











# Scrolling

Description	Keystroke	Function	Note
Scrolling	Emacs supports both <i>vertical</i> and <i>horizontal</i> scrolling, even when Emacs is running in text mode. Vertical scrolling is used much more often and is described first in this document. Horizontal scrolling is described below.		
Vertical Scrolling See: • <a href="#">Textual Scrolling</a> • <a href="#">Vertical Fractional Scrolling</a> • <a href="#">⌘ Mouse</a>	Emacs has <b>several vertical</b> scroll modes and several global variables to control scrolling behaviour as described in the <a href="#">Textual Scrolling</a> page. <ul style="list-style-type: none"><li>Single window scroll, where the navigation commands for up and down are translated to scroll operations when scroll is possible.</li><li>Dual window scroll, implemented by the PEL package, where a PEL scroll command in one window is reflected in the other, associated window.</li><li>The scroll-all-mode, where all windows are scrolled together when one of the native Emacs scroll commands is used.</li><li>Emacs also has the <b>Follow Mode</b>, described at the bottom of this document.</li></ul> PEL also provides 1-line scroll commands. Note that when Emacs is running in Terminal (TTY) mode, mouse scrolling is normally disabled. <ul style="list-style-type: none"><li>PEL activates the ability to scroll with the mouse in terminal mode when the xterm-mouse-mode is activated (it can be enabled by <code>&lt;f11&gt;&lt;f12&gt;</code>).</li></ul>		
Open this PDF file. See also: <a href="#">⌘ Help/Info</a>	<code>&lt;f11&gt;   &lt;f1&gt;</code>	( <a href="#">pel-help-pdf</a> &optional OPEN-WEB-PAGE)	Open the <a href="#">⌘ Scrolling</a> local PDF. If the prefix argument (like <b>C-u</b> or <b>M--</b> ) is used, then it opens the remote GitHub hosted raw PDF instead. If the <b>pel-flip-help-pdf-arg</b> user-option is set it's the other way around.
<a href="#">⌘ Customize</a> PEL Scrolling control	<code>&lt;f11&gt;   &lt;f2&gt;</code>	( <a href="#">pel-customize-pel</a> &optional OTHER-WINDOW)	Customize PEL Scrolling support. <ul style="list-style-type: none"><li>If OTHER-WINDOW is non-nil (use <b>C-u</b>), display in other window.</li></ul>
<a href="#">⌘ Customize</a> Emacs Scrolling control	<code>&lt;f11&gt;   &lt;f3&gt;</code>	( <a href="#">pel-customize-library</a> &optional OTHER-WINDOW)	Customize Emacs Scrolling support groups: follow, smooth-scrolling.
• <b>Automatic scroll to the end of the buffer</b>			
Toggle <b>auto-revert tail mode</b>  See more in: <a href="#">⌘ File-mngt</a>	<ul style="list-style-type: none"><li><code>&lt;f11&gt;   t</code></li><li><code>&lt;f11&gt; f r t</code></li></ul>	( <a href="#">auto-revert-tail-mode</a> &optional ARG)	Toggle reverting tail of buffer when the file grows.
<ul style="list-style-type: none"><li><a href="#">recentering in current window</a></li></ul> The following <code>recenter</code> command is not a scrolling operation but can help reposition buffer. <ul style="list-style-type: none"><li>It can be quite useful to quickly position the line where the cursor is located to the centre, top or bottom of the window.</li></ul>			
Position current line to window's Center / Bottom / Top . Refresh screen.  See also: <a href="#">⌘ Windows</a>	<ul style="list-style-type: none"><li><b>C-1</b></li><li><code>&lt;f11&gt; C-1</code></li></ul> With arg: centre first: <ul style="list-style-type: none"><li><b>C-u C-1 C-1 C-1 C-1 C-1</b></li><li><b>→ center → bottom → center → top</b></li></ul> With arg 0: top first: <ul style="list-style-type: none"><li><b>M-0 C-1 C-1 C-1</b></li><li><b>→ top → bottom → center</b></li></ul> <ul style="list-style-type: none"><li>With numeric positive: move current line to window top position N</li><li>With negative numeric: move current line to bottom window position: -1 := last line</li><li>PEL provides the <code>&lt;f11&gt; C-1</code> key binding because some modes use <b>C-1</b> as a prefix key.</li></ul>	( <a href="#">recenter-top-bottom</a> &optional ARG)	Without argument: moves the current line to window: center -> top -> bottom.  With negative arg: bottom first: <ul style="list-style-type: none"><li><b>C-- C-1 C-1 C-1 C-1</b></li><li><b>→ bottom → center → top</b></li></ul>
• <b>Standard Emacs Scroll Commands</b>			
Scroll up by near full screen	<ul style="list-style-type: none"><li><b>C-v</b></li><li><b>&lt;page-down&gt;</b></li></ul>	( <a href="#">scroll-up-command</a> &optional ARG)	<ul style="list-style-type: none"><li>Use an argument number (M-number) before the <b>C-v</b> to specify the number of lines to scroll. In <a href="#">cua-mode</a>, <b>C-v</b> is used for paste.</li></ul>
Scroll down by near full screen	<ul style="list-style-type: none"><li><b>M-v</b></li><li><b>&lt;page up&gt;</b></li></ul>	( <a href="#">scroll-down-command</a> &optional ARG)	Use an argument number (M-number) before the <b>C-v</b> to specify the number of lines to scroll
• <b>Smooth Scrolling</b>			
Emacs default scrolling mechanism makes the screen jumps about the size of half a window when the cursor gets close to the top or the bottom of the window. This mode was originally designed to reduce processing requirements. Its behaviour can however be surprising and annoying.  The smooth-scrolling package provides the <a href="#">smooth-scrolling external package</a> that makes Emacs provide a much smoother scrolling experience.  PEL activates smooth scrolling when the <b>pel-use-smooth-scrolling</b> user option is set to <b>t</b> . You can also turn it on or off with the following command.			
Toggle smooth scrolling mode	<code>&lt;f11&gt;   s</code>	( <a href="#">smooth-scrolling-mode</a> &optional ARG)	Toggle smooth scrolling mode on/off. If a numeric argument is used, a positive one turn smooth scrolling on while a negative one turns it off.  Requires the <a href="#">smooth-scrolling</a> package.  Activated by <a href="#">pel-use-smooth-scrolling</a>
• <b>1-line scroll in any mode</b> • <b>PEL-specific</b>			
PEL provides a line scrolling mechanism that can include 2 or more windows that are scrolled in sync: the windows are part of a <i>sync-scroll group</i> . <ul style="list-style-type: none"><li>The first two commands, <b>pel-scroll-up</b> and <b>pel-scroll-down</b> scroll the text of current window, and <i>any window part of the sync-scroll group</i>, without moving the point.</li><li>Control the set of windows that are part of the <i>sync-scroll group</i> with the <b>pel-toggle-scroll-sync</b>, <b>pel-add-window-to-scroll-sync</b> and <b>pel-remove-window-from-scroll-sync</b> commands. The first one creates a set of 2 windows: the current one and its next window.<ul style="list-style-type: none"><li>The windows part of the sync-scroll set will scroll together only when the <b>pel-scroll-up</b>, <b>pel-scroll-down</b> commands are used, but also when the following keys are used: <b>pel-home</b> (bound to <code>&lt;home&gt;</code>, and <b>pel-end</b> (bound to <code>&lt;end&gt;</code>). Nothing else unfortunately. See <a href="#">⌘ Navigation</a>.</li></ul></li><li>While sync-scroll is active you can scroll the current window only with the commands <b>pel-scroll-down-only-this</b> and <b>pel-scroll-up-only-this</b>.<ul style="list-style-type: none"><li>These commands will temporary disable the sync-scroll and will re-establish it right after.</li></ul></li><li> This is not a pure scroll mode. Moving point inside a window will not scroll but if the window content is refreshed you may loose the lining up of your windows.<ul style="list-style-type: none"><li> The current behaviour is sufficient for several tasks, though, and permit the scrolling of a group of 2 or more windows, any one of them.</li></ul></li></ul>  The <b>&lt;M-down&gt;</b> and <b>&lt;M-up&gt;</b> keys do not scroll in org-mode. Use <b>&lt;M-f5&gt;</b> and <b>&lt;M-f6&gt;</b> instead.			
For the next 2 command: repetition and inverse movement supported by numeric argument : Positive <b>N</b> identifies a repetition count. Negative <b>N</b> identifies repetition in the other direction.			
Scroll up Bring text ahead into view.	<ul style="list-style-type: none"><li><b>&lt;M-down&gt;</b></li><li><b>&lt;M-f5&gt;</b></li></ul>	( <a href="#">pel-scroll-up</a> &optional N)	Move text 1 line up (same direction as forward) toward the end of buffer.  In Org Mode <b>&lt;M-down&gt;</b> is mapped to Org-mode functionality.
Scroll down Bring text behind into view.	<ul style="list-style-type: none"><li><b>&lt;M-up&gt;</b></li><li><b>&lt;M-f6&gt;</b></li></ul>	( <a href="#">pel-scroll-down</a> &optional N)	Move text 1 line down (same direction as backwards), toward the top of buffer.  In Org Mode <b>&lt;M-up&gt;</b> is mapped to Org-mode functionality.
<b>Sync-scroll group</b>			
Use the following commands to establish the windows that are part of the sync-scroll group.			
Toggle PEL window scroll mode	<code>&lt;f11&gt;    </code>	( <a href="#">pel-toggle-scroll-sync</a> &optional N)	Toggles the PEL window scroll-lock sync. If currently on, turn it off.
<ul style="list-style-type: none"><li>if currently off, place the current and next window inside the list of windows that must be scrolled together: the PEL window scroll sync group.</li><li>When turning it on, you can specify a numeric argument that identifies the other window. The value of <b>N</b> can be 2,4,6 or 8 and correspond to the cardinal points represented by the keypad cursor keys:<div>8 (up) 4 (left)                  6 (right) 2( down)</div></li></ul>  This command does not activate a minor-mode. There is no indication inside the mode line, but the command display a message in the echo area.			

