

Twiddler 2.1

Configuring the Twiddler for Non-US Keyboard Keymaps

The Twiddler is installed as a typical USB Human Interface Device (HID) keyboard, similar to how standard full-size keyboards are recognized by the computer's operating system.

A USB keyboard does not send language-specific information to the computer; rather it sends a key-code that represents the location of the key on a standard keyboard layout. Likewise, the Twiddler sends information that mimics a standard USB keyboard, and the key/chord labels on the Twiddler represent the Twiddler's default configuration for to match a key on an English US keyboard.

For example: pressing the 'a' key on an English keyboard sends HID key-code "04" to the computer, and pressing the chord R000 on the Twiddler will also send key-code "04" to the computer, and the same character will appear.

However, the Twiddler user does not need any knowledge of the HID key-codes to configure their Twiddler for Non-US layouts. The important part to note is that if you can type a key on your keyboard and have it appear on your computer's screen that character can also appear by pressing the equivalent key/chord on the Twiddler.

Saying it another way, for any key on a Non-US keyboard, find the US keyboard character at the same location on the keyboard, and that's the labelled Twiddler keychord that you need to type to generate that character on a Non-US Keyboard keymap. This is a good reference for seeing the characters that are assigned to a full size keyboard in various languages.

http://en.wikipedia.org/wiki/Keyboard_layout

The operating system receives the HID key-code and maps it to an appropriate character based on the operating system's language setting for that keyboard. When using Twiddler Configurator, if your Non-US keyboard character appears in the Key Mapping text box, the same character will be generated by using the Twiddler if the operating system language selection is the same. You then should be able to use your Twiddler in any language your operating system supports.

Example: If you are using a Norwegian Keymap and wish to type “æ” using the Twiddler locate the corresponding key on the US Keymap. In this case, it is the “;” key.

Norwegian Keymap

§	!	"	#	□	%	&	/	()	=	?	'	←
	1	2 @	3 £	4 S	5	6	7 (8 [9]	0)	+	\	Backspace
Tab	Q	W	E C	R	T	Y	U	I	O	P	Å	^ ~	Enter
Caps Lock	A	S	D	F	G	H	J	K	L	Ø	Æ	*	
Shift	>	Z	X	C	V	B	N	M	;	:	-	Shift	
↑	<							µ	,	.	-	↑	
Ctrl	Win Key	Alt						Alt Gr	Win Key	Menu	Ctrl		

US Keymap (Twiddler)

~	!	@	#	\$	%	^	&	*	()	-	+	←
`	1	2	3	4	5	6	7	8	9	0	-	=	Backspace
Tab	Q	W	E	R	T	Y	U	I	O	P	{	}	
Caps Lock	A	S	D	F	G	H	J	K	L	:	"	Enter	
↑											:	↵	
Shift		Z	X	C	V	B	N	M	<	>	?	Shift	
↑									,	.	/	↑	
Ctrl	Win Key	Alt						Alt	Win Key	Menu	Ctrl		

In the Twiddler Configurator, select a chord you wish to use for “æ” and type “;” in the Key Mapping field. Save your configuration to the Twiddler and that chord will now print “æ”. For a Norwegian keymap, the default Twiddler chord 0 R00R will also print “æ” while N M00L will print “;”.

Some modern operating systems such as Windows offer a way to generate any Unicode character regardless if that character is included in the current language’s keyboard layout. Windows includes an application named Character Map (charmap.exe) that allows look-up of any character code and lists a Keystroke Shortcut that, when typed out, will be replaced by the equivalent Unicode character.

e.g. “æ” is represented by keyboard shortcut Alt+0230

The user can add such an entry to the Twiddler using Twiddler Configurator, which when the desired chord is pressed, will output the equivalent of holding Alt while typing “0230” on a standard keyboard. Windows will replace the string with “æ”.

Author: EA

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