LI
File Viewer for Windows
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General Description of LI

LI is a file viewer for Windows 3.0. Files may be viewed as text or hexidecimal. Multiple file windows may be open at once. The file or a portion thereof may be printed with customized header and footer options. Copying to the Clipboard is supported. The display may be customized by changing the colors, font and tab stop. LI will search for files (across multiple disk drives) that match a file specification and optionally contain specified text, including AND, OR, NOT functions on the find strings. LI can delete files and directories (including their contents), useful when cleaning old files off of the system. Multiple directory tree windows may be created for quick disk navigation using the mouse. LI can launch programs and files (through File Manager Associations).

Definitions
Logged Disk/Directory
The directory set by the most recent occurrence of one of the following:

1. The program startup directory
2. The last directory selected from the File Open/Dir dialog box

The logged directory is not changed by a file search, even if a matching file is found in a directory other than the starting directory.

Select
A selection is made by either:

1. double clicking the desired item in the list
2. highlighting the item in the list (using <Tab> and <arrow> keys) and pressing <Enter>
3. (if available) typing the desired information into the edit box and pressing <Enter>

Dialog Item Highlight
An item in a dialog list box may be highlighted by clicking or using the <Tab> and <arrow> keys.

List of Disks to Search
The itemized list of which disk drives to search when search options are exercised. The list is edited through the Options File Search command.

Active Window
The file window with the focus, i.e. the file window that has the maximize and minimize buttons on its title bar.

Selected Text
The text in a file window that has been highlighted by dragging the mouse.

OEM Character Set
The computer-specific character set. On the IBM PC, this is the extended ASCII character set that includes the line drawing characters (in the IBM

character set, the codes 00, 20, and FF hex all display as a blank).

Ordinary Text File
A file created by an editor (as opposed to a word processor file or an executable file). Typified by lines of less than 255 readable characters terminated with a Line-Feed character.

Command Line

Command line processing is supported in the following manner:

1) If a file type is associated with LI in the WIN.INI file, double clicking the appropriate file type from the File Manger will activate LI and open the file.

2) If a file name is specified after the LI.EXE filename on the Command Line of the Program Manager New Program box, that file will be opened every time LI is run.

3) If a directory name and/or wildcard file specification is entered after the LI.EXE filename on the Command Line of the Program Manager New Program box, that directory will be displayed in LI's initial File Open dialog box.

Screen Layout

The screen consists of a menu line and the file window area. Menu commands operate on the active window.

Each file window contains associated scroll bars, a status line, and file data. Movement through the file is accomplished using the arrow, page up/down, home and end keys or the scroll bars.

Clicking the appropriate arrow on a scroll bar moves the display in the corresponding direction in the file. Dragging the "thumb" on the vertical scroll bar moves the display in the appropriate direction. Clicking on the vertical scroll bar anywhere else causes a page up or page down, depending upon the relative position of the thumb.

Dragging the thumb on the horizontal scroll bar scrolls the display horizontally. Clicking anywhere else on the horizontal scroll bar moves the display by one tab stop in the appropriate direction, depending on the relative position of the thumb.

Status Line

The status line displays the status of each file window. The information is presented from left to right as follows:

shows approximately what portion of the file is on the display. In this example, the top 25% of the file is on the screen.

The line number of the top line of the display is shown. For example "Line:

100"

are present when line 1 is displayed, the last line of the file is displayed, or both line 1 and the last line are displayed, respectively.

is displayed if bit 7 stripping is turned off.

is displayed if bit 7 stripping is turned on.

The size of the file, in bytes.

The date and time the file was last modified.

The attributes of the file.
R = read only
A = archive bit set
S = system file
H = hidden file

Should the window not be wide enough to display all of this information, it is truncated from right to left. That is, the first data item to be lost is the file attributes, followed by the time stamp, etc.

The status line may be temporarily replaced by information about a particular character in the file by pressing the right mouse button.

Cursors

LI defines some of its own cursors.

is displayed when LI is searching through a file as a result of a Go Find , Go Find Next or a file search with text find.

is displayed when LI is accessing a hard disk or network drive.

is displayed when LI is accessing a floppy disk drive.

File Menu
File Open

This command opens a dialog box which shows a file listing of the logged directory.

General Information

The dialog box contains a list of the available directories, a list of disks,a list of files in the logged directory, the amount of free space on the current disk, a count of the files in the file list, the sum of the sizes of the files in the file list, an edit box to enter a file name, a statistics line for the highlighted item and the command buttons.

The list of directories and the list of files may include or exclude hidden and system files, depending upon the 'Hidden' and 'System' file options. Hidden files and directories are capitalized in the list, if displayed.

Changing Directories

The logged directory may be changed by selecting a disk or directory. A count of the files in a directory and the sum of their sizes is shown on the "Stats:" line if a drive or directory is highlighted. Selecting the "[..]" entry in the directory list (when present) will move to the parent directory. Selecting the "[\]" entry in the directory list (when present) will move to the root directory of the current drive.

Opening a File

A file may be opened by selecting a file name from the file list box. The modification date, size, and attributes of a file are shown on the "Stats:" line when a file is highlighted.

A newly opened file inherits the colors, font, and tab stop from the active window.

Multiple File Selection

Multiple files may be highlighted in the file list using the standard keys/mouse actions. When multiple files are selected, the "Stats:" line displays the sum of the sizes of the selected files. The selected files may be processed by the "Open" and "Erase" command buttons.

Command Buttons

Open   Opens the file or changes to the directory indicated in the "Open File:" box. If multiple files are highlighted, the first highlighted file is opened and the File Next menu choice is enabled. A simple file search (that finds the first matching file name and does not open the search dialog or enable the File Next command) may also be initiated if the name in the "File Open:" box is not in the file list (i.e. it was entered by hand) and this button is pressed.

Cancel   Closes the dialog box. Does not open any files.

Tree   Opens a directory tree window.

Search   Opens a dialog box to begin a search for files that match the
            specification in the "Open File:" box. The search dialog box
            allows the activation of the Go Find dialog box for entry of
            character string(s) such that the search will report a matching
            file only when the file name specification matches and the file
            contains the specified string(s) including any

boolean find string options. The Options File Search dialog box may also be activated to select the disk drives to be searched.

Erase   The highlighted directory or file(s) is(are) deleted. The user will be prompted for confirmation before the delete takes place if the 'Confirm Delete' option is enabled. If a directory that is not empty is being deleted, the user is prompted regardless of the 'Confirm Delete' option and a directory tree window is created to show what is being deleted. (If the 'Confirm Delete' option is enabled, the 'Erase' button will have an ellipses, i.e. "Erase...".)

Launch   The highlighted file is run. If the file is executable (i.e. it's an .EXE, .BAT, .COM, or .PIF), the program itself is run. If the file is associated to an executable in the WIN.INI file (e.g. .DOC files associate to Word for Windows), the associated executable is run with the highlighted file as the run string parameter. Otherwise, the 'Default Editor' as set in Options Options is run with the highlighted file as the run string parameter. If the 'Confirm Launch' option is enabled, the button will have an ellipses, (i.e. "Launch...") and a dialog box will open to allow changing the executable program and the run string.

File Close

Closes the active window and its associated file.

If the 'Auto Open' option is enabled and this command closes the last open file, a File Open dialog box is automatically created or a File Next command is automatically executed if the "File Next" menu command is enabled.

File Close All

Closes all file windows and associated files.

If the 'Auto Open' option is enabled, a File Open dialog box is automatically created or a File Next command is automatically executed if the "File Next" menu command is enabled.

File Next

This command is enabled when it is possible to open another file without going through the File Open dialog box. The command is enabled under the following conditions:

Multiple Highlighting
If several file names were highlighted in the File Open dialog box, the next file of the selection is opened.

Search In Progress
If the Search button was selected in the File Open dialog box, and the search is not complete (i.e. all directories of all search disks have not been

searched), the search is continued.

File Delete

Deletes the file in the active window and closes the window. Opens a dialog box for confirmation if the 'Confirm Delete' option is enabled. (If the 'Confirm Delete' option is enabled, the menu command is followed by an ellipses, i.e. the menu will be 'Delete...'.)

File Page Setup

Allows specification of the top, bottom and left margins on a printout. Margins are specified in inches.

Allows specification of a header and/or a footer on a printout. The header is always placed on the top line of the page, regardless of the top margin. The footer is always placed on the bottom line of the page, regardless of the bottom margin.

Arbitrary text may be placed in the header/footer by simply typing it into the appropriate box. Codes are available to specify the file statistics and position the data as follows:

Code   Interpretation
&c   Center the following text
&d   Replaced with the date stamp on the file
&f   Replaced with the file's name
&l   Left justify the following text
&p   Replaced with the page number
&r   Right justify the following text
&t   Replaced with the time stamp on the file

Justification codes must occur in left to right order, i.e. if &l is used, it must be the first code on the line, if &c is used it must come after any &l and before any &r, and if &r is used, it must follow any &l and &c. If no justification code is given, the text will be centered.

Check boxes are available to enter/remove the codes into/from the header/footer string. When a check box is used to enter a code, the code is appended to the end of any existing specification.

An example string that puts the file date on the left margin, centers the file name and author, and puts the page number on the right margin would be:

&l&d&c&f by J J Lundblad&r&p

File Print

Opens a dialog box that begins the process of printing the active window. The destination printer is displayed in the dialog box.

The dialog box allows selection of the portion of the file to print, either the entire file, the current screen, or the selected lines.

The font used for the printout may be either the default font for the printer or the program will attempt to match the screen font with a printer font. The results of this matching process is highly variable, depending upon the capabilities of the destination printer.

The dialog box provides access to the other printer setup dialogs through the 'Setup' button. This button opens the File Printer Setup dialog to allow changing printers or driver parameters. From there, the File Page Setup dialog box is also available.

The data sent to the printer is what is displayed on the screen. If hex mode is enabled, the printout will be the hex dump. If the file is not an ordinary text file and is not displayed in hex, the results are unpredictable since the printer may try to interpret some of the data as printer commands.

File Printer Setup

Activates the dialog box that allows selection of a printer and configuration of the printer.

When LI is first run, the selected printer is the default printer as defined in the WIN.INI file. Selecting a different printer from LI's dialog box does not change the default printer in the WIN.INI file.

The Setup button allows setting the printer font, landscape/portrait mode, and/or whatever parameters the printer driver supports.

The Ctrl Pnl button will run the Control Panel to allow re-configuration of the printer environment.

File Exit

Closes all files and windows and exits LI.

Edit Menu
Edit Copy

Copies the selected text to the Clipboard. The copied text may then be processed by Clipboard in any desired manner (e.g. pasted into another program). The selected text is automatically de-selected after the copy.

Edit Deselect

Selected text is de-selected. The Edit Copy and Edit Deselect menu items are disabled. Text highlights are removed.

Edit Launch

The file in the active window is run. If the file is executable (i.e. it's an .EXE, .BAT, .COM, or .PIF), the file itself is run. If the file is associated to an executable in the WIN.INI file (e.g. .DOC files associate to Word for Windows), the associated executable is run with the file as the run string

parameter. Otherwise, the 'Default Editor' as set in Options Options is run with the file as the run string parameter. If the 'Confirm Launch' option is enabled, the menu item will have an ellipses, (i.e. "Launch...") and a dialog box will open to allow changing the executable program and the run string. LI can be set to minimize itself either through the launch dialog box or through the Options Options menu command.

View Menu

View Hex

Displays the file as a hexidecimal dump. Each display line consists of **1**) the byte offset (or file address) of the first byte of the line, in hex **2**) 16 bytes of file data, in hex, and **3**) the interpreted characters represented by the data.

The character interpretation depends upon the selected font and whether all 256 codes are being interpreted. The interpretation of the codes is changed in the Special character dialog boxH.

View Text

Displays the file in ANSI or OEM characters depending upon the selected font.

If the file is not an ordinary text file the program will ask whether the file should be displayed in hex. In this case, if the hex display is refused, the extended character display option of the Spcl character dialog box is automatically enabled.

View Spcl chars

Opens a dialog box containing three options.

CR = new line
With this option enabled, a Carriage Return (CR) in the file will start a new line on the display. This often enhances the readability of word processor files. This option has no effect on ordinary text files.

Dump Raw Characters
In text mode, this option is mandatory if the file is not an ordinary text file. For ordinary text files, enabling this option will display the normally hidden tab characters (the tab will be displayed, not expanded) and also the carriage return/line feed characters, depending upon the next option setting.

In hex mode, with this option disabled, the character interpretation on the right of the display only interprets the alpha-numeric characters, all other characters are shown as "." (periods). With this option enabled, all 256 character codes are interpreted according to the current font.

Display CR/LF
If the 'Dump Raw Characters' option is enabled, selecting this option will show the carriage return and line feed characters on the screen in the current font. (In an ANSI font, this will be two boxes. In the 'Terminal' font, this will be the IBM characters for CR and LF.)

View Strip

Toggles the clearing of the top bit (bit 7) of each character code. Clearing

this bit can improve the readability of some word processor files. The current state is displayed at the bottom of the file window on the status line.

means that the character is being displayed as it exists in the file, the top bit is left alone.

means that the top bit of each character is being set to 0.

View Tabs

Opens a dialog box that allows the entry of the tab stop spacing. Tabs are only processed if the 'Dump Raw Characters' option in the Spcl chars dialog box is not enabled.

View Colors

Opens a dialog box that allows setting the colors for the text foreground and background in the file window. The number of available colors depends upon the hardware configuration. The colors are changed with the dialog box scroll bars, varying the amount of red, green and blue in the color.

View Font

Opens a dialog box that allows selecting the font for the file window. A short sample of the font's appearance is shown in the dialog box. The sample includes some capital letters, some letters with decenders, some numbers, some special characters, and some extended characters (beyond the ASCII range).

In hex mode, the best results are obtained by using a fixed font of OEM characters, found under the face name "Terminal". A fixed spacing OEM font is the default when LI is started.

Go Menu
Go Find

Opens a dialog box that accepts a character string to be located in the active window.

The search begins from **1)** the top of the file if the Top-Of-File check box is checked, **2)** the top of the current display if a find string is not currently highlighted, or **3)** the end of the current find string if it is highlighted.

An option allows selection of a case sensitive or insensitive search .

A option allows specifying the search string in hexidecimal. For example, to search for line feed characters, enable this option and enter "0a" as the search string.

The display will be re-positioned to display the found string. The string will be highlighted.

Boolean finds may be enabled by entering the appropriate data and checking the Enable Boolean check box.

Go Find Next

Finds the next occurrence of the Find string. The search begins from the top of the current display or the previous find string, if it is still highlighted.

Go to Line

Opens a dialog box for the entry of a line number. The display will be positioned so that the entered line number is the first line on the display.

Go Home

The display is positioned such that line 1 is at the top of the display. The status line always indicates when line 1 is being displayed, as follows:

is displayed when line 1 is being displayed and the last line of the file is not being displayed.

is displayed when both line 1 and the last line of the file are being displayed.

Go End

Positions the file such that the last line of the file is displayed. The status line always indicates when the last line is being displayed, as follows:

is displayed when the last line is being displayed and line1 of the file is not being displayed.

is displayed when both line 1 and the last line of the file are being displayed.

<u>Window Menu</u>
Window Tile

Arranges all open file windows in a side by side fashion. If only one file window is open, it will occupy the entire LI window but keep its title bar.

Window Cascade

Arranges all open file windows in a cascade or waterfall fashion. Mimimized windows are easiest to see in this mode.

Window Arrange Icons

Arranges minimized file icons.

Boolean Finds

The boolean find dialog box is activated from the Go Find dialog box or through the ALT+F3 key sequence.

This dialog allows specification of 2 find strings that are related through AND, OR, NOT functions.

The boolean find will search for the specified strings to occur either **1)** on the same line in a text file or **2)** within 256 bytes of each other in a non-text file.

If either string is specified in hex, both strings must be specified in hex.

File Search

A search for a specified file may be initiated from the File Open/Dir dialog by entering a file specification in the edit box and clicking the Search button. This will open another dialog box that shows the search specification and allows the file to be further specified by entering a string of characters that a matching file must contain.

Once the search has begun, the directories being searched are displayed in a dialog box. When a file that matches the specification is found, the program prompts the user as to whether to open the file, skip the file and continue the search, erase the file, launch the file, or cancel the search. If a matching file is opened, the File Next menu choice may be used to continue searching for more files that match the specification. (The File Next command is disabled every time the File Open/Dir command is executed.) When no (more) matching files can be found, the user is informed and the File Next command is disabled.

The search will be performed on all disks in the search disk list.

An active search may be stopped by clicking CANCEL in the dialog box, or by pressing a key.

Directory Tree Window

Creation
A directory tree window is created in response to the 'Tree' button in the File Open dialog box. The top of the tree will be either the logged directory or the root directory of the current disk, depending upon the 'Tree begins at root' option.

A directory tree is automatically created if the 'Erase' command is issued against a directory that is not empty. This tree always begins with the logged directory (as shown on the 'Files In:' line in the File Open dialog box).

Lifespan

A 'Tree' command directory tree is a child of the LI main program window, and, as such, will survive as long as the LI program does unless it is specifically destroyed by the user (through its system menu).

A directory-not-empty-erase directory tree is automatically destroyed at the completion of the erase command.

Display Format

The tree window may be moved and sized as desired, including minimization to an icon.

The title of the window consists of the drive letter and the last directory name in the path to the directory, possibly including an ellipses as a placeholder for intermediate directories. As examples, if the tree begins at "C:\", the window title is also "C:\". If the tree begins at "C:\SUBDIR1\ SUBDIR2", the window title is "C:\...\SUBDIR2". The titles are kept short so as to be readable when the window is an icon.

The first line of the window is the full path name of the top of the tree. Subdirectories are indented below their parents and connected by lines to their parents, siblings and children. Subdirectories are shown as only the last directory name in the path to the directory.

To the left of each directory name is a graphic that indicates whether the directory has any contents (files or subdirectories), as follows:

indicates that the directory contains files and/or subdirectories (i.e. a DOS 'rmdir' command would fail because the directory is not empty)

indicates that the directory is empty

indicates that the directory is not accessable

Selecting Directories

When a directory name is double clicked, the File Open dialog is updated to the clicked directory. If a File Open dialog is not present, one is created.

Data Validity

The tree windows are not updated after creation. Thus, if directories or files are removed from the system, the tree windows will still show that those directories/files exist (file existence is indicated only through the graphics described above). Double clicking a non-existent directory will result in and error message and the graphic next to the directory name will change to the "inaccessable" figure shown above.

Window Management

Directory tree windows stay "on top of" file windows. Thus, a tree window will obscure a part of any file window that occupies the same area on the screen. This holds true even when the tree window is minimized to an icon. However, when the LI program window is maximized to full screen through the maximize arrows, all currently minimized tree windows are hidden in order to allow the use of the full screen by the program window.

When the LI program window is minimized, all tree windows are hidden. Thus, only the LI icon is displayed. The tree windows are restored when

the LI program window is restored.

Tree windows are automatically minimized when a file is opened through the File Open dialog box.

Right Mouse Button

Holding down the right mouse button generates a status of the mouse pointer position. The normal status line is replaced by data about the character pointed to by the mouse. The data provided is: **1)** the line number in the file (begins with line 1), **2)** the character number on the line (begins with 1), and **3)** the byte offset in the file, in hex (begins with 0).

Technical Information

Open Files
LI needs two file handles, regardless of how many file windows are open. The file in the active window is left open . The other handle is used when switching & updating multiple windows.

All files not in the active window are closed. This means that another program might modify those files. If LI finds that a file has changed between when it was closed by LI and when it is re-opened, LI will re-position itself to the top of the file. If the file disappears (or otherwise can't be re-opened by LI) , the window that the file was in is closed.

Closed files will be re-opened and re-positioned every time the associated window is updated, for example, when the windows are rearranged. With large files positioned deep into the file, or files on floppy disk, the re-positioning can take awhile.

When launching a file that LI has in the active window (from the Edit Launch menu command), if the file is not executable and associates to another program, and SHARE.EXE is loaded, upon returning to LI, the file may not be accessible and LI will close the window. This occurs with the Windows Write program, for example, when launching a .WRI file (apparently because Write closes its screen window before closing the file it is editing, so LI is re-activated and tries to re-open the file while Write still has it open).

File Format
LI determines the format of a file by searching for Line-Feeds (LF's). If an LF is not found within 256 characters, LI suggests switching to hex mode. If hex mode is refused, lines are processed as follows: **1**) an LF terminates a line or **2**) a binary 0 terminates a line or **3**) lines are arbitrarily set to 77 characters long, or **4**) optionally, a carriage return (CR) terminates a line (see View Spcl chars).

The search for LF's is continuous, that is, the switch to hex mode might be suggested in the middle of a file if the file begins with LF terminated lines and then contains non-LF terminated data. (This usually only happens on corrupted files.)

Fonts
The best fonts for viewing in hex mode are the fixed fonts.

When shifting the display horizontally, the text is always shifted by characters, regardless of how wide the character is. That is, a display shifted by one click will show all lines starting with the 2nd character of the line on the left margin.

When the 'match screen font' option is selected on a printout, the program attempts to match a printer font to the screen font. This can sometimes be spectacularly unsuccessful.

Memory Usage
Each new file window must be tracked by Windows, which uses approximately 1% of the System Resources as reported by Program Manager. In most cases, this will be the limiting factor as to how may files may (or should) be opened at one time.

LI.INI file

The default parameters are saved in the LI.INI file in the Windows system directory (normally \Windows) in response to the Options Save Settings command. The meaning of the lines in the LI.INI file is as follows:

Parameter	CommentPossible Value
Tabs=	*tab stop ,e.g.* **8**
PreviousFile=	*prev file action:* **NoChg; Close; Min**
NextFile=	*new file action:* **Max; Tile; Cascade**
SearchDisks=	*drive list ,e.g.* **cde**
TextColor=	*RGB ,e.g.* **0 0 0** *for black*
BackgndColor=	*RGB, e.g.* **255 255 255** *for white*
Header=	*coded header string ,e.g.* **&c&f**
Footer=	*coded footer string, e.g.* **&r&p**
LeftMargin=	*print margin in inches, e.g.* **0**
TopMargin=	*print margin in inches, e.g.* **0**
BottomMargin=	*print margin in inches, e.g.* **0**
ProcessFF=	**1** *to process file form feeds,* **0** *to ignore*
Window=	*window top,left,bottom,right, e.g.* **2 1 413 640**
Font=	*facename,index#, e.g.* **Terminal,0**
HiddenFiles=	**1** *to list,* **0** *to ignore*
SystemFiles=	**1** *to list,* **0** *to ignore*
ConfirmDelete=	**1** *to confirm,* **0** *to proceed without confirmation*
AutoOpen=	**1** *to enable,* **0** *to disable*
RootTree=	**1** *to enable,* **0** *to disable*
Editor=	*default launch program, e.g.* **Notepad.exe**
MinOnLaunch=	**1** *to enable,* **0** *to disable*
ConfirmLaunch=	**1** *to confirm,* **0** *to proceed without confirmation*

Registration

This program is distributed under the Shareware concept. This allows you to try the program before paying for it. If you find the program useful, please support the shareware system by registering your copy 30 days after obtaining it. Registration is accomplished by sending $20 and the registration form to the address below:

Jeff Lundblad
P.O. Box 852382
Mesquite, TX 75150

This copy of the program is the full featured version. The only annoyance in the shareware version is the registration reminder when a Help menu command is executed. Hindrances and reminders were deliberately kept to a minimum by the author.

Registering users will be sent the current or next version of the program without the shareware notice intervening in accessing help.

Problem reports and suggestions will be accepted from all users, although registered users will tend to get priority attention.

Problems and suggestions may be submitted on the registration form or through Compuserve mail to 73537,1203.

Registration Form

LI Version 1.1 Order Form

Please Remit per the following table to:

J J Lundblad
P O Box 852382
Mesquite, TX 75185

Number of copies   Price per copy
     1-2 $20
     3-10 $19
    11-20 $18
    21-50 $17
    51-100 $16
 101 and above $15

Your Name _____

Company   _____

Address   _____

City/State/Zip _____

Order qty   _____   Price each   _____   Total _____

Disk Format: ___ 5.25"   ___ 3.5"
Please send   ___Ver 1.1   ____ Ver X.X (next release)

How did you obtain this copy of LI?

Comments (likes/dislikes/problems/suggestions):