

















Emacs support for Forth

Description	Keystroke	Function	Note
Forth programming Language Support	Support for the Forth programming language is minimal: you can activate the forth-mode package by setting the pel-use-forth user option. <ul style="list-style-type: none"> Files with the .f, .fs, .fth and .4th are recognized as Forth source files and will automatically activate forth-mode if the package has been activated via that user-option. Generic programming language features like template text insertion handle Forth comment style. See § Inserting Text.  Forth support is provided by forth-mode external package  automatically downloaded and installed by PEL when the pel-use-forth user option is t. This mode supports Emacs § Speedbar: it shows Forth variables and words. 		
Open this PDF file. See also: § Help/Info	<div><f11> SPC f <f1></div> <div><f12> <f1></div>	(pel-help-pdf &optional OPEN-WEB-PAGE)	Open the  Forth local PDF. If the prefix argument (like C-u or M--) is used, then it opens the remote GitHub hosted raw PDF instead. If the pel-flip-help-pdf-arg user-option is set it's the other way around.
§ Customize PEL Forth support	<div><f11> SPC f <f2></div> <div><f12> <f2></div>	(pel-customize-pel &optional OTHER-WINDOW)	Customize PEL Forth support. <ul style="list-style-type: none"> If OTHER-WINDOW is non-nil (use C-u), display in another window.
Forth Language Reference Access	The following commands connect to a web site to retrieve specification information about Forth words.		
Forth '94 word specification	C-c C-d 1	(forth-spec-lookup-1994 NAME)	View the documentation on NAME from the ANS'94 Forth Standard <ul style="list-style-type: none"> Prompts for Forth word. Supports completion. Connects to http://lars.nocrew.org/dpans/dpans.htm, a draft of ANSI Forth '94.
Forth 2012 word specification  	C-c C-d 2	(forth-spec-lookup-2012 NAME)	View the documentation on NAME from the Forth 2012 Standard. <ul style="list-style-type: none"> Attempts to access http://www.forth200x.org/documents/html/alpha.html  which, at the time of this writing (early 2021) does not exists. There are other files on this web site that contain information about Forth 2012 such as http://www.forth200x.org/documents/forth-2012.pdf. 
Navigation inside Forth Code See also: § Navigation	Basic navigation commands are available: both standard Emacs navigation and extra commands provided by PEL, as listed below. <ul style="list-style-type: none"> This mode supports Emacs § Speedbar: it shows Forth variables and words. 		
Forward to start of next word definition	<f6> <down>	(pel-beginning-of-next-defun &optional SILENT DONT-PUSH_MARK)	Move forward to the beginning of the next word definition. <ul style="list-style-type: none"> Beeeps if does not find beginning of next function unless SILENT is non-nil. If the beginning of next function is found, push the start location to the mark ring unless DONT-PUSH_MARK is non-nil. <ul style="list-style-type: none"> Move back to previous position with M-`.  this should but does not work in Forth.  Shift marking is available: hold Shift after typing <f6>.
Backward to end of previous word definition	<f6> <left>	(pel-end-of-previous-defun &optional SILENT DONT-PUSH_MARK)	Move backwards to the end of the previous word definition. <ul style="list-style-type: none"> Beeeps if does not find end of previous function unless SILENT is non-nil. If the end of previous function is found, push the start location to the mark ring unless DONT-PUSH_MARK is non-nil. <ul style="list-style-type: none"> Move back to previous position with M-~.  this should but does not work in Forth.  Shift marking is available.
Backward to beginning of function definition	<ul style="list-style-type: none"> C-M-a C-M-<home> <f6> <up> C-[C-a Esc C-a 	(beginning-of-defun &optional ARG)	Move backward to the beginning of a word. <ul style="list-style-type: none"> With ARG, do it that many times. Negative ARG means move forward to the ARGth following beginning of word.  Shift marking is available in graphics mode, not in terminal mode (for C-M-a and C-M-<home>). It's always available for <f6> <up>: hold Shift after typing <f6>.
Forward to end of function and class definition	<ul style="list-style-type: none"> C-M-e C-M-<end> <f6> <right> C-[C-e Esc C-e 	(end-of-defun &optional ARG)	Move forward to next end of word. With argument, do it that many times. Negative argument -N means move back to Nth preceding end of word  Shift marking is available in graphics mode, not in terminal mode (both keys).
Marking Forth Words			
Mark current Forth word See also: § Marking	C-M-h	(mark-defun &optional ALLOW-EXTEND)	Put mark at end of this word definition, point at beginning. <ul style="list-style-type: none"> The Foth word marked is the one that contains point or follows point. With positive ARG, mark this and that many next words; with negative ARG, change the direction of marking. If the mark is active, it marks the next or previous word(s) after the one(s) already marked.
Forth Evaluation	When a Forth interpreter is available, the following commands use it to provide interactive evaluation within Emacs. <ul style="list-style-type: none"> The first time a command requiring a Forth executable is require it prompts for one then uses it. 		
Open a Forth shell	<f11> z f	(run-forth)	Start an interactive forth session. <ul style="list-style-type: none"> Prompt for a Forth executable. <ul style="list-style-type: none"> gforth is a good free implementation. <ul style="list-style-type: none"> On macOS, you can install it with brew install gforth in a terminal shell.  Notice that it is integrated with the Home-brew Emacs installation and it will upgrade your Homebre-based Emacs unless its pinned (in which case Homebrew won't install gforth).  Requires the forth-mode external package  PEL installs and activates when the pel-use-forth user option is t. It also requires a Forth interpreter (which must be installed separately)
Evaluate Forth Expression	C-c C-e	(forth-eval-last-expression)	Evaluate Forth expression at point.
Kill Forth process	C-c C-k	(forth-kill &optional BUFFER)	Kill Forth process associated with current buffer.
Load Forth File	C-c C-l	(forth-load-file FILE)	Load specified file in the Forth interpreter.
Evaluate region of Forth code	C-c C-r	(forth-eval-region START END)	Evaluate marked region of Forth code.
SEE code of current word	C-c C-s	(forth-see WORD)	Execute the Forth SEE command on the current word, accessing the code of that word. <ul style="list-style-type: none"> Uses the word at point, showing the result inside the "see" buffer.
Opens the Forth process output buffer	C-c C-z	(forth-switch-to-output-buffer)	Opens the Forth process output buffer
Evaluate Forth expression.	C-c :	(forth-eval STRING)	Prompts for a Forth expression. On RET uses the Forth interpreter to evaluate it and display the result in the minibuffer.
Evaluate the current Forth word.	C-M-x	(forth-eval-defun)	Evaluate the current word.
Evaluate current Forth expression	C-x M-e	(forth-eval-last-expression-display-output)	Evaluate current Forth expression

Description	Keystroke	Function	Note
Indenting Forth Code			
Indent expression	C–M–q	(prog-indent-sexp &optional DEFUN)	Indent the expression after point. When interactively called with prefix, indent the enclosing defun instead.
Commenting Forth Code			
Comment/uncomment See also: Σ Comments	M– ;	(comment-dwim ARG)	Comment line or region. If line/region is already commented, uncomment it. <ul style="list-style-type: none"> Forth comments are quite flexible. This command uses uses the \ word at the beginning of a line and () after now-whitespace. With PEL, use the <f11> ; ? command to get a full list of the variables used to control Forth comments.

Forth— References

Document	Notes
Forth Programming Language	Forth is a stack-based programming language designed Designed by Charles H. Moore
The Forth Programming Language - Wikipedia	
Forth Books @ forth.com	Links to several good Forth Books, including Starting Forth the original 1981 Forth book by Leo Brodie .
forth-standard.org	Get the latest information about Forth on this web site.
ANSI Forth '94 Draft Specification	
Forth 200x Extension Proposals	
Forth Implementations	
GForth @ Wikipedia	GNU Forth, a free implementation
GForth @ GNU	
SwiftForth	A commercial implementation.