



## Clarifications (of the characters marked in blue)

|         |   |       |   |                  |
|---------|---|-------|---|------------------|
|         | ⌘/AltGr + 1   | ~     | tilde   | U+007E           |
| Shift + | ⌘/AltGr + 1   | ~     | swung dash  | U+2053           |
|         | ⌘/AltGr + 8   | ◌̂    | palatalization  | U+0484           |
| Shift + | ⌘/AltGr + top right key<br>or Shift + bottom left key | ◌̂    | pokrytie  | U+0487           |
|         | 7   | ◌̆    | kamora (inverted breve)                                 | U+0311           |
|         | Shift + 4   | ◌̇    | breve   | U+0306           |
| ⊗,      | ⌘/AltGr + Б   | ◌̈    | combining kavyka  | U+A67C           |
|         | ⌘/AltGr + Б   | ◌̋    | spacing kavyka  | U+A67E           |
| Shift + | ⌘/AltGr + X   | '     | apostrophe/single quote                                 | U+2019           |
| ⊗,      | ⌘/AltGr + 8   | '     | modifier letter apostrophe (to indicate palatalization) | U+02BC           |
|         | ⌘/AltGr + ,   | ,     | raised comma  | U+2E34           |
|         | ⌘/AltGr + .   | .     | middle dot  | U+00B7           |
| ⊗,      | ⌘/AltGr + .   | ·     | Greek ano teleia  | U+0387           |
|         | Shift + ,   | ;     | semicolon   | U+003B           |
| ⊗,      | Shift + ,   | ;     | Greek question mark                                     | U+037E           |
| Shift + | ⌘/AltGr + ,<br>(or with preceding ⊗ or ▲)             | ̄     | middle part of conjoining titlo, macron, or tilde       | U+FE26           |
|         | ⌘/AltGr + L   | ̅     | combining overline                                      | U+0305           |
|         | ▲, 1  | ̅     | combining macron  | U+FE24           |
| ▲,      | Shift + ⌘/AltGr + M                                   | ̅     | combining macron, left end                              | U+FE24           |
| ▲,      | Shift + ⌘/AltGr + .                                   | ̅     | combining macron, right end                             | U+FE25           |
|         | ⌘/AltGr + bottom left key<br>or 6, '                  | ◌̇    | “iso” = combining lenis + acute (◌̇ + ◌̂)               | U+0486<br>U+0301 |
| Shift + | ⌘/AltGr + bottom left key<br>or 6, Shift + '          | ◌̈    | “apostrof” = combining lenis + grave (◌̈ + ◌̂)          | U+0486<br>U+0300 |
|         | ⌘/AltGr + 7<br>or 6, 7                                | ◌̆    | “velikij apostrof” = combining lenis + kamora (◌̆ + ◌̂) | U+0486<br>U+0311 |
| Shift + | ⌘/AltGr + Б   | ‰     | (commercial minus sign)                                 | U+2052           |
|         | ⌘/AltGr + Ъ   | ZWJ   | zero-width joiner (to form ligatures)                   | U+200D           |
| Shift + | ⌘/AltGr + -   | SHY   | soft hyphen (optional hyphenation)                      | U+00AD           |
|         | ⌘/AltGr + -   | NB-   | non-breaking hyphen                                     | U+2011           |
|         | Shift + Space   | NBSP  | no-break space  | U+00A0           |
|         | ⌘/AltGr + Space                                       | NNBSP | narrow no-break space                                   | U+202F           |
| Shift + | ⌘/AltGr + Space                                       | ZWSP  | zero-width space (invisible optional line-break)        | U+200B           |

On a PC keyboard, the **⌘/AltGr** key can be entered by pushing the **ALT** key on the *right* side of the space bar *or* by pushing **CTRL** + **ALT** together. On an Apple keyboard you can push any of the two keys marked with the **⌘** symbol, which are called “Alt” or “Option” keys.

## Notes on the logic of the layout

- The layout is based on the **German** keyboard, which is very similar to many other QWERTZ- and QWERTY-based layouts (Czech, Dutch, Estonian, Hungarian, Italian, Norwegian, Polish “214”, Romanian, Spanish, Swedish, Swiss, etc.). Most letters were assigned according to their transliteration (e.g. **V** → **В**, **Z** → **З**, **C** → **Ц**), some according to similarities in shape (e.g. **W** → **Ш**, **h** → **Ч**, **⌘/AltGr** + **Ü** → **Ў**), a few according to similarities in sound (e.g. **Ü** → **Ю**, **Ä** → **Е**). Further Old Cyrillic letters were assigned to remaining keys (e.g. **Q** → **А**, **#** → **Ж**).
- All **iotated letters** are entered by pushing **⌘/AltGr** with the corresponding non-iotated letter (e.g. **⌘/AltGr** + **А** → **Ѧ**, **⌘/AltGr** + **А** → **Ѧ**, **⌘/AltGr** + **ѐ** → **ѐ**, etc.).
- Multiple-dot punctuation** marks are found on the number key corresponding to the number of dots they have (e.g. **:** on the **3**, **∴** on the **4**, **∴** on the **5**, etc.).
- Cyrillic number signs** are found on the number key corresponding to the number of zeros they add (i.e. the 1000 sign on the **3**, the 10,000 sign on the **4**, ..., the 1,000,000,000 sign on the **9**).
- Other mnemonics:** **ѧ** → **К**си, **Ѩ** → **П**си, **ѩ** → **ѩ**вггеліе (→ **В**), **Ѫ** → **Д**жервь, **ѫ** → **вз****М**ет, **Ѭ** → **ы****Н**, **ѭ** → **д****Ж**е, **«** **»** → **кавы****Ч**ки, **<** **>** → **угловые****С**кобки, **-** → **Т**ире, **=** → **Р**авно.

## Deprecated characters

The following glyphs, though having been assigned separate Unicode values, **should not be used** by anyone under any circumstances in any text that is meant for digital exchange, because these glyphs are not characters (graphemes) in their own right but merely variants (allographs) or combinations of characters already having a different Unicode value. Consequently, font designers ought to make sure that these glyphs, whenever needed, are provided through advanced font technology (e.g. OpenType features) as variants of the characters to which they belong, and users should use these options rather than the deprecated Unicode values.

Nonetheless, these characters can be typed with this keyboard layout for private purposes as a last resort in cases when there is no other solution due to technical restrictions.

| Do not use             |       |         | Replace with    |              |                |
|------------------------|-------|---------|-----------------|--------------|----------------|
| Key combination        | glyph | Unicode | Key combination | character(s) | Unicode        |
| ⌘, Shift + Y           | Ų     | U+0478  | Shift + O, Y    | Ų + ų        | U+041E, U+0443 |
| ⌘, Y                   | ų     | U+0479  | O, Y            | o + y        | U+043E, U+0443 |
| ⌘, B                   | Ɔ     | U+1C80  | B               | Ɔ            | U+0432         |
| ⌘, Shift + ⌥/AltGr + Д | А     | U+1C81  | Д               | А            | U+0434         |
| ⌘, Shift + ⌥/AltGr + O | о     | U+1C82  | O               | o            | U+043E         |
| ⌘, C                   | с     | U+1C83  | C               | с            | U+0441         |
| ⌘, Shift + T           | т     | U+1C84  | T               | т            | U+0442         |
| ⌘, T                   | т     | U+1C85  | T               | т            | U+0442         |
| ⌘, Ъ                   | Ѳ     | U+1C86  | Ъ               | Ѳ            | U+044A         |
| ⌘, Shift + Ъ           | Ѳ     | U+1C87  | Ъ               | Ѳ            | U+0463         |
| ⌘, ⌥/AltGr + Y         | Ŷ     | U+1C88  | ⌥/AltGr + Y     | Ŷ            | U+A64B         |
| ⬆, Shift + T           | Љ     | U+2DF8  | ⬆, C, ⬆, T      | Љ + щ        | U+2DED, U+2DEE |
| ⌘, Shift + G           | Ɔ     | U+A64C  | Shift + G       | Ɔ            | U+0460         |
| ⌘, G                   | Ɔ     | U+A64D  | G               | Ɔ            | U+0461         |