**Azhagi Keyboard program: Notes for UK users. *{DRAFT:*** *2017/06/16****}***

Azhagi+ was created by B.Viswanathan (<http://azhagi.com/>) to type Indic languages such as Hindi, Tamil, etc.  
I have configured it to type other scripts as well.

Azhagi is very easy to learn, use and demonstrate, but difficult to explain in text, which is why this document is so long. I’m sorry about that.

Azhagi has several advantages:

1. It is **portable**, i.e. you can run it on any Windows computer, from any drive or memory stick, without installing it, without Administrator privileges and without changing any settings on the PC.
2. It is **freeware**, completely free of charge in all circumstances.
3. It is **configurable**: you can tweak it to suit yourself.
4. It enables you to **type the base character first**, and add accent- and stress-marks afterwards, as one does in handwriting. This is more intuitive than using hot keys or pressing several keys simultaneously.

I have configured Azhagi to type many different languages with a single layout.

* You can type most of the Latin-alphabet languages (ancient, modern and medieval), plus the International Phonetic Alphabet, with a single layout: **Latin&IPA**.
* You can type all the Slavic Cyrillic-alphabet languages with the **CyrillicScript** layout.[[1]](#footnote-1)
* The **Greek** layout handles Ancient and Modern Greek, including archaic characters such as digamma.[[2]](#footnote-2) There is also a clone of the **Beta** layout.
* The **Hebrew** layout can type all the Hebrew-alphabet languages, with **all** the Masoretic points, cantillation marks, ligatures and presentation forms defined in their Unicode ranges.[[3]](#footnote-3)

An **Arabic** layout is still in the design stage, and is not available yet.

**How to Use Azhagi**

If possible, make sure that you are using the standard United Kingdom keyboard, not any other version. This is not strictly necessary, but makes things simpler.

1. Start your word processor or other program.
2. Start Azhagi.
3. In Azhagi, click **Settings** ... **Keyboard** ... **UK**.[[4]](#footnote-4)
4. Press the hotkey shortcut for your chosen language. e.g. **Control+Shift+0.**
5. Start typing.

Once Azhagi is running, pressing **Control+Shift+0** makes it inactive again. When Azhagi is inactive, your normal keyboard (e.g. United Kingdom) is active.[[5]](#footnote-5)

**Design Principles for the non-Indic layouts**

1. All characters are typed in a way that is easy to learn, remember and use.
2. All characters are accessible to people with restricted movement: i.e. no more than two keys need to be pressed simultaneously.
3. Every character is treated according to what it **LOOKS** like, not what it sounds like; e.g. the IPA character **ɔ** is on the C key because it looks like a C, even though it sounds like an O.
4. Whatever you type appears exactly as typed unless it is **IMMEDIATELY** followed by the Compose key, which is currently **#** .[[6]](#footnote-6)
5. You type the base character first, then the accent or diacritic mark, then # or ## .  
   A single # puts an accent **above** or **through** the base character;  
   two hashes (##) put an accent **below** the base character.
6. If you type an accent that cannot go with the base character, you just get exactly what you type. For example, no language uses a Q-acute character, so, if you type Q**/**#, you just get Q**/**# .

**Keys for Accent- and Stress-marks in the Azhagi Latin&IPA layout**

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| --- | --- | --- |
| **Diacritical Mark** | **Key** | **Example** |
| **Acute** accent or stress-mark | **/** | A**/**# produces Á |
| **Double acute** accent | **//** | O**//**# produces Ő  O**/**#**/**# produces Ő |
| **Grave** accent or stress-mark | **\** | a**\**# produces à |
| **Double grave** accent | **\\** | A**\\**# produces Ȁ  A**\**#**\**# produces Ȁ |
| **Circumflex** accent | **^** | A**^**# produces Â |
| **Hachek** accent[[7]](#footnote-7) | **%** | a**%**# produces ǎ |
| **Tilde** above or through | **~** | A**~**# produces Ã ; b**~**# produces ᵬ |
| **Macron** | **\_** | A**\_**# produces Ā |
| B**\_**## produces Ḇ |
| **Line through** | **|** | O**|**# produces Ø  d**|**# produces đ |
| **Dot** | **.** | a**.**# produces ȧ |
| a**.**## produces ạ |
| **Umlaut/diaeresis/two dots** | **..** | A**..**# produces Ä  A**..**# produces Ä |
| U**..**## produces Ṳ  U**.**##**.**## produces Ṳ |
| **Ring** | **0** | A**0**# produces Å |
| A**0**## produces Ḁ |
| Any **curl pointing right** (e.g. **ogonek**) | **{** | d**{**# produces ɗ |
| A**{**## produces Ą |
| Any **curl pointing left** (e.g. **circumflex**) | **}** | B**}**# produces Ɓ |
| c**}**## produces ç |
| **Hook** above | **?** | A**?**# produces Ả |
| **Breve** accent | **(** | a**(**# produces ă |
| **Inverted breve** accent | **)** | A**)**# produces Ȃ |
| **Small capital** | **£** | A**£**# produces ᴀ |
| **Turned**, as on a clock face | **$** | e**$**# produces ə |
| **Mirrored**, i.e. Flipped horizontally | **=** | e**=**# produces ɘ |
| **Lengthened** form | **¬** | c**¬**# produces ʗ  r**¬**# produces ɼ |
| **Ligature** of xy if it exists *(Should this be Y&#?)* | X&Y | A**&**E# produces Æ |
| **Alternative Form** of the base character, i.e. “Anything Else that can happen to the base character”  Some Alternative Forms depend on the Shift key: | **`**  (Top left, next to 1) | a**`**# produces ɑ  c**`**# produces ©  e**`**# produces ɛ  p**`**# produces þ  z**`**# produces ʒ  S**`**# produces ʃ but s**`**# produces ſ  $**`**# produces ẞ but 4**`**# produces ß |

|  |  |
| --- | --- |
| Some characters can have **more than one diacritical** mark. Whenever possible, the diacritics can be typed in any order. | A**..**#**\_**# produces Ǟ  A**\_**#**..**# also produces Ǟ  a**(**#**\_**# produces ắ  a**/**#**(**# also produces ắ |

|  |  |
| --- | --- |
| To **superscript**[[8]](#footnote-8) any character, FOLLOW it with **\***# | Xa**\***# produces Xª |
| To **subscript** any character, FOLLOW it with **\***## | Xa**\***## produces Xₐ |

|  |  |
| --- | --- |
| To **overstrike**[[9]](#footnote-9) any character above, FOLLOW it with **@**# | Xa**@**# produces Xͣ |
| To **overstrike** any character below, FOLLOW it with **@**## | X,**@**## produces X̦ |

Type the character first, add any diacritical marks, then make the result superscripted, subscripted or overstruck as the last operation.

Superscript and overstrike also work with characters that have one or more diacritical marks, e.g. a**..**#**@**# produces ᷲ (a combining ä Unicode 1DF2), even though it is present only in certain fonts.

If an overstrike extends over two characters, place the cursor between them, then type the overstrike mark twice; e.g. type **xy**, then place the cursor between those characters and type **~~@**#. This produces **x͠y** .

1. *The plan is to add the non-Slavic Cyrillic-alphabet languages, but that is not an urgent priority.* [↑](#footnote-ref-1)
2. *Does anyone in the University of Leeds need the Coptic alphabet to be added?* [↑](#footnote-ref-2)
3. *Does anyone in UoL need the non-Hebrew Aramaic script?* [↑](#footnote-ref-3)
4. Future versions of Azhagi will remember this setting, which is a bit of temporary magic to prevent confusion if you normally use more than one layout, or use a computer with a different default, e.g. the US keyboard. Some laptops use this default, even in the UK. [↑](#footnote-ref-4)
5. You can configure Control+Shift+0 and the other shortcuts to suit yourself. For testing, I have used shortcuts that are difficult to press by accident and do not clash with shortcuts in common programs such as Word, but you can choose your own. [↑](#footnote-ref-5)
6. We can change that, if need be. If you actually want to type a # character, just put a space before it, or move the cursor, or do anything else to interrupt the sequence of keys being pressed. [↑](#footnote-ref-6)
7. No UK key looks like a hachek mark, so I placed the hachek next to the ^ , so that the two can be remembered together. [↑](#footnote-ref-7)
8. Superscript and subscript characters are merely raised or lowered in their normal place. They do not combine with the previous or following characters. [↑](#footnote-ref-8)
9. Overstrikes are Combining, and can occur above or below any other character. They do not have their own space on the line. [↑](#footnote-ref-9)