

emacs.kbd — a starter Emacs keyboard for XyScript

A keyboard layout that brings the everyday Emacs bindings to XyScript, plus its companion library `emacs-kbd.lib`. Single-stroke bindings (C-f, M-w, ...) are ordinary keymap cells; the multi-key **prefix chords** (C-x C-s, C-x 2, ...) are driven by a small **data table** in the library, so they are easy to read, rebind, and extend.

It's a *starter*: enough to move, edit, search, and manage files and windows the Emacs way — not a complete Emacs. Copy it and tune it to taste.

Install

Both files live in `examples/`. Load the library **before** the keyboard — put this in your `startup.xpl` (or run it once):

```
ADDLIB emacs-kbd.lib
LOADKBD emacs.kbd
```

- `ADDLIB` (not `LOADLIB`) *adds* the routines to your current library instead of replacing it.
 - Single-stroke bindings work even without the library; only the C-x and Esc prefixes call into it.
 - `CLEARKBD` returns you to the built-in baseline keyboard at any time.
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Bindings

Moving

Key	Does	Verb
C-f / C-b	forward / back one character	CR / CL
C-n / C-p	next / previous line (visual, wrap-aware)	LD / LU
C-a / C-e	beginning / end of line	EL / ER
M-f / M-b	forward / back one word	NW / PW
C-v / M-v	scroll down / up a page	PD / PU
M-< / M->	beginning / end of buffer	TF / BF

Editing

Key	Does	Verb
C-d	delete the character ahead	RC
C-k	kill to end of line	RE
M-d	kill the word ahead	RW
C-o	open a line (insert newline, stay)	PUT \$NL;CL
C-j	newline	ENTER
C-/	undo	UNDO

The region and the kill ring

Key	Does	Verb
C-SPC	set the mark — then any motion extends the region	DF
C-w	kill (cut) the region	CUT

M-w	copy the region	COPY
C-y	yank (paste)	PASTE

Search and help

Key	Does	Verb
C-s / C-r	incremental search (live)	FIND
C-h	help	HELP
C-g	cancel the current selection	DZ

C-x — files, buffers, windows

The C-x prefix reads the next key and runs its command. Like real Emacs, it tells a **Ctrl-modified** follow-up from a **plain** one, so C-x C-s and C-x s are different commands.

Key	Does	Verb	Key	Does	Verb
C-x C-s	save buffer	SAVE	C-x s	save all modified	SL
C-x C-f	find file (dialog)	OPEN	C-x b	switch buffer	BUFALT
C-x C-c	save and quit	QUIT	C-x k	kill buffer (asks to save)	AB/V
C-x C-b	list buffers	LISTTABS	C-x o	other window	TW
C-x C-h	which-key list	emacs_keys	C-x 2 3 1 0	split / only / close pane	THS TVS FS TUS

M-x and the Meta prefix

Key	Does	Verb
M-x	run a command (opens the command line)	BC

M- is **Alt**. It's also available as the **Esc prefix**, the Emacs way: Esc f = M-f, Esc x = M-x, and so on. Because Esc is a prefix, it no longer cancels in plain editing — modal dialogs still get it. Prefer Esc-to-cancel? Set the Esc cell in emacs.kbd to :l=KF.

How the prefix chords work (and why the library)

The .kbd format binds one key per cell; it has no native syntax for a sequence like C-x C-s. So C-x is bound to a routine, emacs_cx, that:

1. reads the next keystroke with READKEY/D (the /D gives a readable key description, e.g. "CTRL+S"),
2. picks cx_ctrl_map if that description contains CTRL, else cx_map, and looks the follow-up's scan-code up in the chosen table,
3. runs the command it finds with RUNCODE.

The maps *are* the keymap — plain data in emacs-kbd.lib:

```
SET cx_map      = {31:"SL", 48:"BUFALT", 37:"AB/V", 3:"THS", 4:"TVS", 2:"FS",
11:"TUS", 24:"TW"}
SET cx_ctrl_map = {31:"SAVE", 33:"OPEN", 46:"QUIT", 48:"LISTTABS", 35:"emacs_keys"}
```

Keys are the follow-up key's **scancode** values are XPL commands. The Ctrl test is by modifier **name** (from READKEY/D), so it doesn't depend on how the modifier bit values happen to be numbered.

Customizing

- **Rebind at runtime** — no editing the file:

```
SET cx_map[19] = "RED0"      # 19 = the R key -> C-x r now redoes
```

(Find a key's scancode with KBCHART, or with READKEY/D in a scratch script.)

- **List the bindings** — press C-x C-h, or call `emacs_keys`, which iterates both maps and shows them.
- **Add another prefix** (say C-c) — give it its own map and a two-line routine modeled on `emacs_cx`, then bind a `ctrl C` cell to it. That's the whole pattern: a table plus a dispatcher.

Because the dispatch lives in a `.lib`, its routines are compile-checked when the library loads (`ADDLIB`) — a typo surfaces then, not later when you press the key.

Caveats

- **Ctrl vs plain follow-up** is distinguished (via `READKEY/D`), so C-x C-s and C-x s differ — but only **Ctrl** is tested. A follow-up carrying some other modifier (Alt, Shift) falls through to the plain `cx_map` extend `emacs_cx` if you need to tell those apart too.
 - **No prefix argument** (C-u N) and no keymap inheritance — those would be more XPL on top of this.
 - **Esc as Meta** replaces Esc-to-cancel in plain editing (see above).
 - The bindings map Emacs *intent* onto XyScript verbs; a few differ in detail (e.g. C-a goes to the logical line start; C-n/C-p follow *visual* wrapped lines). Retune any cell you like.
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Files

File	What
<code>emacs.kbd</code>	the keyboard layout (single-stroke cells + the C-x / Esc prefix cells)
<code>emacs-kbd.lib</code>	<code>cx_map</code> / <code>meta_map</code> tables and the <code>emacs_cx</code> / <code>emacs_meta</code> / <code>emacs_keys</code> routines
<code>emacs-readme.md</code>	this file