## File Management

Operation	Keystroke	Function	Note	
Opening file	The following commands are available to open/visit files in Emacs buffers.  • For some of them the corresponding <u>ido</u> mode function is also shown.  • Note: Emacs uses the word "visiting" instead of "opening" files.			
Open (visit) a file/directory (See also:   Mode - Dired)	C-x C-f	(find-file FILENAME & optional WILDCARDS)	Prompt for the file or directory name to open. Open the selected file/directory in a buffer with the appropriate mode. For directory, the buffer opens in Dired-mode. This can be replaced by the ido-mode by the ido-find-file: it provides suggestions.	
<u>-</u> ,			When ido mode is used, you can also: Type C-x f to change to original find-file Type C-j to accept the file/directory name verbatim without replacement or suggestion. Note: it is also possible to change the read-only state of a buffer with C-x C-q. So you can open a file with C-x C-f and then change the buffer to read-only mode.  Delta activates ido when the pel-use-ido-mode user option is set to t.	
Open file using OS file- open dialog	<b>%−o</b>	(ns-open-file-using-panel)	• On macOS in graphics mode only: open a file, select the file name via an OS File dialog.	
Open another file in buffer	C-x C-v	(find-alternate-file FILENAME &optional WILDCARDS)     (ido-find-alternate-file)	Kills buffer and open the newly specified file in a new buffer same window. When ido-mode is used, the ido-find-alternate-file is used instead. Useful when just selected an empty file just selected by mistake.	
Open file in other window	• C-x 4 f • <f11> f o</f11>	(find-file-other-window FILENAME & optional WILDCARDS)     (ido-find-file-other-window)	Edit file FILENAME, in another window.  Like C-x C-f, but creates a new window or reuses an existing one.	
Open file in other frame	C-x 5 f	(find-file-other-frame FILENAME &optional WILDCARDS)     (ido-find-file-other-frame)	Edit file FILENAME, in another frame.  Like C-x C-f, but creates a new frame or reuses an existing one.	
Open a file in read-only mode	C-x C-r	(find-file-read-only FILENAME &optional WILDCARDS)     (ido-find-file-read-only)	Edit file FILENAME but don't allow changes. Like C-x C-f, but marks buffer as read-only. Use C-x C-q to permit editing.	
Open file in other window in read-only mode	• C-x 4 r • <f11> f 0</f11>	(find-file-read-only-other-window FILENAME & optional WILDCARDS)     (ido-find-file-read-only-other-window)	(find-file-read-only-other-window FILENAME &optional WILDCARDS) Edit file FILENAME in another window but don't allow changes. Like C-x 4 C-f, but marks buffer as read-only. Use C-x C-q to permit editing.	
Open file or web-page whose name is at point ★★	• C-^ • <f11> f .</f11>	(pel-find-file-at-point-in-window &optional N)	Open the file, library or the URL, named at point.  • If the string identifies a URL, the function opens the page in the default browser.  • If the string identifies a file name, the file is opened in Emacs in the window identified by the N argument. 8: up, 2: down, 4:left, 5:current, 6:right, 0: other, negative: new. Selecting Minibuffer, inexistent or dedicated window is not allowed.  • If the file is not found, the function prompts. If the name corresponds to an Emacs library file, you can type 1 to open the library. You can also edit the file name collected before attempting to open it again. Or quit.  • If the file name is followed by line and column numbers the point is moved to that position.  More information available in the command's help docstring.	
Run grep via find (See also ∑ grep)	• <f11> f g • <f11> g f</f11></f11>	(find-grep COMMAND-ARGS)	Run grep via find, with user-specified args COMMAND-ARGS.  • Collect output in a buffer.  • While find runs asynchronously, you can use the C-x command to find the text that grep hits refer to.  • This command uses a special history list for its arguments, so you can easily repeat a find command.	
Insert text of another file at point	The following comm	ands can be used to insert text from other files at	t point in the current buffer.	
Insert file at point	• C-x i • <f11> f i</f11>	(insert-file FILENAME)     (ido-insert-file)	Insert contents of file FILENAME into buffer after point.  • Set mark after the inserted text.	
Insert file literally at point	<f11> f I</f11>	(insert-file-literally FILENAME)	Insert contents of file FILENAME into buffer after point with no conversion.  • Set mark after the inserted text.	
Write text into specified file	The following comm	The following commands can be used to write text selected from current buffer into specified file.		
Write region text to file	<f11> f w</f11>	(write-region START END FILENAME &optional APPEND VISIT LOCKNAME MUSTBENEW)	Write current region into specified file.  • Prompts for the specified file.	
Append region text to file	<f11> f W</f11>	(append-to-file START END FILENAME)	Append the contents of the region to the end of file FILENAME.  • Prompts for the specified file.	
Set file mode	<f11> f m</f11>	(set-file-modes FILENAME MODE)	Set mode bits of file named FILENAME to MODE (an integer).  Only the 12 low bits of MODE are used.  Prompts for file name and then for chmod-like file mode value.	
Reverting Files	If the file's content changed on the disk and you want to refresh the Emacs buffer visiting that file, you need to "revert" the file.  If you want to use Emacs to monitor the content of a file that is continuously modified by an external process (like a log file) set the <i>revert-without-query</i> variable to a list of regular expressions describing the field it'll apply to.  You can also activate the auto-revert mode for the current buffer or globally and restart its timer.			
Revert a buffer  (See also: ∑ Diff & Merge)	• <f11> f r f • %-u</f11>	(revert-buffer &optional IGNORE-AUTO NOCONFIRM PRESERVE-MODES)	Replace current buffer text with the text of the visited file on disk.  This undoes all changes since the file was visited or saved.  With a prefix argument, offer to revert from latest auto-save file, if that is more recent than the visited file.  This is also the command to use to reload a file that was modified on the file system.  Vou can use ediff-current-file to see the difference between the buffer and its disk file. PEL binding for this is <f11> e b f.</f11>	
Toggle auto-revert mode	<f11> f r a</f11>	(auto-revert-mode &optional ARG)	Toggle reverting buffer when the file changes (Auto-Revert Mode). With a prefix argument ARG, enable Auto-Revert Mode if ARG is positive, and disable it otherwise.  • Auto-Revert Mode is a minor mode that affects only the current buffer. When enabled, it reverts the buffer when the file on disk changes.  • When a buffer is reverted, a message is generated. This can be suppressed by setting 'auto-revert-verbose' to nil.	

Toggle auto-revert tail	Keystroke	Function	Note	
mode	<f11> f r t</f11>	(auto-revert-tail-mode &optional ARG)	<ul> <li>Toggle reverting tail of buffer when the file grows.</li> <li>With a prefix argument ARG, enable Auto-Revert Tail Mode if ARG is positive, and disable it otherwise.</li> <li>When Auto-Revert Tail Mode is enabled, the tail of the file is constantly followed, as with the shell command 'tail -f'. This means that whenever the file grows on disk (presumably because some background process is appending to it from time to time), this is reflected in the current buffer.</li> <li>You can edit the buffer and turn this mode off and on again as you please. But make sure the background process has stopped writing before you save the file!</li> </ul>	
Cancel/restart auto-revert timer	<f11> f r SPC</f11>	(pel-auto-revert-set-timer)	Restart or cancel the timer used by Auto-Revert Mode.  If such a timer is active, cancel it.  Start a new timer if Global Auto-Revert Mode is active or if Auto-Revert Mode is active in some buffer.  Restarting the timer ensures that Auto-Revert Mode will use an up-to-date value of 'auto-revert-interval' (which is normally 5 seconds by default).  It is pel-auto-revert-set-timer is a thin wrapper over auto-revert-set-timer that displays a warning if executed when the buffer is not already in auto-revert-mode. It also displays the value of auto-revert-interval when auto-revert-set-timer is executed.	
Saving Files	Use the following co	mmands to save the content of a buffer to a files	ystem file.	
Save file to disk	• C-x C-s • ∺-s	(save-buffer &optional ARG)	Save current buffer to associated file. By default, it makes the previous version into a <u>backup file</u> if previously requested or if this is the first save.  • With C-u: marks this version to become a backup when the next save is done  • With C-u C-u: makes the previous version into a backup file  • With C-u C-u: marks this version to become a backup when the next save is done, and makes the previous version into a backup file.  • With prefix 0: never make the previous version into a backup file.  • On macOS in graphics mode only: %-s brings a OS file-save dialog.	
Save all/some files	C-x s	(save-some-buffers &optional ARG PRED)	Prompt for files that are modified. Options:  • y : save  • n : don't save  • C-r : look at the buffer in question  • d : view differences with diff-buffer-with-file	
Write buffer to specified file	C-x C-w	(write-file FILENAME &optional CONFIRM)     (ido-write-file)	Similar to "Save-As": prompt for the filename.  • Can also be yanked in the mini buffer, use M−n to edit it.  ☐ Use that command to rename the file.	
Changed current buffer changed state	M-~	(not-modified &optional ARG)	Mark current buffer as unmodified, not needing to be saved.  • With <b>C-u</b> prefix ARG, mark buffer as modified, so <b>C-x C-s</b> will save.	
View Directory Tree with ZTree	The <u>ztree external package</u> provides a text-based tree-view of a directory with expansion/collapse.  PEL activates it when <b>pel-use-ztree</b> is set to <b>t</b> .  PEL driven customization:  Use <f11> <f1> f to quickly access the customization group.  Modify one of the following PEL provided customization user options:  pel-ztree-dir-move-focus : set to <b>t</b> to move focus to new entry when <ret> is typed.  pel-ztree-dir-filter-list : add a list of regexp to ignore more file. Do not enter quote for string.  For example, to ignore the .pyc files, enter ^.*pyc on a line.  pel-ztree-show-filtered-files : set to <b>t</b> to display filtered files until <b>H</b> is typed. Normally they are not shown until <b>H</b> is typed.  Execute M-x pel-init after settling and applying new values to activate the new values.</ret></f1></f11>			
View directory as tree with ztree-dir	<f11> Z</f11>	(ztree-dir PATH)	Open an interactive buffer with the directory tree of the PATH given.  This requires the ztree external package.  PEL activates it when pel-use-ztree is set to t.  In the Ztree Dir buffer the following keys are available:  H: toggle display of filtered files.  > : narrow/display directory on current line  < : widen/display parent directory  d: Open Dired at point.  x: Toggle expand/collapse of all nodes of the subtree.  Luse x with care! On large directory trees it takes a long time. I have see Emacs hang when typing x again during that time. Investigate.	
	The NeoTree external package provides a Vim-NerdTree like tree-view of a directory with expansion/collapse.  PEL activates it when pel-use-neotree is set to t.			
View Directory Tree with NeoTree				
	PEL activates it v	vhen pel-use-neotree is set to t.  (neotree-toggle)	Toggle show the NeoTree window.  This requires the NeoTree external package.  PEL activates it when pel-use-neotree is set to t.  In the NeoTree buffer the following keys are available:  n next line  p previous line.  SPC or RET or TAB: Open current item if it is a file.  Fold/Unfold current item if it is a directory.  Go up a directory  Refresh  A Maximize/Minimize the NeoTree Window  H Toggle display hidden files  O Recursively open a directory  C-c C-n Create a file or create a directory if filename ends with a '/'  C-c C-c Rename a file or a directory.  C-c C-c Change the root directory.  C-c C-p Copy a file or a directory.	
with NeoTree  View directory tree with	PEL activates it v <f11> N  When "opening" (vis</f11>	vhen pel-use-neotree is set to t.  (neotree-toggle)  iting) a directory Emacs opens a buffer in Dired m	Toggle show the NeoTree window.  This requires the NeoTree external package.  PEL activates it when pel-use-neotree is set to t.  In the NeoTree buffer the following keys are available:  n next line  previous line.  SPC or RET or TAB: Open current item if it is a file.  Fold/Unfold current item if it is a directory.  U Go up a directory  Refresh  A Maximize/Minimize the NeoTree Window  H Toggle display hidden files  O Recursively open a directory  C-c C-n Create a file or create a directory if filename ends with a '/'  C-c C-d Delete a file or a directory.  C-c C-c Change the root directory.	

Operation	Keystroke	Function	Note
Run Dired in other (next) window	C-x 4 d	(dired-other-window)	Opens a Dired-mode buffer on the specified directory inside another window. Prompt for the directory name.
List Directory	C-x C-d	(list-directory DIRNAME &optional VERBOSE)	Display a list of files in or matching DIRNAME, a la 'ls'. DIRNAME is globbed by the shell if necessary. Prefix arg (C-u) means supply -l switch to 'ls'.
Searching/Finding Files	Ref: Video: .Emacs #6 : searching and finding files.		
Search for file with locate		(locate SEARCH-STRING &optional FILTER ARG)	
Search for files with 'find' and open Dired buffer	<f11> f d</f11>	(find-dired DIR ARGS)	Prompts for the root to search from, and a <b>find</b> command to search for files with the Unix find.  • Specify the arguments for the <u>find command</u> . For example, to perform a case insensitive search for all .h files: -iname "*\h" for all .h files.  • Opens a Dired-mode buffer and show the files found in there.
Search directory for files and open Dired buffer for those	<f11> f n</f11>	(find-name-dired DIR PATTERN)	Search DIR recursively for files matching the globbing pattern PATTERN, and run Dired on those files.  PATTERN is a shell wildcard (not an Emacs regexp) and need not be quoted. The default command run (after changing into DIR) is:  findname 'PATTERN' -ls
Find files in a directory and open Dired output	<f11> f h</f11>	(find-grep-dired DIR REGEXP)	Find files in DIR that contain matches for REGEXP and start Dired on output. The command run (after changing into DIR) is:  find . \( \) -type f -exec 'grep-program' 'find-grep-options' -e REGEXP \{ \} \; \) -Is  where the first string in the value of the variable 'find-Is-option' specifies what to use in place of "-Is" as the final argument.
Find Emacs Lisp files in directory tree	<f11> f 1</f11>	(find-lisp-find-dired DIR REGEXP)	Find Emacs Lisp files in DIR, matching REGEXP. Open *Find Lisp Dired* buffer on output.
Automatic File Time Stamp  Update file time stamp  (See Also: ∑ Inserting Text)	Emacs has a built-in automatic time-stamping of files. It must be activated by adding the <b>time-stamp</b> function to the <b>before-save-hook</b> variable. This can either be done via Emacs customization system or explicitly inside your init file with the following code:  (add-hook 'before-save-hook 'time-stamp)  The time stamp will be added to files that contain, inside their first 8 lines, a line that looks like one of the following:  **Time-stamp: " "  The format of the time stamp is controlled by several variables:  **time-stamp-format specifies the format of the time stamp. Something like "%:y-%02m-%02d %02H:%02M:%02S %u" to specify the date and time in ISO format, with the user login's name.  **time-stamp-time-zone specifies the time zone selection:  **nil: Emacs local time  **vall: system wall clock time  **TZ: controlled by a TZ environment variable  These variables can be set in your init file or via the Emacs customization system.  **To be automatically updated, the time-stamp string must be placed within the first 8 lines of the file.  **To insert a non-updatable time stamp, the PEL package provides a set of text insert commands which include inserting a time stamp. See the Inserting Text table for the appropriate commands.  **f11> f t  (time-stamp)  Force update the time stamp string(s) in the current buffer.  The time stamp: "  **If you want time stamps updated automatically, write the following inside your init.el file:		
Toggle time stamp automatic update		(time-stamp-toggle-active &optional ARG)	(add-hook 'before-save-hook 'time-stamp)  Toggle 'time-stamp-active', setting whether <f11> f t updates a buffer.  • With ARG, turn time stamping on if and only if arg is positive.</f11>
Inserting & Automatically Updating Copyrights	<ul> <li>With ARG, turn time stamping on if and only if arg is positive.</li> <li>Emacs has built-in support for insertion and update of copyright notices inside files.</li> <li>Two commands, shown below, are provided to manually insert or update the file's copyright notice.</li> <li>The copyright notice can be automatically updated by adding the copyright-update function to the list of before-save-hook variable with the following code:         <ul> <li>(add-hook 'before-save-hook 'copyright-update)</li> </ul> </li> <li>To be automatically updated, the copyright notice must be placed within an area at the beginning of the file specified by the value of the copyright-limit variable, normally defined as the first 2000 characters. This variable is customizable.</li> </ul>		
Insert copyright notice at point  (See Also: ∑ Inserting Text)	<f11> i C</f11>	(copyright &optional STR ARG)	Insert a copyright by \$ORGANIZATION notice at cursor.  • If the ORGANIZATION environment variable is not available, Emacs prompts for it.
Update file's copyright notice		(copyright-update &optional ARG INTERACTIVEP)	Update copyright notice to indicate the current year.  With prefix ARG, replace the years in the notice rather than adding the current year after them. If necessary, and 'copyright-current-gpl-version' is set, any copying permissions following the copyright are updated as well.  If non-nil, INTERACTIVEP tells the function to behave as when it's called interactively.  Even when used interactively copyright-update does not warn if there is no copyright in the current buffer to update. It does not create a missing notice.  If you want to be prompted automatically to update an existing but out-of-date copyright notice, write the following inside your init.el file:  (add-hook 'before-save-hook 'copyright-update)
File Lock Protection	Emacs protects against multiple process modifying the same file with a lock. If you attempt to edit the buffer of a locked file, Emacs will prompt. You can steal the lock (with 's'), proceed ('p') to edit the file anyway or quit ('q').		

## File Management — References

Topic & Link	Description	
Emacs Display - Mode Line	Read first. Describes what the Emacs mode line displays.	
GNU Emacs Manual - File Handling	Describes how to open and deal with files and directories in Emacs.	
GNU EMACS Manual - Interactive Do	Describes the ido-mode, a nice addition that helps with completing file names at prompts.	
Display path of file in status bar	In graphics mode, display the buffer name and the full path file in parenthesis inside the frame title bar.	
How do I rename an open file in Emacs?		