M.O.T.D.

The OS-9 Users Group Newsletter

CoCo/OS-9 Fest
Special Edition!

Inside:

OS-9 Users' Group

MOTD Information

The OS-9 Users Group, Inc. is a not-for-profit organization, registered and incorporated in the state of Iowa, whose members share an interest in the OS-9 operating system in all of its various forms.

MOTD is the official newsletter of the OS-9 Users Group, Inc.

The OS-9 Users Group, Inc. has no affiliation with **Microware** or any other organization.

The opinions expressed by the authors of any articles or columns are not necessarily the opinions of the Editor, Publisher, columnist, nor do they reflect the policies of The OS-9 Users Group, Inc.

The **MOTD** will be printed a minimum of four times per year.

To receive **MOTD** you must be a member in good standing of The OS-9 Users Group, Inc. in accordance to the bylaws.

To become a member in good standing you must pay the yearly dues of $25.00 US funds ($30.00 US funds if you live outside the US and Canada) and obey all of the membership rules set forth in the Constitution of The Users Group and the bylaws.

Dues may be made payable to:

**The OS-9 Users Group, Inc.
6158 West 63rd Street
Suite 109
Chicago, Il. 60638
U.S.A.**

Memberships run from January 1st through December 31st. Send a SASE for a membership kit which will include a membership form and information about the Users Group as well as a pro-rated price for joining the Users Group in mid year.

Please remember that this is a self help organization, and also a non-profit organization incorporated in the state of Iowa and as such it is directly governed by the laws of that state as well as all federal laws. Accordingly, dues are non-refundable in accordance with both state and federal law.

Reprints or back issues of the **MOTD** are available to members in good standing at the cost of $1.50 each plus $0.50 shipping (US funds). Please send a SASE and a list of the issues you wish sent to you.

Here is a list of the current officers of The OS-9 Users Group, Inc.:

Position	Name
President	Carl J. Boll
Executive Vice Pres.	Colin McKay
Vice Pres. (6809)	Brian Goers
Vice Pres. (68K)	Eddie Kuns
Vice Pres. (Comm.)	Paul Jerkatis
Treasurer	Brother Jeremy
Secretary	Howard Luckey
Librarian	Zack Sessions
M.O.T.D. Editor	Joel Mathew Hegberg

MOTD Contributions

Articles, editorials, "letters to the Editor/Board of Directors", personal ads, graphics, or columns may be submitted by using the following means:

E-mail to JoelHegberg@delphi.com, E-mail to 'Sysop' of SandV BBS [(708) 352-0948], or by mail to The OS-9 Users Group address in Chicago. All submissions should be in pure ASCII format.

The submission of material does not guarantee publication. All publication of material is subject to review by the Board of Directors and the MOTD Editor, and must not be in conflict with the stated purposes of the Users Group as defined by the constitution and bylaws of the Users Group. The Board of Directors may also establish additional guidelines for acceptance to publication. Submission deadlines are four weeks before actual printing of the **MOTD** issue. *All printed material is subject to nominal editing by the MOTD Editor for clarity.*

Criticism towards making **MOTD** a better publication is welcome. Letters may be addressed to the MOTD Editor and mailed to the Users Group address or sent directly to JoelHegberg@delphi.com. E-Mail can also be sent to the following Delphi members: MITHELEN, CBJ, LUCKYONE, BRIANGOERS, EDDIEKUNS, and COLORSYSTEMS.

MOTD Advertising

Commercial advertising is available in **MOTD**. Please send a SASE for current rates. All ads should be submitted as a camera ready copy. We reserve the right to limit the size and quantity of ads.

SandV BBS (708) 352-0948

The SandV BBS is a BBS being maintained by Paul Jerkatis to provide Internet access.

From the President

W elcome to our *Fest Special* edition of the **MOTD**. It was decided that we would have a special edition just for the Fest this year.

Our Editor has assumed his job in full now and if you have any constructive criticisms, I'm sure he will be happy to hear them. Information on how to contact Joel is available elsewhere in the **MOTD**. If you have any problems in contacting Joel just send the message to me, Carl Boll at *6242 S. Menard Ave.; Chicago, IL; 60638.*

The Users' Group is doing well. Our treasury is getting healthy again and there are plans for the future being discussed by the Board of Directors. The coming year promises to hold many new beginnings. As we move into this next year, we hope to be able to serve you better and also to serve the entire community.

Not only are there changes in the wind for the Users' Group but many new horizons are being explored by **Microware**, as well as several notable vendors in our community. It would be premature to disclose exactly what these are but rest assured you will hear about them here in the future as details are released.

I just finished reading an excellent book that I started over five months ago. I would recommend it to anybody that is interested in the history of the people that started the whole personal computer revolution. It is named *Accidental Empires* and is written by Robert X. Cringley. The third printing was in May, 1992. It is published by Addison-Wesley Publishing Company, Inc.

The subtitle is "How the boys of silicon valley make their millions, battle foreign competition, and still can't get a date." This should give you an idea of the slant of the book. It deals with the personalities of the movers and shakers as well as giving a good history of these companies and people.

While it doesn't mention *Microware* or *OS-9,* it does give an excellent background to the original movers and shakers of the personal computer industry. Get a copy and read it.

Enough from me already, let's all move onto the best part of the **MOTD**. Our people have put a lot of work into this issue! I hope you enjoy it.

-- Carl J. Boll

Editor's Log
by Joel Mathew Hegberg

Welcome to our *Fest Special Edition* of the MOTD newsletter! This issue, many of us have put in a few long hours trying to make this a very special issue to remember. Colin's article on Microware's history is a dream-come-true for any OS-9 devotee. Mark's words on what the OS-9UG should aspire to provide a thoughtful perspective on our possible future as a group.

In addition to these, I've worked with many people over the past few weeks to compile a list of some support resources for OS-9 users worldwide. These include magazines, on-line services, clubs, and favorite BBS listings. I think everyone will find this information very helpful if they are searching for new mediums of OS-9 support. I've attempted to contact most of the people responsible for these support services, and to the best of my knowledge, all the information is current. I would like to extend very warm thanks to all those who have helped collect information for this issue... I could not have done it without all of you!

In addition, as the President mentioned in his opening column, I've taken on full Editorial responsibilities, and I'm very interested to hear what you, the readers, have to say about the current format of the MOTD. Any complements or constructive criticisms may be sent in care of myself at the OS-9 Users' Group PO Box (listed in the front inside cover) or to my electronic mailbox on Delphi (JoelHegberg@delphi.com). If you have some information of interest to contribute, you may also send it to either of the addresses.

Best wishes, and had a wonderful time at the Fest!

Sincerely,

Joel Mathew Hegberg,
MOTD Editor

What does a Users' Group Do Anyway?
By Mark Griffith

Over the years, most OS-9 users have followed the repeated decline, fall, and rebirth of the *OS-9 Users' Group*. Each time the group rises from the ashes, we all hope that this time they'll get it right. Each time, we begin with a new board of directors, President, Treasurer, and so forth. Each time we expect these people to rebuild the UG to the position we feel it should be. However, each time the renewed UG lives a shorter, more troubled life that the previous one. *Why is this so? Where are the UG officers, so enthusiastic at the beginning, failing?*

What is the Users' Group supposed to do anyway? Many of us remember when the UG was at it's peak back in the early to mid 80's. People were learning more about OS-9 and computer science in general. Lots of members were writing utilities that were greatly needed at the time and submitting them to the UG for dissemination to the membership. A rather large program library was created and we were proud of it. We also published the MOTD, that famous (or infamous) group newsletter that was filled with news of events important to the OS-9 community. *Peter Dibble* was writing regular columns and we all learned from him. It was a wonderful time. So why can't we do it again?

Trying to rebuild the OS-9 Users' Group into what it used to be is sorta like going back in time and reliving your childhood. How wonderful it would be if that were possible, but we know it is not. So when the dedicated people that give the UG new life try and make it like it used to be, it fails for the same reasons. We're trying to build a new Users' Group with the ideas and methods from a different computing era. **The times have changed, and we need to change with them or fail in all our attempts, now matter how much effort we put into it.**

So what is the answer? How is the latest Users' Group going to survive? The answers are difficult to define, and even more difficult to implement. Let me tell you my thoughts. We must first abandon the *"old ways"* and look toward the future. A library of utilities was a big hit with the members 10 years ago. Now, with easy access to Compuserve, Delphi, Internet ftp sites, and so on, it offers nothing new. The MOTD was widely read for the new discoveries that other members shared with us concerning OS-9's internal workings. This is also passe' now. I'm not saying there is nothing more to learn, but most of us understand how to write simple device drivers and how to access the internal system tables. We need to move beyond that level.

So what can the OS-9 Users' Group offer to the modern day membership? First, we need to become an advocate for OS-9. We need to let people know that OS-9 is here, it works very well, and it can do the many tasks that commercial users want computers to do. In short, we can become a sales force for OS-9.

We can also become a clearing house for OS-9 project development. Who is working on what? Were are they? Why go about reinventing the wheel if someone else is almost finished with it? We can offer support in the form of a vast storehouse of knowledge contained in the minds of the individual members. Someone needs information on a particular problem. They contact the UG and we can point them to one or more people that have solved this problem before.

The UG, as a corporate body, can contact hardware manufacturers and obtain from them the much needed information on how to interface their hardware with our software. Individuals cannot easily do this. We can contact manufacturers and developers and find out from them what their needs are and then pass that information on to the membership for them to take advantage of. We can do so many things to help.

In short, we, the OS-9 Users' Group, can become an information center for the benefit of the membership, which will in turn cause more people to become successful in this field, which will create more members, which will also become more successful, and so on and so on, ad infinitum. Will be be able to do this? I hope so, *with the support of our members.* Let's see if we can change the tide a little this time and let the UG survive and prosper in this last life. I'll give it my best shot.

Straight from the Horse's Mouth
by Colin McKay

Welcome to the Chicago Fest!

This column is about the use of OS-9 in *Industrial*, *Scientific*, and *Educational* institutions. We've all heard rumors about the popularity of OS-9, and where it's being used. But when we ask for a source, the usual answer is **"Well, I just heard it somewhere."**

This column gets the story for you -- *Straight from the Horse's Mouth!* Past articles have included: the use of OS-9 by NASA to control Space Shuttle experiments; Leica Lasertechnik; and the Massachusetts Institute of Technology's Sea Grant Program. Upcoming articles include the use of OS-9 in magazine publishing and CD-i production.

For this **Special Fest Edition** of the **MOTD**, I will cover something a little different. Just over 15 years ago, *Microware* made the following announcement in its newsletter:

MICROWARE NEW PRODUCT NEWSLETTER **April 1979.**

Thank you for your inquiry about our line of 6800 family hardware and software products. We are in the process of introducing some new software so our 1979 catalog will not be ready for some time. In the interim, we are presenting new product information in this newsletter.

6809 SOFTWARE. Motorola contracted Microware to produce the finest possible software for the 6809. The new software we have prepared for Motorola includes a new BASIC language system plus an operating system. This software will be available soon from Motorola and Microware. Here are a few highlights:

BASIC09 LANGUAGE SYSTEM

* World's fastest microcomputer BASIC interpreter
* Integrated compiler/interpreter/editor package
* Structured BASIC - will even run many PASCAL programs with minor
    modification, plus compatible with SWTPC and Microsoft BASICs
* Five data types: Floating-point (9+ digit accuracy), Integer
    (16 bit), Byte (8 bits), Boolean; and String (variable length)
* User-defined record data structures (similar to PASCAL)
* Formatted I/O to multiple devices using OS-9
* Position-independent, reentrant code
* Device-independent I/O in conjunction with OS-9
* Masked on ROM chip set

OS-9 OPERATING SYSTEM

* Advanced design modeled after UNIX
* Device-independent I/O
* Random-access, hierarchical file structure
* Single- or multiple-page memory management
* Position independent masked ROM
* Compatible time-sharing version will be available

And thus it all began...

Microware Systems Corp. Des Moines, Iowa

Most of us all heard of **OS-9**, but few of us know much about the company that produces OS-9, *Microware*. Back in the mid 1970's the President of Microware, **Ken Kaplan**, was attending Drake University in Des Moines, Iowa. He and a friend received a research grant from the *National Science Foundation* to work with first-generation microprocessors. Software was written using experimental versions of Motorola's 6800, and eventually lead to the development of some of the first real-time embedded control applications.

In the Beginning

Noticing that many of the software applications they wrote had common parts, they began to develop tools and an operating system to handle those common parts. This eventually lead to the first ROMed real-time operating system for a microprocessor, RT/68. Though simple by today's standards, RT/68 allowed up to 16 tasks, the ability to start and stop those tasks, and handled interrupts.

An ad was placed in an early issue of Byte, offering RT/68 for sale. Much to their amazement, orders started coming in from around the world! Microware was born, and later that year moved from a spare bedroom to its own office near Drake University. A specialized industrial real-time version of BASIC, called **A/BASIC**, was also developed around this time by Microware. Most programmers at the time were using assembler for their software development.

In 1978 Motorola began development of the 6809, a revolutionary 8/16-bit microprocessor. Due to their previous acquaintance, Motorola also commissioned Microware to develop an advanced programming language to show off the features of the new chip. Working closely with the hardware designers, Microware developed the new language, **BASIC09**. New research in interactive compilation, fast floating point arithmetic, storage management, high-level symbolic debugging, and structured language design were all incorporated into the new language. Designers *Larry Crane, Robert Doggett, Ken Kaplan,* and *Terry Ritter* combined their talents to create the new language, and BASIC09 was first released in February, 1980.

Realizing the power of the new chip, Microware also began development of a new operating system at the same time it was developing BASIC09. OS-9 was to be a revolutionary operating system, to take advantage of the revolutionary hardware it would be running on. Concepts from **UNIX**, probably the most powerful system software available at the time, were taken and applied to real-time design requirements. When finished, OS-9 incorporated *modular design, sophisticated I/O and memory management, and multi-user, multi-tasking capabilities*. Like BASIC09, OS-9 was also released in 1980.

The 1980's

OS-9 began life running on SS-50 bus and ExorBus systems. In 1983, **Tandy/Radio Shack** began offering OS-9 as an optional operating system for its 64k **Color Computer** (CoCo). The relationship with Tandy continued throughout the life of the CoCo, eventually supporting OS-9 Level II on CoCo 3 systems. Today, with the help of third-party vendors, clubs, and the OS-9 Users' Group, Inc., many CoCo users are still actively computing with OS-9/6809.

Another big step for Microware came when it began developing software for Motorola's 68000 chip on the new **VMEbus** systems. This was the dawn of OS-9 for 16- and 32-bit microprocessors and microcontrollers. Strong markets for OS-9 on VMEbus systems developed in North America, Japan, and Europe, with most VME manufacturers selling **OS-9/68000** for their product. OS-9/68000 was first released in 1983.

Microware expanded with dealers throughout the world, and opened local offices in Europe, Japan, and Silicon Valley to provide local sales and support. Des Moines has remained Microware's home though, with about half of Microware's employees. Its central location and quiet atmosphere makes it ideal for supporting Microware's customers.

In the mid-1980's, **Philips** began development of its **Compact Disc-interactive** system (CD-i). CD-i's audio and video features required real-time processing power. After evaluating more than 60 operating systems and kernels, OS-9 was selected as the brains of this new product. As a result of this, in 1986 **Microsoft** offered to buy Microware. Ken Kaplan instead made a counter offer for a joint venture, and the talks fell apart.

Recognizing that its core business was to provide a solid, advanced 32-bit real-time system for the industrial market, CD-i development was moved to a new division within Microware. In addition to this separate development work on CD-i, Microware created three separate business units to handle specialized areas related to CD-i.

Microware's **CD-i Publishing Group** was formed to provide multimedia studio services to help publishers develop consumer CD-i titles. The second, **MicroMall, Inc.**, applied CD-i technology to point-of-information and point-of-sale delivery systems. **OptImage Interactive Services**, the third entity, was formed in partnership with Philips to provide hardware and software development systems for CD-i. Since that time, the CD-i Publishing Group has been consolidated with Microware's multimedia group, which works with multimedia applications, rather than just CD-i. They continue to do work for MicroMall.

CD-i development has also provided some new products for Microware, notably the **RAVE** (Real-time Audio/Video Environment) graphical user interface, improved development tools, and optical disk support.

> *"After evaluating more than 60 operating systems and kernels, OS-9 was selected as the brains of this new product. As a result of this, in 1986 Microsoft offered to buy Microware."*

The 1990's

The 1990's began with a sad but necessary step when Microware officially ended support for **OS-9/6809**, to concentrate its resources in other areas.

Microware developed first-generation cross development products for both PC and UNIX systems. **PCBridge** and **UniBridge** allowed software to be developed for OS-9 applications on other systems, and then installed on the target system.

Next-generation cross-development products, the successors to PCBridge and UniBridge, are now becoming available. **FasTrack** for UNIX is available now, and FasTrack for MSDOS-hosted systems will be available later this year. FasTrack is built around Microware's ANSI-compliant **Ultra C** compiler.

In addition to its continued support for Motorola 68XXX processors, Microware has been expanding the number of processors that will run OS-9.

Support for 32-bit Intel CISC processors and advanced CISC and RISC microprocessors has also been developed, in the form of a portable version of OS-9, called **OS-9000**. Written in C for portability, OS-9000 maintains the OS-9 philosophy of a modular, multi-user and multi-tasking operating system.

OS-9/PowerPC, for the new Motorola/IBM/Apple Power PC architecture processors, is expected to be released during the third quarter of 1994. This step will mean that OS-9 will be available on every major hardware platform used in real-time systems, and will ensure Microware's continued success well into the next century.

Recently, Microware was selected by **Bell Atlantic Corp.** to provide OS-9 for use in its TV set-top control boxes. These boxes will be used to provide Bell Atlantic customers with *Video Dial Tone Service*, their name for **AT&T's** *Video Over Dataline* (VOD). Customers will use these set-top boxes to access interactive services over ordinary telephone and cable lines. OS-9, combined with RAVE, was selected over Microsoft's **Modular Windows** product.

The OS-9 based software for these boxes is called **DAVID** (Digital Audio/Video Interactive Decoder). DAVID is a bundled package produced by Microware that includes OS-9. Specific extensions to OS-9 for interactive TV are being developed by Microware's core and multimedia groups.

Digital information is transmitted or received over standard telephone and cable lines. Customers will be able to select from movie-on-demand, electronic shopping and banking services, and educational programming. The initial test market will be 260,000 homes in northern Virginia, and is scheduled to begin in 1994.

Microware is also currently involved in supporting true standards that are applicable to engineers and real-time engineering. This includes involvement in *POSIX, ANSI C, NFS, X Windows*, and the *Open Software Foundation*.

And Beyond...
What does the future hold for Microware? Ken Kaplan put it best on Microware's 15th anniversary when he said:

"Our primary goal is to make some of the best, most advanced software in the world... Our challenge... is to use our leadership role and advance the art of real-time engineering."

Credits:

• 1. *Looking Back, Looking Forward*: An Interview with Ken Kaplan Celebrating 15 years of real-time software development.
• 2. *Wall Street Journal*, 18 January 1994, page B1.
• 3. *BasicO9 Users Manual*, Microware 1983.

My sincere thanks to *Microware* for its assistance in producing this article, particularly the three Steve's!

OS-9 Magazines

"the world of 68' micros" Magazine-- Philosophy and Support.

268'm (short for "the world of 68' micros- *TWO68'm*) is not an OS-9 magazine. Nor is it a Tandy Color Computer (CoCo) magazine. It currently supports both the 6809 and 680x0 series of Motorola processors, with the majority of coverage for OS-9/68000, OS-9, and Tandy's Disk Extended Color BASIC. Coverage is mainly for four platforms: *Tandy CoCo, Delmar Systems, FHL KiX, and BlackHawk MM/1.* Other Motorola processors, supporting operating systems, and platforms are also covered on occasion.

This is not the publisher's magazine. There is no wish to *steer* users of supported systems in any direction nor to influence their choices. The goal of 268'm is to provide readers with a steady source of quality information and support. It is up to the readers to make an educated decision as to what is best for their end uses. Subscribers decide just what will or will not be in every issue. 268'm is as much their magazine as the publisher's, for without subscribers there would be no magazine. Readers are constantly encouraged to comment and criticize, and surveys are conducted periodically. Readers are also keyed in on some business aspects of the magazine, especially those that directly affect subscriptions.

So what does 268'm have to offer the typical OS-9 user? For starters, I don't think there is a "typical" user. There are many users of OS-9 ranging from Tandy Color Computer users to industrial control system developers using OS-9/68K and OS-9000. One of 268'm's goals is to bring these hobbyist and industrial users closer together by offering insight into each other's worlds. Both have much to learn from each other.

Current regular OS-9 features include:
• Operating System Nine - OS-9 users column focusing on beginning to intermediate level users.
• The Industrial OS-9 User - insight into the uses of OS-9 in industry and industry solutions.
• OS-9/OSK Answers! - programming advice for OS-9 and OS-9/68K programmers.
• MM/1 Update - news from the supplier of MM/1 OS-9/68K computers.
• Support For Level II - various CoCo OS-9 Level II issues.
• Basic09 in Easy Steps - learning Basic09 (Microware Basic).
• Programming in "C" - learning to program in "C".

The magazine also offers the latest news in the development of Motorola processors such as the MPC60x series (PowerPC) and reviews of new OS-9 and OS-9/68000 software. There are occasionally other articles concerning OS-9 issues other than the current regular columns. Up coming projects include issues devoted to the Delmar Systems, FHL KiX, and BlackHawk MM/1 computers, and assembling one's own 68K system from various components.

Popular among OS-9 enthusiasts of all experience levels, this magazine delves into OS-9 issues from a variety of view-points. Various authors share their insights in the how OS-9 works and the "tricks of the trade." Program listings are frequently included with articles. OS-9/6809, OS-9/68000, and OS-9000 are all covered (although not necessarily in each issue).

Ad rates start at $18 for a full page ad (one time only) and $36 for 3 months. 1/4 page, 1/2 page ads are also available. Ad rate card is available on request.

The OS9 Underground also supports it's own "email" mailing list (ala the Coco list) which is open to all. The address is "fatcat@zog.wa.com". To subscribe, send email to listserv@zog.wa.com" with the words: subscribe fatcat real name
in the body of the message. As of this writing, there are currently 42 subscribers to the "fatcat" email list. Very soon, program listings and plain-text articles from the Underground will be made available to list subscribers via the listserv.

Metamorphosis supports all flavors of OS-9, and every month contains fascinating articles which keeps its loyal readers excited! Articles such as BBS listings, the OS-9 Community Net History, the Art of Programming series, software reviews, PowerBoost vs. NirOS9, Do OS-9 Users Need an Organization, and much more. Many light-hearted inserts and sharp graphics make reading a pleasure.

AN
IMPORTANT
MESSAGE...

Keep in touch on OS-9 related topics!! Be sure to sign up for the OS-9 Users' Group during your visit to the Chicago Fest!!

OS-9 On-Line Services

Delphi: $20/month for 20 hours. Operated by General Videotex Corporation, Blackstone Street, Cambridge, MA 02139. (800) 544-4005 (voice).

Delphi is arguably the most popular on-line service among OS-9 personal users. The OS-9 SIG on Delphi has several upload areas for OS-9/6809, OS-9/68000, and OS-9000, containing thousands of downloadable programs. Program areas include *General Information, Users Group, 6809 Applications, 6809 Telecom, 6809 System Modules, Games & Graphics, Music & Sound, Programmers Den, OSK Applications, OSK Telecom, OSK System Modules, Rainbow OS-9 Material* (extra charge), *Tutorials & Education, Standards,* and *New Uploads.*

In addition to the large quantity of OS-9 software, Delphi's OS-9 SIG also contains a huge on-going forum (public bulletin board) which is extremely active. (There are currently over 77,000 messages in OS-9 forum!!) Several important topics come up each month over forum. Also, the "conference" area (real-time chat) is used frequently by people who may need help or who just want to talk... answers to most OS-9 problems are just keystrokes away!

A Classified Ad section, a Voting Booth (on-line questionaires made by users), and a member directory top off the list of exciting services offered. These are in addition to the myriad of services such as electronic-mail, shopping, etc. that is also available on Delphi. Internet services are also available for an additional $3/month.

To sign-up by modem toll-free, call (800) 365-4636, press RETURN once or twice, use "JOINDELPHI" as *Username* and "HANDBOOK" as *Password.*

GEnie: $8.95/month for 4 hours plus $3 each additional hour (@ 2400 baud). Operated by GE Information Services, Inc. (800) 638-9636 (voice).

While GEnie does not have a RoundTable area specifically for OS-9, it's *Tandy/TRS-80* area does contain a category for OS-9/OSK related messages as well as a section in the Software Library for OS-9/OSK files. Over 300 files are available, and a weekly Real Time Conferences (chatting) are held. Some OSK support can also be found in the *Atari ST RoundTable*. Internet mail is available. Toll-free and 1-800 access is also available. Billing is to credit card or checking account.

To sign-up by modem toll-free, call (800) 638-8369, type "HHH", then type "XTX99188,TANDY" at the U#= prompt.

OS-9 Groups/Clubs

OS-9 Users' Group: $25/year for US & Canadian, $30 international. MOTD Newsletter published approximately bi-monthly. The OS-9 Users' Group, Inc., 6158 W. 63rd Street, Suite 109, Chicago, Il., 60638.

This is the group that has brought you this newsletter, the **MOTD**. This not-for-profit organization is dedicated to supporting and promoting the OS-9 operating system in all of its various forms. The main vehicle of information coming from the OS-9 Users' Group to its membership is the **MOTD** newsletter, which is published a minimum of 4 times per year, although at least 6 issues are planned each year. Inside the issues are general interest articles pertaining to OS-9, OS-9 vendor/bbs/magazine information, and articles on what the group has been up to.

Glenside Color Computer Club: $15.00/year. CoCo~123 newsletter published at least 4 times per year. Glenside Color Computer Club, RR#2 Box 67, Forrest, IL. 61741-9629

The Glenside Color Computer Club is a not-for-profit organization who supports the Tandy Color Computer and OS-9 in general. The CoCo~123 newsletter is generally published about 6 times a year and contains a significant amount of OS-9 material, generally for the Tandy Color Computer. Program listings are sometimes included, and articles are submitted by various authors. The newsletter also contains general interest articles relating to OS-9 activities, such as Fest reports by Allen C. Huffman.

BBS Listings

BBS Name	Location	Baud Rates	Phone Number
Applied OS-9 BBS	Florida	300-2400	(407) 327-6346
Atlanta Computer Society BBS	Atlanta, GA.	300-2400	(404) 636-2991
ChiCoCo	Chicago, Il.	300-2400	(312) 735-3355
Citadel BBS	Pennsylvania	300-9600	(717) 871-9543
Color Galaxy Milky Way	California	300-14,400	(415) 883-0696
Crystal Palace	Michigan	300-14,400	(616) 979-1858
Cup of CoCo	Carpentersville, Il.	300-2400	(708) 428-0436
Erie County CoCo Club	Buffalo, NY	300-2400	(716) 649-1368
Golden CoCo BBS	Houston, TX	300-2400	(713) 941-1542
KZIN BBS	Surrey, BC, Canada	300-2400	(604) 589-5545
Ocean Beach BBS	San Diego, CA	300-14,400	(619) 224-4878
Rainbow Connection	New Jersey	300-14,400	(201) 967-1061
SandV	LaGrange Park, Il.	300-9600	(708) 352-0948
Southern Alberta Bulletin	Alberta, Canada	300-2400	(403) 329-6438

VENDOR LISTINGS

The MOTD carries vendor names, addresses, and phone numbers as a service to both our readers and OS-9 vendors. If you are a vendor of OS-9 related hardware or software, you may request to be listed by simply sending a letter to the editor at the Users Group address. There is no charge for being listed in this area. (Vendors who are members are listed in italic type.)

Vendor Name	Address	Phone Number
AniMajik Productions-Software	*4650 Cahuengo Blvd; Ste #7; Toluca Lake, CA 91602*	*(818) 761-4135*
Ark Systems USA	P.O. Box 23; Santa Clara, CA 95052	(408) 244-5358
Blackhawk Enterprises	P.O. Box 10552; Enid, OK 73706-0552	(405) 234-2347
Bob van der Poel Software	P.O. Box 355; Porthill, ID 83853 or	
	P.O. Box 57; Wynndel, BC, Canada V0B 2N0	(604) 866-5772
Burke & Burke	*P.O. Box 733; Maple Valley, WA 98038*	*(206) 432-1814*
ColorSystems	*P.O. Box 540; Castle Hayne, NC 28249*	*(919) 675-1706*
Computer Design Services	2550 Sandy Plains Road; Marietta, GA 30066	(404) 973-2170
CoNect	*449 South 90th Street; Milwaukee, WI 53214*	*(414) 258-2989*
Delmar	*P.O. Box 78-5238; Summit Bridge Road; Middleton, DE 19709*	*(302) 378-2555*
Dirt Cheap Computer Stuff Co.	*1368 Old Highway 50 East; Union, MO 63084*	*(314) 583-1168*
Disto	1710 Depatie; St. Laurent, Quebec, Canada H4L 4A8	(514) 747-4851
Farna Systems PB	*P.O. Box 321; Warner Robins, GA 31099-0321*	*(912) 328-7859*
Frank Hogg Laboratories	204 Windemere Road; Syracuse, NY 13205	(315) 469-7364
Hawksoft	*244 S. Randall Road; Elgin, IL 60123*	*(708) 742-3084*
JWT Enterprises	5755 Lockwood Blvd.; Youngstown, OH 44512	(216) 758-7694
Ken-Ton	187 Greenacres Road; Tonawanda, NY 14150	(716) 837-9168
Microware Systems Corporation	1900 N.W. 114th Street; Des Moines, IA 50322	(515) 224-1929
Northern Xposure	*7 Greenboro Cres.; Ottawa, Ontario, Canada K1T 1W6*	*(613) 736-0329*
'09 Online	221 E. 17th #31; Marysville, CA 95901	(916) 734-4264
Peripheral Technologies	1480 Terrell Mill Road #870; Marietta, GA 30067	(404) 973-2156
Sub-Etha Software	*P.O. Box 152442; Lufkin TX 75915 or*	
	936 North Twelfth Street; DeKalb, IL 60115-2516	*(815) 748-6638*
Windsor Systems	*2407 Lime Kiln Ct.; Louisville, KY 40222*	

OS-9 Users' Group Elections

The following positions on the OS-9 Users Group, Inc. Board of Directors are open for nominations:

Position	Term	Incumbent
President	(Two years)	Carl Boll
Executive Vice President	(One year)	Colin McKay
Director-at-Large	(Three years)	Ed Gresick
Director-at-Large	(Two years)	Steven Weller
Director-at-Large	(One year)	VACANT

Voting will be held during the OS-9 Users Group, Inc. Annual General Meeting to be held 21 May 1994, at 7pm in the Meeting Room of:

The Holiday Inn Elgin
345 W River Rd
Elgin, IL

Nominations are open to Individual Members of the OS-9 User Group in good standing who are at least 21 years of age. Nominations shall be submitted in writing, and shall be signed by two nominators who are Individual Members in good standing, and signed by the candidate. Nominations may be passed to the Secretary prior to the meeting.

OS-9 Users Group, Inc.   Nomination Form

Position   : _____

Name (Please Print Legibly)   (Signature)

Nominee: _____   _____

Nominator #1:   _____   _____

Nominator #2:   _____   _____