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# WHEELSCROLL

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This small file adds the ability to scroll (scrollable) windows by rotating the wheel on a wheel mouse or by moving (2?) fingers on a track pad. The capability is enabled when `WHEELSCROLL.LCOM` is loaded. It is toggled on and off by

`(ENABLEWHEELSCROLL ON)` [Function]

Initially `(ENABLEWHEELSCROLL T)`.

The vertical scrolling speed is controlled by the variable

`WHEELSCROLLDELTA` [Variable]

The number of points to scroll for each click of the wheel. Higher values give faster scrolling. A negative value reverses the scrolling direction. Initially value: 20.

`HWHEELSCROLLDELTA` [Variable]

If non-NIL, this is the delta used for horizontal scrolling.

## Implementation:

Lisp receives a key transition on `PAD1` or `PAD2` for vertical scrolling when the wheel rotates and no other keys are down. `(ENABLEWHEELSCROLL T)` modifies the `keyaction` table so that it maps these transitions to characters 156 and 157. Those characters are defined as interrupts that invoke the vertical scrolling action. For horizontal scrolling sideways pushes of a wheel (if it has that) produce transitions on `PAD4` and `PAD5`, which map to interrupt-characters 158 and 159. (156-159 are the highest right-panel characters of character-set 0 that correspond to left-panel control characters, so typically have no other conflicting meaning.)

`(ENABLEWHEELSCROLL NIL)` causes `PAD1`, `PAD2`, `PAD4`, and `PAD5` to be ignored.

## Current negative features:

1. When the wheel is depressed for middle-button effect (and no other keys are down), an accidental rotation of the wheel during the transition (up and/or down) may cause unintended scrolling.

We need to develop a strategy, either in Lisp, Maiko, or X, to discriminate intended middle-button pushes from intended scrolling. This is not an issue for track-pad scrolling.

2. When the wheel is rotated over a window that partially occludes a Tedit window with a caret blinking in its unoccluded region, both the target window and the partially obscured Tedit window may scroll.