

Cross-Reference Front-End Capabilities

Back-end ➡ / Feature⚡	Default xref selector	ivy-xref interface	helm-xref interface
Built-in	Yes	No. <ul style="list-style-type: none"> Requires ivy-xref and ivy PEL activates t with: pel-use-ivy-xref 	
Jump to target directly if there is only 1 target	No, always show a list in the xref buffer.	Yes	Yes
Uses external program?	No. <ul style="list-style-type: none"> Internal to Emacs. Uses elisp-mode.el 	Yes: etags or ctags (Universal-CTags) <ul style="list-style-type: none"> To create the TAGS file 	Yes. <ul style="list-style-type: none"> To create cscope.files and cscope.out files, the list of files to index and the index database.
Emacs command to run the external command?			Yes:
Tags-based?	No		No
Can use Tags?			No
Requires interpretation/load of examined source code?	Yes. Only able to detect identifiers that have already been defined from .el files that have been loaded.		No
(can) use external database file(s)?	No		Yes - requires it
Support multiple definitions in code	Yes, Honours xref front-end selection.		Yes
Support list the use of identifier			Yes
Support multiple directory trees of source code?	Yes: the etags command must be given files from several directory trees with their full pathnames to get these paths in the TAGS file.		No? (I have not find how,  need to investigate the idea of symlinks and file list) .
Support compressed archives?	Yes	Yes, etags process .gz files and list the file name without the .gz extension. This way, generated TAGS can work even if a file was compressed or de-compressed after the creation of the TAGS file, as long as the emacs code that handles the TAGS file is able to detect the .gz file even if the reference is the name of the uncompressed file. <ul style="list-style-type: none"> Emacs 25, 26 and 27.1 xref-etags-backend fails (see GNU bug report #44494). PEL has a work-around for this bug. 	No? (I have not found how)
Automatically activates mode when opening a file via an cross-reference		No PEL will have to add a mechanism to do that	
Supported Programming Languages	Emacs Lisp		<ul style="list-style-type: none"> C (CC-mode) C++ partly (old - 2012) Java partly (old - 2012)
Support moving point to definition	Yes <ul style="list-style-type: none"> M- . 		Yes <ul style="list-style-type: none"> with xcscope: C-c s d with helm-cscope: M- .
Support finding all callers of a function	Yes <ul style="list-style-type: none"> M- ? 		Yes
Support finding all function called by a function			Yes
Support finding all assignment to a symbol			Yes
Support finding #include files (C, C++)			Yes
Has command to refresh tags/ database file(s)			Yes
Support automatic refresh of tags/database file(s)			No
Loads tags/database file inside Emacs to use			No
PEL shell file to create the TAGS/database file(s)	<ul style="list-style-type: none"> ~/bin/tags-for-pel ~/bin/etags-el 		None for the moment
Support finding use of identifiers?	Yes, with M-? But it uses find and grep: it is slow.		Yes
Emacs package support it			<ul style="list-style-type: none"> xcscope helm-cscope
Support showing results in helm buffer?			Yes, only some commands with helm-cscope
Support showing results in ivy list			No