VietVu for Windows 2.0



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VietVu Overview



Welcome to VietVu for Windows version 2.0

VietVu is an application that isn't at all powerful by itself. However, it is quite useful when used with other applications. It runs in the background, detects keyboard input and makes appropriate conversion using a predefined conversion table.

Most computer keyboards are designed to accommodate printable characters in the <u>ASCII</u> range 32-127. For ASCII characters outside of that range, you must type a combination of keys by pressing the ALT key and the ASCII character number simultaneously. This has proven awkward. Worse, not many people can remember the ASCII character codes in the first place. With VietVu, you can define a combination of keys to produce a single ASCII character. For example, combination "a^" (character 'a' follows by caret ^ character) can be mapped to produce ASCII character "â".

VietVu is most useful for user who needs to frequently type extended characters using today's applications. It can be used with spreadsheet, word processor, publisher and many other applications running under the Microsoft Windows operating system. Although this help file is geared towards Vietnamese, other languages based on the Latin alphabet could also applied.

When VietVu is run the first time, it will bring up this help file to inform you that help is available. It is recommended that first time user should read through the section "How To". If you are a non-Vietnamese speaking person, please read section "<u>About Vietnamese</u> <u>Alphabet</u>" thoroughly.

About Vietnamese Alphabet

Vietnamese alphabet includes most of characters used in English, except 'f', 'j', 'z' and 'w'. In addition, Vietnamese has <u>modifiers</u> and <u>accents</u> which are generally referred to as <u>diacritics</u>.

ASCII Mnemonics for Vietnamese Diacritics1

| <u>Diacritic</u> | <u>Char</u> | ASCII code |
|------------------|-------------|----------------------|
| breve | (| 0x28 - left paren |
| circumflex | ^ | 0x5E - caret |
| horn | + | 0x2B - plus sign |
| acute | 1 | 0x27 - apostrophe |
| grave | ` | 0x60 - back quote |
| hook above | ? | 0x3F - question mark |
| tilde | ~ | 0x7E - tilde |
| dot below | | 0x2E - period |
| high bar | - | 0x2D - minus sign |

| Vietnamese special characters | | | |
|-------------------------------|-------------------------|------------------------------|--|
| Char | Char with diacritics | <u>Char with diacritics</u> | |
| | (VIQR format) | | |
| а | a', a`, a?, a~, a. | á, à, ä, ã, Õ | |
| å | a(', a(`, a(?, a(~, a(. | i, ¢, Æ, Ç, £ | |
| â | a^', a^`, a^?, a^~, a' | `. ¤, ¥, ¦, ç, § | |
| ð | d- | ð | |
| е | e', e`, e?, e~, e. | é, è, ë, [¨] , © | |
| ê | e^', e^`, e^?, e^~, e^ | ^. ª,≪, ¬,, ® | |
| i | i', i`, i?, i~, i. | í, ì, ï, î, ¸ | |
| 0 | o', o`, o?, o~, o. | ó, ò, ö, õ, ÷ | |
| ô | 0^', 0^`, 0^?, 0^~, 0' | `. ⁻ , °, ±, ², μ | |
| 1/2 | 0+', 0+`, 0+?, 0+~, 0+ | ⊦. ³⁄₄, ¶, ∙, Þ, þ | |
| u | u', u`, u?, u~, u. | ú, ù, ü, û, ø | |
| ß | u+', u+`, u+?, u+~, u- | +. Ñ, ×, Ø, æ, ñ | |
| У | y', y`, y?, y~, y. | ý, Ï, Ö, Û, Ü | |

1This table is taken from "A Unified Framework for Vietnamese Information Processing" article published in 1992 by <u>Viet-Std</u>.

Restore Menu

The Restore menu command activates and restores VietVu window to its original size and position

Move Menu

The Move menu command allows you to move VietVu via the keyboard arrow keys. First you have to select this menu command then use the arrow keys to move to the desired position.

Minimize Menu

The Minimize menu command minimizes VietVu window and activates the top-level window in the system's list.

File Menu

The File menu include commands that enable you to open and save files and establish a new workspace.

For more information, select the File menu command name.

<u>New</u> <u>Open</u> <u>Save</u> Save As

Modes Menu

The Modes menu commands enable you to select a conversion method or choose no conversion at all.

For more information, select the Modes menu command name.

| <u>Interactive</u> | Converts input keystrokes as user is typing them in. |
|---------------------|---|
| <u>Key Activate</u> | Converts one input character when an escape key is hit. |
| Clipboard | Converts text when they are being moved to the clipboard. |
| No Conversion | No conversion on keyboard nor clipboard inputs. |

Key Composition Menu

This topic explains how you can define your own Vietnamese quoted-readable key composition. Standard VIQR key composition is always recommended; however, VietVu is flexible enough to allow deviation from the standard. See "<u>About Vietnamese Alphabet</u>" topic for VIQR standard.

When Key Composition menu is selected, the dialog box below is displayed. From this dialog box, you can add, delete and modify one or more key compositions. It also allows you to choose between the slash (/) or backslash (\) to temporarily activate or deactivate conversion.

Shortcuts: F2 or



To Add a new key composition

- 1. Select a key composition item in the "Key Map" list box.
- 2. Move the cursor to the "Keys" edit box.
- 3. Make appropriate modification.
- 4. Click the "Add" button.



To delete an existing key composition

- 1. Select a key composition item in the "Key Map" list box.
- 2. Click the "Delete" button.



To modify an existing key composition

- 1. Select a key composition item in the "Key Map" list box.
- 2. Click the "Delete" button to delete this item first.
- 3. Move the cursor to the "Keys" edit box.
- 4. Make appropriate modification.
- 4. Click the "Add" button.



<u>To change escape key</u>

1. To select the slash character as the escape key, click on the "slash" radio button.

2. To select the backslash character as the escape key, click on the "backslash" radio button.

Select forward slash or back slash by selecting the corresponding radio buttons or pressing the corresponding key on the keyboard. See <u>Interactive</u> or <u>Key Activate</u> for more details on the use of the escape key.



<u>To change font</u>

1. Click the Font button to bring up the Font dialog box.

- 2. Choose the appropriate typeface.
- 3. Choose the appropriate style.
- 4. Choose the appropriate size then click the OK button.

You can select a different font for the "Map to" and "Key Map" list boxes by selecting the "Font" button to select a specific typeface, style and size. It is not recommended to use size bigger than 12 points.



To save changes when Key Composition dialog box is closed

1. To save changes, click on the "Save upon close" check box.

You can save changes immediately after this dialog box is closed by checking the "Save upon close" check box. This check box is enabled only when there's been a change. You will also be asked to save when VietVu is closed if a change has not been saved.

VIQR Menu

This menu loads the <u>VIQR</u> key composition table into the system. If the previous table was modified, VietVu will prompt for saving the changes.

Shortcuts: F3 or

Help Menu

This menu brings up the WinHelp window showing what you are reading right now.

Shortcuts: F1 or **?**

About VietVu Menu

This menu displays a dialog box showing a short description about VietVu, the copyright note and gives credit to contributors.

Shortcuts: 🧱

Always on top Menu

This menu places VietVu window above all non-topmost windows and maintains its topmost position even when it is deactivated. .

Close Menu

Closing VietVu

The Close menu command closes VietVu application from the system.

If the current file is unsaved since the last change, you will be asked whether it should be saved.

Shortcuts: Alt+F4

Switch To Menu

Switching to other applications

The Switch To menu command lets you switch to other applications running on the system. When it is selected, Tasks Manager is displayed.

Shortcuts: Ctrl+Esc

How to type Vietnamese characters

This topic explains how to compose special Vietnamese characters using the standard keyboard. Typing Vietnamese, using most standard keyboards, is modeled after the Viet-Net character composition convention. The Viet-Net character composition is also known as Vietnamese Quoted-Readable format. It is widely used and accepted as a way to communicate in Vietnamese via electronic mail.

To compose Vietnamese characters, type a <u>base vowel</u> followed by one or two <u>diacritical</u> <u>marks</u> is to be typed. The following table shows a complete <u>VIQR</u> table needed to produce Vietnamese characters (use the same composition for upper-case letters). <u>Some examples</u>.

| a' á a` à a` à a? ä a. a? ä a. a(a(a(a(a(a(a(a(a(a(|
|--|
| a`àa?äa~ãa.Õa(åa('ia(`¢a(?Æa(? \mathcal{F} a(.fa^`âa^`¥ |
| a? \ddot{a} a~ \tilde{a} a. \tilde{O} a(\mathring{a} a(' i a(' φ a(?) $\mathcal{A}E$ a(?) $\mathcal{A}E$ a(?) $\mathcal{A}E$ a(?) $\mathcal{A}E$ a(.) \pounds a^^ \hat{a} a^^' \mathring{a} a^^' \mathring{a} |
| $a \sim$ \tilde{a} $a.$ \tilde{O} $a($ \tilde{a} $a($ i $a($ i $a($ f $a($ f $a($ f a^{-1} a a^{-1} a a^{-1} a |
| a. O $a($ \mathring{a} $a('$ i $a($) \pounds a^{-1} x a^{-1} x a^{-1} μ |
| a(a a(' i a(`) ¢ a(?) Æ a(?) Æ a(. £ a^ \hat{a} a^' × a^` ¥ |
| a(' i a(` ¢ a(? Æ a(~ Ç a(. £ a^ â a^' â a^' ¥ |
| a(` ¢ a(? Æ a(~ Ç a(. £ a^ â a^' ¤ a^` ¥ |
| a(? Æ a(~ Ç a(. £ a^ â a^' ¤ a^` ¥ |
| a(~ Ç a(. £ a^ â a^' ¤ a^` ¥ |
| a(. £ a^ â a^' ¤ a^` ¥ |
| a^ â a^' ¤ a^` ¥ |
| a^' ¤ a^` ¥ |
| a^` ¥ |
| |
| a^^/ l |
| a^~ Ç |
| a^. § |
| e' é |
| e`è |
| e? ë |
| e~ " |
| e. © |
| e^ ê |
| e^' ^a |
| e^` « |
| e^? ¬ |
| e^~ |
| e^. ® |
| d- ð |
| i' í |
| i` ì |
| i? ï |
| i~ î |
| i |

| 0' 0' 0? 0? 0? 0? 0? 0? 0? 0? 0? 0? 0? 0? 0? 0? 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ u' u' u' u' u' u+ u+ u+ u+? u+? | Ó Ò Ö ↔ Ô - |
|--|--|
| 0 | 0 |
| 0? | O ~ |
| 0~ | 0 |
| 0. | ÷ |
| 0^ | Õ |
| 0 | • |
| 0^1 | |
| 0^? | ± 2 |
| 0^~ | |
| 0^. | μ |
| 0+ | 1/2 |
| 0+' | 3⁄4 |
| 0+` | ¶ |
| 0+? | • |
| 0+~ | Þ |
| 0+. | þ |
| u' | ú |
| u` | ù |
| u? | ü |
| u~ | û |
| u. | Ø |
| u+ | ß |
| u+' | Ñ |
| u+` | × |
| u+? | Ø |
| u+~ | æ |
| u+. | ñ |
| У | ý |
| у` | Ï |
| y? | Ö |
| u+~ u+. y' y` y? y~ y. | μ ¹ / ₂ ³ / ₄ ¶ Þ þ ú ù ů ů ø ß Ñ × Ø æ ñ ý Ï Ö Û Ü |
| у. | Ü |
| | |

How to define your own key composition

This topic explains how you can define different keystokes to represent Vietnamese diacritics. VietVu includes a VIETSTD.CNV file which is predefined to the standard <u>VIQR</u> style. VIQR is the recommended style since it has been accepted as the standard. However, VietVu is very flexible and customizable. It allows you to define your own style.

For some people, they would avoid reaching the top most keys on the keyboard if at all possible because it's harder to reach. Unfortunately, most VIQR diacritical marks are on this top row such as the tilde, back quote, caret, left paren, and plus sign characters. The following table is an alternative for producing the same results. Note that it's much faster to type 'aa' then 'a^'.

| <u>VIQR format</u> | <u>Alternative format</u> | <u>Actual display</u> | Note |
|--------------------|---------------------------|-----------------------|----------------------------------|
| a(| ae | å | replacing '(' with 'e' |
| a^ | аа | â | replacing '^' with double-vowels |
| e^ | ee | ê | replacing '^' with double-vowels |
| 0^ | 00 | Ô | replacing '^' with double-vowels |
| 0+ | ou | 1/2 | replacing '+' with 'u' |
| u+ | uu | ß | replacing '+' with 'u' |

Note: the alternative combinations of double vowel suggested above does not conflict with the Vietnamese language.

Another one of the most frequently requested features is the capability to mix the order of the characters when a Vietnamese vowel that is followed by one or two diacritical marks such as "a^~" to represent "ç". Some people prefer to type it in this order "a^~" but some prefer it "a~^" or even "~^a". With VietVu, you can define any combination to satisfy any style.

How to modify the Key Composition table

This topic explains how to modify the Key Composition table. All changes can be done via the Key Composition dialog box.



To modify the VISCII table via the Key Composition dialog box

- 1. Open the Key Composition dialog box via the "Key Composition" menu or by clicking on the Key Composition button on the tool bar.
- 2. See <u>Key Composition</u> for more detail.

Tutorial session

This topic guides you through a session creating a Vietnamese proverb using Microsoft Write.

- 1. Run VietVu if it's not already running.
- 2. Change to Interactive mode by selecting menu Modes then choose Interactive item.
- 3. Run Microsoft Write.
- 4. Change to "UHoai 1.1" font by selecting menu Character then choose Fonts item to open the Fonts dialog box for font selection.
- Start typing the following paragraph: "Co' co^ng ma`i sa('c co' nga`y ne^n kim"

As you can see, the above proverb starts to appear in Vietnamese as you type. This is due to the Interactive mode you were instructed to select in step 2 above.

The actual result should be something like this:

"Có công mài s¡c có ngày nên kim".

Glossary accents

accents ASCII diacritics modifiers Viet-Std VIQR VISCII

File New Command

Creating a New File

The New command in the File menu creates a new workspace. When new file is created, Key Composition dialog box will be opened automatically for adding new key compositions.



<u>To create a new file</u>

- 1. From the File menu, choose New.
- 2. Add new keys to the Key Composition dialog box.
- 3. After adding new compositions, you can save the new file via <u>File Save menu</u>.

If you open new file without closing or saving them, the environment temporarily names it according to its own naming convention.



File Open Command

Opening a File

The Open command from the File menu loads an existing key composition file. Default file extension for key composition file is *.cnv. You can open any key composition file created with the correct format. See <u>How to modify the VISCII table</u>.



<u>To open a file</u>

- 1. From the File menu, choose Open.
- 2. Choose a drive from the Drives list box. The default drive is the current drive.
- 3. From the Directories list box, select a directory where the source file is stored.

4. Choose a file type in the List Files of Type box---the default is "*.cnv". Files with the chosen extension are displayed in the File Name box.

5. Double-click a filename, or click a filename and choose OK.

Shortcuts: Ctrl+F12 or

File Save Command

Saving a File

The Save command saves the contents of the currently opened file under the name shown in the title bar.

If your file is unnamed, the Save As dialog box appears. You can also select <u>Save As</u> to save your file under a different name. In this case, the original file does not change.

Shortcuts: Shift+F12 or

File Save As Command

Saving a File under a New Name

You can use the Save As command in the File menu to save a newly created file or rename an existing file.



<u>Procedure</u>

- 1. Choose Save As from the File menu.
- 2. Choose the drive and the directory where you want to save the file.

3. Type a new name for the file. If no file extension is used, default extension ".cnv" is automatically appended to the file name.

4. Choose OK.

This procedure is useful for maintaining revised copies of a file while keeping the original unchanged.

Shortcuts: F12

Modes Interactive Command

When Interactive mode is selected, all keyboard inputs matching key compositions will be converted as you type. It is most useful when you start a work session where Vietnamese is your main language.

While in this mode, you can temporarily deactivate a conversion by preceding a potential conversion with an escape key. For example, if "a?" is a potential conversion combination which produces an "ä" character but you want your next word to appear as "a?", you would have to temporarily escape the conversion by typing "a\?" which gives you "a?" instead of "ä".

Shortcuts: Ctrl+I or

Modes Key Activate Command

When Key Activate mode is selected, keyboard inputs will appear normal. Conversion occurs only with an escape sequence and stops after one conversion.

For example: when you type "U Ho\a`i." in Key Activate mode, the conversion occurs for the sequence "\a`" because this sequence starts with an escape character. However, sequence "i." will not be converted eventhough it's a convertable combination.

This mode is most useful when you start a work session where Vietnamese language is only being used some of the time.

Shortcuts: Ctrl+K or

Modes Clipboard Command

When Clipboard mode is selected, all text copied to the system clipboard will be converted. This mode is most useful when you want to convert a Vietnamese document that was typed in <u>VIQR</u> format.

Shortcuts: Ctrl+C or

Modes No Conversion Command

When this mode is selected, no conversion will take place neither through keyboard inputs nor clipboard. It is most useful when you want to deactivate input conversion but still want VietVu to run in the background.

Shortcuts: Ctrl+N or a^{\wedge}

Some Examples

Actual typing

Vie^.t Nam Hue^' Sa`i Go`n Ha` No^.i To^i ra^'t thi'ch the^? thao\.

Actual display

Vi®t Nam Huª Sài Gòn Hà Nµi Tôi r¤t thích th¬ thao.

Note the backslash escape character on the last example. It was needed to escape the period character. Without the backslash escape character, the last example above would have resulted as "Tôi r¤t thích th¬ tha÷" (without the escape character, VietVu would have interpreted the "o." combination as "÷" - 'o' with a dot below which is possible in Vietnamese).

accents

Vietnamese uses accents to emphasize the tone of a <u>base vowel</u>.

| <u>Diacritic</u> | <u>Accent</u> | ASCII code | <u>Tone</u> |
|------------------|---------------|-------------------|-------------------|
| acute | 1 | 0x27 - apostrophe | high, short |
| grave | ` | 0x60 - back quote | medium, long |
| hook above | ? | 0x3F - question | long, low ending |
| tilde | ~ | 0x7E - tilde | long, high ending |
| dot below | | 0x2E - period | very low |

ASCII

ASCII stands for American Standard Code for Information Interchange. The ASCII character set is divided into two subsets, the standard 7-bit ASCII character subset and the extended subset. Standard subset defines codes from 0 through 31 and 127 as control characters and defines codes from 32 through 126 as displayable characters. The extended subset may define codes from 128 through 255 as characters with diacritics. This extended subset varies from country to country.

Base Vowels

Vietnamese base vowels include the following vowels: a, å, â, e, ê, i, o, ô, $\frac{1}{2}$, u, ß, y

Diacritics

Diacritics (diacritical marks) is a general term used to indicate <u>accents</u> and <u>modifiers</u>.

Modifiers

Vietnamese uses modifiers to add new vowels to the Vietnamese alphabet. In addition to the vowels, Vietnamese uses a high bar to modify consonant 'd' to represent ' $\tilde{0}$ '. It is also common to use double 'dd' to represent ' $\tilde{0}$ '.

| <u>Diacritic</u> | <u>Modifier</u> | ASCII Code |
|------------------|-----------------|-------------------|
| breve | (| 0x28 - left paren |
| circumflex | ^ | 0x5E - caret |
| horn | + | 0x2B - plus sign |
| high bar | - | 0x2D - minus sign |

Viet-Std

A non-profit group of Vietnamese and other professionals working on software & hardware standards for the Vietnamese language. Members of the group exchange ideas via electronic mail and meetings.

VIQR

VIQR stands for Vietnamese Quoted-Readable. The VIQR uses standard 7-bit displayable characters to represent 8-bit VISCII characters. The table below shows some of the examples:

| <u>VIQR format</u> | VISCII character |
|--------------------|------------------|
| a' | á |
| a` | à |
| a^' a^` | ¤ |
| a^` | ¥ |
| a(? | Æ |
| a(? a(~ | Ç |
| dd | ð |

VISCII

VISCII stands for Vietnamese Standard Code for Information Interchange. The VISCII character set keeps all of standard 7-bit ASCII displayable character codes from 32 through 126 but redefines some of the control character codes from 0 through 31 and 127. It also defines all of the extended character codes from 128 through 255 to represent Vietnamese alphabet.