

Description	Keystroke	Function	Note
Interactive spell checking of text	The following commands perform interactive spell checking. The commands spell check a portion of text and stops at the first misspelled word, opening a "Choices" buffer to prompt for replacement. Your response can be one of several characters, described in the row below. The related commands are shown in the following rows.		
Ispell *Choices* buffer keys Response characters.	? : Ispell prints more options in the minibuffer. These extra options are over the correction characters shown in "Choices" digit : Replace the word with the one identified by the choice digit. i : insert the "<i>misspelled</i>" word inside the private dictionary file located in <code>~/ispell_<language></code> m : same as i but you can also specify dictionary completion information. l word : look in the dictionary for words that match <i>word</i>. These words become the new list of replacement proposals. You can use "*" in <i>word</i> as wildcards. u : uncapitalized the "<i>misspelled</i>" word inside the private dictionary file located in <code>~/ispell_<language></code> r : prompt for the correct spelling, replace this instance (the replacement string is then accepted later in the text) R : query replace in buffer <space> : do not replace, skip a : accept word, treat it as correct; do not replace, skip over this word now and later in all buffer for this session A : accept word, treat it as correct; do not replace, skip over this word now and after in this buffer only for this session. x : quit interactive spell-checking, leaving point at the word that was being checked. Resume checking afterward with C-u M-\$. x : quit interactive spell-checking and move point back to where it was when you started spell-checking. q : quit interactive spell-checking and kill the Ispell process. C-q : Stop Ispell. When this is used, it is possible to resume Ispell later with C-u M-\$ or via the menu.		
Ispell - spell check buffer or region	<f11> \$.	(ispell)	Interactively check a region or buffer for spelling errors. If 'transient-mark-mode' is on, and a region is active, spell-check that region. Otherwise spell-check the buffer.
Ispell - spell check buffer	<f11> \$ b	(ispell-buffer)	Check the current buffer for spelling errors interactively. Disregard presence of region.
Ispell - spell-check region	<f11> \$ r	(ispell-region REG-START REG-END &optional RECHECKP SHIFT)	Interactively check a region for spelling errors.
Ispell - spell-check email body	<f11> \$ m	(ispell-message)	Check the spelling of a mail message or news post. - Don't check spelling of message headers except the Subject field. - Don't check included messages. - To abort spell checking of a message region and send the message anyway, use the 'x' command. (Any subsequent regions will be checked.) - The 'X' command aborts sending the message so that you can edit the buffer.
Ispell - spell-check comment and strings	<f11> \$;	(ispell-comments-and-strings)	Check comments and strings in the current buffer for spelling errors.
Ispell - continue spell checking	C-u M-\$	(ispell-continue)	Continue a halted spelling session beginning with the current word.
Automatic Spell Checking: Flyspell Activating Flyspell See also: 🔗 Customize	Flyspell is a minor mode that performs automatic spell-checking. - Flyspell can be activated without having to activate ispell, even though several of the ispell customizations also affect Flyspell. - However ispell must be installed. Flyspell processes text continuously, just like a word processor, and it highlight misspelled words. 🔗 It's best to activate Flyspell mode for text buffers and Flyspell Prog mode for programming language buffers with hooks using the following code: <pre>(add-hook 'text-mode-hook 'flyspell-mode) (add-hook 'prog-mode-hook 'flyspell-prog-mode)</pre> 👉🔧 PEL provides 2 user options that identify the modes where flyspell-mode and flyspell-prog-mode are automatically activated: pel-modes-activating-flyspell-mode and pel-modes-activating-flyspell-prog-mode. PEL code comes with defaults, activating flyspell and flyspell-prog modes for several major modes. - The pel-spell-prevent-flyspell user-option can also be set to prevent automatic activation of flyspell-mode and flyspell-prog-mode. - Turned off by default to all activation of automatic spell checking. - Turn it on if you want to reduce CPU load or when you want to debug spell checking code. - Toggle unsaved value by typing <f11> \$ M-f to invoke the pel-spell-toggle-prevent-flyspell command. - Use <f11> \$ <f2> to quickly open the PEL Spelling customization group and configure these 2 user-options to add or remove groups. Then 'Apply and Save' and restart Emacs for the changes to take effect. The spell check command bindings are only available when Flyspell (or ispell) mode is active. ⚠️ A 3-button mouse is needed for Flyspell to access the pop-up menu of provided replacements suggestions, and the pop-ip menu does not work in terminal mode, unless code is used to fix this problem. Example of this code is shown in the FlySpell page of EmacsWiki. 🖥️The PEL package incorporates that code and activates it in terminal mode using the following code: <pre>(when (not (display-graphic-p)) (eval-after-load "flyspell" '(progn (fset 'flyspell-emacs-popup 'pel-spell-flyspell-emacs-popup-textual))))</pre>		
Enter/Leave Flyspell mode	<f11> \$ F	(flyspell-mode &optional ARG) - Mode line shows "Fly" when Flyspell mode is active. - Flyspell mode works like word processors; misspelled words are highlighted (by default). - Use Flyspell Prog mode for code to spell check only comments and strings. Flyspell processes all text. - Flyspell mode is a buffer-local minor mode. When enabled, it spawns a single ispell-compatible process. 🔗 Use hooks to activate Flyspell automatically in major modes. PEL provides user-options for that. See above. 🔗 Use this command to toggle activation of Flyspell dynamically.	Toggles the use of Flyspell mode. With a prefix argument ARG, enable Flyspell mode if ARG is positive, and disable it otherwise.
Enter Flyspell Prog mode	<f11> \$ P	(flyspell-prog-mode)	Turn on Flyspell prog mode: turn on Flyspell but restricts it to comments and strings, do not spell check source code itself. Highlight misspellings only in comments or strings. 👉 If a hook activates Flyspell Prog mode, you won't need this command. ⚠️ Note that the command always enables the mode, it does not toggle it. If you want to turn spell checking off, you must use the flyspell-mode command. To re-enable Flyspell Prog mode you then use this one.
Toggle ability to automatically activate Flyspell-mode and Flyspell-prog-mode	<f11> \$ M-f	(pel-spell-toggle-prevent-flyspell)	Toggle lock preventing flyspell-mode and flyspell-prog-mode activation. - By default, PEL activates flyspell-mode when Emacs opens a buffer in one of the major modes identified by the pel-modes-activating-flyspell-mode user-option, and activates flyspel-prog-mode when Emacs opens a buffer in one of the major modes identified by the pel-modes-activating-flyspell-prog-mode user-option. - This automatic activation is disabled when the pel-spell-prevent-flyspell user-option is turned on by this command and re-activated when is is toggled back off. - Use this command to prevent automatic activation of the automatic spell checking. This can help in various situations: you may want to reduce computation overhead or debug the spell checking mechanism.
Using Flyspell	With Flyspell mode activated, the following key bindings are active and can be used to fix spelling of misspelled or incomplete words.		
Auto correct previous word See Also: 🔗 Cursor	C-; <f11> \	(flyspell-auto-correct-previous-word POSITION)	Auto correct the first misspelled word that occurs before point. ⚠️ Both iEdit and Flyspell use the C-; key as their default binding. PEL detects and reports that situation. If you see this warning modify the binding of one of the two user options.
Flyspell - complete a word	M-<tab> C-M-i C-.	(flyspell-auto-correct-word)	Correct the current word in place. - This command proposes various successive corrections for the current word. If invoked repeatedly on the same position, it cycles through the possible corrections of the current word. - In most cases this is much faster than using M-\$ which always proposes choices. 👉🔧 If you want to include flyspell corrections inside the abbreviation table to automatically correct future typos you can modify the following flyspell user-options: flyspell-abbrev-p : set it to t to automatically store flyspell corrections in local abbrev table. flyspell-use-global-abbrev-table-p : set it to t to have it store in the global abbrev table instead.

Description	Keystroke	Function	Note
Ispell - Check a single word	M-$\mathcal{S}$	(ispell-word &optional FOLLOWING QUIETLY CONTINUE REGION)	Check spelling of word under or before the cursor. - Opens a “Choices” buffer showing all available corrections/suggestions, similar to the way ispell does it. - Several options are available at that moment: see the following “Ispell operation” lines in the above table for the single line commands that can then be used.
Flyspell - correct word See also: ⌘Highlight ⌘ Input Method ⌘ Key-Chords	C-c $\mathcal{S}$ <f11> $\mathcal{S}$ $\mathcal{S}$ <u>4r</u>	(flyspell-correct-word-before-point &optional EVENT OPOINT)	Pop up a menu of possible corrections for misspelled word before point.  With PEL, the 4r key-chord is a available when pel-use-key-chord user-option is t.  Key-chord may not work properly when a different input-method is used.  To activate this in terminal mode you must write some code. See the note in the “Activating Flyspell” row above.  fci-mode interferes with pop-up menu displays in terminal-mode, at least with the one used by flyspell-correct-word-before-point: the menu lines become all jagged, they do not line up vertically. The problem does not affect Emacs running in graphics mode.
Using Flyspell when not activated	The following command can be used even when Flyspell mode is not activated.		
Check all text in buffer	M-x flyspell-buffer	(flyspell-buffer)	Flyspell whole buffer. This command is marginally useful. You can use it when Flyspell mode is not active to highlight misspelled words in the buffer. Since the other Flyspell commands bindings are not available you have to fix spelling of the words manually and re-run the command. A better way is to simply activate Flyspell and use the commands.
Identify Ispell dictionary inside the text file: Select a dictionary for the file using specialized text lines:	To select a local dictionary, use the following, followed by the language code on the same line: Local IspellDict: To select a local personal dictionary, use the following, followed by language code on the same line: Local IspellPersDict:		
Or use file local variables:	<pre>;; Local Variables: ;; mode: emacs-lisp ;; comment-column: 40 ;; ispell-check-comments: exclusive ;; ispell-local-dictionary: "american" ;; End:</pre>		

Spell Checking — References

Topic & link	Description
<u>Make ispell automatically clear minibuffer when replacing word</u>	
<u>How can I change the language in Emacs when using ispell?</u>	
<u>Enabling spell-checking in comments</u>	
<u>in Emacs flyspell-mode, how to add new word to dictionary?</u>	
<u>GNU Aspell - latest version: 0.60.8</u>	Aspell is a very good spell checking program and library. Unfortunately maintenance has severely slowed down. See: <u>Aspell and Hunspell: The Tale of Two Spell Checkers</u>, by Sumit Khanna, Sep 27, 2016. <u>GNU Aspell @ GNU</u> <u>GNU Aspell @ Github</u> <u>GNU Aspell @ Wikipedia</u>
<u>Aspell 0.61 Manual</u>	The latest version of the Aspell manual as of Nov 2021. Formatting is not as nice as the manual for version 0.60.9
<u>Gnu Apell 0.60.9 Manual</u>	The manual of the version currently available under Homebrew (as of Nov. 2021).
<u>GNU Aspell - Mailing Lists</u>	The place to get support. The following lists are available: <u>aspell-announce - archives</u> <u>aspell-devel - archives</u> <u>aspell-user - archives</u>
Aspell Dictionaries	<u>Aspell dictionary files @ GNU</u>, list organized by the ISO 639-1 2-letter language codes. Files are .tar.bz2 - Note however that aspell dictionary files are environment dependent compiled files. Read the section on aspell dictionary files listed below first. - On macOS use homebrew to install aspell. it also installs the dictionary files.
Aspell directory files See: <u>Aspell Manual - Working With Dictionaries</u>	To list aspell configuration, use the following command: <u>aspell config</u> - This lists all aspell configuration information, including the data-dir that identifies the location of the aspell dictionary files. - On a macOS system with aspell installed with homebrew, the dictionary files are stored inside the following directory: <code>/usr/local/Cellar/aspell/0.60.8/lib/aspell-0.60</code> File types: .alias : aspell dictionary alias name, a list of aspell commands identifying another .rws or .multi file. .amf : aspell mode filter control file .cmap : aspell character map file .cset : aspell character set data file .dat : language data file, uses the same format as aspell configuration file. - The *-phonet.dat files are the <i>soundlike</i> files used for phonetic comparisons. - The *-affix.dat files are affix compression files. .info : aspell filter option files .kbd : keyboard layout files (identifies side-by-side keys that may cause mis-typing). .multi: multi-dictionary compound instructions which refer to multiple .rws files. .rws : compiled dictionary platform dependent file. Created by the <u>aspell create master</u> command.
Testing aspell on the command line with the available dictionaries:	Testing in English: <pre>> echo htink aspell -a --sug-mode=ultra --lang=en_US @(#) International Ispell Version 3.1.20 (but really Aspell 0.60.8) & htink 4 0: think, stink, ht ink, ht-ink</pre>
Aspell produces better results than hunspell: Note that the aspell results for the French language is superior to what hunspell is able to detect (see the results for the same test run with hunspell below).	Test en français: <pre>> echo francais aspell -a --sug-mode=ultra --lang=fr_CA @(#) International Ispell Version 3.1.20 (but really Aspell 0.60.8) & francais 7 0: français, française, fiançais, François, fronçais, franc ais, franc-ais</pre> <pre>> echo francias aspell -a --sug-mode=ultra --lang=fr @(#) International Ispell Version 3.1.20 (but really Aspell 0.60.8) & francias 5 0: francisa, francisas, français, franciens, francien</pre>
Aspell Windows @ EmacsWiki	In Setup for 64-bit Windows 7

Topic & link	Description
GNU Aspell (Win32 version)	
Hunspell	Hunspell is more popular than aspell because it is currently (in 2021) actively maintained and used in several Open Source programs such as LibreOffice, Firefox, Chrome, and several others. Unfortunately it is not as good as aspell in some respect. The two sets of tests in French here show one situation where aspell is better. • Hunspell Home Page • Hunspell @ Github • Hunspell @ Wikipedia
Hunspell-compatible dictionary files	• libreoffice/dictionaries - libre-office dictionary wiki - git repository • French: Grammalecte-dic(fr) • Dictionnaires Hunspell 7.0 , Lexique 7.0, Thésaurus et Césures (téléchargement)
Hunspell files: dictionary and affix files.	The document titled “Editing the spell checking dictionaries” from the Chromium Project, describes the format and purpose of the files used by hunspell: • the .dic files: dictionary files: the list of words. • the .aff files: the affix rules files: a list of rules and other options.
Location of Hunspell directories	The hunspell -D command lists the hunspell directories it is able to find and lists the searched directories. • On my macOS system the directories listed include the following: • /usr/share/hunspell • /usr/share/myspell • /usr/share/myspell/dicts • /Library/Spelling • ~/Library/Spelling • ... and several directories for OpenOffice, even though I have LibreOffice and several files are stored inside the ~/Library/Application Support/LibreOffice/... directory tree. I installed several dictionaries using LibreOffice and they are not listed by hunspell -D. • So I searched for them using the fd -g *.aff and the fd -g *.dic commands. • Then I copied the files into my ~/Library/Spelling directory. Now the hunspell -D command lists the directories available.
Testing hunspell com the command line wit available dictionaries:	Testing in English: <pre>> echo htink hunspell -a -d en_US @(#) International Ispell Version 3.2.06 (but really Hunspell 1.7.0) & htink 4 0: think, stink, ht ink, ht-ink</pre> Test en français: <pre>> echo francais hunspell -a -d fr-classique @(#) International Ispell Version 3.2.06 (but really Hunspell 1.7.0) & francais 5 0: français, francisa, franchis, franc ais, franc-ais > > echo francias hunspell -a -d fr-classique @(#) International Ispell Version 3.2.06 (but really Hunspell 1.7.0) & francias 5 0: francisa, francisas, franciens, franchisas, francs</pre>
Language Codes	
ISO 639 Language Codes	• ISO 639-1 @ Wikipedia. ISO 639-1 : the 2-letter language codes • ISO 639.2 Language Code List