Move to next field

<backtab>

(tempo-forward-mark)

Emacs support for the Seed7 Programming Language

	Emac	s support for the Seed7 P	rogrammin	g Language
Description	<u>Keystroke</u>	Function		<u>Note</u>
Seed7 Editing O Help & customization Comments Template Expansion Seed7 abbreviations Marking Menu iMenu/Speedbar Outline Navigation Xref Navigation Syntax-aware Indentation Compilation Seed7 Information	PEL supports for the Seed7 programming language uses seed7-mode . PEL also provides useful extensions & utilities that can't be implemented in the major mode. The seed7-mode external package is installed when the pel-use-seed7 user-option is set to t. Seed7 files are files with .sd7 and .s7i extensions. The seed7-mode supports: Seed7 code highlighting Insertion of Seed7 bock or line-end comments. Ability to select which type is inserted by comment-swim. PEL also provides a command to select the comment style allowing easy selection of different styles of multi-line comments, a feature provided by Emacs that PEL uses and provides an easy selection at prompt. Seed7 code navigation across function and procedures as well to start/end of blocks inside functions/procedure as well as enum and struct. imenu support, allowing use of all imenu-based navigation commands and pop-up menus. Identifies callable (functions and procedures), interfaces, enums, structs. Seed7-syntax-aware auto-indentation and auto-fill-mode are supported. Code keyword expansion to Seed7 statements with ability to jump to next field to fill with tempo markers and navigation to those. outline-minor-mode to list the name of Seed7 callables. See Coutline for more information. Invocation of Seed7 compiler tools to perform static analysis or compilation of Seed7 code.			
Last updated on:	2025-10-09 All PEL functions that extend the <u>seed7-mode</u> have names that are shown using light green color . See <u>>-Legend</u> for more info.			
Open this PDF file. See also: <u>∑ Help/Info</u>	<f11> SPC 7 <f1><f12> <f1></f1></f12></f1></f11>	(pel-help-pdf &optional OPEN-WEB-PAGE)	Open the <u>\$\mathbb{N}\$I - Seed7</u> 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 Seed7 support	<f11> SPC 7 <f2> <f12> <f12> <f2></f2></f12></f12></f2></f11>	(pel-customize-pel &optional OTHER-WINDOW)	Customize PEL Seed7 support. • If OTHER-WINDOW is non-nil (use C-u), display in another window.	
∑ Customize Emacs	<f11> SPC 7 <f3></f3></f11>	(pel-customize-library &optional OTHER-WINDOW)	Customize Emacs Seed7 support: seed7 • If OTHER-WINDOW is non-nil (use C - u), display in another window.	
Seed7 support	• <f12> <f3> • C-c C</f3></f12>			
Show seed7-mode version information	C-c v	(seed7-mode-version)	Print `seed7-mode' version UTC time stamp.	
Show seed7-mode info	• C-h m • <f1> m</f1>	(describe-mode &optional BUFFER)	Display information about the seed7-mode extracted from seed7-mode key-map an docstring. See <u>E Help/Info</u> for more on navigating Emacs help.	
<u>Comments</u>	More are available to inse	ert & manipulate comments, listed in <u>E Comments</u> . So	ome are duplicated here	for convenience. The seed7-mode specific are listed first.
Toggle between Seed7 (* block *) and # line style	C-c ;	(seed7-toggle-comment-style &optional ARG)	Toggle the Seed7 comment style between block and line comments. Optional numeric ARG, if supplied, switches to block comment style when put to line comment style when negative, and just toggles it when zero or left ou Note: the default style for all Seed7 buffers is controlled by the `seed7-uses-b comment' customizable user-option. The default is line style comments.	
Insert, realign, comment/uncomment region With PEL: Comment the current line with	M-;	(comment-dwim ARG)	Insert or realign comment on current line (or region if a region is active). On a single line, the comment is placed <i>after</i> the code. If line/region is already commented, uncomment it. C-u M-; executes comment-kill	
M-0 M-;		(pel-comment-dwim ARG)	Same as comment-dwim but comments the current line with a numeric ARG or	
Toggle display of comments in buffer or active region See also: ∑ Comments	<f11> ; ;</f11>	(hide/show-comments-toggle &optional START END)	Toggle hiding/showing of comments in the active region or whole buffer. • If the region is active then toggle in the region. Otherwise, in the whole buffer. • This requires the hide-commt.el package (see ∑ Comments).	

Move point to the next <u>tempo marker</u>, the next template field to fill.

Description	Kaystroka	E,	nction		Note		
•	Keystroke The seed7-mode support			de when the seed7-se	Note upport-abbrev-mode customiz	able user-ontion is on (the	
Seed7-specific abbreviations	default).	•				association is on the	
	The default list is shown below. All abbreviations start with a semi-colon.						
See also:	-		eviations through customiza treated specially by the abb		that voucannat modify them dy	ynamically via the abbrev-mode	
	commands. But you	u don't need to since they o	can be modified by customiz	ation.			
	 Of course you can create other abbreviations that help you write code or comments. See <u>Nabbreviations</u> for more details related to abbreviations in Emacs. To expand the abbreviations, the <u>abbrev-mode</u> must be active: type the abbreviation followed by a word-separating character, such as <space>, <ret>, semi-</ret></space> 						
	colon, period, comma, etc Subset the list-abbrevs command to list all abbreviations (<f11> a M-1 with PEL), including the following Seed7-specific ones. The list are shown in sorted order.</f11>						
					in-middle statement keywords		
Pragmas & in- statement keywords	;de	gmas	in-statement ;fo			1	
	;in	info	;n	forward	;dt	downto	
	;li	library	;no	new	;exc	exception	
	;msg	message	;ra	raise	;lo	local	
	;na	names	;rt	return	;pa	param	
	;syn	syntax	, -		;rg ;rs	range	
	;sys	system	;tr	trace	;st	step	
Block clause		•	block cl	ause keywords	,,,,	оюр	
keywords	;ct	catch	;e	else	;o	otherwise	
			;ei	elsif	;w	when	
Pre-defined types			pre-d	efined types			
	;а	array	;db	database	;rat	rational	
	;bi	bigInteger	;du	duration	;rf	reference	
	;br	bigRational	;en	enum	;rfl	ref_list	
	;b3	bin32	;ex	expr	;s	set	
	;b6	bin64	;fi	file	;sq	sqlStatement	
	;bt	bitset	;fs	fileSys	;sti	string	
	;bo	boolean	;fl	float	;stu	struct	
	;bs	bstring	;h	hash	;tx	text	
	;ca	category	;i	integer	;ti	time	
	;c	char	;ob	object	;ty	type	
	;cf	clib_file	;pro	process	;v	void	
	;co	color	;pr	program	;pw	PRIMITIVE_WINDOW	
	;cx	complex					
Pre-defined constants				ined constants			
	;em	empty	;f ;t	FALSE	;inf	Infinity	
Due defined 111				TRUE			
Pre-defined variables	;ck	CONSOLE_KEYBOARD	;sc	fined variables STD CONSOLE	;sn	STD NULL	
	;gk	GRAPH_KEYBOARD	;se	STD_CONSOLE STD ERR	;so	STD_NOLL	
	;kb	KEYBOARD	;si	STD_ENN		5_001	
Errinfo values				nfo values			
	;ok	OKAY_NO_ERROR	;dse	DESTROY_ERROR	;me	MEMORY_ERROR	
	;ae	ACTION_ERROR	;fe	FILE_ERROR	;ne	NUMERIC_ERROR	
	;ce	COPY_ERROR	;ge	GRAPHIC_ERROR	;oe	OVERFLOW_ERROR	
	;cre	CREATE_ERROR	;ie	INDEX_ERROR	;re	RANGE_ERROR	
	;dbe	DATABASE_ERROR	;ine	IN_ERROR			
Marking	The seed7-mode support	rt specialized marking. It is	also compatible with other	Emancs native and page	ckage commands. See <u>E Marki</u>	ng for more information.	
Mark current callable	C-M-h	(seed7-mark-defun)		Mark the current See	d7 function or procedure.		
		Put the mark at the end and point at the beginning. If point is before or between 2 functions or procedure, mark the next one.					
Menu Control	The seed7-mode suppor	rts the top <u></u> Menu s for mo	re information on how to act	'	Seed7 specific information is	,	
iMenu Control					Speedbar commands are ava		
	- ''						
Toggle iMenu grouping of callable:	C-c g c	(seed7-toggle-menu-cal	lable-list)	 Change the way callables are listed inside the current buffer menu. Toggles listing them together or separately. When listed separately the function and procedures are listed inside their own group, otherwise they are listed together. 			
function & procedures listed separately or							
together							
Toggle iMenu sorting	C-c g s	(seed7-toggle-menu-sor	rting)	Toggle displaying me	nu entries in code order or sorte	ed order.	
Seed7 Outlining	The seed7-mode support	supports Emacs outline minor mode. Some info is shown below See <u>Soutline</u> for the complete list.					
Outline minor mode	<f11> M-1</f11>	(outline-minor-mode &optional ARG) Toggle Outline minor mode. Headings are defined by outline variables.			outline variables.		
Hide all bodies	C-c C-t	(outline-hide-body)		Collapse the body of all blocks, leaving the first line visible.			
	• <f2> t</f2>						
Show all	• C-c @ C-t	(outline ober 5th		Show all: expand the body of all blocks			
Show all	C-c C-a	(outline-show-all)		Show all: expand the body of all blocks.			
	• <f2> a • C-c @ C-a</f2>						
Show subtree	C-c C-s	(outline-show-subtree)		Show everything after this heading at deeper levels.			
	• <f2> s</f2>	,					
	• C-c @ C-s						
Hide others	C-c C-o	(outline-hide-other)		Collapse everything except the current block.			
	• <f2> o</f2>						
	• C-c @ C-o						

Description	<u>Keystroke</u>	Function	Note			
Code Navigation		ts syntax-aware procedure/function as well as block a rra key bindings to Emacs native navigation command				
	• The seed7-mode also	supports imenu-compliant parsing which enables the	e ability to use a large set of navigation packages.			
	 See <u>navigation by symbol definition</u> in the <u>Navigation page</u> for more information. The <u>seed7-mode</u> navigation commands display the name and type of block found when the <u>seed7-verbose-navigation</u> user-option is turned on 					
Shift-Selection	If you press and hold the shift key while typing a movement command, that sets the mark before moving point (Emacs name for cursor) so that the region extends					
	from the original point to its new position. This is called: Shift-Selection • Shift-selection is supported by some navigation commands, not all. The following symbols are used to identify whether the command supports the support of the support o					
	This command su	pports shift selection in GUI and terminal mode.				
	• Uhis command su	pports shift selection in GUI mode and also in termina	al mode under some conditions (described in the description cell for the command).			
		ommand does not support shift selection. Sometimes for this you can first set the mark before moving. the Shift key when using the key binding for commands that do not show any of these 3 arrows have no impact on the shift selection (and may be				
	inappropriate for the		(a. 6) (a			
Move Point	The following sub-section	as describe how to navigate across various types of te	xtual and syntactical entities.			
• by <u>defun</u>	The commands move point by Seed7 function and procedure definitions.					
	 In PEL: The <f12> cursor key mappings use <up> and <down> to move to the beginning or end of the function, procedure or other blocks.</down></up></f12> 					
	• The <f6> cursor ke</f6>	ey mapping use <up> and <down> to move to the be</down></up>	eginning or end of the function or procedure.			
	The advantage of the <	f6> and <f12> key bindings is they support Shift-S</f12>	he beginning or end of the next/previous function or procedure. <u>ielection</u> for Emacs in terminal mode, as opposed to the key bindings that sue the			
		only support <u>Shift-Selection</u> when Emacs is running i ully, unless you did not push the mark, you can go bac	in Graphics mode. ck to previous location with: M=`, <f6> <f6> or <f11> . `</f11></f6></f6>			
Backward to	• <f6> <up></up></f6>	(seed7-beg-of-defun &optional N SILENT DONT-	Move backward to the beginning of a defun.			
beginning of defun	_	PUSH-MARK)	With ARG, do it that many times. Negative ARG means move forward to the ARGth following beginning of defun. Prints the name of the function or procedure in the message area.			
1	• C-M-a • C-M- <home></home>		Supports Shift-Selection in graphics mode. <f6><up> supports it in terminal</up></f6>			
	• C-[C-a		mode too.			
Forward to end of	• Esc C-a • <f6> <down></down></f6>	(seed7-end-of-defun &optional N SILENT DONT-	Move forward to next end of defun.			
defun #	• C-M-e	PUSH-MARK)	With argument, do it that many times. Negative argument -N means move back to			
11/	• C-M- <end></end>		Nth preceding end of defun. Prints the name of the function or procedure in the message area.			
	• C-[C-e • Esc C-e		 Supports <u>Shift-Selection</u> in graphics mode. <<u>f6</u>><<u>down</u>> supports it in terminal mode too. 			
Move Forward to	• C-c C-n	(seed7-beg-of-next-defun &optional N SILENT	Move forward to the beginning of the next function or procedure.			
beginning of next defun	• <f6> <right></right></f6>	DONT-PUSH-MARK)	With optional argument N, repeat the search that many times and succeed only when that many function or procedures are found.			
			A value of zero means no action. A negative value is not allowed and raises a user error.			
			Unless SILENT, the function prints a message showing the name of the found function or procedure.			
			When a new function or procedure is found the function pushes the mark unless			
			DONT-PUSH-MARK is non-nil. Pushing the mark allows future pop to go back to the original position with C-u C-SPC .			
Backward to end of	<f6> <left></left></f6>	(pel-end-of-previous-defun &optional SILENT	Supports shift selection. Move backwards to the end of the previous function definition.			
previous define	<10> \1610>	DONT-PUSH_MARK)	Issue user error not find end of previous function unless SILENT is non-nil.			
will be replaced			If the end of previous function is found, push the start location to the mark ring unless DONT-PUSH, MARK is non-nil. Current Skift St. Lating 1997			
Forward to end of	-C10> <3>	(seed7-to-block-forward)	Supports Shift-Selection. Move forward from the beginning of a Seed7 block to its end.			
current block	<f12> <down></down></f12>	(seed)-to-block-iolwaid)	Supports the Seed7 if/end if, block/end block, case/end case, enum/end enum,			
statement			for/end for, repeat/until, struct/end struct, while/end while. It also supports moving to the end of a function or a procedure.			
		·	Supports Shift-Selection. Mayo had yourd from the and of a Seed 7 block to its had in its had			
Backward to beginning of current	<f12> <up></up></f12>	(seed7-to-block-backward)	Move backward from the end of a Seed7 block to its beginning. • supports the Seed7: if/end if, block/end block, case/end case, enum/end enum,			
block statement			for/end for, repeat/until, struct/end struct, while/end while. It also supports moving to the end of a function or a procedure.			
			• Supports Shift-Selection.			
Move to top of block	C-c C-t	(seed7-to-top-of-block)	Move point to the top of the current block; out of any nesting.			
Move to block	C-c C-a	(seed7-to-block-backward &optional AT-	Move backward from block end to its beginning.			
backward		BEGINNING-OF-LINE DONT-PUSH-MARK)	 Move point to the beginning of the block keyword or comment. If point moves to the indenting area as a result, and AT-BEGINNING-OF-LINE 			
			optional argument is set, move point to the beginning of the line. • Push mark unless DONT-PUSH-MARK is non-nil. Supports shift-marking.			
			Return found position if found, nil if nothing found.			
Move to block forward	C-c C-e	(seed7-to-block-forward &optional DONT-PUSH-MARK)	Move forward from the block beginning to its end. • Handle function and forward declarations blocks.			
			Push mark unless DONT-PUSH-MARK is non-nil. Supports shift-marking. Return found position or nil if nothing found.			
Cross Reference	The Seed7 programming	language can inspect itself: it is reflective in the sense	·			
<u>Navigation</u>	 The seed7-mode takes advantage of this to provide quick cross reference navigation without the need of a language server or ctags parsing. The seed7-mode provides the s7xref.sd7 Seed7 program that acts as a cross reference parser and is used as the backend for Emacs xref. This program can be interpreted (the most flexible option) or compiled. 					
See also: ∑ Xref						
See also. <u>E Alei</u>	Once the <u>s7xref.sd7</u> program properly in place (the seed7-mode default should be enough) you can use the following commands to navigate quickly and the seed7-mode default should be enough.					
	 Note that the <u>seed7-mode</u> back-end implementation of xref-find-definition does more than only looking up for identifiers managed by the <u>s7xref.sd7</u> program: it is also aware oo block and file scope and can identify the location of a local or global variable. 					
Find definition of	M	(xref-find-definitions IDENTIFIER)	Grab symbol at point and move cursor to its definition.			
identifier at point		, in the second of the second	 If there are more than one match, prompt in the *xref* buffer. To search for a symbol entered manually, type C-u M 			
			With dumb-jump this performs a search using ag, ripgrep or git grep if available.			
Go back to where M	М-,	(xref-pop-marker-stack)	Pop back to where M was last invoked. Marker depth is controlled by the wast marker ring length user entire.			
was last issued			Marker depth is controlled by the xref-marker-ring-length user option.			

Description	<u>Keystroke</u>	Function	<u>Note</u>	
Syntax-aware automatic Indentation See also Indentation	Emacs approach to indentation control is based on what the major-mode provides. For Seed7 code, the indentation is controlled by logic implemented by the seed7-mode. Unless explicitly disabled by setting the seed7-auto-indent user-option to nil, the <tab> and <return> key perform syntax-aware automatic indentation of Seed7 code. The <return> key also supports the auto-fill-mode. • When you type code and hit the <return> key the line you just typed is indented to the location corresponding to the Seed7 indentation rules. • When you press the <tab> key anywhere on the line, the seed7-mode code shakes if the current line is properly indented and updates the indentation if</tab></return></return></return></tab>			
Auto-fill-mode	The <u>seed7-mode</u> supports Emacs auto-fill-mode, useful when typing comments. See the <u>S Fill/Justify</u> page and the <u>pel-comment-style</u> command above.			
Expand keyword or indent	<tab></tab>	(seed7-complete-statement-or-indent)	If point follows a valid code keyword properly located, this perform code expansion, leaving point at the first location that must be filled. In that case you can then type <backtab> to move to the next field that needs to be filled (or has already been filled). Those are tempo markers that stay in the buffer until the buffer is closed. If point is located anywhere else indent the line or selected block.</backtab>	
Indent enclosing block	C-M-q	(seed7-indent-block)	Indent the block enclosing point. Do not move point.	
Refill/justify	M-q	(seed7-fill)	Refill/justify comment and string paragraph, re-indent current code block.	
Compilation	The Seed7 source code is either interpreted or compiled. In both cases you can verify it's validity by performing a static check of the code, an operation that does not generate any binary file but perform the same language checking that the compiler will do.			
Static check or	C-c C-c	(seed7-compile &optional COMPILE)	Static check current Seed7 file, show errors in compilation-mode buffer. • With optional COMPILE argument: compile the file to executable instead.	
compile Seed7 file See ∑ Compilation Mode C-c C-c static check C-u C- C-c compile	 * With optional COMPILE argument: compile the file to executable instead. * Any argument>. Use C-u C-c C-c or M-0 M-<f12> c</f12> * For example: type C-u <f12> c for compiling the file. Without the C-u prefix it just static checks the file, an operation that is much faster.</f12> * The static analysis is performed by the command identified by the seed7-checker user-option, which defaults to s7-check. * You can specify any command with or without its path. * The compilation is performed by the command identified by the seed7-compiler user-option, which defaults to s7c. * You can specify any command with or without its path. * Any detected error is shown in a *compilation* Ecompilation Mode buffer. Use it to navigate to the line of the code in error. 			

Emacs & Seed7 — References

Document	Notes		
The Seed7 Programming Language	Seed7 @ Wikipedia Seed7 Home Seed7 @ Github	Seed7 Manual Seed7 Language Reference	
	Seed7 @ reddit Seed7 @ Rosetta code Seed7-users mailing list archive		
Presentations	The Seed7 Programming Language @ Youtube The Seed7 Programming Language Presentation at CPP Vienna @ Youtube Another speech about the Seed7 Programming Language		
	Modern Extensible Languages. Daniel Zingaro, McMaster U. April 11, 2007 (pdf)		
Emacs support 🚧 is partial, not yet completed.	seed7-mode @ Github		
Other tools that support Seed7	 ripgrep a very fast grep replacement - supports seed7 file types with this pull request accepted April 7 2025 With this version of ripgrep, you can use deadgrep to identify Seed7 files by name in Emacs. See Serp ugrep another very fast grep replacement - supports seed7 files with this pull request. 		