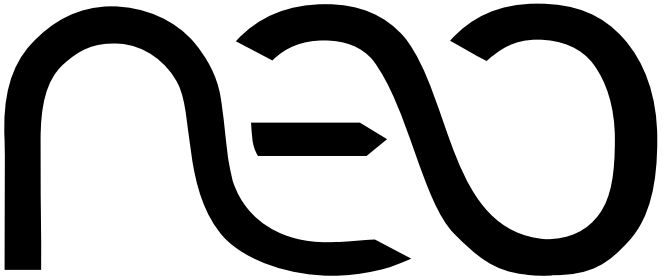
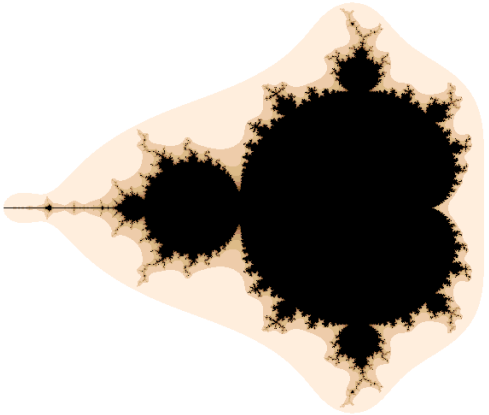
http://lukas-prokop.at/talks/glt19-neo2/



Neo2 Tastaturlayout

Christoph Pratl, Lukas Prokop
2019/04/27 11:00, #glt19

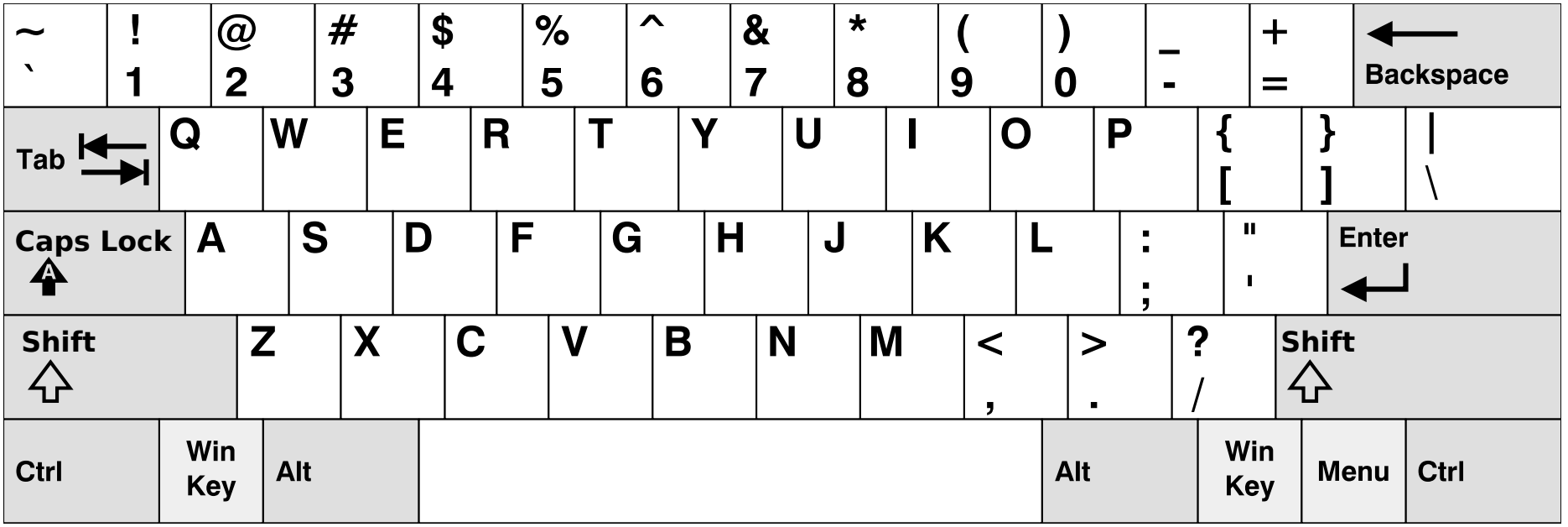
whoami



- **Lukas Prokop**
  self-employed software developer
  math student
  introduced to Neo2 in 2011
- **Christoph Pratl**
  math student
  introduced to Neo2 in 2018

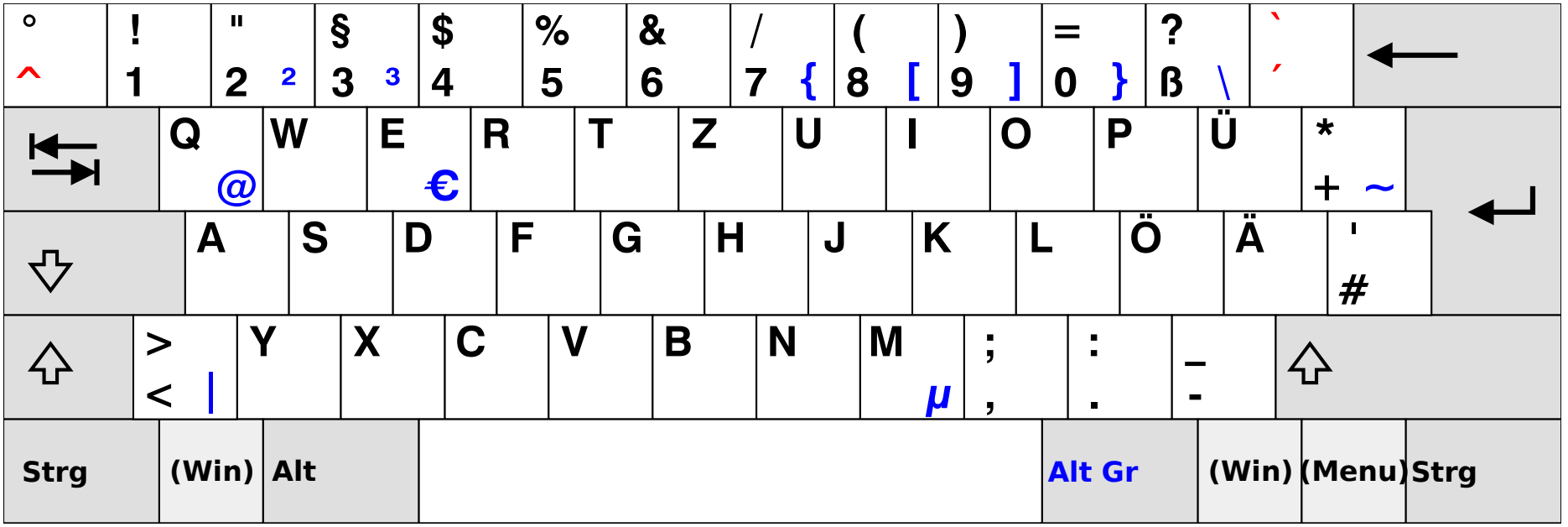
History of keyboard layouts

QWERTY

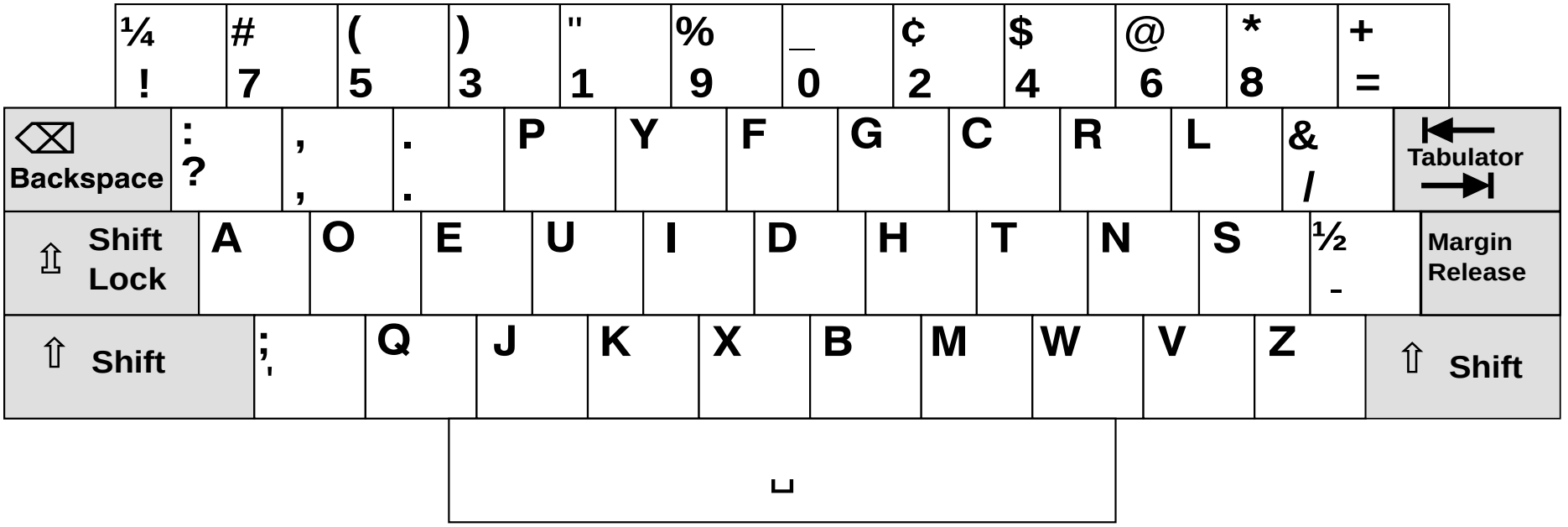


https://commons.wikimedia.org/wiki/File:KB_United_States-NoAltGr.svg

QWERTZ


° ^ ! 1 " 2 ² § 3 ³ $ 4 % 5 & 6 / 7 { (8 [ ) 9] = 0 } ? ß \ ` ´
Q @ W E € R T Z U I O P Ü * + ~
A S D F G H J K L Ö Ä ' #
> < | Y X C V B N M µ ; , : . _ -
Strg (Win) Alt Alt Gr (Win) (Menu) Strg

Dvorak

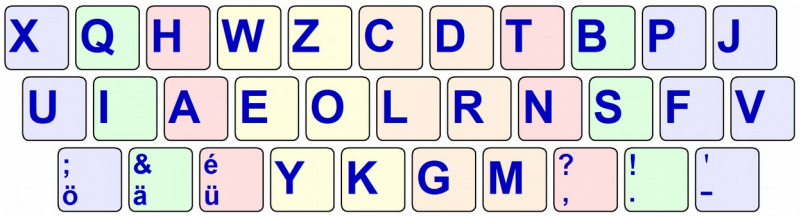


Goals:

1) Hands should alternate
2) Frequent letters in baseline
3) Rare letters in bottom line
4) Right hand more active
5) Digraphs on non-adjacent keys

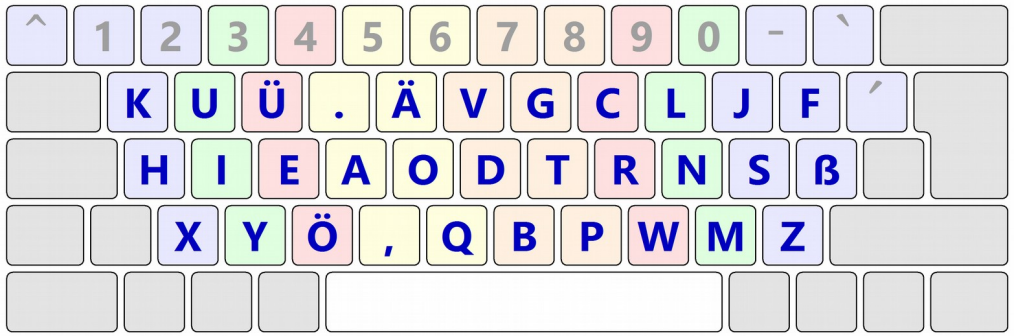
https://commons.wikimedia.org/wiki/File:KB_DSKtypewriter.svg

Other ergonomic layouts



„Drei Sprachen“

„Ristome“



„Aus der Neo-Welt“

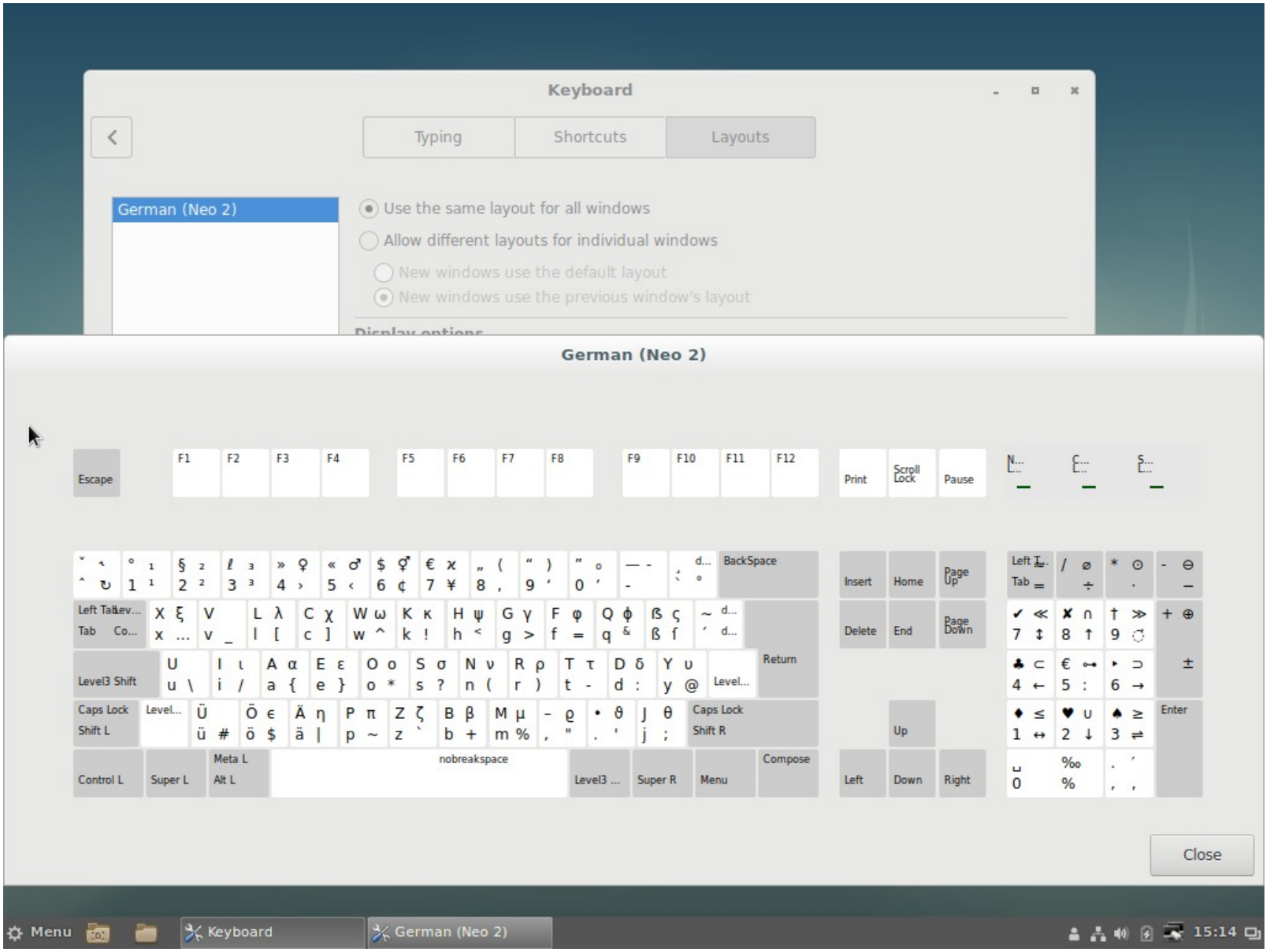
Neo

1 2 3 4 5 6 7 8 9 0 -
x v l c w k h g f q ß
Mod3 u i a e o s n r t d y Mod3
Mod4 ü ö ä p z b m , . j
Strg Alt Leerzeichen Mod4 Strg

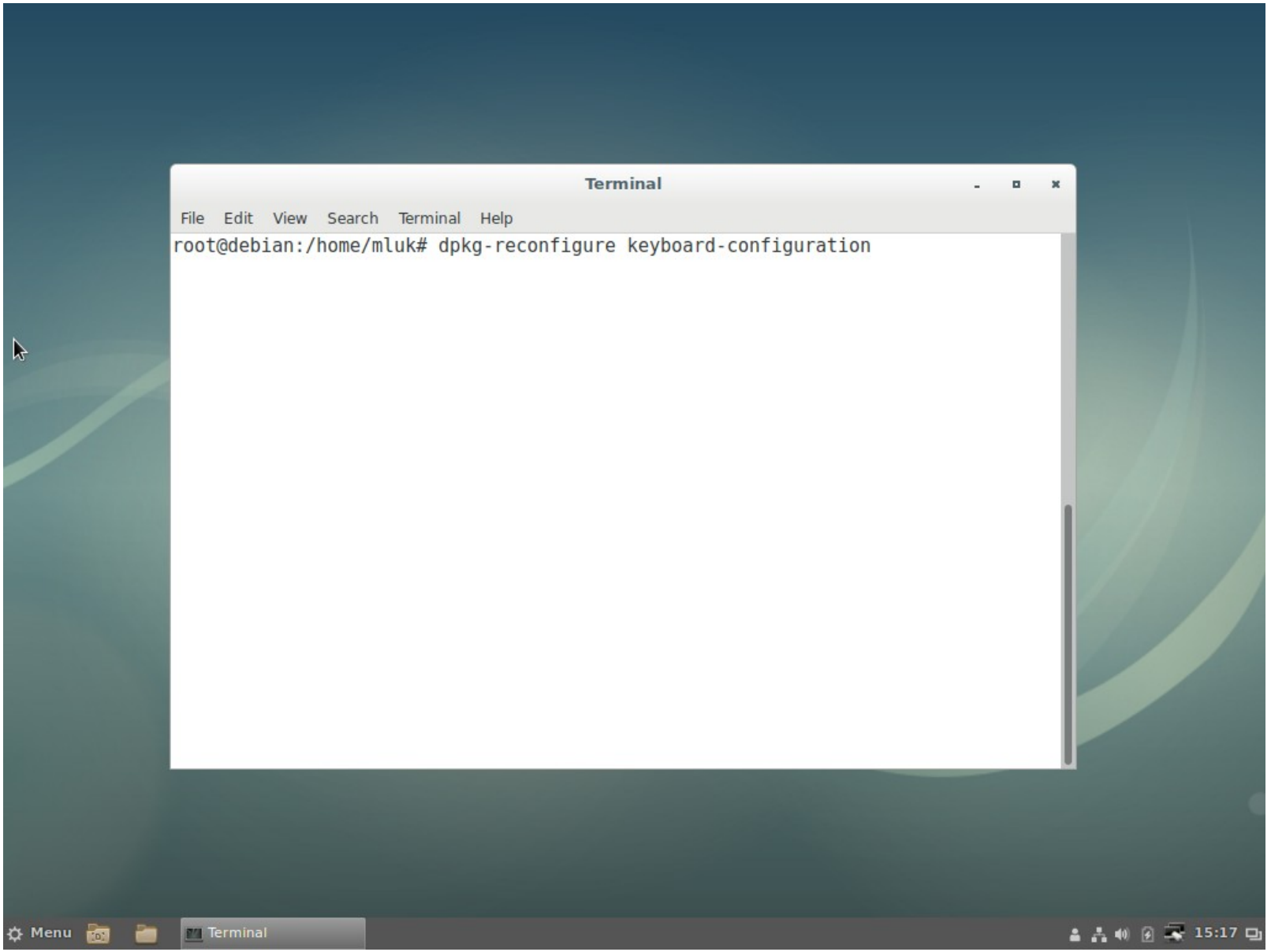
Installation of Neo2

Debian installation

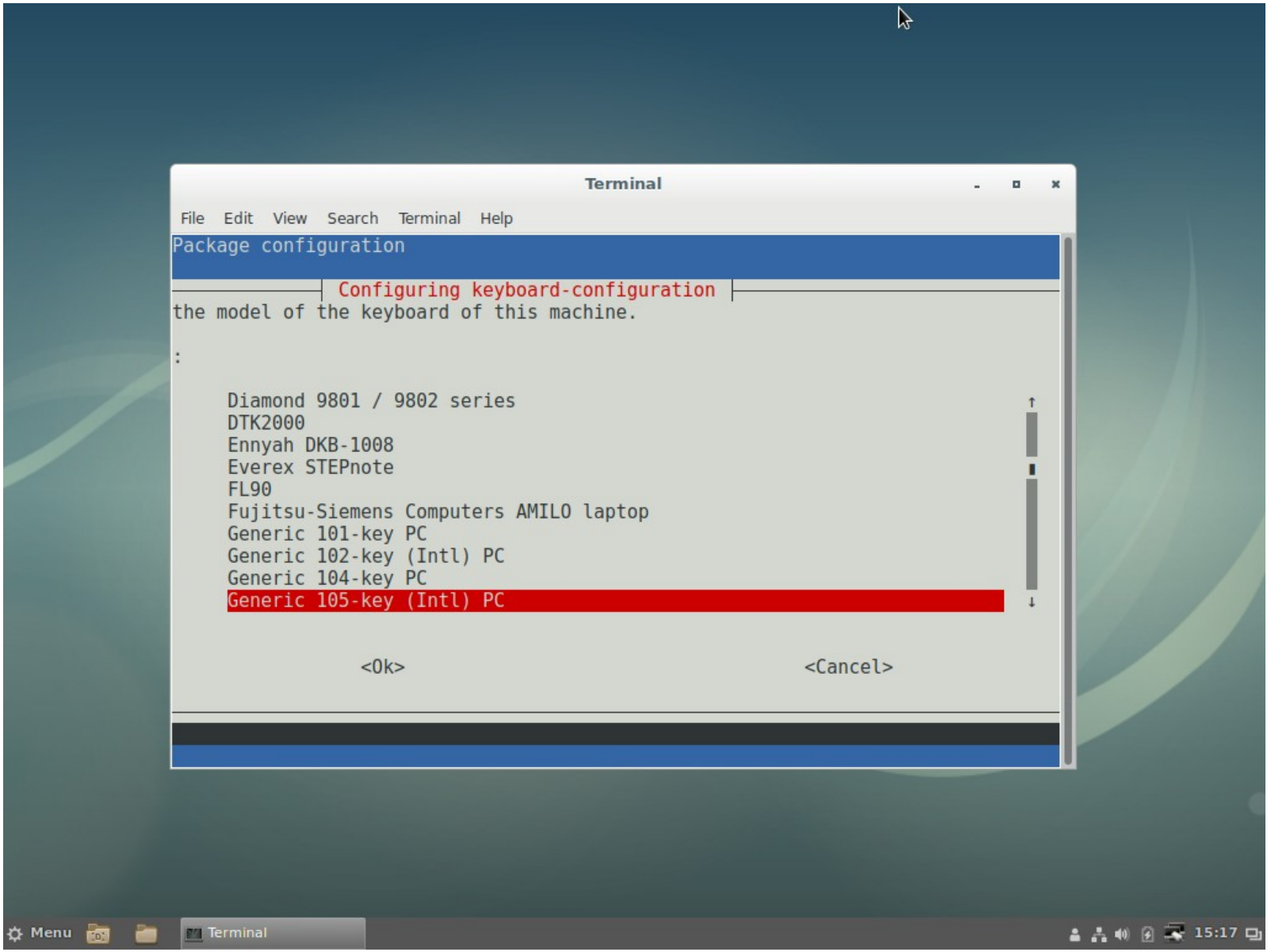
Debian with Cinnamon, settings



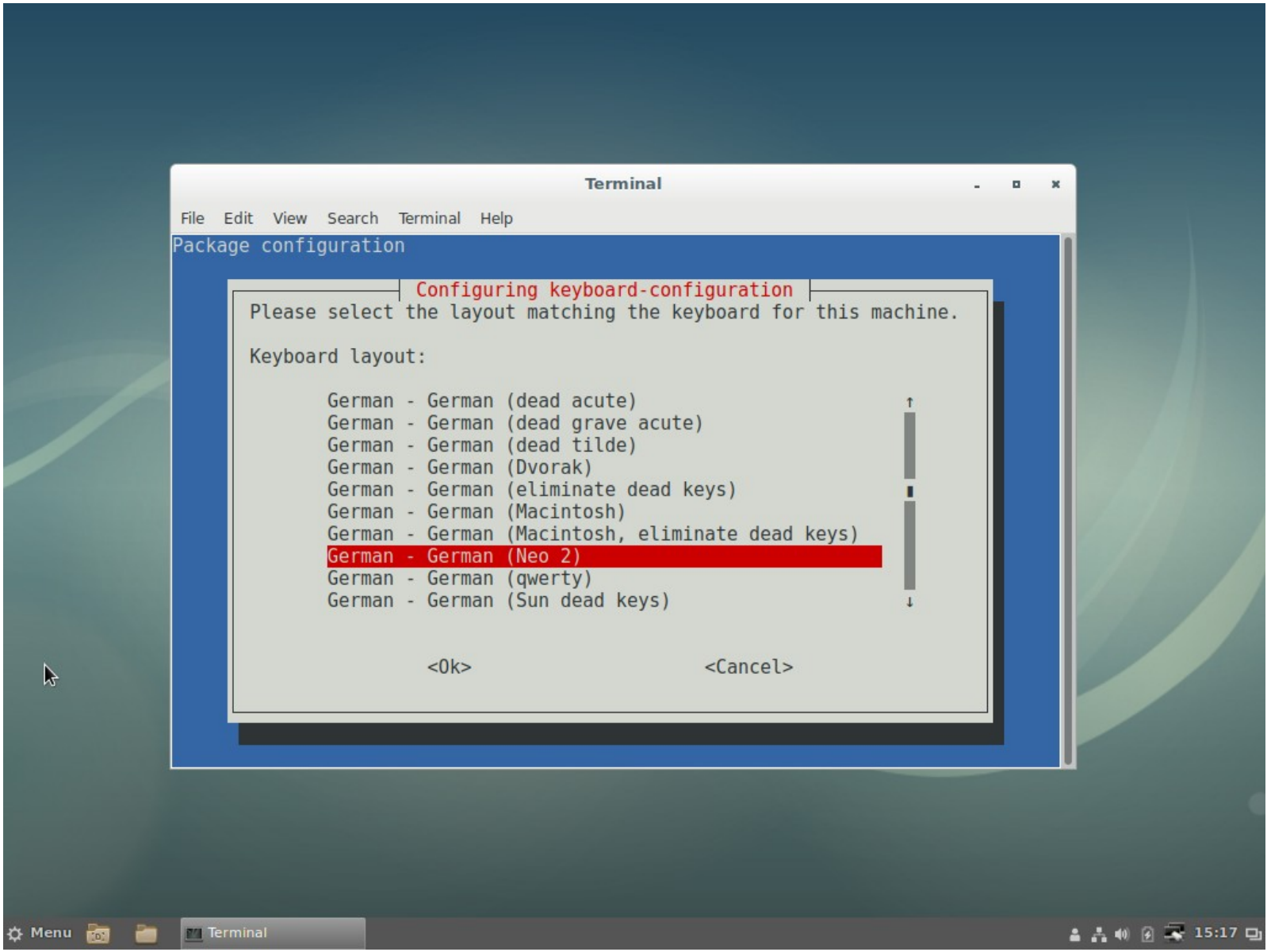
Terminal on Debian



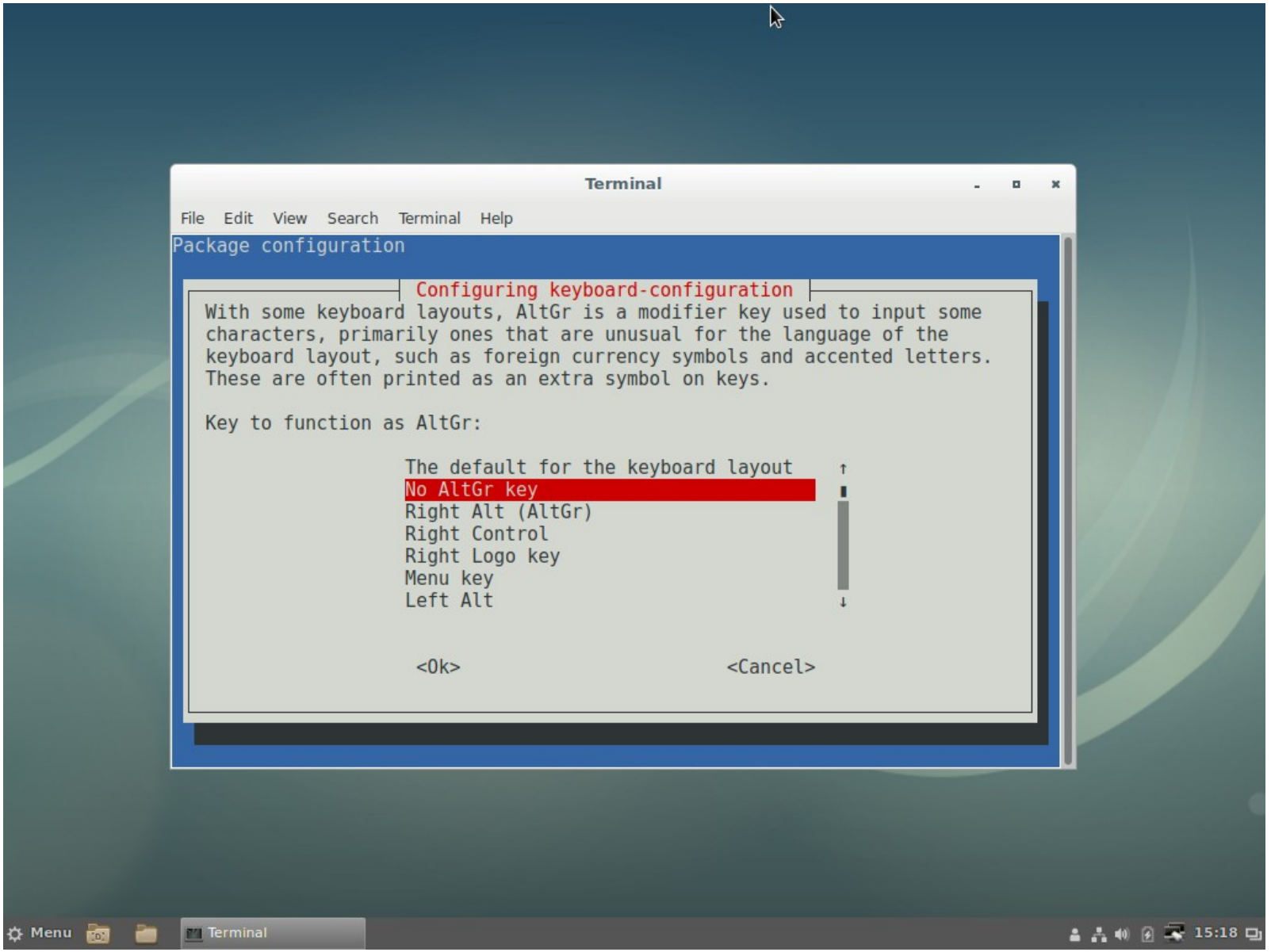
Terminal on Debian



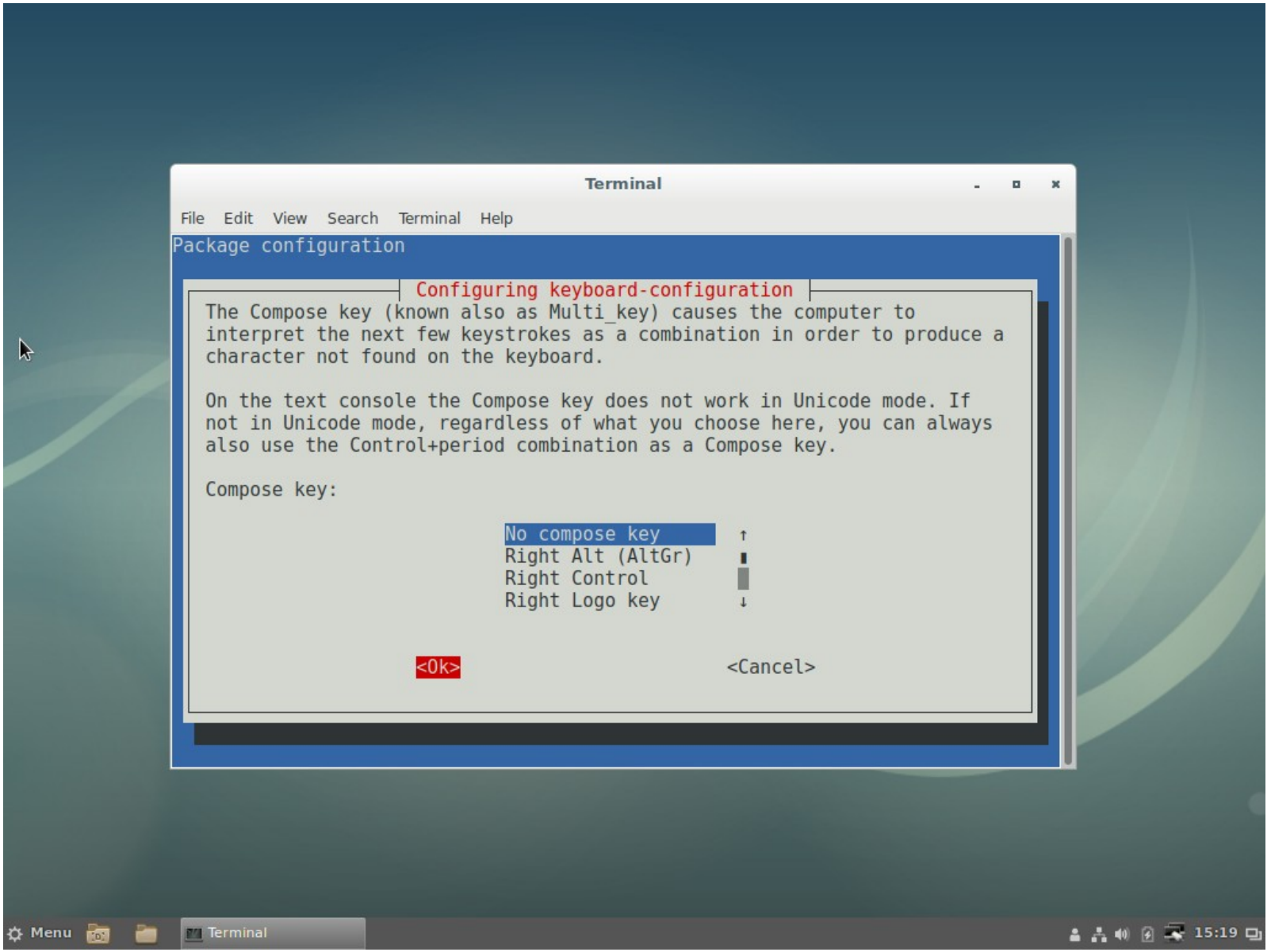
Terminal on Debian



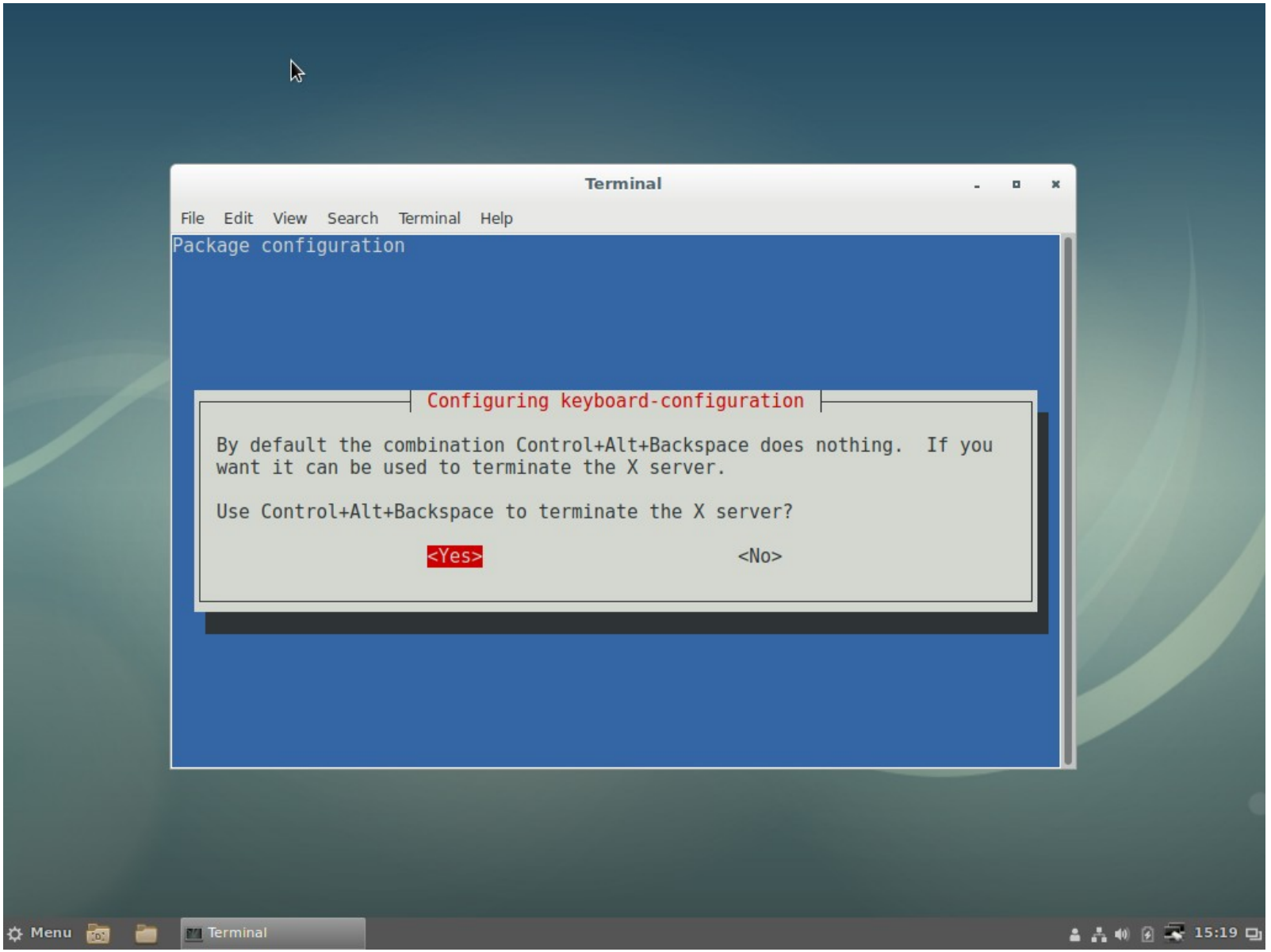
Terminal on Debian



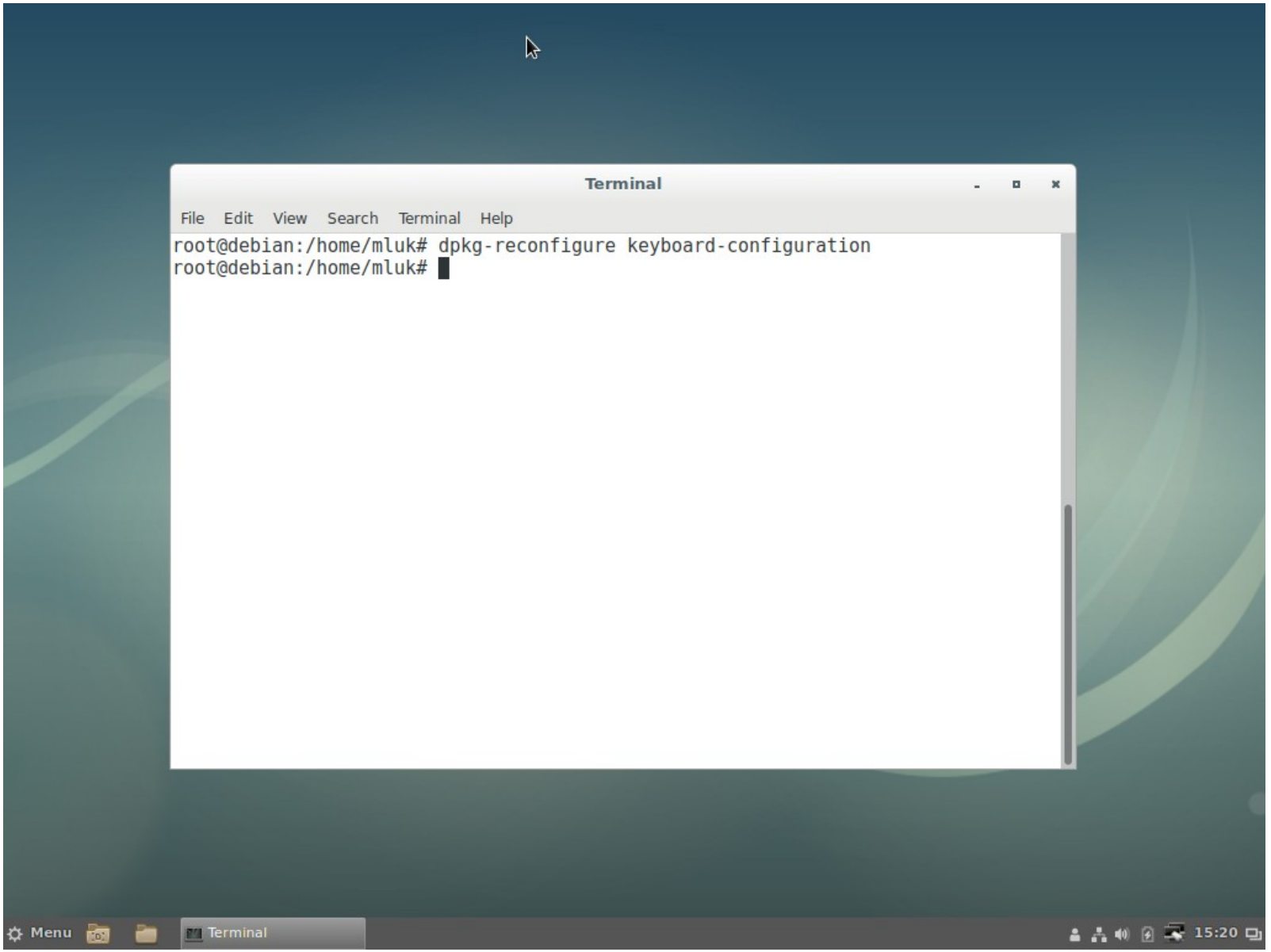
Terminal on Debian



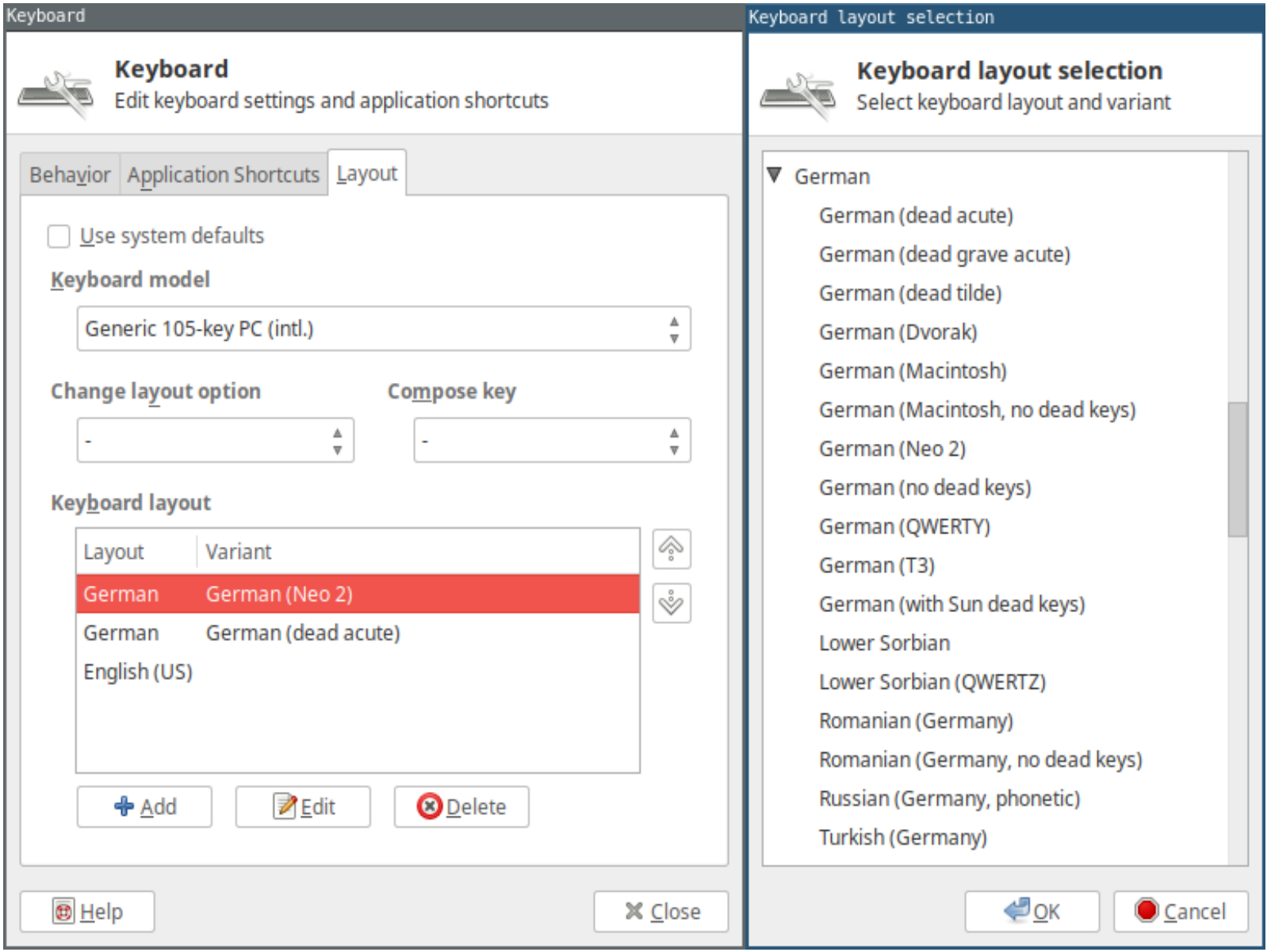
Terminal on Debian



Terminal on Debian



Xubuntu, keyboard settings



Linux keyboard configuration

- .XCompose
  - X11 defines a Compose key
  - XCompose defines Compose + key combinations
- .Xmodmap
  - Defines how X11 interprets key presses
  - Neo2 configuration on github exists

Linux issues

- ↻ [layer 3] is written, but has no semantics
- Not written [layer 6]:
  - -- SOFT HYPHEN (U+00AD)
  - ∃ THERE EXISTS (U+2203)
  - Ω GREEK CAPITAL LETTER OMEGA (U+03A9)
  - × MULTIPLICATION SIGN (U+00D7)
  - ∇ NABLA (U+2207)
  - Σ GREEK CAPITAL LETTER SIGMA (U+03A3)

Linux issues

- Sublime text
  - Does not recognize keyboard layout switch as long as focused
- i3wm cursor keys
  - Layer 4 cursor cannot be used to switch focus
  - Cursor keys must be used

Windows installation, since XP

Approach: kdbneo2

1) Execute `reg_backup.bat`
2) Copy `kbdneo2.dll` to `C:\Windows\System32`
3) Execute `kbdneo2_install.reg`
4) Control Panel, Region and Language, Languages, Details. ‘Installed Services’, Add, Input method ‘Deutsch (Deutschland)‘, Keyboard layout ‘Neo 2.0 ergonomisch’
5) Copy AutoHotKey script to Autostart

http://web.archive.org/web/20190125204303/http://wiki.neo-layout.org/wiki/Neo%20unter%20Windows%20einrichten/kbdneo

Other approach: pure AutoHotKey script

Windows issues: kdbneo

- Compose ♫ key & Layer 4 lock with Shift broken
- Microsoft apps (Kalender, Mail, Store, OneNote) do not support Neo (layers 3+). AHK script keys work though.
- Tablet-Modus: on-screen keyboard crashes if Neo2 is active. Reboot required. Deprecated `osk.exe` works though
- Rare but random switches between Neo2 and QWERTY (second configured keyboard)

Windows issues: Autohotkey (AHK)

- High latency in programs like cmd.exe
- Autostart programs are not executed as Administrator (“Run as Administrator...“) → AHK not executed

Neo2 layout

Layer 1

- baseline with vowels
- j quite separate
- Mod keys to switch layers
- Combining characters on every layer

Layer 2

- Capital ß (in contrast to ß)
- Locked modes for Layer 2 & 4
- Locked mode is capitals only
- - (layer 1), – (layer 2, bottom), — (layer 2, top)

Layer 3

Layer 4

Layer 5

- Greek position ≙ Latin position if first letter match
- All Greek lowercase letters,
  incl. variants ς, ϱ, ϵ, ϕ, ϑ, ϰ
- NON-BREAKING HYPHEN, NO-BREAK SPACE

Layer 6

- Common uppercase Greek characters: ΓΔΘΛΞΠΣΦΨΩ
  missing: ABEZHIKMNOPTYX
- Technical/math symbols: ∀∃⊂∪∩ non-Greek: ∂
- Arrows → ⇐⇔⇒ ↦ missing: ← ↤
- Aikidō

Lukas’ experience report

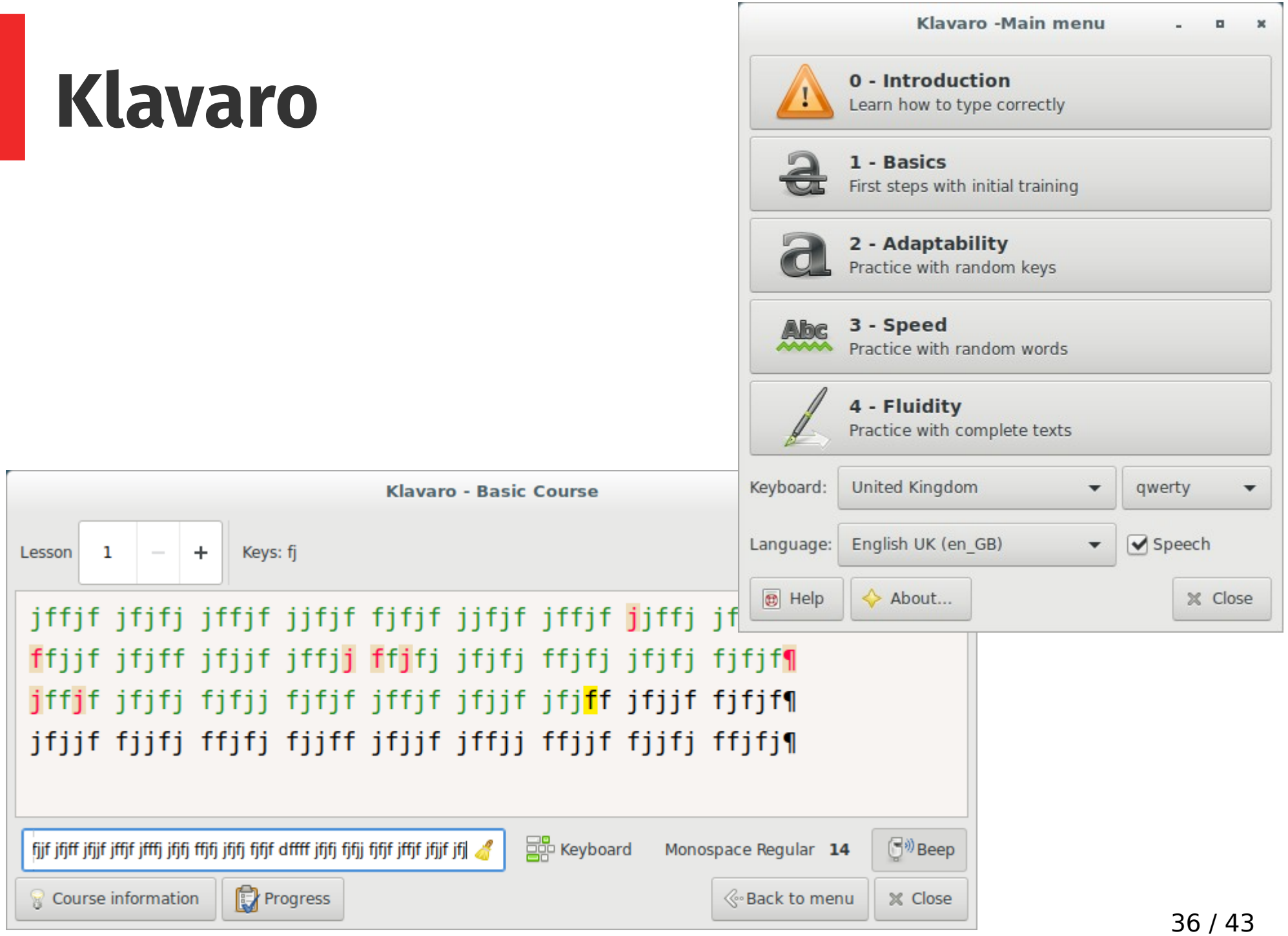
Lukas' experience report

- **Motivation:** ergonomic, more characters
- Neo2 over Dvorak
- Timeline:
  - 2009: QWERTZ → QWERTY
  - 2011/12 winter: Neo2 😒
- **Approach:** KTouch, printed layout

KTouch

KTouch
Training session started. Time begins running with the first keystroke.
Elapsed time
00:00.0
± 00:00.0
Characters per Mi...
0
± 0
Accuracy
100.0%
± 0.0%
Neue Buchstaben: x und q
uuu üüü uuu xxx uüu uxu üuü xux uuu xxx uuu xxx ddd jjj ddd
qqq djd dqd jdj qdq ddd qqq ddd qqq ece ala ivi uxu uxu uxu
Menu
KTouch
15:42

Klavaro


Klavaro -Main menu
0 - Introduction
Learn how to type correctly
1 - Basics
First steps with initial training
2 - Adaptability
Practice with random keys
3 - Speed
Practice with random words
4 - Fluidity
Practice with complete texts
Keyboard: United Kingdom
qwerty
Language: English UK (en_GB)
Speech
Help
About...
Close
Klavaro - Basic Course
Lesson 1
Keys: fj
jffjf jfjfj jffjf jjfjf fjfjf jjfjf jffjf jjffj jf
ffjjf jfjff jfjjf jffjj ffjfj jfjfj ffjfj jfjfj fjfjf¶
jffjf jfjfj fjfjj fjfjf jffjf jfjjf jfjff jfjjf fjfjf¶
jfjjf fjjfj ffjfj fjjff jfjjf jffjj ffjjf fjjfj ffjfj¶
fjjf jfjff jfjjf jffjf jfffj jfjfj ffjfj jfjfj fjfjf dffff jfjfj fjfjj fjfjf jffjf jfjjf jfj
Keyboard
Monospace Regular 14
Beep
Course information
Progress
Back to menu
Close

Lukas' experience report

- Timeline:
  - 2009: QWERTZ → QWERTY
  - 2011/12 winter: Neo2 trial № 1
  - 2013 summer: Neo2 trial № 2
  - 2018 summer: Neo2 trial № 3

Chris’ experience report

Tipp10.com

Song Turm Roth Die Auto Mund Ehe Lust¶
^ 1 2 3 4 5 6 7 8 9 0 - ´ ←
⇥ x v l c w k h g f q ß ~
⇧ u i a e o s n r t d y ⇧
⇧ ü ö ä p z b m , . j ⇧
Strg Win Alt Alt Gr Win Strg
Fehler: 2 A/min: 390 Zeigefinger links Zeit: 0:18 Zeichen: 92

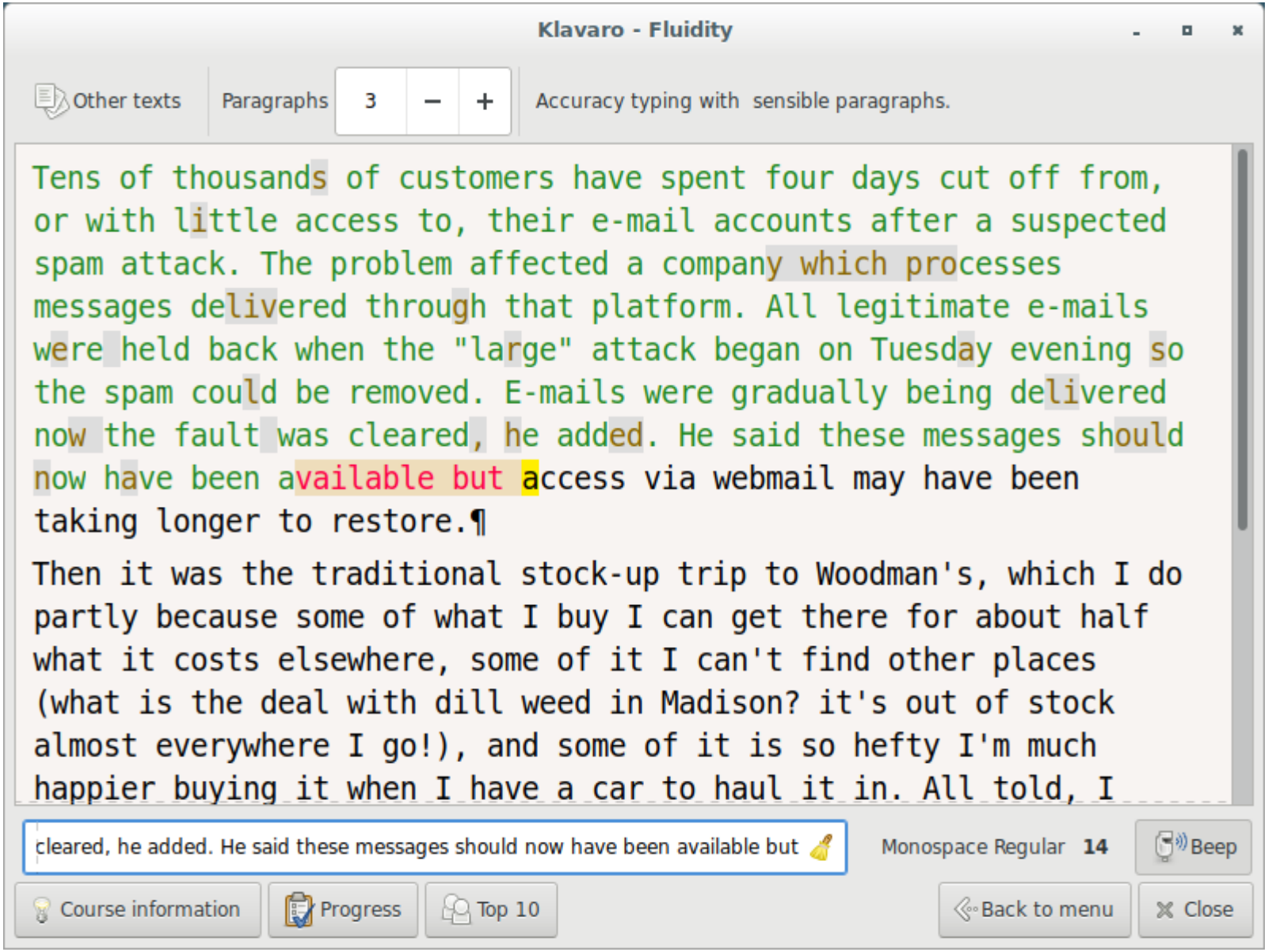
Lukas' experience report

- Achievements:
  - Email: Oct 2018
  - Chat: Dec 2018
  - Lecture: Feb 2019
- Pure muscle memory skill
- Shortcuts are terrible
- Speed (w/o results so far)
- Community very small (reddit?)

Our experience

- Hard/dedicated switch to Neo2
- After few-characters exercises,
  write common words early/soon!

Klavaro


Klavaro - Fluidity
Other texts
Paragraphs
3
Accuracy typing with sensible paragraphs.
Tens of thousands of customers have spent four days cut off from, or with little access to, their e-mail accounts after a suspected spam attack. The problem affected a company which processes messages delivered through that platform. All legitimate e-mails were held back when the "large" attack began on Tuesday evening so the spam could be removed. E-mails were gradually being delivered now the fault was cleared, he added. He said these messages should now have been available but access via webmail may have been taking longer to restore.¶
Then it was the traditional stock-up trip to Woodman's, which I do partly because some of what I buy I can get there for about half what it costs elsewhere, some of it I can't find other places (what is the deal with dill weed in Madison? it's out of stock almost everywhere I go!), and some of it is so hefty I'm much happier buying it when I have a car to haul it in. All told, I
cleared, he added. He said these messages should now have been available but
Monospace Regular 14
Beep
Course information
Progress
Top 10
Back to menu
Close

^ 1 2 3 4 5 6 7 8 9 0 - `
⇥ x v l c w k h g f q ß ´
M3 u i a e o s n r t d y M3
⇑ M4 ü ö ä p z b m , . j ⇑
Fn Ctrl ⊞ Alt ␣ M4 Ctrl PgUp ↑ PgDn
← ↓ →