. Program Type: TEXT FILE OUTPUT ROUTINE

Order Form

To order any of the volumes from the OS-9 Users Group Software Library, send $5 for each 5-inch disk and $8 for each 8-inch disk to:

OS-9 Users Group
ATTN: DISK ORDERS
9743 University Avenue, Suite 330
Des Moines, IA 50322

The special eight-disk Archive set on 80-track ds dd standard format disks is available for $80 at the present time.

Orders will be accepted from members *only*.

- -

Orders can be made by mail or through the online services of DELPHI and CompuServe. Payment is required in advance by check, money order, VISA or Master Card.

Last Name _____ First _____ Initial _____

Street Address _____

City _____ State _____ Zip _____

OS-9 Disk Format _____ Form of payment _____

Disk No.	Qty.	Cost	Amount
		$5.00	
		$5.00	
		$5.00	
		$5.00	
5″ Archive Set		$80.00	

If paying by credit card enter the following:

Card type: VISA _____ MasterCard _____

Account # _____ Exp. Date _____

Signature _____

OS-9 Users Group Software Library Volumes
06/04/86

No.	Done?	Title:		Format:	Who?
0.06	Y	New Member Intro	+++	3	DK
1.00	Y	6809 Spelling Checker		1	DK
2.01	Y	Spelling Dictionary (6809 & 68K)		4	DK
3.01	Y	Word Processing Utils	+++	1	DK
4.01	Y	Programming Utilities	+++	1	DK
5.00	Y	File Processing Utils	+++	1	DK
6.02	Y	Adventure Game (source)		4	CK
7.02	Y	Adventure Game (object)		3	CK
8.00	Y	Gen. Interest (demo, games, finance)		1	CK
9.00	Y	C Programmer's Tool Kit		1	CK
10.00	Y	Math & Electronics		1	GD
11.00	Y	Word Processing Utils	(disk #2)	1	CK
12.00	Y	Programming Utilities	(disk #2)	1	CK
13.00	Y	File Processing Utils	(disk #2)	1	CK
14.02	Y	File Maintenance		1	CK
15.01	Y	Communication		1	CK
16.00	Y	Hardware Customizations		1	CK
17.00	Y	Basic09 Programmer's Tool Kit		1	CK
18.00	Y	System Utilities		1	CK
19.01	Y	Languages I: XLisp (source)		4	CK
20.00	Y	XLisp (object)		1	DK
21.00	Y	File maintenance	(disk #2)	+++ 1	CK
22.00	Y	Programming Utilities	(disk #3)	1	CK
23.00	Y	File Processing Utils	(disk #3)	1	CK
24.00	Y	General Interest	(disk #2)	1	CK
25.01	Y	Word Processing Utils	(disk #3)	1	CK
26.00	Y	C Language Math Library		1	CK
27.00	Y	68K Spelling Checker		1	CK
28.00	Y	68K Utilities		1	CK
29.00	Y	File Maintenance	(disk #3)	1	CK
30.00	Y	File Processing Utils	(disk #4)	1	CK
31.00	Y	Hardware Customizations	(disk #2)	1	CK
32.00	Y	Hardware Customizations	(disk #3)	1	CK
33.00	Y	System Utilities	(disk #2)	1	CK
34.00	Y	Hardware Customizations	(disk #4)	1	CK
35.00	Y	System Utilities	(disk #3)	1	CK
36.00	Y	General Interest	(disk #3)	1	CK
37.00	Y	Communication (6809 Kermit)	(disk #2)	4	CK
38.00	Y	Programming Utilities	(disk #4)	1	CK
39.00	Y	Communication (Freeware)	(disk #3)	4	CK
40.00	Y	System Utilities	(disk #4)	1	CK
41.00	Y	Programming Utilities	(disk #5)	1	CK
42.00	Y	CoCo Graphics		1	CK
43.00	Y	System Utilities	(disk #5)	1	CK
44.00	Y	Communication (Smod8)	(disk #4)	1	CK
45.00	Y	CoCo Graphics	(disk #2)	2	CK
46.00	Y	Text Processing Utils (Sled)		2	CK
47.00	Y	Text Processing Utils (68K Runoff)	(disk #2)	4	CK
48.00	Y	Communication (68K Kermit)	(disk #5)	2	CK
49.00	Y	Text Processing Utils (MicroEMACS)	(disk #3)	5	CK
50.00	Y	68K Utilities	(disk #2)	1	CK
51.00	Y	68K Utilities	(disk #3)	1	CK
52.00	Y	Math & Electronics	(disk #2)	1	CK
53.00	Y	68K Utilities	(disk #4)	1	CK

1) Formats describe standard (nonCoCo) versions and follow this convention:

code	format
0	(undefined at this time)
1	35 track ss sd
2	35 track ds sd
3	40 track ss sd
4	40 track ds sd
5	40 track ds dd

2) Volumes are available in TRS-80 ColorComputer format (dd, 18 sectors/track, etc.) Specify "CoCo format" when ordering.

3) Volumes not listed are NOT available at this time. Orders for unavailable volumes will not be processed.

4) Send orders to the main UG address in Des Moines, making sure the envelope is clearly marked "DISK ORDER." Orders marked anything other than "DISK ORDER" may be delayed an additional two to four weeks. Do NOT address your order to "library" or "librarian."

5) The entire OS-9 UG Library is presently available in a special set of eight 5.25-inch 80-track (96 tpi) double-sided, double-density standard (i.e. nonCoCo) OS-9 format disks. This set is presently unavailable in Color Computer format.

+++ For these volumes to fit in the specified format, the disk is created with a default sector allocation of 1 sector per directory (made by doctoring the "segment allocation size" byte (offset $20) in the device descriptor of the drive on which the master disk is made).

SUPER CONTROLLER

Features:

* Gold contacts on all connectors.
* Shielded metal box for low RF noise.
* 4 28-pin sockets for software expandability.
* Uses 2764 or 27128 EPROMS.
* EPROMS are software selectable.
* Internal Mini-Expansion Bus interface for;
  - Parallel Printer or
  - Real Time Clock   Parallel Printer or
  - 80 Col Display   Clock   Parallel Printer or
  - EPROM Programmer or
  - User projects.
* Complete Radio Shack compatability.
* New technology, no adjustments needed.
* Very Accurate 16mhz High Speed Master Clock.
* Needs 5 volts only, works on all COCOs or COCO IIs.

EXPANSION ADD-ONS:

PPRINT

The first is a Centronics Compatable Parallel Printer Adapter. This adapter will allow you to connect a Centronics compatable printer directly to your controller, leaving the serial port of your computer free for your modem.

RTIME

The second is a Real Time Clock. This is a clock chip that will keep the proper time, date, and year. A small battery keeps the time when the Computer is off, retreive and set time by using simple Basic POKES. Also available with the Real Time Clock is the Centronics Compatable Parallel Printer adapter. Software to set the clock included.

MPROM

The third is a Mini EPROM Programmer. Yes, a low cost programmer that attaches to the disk controller. A must for the DISTO Super Controller. Program those often used utilities into EPROM and plug them directly into your controller. Will program 2764's or 27128's, a perfect mate for the DISTO Super Controller.

DISPLAY80

The fourth is a real knock-out. This is a three in one card. It's major function is to add an 80* 24 display to your computer. A feature packed package also includes RTIME and PPRINT. All in one neat package that fits inside the controller. Call for more information.

256K/512K SUPER RAM DISK

This is a ROM PAK the size of a typical controller. Inside this, low noise metal case, lives 256K/512K of memory and all the circuitry needed to access it as a RAM DISK. With proper software, this SUPER RAM DISK can be just like another disk drive. You can format it, save a file to it, load a file from it and delete files from it. In fact, anything that can be done on a regular drive, can be done on a RAM DISK, only faster. You see, being high-speed RAM, there is no hardware limitations on speed. It is much faster than even the fastest drive.

Another feature with the SUPER RAM DISK is that it has the same MEB as the Super Controller. That means that all of the add-ons that fit inside the controller will also fit into the RAM DISK. Note, a Multi-Pak is needed when using the RAM DISK with a disk controller.

OS-9 USERS

The OS-9 operating system is rapidly becoming a BEST SELLER. All the DISTO products are supported by OS-9 software. We have drivers for; PPRINT, RTIME, DISPLAY80, RAM DISK, and soon to come, HARD DRIVE. Just think of this, a floppy drive controller, a parallel printer port, the real time, an 80 column display, a 512K RAM Disk and a 20 megabyte Hard Drive, all in two slots of a multi-pak interface. AWESOME!

KANSAS CITY BASIC

A Simple OS-9 BASIC Without the Frills
a review
by Bruce Warner

There's always someone looking for something that's cheap yet powerful. How much will it take to fill that bill for you?

Being the editor of the MOTD gives me the opportunity to look over all the newest and oldest OS-9 software before it hits the street. This time it's a piece that has been around for awhile — Kansas City BASIC from Steve Odneal.

I first hesitated writing this review because I'd met Steve out in Palo Alto, but later decided that meeting someone doesn't have to bias your opinion, so I started testing out Kansas City BASIC.

Let's start by telling you that the price tag is $25. You'll have to go a long way to get a better price on OS-9 software; add to that the fact that you get the documentation with it, and any patches to the software are published throughout the OS-9 community, including here in the MOTD and in the RAINBOW. All of that you can add the complete source

code on your disk. Now you've got a product that can be better than patched.

Steve has not provided another version of Basic09. While this does not have all the bells and whistles of Basic09 or even the power of Extended Color BASIC, it does offer you the capability of getting a simple file handling job or integer arithmetic job without any trouble. You have full string handling, file I/O including random access files, and the ability to direct your output to any legal device. The syntax is similar to Color BASIC, which gives you another power buster.

If you're looking for good BASIC transportation, KansasCity BASIC has what you need. If you're looking for something on the order of a supersonic jet, you'll have to spend the additional $75 to get Basic09.

Kansas City BASIC is available from Steve Odneal, 8609 E. 73rd Terrace, Kansas City, MO 64133. (816)356-2345

OTHER QT NEWS

There are two new products now available for the QT Plus: First is the SS30 I/O bus, four SS30 slots for the QT Plus allows up to four standard SS50 I/O boards to be plugged into the QT Plus. The SS30 board is 5¼ inches by 8½ inches and requires a separate case from the QT Plus. However the QT Plus power supply can easily handle the extra load. The SS30 card connects to the QT Plus CPU via a 34-pin cable (like a floppy cable). Price $150.

Options: 80: four port SS30 Serial board $150 (up to four can be used), four port SS30 Parallel board $150 (up to four can be used).

Second; four serial port/parallel port/battery-backed clock. This board fits inside the QT Plus case to bring it up to eight serial ports and three parallel ports. These ports are software programmable and have full modem control. The list price for this board is $795, but QT Plus owners can get if for only $595.