

HOTLINE!

Bulletin 7
November 13, 1987

HOTLINE! is published periodically by the Customer Support group of Xerox Artificial Intelligence Systems to assist its customers in using the Xerox Lisp environment. Topics covered include answers to questions that are most frequently asked of Customer Support, suggestions to help you work in the Xerox Artificial Intelligence Environment (XAIE) as well as announcements of known problems that may be encountered.

Feel free to make copies of individual bulletin pages and insert them in the appropriate place(s) in your Interlisp Reference Manual, Lisp Library Modules manual or other relevant manual. The documentation reference at the end of each topic can be used as a filing guide.

For more information on the questions or problems addressed in this or other bulletins please call us toll-free in the Continental United States 1-800-228-5325 (or in California 1-800-824-6449). Customer Support can also be reached via the ArpaNet by sending mail to AISUPPORT.PASA@Xerox.com, or by writing to:

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In this issue

HOTLINE! covers both supported releases of XAIE, Koto and Lyric. Each item contains a "Release" field for any item that is release specific. The following topics are covered in this issue:

- Koto 1186 MakeScript bug
- Standalone password protection
- "File System Resources Exceeded"
- Loading SYSEDIT without MASTERSCOPE
- The side effect of aborting a sysout procedure
- TCP FTP transmission problem of LCOM and DFASL files
- Unbound atom problem in TCP
- TCP Chat problem to Unix 4.3 hosts
- TCP Trivial File Transfer problem

Terminology

Terminology used in this *HOTLINE!* bulletin:

UG - Users' Guide

AR - Action Request, a Xerox problem tracking number (e.g. AR 8321)

IRM - Interlisp Reference Manual

Koto 1186 MakeScript bug

Release Koto

Keywords MakeScript, Installation Utility

Problem 1186 Koto 2.02 MakeScript fails with "File not Found."

Example The user wants to specify his own partitioning and inserts a copy of the Koto 2.02 Installation Utility, fills in the partitioning desired, and selects the MakeScript! command. It fails with a "File not found" looking for the file LisplInstallation.script.

This is because the file on the Koto 2.02 Installation Utility was named "LisplInstallation.dovescript" and it should have been named "LisplInstallation.script" to be compatible with the SystemTool's MakeScript program.

Workaround Make a copy of the Koto 2.01 Installation Utility. Perform the MakeScript and write to that floppy as the destination. Use the copy of the Koto 2.01 Installation Utility only for PARTITIONING. Do not use it for "Initialize System Tools volume" or any of the following options on the script. When partitioning is complete, reinsert the Koto 2.02 Installation Utility and select "Initialize System Tools volume."

If you do not have a Koto 2.01 Installation Utility, please contact Customer Support.

Reference AR 8508

Standalone password protection

Release Koto and Lyric

Keywords Password protection

Question I have a standalone system; how do I protect it from other users?

Answer There are several methods for password protection on a standalone system without authentication service; however, we recommend the following method which only allows the previous user to login. This is the best method to protect your system. If you want other people to access the system, please provide them the password.

1. From the Exec window type

```
(ADVISE '\IDLE.AUTHENTICATE '(RETURN NIL]
```

2. Set IDLE PROFILE from background menu using sub (sub-sub) menu with

```
AUTHENTICATE-T (Select DO)  
FORGET - NIL (Select DON'T)  
ALLOWED LOGIN - LOCKED
```

3. Evaluate (LOGIN) prior to entering IDLE.

“File System Resources Exceeded”

Topic Recovering from “Hard disk error: File System Resources Exceeded.”

Release Koto and Lyric

Keywords Local File System,
SCAVENGEDSKDIRECTORY,DISKFREEPAGES

Question After a “Hard disk error: File System Resources Exceeded” break there is a discrepancy between the expected number of free pages on the local disk and the value returned by (DISKFREEPAGES 'LISPFILES). How can the pages be recovered?

Background User got a “Hard disk error: File System Resources Exceeded” error while doing a sysout to the local disk. They closed the break window and scavenged the volume from the system tool. It reported no errors found. However, FILEBROWSER on {DSK}<LISPFILES> showed 5716 pages in use, but (DISKFREEPAGES 'LISPFILES) showed only 25 pages free on a 10000 page volume. The file being written to the disk at the time of the error did not appear in the browser window, and could not be deleted.

Answer Evaluate (SCAVENGEDSKDIRECTORY 'LISPFILES). This function rebuilds the Lisp directory. The file being written at the time of the error will be added to the directory, and can then be deleted. Space on the local file system will be recovered.

Note: Be sure to scavenge the Lispfiles volume from the system tool prior to SCAVENGEDSKDIRECTORY.

Reference See “Disk Scavenging” of the appropriate Users Guide.

Loading SYSEDIT without MASTERSCOPE

- Release** Lyric
- Keywords** EXPORTS.ALL, MASTERSCOPE, SETTEMPLATE, SYSEDIT
- Problem** SYSEDIT loads EXPORTS.ALL which requires SETTEMPLATE from the MASTERSCOPE Library Module.
- Example** You may want to use the Library Module SYSEDIT to access the internal fields of strings or streams. SYSEDIT loads a library file called EXPORTS.ALL to find these definitions. If you do not need to use MASTERSCOPE (perhaps you are already working in a fairly large sysout) you can still work around the dependency on the function SETTEMPLATE.
- Symptom** During the load of EXPORTS.ALL, the Break message: In OLDFault1: Undefined function: SETTEMPLATE, will appear.
- Workaround** Before loading SYSEDIT, type to the Interlisp Exec: (MOVD 'NILL 'SETTEMPLATE). As long as you don't need Masterscope, this workaround will not have any side effects.
- References** AR 8217
Lisp Library Modules Manual, Lyric Release, page 229
Lisp Library Modules Manual, Lyric Release, pages 147-173

The side effect of aborting a sysout procedure

Release Koto and Lyric

Keywords Performance problem, SYSOUT, Swapping

Problem If user aborts the sysout procedure, then the variable \VMEM.INHIBIT.WRITE is set T. When \VMEM .INHIBIT.WRITE is T, then every case in which a page of real memory would have been written out to the disk, it is instead locked in real memory. As the number of locked pages increases, swapping time increases. Eventually there are no pages of real memory that can be used for swapping, and this will cause the performance of the system to slow down significantly.

Background When the SYSOUT procedure fails for some reason or is aborted, the variable \VMEM.INHIBIT.WRITE is silently set to T. If user again called SYSOUT on the same virtual image, the file output by SYSOUT would then keep the same value of \VMEM.INHIBIT.WRITE. When this SYSOUT is installed into any working volume, the system will be extremely slow, and it doesn't seem to "stabilize" no matter how long it runs.

Symptom User just installed a new sysout and experienced *severe* performance problems with a (VMEMSIZE) of approximately 22000 pages on a 32000 pages partition. Reporting swapping times of 5-10 minutes to bring up DEDIT; 2 minutes for background menu, etc. The system doesn't seem to "stabilize" no matter how long it runs; all operations are extremely slow and swap forever.

Workaround User needs to check the value of \VMEM.INHIBIT.WRITE. If it is T, he needs to reset it to NIL. (SETQ \VMEM.INHIBIT.WRITE NIL).

Reference AR 9333

TCP FTP transmission problem of LCOM and DFASL files

Release Lyric

Problem TCPFTP.DEFAULT.FILETYPES variable has no entries for LCOM and DFASL files.

Background When transferring files using TCPFTP, the variable TCPFTP.DEFAULT.FILETYPES is used to determine the file type based on a file's extension. If the extension is not found on this list, the value of TCP.DEFAULTFILETYPE is used. If you attempt to transfer a file with an LCOM or DFASL extension using TCP the system will assume the file is the type identified on TCP.DEFAULTFILETYPE. If this is set to the value TEXT then the files will be transferred in the wrong mode. This is because the extension LCOM and DFASL are not found on the variable TCPFTP.DEFAULT.FILETYPES.

Symptom Files with LCOM and DFASL extensions when transferred could have a file type of TEXT instead of BINARY.

Workaround

```
(PUSH TCPFTP.DEFAULT.FILETYPES '(LCOM . BINARY))
(PUSH TCPFTP.DEFAULT.FILETYPES '(lcom . BINARY))
(PUSH TCPFTP.DEFAULT.FILETYPES '(DFASL . BINARY))
(PUSH TCPFTP.DEFAULT.FILETYPES '(dfasl . BINARY))
```

Reference AR 9864

Unbound atom problem in TCP

Release Lyric

Keywords TCP

Problem The variables \ICMP.TRANSIT.TIME.EXCEEDED and \ICMP.FRAGMENT.TIME.EXCEEDED are unbound in TCPLIP's \HANDLE.RAW.IP.

Symptom Occasional break in \HANDLE.RAW.IP when TCP is running in the background.

Workaround (SETQ \ICMP.TRANSIT.TIME.EXCEEDED 0)
(SETQ \ICMP.FRAGMENT.TIME.EXCEEDED 1)

Reference AR 8897

TCP Chat problem to Unix 4.3 Hosts

Release Koto

Keywords TCP CHAT LOGIN

Problem TCP Telnet to Unix 4.3 does not respond to "Will/Wont terminal type."

Symptom TCP Telnet (Chat) hangs in login sequence

Workaround Change the last entry on the list TELNET.OPTIONS to:

(24 WONT NIL DONT NIL TCPCHAT.TERMINAL.TYPE)

This disables the terminal sub-negotiation entirely. You will have to inform Unix of the terminal type "by hand" after logging in (e.g. by issuing the Unix command "setenv TERM dm2500" or "ts dm2500").

Note: This has been fixed in Lyric.

Reference AR 8507

TCP Trivial File Transfer problem

Release Koto

Keywords TCP, TFTP, Trivial File Transfer Protocol

Problem TFTP.SERVER fails to send files with length a multiple of 512 bytes.

Example If you are running the Trivial File Transfer Protocol server TFTP.SERVER on the Xerox side and attempt to remotely retrieve a file from or send a file to the 11XX with a length that is a multiple of 512 bytes, the remote host will hang waiting for the final data block.

Symptom Client times out waiting for final data block.

Workaround (ADVISE '(\TFTP.GETNEXTBUFFER IN \TFTP.SEND.FILE) 'AFTER NIL
'(\TFTP.CLOSEFILE STREAM))

Note: This is fixed in Lyric.

Reference AR 8882