

## 5. LIBRARY MODULES

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This section contains release notes indicating changes that have occurred in the library modules since the Lyric release. Medley changes are indicated with revision bars in the right margin.

Refer to the *Lisp Library Modules* manual, Medley release, for complete documentation of the library modules.

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### Modules that are New, Moved, or Replaced

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#### Modules Moved from the Library to LispUsers

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Big  
BitMapFns  
BusExtender  
BusMaster  
CircPrint  
CheckSet  
CompileBang  
Color  
C150Stream  
DECL  
DInfo  
FileCache  
HelpSys  
Iris  
LambdaTran  
PCallStats  
ReadAIS

#### Modules Moved from LispUsers to the Library

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Cash-File  
Hash-File  
SysEdit  
TableBrowser

#### Modules Moved to Their Own Manuals

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TEdit  
Sketch  
CML, CMLArray, CMLArrayInspector (part of Xerox Common Lisp)

#### Modules Moved From the Sysout Into the Library

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DEdit  
Masterscope  
Match

Press

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### Modules Moved From the Library Into the Sysout

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IconW  
FreeMenu

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### Modules Replaced

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Old: FX-80stream, FastFX-80stream, FXprinter  
New: FX-80Printer

Old: WhereIs  
New: Where-Is

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### New Modules

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SysEdit  
TableBrowser  
TextModules

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## Details of Changes

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### 4045XLPStream

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Enabled its graphics capabilities; added 1108 cable/connector pin-outs.

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A new function has been added to allow owners of the international 4045 (non-USA model) to use the 4045XLPStream software.

(4045XLP.CHANGE.MODE *MODE*)

[Function]

This function changes the internal parameters of the software to allow printing on A4 paper with the international fonts. *MODE* is a string, either "USA" or "INTERNATIONAL", with the default being "USA". Do not use this function unless you have the international font set and A4 paper tray on a non-USA 4045. A4 page size is 2475 pixels wide by 3525 pixels high in portrait, and 3525 x 2475 in landscape mode.

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### Cash-File

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The new library module Cash-File was formerly in LispUsers. Cash-File is a front end to Hash-File which uses a hash table to cache accesses to hash files. This can provide a significant performance improvement in applications which access a small number of keys repeatedly. For example, the Where-Is library

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module uses this module to achieve acceptable interactive performance.

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## Centronics

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Added cable/connector pin-out.

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## Chat

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Added information about EMACS.

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## CopyFiles

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When told to copy to a non-existent NS subdirectory, it now asks if it should create it.

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## DataBaseFns

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Clarifications in the documentation of LOADDBFLG and SAVEDBFLG are included in Medley.

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## EditBitMap

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Added a description of its user interface.

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## FileBrowser

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Added enhanced features to Load, Compile, Edit; it now preserves path name of source files when copying to another machine or user; sorts files by attributes; and prints hard copies of directory listings.

The FB command now ignores the package of the attributes you optionally specify, so you can easily use it from a non-Interlisp exec.

The enclosing \*'s are now included with the names of the variables \*EDITMODE\* and \*DEFAULT-CLEANUP-COMPILER\* .

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In addition to having outstanding problems fixed, FileBrowser has several new features and NS enhancements.

New features:

- There is an Abort button available during any operation of indefinite duration.
- You can scroll or reshape a FileBrowser that is "busy", e.g, while doing a Recompute.
- The browser title includes a timestamp of when the browser contents were last Recomputed.
- There is a new subcommand of See, "FileBrowse", which opens a FileBrowser on the selected subdirectory. This replaces the odd functionality of the old See/Edit commands that assumed

that any file with null name and extension must be a directory; those commands now always treat the selection as a file. FileBrowse is mainly useful in the following situations:

- When browsing NS directories with depth set finite, or when browsing the top level of a server, which is automatically depth 1.
- When browsing on Unix, a device that gives Lisp no indication of whether a filename is a directory or not.
- There is a subcommand of Recompute, "Set Depth" that can be used to set the enumeration depth for future recomputes and recursive FileBrowses. You can also set the depth in an FB command by appending :DEPTH n to the command line, e.g., FB "{Pogo:}<Carstairs>" :DEPTH 1.

The depth counts levels of directories below the last directory in the pattern not containing a wildcard; depth 1 means just the immediate descendants of that directory. Depth is ignored for nontrivial patterns, i.e., anything but "\*.\*".

- Another new subcommand of Recompute, "Shape to Fit", widens or narrows the browser so that all fields, and no more, are visible but not wider than the screen.
- Directory items are now displayed like files, e.g., you'll see a single line

Lisp>

rather than the double line

<Carstairs>Lisp>

NIL

In addition, the "page" count for a directory item is now the total page size of the directory subtree rooted there.

- FileBrowser consumes somewhat less storage now, and there have been some performance improvements, especially for very large browsers.

## FTPServer

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FTPServer now supports DELFILE.

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The Medley release fixes several bugs in Lisp's handling of PUP FTP connections relating to password handling and filename recognition.

## FX-80Driver

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New software, new text, and 1108/1186 cable/connector pin-outs have been added.

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Comments are now printed in a compressed font .

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**GCHax**

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Documentation contains a new description of the STORAGE function.

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**Grapher**

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Grapher can now print graphs larger than one page. The variable GRAPH/HARDCOPY/FORMAT is used to control the format of the graph when printing to paper. See the function HARDCOPYGRAPH and the variable GRAPH/HARDCOPY/FORMAT in the documentation for Grapher for more information.

A new GRAPH.PROPS field has been added to Graph record, which produces a list in property-list format, and is accessed by the function GRAPHERPROP.

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**Hash**

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Hash is provided for backwards compatibility. New applications should use the Medley library module Hash-File instead of this module.

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**Hash-File**

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Hash-File is a new library module, upgraded from LispUsers. Hash-File is similar to but not compatible with the Lyric library module, Hash. Hash-File is modeled after the Common Lisp hash table facility, and Hash was modeled after the Interlisp hash array facility.

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**Kermit**

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Reference to an excellent text/reference book has been added.

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**MasterScope**

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Break when graying a browser has been fixed.

In Medley, MasterScope .LCOM files have been changed to .dfasl file extensions. MasterScope now recognizes Common Lisp structures.

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**NSMaintain**

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The module NSMaintain has been completely revised and has all new documentation. Most commands auto-complete on one or two keystrokes. The Change Password command works again, and there are several new commands for listing objects in the Clearinghouse data base and for manipulating the access lists of groups. There is a more rational set of default inputs offered for most commands, and better feedback is given as to whether a command succeeded or failed.

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**RS232**

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The RS232.TRACE function is now documented in the Medley release.

## Spy

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This version of SPY library module works better with Common Lisp and incorporates several new features:

- Enters the pending mode when you bring up the SPY menu by pressing the left or middle button while the control key is down. Any action invoked from the menu is deferred until you next press the left or middle mouse button. For example, you can delete several nodes and then do one update.
- Keeps track of non-symbol frame names.
- Shows the package prefix of symbols in the display.
- Invokes "Merge" menu item from a node menu allowing for a node to merge with its caller.
- Updates SPY.NOMERGEFNS to correspond more closely to "system" functions in Medley.
- Knows about the Medley interpreter.

## TableBrowser

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- New functions TB.UNSELECT.ITEM and TB.UNSELECT.ALL.ITEMS fill an inadvertant void in the Lyric version.
- Several off-by-ones in the display algorithms have been fixed.
- Performance on large browsers is improved.
- Clarification of TBAFTERCLOSEFN documentation is included in the Medley release.
- New options to TB.MAKE.BROWSER:
  - The option LINESPERITEM, previously documented but not implemented, is now supported. Alternatively, you can specify explicitly the height of items by giving the options ITEMHEIGHT (total height of each item) and/or BASELINE (the height of the "baseline" relative to the bottom of the item; zero if you don't set it). The BASELINE is used for two things: (1) the ypos of the window is set there when the browser's print function is called, and (2) selection and deletion marks are centered between the baseline and the top of the item. Specifying LINESPERITEM is a shorthand method for setting ITEMHEIGHT to fontheight\*#lines and BASELINE to fontheight\*(#lines-1)+fontdescent (i.e., font's baseline for the first line of the item), so that the selection marker, deletion lines, and positioning for printing all point at the first line of a multi-line item. One further difference: if you change the font of the browser, TableBrowser will recompute the height and baseline parameters if you specified LINESPERITEM, but not if you specified ITEMHEIGHT.

- You can specify an auxiliary window that is to be horizontally scrolled in parallel with the main window by giving the window as the HEADINGWINDOW option. The WIDTH of the window's EXTENT property is maintained in synch with main window. You still need to create the auxiliary window, attach it where you want it and supply it with a REPAINTFN. This is how FileBrowser implements its header line consisting of "Name" and the attribute names.
- The option LINETHICKNESS specifies how thick to draw deletion lines. It defaults to TB.DELETEDLINEHEIGHT, initially 1. Making it the height of an item gives an alternative "total blackout" method of deletion.

## TCP-IP

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Added revised/expanded installation procedure.

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DIR to VMS via TCP now works.

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TCP Chat hosts can now be lowercase.

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(TCPFTP.SERVER) now spawns process and runs in it .

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TCP-IP to a Sun returns the top-level directory.

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TCPFTP.DEFAULT.FILETYPES now contains correct entries for LCOM, lcom, DFASL, and dfasl.

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Files loaded by the high-level modules TCPFTP, TCPFTPSRV, TCPCHAT, and TCPTFTP automatically load their dependencies. If you load files by hand, you must also load their dependencies first. See the section "File Dependencies," or the TCP-IP documentation for more information.

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There is a new flag:

TCP.ALWAYS.READ.HOSTS.FILE [Variable]

This flag is initially T. Setting it to NIL will cause the system to parse the hosts.txt file only when the filename (stored in the configuration file) is different from the previously read filename, or the write date of the file has changed. The hosts.txt file will always be read at least once when loading the software into a clean sysout.

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If you change your IP.INIT file while TCP-IP is running, you will be prompted to confirm **Restarting TCP**. In most cases, you should confirm the restart.

## **TExec**

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A TEXEC executive window no longer has GET in the menu of possible actions, since GETting text into an executive window makes no sense.

## **TextModules**

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TextModules is a new library module with the Medley release. It can be used to import and export textfiles and File Manager files. It can bring portable Common Lisp sources into the File Manager without losing any of their contents, and create new textfiles based on the File Manager's description of the textfile contents.

## **Virtual Keyboards**

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The Standard-Russian virtual keyboard now has uppercase Be ( . . . ) and Ve ( . . . ) in the right places.

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Loading VirtualKeyboards now adds the item KEYBOARD to the default window menu as well as the background menu. Selecting this item from the default window menu allows you to specify a keyboard for an individual window.

## **Where-Is**

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Where-Is is a new library module, upgraded from LispUsers. This module replaces the Lyric library module WhereIs. This is a new implementation of a facility similar to but not compatible with the Lyric library module WhereIs. Where-Is indexes all definers, but WhereIs only indexed Interlisp FNS definitions.

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## **Additional Notes**

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DEdit is not error-protected. Doing a ^in a DEdit break window closes the DEdit window, too.

In addition, the modules work under all Lisp environments (Interlisp-D, Xerox Common Lisp, Common Lisp). However, many of the functions and variables used within the modules are those of Interlisp-D, and therefore you'll have to make sure that, when you are not in Interlisp, you use the IL: prefix.

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## **Koto CML Library Module**

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If you have files that used the Koto CML library module, with its package-style symbol naming conventions, you will need to convert them to use the correct symbols in Lyric /Medley. The procedure is



briefly as follows: see the *Common Lisp Implementation Notes*, chapter 11, "Reader compatibility feature" for complete details on this mechanism:

First, set the global variable LITATOM-PACKAGE-CONVERSION-ENABLED to T. Then for each of your files, do

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(LOAD file 'PROP)
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(MAKEFILE file 'NEW)
```

Afterwards be sure to set the global variable LITATOM-PACKAGE-CONVERSION-ENABLED back to NIL.

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