OSS ™

Optimized Systems Software, Inc.

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Are you surprised to be hearing from us again? We really do listen to our users. The response to our newsletters has been gratifying. Therefore, we are making every effort to produce one each quarter.

We have recently returned from the West Coast Computer Faire. The staff really enjoyed meeting our users. Some we have spoken to on the phone, but the faire provided us with an opportunity to meet face to face. We liked hearing all the praises, and although we didn't like hearing complaints, we listened to them as well.

To help draw attention to our booth at the faire, we held a prize drawing. The following are the names of our winners: 1st prize: an Indus disk drive and three OSS SuperCartridges to CARL KAMINSKI of San Jose, California;

2nd prize: three OSS SuperCartridges to KEITH THOMPSON of Hayward, California;

3rd prize: a choice of any OSS SuperCartridge (this prize was awarded each day of the faire) to PAUL SOON of San Francisco, California; ROBERT CHAVIRA also of San Francisco, BOB STAHMER of Stockton, California, and MIKE FLEISCHMANN of Sunset, Utah.

One purpose of this particular newsletter is to tell you what is happening here at OSS. At the faire, we learned a great deal from our users. Some of the new policies and procedures are a direct outgrowth of the face to face discussions that took place while we were there.

Many of you ordered our new SuperCartridge products back in September or October. Our delivery dates were off by a great deal. This was particularly true for MAC/65. Your patience and understanding were greatly appreciated by the staff. It was a trying time for all of us.

We are still having some problems. Right now our most difficult one is getting cartridges. This is very frustrating to us, and we know it is frustrating to you. We are looking for a new cartridge manufacturer and/or better service out of our present one. We hope that you will continue to bear with us until this problem is completely resolved. If you believe in soothsayers and alike, we anticipate better turnaround times on orders in the upcoming months.

You may be surprised to learn that we have moved again. We have only moved across the street; but our new location will give us more room, and that is particularly important to the programmers. As with all moves, there will undoubtedly be many problems. If you have trouble reaching us by phone, please be patient. After all, Ma Bell isn't what she used to be.

Our new address is :

OSS
1221 B Kentwood Avenue
San Jose, CA 95129

Our phone number is the same: 408-446-3099.

We have made every effort to answer our mail. Sometimes letters do get lost, but those of you who have written to us recently should have received a prompt response. If you have a problem, we hope you will be understanding. The following is one letter we recently received. It might help you put our mail situation into a better perspective:

Dear Sirs:

Please send me your complete catalog. I am particularly interested in the BASIC XL cartridge.

Airmail will be appreciated as surface mail to Saudi Arabia often comes by camel express and I think that the camels are fed with most of the mail, which is probably an ingenious way of lightening their load.

Sincerely,
(name withheld)

Version 4 -- OS/A+ but not DOS XL

Our original plans for DOS XL included the development of a Version 4. However, there are two reasons we have delayed production of this version. First, we were not exactly overwhelmed with requests for it. Second, our sources say that Atari is working on their own "version 4", which (of course) won't be compatible with version 2, Atari's version 3, or our version 4. Sigh. For the time being, version 4 DOS XL is on hold.

But at the faire we did have several requests for version 4. So, instead, we have decided to start selling OS/A+ version 4.1 again.

A few manufacturers are selling disk drives capable of writing diskettes in a double-sided, double-density format. Although our own DOS XL version 2 does operate in either single or double density single-sided modes, the Atari DOS file structure (which DOS XL uses) is not capable of double sided operation. OS/A+ version 4 does properly handle double-sided drives, so some users may wish to use this version of OS/A+. However, there are several incompatibilities between Atari DOS (or our version 2 DOS) and version 4:

1) uses more memory - Some programs will not run under version 4 because they assume a particular value of LOMEM which is specific to Atari DOS.

2) different file structure - Version 4 files are not compatible with Atari DOS; transfering files between the two systems requires the use of additional utility programs. Disk editing and cataloguing programs which run under Atari DOS cannot be used with version 4.

3) different directory structure - Programs which read the disk directory may not run properly under version 4.

4) single density - Version 4 will not operate in single density mode, so single density drives cannot be used (e.g., Atari 810 disk drive).

For those who need OS/A+ Version 4.1, it is available for $49.95. An update from Version 4.0 to Version 4.1 is also available for $25.00. For the update, you must send the original first page of the manual as proof of purchase. No reproductions will be accepted.

The OS/A+ Manual -- Beginners and Advanced Alike

Since we have decided to resume the sale of OS/A+ version 4, it was necessary for us to have the manual reprinted. Many of you had requested copies of the newer OS/A+ manual which included several sections especially written for the computer novice. Our entire supply of 2500 manuals was depleted, and many of you received letters to that effect along with your checks.

Because we have been inundated with requests, we are having a limited number of these manuals reprinted. Unfortunately, the cost has escalated considerably. The OS/A+ manual, with special beginners' sections, complete in a loose leaf binder is now available for $15.00.

Although it covers version 2, this reprinted manual is intended for those users with version 4. If you currently own OS/A+ version 2, we strongly suggest that you completely update your system with DOS XL. The update from OS/A+ to DOS XL also costs $15.00, but it includes a new disk as well as a new manual. Reread the above note to be sure you need version 4. If not, please order the update to DOS XL.

DOS XL

Secret Commands in DOS XL version 2.3

Did you do a directory listing of your DOS XL version 2.3 system disk? Did you notice the files "VERIFY.COM" and "NOVERIFY.COM" on the disk? Did you wonder what they were for?

Until now. DOS XL, in common with OS/A+ and Atari DOS, is able to write information to the disk in either of two modes. In the "VERIFY" mode, every disk sector is read and checked for errors when it is

written. If the sector does not pass this verifying check, an error 144 is returned to the computer and thence to your program. In "NOVERIFY" mode, no such check is performed.

In using Atari DOS (with verify check turned ON) for over a year, on one of the earliest and flakiest 810 drives, we NEVER got a verify error. So we decided to use NOVERIFY mode as the default under OS/A+ and DOS XL.

However, if you are running a program which is especially sensitive to data loss, or if you have a disk drive which is operating marginally, or if you are simply a little more cautious than we are, you may wish to use DOS XL in verify mode instead. To do so, simply type
                    VERIFY
in response to the "D1:" prompt of DOS XL's CP. Of course, to change your mind later, you may simply type
                    NOVERIFY
prompt, instead.

Of course, to use either of these commands, the files VERIFY.COM and/or NOVERIFY.COM must be present on the disk. So use a copy of your master disk or copy these files to your working disk.

AN UNDOCUMENTED FEATURE OF DOS XL

Version 2.3 allows user programs to set up command lines in DOS's command buffer and then ask DOS XL to execute the command. The user program may choose to have DOS XL return to it (via an RTS) after executing the command OR may ask DOS XL to retain control. In keeping with the philosophy of the OSS Command Processor (CP), we have established entry points into CP to accomplish these functions. And, of course, these entry points are offsets from the beginning of CP, which is in turn pointed to by the contents of CPALOC (location $000A). In particular, the entry point for calling CP when you wish it to return to you is -6 (yes, that's minus six) from the beginning of CP. The entry point for leaving control with CP is -3.

The reason for using minus offsets is that we cannot guarantee the length of the command and file name buffers (they depend on the version of DOS in use), so there are no more guaranteed fixed entry points in the positive direction. As new features are added to DOS XL in the future, you can expect further use of negative offsets.

Still with us? How about a couple of examples? The following routines allow you to put a DOS XL command into the DOS XL command buffer and then call DOS XL to execute that command.

```
         in ACTION!                        in BASIC XL

   PROC CallDos()              1000 Calldos=Dpeek(10)-6
   RETURN                      1009 Rem CALL$ will contain
                                    PLA andJMP CALLDOS
   PROC Test()                 1010 Call$=Chr$($68), Chr$
                                    ($4c),Chr$(Calldos&$ff)
                                    Chr$(Int(Calldos/256))
     CARD cpaloc=10,           1020 Cmdbuffer=Dpeek(10)+$3f
          cmdbuf               1030 While 1
     BYTE ARRAY cmd(100)       1040 Input "COMMAND > ",Cmd$
```

```
        CallDos=cpaloc-6          1050    Cmd$=Cmd$,Chr$($9b)
        cmdbuf=cpaloc+$3F         1060    Move Adr(Cmd$),Cmdbuffer,
                                                  Len(Cmd$)
          DO                      1070    Junk=Usr(Adr(Call$))
          Print("COMMAND>  ")     1080    Endwhile
          InputS(cmd)
          cmd(cmd(0)+1)=$9B
          MoveBlock(cmdbuf,cmd+1,cmd(0)+1)
          CallDos()
          OD
      RETURN
```

To use either of these programs, simply type them in and run
them. In response to the "COMMAND > " prompt, give a valid DOS
XL command. Caution: you should only use intrinsic commands or
you may wipe out part of your program! For a list of intrinsic
commands, see your DOS XL manual, but an easy example would be
simply DIR.

USING DOS XL and the ATARI 800 XL

If you own an Atari 800 XL and would like to take advantage of
the additional memory available in the OSS SuperCartridge, you
must press the option button while loading DOS XL.

USING DOS XL and a TRAK DRIVE

In order to use DOS XL with a TRAK drive, you must do the
following: 1) format a blank disk on the TRAK using INITDBL; 2)
use SDCOPY to transfer master DOS XL files to the newly formatted
TRAK disk. Please note: when the following prompt appears:

> "Dos.sys already exists,
>   ok to overwrite"?

reinsert the DOS XL disk and type NO. If this procedure is not
followed, you will end up with a disk that won't boot.

If you cannot make this work for you, we have a complete
procedure for creating a bootable double density DOS XL disk on
your TRAK drive. Please send a self-addressed, stamped envelope
to:

> OSS
> 1221 B Kentwood Ave.
> San Jose, CA 95129

DOS XL with new disk drives

You also might be interested in knowing that TRAK will be
shipping DOS XL with all its new drives in the near future. DOS
XL is currently shipped with every system sold by PERCOM, ASTRA,
INDUS and AMDEK. Talks are currently being held between OSS and
Concorde.

DOS XL Version 2.30P

There is now a version of DOS XL--Version 2.30P; this new version
takes care of two problems that existed in DOS XL--Version 2.30.

1) In previous versions of DOS XL, if you initialized a disk from the menu, the disk would not boot unless the file MENU.COM was on the disk. To alleviate this problem, type Q to quit the menu. Then type INIT or INITDBL from the command processor. Note: everything on the menu can be done manually from the command processor.

2) If you have a multidrive sytem and you initialized a disk in a drive other than one, when booted, the disk will always come up with the number of the drive on which it was initialized. To prevent this problem, use D1: as the destination drive.

DOS XL Version 2.30 PATCH

If you currently own DOS XL version 2.30 and would like to make it a version 2.30P, just follow the instructions below:

```
10 XIO 36,#1,0,0"D:DOS.SYS"        :REM unprotected file
20 OPEN #1, 12,0,"D:DOS.SYS
30 READ CNT:IF CNT=0 THEN GOTO 300
40 READ START
50    FOR ADDR=START TO START+CNT-1
60    READ BYTE:POKE ADDR, BYTE
70    NEXT ADDR
80 GOTO 30
200 DATA 3,5481,32,1,21
210 DATA 27,5377,141,217,22,169,16
220 DATA 141,23,22,169,23,141,24,22
230 DATA 169,49,141,30,22,169,64,133
240 DATA 12, 169,21,133,13,96
250 DATA 0
300 CLOSE #1
310 END
```

DOS XL ERROR PAGES

In the first run of the DOS XL manual, the printer did not include the last four pages. These pages contained the DOS XL errors and appropriate explanations. We have had these pages reprinted. If your manual is missing these pages and you would like a copy, please send a self-addressed, stamped envelope to:

                    DOS XL ERROR PAGES
                    c/o OSS
                    P.O. BOX 710352
                    SAN JOSE, CA 95129

BUG/65

PATCH FOR BUG/65 NOT WORKING WITH ATARI XL MACHINES

Well, we got bit. After preaching for so many years about "properly calling operating system routines", we produced a product which does a no-no.

BUG/65 calls the printer for output by using the Put-A-Character address from the device table. This works on 400/800 machines, but

the 800 XL supports multiple printers (e.g., P1: and P2:), so it needs an open IOCB to refer to for the device number.

Didn't follow all that? Don't worry about it. The proper fix is to open a channel for the printer and use it for all printer output. But that violates BUG/65's philosophy of not touching IOCB's (thus reserving all of them for your program's use). So we cheat a little. We tell the printer driver that it is open on channel 0 (which is, of course, the screen editor, E:). It works. Don't knock it.

The following BASIC program will patch the BUG65 disk file so that it will work on 800 XL's. PLEASE use this ONLY on a COPY of your disk!

```
10 Xio 36,#1,0,0,"D:BUG65.COM":Rem UNPROTECT THE FILE
20 Open #1,12,0,"D:BUG65.COM"
30    For I=1 To 2430:Rem MOVE TO PROPER POSITION
40    Get #1,C
50    Next I
60 Put #1,230
70    For I=2431 To 3051:Rem MOVE TO NEXT POSITION
80    Get #1,C
90    Next I
100 Put #1,134:Put #1,148:Put #1,132:Put #1,149
105 Put #1,170:Put #1,160:Put #1,1:Put #1,177
110 Put #1,148:Put #1,72:Put #1,136:Put #1,177:Put #1,148
115 Put #1,72:Put #1,138:Put #1,162:Put#1,0:Put #1,96
120 Close #1
130 End
```

ACTION!

A Newsletter for ACTION! Users! Only!

ACTION!, written by Clint Parker's Action Computer Service and produced in the (TA! DA!) SuperCartridge by OSS, is fast becoming THE high level language for Atari computer owners. Although we have sold many of them, we didn't realize how popular ACTION! was becoming.

An ACTION! newsletter is being produced by Henry S. Hillbraith and is called TOP LEVEL TARRY (that last word rhymes with Apple, of course). He can be reached at P.O. Box 4741, Santa Clara, CA 95054. It is also our understanding that an ACTION! user group is now active in the SF Bay Area.

A Bug in the Action! PADDLE Function

The PADDLE function built into the Action! cartridge (version 3.5 and below) does NOT work at all. The problem is that it directly accesses the machine hardware registers instead of the OS shadow locations, as it should.

The fix is fairly simple: write your own PADDLE function and ignore the built-in one. Here is a short listing of a PADDLE routine, suggested by Lawrence A. Dineen, of Preston, England:

```
BYTE FUNC Paddle( BYTE n)
    BYTE ARRAY pport(8) = 624
    RETURN pport(n)
```

Another way to accomplish the same thing, though, would be to make a global declaration (at the beginning of your program) of the form:

        BYTE ARRAY Paddle(8) = 624

Even if you have 3.6, you might consider using this latter method, since array references may be used in more complex expressions than can function references.

Then referring to Paddle(n) in your program would, indeed, give you the value you need.

ACTION! Runtime Error

Unfortunately, an error was made in the ACTION! Runtime disk. SYS.ACT has some duplicated code in it. There are two ways around this problem: 1) use SYSALL.ACT instead or 2) delete the extra code from [MODULE; GRAPHICS ROUTINE] to [PROC POINT] at which point [MODULE; GRAPHICS ROUTINE] starts again.

ACTION! PROGRAMMER'S AID DISK

We have gotten several calls concerning the correct method for booting the ACTION'! P.A.D. To load the P.A.D. you must first boot a DOS capable of reading a single density disk. Then with your ACTION! cartridge inserted, remove the DOS disk and insert the Programmer's Aid Disk. Next, do a CTRL SHIFT R and the following computer prompt appears:

                READ?
The correct response is:

                D1:READ.ME

The following are bug fixes for BGET, BPUT, and PRINTF routines on the ACTION! programmer's Aid Disk. To locate the source code to be fixed, read in the file IO.ACT from the programmers aid disk. Then retype the code given below under the BGet and BPut procedures.

```
    PROC BGet=*(BYTE chan  BYTE POINTER addr  CARD len)

    [
    $84 $A2     ;STY $A2
    $AO $07     ;LDY #BGET
    $DØ $04     ;BNE *+6
    ]
    PROC BPut=*(BYTE chan  BYTE POINTER addr  CARD len)
    [
    $84 $A2     ;STY $A2
    $AØ $ØB     ;LDY #BPUT
                ;JOIN HERE
    $86 $A1     ;STX $A1
    $ØA         ;ASL A
    $ØA         ;ASL A
```

```
        $ØA          ;ASL A
        $OA          ;ASL A
        $AA          ;TAX
        $A5 $Al      ;LDA $Al
        $9D $344     ;STA ICBADR,X
        $A5 $A2      ;LDA $A2
        $9D $345     ;STA ICADR+1,X
        $A5 $A3      ;LDA $A3
        $9D $348     ;STA ICBLEN,X
        $A5 $A4      ;LDA $A4
        $9D $349     ;STA ICBLEN+1,X
        $98          ;TYA
        $9D $342     ;STA ICBCOM,X
        $20 $E456    ;JSR CIO
        $10 $Ø3      ;BPL *+5
        $20 ERROR    ;JSR ERROR
        $60          ;RTS
        ]
    RETURN
```

The PRINTF fix requires a single change to the source code of the PRINTFD procedure.   To locate the source that needs to be changed, read in the PRINTF.ACT file from the Programmer's Aid Disk and use the ACTION! editor's FIND function to locate the line:

                        args ==+ s

and change this line to:

                        args ==+ 2

MAC/65 CARTRIDGE BUG

There is a bug in the MAC/65 cartridge which gives an error on a JSR or a JMP to a zero page address. A temporary fix would be to use macros in the source code. As examples, try these:

```
    1000  .MACRO @JSR           1040  .MACRO @JMP
    1010  .BYTE $20             1050  .BYTE $4C
    1020  .WORD % 1             1060  .WORD % 1
    1030  .ENDM                 1070  .ENDM
```

To invoke the macro, type @JSR (or @JMP) in place of the JSR or JMP instruction, and the proper hex code will be generated.

BIT 3, MOSAIC, and AXLON

Because many of our users have auxiliary equipment, we have produced fixes to allow our SuperCartridges to be accessed with these products. Each is available directly from OSS on diskette. Please specify which fix you desire. The cost is $5.00 per fix.

NEW PRODUCTS

In our continuing effort to provide ATARI Computer owners with the very best software, OSS is proud to announce a new line of products.

These, unlike our previous products, are application programs and are designed for the average computer user. The manuals have been written especially to be user friendly.

THE PRINT TOOL

THE PRINT TOOL gives you the power to control exactly how you want text laid out on a printed page or on a screen. Users who are familiar with DEC's RUNOFF or other similar mainframe programs will find THE PRINT TOOL a comparable program. In fact, an independent tester found that THE PRINT TOOL was over 95% compatible with RUNOFF.

THE PRINT TOOL is capable of producing automatic section, chapter, appendix and page numbering. Using a single command, you can design outlines, print bullets next to important information, and create slide formats.

When used with almost any text editor--including especially the one built into OSS's ACTION! SuperCartridge--your Atari computer becomes a complete word processor capable of handling book length manuscripts. In addition, THE PRINT TOOL makes it easy to produce tables of contents, footnotes and indexes (indices). Now, you can add running headers and footers to your printouts.

THE PRINT TOOL gives your printed documents that "professional look." Available on disk only, THE PRINT TOOL requires 48K memory. Anticipated release date is June, 1984.

THE POSTAL TOOL and SORT TOOL

The POSTAL TOOL manages your lists like never before. Add and change names easily. Prepare bulk mailings. Use preselected formats or create or own. Select and sort by multiple categories.

However, THE POSTAL TOOL is not just for mailing lists. This powerful program can be used to catalog your music collection, video cartridges, personal library, or even your precious baseball cards. You could even cross reference recipes. The list of possibilities is almost endless.

The SORT TOOL easily sorts almost any file. It can produce key files, tag files, or fully sorted files. You can easily sort lines, fixed-length records, or variable-length records. THE SORT TOOL is the most powerful program of its type available for the Atari.

Both these fine products are available on disk only for $59.95. The POSTAL TOOL and SORT TOOL require 48K memory. We anticipate the release date to be the middle to end of June, 1984.

FOREIGN USERS

Unfortunately, we had some problems with our foreign data base. We believe we have gotten all the problems corrected. However, many of our foreign users did not receive the January newsletter. If you did not receive the last issue of the OSS newsletter and if you would like to get one at this time, please call or write to us. We will be happy to send it to you.

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