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DATABASE DESIGN NOTE SERIES

DocKeys – A Font for Documenting Keyboard Commands

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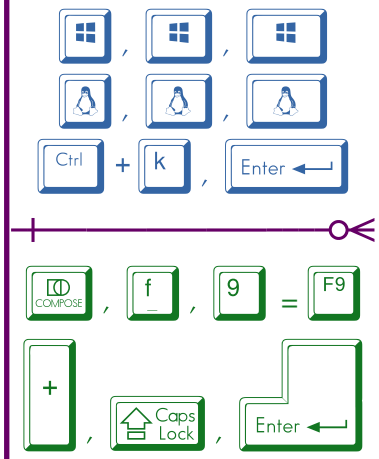
While there are quite a few keycap fonts available, both commercial and free, that can be used to support software and process documentation, none seemed to offer the flexibility and ease of use desired.

Moreover, none were complete enough to be used to not only illustrate the keystrokes required for certain activities, but to create a variety of sample keyboard layouts with accurate scaling, minimizing the need for graphics.

Ease of use has been addressed by also providing the necessary Linux Compose key sequences to support easy text entry of the most common non-alphanumeric characters.



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Database Design Note Series on maintaining Multi-Language/Multi-Script Databases

(All available for download from www.AntikytheraPubs.com/i18n.htm)

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Introduction

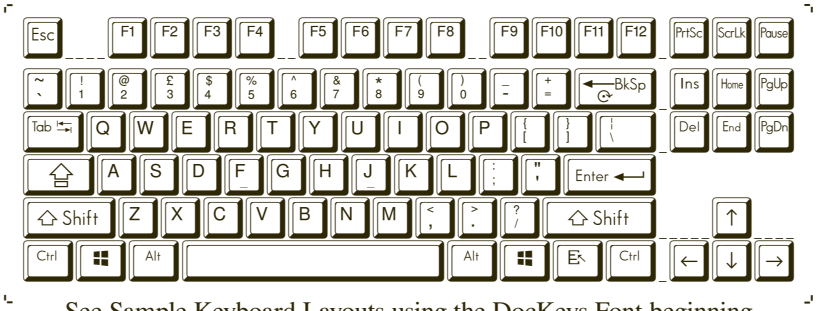
Software documentation often illustrates a wide variety of commands and shortcuts similar to the following:

"Highlight the text you wish to copy and press Ctrl + C to capture it and place it in the clipboard."

"To type the ™ symbol, press the Compose, t, m keys in sequence. In most cases, pressing Compose, T, M also produces the ™ mark."

Objectives

1) While several commercial and open-source fonts are available that do this, it was also desirable to be able to illustrate [by simply typing] a variety of keyboard layouts using the same font, such as the typical 18.50u width Ten-Key-Less (TKL) layout shown below:



See Sample Keyboard Layouts using the DocKeys Font beginning on page 21 for a variety of other layouts possible with this font.

This objective implied several other attributes that didn't seem to exist in any available fonts. Aside from proper relative sizing of the keys consistent with the "u" measurements used for key widths, the following additional objectives for a general purpose software documentation font were identified:

2) availability of many key caps in several widths. Alphabetic character keys typically have a 1.00u width, but others, such as modifier keys and the space bar, exist in a variety of sizes on different keyboard layouts.

3) a variety of dual-legend keys (e.g. @2 F2 or F2 ☀ F2 ☼ F2 ⌂), including media and other specialty keys (e.g. lighting and app launchers) should be available.

4) some keys should ideally be available in forms suitable for both properly scaled layouts as well as documentation, each with different horizontal spacing needs. A properly scaled 6.25u space bar, for instance, while desirable for a layout, is too cumbersome to use for user instructions.

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5) when the DocKeys font is selected, typing specific key sequences should be as easy as possible, and mnemonic Compose sequences for non-alphanumeric key cap glyphs should be defined where possible.

6) additional characters (e.g. comma, ampersand, plus sign, etc.) should be available with no key cap surrounds to avoid the need to change fonts when typing command sequences, e.g. the 'plus' and 'comma' characters in the commands in the Introduction on page 3 do not require switching back to the text font while typing the sequence.

7) glyphs for exposed key switches as well as key caps should be available.

8) finally, the font needed to be free.

Hence, this first draft of the DocKeys font. This document lists the variety of glyphs that are available (so far). The intent is to enhance the scope and aesthetics of the font over time, but it is complete enough for use.

Using the DocKeys font

Alphanumeric Key Caps

Typing normal alphabetic keys alone when the DocKeys font is selected will produce the same characters in key cap form as would result when typing normally. Pressing the A key alone will produce a non-capitalized a key cap glyph. Likewise, the Shift + A keys together will produce an A key cap.

Keys indicating different shifted and unshifted output glyphs work similarly. Pressing the unshifted key # 3 produces a 3 keycap, while pressing Shift + # 3 generates the # key cap glyph. Producing dual-legend key caps like the # 3 shown here will be discussed in 'Dual-Legend Key Caps' above right.

Non-Alphanumeric Key Caps

To assist with typing non-alphanumeric characters, e.g. function keys, modifier keys (Shift, Ctrl, etc.), navigation keys (PgUp, Home, Arrows), media control keys and the like, sample Compose key sequences are provided in 'Custom Linux Compose Key Definitions' beginning on page 28. Using these, for example, typing Compose , f , 7 will produce the F7 key cap glyph.

Compose key definitions are provided for the "standard" sizes of many keys, particularly modifier keys such as Shift, Ctrl, Alt, etc., but the Compose key definitions can easily be altered if necessary.

Variations of several keys are provided, e.g. OS SUPER , , & for the 'Windows' or 'Super' key; many are available in multiple widths as well.

Dual-Legend Key Caps

When creating keyboard layouts or for some documentation, using the compose key sequence Compose , 3 , # will display the # 3 key (as it does in the second paragraph under 'Alphanumeric Key Caps' on the left of this page), assuming of course that the correct Compose sequences have been loaded.

Compose Key Sequences

With regard to Objectives 5) and 6), a full list of those glyphs and their Compose sequences can be found in 'Additional Glyphs useful for Documentation' beginning on page 16.

General Notes about the DocKeys Font

In order to avoid conflicts with other fonts in any document being edited, the glyphs for characters in the DocKeys font that cannot be typed directly are located in the lowest Unicode Private Use Area plane (U+E000 to U+EF8FF), which is part of the basic multi-lingual plane.

The DocKeys glyphs are kept within the range U+EC20 (decimal 60448) and U+EFCF (decimal 61391); unassigned, but commonly used PUA areas such as Microsoft User Interface glyphs (U+E06D, U+E06E) and SmuFL[1] Music Score layout glyphs (U+E30D to U+E602) were avoided to avoid potential conflicts.

In addition to letters and numeric characters, many of the glyphs used on keyboards (e.g. arrow keys, media control icons, power symbols, etc.) have standard Unicode plane and point assignments; such glyphs may have been placed or been duplicated in those locations as well to permit existing shortcuts and compose sequences for these symbols to continue working when the DocKeys font is in use. In most Linux distributions, for instance, the Compose , - , > sequence produces a '→' glyph; in text formatted with the DocKeys font, that same sequence will produce the → key cap glyph.

See 'Non-Alphanumeric Key Caps in Original Unicode Code Points' on page 19 for a list of these.

Similarly, the ' and " keys also replace their respective beginning and ending "curly" quotes at U+2018, U+2019, U+201C and U+201D to compensate for automatic replacement of those glyphs in office applications.

Finally, although DocKeys is not a "fixed pitch" font in the usual sense, it is limited to a specific set of widths that will transfer/scale to the measurement units (1.00u = 0.75in or 19.05mm) used on physical keyboards.

1 Standard Music Font Layout (SmuFL); see https://w3c.github.io/smufl/latest/index.html for information

Key Cap Glyphs in DocKeys.ttf with Compose Sequences

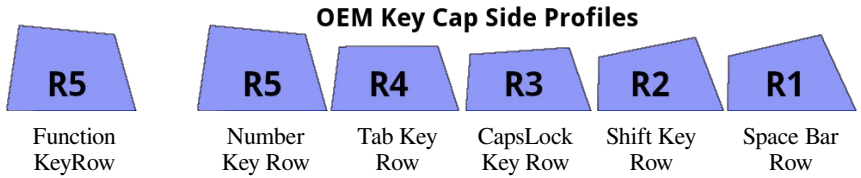
The charts below are presented in the bottom-to-top/left-to-right sequence of the keys on a standard keyboard, since this is the most common way of referring to keyboard switch positions, key cap profiles, etc. Keys typically found on the space bar row, for instance, are shown in the first table. The first five tables cover the alphanumeric section (letters, numbers, modifiers, and punctuation); the remaining seven tables cover the function key grouping, navigation section (arrow keys, Home, PgUp, etc.) followed by the numeric keypad section and various other special purpose keys.

For each key or grouping, there is a description, followed by example DocKeys.ttf glyphs in various sizes, any Linux compose sequence(s) if defined in the table on page 28, remarks, and the Unicode values which with each key is usually associated. These codes are given in hexadecimal (for use with the Linux/Unix Ctrl+Shift+u000 entry method) as well as in decimal (for use with the Windows Alt+0000 character entry method[2]).

A dark red key cap () indicates which size is defined with the Compose sequence given in this document, though that can be easily changed.

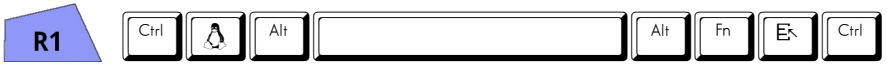
Key Cap Profiles

While documentation generally doesn't make use of profile information, it is provided here for convenience. Most laptops have keys that are totally flat and on the same level, but standalone keyboards vary the height and angle of each row of keys for speed, accuracy and general ergonomic considerations. There is a wide variety of profiles available, but the most common are the "OEM profile" shown here, and the "Cherry profile" – similar, but OEM key caps are higher than Cherry caps.



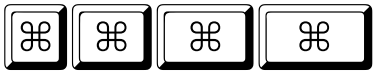
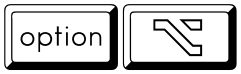
Even within similar profiles, there may be differences in the shape of the key tops, e.g. some more cupped than others, etc.

Space Bar Row Key Caps

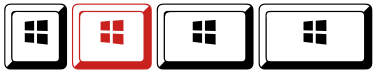
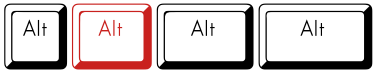
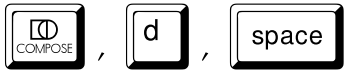
ANSI Standard 100% Layout: 

This is generally the lowest row of keys on the keyboard – i.e. closest to the user. Keys on this row tend to have a wider variation in their unit widths from one available keyboard product to another.

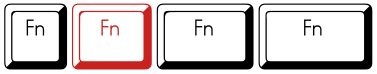
The compose sequences given in Custom Linux Compose Key Definitions beginning on page 28 and shown in the table below are the sizes most commonly found on full-size (100%) keyboards, but the definitions can be altered easily, or the Unicode values can be entered using whatever method is provided to do this in a given operating system or and distribution.

Space Bar Row Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Control Key (Left and Right) in 1.00u, 1.25u (standard), 1.50u and 1.75u sizes			Compose Key sequence on the left is for the standard 1.25u size key. Mnemonic: **K**ey **C**trl	U+EEB0-3 61104-07
Apple Command Keys in 1.00u, 1.25u (standard), 1.50u and 1.75u sizes				U+EEB8-B 61478
Option Keys in 1.75u size Only seen on Apple products.			Second example ⌥ (u+2325) should not be confused with the ISO 9995-7 Alt(ernative key) symbol ⎇ (u+2387)	U+EEBD-BE 61117-18

2 In Windows, this method only works with numbers on the numeric keypad.

Space Bar Row Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Generic Operating System “Super” Key in 1.00u, 1.25u (standard), 1.50u and 1.75u sizes			Compose Key sequence on the left is for the generic O/S Menu 1.25u size key. Mnemonic: **K**ey **O**/S	U+EEC0-3 61120-3
Linux Operating System “Penguin” Key in 1.00u, 1.25u (standard), 1.50u and 1.75u sizes			Compose Key sequence on the left is for the standard Linux 1.25u size key. Mnemonic: **K**ey **P**enguin	U+EEC8-B 61124-7
Windows Operating System “Win” Key in 1.00u, 1.25u (standard), 1.50u and 1.75u sizes			Compose Key sequence shown is for the standard Windows 1.25u size key. Mnemonic: **K**ey **W**indows	U+EED0-3 61136-9
Apple Operating System “Super” Key in 1.00u, 1.25u (standard), 1.50u and 1.75u sizes				U+EED8-B 61144-7
Left Alt Key and/or Left/Right Generic Alt Keys in 1.00u, 1.25u (standard), 1.50u and 1.75u sizes			Compose Key sequence on the left is for the standard 1.25u size key. Also see Right Alt alternative key.	U+EEE0-E3 61152-55
Alternate Key Not implemented as Key Cap			ISO 9995-7 Alternative symbol; should not be confused with the ⌥ Option symbol.	U+2387 9095
0.25u (¼u) spacer to indicate sizing in “typed” keyboard layouts.				U+EDC0 60864
Generic space bar key in 1.75u size for use with software documentation.			Compose + Space gives the ¼u separator used for constructing correctly scaled keyboard layouts. See next line.	U+EF73 61299
ANSI standard space bar in 6.25u size, 6625 (Blank 6.25u Key Cap)			Full set of unlabeled keys can be seen in “Blank Keys, Space Bars, and u-Size Indicators” beginning on page 17.	U+EF1C 61212
Open Box / Space Symbol Not implemented as Key Cap				U+2423 9251
Alt-Compose Key in 1.00u, 1.25u (Standard), 1.50 and 1.75u sizes			In many applications, the Compose key takes precedence over the Alt key function if both are on the same key.	U+EEE4-E7 61156-59
Alt-Gr Key in 1.00u, 1.25u (Standard), 1.50 and 1.75u sizes			Compose sequence is for 1.25u size	U+EEE8-EB 61160-63
Right Alt-Gr/Compose Keys in 1.00u, 1.25u (Standard), 1.50 and 1.75u sizes			Alt-Gr and Compose[3] differ in that Alt-Gr is a modifier (pressed together with another key), while Compose is not.	U+EEEC-EF 61164-67

3 Having Alt-Gr and Compose functions on the same key is only possible on a few distributions.

Space Bar Row Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Compose Key in 1.00u, 1.25u (Standard), 1.50 and 1.75u sizes			Compose Key sequence on the left is for the standard 1.25u size key.	U+EEF0-F3 61168-71
Keyboard Function in 1.00u and 1.25u (Standard) sizes			Compose Key sequence on the left is for the standard 1.25u size key. Mnemonic : **K**ey **Fn**	U+EEF8-FB 61176-79
Application Menu Key in 1.00u, 1.25u (Standard) and 1.50u sizes; this is usually equivalent to a right-click.			Compose Key sequence on the left is for the standard 1.25u size key. Mnemonic : **K**ey **M**enu	U+EF00-03 61184-87

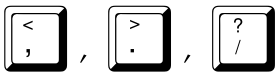
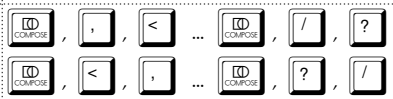
Shift Key Row Key Caps

ANSI Standard 100% Layout: 

Usually the fifth row from the top and second row from the bottom on a standard keyboard. There are normally two different size shift keys at opposite ends, with a combination of from seven to eleven alphabetic and punctuation keys. The alphabetic keys typically have a single legend for letters of the Latin alphabet where it is understood that typing C alone (a capital “C”) will produce a small “c” while it’s necessary to use the Shift + C sequence to produce the capital “C.”

For Scripts that have no concept of capital and small letters, such as Thai, the keys have dual legends for that Script in addition to the Latin character. When typing Thai, pressing C alone will produce “แ” while typing Shift + C will produce the completely unrelated “ฉ” character.

Thai dual-legend key cap

Shift Key Row Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Various non-standard Shift keys in 1.00u [1060], 1.50 [1590], 1.75u [1855], and 2.00u [2120] sizes			Mnemonic : **K**ey **S**hift **G**eneric Compose, k, s, s also works	U+EEA0-A4 61088-92
Left Shift Key in standard 2.25u size [2385]			Mnemonic : **K**ey **S**hift **L**eft Primarily used for keyboard layouts	U+EEA5 61093
Right Shift Key in standard 2.75u size [2915]			Mnemonic : **K**ey **S**hift **R**ight Primarily used for keyboard layouts	U+EEA6 61094
Standard dual-legend Shift Row Keys in 1.00u size			Compose sequences are simply the two legends typed one after the other.	U+EE55-57 61013-15
Dual Function Custom Keyboard O/S Configuration Keys in 1.00u size			As used on the Royal Kludge RK-100 96% keyboard.	U+ED8B-8C 60811-12

Caps Lock Key Row Key Caps

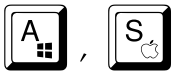
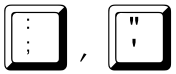
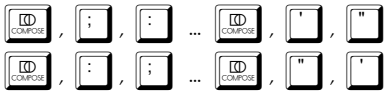
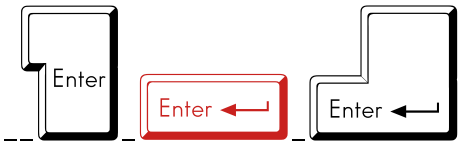
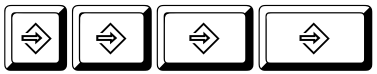
ANSI Standard 100% Layout: R3 

Usually the fourth row from the top and third row from the bottom on a standard keyboard – In addition to the Caps Lock and Enter keys on each end, ANSI layouts have eleven alphabetic/punctuation keys while ISO layouts have twelve of these.

Alphabetic keys in this row typically have a single legend for letters of the Latin alphabet where it is understood that typing F alone (a capital "F") will produce a small "f" while typing Shift + F sequence will produce the capital "F."

For Scripts that have no concept of capital and small letters, such as Thai, the keys have dual legends for that Script in addition to the Latin character. When typing Thai, pressing F alone will produce "ด" while typing Shift + F will produce the "ไ." 12 for ISO or 13 keys for ANSI with single height Enter key on CapsLock row below

Thai dual-legend key cap

Caps Lock Row Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Caps Lock Keys in 1.75u sizes			Compose Key sequence on the left is for the standard 1.75u size key (no legend). Mnemonic: **K**ey **L**ock	U+EE70-72 61040-42
See Non-Standard/Specialty Key Caps on page 14.			Shown here as used on the Royal Kludge RK-100 96% keyboard. See Non-Standard/Specialty Key Caps p.14	U+ED8B-8C 60811-12
Standard dual-legend Caps-Lock Row Keys in 1.00u size			Compose sequences are simply the two legends typed one after the other in either order.	U+EE53-54 61011-12
ISO Enter key at 1.25u size 2xh; ANSI Enter key at 2.25u size 1xh; ANSI-Asian[4] Enter key at 2.25u size 2xh			Compose Key sequence on the left is for the ANSI standard 2.25u 1H size key. Mnemonic: **K**ey **E**nter	U+EE90-92 61072-4 2H BLANKS: U+EE99/9B 61081/83
Enter and Return Keys at 1.50u and 1.75u sizes for Documentation			See double-height NumPad Enter Key in Number (aka Ten-Key) Pad Key Caps on page 12.	U+EE94-96 61076-78
Symbolic Enter/Return Keys in 1.25u and 1.50u sizes				U+EE97-98 61079-80
Symbolic Enter/Return Keys in 1.00u, 1.25u, 1.50u and 1.75u sizes.			Uses Unicode u+2386 ⎆ symbol; mostly seen on French-Canadian keyboards.	U+EE9C-9F 61084-87
Not implemented as Key Caps				U+23CE U+21B5 9166/8629
Not implemented; no example on any commercial keyboard I could locate.			Unicode "Up Arrowhead between two Horizontal Bars" (u+2324)	U+2324 8996

4 The double-height ASCII Asian Enter key variant with the wide base is used on many Asian (including some Russian and Korean) keyboards, as well as on "classic" pre-1995 (before the "Windows" key was introduced) Northgate and IBM keyboards, many of which are still in use after almost thirty years.

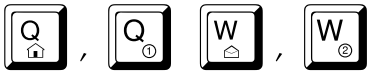
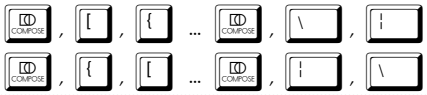
Tab Key Row Key Caps

R4

Usually the third row from the top and fourth row from the bottom on a standard keyboard – alphabetic keys typically have a single legend for letters of the Latin alphabet where it is understood that typing R alone (a capital “R”) will produce a small “r” while it’s necessary to use the Shift + R sequence to produce the capital “R.”

For Scripts that have no concept of capital and small letters, such as Thai, the keys have dual legends for that Script in addition to the Latin character. When typing Thai, pressing R alone will produce “พ” while typing Shift + R will produce the “ท.” 12 for ISO or 13 keys for ANSI with single height Enter key on CapsLock row below

Thai dual-legend key cap

Tab Row Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Tab Key in Symbolic (1.25u) and Standard (1.50u) sizes			Compose Key sequence on the left is for the standard 1.50u size key.	U+EE68-6B 61032-33
See Non-Standard/Specialty Key Caps on page 14.			Variety of multi-legend alphanumeric keys shown in Non-Standard/Specialty Key Caps on pg 14	
Standard dual-legend Tab row Keys with compact (1.00u) backslash/pipe Key. (display only) in 1.00u size			Standard backslash/pipe key is 1.75u	U+EE50-52 61008-10 U+EE58

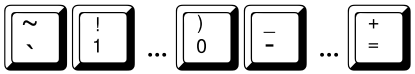
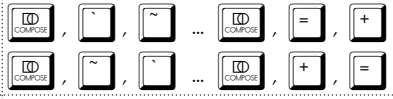
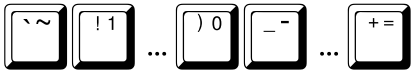
Number Key Row Key Caps

ANSI Standard 100% Layout: R5

Usually the fifth row from the bottom on a standard keyboard – always contains the Backspace key on the right and the numeric characters for 2 through 9, and usually those for 0 and 1 as well. Numeric characters are usually in the non-shifted position as shown here. The shifted symbols are dependent on both locale as well as script direction – e.g. open and close parentheses characters may be reversed for RTL scripts.

For Scripts that have no concept of capital and small letters, such as Thai, the keys have dual legends for that Script in addition to the Latin character. When typing Thai, pressing 8 alone will produce “ค” while typing Shift + 8 will produce the completely unrelated “๘” numeral.

Thai dual-legend key cap

Number Row Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Dual-legend Number Row Keys in 1.00u size (ANSI) with shifted glyphs placed above their unshifted counterparts.			Compose keys are defined for both the unshifted key followed by the shifted key as well as the reverse order.	U+EE40-4C 61292-93
Dual-legend Number Row Keys in 1.00u size (ANSI) with shifted glyphs placed to the left of their unshifted counterparts.			Maybe use reverse order for these compose sequences ???	U+ED30-3C 60720-32
Various dual-legend ISO Keys in 1.00u size			The ISO (British English) 3 key uses Compose, 3, L	U+EE4D-4F 61005-07 U+EE5A

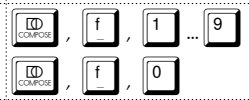
Number Row Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Backspace Keys in Symbolic (1.50u) and Standard (1.75u) sizes. The 1.50u key was once known as a “Delete Previous” key.			Compose Key sequence on the left is for the standard 1.75u size key. U+232B is AKA “Erase to Left” key.	U+EE61 & U+EE64 61025&28
Non-Standard Backspace Keys in 1.00u, 1.25 and 1.50u sizes				U+EE60 U+EE62-63

Function Key Row Key Caps

ANSI Standard 100% Layout: 

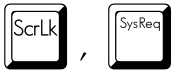
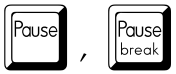
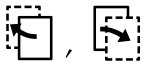
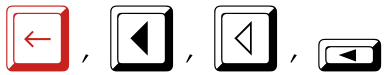
Usually the top row on a standard keyboard – and usually slightly separated from the Number Key Row except on compact keyboards – with keycaps usually having the same R5 profile used by those in the Number Key Row.

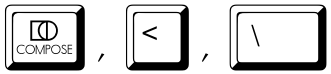
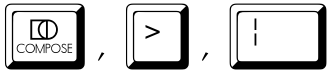
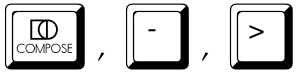
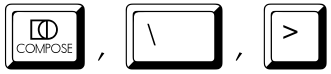
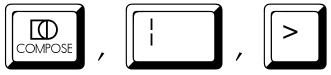
On a majority of keyboards, there are secondary legends on these keys to perform a variety of functions, but these are no standardized. See the section Non-Standard/Specialty Key Caps on page 14 for some examples.

Function Row Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Escape Key in 1.00u , 1.25u, 1.50u, 1.75u and 2.00u sizes			On some keyboards, particularly compact keyboards, the Escape key (1.00u) may appear in a different row.	U+EDE0-E4 60896-900
Not implemented as Key Cap			ISO 9995-7 Escape Symbol	U+238B 9099
Function Keys F1 through F10 in 1.00u sizes				U+EDF1-FA 60913-22
Function Keys F11-F24 in 1.00u size				U+EDFA-EE08 60922-36
See “Non-Standard/Specialty Key Caps” on page 14 for a sampling of the wide variety of multi-purpose function key sets.				SEE PAGE 11
Secondary Function Keys F11-F24 in 1.00u size				U+EDD1-EDDC 60881-92

Navigation Panel Key Caps

On a “full-size” keyboard, these form a separate grouping of keys, usually to the right of the alphabetic group – the catch-all term navigation includes system control and editing keys as well. Navigation functions are also usually present as secondary legends on numeric keypads (see page 12).

Navigation Panel Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Print Screen (PrtSc) 1.00u Key			ed4d, ed86	U+EF20 61216
Not Implemented as a Key Cap.			ISO 9995-7 Print Screen Symbol;	U+2399
Scroll Lock (ScrLk) 1.00u Key System Request (SysRq) 1.00u Key				U+EF21/2D 61217/29
Pause/Break 1.00u Key				U+EF22-23 61218-19
Insert (Ins) 1.00u and 1.50u keys				U+EF28 61224 U_EDE6
Home 1.00u Key				U+EF29 61225
Page Up (PgUp) 1.00u Keys			Need to create full dual legend key and or establish SysReq as separate key ????	U+EF2A-2C 61226-28
Not Implemented as Key Caps.			ISO 9995-7 Previous Page and Next Page Symbols;	U+2397-98
Delete (Del) 1.00u and 1.50u keys			The 1.50u key u+ef35/u+2326 is known as a “Delete Next” or “Erase to Right” key. ed4e	U+EF30 61230 U+EDEB
End 1.00u Key				U+EF31 61233
Page Down (PgDn) 1.00u Keys				U+EF32-34 61234-36
Navigation Left/West Arrow 1.00u Keys, including half-height Key			System Compose Key Definition: ← uses Unicode Code Point u+2190; alternates are u+efa1, efb1, and ef91.	U+2190 8592

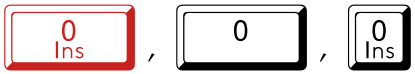
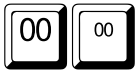
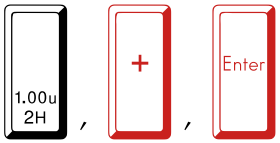
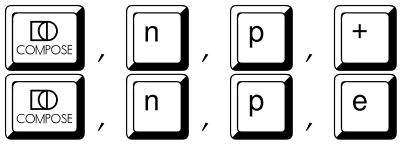
Navigation Panel Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Navigation Northwest Arrow 1.00u Key			↖ uses Unicode Code Point u+2196; used on some 100% keyboards with full navigation.	U+2196 8598
Navigation Up/North Arrow 1.00u Keys			↑ uses Unicode Code Point u+2191; alternates are u+efa2 and efb2.	U+2191 8593
Navigation Northeast Arrow 1.00u Key			↗ uses Unicode Code Point u+2197; used on some 100% keyboards with full navigation.	U+2197 8599
Navigation Right/East Arrow 1.00u Keys, including half-height Key			System Compose Key Definition: → uses Unicode Code Point u+2192; alternates are u+efa3, efb3 and ef93.	U+2192 8594
Navigation Southeast Arrow 1.00u Key			↘ uses Unicode Code Point u+2198; used on some 100% keyboards with full navigation.	U+2198 8600
Navigation Down/South 1.00u Arrow Keys			↓ uses Unicode Code Point u+2193; alternates are efa4 and efb4.	U+2193
Navigation Southwest 1.00u Arrow Key			↙ uses Unicode Code Point u+2199; used on some 100% keyboards with full navigation.	U+2199 8601
'Omni' Key			Seen on 'classic' Northgate keyboards; usually remapped to serve as the Super key with modern O/Ss.	U+EF39 61241
Half-Height 1.00u Arrow Key pairings			Primarily seen on laptops	U+EF91-93 61329-31

Number (aka Ten-Key) Pad Key Caps

Separate keyboard section set up to mimic the layout of traditional office calculators. A NumLock ( ) button can typically toggle this section to serve as a navigation pad.

The numeric keypad section is often removed to reduce the keyboard width, leading to the acronym TKL (Ten-Key-Less) to describe those devices.

Numeric Keypad Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Number Pad NumLock (Number Lock) 1.00u Key			Compose sequence is for the key labeled simply "Num" (u+ef40).	U+EF40&44 61248

Numeric Keypad Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Number Pad 0 Keys in standard 2.00u and 1.00u sizes			Compose sequence is for the standard 2.00u width key cap	U+EF60,65 61280,85
Single legend Number Pad 1-9 keys in standard 1.00u sizes (not common)			These are typed directly with either top row number keys or those on the numeric key pad.	EF48,50,58 SEQUENCES
Dual legend Number Pad 1-9 keys in standard 1.00u sizes			Compose sequences use Keypad number keys	EF4C,54,5C SEQUENCES
Double Zero Keys in 1.00u size			Generally only found on separate numeric keypads.	U+EF6C-6D 60976-77
Number Pad Plus and Enter Keys in 1.00u size (Double Row Height) with placeholder Key for sizing layouts			See u+ef88-8d under Caps Lock Key Row Key Caps beginning on page 8 for other Enter/Return keys. Menmonics: **N**um**P**ad **+** and **N**um**P**ad **E**nter	U+EF7D-7F 61309-11
Number Pad 1.00u Decimal Point Key			Differs from u+002e (period), which is offset to match alphabetic key caps.	U+EF62&65 61282&85

Media Control Key Caps

Media control keys are more often seen as secondary functions on other keys; examples of those are shown in Non-Standard/Specialty Key Caps on page 14.

Although media keys are sometimes seen as buttons – or even half-height keys – rather than ‘normal’ keys, no such examples have been included in the DocKeys font.

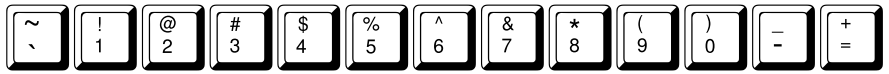
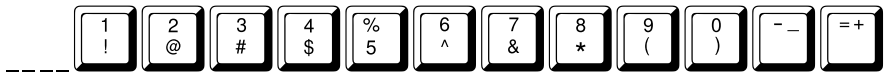
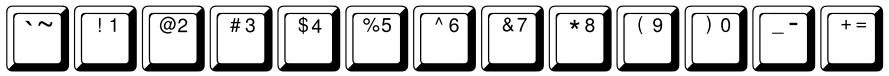
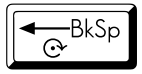
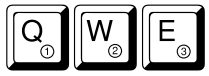
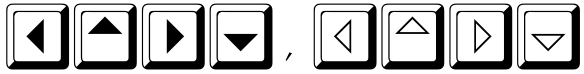
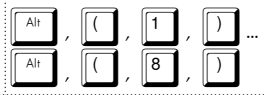
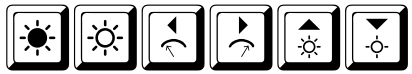
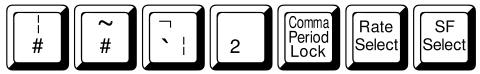
Media Control Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Media Volume and Mute keys in 1.00u size			Parallels Unicode 23cf, 23e9-23ea, 23ed-23ef, 23f8-23fa, Need a mute using “x” ???	U+EF9C-E 61340-2
Media Control Keys in 1.00u sizes: Eject, Fast Forward, Rewind, Next, Previous, Play/Pause toggle			Parallels Unicode u+23cf, 23e9-23ea, 23ed-23ef Also see the Function Key Row Key Caps section on page 10.	U+EF9F U+EFA9-AA U+EFAD-AF
Media Control Keys in 1.00u sizes: Pause, Stop, Record, Next, Previous			‘Record’ is a generic term used for audio, video, keyboard macros, etc. See Video Recorder below as an alternate.	U+EFB8-BA U+EFBD-BE

Media Control Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Media Control Keys in 2.00u, 1.25u and 1.50u sizes: Play/Pause, Pause, Stop, Stop				U+EFCA–CD 61386–89
Video Recorder; not implemented as a stand-alone Key Cap, but only as a secondary legend as shown here.			The (video camera) icon is generally used as a secondary function for either generic recording or screen capture.	U+1F4F9 128249 (U+ED4F)

Non-Standard/Specialty Key Caps

Comments …

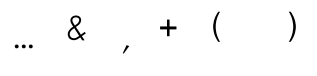
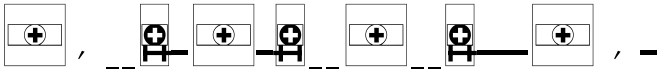
Specialty Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Dual-purpose Function keys F1-F12 in 1.00u size. (no standards exist for these)			As seen on the Havit 80% keyboard. Also see the Media Control Key Caps section on page 13.	U+ECD1–DC 60625–36
Dual-purpose Function keys F1-F12 in 1.00u size. (no standards exist for these)			As seen on the Keychron 75% keyboard [incomplete icons]. Also see the Media Control Key Caps section on page 13.	U+ECE1–EC 60641–52
Dual-purpose Function keys F1-F12 in 1.00u size. (no standards exist for these)			As seen on the Velocifire 100% keyboard. Also see the Media Control Key Caps section on page 13..	U+ECF1–FC 60657–68
Dual-purpose Function keys F1-F12 in 1.00u size. (no standards exist for these)			As seen on the Gamenote 71 key/60% keyboard illustrated on page 25.	U+ED20–2C 60704–16
Dual-purpose Function keys F1-F12 in 1.00u size. (no standards exist for these)			As seen on the Royal Kludge RK-100 96% keyboard. Also see the Media Control Key Caps section on page 13.	U+ED40–4C 60736–48
Dual Function/Media Keys F1-F7 in 1.00u size. (no standards exist for these)			As seen on the Durgod K-320 TKL keyboard. Also see the Media Control Key Caps section on page 13.	U+ED61–67 60769–75
Half-Height function keys in 1.00u size.			Often found on laptops	U+ECC1–CC
Secondary Function keys in 1.00u sizes used on “legacy” and special purpose computers.			As seen on the Northgate OmniKey Ultra 110% keyboard illustrated on page 27.	U+EDD1–DC 60881–92
Dual-function navigation keys in 1.00u sizes. (no standards exist for these)			As seen on the Royal Kludge RK-100 96% keyboard.	U+ED4D–53 60749–55 U+ED5F

Specialty Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Number row variant for keyboard layouts			Standard U.S. keyboard dual label number row configuration	U+EE40-4C 60992- 61004
Number row variant for keyboard layouts			As seen on the ASUS ROG Falchion 68 key/65% keyboard illustrated on page 25.	U+ED01-0C 60673-84
Number row variant for keyboard layouts			As seen on the Havit 89 key/80% and Keychron K2 84 key/75% keyboards illustrated on page 24.	U+ED30-3C 60720-32
Non standard 2.00u key for keyboard layouts			As seen on the Gamenote 71 key/60% keyboard illustrated on page 25.	U+EE65 61029
Tab row variant for dual function keyboard layouts			As seen on the Gamenote 71 key/60% keyboard illustrated on page 25.	U+ED10-1A 60688-98
Tab row variant for dual function keyboard layouts			As seen on the Royal Kludge RK-100 96% keyboard on page 23 for Bluetooth device selection.	U+ED87-89 60807-09
Caps Lock row variant for dual function keyboard layouts			Shown here as used on the Royal Kludge RK-100 96% keyboard to select between Windows and Mac layouts.	U+ED8B-8C 60811-12
Alternate Arrow/Directional keys in 1.00u size, usually located on lower rows of keyboard.			See Error: Reference source not found on page Error: Reference source not found.	U+EFA1-A4 61361-64 U+EFB1-B4
Half-Height 1.00u arrow and navigation keys			Half-height combination keys usually only seen on laptops.	
Programmable macro keys in 1.00u size			Shown here as used on Kinesis Freestyle Edge – these are standard Linux Compose sequences.	U+EDC1-C8 60865-72 U+2460-67
Backlight Toggle and Control Keys in 1.00u sizes.			Parallels Unicode symbols for Dark ✹ (u+2600) and Bright is ☼ (u+263c)	U+EDCD-CE U+ED82-85
Miscellaneous 1.00u dual legend key caps.				U+EE59-5C U+EF68-6A
International Electrotechnical Commision (IEC) 60417 Standard Power Control Icons in 1.00u widths			These parallel the Unicode u+23fb-e symbols, but a few standard IEC symbols have been ignored so far.	U+EDA8-AB 60840-43
Indicator Lights in 1.00u widths; There are no standards for these, even within a single manufacturer's devices.				U+ECB0-BD 60592-605

Specialty Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Sample multi-legend Keys for Thai TIS-820 IME keyboard. Multi-script support has not yet been started.			The current intention is to eventually place full IME keycaps in each Script's normal Unicode plane.	

Additional Glyphs useful for Documentation

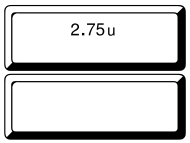
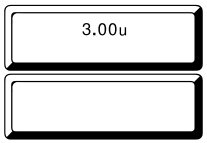
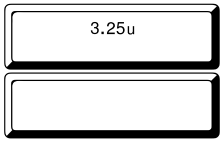
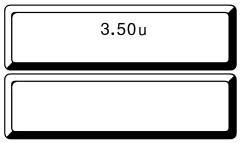
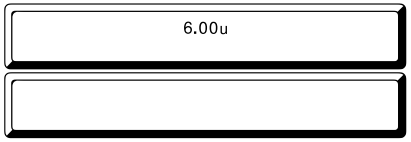
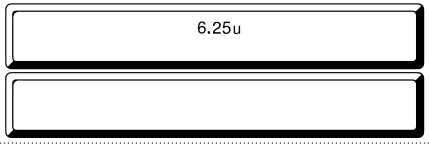
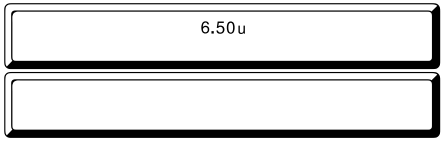
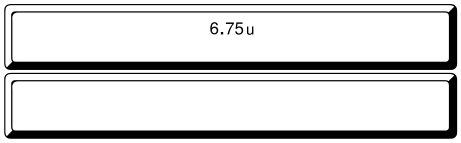
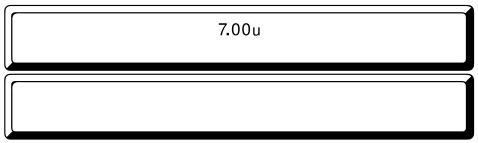
Some bare (with no surrounding key cap) punctuation keys are provided in order to permit typing key press sequences without the need to change fonts or styles between keys. Examples of their use can be seen in the "Compose Sequence(s)" columns.

Documentation-only Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Bare Keys for Documentation in 0.50u sizes (to avoid need for font/style changes)				U+EF80-85 61312-17
0.25u (¼u) subtle spacer for layouts			Duplicated in Space Bar Row section above	U+EFED 61421
Alphanumeric section raw switch position indicators for keyboard operation documentation			These are for showing keyboard layouts with their keycaps removed, i.e. only the switches and stabilizers.	U+EC21,31, 41,51,61
Unlabeled bare switch in 1.00u size with left and right stabilizer mounts and 0.25u stabilizer extenders.				U+EC4E-4F 60494 U+EC3F

Blank Keys, Space Bars, and u-Size Indicators

The glyphs in this section are intended primarily for documenting keyboard layouts; a variety of examples of their use is shown in the section “Sample Keyboard Layouts using the DocKeys Font” beginning on page 21. The mnemonics for the compose sequences shown here and in the section “Custom Linux Compose Key Definitions” beginning on page 28 are in the form “Compose **D**ocumentation space **1**.**0**0u” and “Layout **K**ey space **1**.**0**0u.” A labelled space bar specifically for documentation is given in the “Space Bar Row Key Caps” on page 5.

Blank or Indicator Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Space Bar in 1.00u size, 1060w	1.00u	COMPOSE , d , 1 , 0	Typical size for alphanumeric and punctuation keys.	U+EDB0 60848
Blank 1.00u Key Cap		COMPOSE , k , 1 , 0		U+EF10 61200
Space Bar in 1.25u size, 1325w	1.25u	COMPOSE , d , 1 , 2	Commonly used for modifier keys on space bar row, such as Ctrl, Alt, etc.	U+EDB1 60849
Blank 1.25u Key Cap		COMPOSE , k , 1 , 2		U+EF11 61201
Space Bar in 1.50u size, 1590w	1.50u	COMPOSE , d , 1 , 5		U+EDB2 60850
Blank 1.50u Key Cap		COMPOSE , k , 1 , 5		U+EF12 61202
Space Bar in 1.75u size, 1855w	1.75u	COMPOSE , d , 1 , 7	Often seen as Right Shift key size on compact keyboards	U+EDB3 60851
Blank 1.75u Key Cap		COMPOSE , k , 1 , 7		U+EF13 61203
Space Bar in 2.00u size, 2120w	2.00u	COMPOSE , d , 2 , 0	Common size for Backspace Key	U+EDB4 60852
Blank 2.00u Key Cap		COMPOSE , k , 2 , 0		U+EF14 61204
Space Bar in 2.25u size, 2385w	2.25u	COMPOSE , d , 2 , 2	Common size for Enter Key and Left Shift Key	U+EDB5 60853
Blank 2.25u Key Cap		COMPOSE , k , 2 , 2		U+EF15 61205
Space Bar in 2.50u size, 2650w	2.50u	COMPOSE , d , 2 , 5		U+EDB6 60854
Blank 2.50u Key Cap		COMPOSE , k , 2 , 5		U+EF16 61206

Blank or Indicator Key Caps	Available Glyph(s)	Compose Sequence(s) if defined	Remarks	PUA Value
Space Bar in 2.75u size, 2915w Blank 2.75u Key Cap		COMPOSE , d , 2 , 7 COMPOSE , k , 2 , 7	Common size for Standard Right Shift Key. Often used as shown here for dual Space Bars in split keyboard layouts	U+EDB7 60855 U+EF17 61207
Space Bar in 3.00u size, 3180w Blank 3.00u Key Cap		COMPOSE , d , 3 , 0 COMPOSE , k , 3 , 0	Often used as shown here for dual Space Bars in split keyboard layouts	U+EDB8 60856 U+EF18 61208
Space Bar in 3.25u size, 3445w Blank 3.25u Key Cap		COMPOSE , d , 3 , 2 COMPOSE , k , 3 , 2	Often used as shown here for dual Space Bars in split keyboard layouts	U+EDB9 60857 U+EF19 61209
Space Bar in 3.50u size, 3710w Blank 3.50u Key Cap		COMPOSE , d , 3 , 5 COMPOSE , k , 3 , 5	Often used as shown here for dual Space Bars in split keyboard layouts	U+EDBA 60858 U+EF1A 61210
Space Bar in 6.00u size, 6360w Blank 6.00u Key Cap		COMPOSE , d , 6 , 0 COMPOSE , k , 6 , 0	Found mostly on pre-1995 (pre-Win key) “Classic/Legacy” keyboards such as IBM and Northgate models.	U+EDBB 60859 U+EF1B 61211
Space Bar in 6.25u size, 6625w Blank 6.25u Key Cap		COMPOSE , d , 6 , 2 COMPOSE , k , 6 , 2	Most common “standard” size for space bar on a U.S. English keyboard.	U+EDBC 60860 U+EF1C 61212
Space Bar in 6.50u size, 6890w Blank 6.50u Key Cap		COMPOSE , d , 6 , 5 COMPOSE , k , 6 , 5		U+EDBD 60861 U+EF1D 61213
Space Bar in 6.75u size, 7155w Blank 6.75u Key Cap		COMPOSE , d , 6 , 7 COMPOSE , k , 6 , 7		U+EDBE 60862 U+EF1E 61214
Space Bar in 7.00u size, 7420w Blank 7.00u Key Cap		COMPOSE , d , 7 , 0 COMPOSE , k , 7 , 0		U+EDBF 60863 U+EF1F 61215

Non-Alphanumeric Key Caps in Original Unicode Code Points

(Most placed or duplicated in Private Use Area)

Std Glyph	Standard Value	PUA Glyph	DocKeys PUA Value	Formal Unicode Name Comments (use on PC Key Caps)
‘	U+2018 8216		NONE	Replaces Unicode Left Single Quotation Mark to compensate for automatic “smart quote” substitutions.
’	U+2019 8217		NONE	Replaces Unicode Right Single Quotation Mark to compensate for automatic “smart quote” substitutions.
“	U+201C 8220		NONE	Replaces Unicode Left Double Quotation Mark to compensate for automatic “smart quote” substitutions.
”	U+201D 8221		NONE	Replaces Unicode Right Double Quotation Mark to compensate for automatic “smart quote” substitutions.
←	U+2190 8592		NONE	Replaces Unicode Leftwards Arrow; uses standard Linux Compose sequence.
↑	U+2191 8593		NONE	Replaces Unicode Upwards Arrow; uses standard Linux Compose sequence.
→	U+2192 8594		NONE	Replaces Unicode Rightwards Arrow; uses standard Linux Compose sequence.
↓	U+2193 9595		NONE	Replaces Unicode Downwards Arrow; uses standard Linux Compose sequence.
↖	U+2196 8598		NONE	Replaces Unicode North West Arrow; uses custom Linux Compose sequence from page 28.
↗	U+2197 8599		NONE	Replaces Unicode North East Arrow; uses custom Linux Compose sequence from page 28.
↘	U+2198 8600		NONE	Replaces Unicode South East Arrow; uses custom Linux Compose sequence from page 28.
↙	U+2199 8601		NONE	Replaces Unicode South West Arrow; uses custom Linux Compose sequence from page 28.
⌦	U+2326		U+EF35 61237	Delete Next Character; Erase to Right PUA glyph in 1.50u size
⌫	U+232B		U+EE61 61025	Delete Previous Character; Erase to Left PUA glyph in 1.50u size
⎀	U+2380 9088		U+EF2F 61231	Insertion Symbol (from ISO 9995-7) Used on some legacy keyboards for Insert Key Glyph
⎄	U+2384 9092		U+EEF0 61168	Composition Symbol (from ISO 9995-7) Seldom seen on key caps, since location is user-defined
⏎	U+2386		U+EE9C-F 61084-7	Enter symbol (from ISO 9995-7) Seen on some French-Canadian keyboard layouts
⏏	U+23CF 9167		U+EF9F 61343	Eject Symbol Media: Eject Removable Media
⏩	U+23E9 9193		U+EFA9 61353	Black Right-Pointing Double Triangle Media: Fast Forward / Next Track
⏪	U+23EA 9194		U+EFAA 61354	Black Left-Pointing Double Triangle Media: Fast Backwards / Rewind / Previous Track
⏭	U+23ED 9197		U+EFAD 61357	Black Right Pointing Double Triangle with Vertical Bar Media: Skip to End / Next Track

Std Glyph	Standard Value	PUA Glyph	DocKeys PUA Value	Formal Unicode Name Comments (use on PC Key Caps)
⏮	U+23EE 9198		U+EFAE 61358	Black Left Pointing Double Triangle with Vertical Bar Media: Skip to Start / Previous Track
⏯	U+23EF 9199		U+EFAF 61359	Black Right Pointing Triangle with Double Vertical Bar Media: Play/Pause Toggle
⏸	U+23F8 9208		U+EFB8 61368	Double Vertical Bar Media: Pause Playback
⏹	U+23F9 9209		U+EFB9 61369	Black Square for Stop Media: Stop Playback
⏺	U+23FA 9210		U+EFBA 61370	Black Circle for Record Media: Record
⏻	U+23FB 9211		U+EDA8 60840	IEC Power Symbol Commonly used as Power On-Off icon on laptops
⏼	U+23FC 9212		U+EDA9 60841	IEC Power On-Off Symbol
⏽	U+23FD 9213		U+EDAA 60842	IEC Power On Symbol
⏾	U+23FE 9214		U+EDAB 60843	IEC Power Sleep Symbol
⏿	U+23FF 9215		U+EDAC 60844	Observer Eye Symbol Used on some keyboards to control backlighting
▲	U+25B2 9650		U+EFA2 61346	Black Up-Pointing Triangle Stylized Black Up-Arrow used to aid visibility
△	U+25B3 9651		U+EFB2 61362	White Up-Pointing Triangle Stylized White Up-Arrow used to aid visibility
▶	U+25B6 9654		U+EFA3 61347	Black Right-Pointing Triangle Stylized Black Right-Arrow used to aid visibility
▷	U+25B7 9655		U+EFB3 61393	White Right-Pointing Triangle Stylized White Right-Arrow used to aid visibility
▼	U+25BC 9660		U+EFA4 61348	Black Down-Pointing Triangle Stylized Black Down-Arrow used to aid visibility
▽	U+25BD 9661		U+EFB4 61364	White Down-Pointing Triangle Stylized White Down-Arrow used to aid visibility
◀	U+25C0 9664		U+EFA1 61345	Black Left-Pointing Triangle Stylized Black Left-Arrow used to aid visibility
◁	U+25C1 9665		U+EFB1 61361	White Left-Pointing Triangle Stylized White Left-Arrow used to aid visibility
①	U+2460 9312		U+EDC1 60865	Circled Digit One (One through Eight included) Similar Circled Digits Two through Eight not shown
☀	U+2600 9728		U+EDCD 60877	Black Sun with Rays Used on some keyboards to control backlighting
☼	U+263C 9788		U+EDCE 60878	White Sun with Rays Used on some keyboards to control backlighting

Sample Documentation Created with the DocKeys Font

A brief sample of how the DocKeys font might be used in documentation appeared in the opening introduction. This section shows what a sample introduction to actual documentation might look like:

When keys are separated by a plus sign, this indicates that they are to be pressed and released *simultaneously*.

When keys are separated by a comma, this indicates that they are to be pressed and released *sequentially*.

For example:

[⇧Shift] + [k]

means to press and hold either Shift key (assuming Caps Lock is not active) while pressing and then releasing the 'k' key, while

[COMPOSE] , [f] , [3]

means to press *and release* the Compose key, at which time the Compose character ⎄ will appear; then press *and release* the 'f' key, then press *and release* the '3' key. At this point, the ⎄ glyph will be replaced with the [F3] keycap.

The difference between the plus sign and comma may be more clearly illustrated by the following sequence for typing "Help.":

[⇧Shift] + [h] , [e] , [l] , [p] , [.]

This sequence means to press and hold a Shift key while typing the 'h' key, then releasing both of them and typing and releasing the remaining letters 'e', 'l', 'p' and the period. This is how you normally type any text.

If the actual appearance of the key caps is important, using the following sequence might be more appropriate for user documentation:

[⇧Shift] + [H] , [E] , [L] , [P] , [.]

An ellipsis (…) indicates that the pattern applies to a contiguous series of characters; a portion of user documentation illustrating the meaning and use of the ellipsis might look like the following:

In addition to the plus sign and comma, an ellipsis (…) may appear in a command sequence to indicate a range. For example:

[COMPOSE] , [f] , [1] … [9]

means that the sequences

[COMPOSE] , [f] , [1]

through

[COMPOSE] , [f] , [9]

are each valid Compose key sequences beginning with [COMPOSE] , [f]. This example is in effect a set of shortcuts for the nine sequences used to produce glyphs for the following function keys:

[F1] , [F2] , [F3] , [F4] , [F5] , [F6] , [F7] , [F8] & [F9]

Documenting a more complex series of key combinations might look like:

More complex key combinations are executed following the same rules for the plus sign and ellipsis. For example:

[Alt] + [Ctrl] + [a] … [d]

means to press and hold an Alt key and a Control key together while typing one of the four letter keys 'a', 'b', 'c', or 'd' and then release them.

Sample Keyboard Layouts using the DocKeys Font

The DocKeys font certainly can't exactly mimic every arbitrary keyboard layout, but the samples of a variety of actual products in different form factors and configurations provided below show its range.

Key spacing (not necessarily the width of the key itself) is measured in 'u' or "units" where the most common keys occupy 1.00u. The number of keys as well as the width occupied of the keyboard is given for each example, and is followed by the number of rows in each configuration; the format 1+5 indicates that there is 1 row with a vertical separation then another 5 rows.

When reproducing a keyboard layout, the 0.25u spacing symbol (u+edc0, created by typing [ctrl], [k], [space]), must be used for spacing to retain proper scaling. Four of these in sequence will represent a missing 1.00u key as can be seen in any of the examples shown below.

Additionally, leading/line/paragraph spacing should be set to 0 when creating a scaled keyboard layout, since such spacing will interfere with the display of double-height keys such as the number pad's + and Enter keys.

The two primary standards for physical keyboard layouts – i.e. the size and arrangement, but not the meaning of the keys – are the American National Standards Institute (ANSI), and the International Organization for Standardization (ISO). The primary differences between these are the shape and height of the Enter, Shift, and backslash keys.

A hybrid of these is known informally as ANSI-Asian, seen in Korea and Russia, but which can also be found in some European countries such as the Netherlands.

Those standards do not specify the logical layout of the keys (aka, the purpose), which can range from country/language-specific examples (e.g. AZERTY) to special layouts (e.g. Dvorak, Coleman, etc.).

100% Keyboard (104 keys, 23.00u width)
1 + 5 Rows
ANSI[α] US English Layout

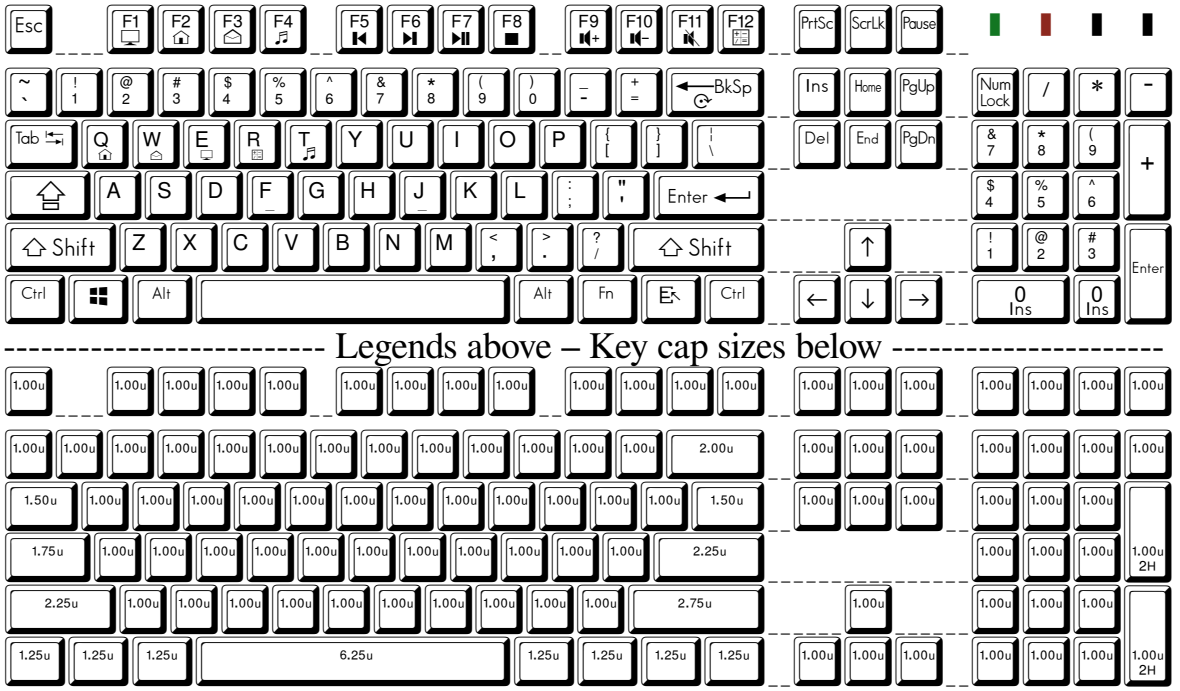
Example:

Velocifire VM02WS 104-key Full Size Keyboard

Column Widths: 3.44", 6.22"

Custom Function Key Row glyphs are u+ecf1-ecfc

[α]: American National Standards Institute



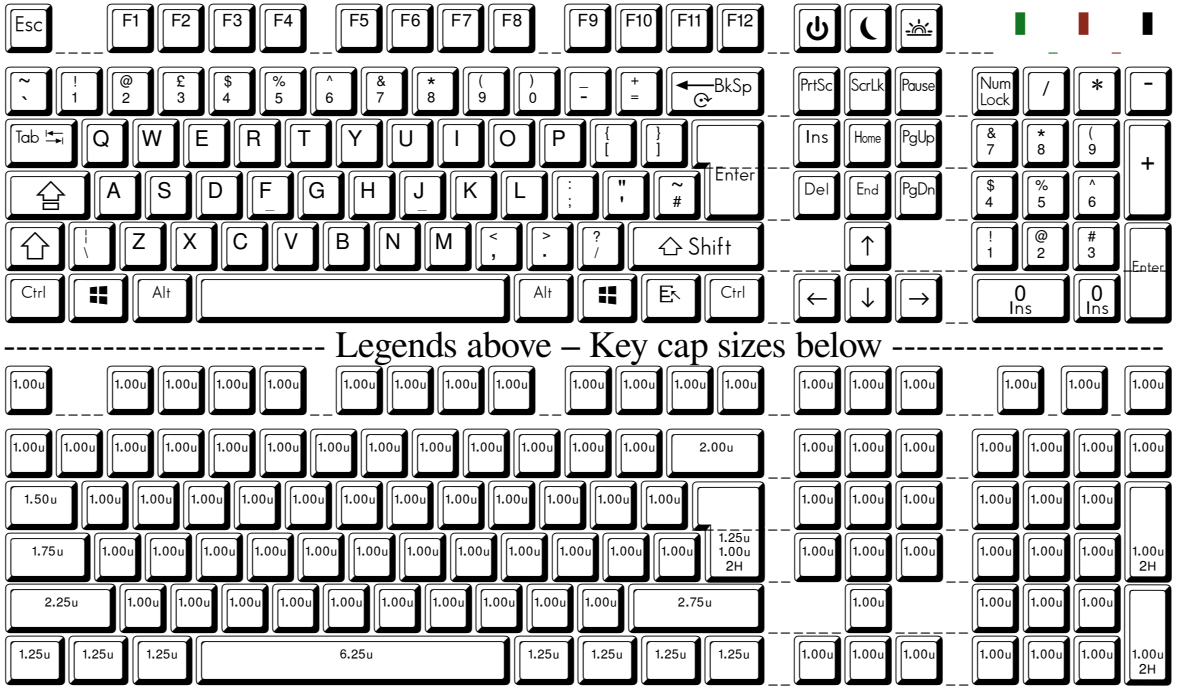
100% Keyboard (104 keys, 23.00u width)
1 + 5 Rows
ISO$^{\beta}$ UK (British English) Layout

Example:

Trust Classicline Full Size Keyboard, UK Layout

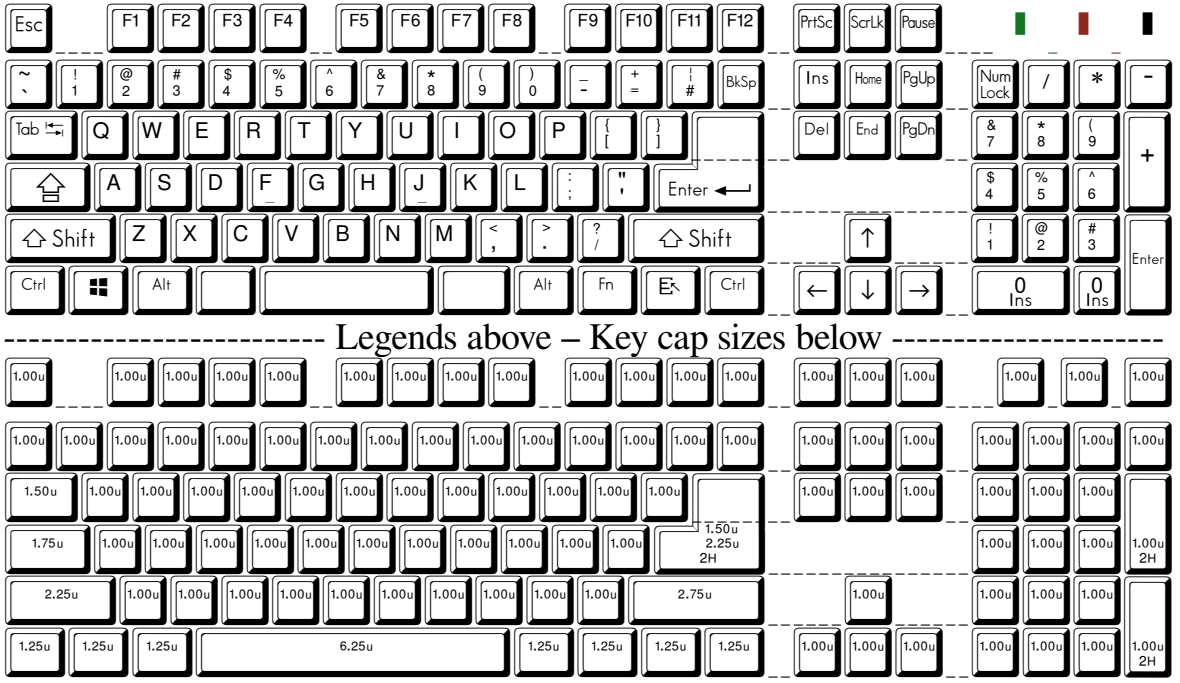
This is the only example which uses any of the IEC Power Symbols (above the Navigation section) from the U2300 Unicode Plane.

β: International Organization for Standardization



100% Keyboard (106 keys, 23.00u width)
ANSI-Asian English Layout; 1 + 5 Rows

ANSI-Asian English Examples

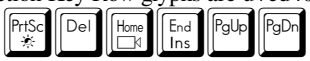


96% Keyboard (100 keys, 19.00u width)
ANSI U.S. English Layout; 6 Rows (no separation)

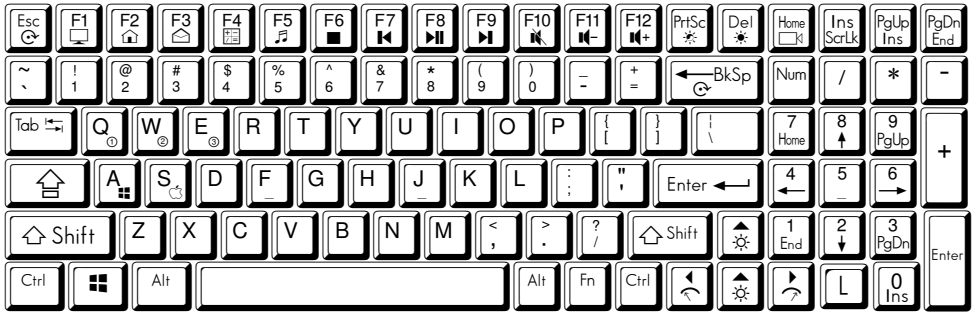
Example:

RK Royal Kludge RK-100 100 key 96% Keyboard (aka RK-860)

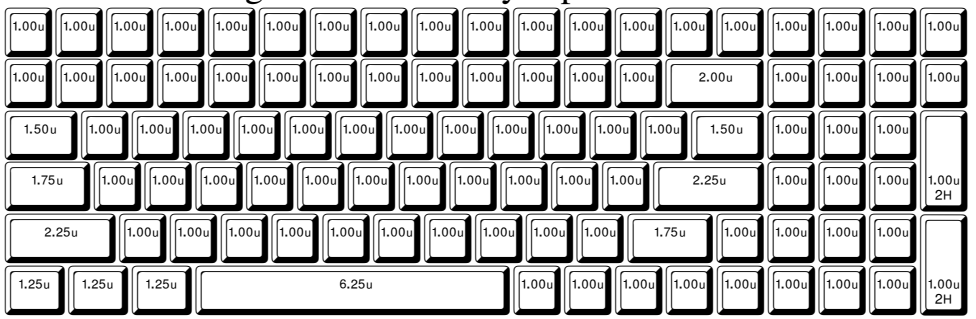
Custom Function Key Row glyphs are u+ed40-ed4d; my mods alter top row to:



& and bottom row to:



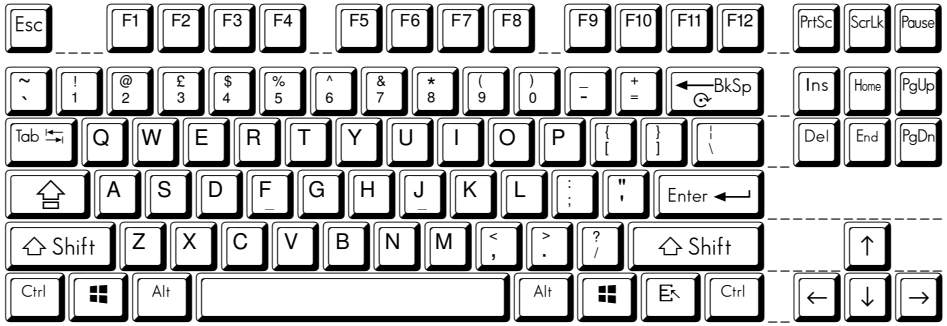
---------- Legends above – Key cap sizes below ----------



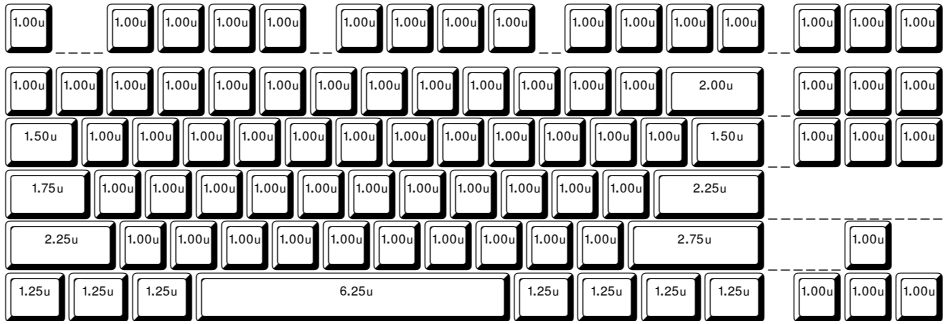
80% Keyboard (87 keys, 18.50u width)
… also known as a “TKL” (Ten-Keyless)
ANSI U.S. English Layout; 1 + 5 Rows

Example:

KBParadise V80 Dancer 80% TKL Keyboard



---------- Legends above – Key cap sizes below ----------



There are two different approaches to configuring an 80% keyboard. The most common, shown here, is to simply strip away the number pad section of a “full size” (100%) keyboard. This layout is therefore usually referred to as a TKL (Ten-Key-Less) keyboard.

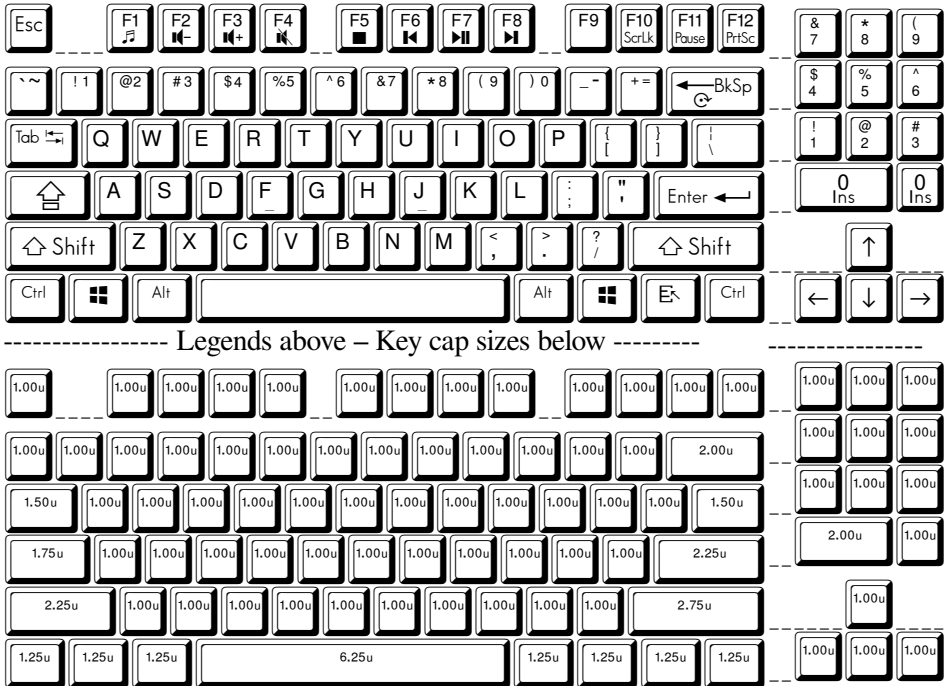
The 90 key KBParadise V80 shown here has two Windows keys on the spacebar row instead of the currently more typical single Windows key and a separate Application Menu key.

80% Keyboard (89 keys, 18.50u width)
… (with a ten-key number pad and secondary navigation keys)
ANSI U.S. English Layout; 1 + 5 Rows

Example:

Havit 80% Mechanical Gaming Keyboard

Like the Royal Kludge RK-100 on page 23, this gives precedence to having a number pad when reducing overall keyboard width.



An alternate, less common approach to configuring an 80% keyboard is to remove the separate navigation key section, requiring use of the shift key for the Home, End, PgUp, PgDn, Ins and Del functions.

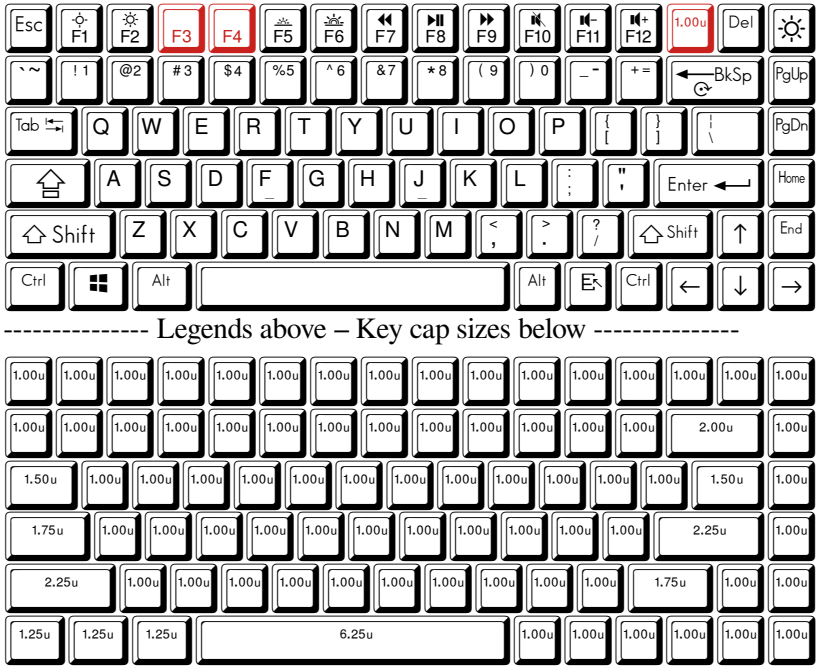
On the Havit keyboard shown here, the NumLock function is activated by Fn+Backspace with, unfortunately, no indicator that the NumLock is in effect.

Custom Function Key Row glyphs are u+ecd1-ecdc

75% Keyboard (84 keys, 16.00u width)
ANSI U.S. English Layout
6 Rows (no function key row separation)

Example:

Keychron K2 75% Mechanical Keyboard



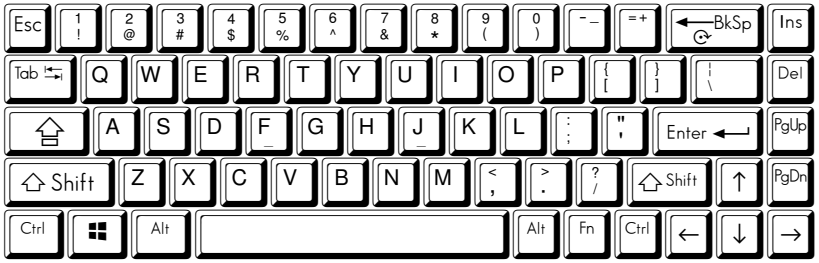
Custom Function Key Row glyphs are u+ece1-ecec, but icons on three of those keys have not yet been identified, and the product manuals don't identify or discuss them.

65% Keyboard (68 keys, 16.00u width)
ANSI U.S. English Layout
5 Rows (no separate function key row)

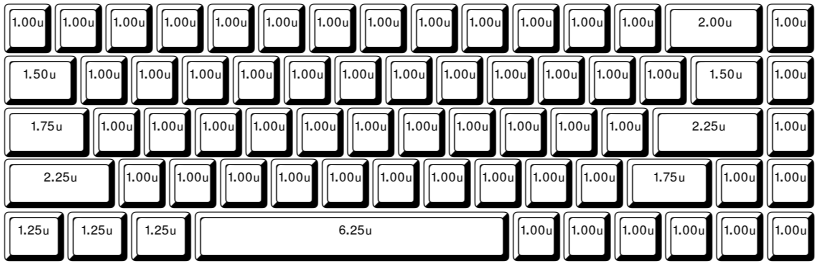
Example:

ASUS ROG Falchion Wireless 65% Mechanical Gaming Keyboard

Numbers are relegated to shifted keys!



---------- Legends above – Key cap sizes below ----------

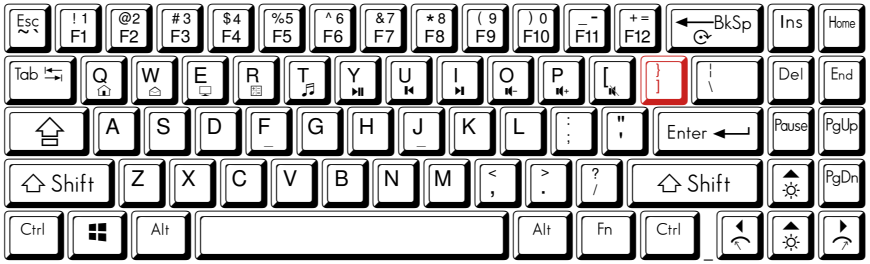


Custom Number Key Row glyphs are located at u+ed01-ed0c in the DocKeys font.

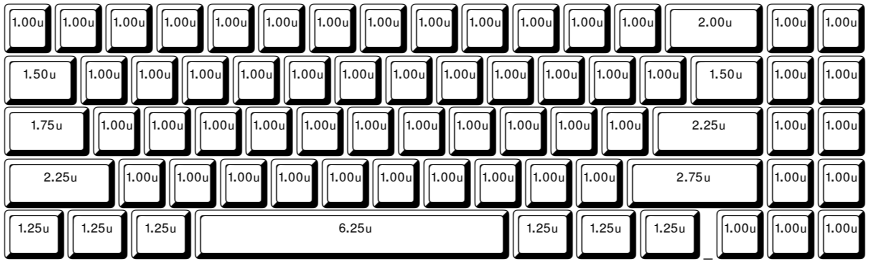
60% Keyboard (71 keys, 17.00u width)
ANSI U.S. English Layout
5 Rows (no separate function key row)

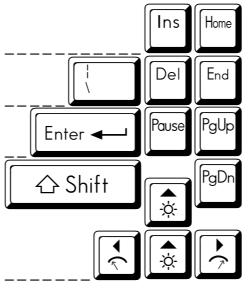
Example:

Gamenote 60% Keyboard Type-C



---------- Legends above – Key cap sizes below ----------





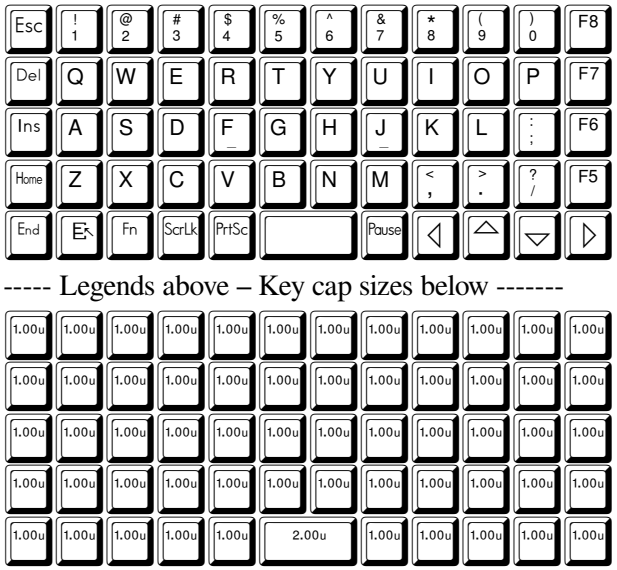
There are versions of this layout (e.g. the Leopold FC980M) on which the four arrow keys are offset as shown above or similar.

Note the 0.50u gap to the right of the Ctrl key in the spacebar row.

Icons on the]} key are not yet identified, and the product manual doesn't identify or discuss that key.

50% Keyboard (59 keys, 12.00u width)
Custom Layout (often in kit form)
5 Rows (no separate function key row)

Custom 50% Layout Example



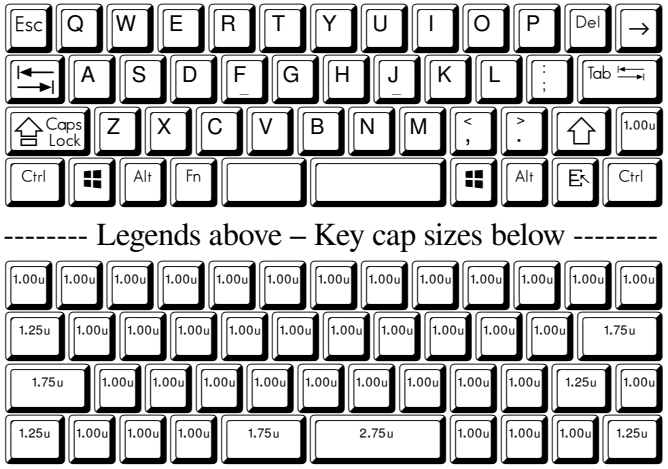
As with most 50% keyboards, both examples shown here are custom.

Unlike most other keyboard layouts, the alphabetic keys are not staggered horizontally.

40% Keyboard (47 keys, 13.00u width)
Abbreviated ANSI U.S. English Layout
4 Rows (no function key or number rows)

Example:

Vortexgear 40% Keyboard



Dual legends on these keycaps are not shown, as the assignments for these vary widely among available models.

Smaller keyboard configurations like the one shown here often have split space bars in order to provide enough keys to handle any deisred customizations.

Split Keyboard, (95 keys, 9.75u + 9.50u segment widths)

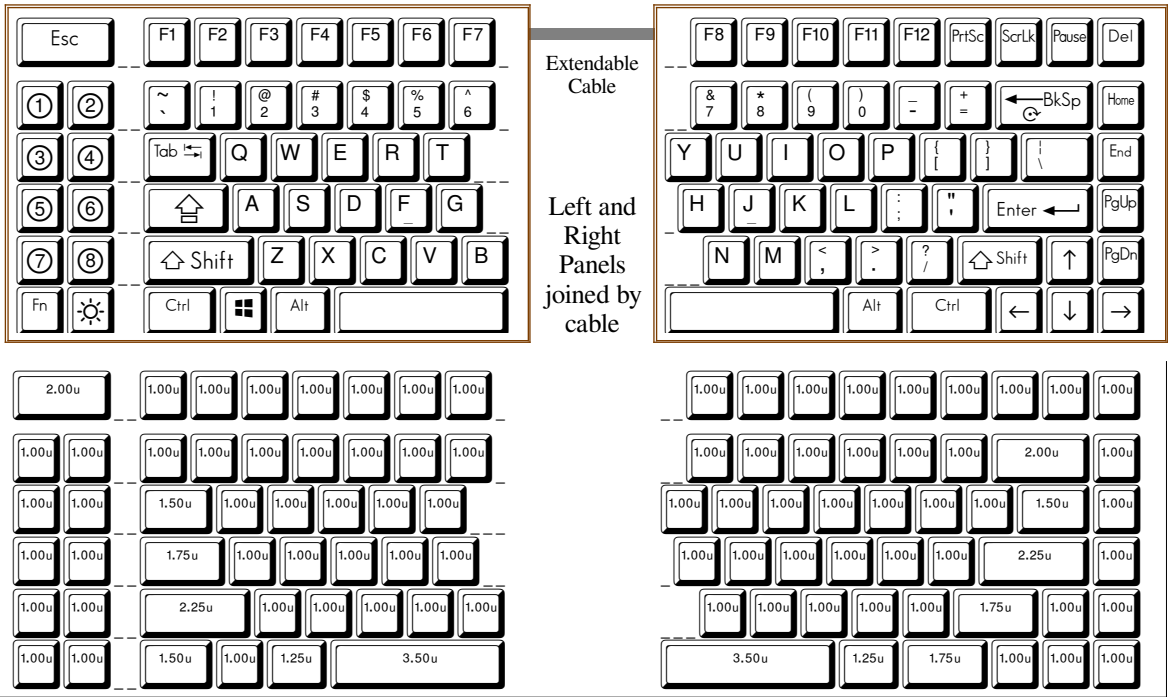
Abbreviated ANSI U.S. English Layout

6 Rows

Example:

Kinesis FreeStyle Edge Split Keyboard

(shown with optional detachable wrist rests)



110% Classic (aka Legacy[δ]) Keyboard (116 keys, width 25.5u)

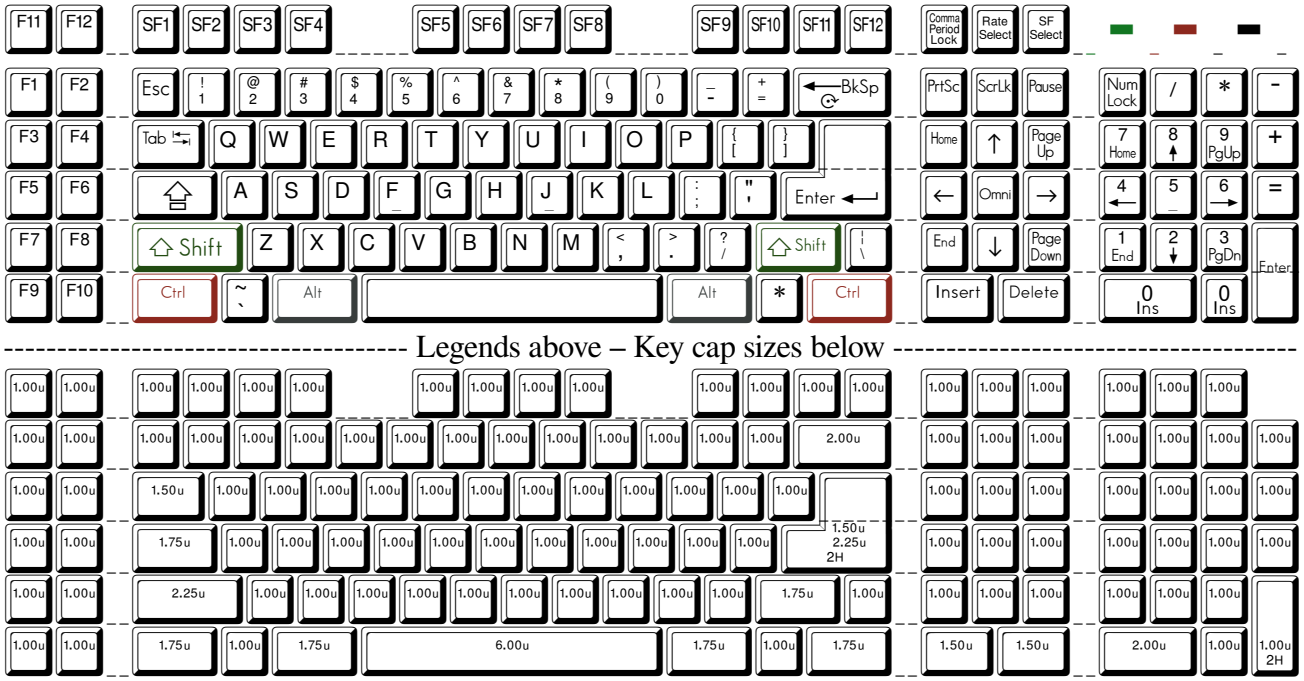
5+1 Rows with dual function key groups

Example:

Northgate Omnikey Ultra 110% Keyboard

Note the large Enter key, now usually only seen on ANSI-Asian keyboard layouts.

δ: Legacy keyboards are those from the pre-Windows 3.0 time period (circa 1993); many of these such as the IBM Model M and the Northgate Omnikey series are still in use today and have increased in value.



Custom Linux Compose Key Definitions

On a Linux system, the first column of following table can be copied directly to the user's home directory as the hidden .Xcompose file, or added to an existing file. The user must have assigned the Compose function to a specific key to use these definitions, but the method for doing this varies so is not considered here, but it is generally found in or beneath a section titled 'Keyboard Layout.'

The sequences given are for the most commonly used key sizes, but can easily be edited if required. User specific compose sequences will of course override any extant system sequences. The combinations used below are not known to conflict with the sequences used in any distribution tested so far, but it may be advisable to confirm that on a particular system.

Suggested Additions to the $HOME/.Xcompose file	Comments
`include "%L"`	`Not required for all distros`

```
                    # DocKeys.ttf Font Function Key Row Compose Sequences
<Multi_key> <f> <1>    : "" UEDF1 # FUNCTION KEY F1  # For top row Digits
<Multi_key> <f> <2>    : "" UEDF2 # FUNCTION KEY F2  # For top row Digits
<Multi_key> <f> <3>    : "" UEDF3 # FUNCTION KEY F3  # For top row Digits
<Multi_key> <f> <4>    : "" UEDF4 # FUNCTION KEY F4  # For top row Digits
<Multi_key> <f> <5>    : "" UEDF5 # FUNCTION KEY F5  # For top row Digits
<Multi_key> <f> <6>    : "" UEDF6 # FUNCTION KEY F6  # For top row Digits
<Multi_key> <f> <7>    : "" UEDF7 # FUNCTION KEY F7  # For top row Digits
<Multi_key> <f> <8>    : "" UEDF8 # FUNCTION KEY F8  # For top row Digits
<Multi_key> <f> <9>    : "" UEDF9 # FUNCTION KEY F9  # For top row Digits
<Multi_key> <f> <0>    : "" UF010 # FUNCTION KEY F10 # For top row Digits
                    # DocKeys.ttf Font Optional Function Key Row Compose Sequences
<Multi_key> <f> <KP_1> : "" UEDF1 # FUNCTION KEY F1  # For NumPad Digits
<Multi_key> <f> <KP_2> : "" UEDF2 # FUNCTION KEY F2  # For NumPad Digits
<Multi_key> <f> <KP_3> : "" UEDF3 # FUNCTION KEY F3  # For NumPad Digits
<Multi_key> <f> <KP_4> : "" UEDF4 # FUNCTION KEY F4  # For NumPad Digits
<Multi_key> <f> <KP_5> : "" UEDF5 # FUNCTION KEY F5  # For NumPad Digits
<Multi_key> <f> <KP_6> : "" UEDF6 # FUNCTION KEY F6  # For NumPad Digits
<Multi_key> <f> <KP_7> : "" UEDF7 # FUNCTION KEY F7  # For NumPad Digits
<Multi_key> <f> <KP_8> : "" UEDF8 # FUNCTION KEY F8  # For NumPad Digits
<Multi_key> <f> <KP_9> : "" UEDF9 # FUNCTION KEY F9  # For NumPad Digits
<Multi_key> <f> <KP_0> : "" UF010 # FUNCTION KEY F10 # For NumPad Digits
                    # DocKeys.ttf Font Number Row double symbol keys Compose Sequences
<Multi_key> <e> <s> <c>                 : "" UEDE0  # ESCAPE 1.00u KEY CAP
<Multi_key> <grave> <asciitilde>        : "" UEE40  # DUAL LEGEND ` + ~ 1.00u KEY CAP
<Multi_key> <1> <exclam>                : "" UEE41  # DUAL LEGEND 1 + ! 1.00u KEY CAP
<Multi_key> <2> <at>                    : "" UEE42  # DUAL LEGEND 2 + @ 1.00u KEY CAP
<Multi_key> <3> <numbersign>            : "" UEE43  # DUAL LEGEND 3 + # 1.00u KEY CAP
<Multi_key> <3> <L>                     : "" UEE4E  # DUAL LEGEND 3 + £ 1.00u KEY CAP
<Multi_key> <4> <dollar>                : "" UEE44  # DUAL LEGEND 4 + $ 1.00u KEY CAP
<Multi_key> <5> <percent>               : "" UEE45  # DUAL LEGEND 5 + % 1.00u KEY CAP
<Multi_key> <6> <asciicircum>           : "" UEE46  # DUAL LEGEND 6 + ^ 1.00u KEY CAP
<Multi_key> <7> <ampersand>             : "" UEE47  # DUAL LEGEND 7 + & 1.00u KEY CAP
<Multi_key> <8> <asterisk>              : "" UEE48  # DUAL LEGEND 8 + * 1.00u KEY CAP
<Multi_key> <9> <parenleft>             : "" UEE49  # DUAL LEGEND 9 + ( 1.00u KEY CAP
<Multi_key> <0> <parenright>            : "" UEE4A  # DUAL LEGEND 0 + ) 1.00u KEY CAP
## Optional sequences for reversing entry order
<Multi_key> <asciitilde> <grave>        : "" UEE40  # DUAL LEGEND ` + ~ 1.00u KEY CAP
<Multi_key> <exclam> <1>                : "" UEE41  # DUAL LEGEND 1 + ! 1.00u KEY CAP
<Multi_key> <at> <2>                    : "" UEE42  # DUAL LEGEND 2 + @ 1.00u KEY CAP
<Multi_key> <numbersign> <3>            : "" UEE43  # DUAL LEGEND 3 + # 1.00u KEY CAP
<Multi_key> <L> <3>                     : "" UEE4E  # DUAL LEGEND 3 + £ 1.00u KEY CAP
```

Suggested Additions to the $HOME/.Xcompose file

```
<Multi_key> <dollar> <4>               : "" UEE44  # DUAL LEGEND 4 + $ 1.00u KEY CAP
<Multi_key> <percent> <5>              : "" UEE45  # DUAL LEGEND 5 + % 1.00u KEY CAP
<Multi_key> <asciicircum> <6>          : "" UEE46  # DUAL LEGEND 6 + ^ 1.00u KEY CAP
<Multi_key> <ampersand> <7>            : "" UEE47  # DUAL LEGEND 7 + & 1.00u KEY CAP
<Multi_key> <asterisk> <8>             : "" UEE48  # DUAL LEGEND 8 + * 1.00u KEY CAP
<Multi_key> <parenleft> <9>            : "" UEE49  # DUAL LEGEND 9 + ( 1.00u KEY CAP
<Multi_key> <parenright> <0>           : "" UEE4A  # DUAL LEGEND 0 + ) 1.00u KEY CAP
##          <hyphen> and <underscore> KeySyms not recognized; using hex instead
<Multi_key> <U002D> <U005F>            : "" UEE4B  # DUAL LEGEND − + _ 1.00u KEY CAP
<Multi_key> <U005F> <U002D>            : "" UEE4B  # DUAL LEGEND − + _ 1.00u KEY CAP
<Multi_key> <equal> <plus>             : "" UEE4C  # DUAL LEGEND = + + 1.00u KEY CAP
<Multi_key> <plus> <equal>             : "" UEE4C  # DUAL LEGEND = + + 1.00u KEY CAP
<Multi_key> <bracketleft> <braceleft>  : "" UEE50  # DUAL LEGEND [ + { 1.00u KEY CAP
<Multi_key> <braceleft> <bracketleft>  : "" UEE50  # DUAL LEGEND [ + { 1.00u KEY CAP
<Multi_key> <bracketright> <braceright> : "" UEE51  # DUAL LEGEND ] + } 1.00u KEY CAP
<Multi_key> <braceright> <bracketright> : "" UEE51  # DUAL LEGEND ] + } 1.00u KEY CAP
<Multi_key> <backslash> <bar>          : "" UEE52  # DUAL LEGEND \ + | 1.50u KEY CAP
<Multi_key> <bar> <backslash>          : "" UEE52  # DUAL LEGEND \ + | 1.50u KEY CAP
<Multi_key> <semicolon> <colon>        : "" UEE53  # DUAL LEGEND ; + : 1.00u KEY CAP
<Multi_key> <colon> <semicolon>        : "" UEE53  # DUAL LEGEND ; + : 1.00u KEY CAP
##          <quotesingle> and <quotedbl> KeySyms not recognized; using hex instead
<Multi_key> <U0027> <U0022>            : "" UEE54  # DUAL LEGEND ' + " 1.00u KEY CAP
<Multi_key> <U0022> <U0027>            : "" UEE54  # DUAL LEGEND (SINGLE+DOUBLE QUOTE)
<Multi_key> <comma> <less>             : "" UEE52  # DUAL LEGEND , + < 1.00u KEY CAP
<Multi_key> <less> <comma>             : "" UEE52  # DUAL LEGEND , + < 1.00u KEY CAP
<Multi_key> <period> <greater>         : "" UEE53  # DUAL LEGEND . + > 1.00u KEY CAP
<Multi_key> <greater> <period>         : "" UEE53  # DUAL LEGEND . + > 1.00u KEY CAP
<Multi_key> <slash> <question>         : "" UEE54  # DUAL LEGEND / + ? 1.00u KEY CAP
<Multi_key> <question> <slash>         : "" UEE54  # DUAL LEGEND / + ? 1.00u KEY CAP
                    # DocKeys.ttf Font Alpha Rows Compose Sequences
<Multi_key> <k> <b>         : "" UEE64 # BACKSPACE KEY 2.00u Glyph
<Multi_key> <k> <t>         : ""  UEE69 # TAB KEY 1.50u Glyph
<Multi_key> <k> <l>         : ""  UEE70 # CAPS LOCK KEY 1.75u Glyph
<Multi_key> <k> <e>         : "" UEE91 # ENTER [ANSI] KEY 2.25u Glyph
<Multi_key> <k> <s> <l>     : "" UEEA5 # LEFT SHIFT KEY 2.25u Glyph
<Multi_key> <k> <s> <r>     : "" UEEA6 # RIGHT SHIFT KEY 2.75u Glyph
<Multi_key> <k> <s> <g>     : "" UEEA2 # GENERIC SHIFT KEY 1.50u Glyph
<Multi_key> <k> <s> <s>     : "" UEEA3 # GENERIC SHIFT KEY 1.75u Glyph
                    # DocKeys Font Spacebar Row Compose Sequences
<Multi_key> <k> <a>         : "" UEEE1 # LALT/RALT KEY 1.25u Glyph
<Multi_key> <k> <c>         : "" UEEB1 # CTRL KEY 1.25u Glyph
<Multi_key> <k> <f>         : "" UEEF9 # FN [FUNCTION] KEY 1.25u Glyph
<Multi_key> <k> <k>         : "" UEEF1 # COMPOSE KEY 1.25u Glyph
<Multi_key> <k> <g>         : "" UEEE9 # ALT-GR KEY 1.25u Glyph
<Multi_key> <k> <r>         : "" UEEE5 # ALT+COMPOSE KEY 1.25u Glyph
<Multi_key> <k> <m>         : "" UEF01 # MENU KEY 1.25u Glyph
<Multi_key> <k> <p>         : "" UEEC9 # PENGUIN [LINUX] SUPER KEY 1.25u Glyph
<Multi_key> <k> <o>         : "" UEEC1 # GENERIC SUPER KEY 1.25u Glyph
<Multi_key> <k> <w>         : "" UEED1 # WINDOWS [SUPER] KEY 1.25u Glyph
<Multi_key> <k> <ampersand> : "" UEF81 # AMPERSAND NOT-A-KEY 1.25u Glyph
<Multi_key> <k> <comma>     : "" UEF82 # COMMA NOT-A-KEY 0.50u Glyph
<Multi_key> <k> <period>    : "" UEF80 # ELLIPSIS NOT-A-KEY 1.25u Glyph
<Multi_key> <k> <plus>      : "" UEF83 # PLUS SIGN NOT-A-KEY 0.50u Glyph
<Multi_key> <k> <space>     : "" UEFED # SEPARATOR NOT-A-KEY 0.25u Glyph
# Using Hex Codes for these, since nothing else seems to be recognized for parentheses
<Multi_key> <k> <U0028>     : "" UEF84 # LEFT PAREN NOT-A-KEY 0.25u Glyph
```

Comments

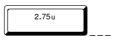
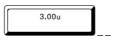
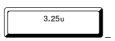
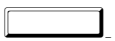
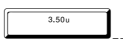
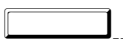
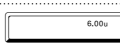
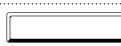
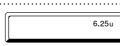
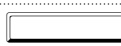
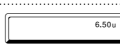
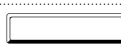
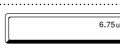
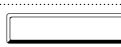
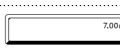
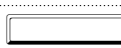
```
# ""  UEE6A
# ""  UEE71
# "" UEF8C and "" UEF8D
# "" UEEA0

# "" UEEA3
```

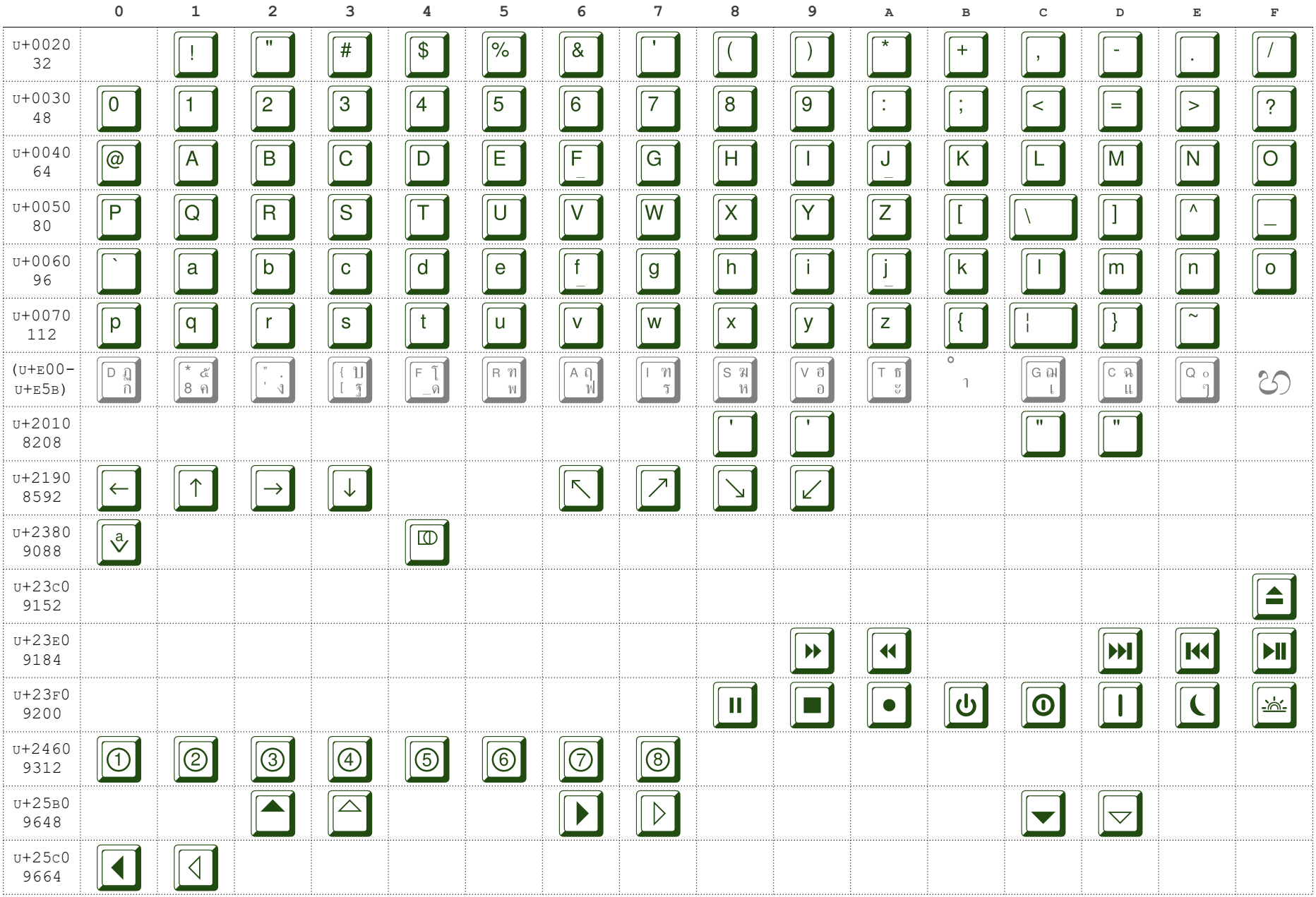
Suggested Additions to the $HOME/.Xcompose file Comments

```
<Multi_key> <k> <U0029>      : "" UEF85 # RIGHT PAREN NOT-A-KEY 0.25u Glyph
<Multi_key> <d> <space>      : "" UEF73 # SPACE BAR FOR DOCUMENTATION 2.25u Glyph
                # DocKeys.ttf Font Blank Key [Space Bars] Compose Sequences
<Multi_key> <k> <1> <0>      : "" UEF10 # Space 1.00u Glyph
<Multi_key> <k> <1> <2>      : "" UEF11 # Space 1.25u Glyph
<Multi_key> <k> <1> <5>      : "" UEF12 # Space 1.50u Glyph
<Multi_key> <k> <1> <7>      : "" UEF13 # Space 1.75u Glyph
<Multi_key> <k> <2> <0>      : "" UEF14 # Space 2.00u Glyph
<Multi_key> <k> <2> <2>      : "" UEF15 # Space 2.25u Glyph
<Multi_key> <k> <2> <5>      : "" UEF16 # Space 2.50u Glyph
<Multi_key> <k> <2> <7>      : "" UEF17 # Space 2.75u Glyph
<Multi_key> <k> <3> <0>      : "" UEF18 # Space 3.00u Glyph
<Multi_key> <k> <3> <2>      : "" UEF19 # Space 3.25u Glyph
<Multi_key> <k> <3> <5>      : "" UEF1A # Space 3.50u Glyph
<Multi_key> <k> <6> <0>      : "" UEF1B # Space 6.00u Glyph
<Multi_key> <k> <6> <2>      : "" UEF1C # Space 6.25u Glyph
<Multi_key> <k> <6> <5>      : "" UEF1D # Space 6.50u Glyph
<Multi_key> <k> <6> <7>      : "" UEF1E # Space 6.75u Glyph
<Multi_key> <k> <7> <0>      : "" UEF1F # Space 7.00u Glyph
                # DocKeys.ttf Font Size Indicator Key Compose Sequences
<Multi_key> <d> <1> <0>      : "" UEDB0 # Size Indicator 1.00u Glyph
<Multi_key> <d> <1> <2>      : "" UEDB1 # Size Indicator 1.25u Glyph
<Multi_key> <d> <1> <5>      : "" UEDB2 # Size Indicator 1.50u Glyph
<Multi_key> <d> <1> <7>      : "" UEDB3 # Size Indicator 1.75u Glyph
<Multi_key> <d> <2> <0>      : "" UEDB4 # Size Indicator 2.00u Glyph
<Multi_key> <d> <2> <2>      : "" UEDB5 # Size Indicator 2.25u Glyph
<Multi_key> <d> <2> <5>      : "" UEDB6 # Size Indicator 2.50u Glyph
<Multi_key> <d> <2> <7>      : "" UEDB7 # Size Indicator 2.75u Glyph
<Multi_key> <d> <3> <0>      : "" UEDB8 # Size Indicator 3.00u Glyph
<Multi_key> <d> <3> <2>      : "" UEDB9 # Size Indicator 3.25u Glyph
<Multi_key> <d> <3> <5>      : "" UEDBA # Size Indicator 3.50u Glyph
<Multi_key> <d> <6> <0>      : "" UEDBB # Size Indicator 6.00u Glyph
<Multi_key> <d> <6> <2>      : "" UEDBC # Size Indicator 6.25u Glyph
<Multi_key> <d> <6> <5>      : "" UEDBD # Size Indicator 6.50u Glyph
<Multi_key> <d> <6> <7>      : "" UEDBE # Size Indicator 6.75u Glyph
<Multi_key> <d> <7> <0>      : "" UEDBF # Size Indicator 7.00u Glyph
                # DocKeys.ttf Font NumPad Key Compose Sequences
<Multi_key> <n> <p> <n>      : "" UEF40 # NUMPAD NUMLOCK KEY 1.25u Glyph
<Multi_key> <n> <p> <plus>   : "" UEF7E # 2X HEIGHT NUMPAD PLUS KEY 1.25u Glyph
<Multi_key> <n> <p> <KP_Add> : "" UEF7E # 2X HEIGHT NUMPAD PLUS KEY 1.25u Glyph
<Multi_key> <n> <p> <p>      : "" UEF7E # 2X HEIGHT NUMPAD PLUS KEY 1.25u Glyph
<Multi_key> <n> <p> <0>      : "" UEF60 # NUMPAD ZERO KEY 2.00u Glyph
<Multi_key> <n> <p> <KP_0>   : "" UEF60 # NUMPAD ZERO KEY 2.00u Glyph
<Multi_key> <n> <p> <KP_1>   : "" UEF5C # NUMPAD ONE KEY 1.00u Glyph
<Multi_key> <n> <p> <KP_2>   : "" UEF5D # NUMPAD TWO KEY 1.00u Glyph
<Multi_key> <n> <p> <KP_3>   : "" UEF5E # NUMPAD THREE KEY 1.00u Glyph
<Multi_key> <n> <p> <KP_4>   : "" UEF54 # NUMPAD FOUR KEY 1.00u Glyph
<Multi_key> <n> <p> <KP_5>   : "" UEF55 # NUMPAD FIVE KEY 1.00u Glyph
<Multi_key> <n> <p> <KP_6>   : "" UEF56 # NUMPAD SIX KEY 1.00u Glyph
<Multi_key> <n> <p> <KP_7>   : "" UEF4C # NUMPAD SEVEN KEY 1.00u Glyph
<Multi_key> <n> <p> <KP_8>   : "" UEF4D # NUMPAD EIGHT KEY 1.00u Glyph
<Multi_key> <n> <p> <KP_9>   : "" UEF4E # NUMPAD NINE KEY 1.00u Glyph
<Multi_key> <n> <p> <period> : "" UEF62 # NUMPAD DECIMAL POINT KEY 1.00u Glyph
# <Multi_key> <n> <p> <period> : "" UEF62 # NUMPAD DECIMAL POINT 1.00u Glyph
<Multi_key> <n> <p> <e>      : "" UEF7F # 2X HEIGHT NUMPAD ENTER KEY 1.25u Glyph
```

Internal Font Sizing and Common Usage

Units	Cell Width	Left/Right Bearing	Character Width	Unicode	Placeholder Glyph	Unicode	Blank Glyph (Space)	Remarks / Usage
0.25u	265.00	38		u+edc0				Only used in layouts (documentation) for “visible” ¼ u spacing
0.50u	530.00	38	454.00					Only used in layouts (documentation) for “visible” ½ u spacing NOT IMPLEMENTED
1.00u	1,060.00	38	984.00	u+edb0		u+ef10		Functions, Alphanumeric, Punctuation, Modifier Keys (Shift, Ctrl, Alt, Alt-Gr), Modifier Keys (Shift, Ctrl, Alt, Alt-Gr), O/S Keys (Generic, Windows, Penguin/Linux, Apple), Navigation, Numeric Keypad, Media Keys. [Color acrdngly]
1.25u	1,325.00	38	1,249.00	u+edb1		u+ef11		Modifier Keys (Shift, Ctrl, Alt, Alt-Gr), O/S Keys (Generic, Windows, Penguin/Linux, Apple), App Menu, FN (Keyboard function Key (not O/S Function Keys)
1.50u	1,590.00	38	1,514.00	u+edb2		u+ef12		Modifier Keys (Shift, Ctrl, Alt, Alt-Gr), O/S Keys (Generic, Windows, Penguin/Linux, Apple), Tab Key, \ Key, | Key
1.75u	1,855.00	38	1,779.00	u+edb3		u+ef13		Modifier Keys (Shift, Ctrl, Alt, Alt-Gr), O/S Keys (Generic, Windows, Penguin/Linux, Apple), Caps Lock Key
2.00u	2,120.00	38	2,044.00	u+edb4		u+ef14		Backspace Key
2.25u	2,385.00	38	2,309.00	u+edb5		u+ef15		Enter Key, Left Shift Key
2.50u	2,650.00	38	2,574.00	u+edb6		u+ef16		
2.75u	2,915.00	38	2,839.00	u+edb7		u+ef17		Standard Right Shift Key
3.00u	3,180.00	38	3,104.00	u+edb8		u+ef18		
3.25u	3,445.00	38	3,369.00	u+edb9		u+ef19		
3.50u	3,710.00	38	3,364.00	u+edba		u+ef1a		
3.75u		38						Not Used ???
6.00u	6,360.00	38	6,284.00	u+edbb		u+ef1b		
6.25u	6,625.00	38	6,549.00	u+edbc		u+ef1c		Standard Space Bar
6.50u	6,890.00	38	6,814.00	u+edbd		u+ef1d		
6.75u	7,155.00	38	7,079.00	u+edbe		u+ef1e		
7.00u	7,420.00	38	7,344.00	u+edbf		u+ef1f		

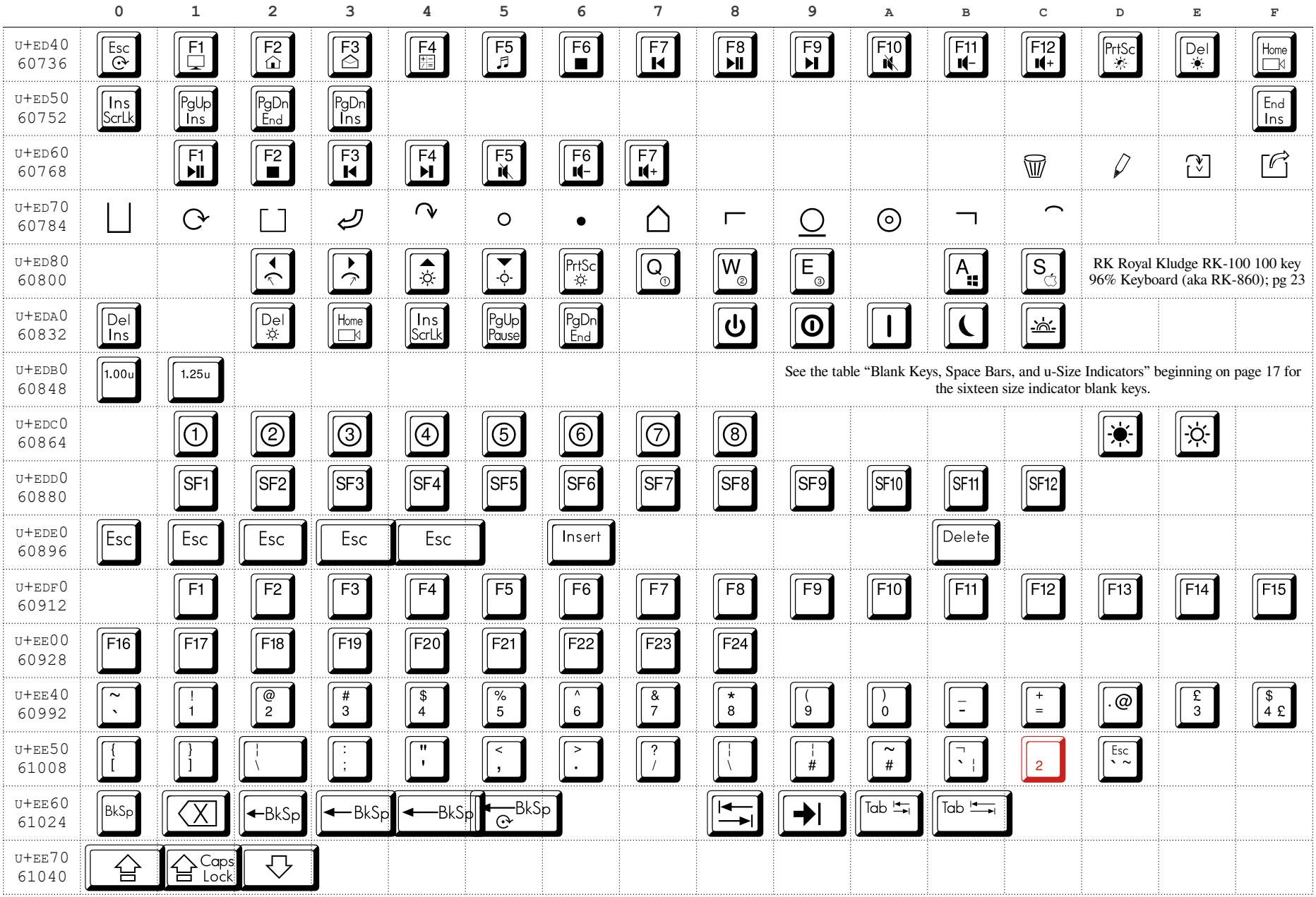
Font Glyphs Specimens and Map



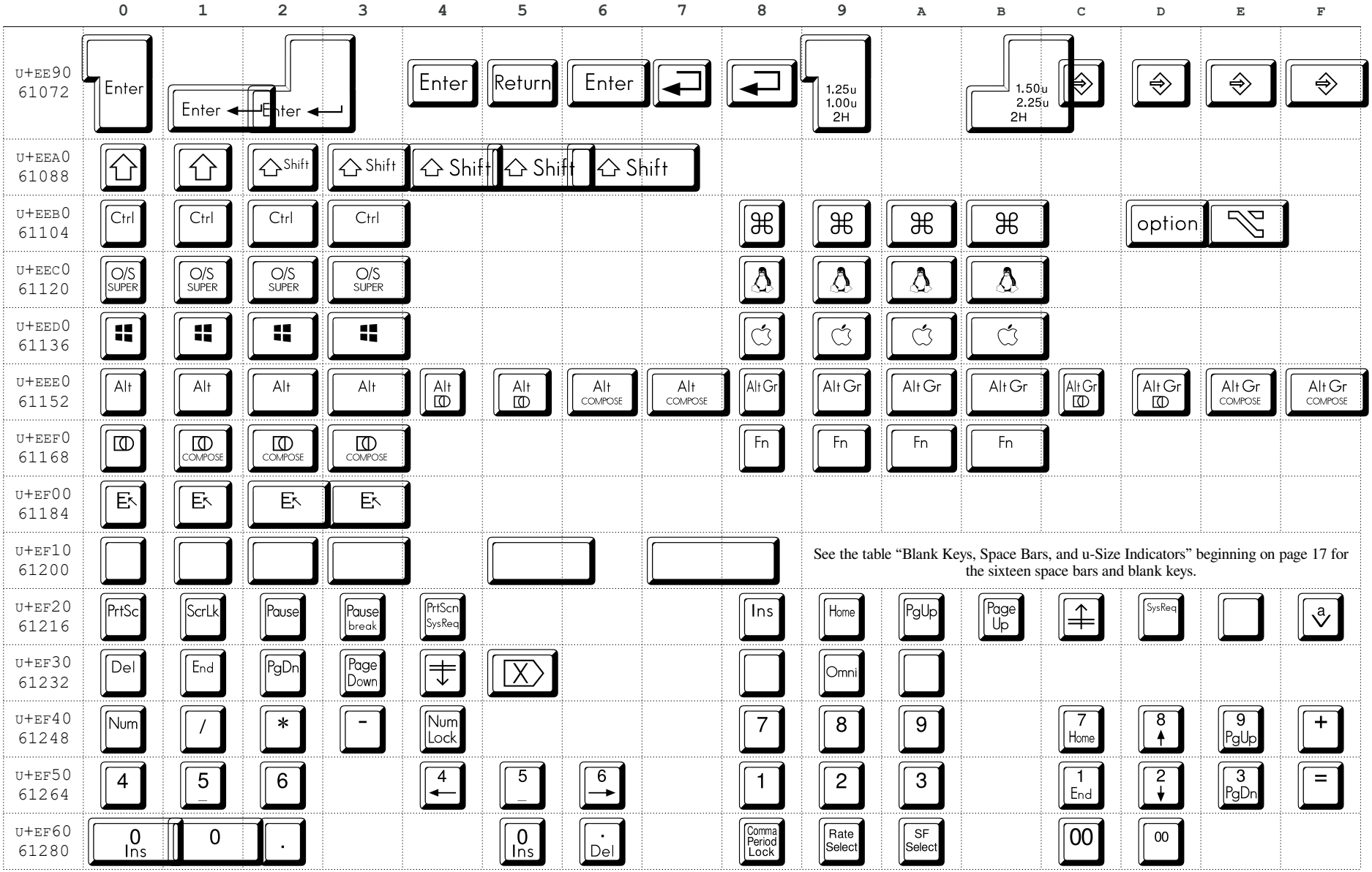
Font Glyphs Specimens and Map

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+2600 9728																
U+2630 9776																
U+EC20 60448	**PUA BEGINS**	AA01	AA02	AA03	AA04	AA05	AA06	AA07	AA08	AA09	AA10	AA11	AA12	AA13		
U+EC30 60464		AB01	AB02	AB03	AB04	AB05	AB06	AB07	AB08	AB09	AB10	AB11	AB12	AB13		
U+EC40 60480		AC01	AC02	AC03	AC04	AC05	AC06	AC07	AC08	AC09	AC10	AC11	AC12	AC13		
U+EC50 60496		AD01	AD02	AD03	AD04	AD05	AD06	AD07	AD08	AD09	AD10	AD11	AD12	AD13		
U+EC60 60512		AE01	AE02	AE03	AE04	AE05	AE06	AE07	AE08	AE09	AE10	AE11	AE12	AE13		F
U+ECB0 60592			Num	Caps			Num	Num	Caps	Caps	Rec	Rec				
U+ECC0 60608		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12			
U+ECD0 60624		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10 ScrLk	F11 Pause	F12 PrtSc	Havit 80% Mechanical Gaming Keyboard; pg 24		
U+ECE0 60640		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	Keychron K2 75% Mechanical Keyboard; pg 24		
U+ECF0 60656		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12			
U+ED00 60672		1 !	2 @	3 #	4 $	% 5	6 ^	7 &	8 *	9 (	0)	- _	= +	ASUS ROG Falchion Wireless 65% Mechanical Gaming Keyboard; pg 25		
U+ED10 60688	Q	W	E	R	T	Y	U	I	O	P	[			Gamenote 60% Keyboard Type-C Keyboard ; pg 25		
U+ED20 60704	Esc ~ `	! 1 F1	@2 F2	# 3 F3	$4 F4	%5 F5	^ 6 F6	&7 F7	* 8 F8	(9 F9	) 0 F10	_ - F11	+ = F12	Gamenote 60% Keyboard Type-C Keyboard ; pg 25		
U+ED30 60720	` ~	! 1	@2	# 3	$4	%5	^ 6	&7	* 8	(9	) 0	_ -	+ =	Havit 80% Mechanical Gaming Keyboard; pg 24		

Font Glyphs Specimens and Map



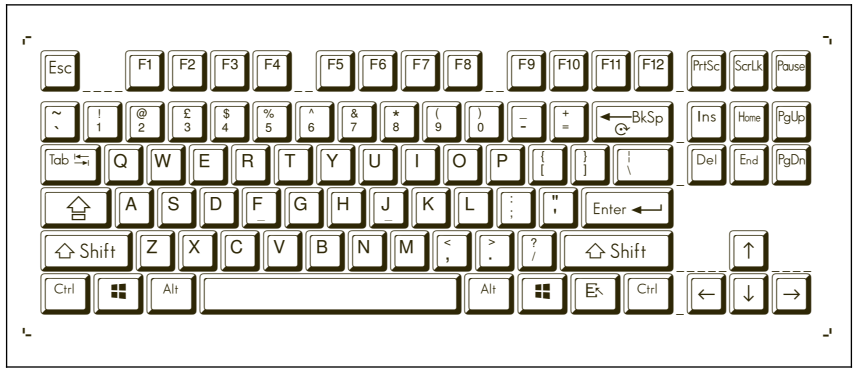
Font Glyphs Specimens and Map

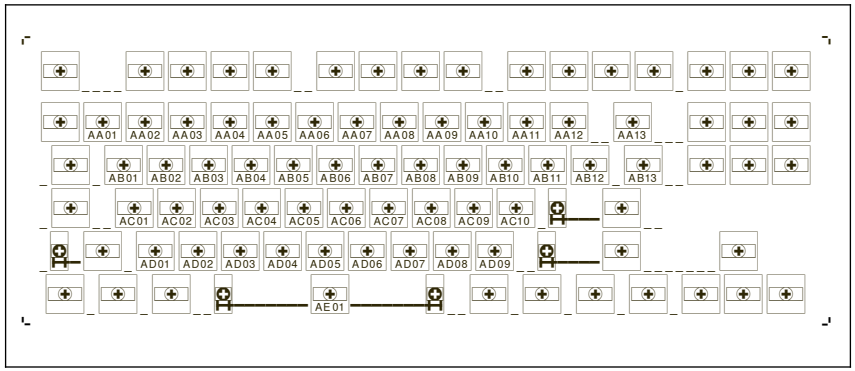


See the table “Blank Keys, Space Bars, and u-Size Indicators” beginning on page 17 for the sixteen space bars and blank keys.

Font Glyphs Specimens and Map

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+EF70 61296				space	Insert	Delete								1.00u 2H	+	Enter
U+EF80 61312	…	&	’	+	(	)										
U+EF90 61328					PgUp	PgDn										
U+EFA0 61344																
U+EFB0 61360																
U+EFC0 61376																

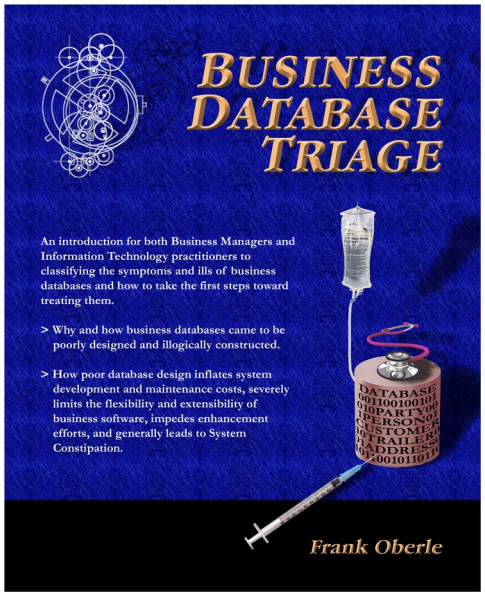




Typical TKL Key Layout (on the left) with typical corresponding underlying switch and stabilizer layouts (on the right)

Other Publications

Antikythera Publications



In addition to an ongoing series of Database Design Notes, Antikythera Publications recently released the book "*Business Database Triage*" (ISBN-10: 0615916937) that demonstrates how commonly encountered business database designs often cause significant, although largely unrecognized, difficulties with the development and maintenance of application software. Examples in the book illustrate how some typical database designs impede the ability of software developers to respond to new business opportunities – a key requirement of most businesses.

A number of examples of solutions to curing business system constipation are presented. Urban legends, such as the so-called object-relational impedance mismatch, are debunked – shown to be based mostly on illogical database (and sometimes object) designs.

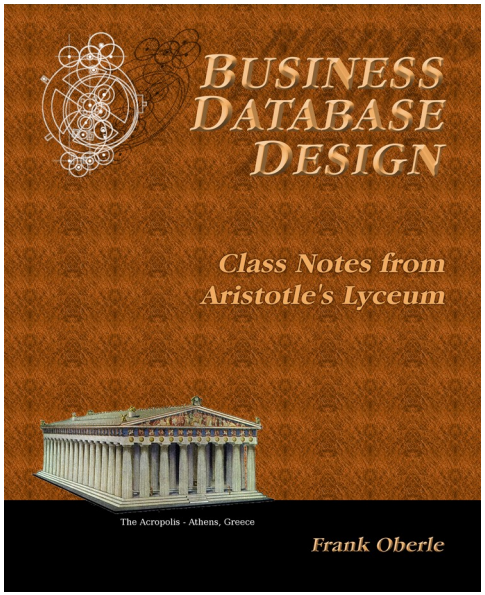
"*Business Database Triage*" is available through major book retailers in most countries, or from the following on-line vendors, each of which has a full description of the book on their site:

CreateSpace: https://www.createspace.com/4513537

Amazon:

www.amazon.com/Business-Database-Triage-Frank-Oberle/dp/0615916937

More information and sample pages at: www.AntikytheraPubs.com



A follow-up book, "*Business Database Design – Class Notes from Aristotle's Lyceum*" is due to be available in the latter part of 2014.

"*Business Database Design*" leads the reader through the logical design and analysis techniques of data organization in more detail than the earlier work – which concentrated more on understanding and identifying problems caused by illogical database design rather than their solutions.

These logical approaches to data organization, espoused by Aristotle and an "A-List" of his successors, have formed the basis for scientific discovery over more than 2,400 years, and directly led to the technology we deal with today, notably including both relational and object theory.

"*Business Database Triage*" explained the reasons why these principles were virtually impossible to apply during the early years of our transition to the use of computers in business, but since the technology is now sufficiently mature that such compromises can no longer be justified, the time has come to relearn logical data organization techniques and apply them to our businesses.