XEROX

HOTLINE!

HOTLINE! is published periodically by the Customer Support group of Xerox Artificial Intelligence Systems to assist its customers in using the Lyric Release of Xerox Lisp. We will be covering a variety of topics and answering questions that are most frequently asked of Customer Support. We'll also include suggestions to help you get started in Lyric as well as announcements of known problems that you may encounter.

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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Welcome to the inaugural issue of *HOTLINE!* This issue covers the following topics:

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Terminology used in the *HOTLINE!* bulletin:

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

IRM   –   Interlisp Reference Manual

UG   –   User's Guide

RS232 Chat

Topic	RS232 Chat, an introduction
Keywords	RS232, Chat, terminal, communications
Discussion	Users find that RS232 Chat can be confusing as the documentation is scattered in various places. Chat is a remote terminal facility that allows users to communicate with other machines while inside Lisp. Upon selecting Chat, users are prompted for a host to Chat to. In the case of utilizing the RS232 port of the machine to send data through, one would specify RS232 as the "host" one wishes to chat through. Note that this is independent of the device one ultimately will actually chat to. By specifying RS232 as the Chat host, the user is letting Chat know which port to use: the RS232 port rather than the Ethernet. This also works with TTY as the host.
Example	1. This will load the network protocol for Chat so that one can Chat via the RS232 port. Note that this will load CHAT and DLRS232C for you if they are not already loaded. (LOAD 'RS232CHAT.LCOM) 2. Load a terminal emulator. (LOAD 'DMCHAT.LCOM) 3. This will allow you to use a Freemenu to select baud rate and modify various other parameters on the RS232 port. (LOAD 'RS232CMENU.LCOM) 4. This will allow you to initialize the RS232 port for 1200 baud, 8 Bits per serial character. (RS232C.INIT 1200 8 'NONE 1 'XOnXOff) 5. Calling Chat with RS232 as the host name will open a Chat window connected to the RS232 port. After initializing the port, you can begin entering text (or shift-selecting) and the characters will be sent to the device which is connected to the RS232 port. (CHAT 'RS232) or select CHAT from the background menu and for host type in RS232. 6. This will allow you to initialize the RS232 port via the use of the RS232Menu package you've loaded. Once you've selected the parameters, then select APPLY! to apply the select settings to the RS232 port. Middle button on Chat Window Titlebar and select "SET LINE PARAMETERS"
Reference	Lyric Lisp Library Manual, pp viii, pp 23, pp 205

SETQ and the File Manager

Topic   SETQ does not interact with the File Manager

Keywords   SETQ, Interlisp Executive, File Manager

Discussion   In the new Interlisp executive SETQ does not interact with the File Manager. This has two effects. (1) You will not be informed if a variable value is changed. (2) You will not be prompted to put variable in a file when you run (FILES?).

If you are setting a variable that you wish to save on a file, you should use the Common Lisp macro CL:DEFPARAMETER instead of SETQ. The symbol will be given a definition of type VARIABLES and noticed by the File manager.

Reference   Lyric Release Notes, Section 3, Chapter 13, Interlisp Executive.

Default MAKEFILE Environment

Topic Resetting the default MAKEFILE environment

Keywords *DEFAULT-MAKEFILE-ENVIRONMENT*, READTABLE

Discussion The default MAKEFILE environment used to write source files is initially set to:

(:READTABLE "XCL" :PACKAGE "INTERLISP" :BASE 10)

The XCL readtable is case-insensitive. Therefore, a symbol like AbCdEf will be written to the file as |AbCdEf| and \FindLastElement would appear as |\\FindLastElement|. If you are primarily writing Interlisp source files that contain mixed-case symbols or old-style Interlisp comments you should probably reset the global variable :

DEFAULT-MAKEFILE-ENVIRONMENT

to:

(:READTABLE "INTERLISP" :PACKAGE "INTERLISP" :BASE 10)

Example (|ExampleFunction|
(LAMBDA (|SomeArgumentList|)
(* \; "Edited 7-Aug-87 09:39 by drj")

    (* * |This| |is| |an| |example| |to| |illustrate| |how| |old-style| |Interlisp| |comments| |are| |printed| |to| \a |source| |file| |under| XCL READTABLE.)

(|\\DontDoAnything|)))

(AnotherExampleFunction
[LAMBDA (SomeArgumentList)
(* ; "Edited 7-Aug-87 09:39 by drj")

(* * This is an example to illustrate how old-style Interlisp comments are printed to a source file under Interlisp READTABLE.)

(\DontDoAnything])

Reference Lyric Release Notes, Section 3, Chapter 17, File Manager

Changing a saved file's Reading Environment

Topic   How do I change the reading environment of a file that has already been saved in Lyric?

Keywords   MAKEFILE, Reading Environment, File Package

Background   When you save a file by doing MAKEFILE and there is no MAKEFILE-ENVIRONMENT property for that file then the value of *DEFAULT-MAKEFILE-ENVIRONMENT* is used, initially (:READTABLE "XCL" :PACKAGE :INTERLISP" :BASE 10). If its value is not set the way that you want it set after you initially did the MAKEFILE, the only way to change the reading environment of the file is to give it a MAKEFILE-ENVIRONMENT property and to remake the file.

Answer   Assume the file FOO was saved using the default value of *DEFAULT-MAKEFILE-ENVIRONMENT* and you want to change the reading environment to use the Interlisp read table instead of XCL, functions are still to be interned in the Interlisp package and numbers are in base 10.

In the Interlisp window do:

(PUTPROP 'FOO 'MAKEFILE-ENVIRONMENT '(:READTABLE "INTERLISP" :PACKAGE "INTERLISP" :BASE 10)

Edit the file's COMS variable by calling DC FOOCOMS or (ED 'FOO '(FILES :DONTWAIT)). Insert the following command line somewhere within the first set of parenthesis of FOOCOMS:

(PROP MAKEFILE-ENVIRONMENT FOO)

For example: FOOCOMS would now look like

((PROP MAKEFILE-ENVIRONMENT FOO)
(FNS fn1 fn2 ...)
(VARS var1 var2 ...) ...)

Perform (MAKEFILE 'FOO).

The file will now use the new reading environment on loading and any future Makefiles.

Reference   Lyric Release Notes, Section 3, Chapter 17 Reader Environments and File Manager

SEdit and multiple Edit Data Fields

Problem   When using SEdit to edit code, users find that they will get multiple dates (identifying when the code was last edited) inserted into the function. Users point out that only one "last edited date" should appear.

Keywords   SEdit, Editor, Date Edited

Example   None

Symptom   Multiple Edited Date flags appear after editing a function several times.

Workaround   This is a known problem in Lyric. Until the problem is fixed, the workaround is to set the global variable INITIALS to be your name's initials. Upon doing so, subsequent calls to SEdit will only update and keep one "last edited date" in your function.

Reference   AR 8201

MP 9303 on rebooting a partition

Problem   Non-Teleraidable MP 9303 on rebooting a partition after reaching a certain virtual memory size.

Keywords   MP 9303, Floppy, Booting

Example   This usually occurs in a sysout that has an excessive number of floppy operations which can cause too many real memory pages to be locked. For instance, you initially have a vanilla Lisp sysout loaded and then do a larger number of floppy operations: Copy all fonts , library and lispusers packages from floppy to local disk and load a number of library and/or user applications from floppy. You then start using the sysout and can normally logout and reboot. However, once you reach a certain virtual memory size and logout, attempting to reboot that partition results in MP 9303.

Symptom   Previously bootable partition comes up and immediately falls into MP 9303 with grey screen.

Workaround   In a fresh lisp sysout perform the following CHANGENAME functions before doing any floppy operations. You can then build the rest of your sysout. These functions can also be added to the beginning of your sites initialization file so that they are automatically performed after a new sysout is loaded.

On 1108:

(CHANGENAME '\FLOPPY.LOCK.BUFFER '\LOCKPAGES '\TEMPLOCKPAGES)

(CHANGENAME '\FLOPPY.UNLOCK.BUFFER '\UNLOCKPAGES '\TEMPUNLOCKPAGES)

On 1186:

(CHANGENAME '\DOVEFLOPPY.INITIATE '\LOCKPAGES '\TEMPLOCKPAGES)

(CHANGENAME '\DOVEFLOPPY.INITIATE '\UNLOCKPAGES '\TEMPUNLOCKPAGES)

Reference   AR 8659, AR 8660

Break, Font not found

Problem   Encountering a problem with INTERPRESSFONTDIRECTORIES and DISPLAYFONTDIRECTORIES which are set to {NS File Server}<fontdirectory> on a Lisp workstation – NS File Server crashes and is rebooted by the System Administrator. When the user attempts to hardcopy from the Lisp workstation to an NS Printer, the error message "Break, Font not found" displays.

Keywords   Break, Font not found, Networked Workstation

Example   Select HARDCOPY from the background menu in a window, break window appears.

Symptom   Break, Font not found

Workaround   Abort (^) from break. Verify with NS.ECHOUSER that the NS File Server is responding, try (NS.ECHOUSER "Name of Server:Domain:Organization"). If Lisp returns ! + ! + ! +, you are echoing successfully. At the Interlisp Exec type (RESTART.ETHER) and then (START.CLEARINGHOUSE T). The font should now be found and the Hardcopy will work.

If these do not work, (LOGOUT) and then reboot the workstation.

Reference   Interlisp Reference Manual, Volume 3, sections 31.3.2 and 31.7

Sketch and Hardcopying data

Problem Doing a Hardcopy Display from the Sketch menu, will result in a MP 9305

Keywords Sketch, Hardcopy, MP 9305

Symptom MP 9305 (after Hardcopy Display from the Sketch menu). If users have a Sketch Text box on a Sketch window and then attempt to do the Hardcopy Display, they will get the MP 9305 error.

Workaround None

Reference AR 8841

HORRIBLEVARS

Problem In Lyric, HORRIBLEVARS does not preserve common sub-structures across several variables.

Keywords HORRIBLEVARS, File Manager

Example
```
(PROGN
  (SETQQ HV0 ((A B C) (D (E F))))
  (SETQ HV1 (CAR HV0))
  (SETQ HV2 (CADR HV0))
  (SETQQ HVTESTCOMS ((HORRIBLEVARS HV0 HV1 HV2)))
  (LOAD (MAKEFILE 'HVTEST)))
```

Symptom In Koto, the test case above with HORRIBLEVARS HV1, HV2 and HV0: (EQ HV1 (CAR HV0)) and (EQ HV2 (CADR HV0)) both evaluate to T. In Lyric, they evaluate to NIL.

Workaround None

Reference AR 8867