## Scrolling

Emacs has several scroll modes:  One line scroll operations in any mode provided by the PEL package scroll commands.  Single window scroll, where the navigation commands for up and down are translated to scroll operations when scroll is possible.  Dual window scroll, implemented by the PEL package, where a PEL scroll command in one window is reflected in the other, associated window. The scroll-all-mode, where all windows are scrolled together when one of the native Emacs scroll commands is used.  Emacs also has the follow mode, described below.  Emacs provides the following standard commands to scroll text in the current window. These commands scroll without having to enable a spee mode (just as the PEL provided single line scroll commands below). However that also work in the single window scroll and the scroll all mode, current implementation they do not scroll both windows in the dual scroll mode provided by PEL.  Scroll up by near full screen  **C-V*** (scroll-up-command &optional ARG)**  **C-yage -down>  **(scroll-up-command &optional ARG)**  **C-yage up>  **(scroll-down-command &optional ARG)**  **In the scroll in any mode (PEL specific)*  **In this is sufficient for several types of work but not for others and this mode will be expanded.  **This is sufficient for several types of work but not for others and this mode will be expanded.  ***M-down>**  **M-down>**  **M-efl1>**  **M-efl2>*  **M-efl2>*  **  **In is up (pel-scroll-up &optional N)  **  **  **  **  **  **  **  **  **	ial scroll With the lines to es to		
Scroll Commands  Scroll where the content implementation they do not scroll both windows in the dual scroll mode provided by PEL.  Scroll up by near full screen  • C-V	With the lines to es to		
scroll.    Scroll down by near full screen   Scroll down by near full screen   Scroll down by near full screen   Scroll down-command & Optional ARG)   Scroll down-command & Optional AR	es to		
One line scroll in any mode (PEL specific)  These commands are provided by the PEL package. This allows single line scroll of two windows simultaneously.  This is work in progress. The current implementation of this mechanism is restricted to the scroll commands described in the following rows.  It also supports the pel-home and pel-end commands that move point to the top and the end of the buffer respectively. But nothing else.  This is sufficient for several types of work but not for others and this mode will be expanded.  The <m-down> and <m-up> keys do not scroll in org-mode. For single line scrolling in org-mode use <m-f11> and <m-f12> instead.  Move text 1 line up (same direction as forward) toward the end of buffer. The following commands affect the behaviour of this:  (pel-toggle-scroll-sync) toggle scrolling 2 windows in sync.  (pel-toggle-numlock) toggles the numlock, to get access to the keypad keys are or as digits. To use this they the keypad must be off. Repetition and inverse movement supported by numeric argument.  If N is negative it means the other direction as backwards), toward the top of buffer. The following commands affect the behaviour of this:  (pel-toggle-numlock) toggles the numlock, to get access to the keypad keys are or as digits. To use this they the keypad must be off. Repetition and inverse movement supported by numeric argument.  If N is negative it means the other direction.  Toggle dual window scroll mode   **Cf11&gt; w     (pel-toggle-dual-scroll)  Toggles the scroll-lock sync of 2 windows: the current window and the window to the left. If there is no window to the left, then scroll-lock with the window to the left. If there is no window to the right, then scroll-lock with the window to the left. If there is no window to the right, then scroll-lock with the window to the left. If there is no window to the right, then scroll-lock with the window to the left. If there is no window to the right, then scroll-lock with the window to the left.  It has no window to the right, then</m-f12></m-f11></m-up></m-down>	s cursors		
mode (PEL specific)    This is work in progress. The current implementation of this mechanism is restricted to the scroll commands described in the following rows.   It also supports the pel-home and pel-end commands that move point to the top and the end of the buffer respectively. But nothing else.   This is sufficient for several types of work but not for others and this mode will be expanded.   This is sufficient for several types of work but not for others and this mode will be expanded.   This is sufficient for several types of work but not for others and this mode will be expanded.   The <m-down> and <m-up> keys do not scroll in org-mode. For single line scrolling in org-mode use <m-fil> and <m-fil> instead.   Move text 1 line up (same direction as forward) toward the end of buffer. The following commands affect the behaviour of this:   (pel-toggle-scroll-sync) toggle scrolling 2 windows in sync.   (pel-toggle-scroll-sync) toggle scrolling 2 windows in sync.   (pel-toggle-numlock) toggles the numlock, to get access to the keypad keys as or as digits. To use this they the keypad must be off.   Repetition and inverse movement supported by numeric argument.   If N is negative it means the other direction as backwards), toward the top of buffer.   The following commands affect the behaviour of this:   (pel-toggle-scroll-sync) toggles scrolling 2 windows in sync.   (pel-toggle-numlock) toggles the numlock, to get access to the keypad keys as or as digits. To use this they the keypad must be off.   Repetition and inverse movement supported by numeric argument.   If N is negative it means the other direction.   If N is specified it identifies a repetition count.   If N is specified it identifies a repetition count.   If N is negative it means the other direction.   Toggle dual window scroll</m-fil></m-fil></m-up></m-down>	s cursors		
(PEL specific)    It also supports the pel-home and pel-end commands that move point to the top and the end of the buffer respectively. But nothing else.   This is sufficient for several types of work but not for others and this mode will be expanded.   The M-down and M-up keys do not scroll in org-mode. For single line scrolling in org-mode use M-f11 and M-f12 instead.   Scroll up	s cursors		
Bring text ahead into view.  • <m-f11>  The following commands affect the behaviour of this: • (pel-toggle-scroll-sync) toggles crolling 2 windows in sync. • (pel-toggle-numlock) toggles the numlock, to get access to the keypad keys as or as digits. To use this they the keypad must be off. Repetition and inverse movement supported by numeric argument. • If N is specified it identifies a repetition count. • If N is negative it means the other direction.  Scroll down  • <m-up> • <m-f12>  (pel-scroll-down &amp;optional N)  Move text 1 line down (same direction as backwards), toward the top of buffer. The following commands affect the behaviour of this: • (pel-toggle-scroll-sync) toggle scrolling 2 windows in sync. • (pel-toggle-scroll-sync) toggles the numlock, to get access to the keypad keys as or as digits. To use this they the keypad must be off. Repetition and inverse movement supported by numeric argument. • If N is negative it means the other direction.  Toggle dual window scroll mode  • <f11> w     • <f11> w     • <f11>   (pel-toggle-dual-scroll)  Toggles the scroll-lock sync of 2 windows: the current window and the window to the left. • In this mode the above commands make both windows scroll. The <hodoes (pel-toggle-scroll-sync)="" <f11="" access="" affect="" and="" argument.="" as="" be="" behaviour="" by="" commands="" digits.="" direction.="" dual="" following="" get="" if="" inverse="" is="" it="" keypad="" keys="" means="" movement="" must="" n="" negative="" numeric="" numlock,="" of="" off.="" or="" other="" repetition="" scroll="" supported="" the="" they="" this="" this:="" to="" toggle="" toggles="" use="" window="" •=""> w     • <f11> w     • <f11> the scroll-lock sync of 2 windows: the current window and the window to the left. • In this mode the above commands make both windows scroll. The <hodoes 2="" <hodoes="" above="" and="" both="" commands="" current="" in="" left.="" make="" mode="" of="" scrol<="" scroll-lock="" scroll.="" sync="" td="" the="" this="" to="" window="" windows="" windows:="" •=""><td></td></hodoes></f11></f11></hodoes></f11></f11></f11></m-f12></m-up></m-f11>			
Pring text ahead into view.			
Bring text behind into view.  • <m-f12>  The following commands affect the behaviour of this:  • (pel-toggle-scroll-sync) toggle scrolling 2 windows in sync.  • (pel-toggle-numlock) toggles the numlock, to get access to the keypad keys as or as digits. To use this they the keypad must be off.  Repetition and inverse movement supported by numeric argument.  • If N is specified it identifies a repetition count.  • If N is negative it means the other direction.  Toggle dual window scroll  mode  • <f11> w      • <f11>    • <f11>    • <f11>    • It his mode the above commands make both windows scroll. The <home> a</home></f11></f11></f11></f11></m-f12>	; cursors		
Pring text behind into view.	cursors		
mode  • <f11>    If there is no window to the right, then scroll-lock with the window to the left.  • In this mode the above commands make both windows scroll. The <home> a</home></f11>			
There is no indication of the mode in the mode line, however the command the mode state in the mini buffer.	nd		
Scroll other window			
Scroll other window up  • Esc <pgup> • C-M-S-v  (scroll-other-window-down &amp; optional LINES)  Scroll the text of the other window one near-full window up (toward the top of the argument is specified, that identifies the number of lines to scroll. A argument inverses the direction.</pgup>			
Scroll other window down  • Esc <pgdown> • C-M-v  (scroll-other-window &amp;optional ARG)  Scroll the text of the other window one near-full window down (toward the bottor buffer).  If a number argument is specified, that identifies the number of lines to scroll. A argument inverses the direction.</pgdown>			
Scrolling left/right			
scroll window (lines) left  • C-x < (scroll-left &optional ARG SET-MINIMUM)  Scroll window left.  • This command is disabled by default.			
scroll window (lines) right  • C-x >  • C- <pgup>  (scroll-right &amp;optional ARG SET-MINIMUM)  Scroll window right.  • This command is disabled by default.</pgup>			
1 Window Scroll  The single window scroll mode allows using normal cursor movement keys to scroll the window.	The single window scroll mode allows using normal cursor movement keys to scroll the window.		
Toggle Scroll-Lock Mode   <f11> w   1   (scroll-lock-mode &amp; optional ARG)   Toggle single window scroll mode.</f11>			
<ul> <li>This is a buffer-local minor mode for pager-like scrolling.</li> <li>With a prefix argument ARG, enable the mode if ARG is positive, and disable it otherwise.</li> <li>When enabled, keys that normally move point by line or paragraph will scroll the by the respective amount of lines instead and point will be kept vertically fixed to window boundaries during scrolling.</li> </ul>	e buffer		
Toggle Scroll All Mode    Scroll-all-mode & Optional ARG			
Follow Mode  Emacs has a scroll all windows mode which applies all scroll commands to all visible windows. To support mouse wheel or scroll bar you need implement extra code as suggested by the Emacs Wiki Scroll All Mode page.	to		
Emacs follow-mode using 3 windows  When Emacs follow-mode is used on 2 or more windows, these windows show the same buffer spread across these windows that act as a one continuous stream the first window goes to the second window. If there is another then  Emacs follow-mode is used on 2 or more windows, these windows show the substitution of the second window is an information one tall virtual window is accomplished by two main techniques:  Text in the first window is accomplished by two main techniques:  The windows always displays adjacent sections of the buffer. This means the whenever one window is moved, all the others will follow. (Hence the name point is selected, if possible. This makes it possible to walk between window normal cursor movement commands.  Follow mode comes to its prime when used on a large screen and two or more side windows are used. The user can, with the help of Follow mode, use these height windows as though they were one.	m. ow. This hat e Follow I that ws using side-by-		
Toggle follow-mode <f11> w f (follow-mode &amp;optional ARG)  Toggle Follow mode. With a prefix argument ARG, enable Follow mode if ARG is and disable it otherwise.</f11>	tuil-		

## Scrolling - Reference

Торіс	URL	Note
Scroll two opened buffers in a split window at the same time	https://stackoverflow.com/questions/18092100/ scroll-two-opened-buffers-in-a-split-window-at-the- same-time	Use scroll-all-mode  I got it to work briefly (when (SL) was displayed in the mode line lighter) but have not been able to get it to work ever since. The scroll-lock-mode behaves like it is documenting in the source code; which is just to prioritize scrolling instead of moving point in the lines.
Emacs Wiki - Scroll All Mode	https://www.emacswiki.org/emacs/ScrollAllMode	
Emacs Wiki - Scroll Lock	https://www.emacswiki.org/emacs/ScrollLock	
GNU Emacs Manual - Scrolling	https://www.gnu.org/software/emacs/manual/ html_node/emacs/Scrolling.html	
GNU Emacs Manual - Auto Scroll		
GNU Emacs - Follow Mode	https://www.gnu.org/software/emacs/manual/ html_node/emacs/Follow-Mode.html	
Can I scroll the windows in emacs synchronously?	https://stackoverflow.com/questions/33210981/can-i-scroll-the-windows-in-emacs-synchronously	