

Keyboard Layout Analyzer (version 1.0)

Copyright 2010 Kuok Cheng U (Daniel U)

The Keyboard Layout Analyzer (KLA) is a cross-platform Java program which analyzes text from user input and determines the distance the typist's fingers must travel in order to type it. Other information such as the keys stoked by each hand is also gathered.

A pre-compiled KLA.jar file is included and ready to be used. The original source codes are also included.

Licensing

KLA is released under the GNU GPL license.



KLA is free software: you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation, either version 3 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program. If not, see <<http://www.gnu.org/licenses/>>.

Hardware/Software requirements

Any computer with an operating system with Java Runtime Environment (JRE).

Getting Started

The current version of KLA has a text-based user interface. Simply enter the desired testing passage then press Enter to proceed. Results will be generated and listed.

To run KLA, please launch it from a command line terminal of your operating system since the current version of KLA does not have a Graphical User Interface (GUI).

Once you have set up the JRE, please run

```
java -jar <DIR>
```

Replace <DIR> with the directory of the KLA.jar file.

Known Problems

Copy/paste could be used for inputting text. However please note that any text after the first breakline character will be ignored. In the future releases of KLA the feature of reading text after breakline character will be added. To remove breakline characters, you can refer to this blog post by Linux Blog:

<http://linux.dsplabs.com.au/rmnl-remove-new-line-characters-tr-awk-perl-sed-c-cpp-bash-python-xargs-ghc-ghci-haskell-sam-ssam-p65/>

Users of operating systems other than Linux could also refer to this as it provides method to use a variety of tools (e.g. Python) which are available on multiple platforms.

Explanation of Codes

In the source code, the DvorakLayout and QwertyLayout classes consist the layout information for both the Dvorak and QWERTY layout. Keys are grouped according to their distance to the home row. The 7 main groups are listed and illustrated below:

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

Image adapted from http://upload.wikimedia.org/wikipedia/commons/2/25/KB_United_States_Dvorak.svg originally by StuartBrady.

1. Home row (pink, 0cm from home position)
2. Top/Bottom Home row (orange, 2cm from home position)
3. Parallel movement keys (yellow, 2cm from home position)
4. Short Diagonal (green, 2.4cm from home position)
5. Long Diagonal (lighter blue, 3.3cm from home position)

6. Longer Diagonal (blue, 3.9cm from home position)

7. Furthest (dark blue, 5.5cm from home position)

*note: the Furthest key (“\” and “|” on both layouts) might have a different position depending on your keyboard

To change the default distances in order to test non-standard keyboards, please change the values of the corresponding distances in the *Counter* class. In the source code, the distance is multiplied by 2 since it measures the distance of traveling back and forth.

Version History

Version 1.0

First released on September 9, 2010

The earliest public release, featuring both QWERTY and Dvorak Simplified Keyboard (DSK) layouts.

Contact Info

Kuok Cheng U (Daniel U)

2xxilil[at]gmail[dot]com

School of the Nations

Rua do Minho, Taipa, Macau SAR, China