

# Minimal steps to typeset Vietnamese

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This document tries to answer the question that has been often asked: *How can I typeset **just a few Vietnamese words** in my document, which is in English (or French/German/...)?*

The answer depends very much on a particular scenario, however I assume that you are in a hurry, you don't want to bother with issues like how to display and write Vietnamese in your  $\TeX$  editor. You only have a few Vietnamese words in your  $\LaTeX$  file and you would like to see them properly displayed in your final PDF or PS file.

1. As the very first requirement, you must have some minimal  $\LaTeX$  support for Vietnamese:

- Check whether you have  $\text{Vn}\TeX$  installed.  $\text{Vn}\TeX$  is included in  $\text{te}\TeX$ ,  $\text{MiK}\TeX$  and  $\text{T}\TeX\text{Live}$ .
- If the above is not the case, try to download and install  $\text{Vn}\TeX$  by following the instructions at <http://vntex.sf.net/download/vntex>.
- If you can't install  $\text{Vn}\TeX$ , you must have at least Latin Modern fonts installed. Then download <http://vntex.sf.net/download/vntex-support/t5enc.def> and put it to the directory where your  $\LaTeX$  file is.
- If all the above fails, try to get help from someone else to solve at least one of those issues.

2. Make sure you have package `fontenc` loaded with T5 encoding. For example, if your document contains European language(s) only, then you should have a line saying

```
\usepackage[T1,T5]{fontenc}
```

in your preamble.

3. An example how to input Vietnamese words may look like this:

```
{\fontencoding{T5}\selectfont Ti\'\ecircumflex{}ng Vi\d\ecircumflex{}t}
```

which gives the output as Tiếng Việt.

4. The following table contains all Vietnamese letters for your reference:

Ă	\ABREVE	â	\'\acircumflex
Ă	\Abreve	ê	\'\ecircumflex
Â	\ACIRCUMFLEX	ô	\'\ocircumflex
Â	\Acircumflex	ó	\'\ohorn
Ê	\ECIRCUMFLEX	ú	\'\uhorn
Ê	\Ecircumflex	á	\'a
Ô	\Ocircumflex	é	\'e
Ô	\OCIRCUMFLEX	í	\'i
Ó	\OHORN	ó	\'o
Ó	\Ohorn	ú	\'u
Ú	\UHORN	ý	\'y
Ú	\Uhorn	Â	\^A
ă	\abreve	Ê	\^E
â	\acircumflex	Ô	\^O
Đ	\DJ	â	\^a
đ	\dj	ê	\^e
ê	\ecircumflex	ô	\^o
ı	\i	À	\`A
ô	\ocircumflex	È	\`E
ó	\ohorn	Ì	\`I
ú	\uhorn	Ò	\`O
Á	\'A	Ù	\`U
É	\'E	Ỳ	\`Y
Í	\'I	Ă	\`\ABREVE
Ó	\'O	Ă	\`\Abreve
Ú	\'U	Â	\`\ACIRCUMFLEX
Ý	\'Y	Â	\`\Acircumflex
Ă	\'\ABREVE	Ê	\`\ECIRCUMFLEX
Ă	\'\Abreve	Ê	\`\Ecircumflex
Â	\'\ACIRCUMFLEX	Ô	\`\OCIRCUMFLEX
Â	\'\Acircumflex	Ô	\`\Ocircumflex
Ê	\'\ECIRCUMFLEX	Ò	\`\OHORN
Ê	\'\Ecircumflex	Ò	\`\Ohorn
Ô	\'\OCIRCUMFLEX	Ù	\`\UHORN
Ô	\'\Ocircumflex	Ù	\`\Uhorn
Ó	\'\OHORN	ă	\`\abreve
Ó	\'\Ohorn	â	\`\acircumflex
Ú	\'\UHORN	ê	\`\ecircumflex
Ú	\'\Uhorn	ô	\`\ocircumflex
ă	\'\abreve	ò	\`\ohorn

ù	\` \uhorn	Ó	\h O
à	\` a	Û	\h U
è	\` e	Ỳ	\h Y
ì	\` i	À	\h \ABREVE
ò	\` o	À	\h \Abreve
ù	\` u	Â	\h \ACIRCUMFLEX
ỳ	\` y	Â	\h \Acircumflex
Ạ	\d A	Ê	\h \ECIRCUMFLEX
Ẹ	\d E	Ê	\h \Ecircumflex
Ị	\d I	Ë	\h \OCIRCUMFLEX
Ọ	\d O	Ë	\h \Ocircumflex
Ụ	\d U	Ö	\h \OHORN
Ỳ	\d Y	Ö	\h \Ohorn
Ă	\d \ABREVE	Û	\h \UHORN
Ă	\d \Abreve	Û	\h \Uhorn
Â	\d \ACIRCUMFLEX	ă	\h \abreve
Â	\d \Acircumflex	â	\h \acircumflex
Ê	\d \ECIRCUMFLEX	ê	\h \ecircumflex
Ê	\d \Ecircumflex	ô	\h \ocircumflex
Ë	\d \OCIRCUMFLEX	ö	\h \ohorn
Ë	\d \Ocircumflex	ұ	\h \uhorn
Ö	\d \OHORN	à	\h a
Ö	\d \Ohorn	é	\h e
Û	\d \UHORN	ì	\h i
Û	\d \Uhorn	ó	\h o
ă	\d \abreve	ú	\h u
â	\d \acircumflex	ỳ	\h y
ê	\d \ecircumflex	Ã	\~A
ô	\d \ocircumflex	Ê	\~E
ö	\d \ohorn	Ĩ	\~I
ұ	\d \uhorn	Ë	\~O
а	\d a	Û	\~U
е	\d e	Ỳ	\~Y
і	\d i	À	\~\ABREVE
о	\d o	À	\~\Abreve
ұ	\d u	Â	\~\ACIRCUMFLEX
ỳ	\d y	Â	\~\Acircumflex
À	\h A	Ê	\~\ECIRCUMFLEX
Ẹ	\h E	Ê	\~\Ecircumflex
Ị	\h I	Ë	\~\OCIRCUMFLEX

Ô	\~\Ocircumflex	õ	\~\ohorn
Õ	\~\OHORN	ũ	\~\uhorn
Ō	\~\Ohorn	ã	\~a
Ū	\~\UHORN	ẽ	\~e
Ů	\~\Uhorn	ĩ	\~i
ã	\~\abreve	õ	\~o
â	\~\acircumflex	ũ	\~u
ê	\~\ecircumflex	ỹ	\~y
ô	\~\ocircumflex		

5. If you have quite a lot of Vietnamese words, then it can be somewhat tedious to translate them to the above form (often called as  $\text{\TeX}$  Internal Character Representation – LICR). On Windows you can use the package <http://vntex.sf.net/download/vntex-support/tovntex.zip> to translate text in clipboard from VIQR or UTF-8 to LICR by one key press.

The same (or close) convenience could be made for UNIX/Linux users, but at somewhat higher cost due to deficiencies of UNIX-like systems. So if you don't use Windows then you are out of luck, sorry. However, if you use Vim, you can still download the package mentioned above, and use the vim script inside the zip archive to do the conversion. If you want to make this easier for UNIX users then let me know.

6. If you still have questions, join the Vn $\text{\TeX}$  mailing list at <https://lists.sourceforge.net/lists/listinfo/vntex-users>.

Good luck!