DOIO
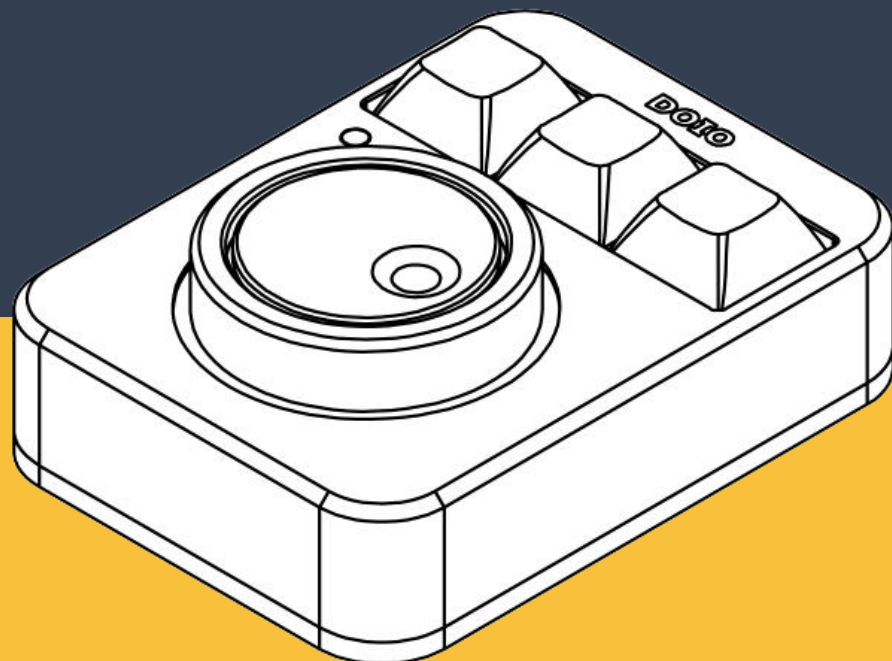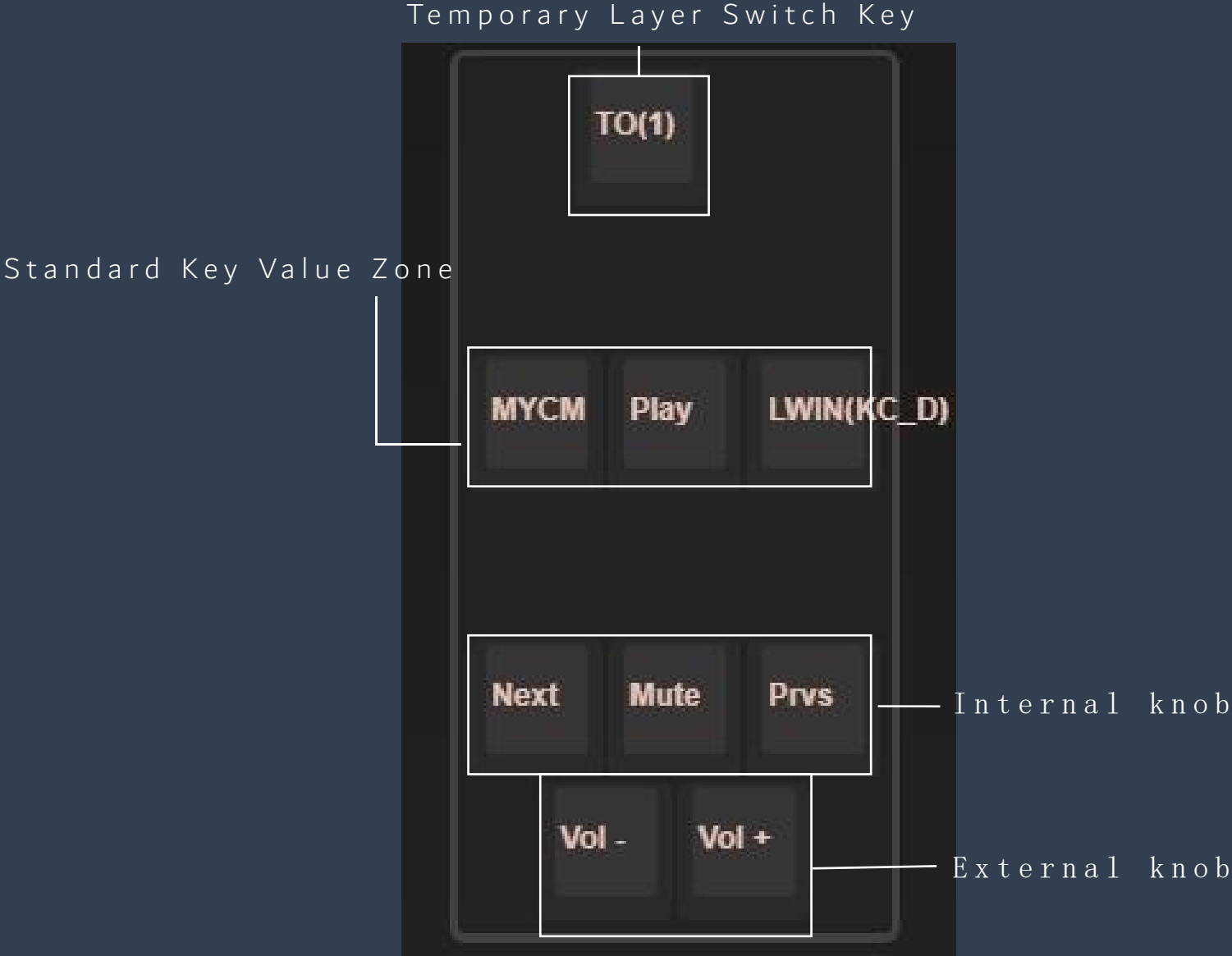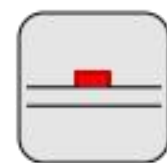
KB03-01

Thank you for using DOIO products. The following tutorial will guide you on how to perform advanced settings on your keyboard. The documents required for the tutorial can be downloaded from the official [DOIO website](#). VIA is a powerful and professional keyboard customization program. Any custom modifications you make to your keyboard settings will be saved in the keyboard's hardware storage. When connected to other computers, the custom key values can be used directly without the need for additional configuration.

Keyboard Function Description

Temporary Layer Switch Key

TO(1)

Standard Key Value Zone

MYCM Play LWIN(KC_D)

Next Mute Prvs

Internal knob

Vol - Vol +

External knob

Lighting control instructions
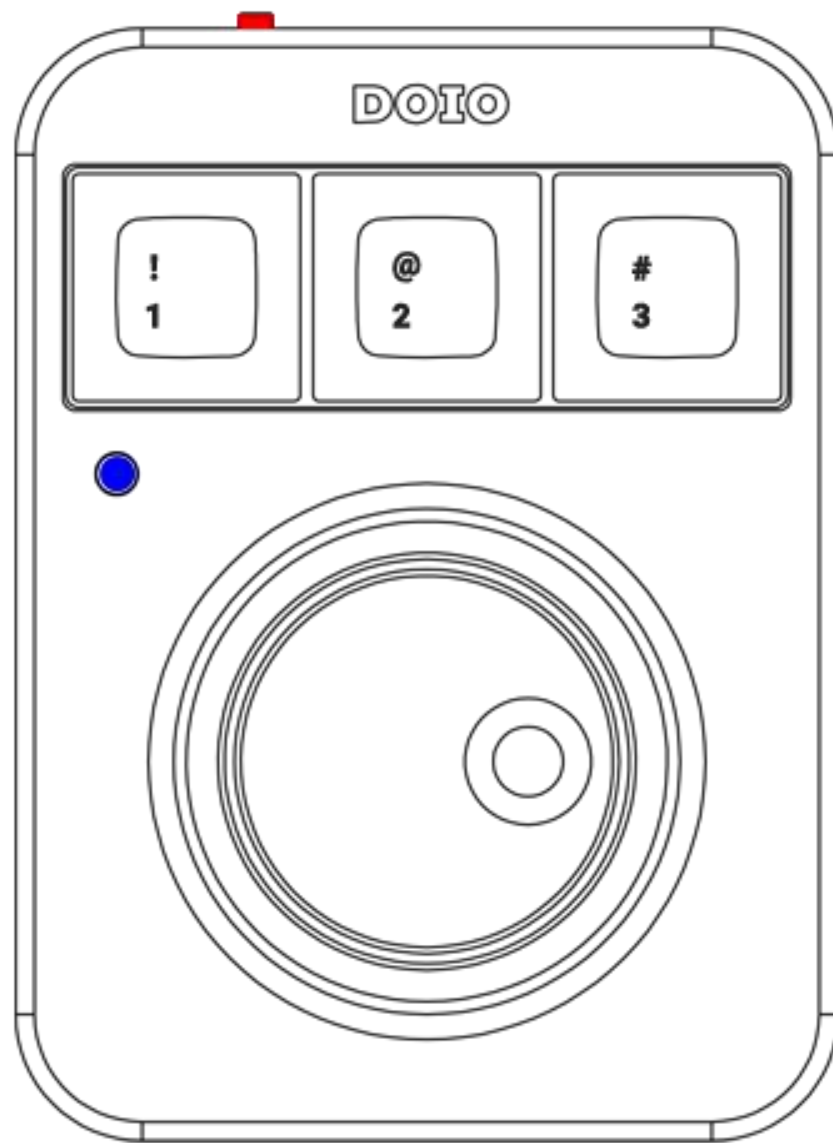
Layer switching keys

Light switch

! 1 brightness-

@ 2 mode
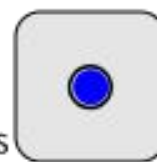
3 brightness+

● **Layer 1**

● **Layer 2**

● **Layer 3**

The fourth layer (when the layer indicator is white) is the light adjustment layer

VIA program
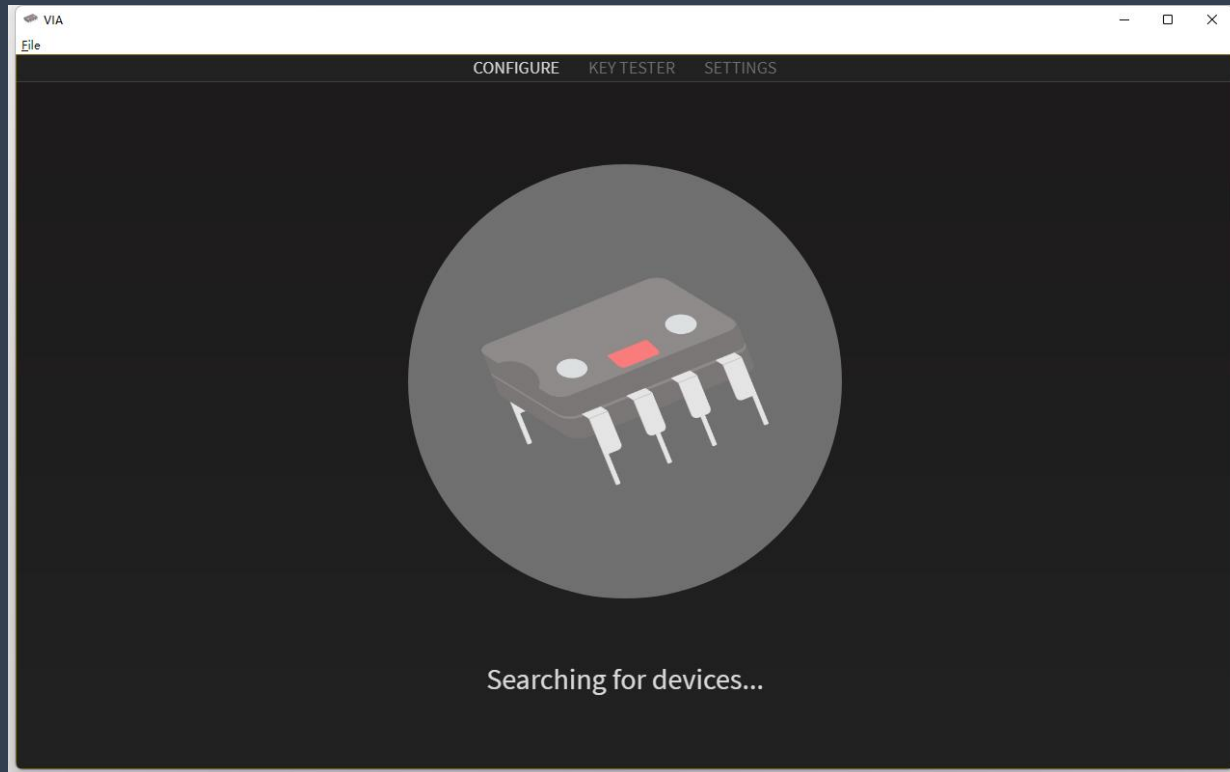
The VIA program can implement more advanced modification applications for the keyboard in addition to the initial key position function, such as modifying the key value of a certain key, setting key combinations, shortcuts, macro command programming, etc. The VIA program can be downloaded on its own from the official website and sales page.

Download the VIA program suitable for your operating system

Download the VIA program for the Windows system: VIA-1.3.1(中文)

VIA-1.3.1(English)（ANY）

Download the VIA program for MAC systems: VIA-1.3.1

Open the VIA program
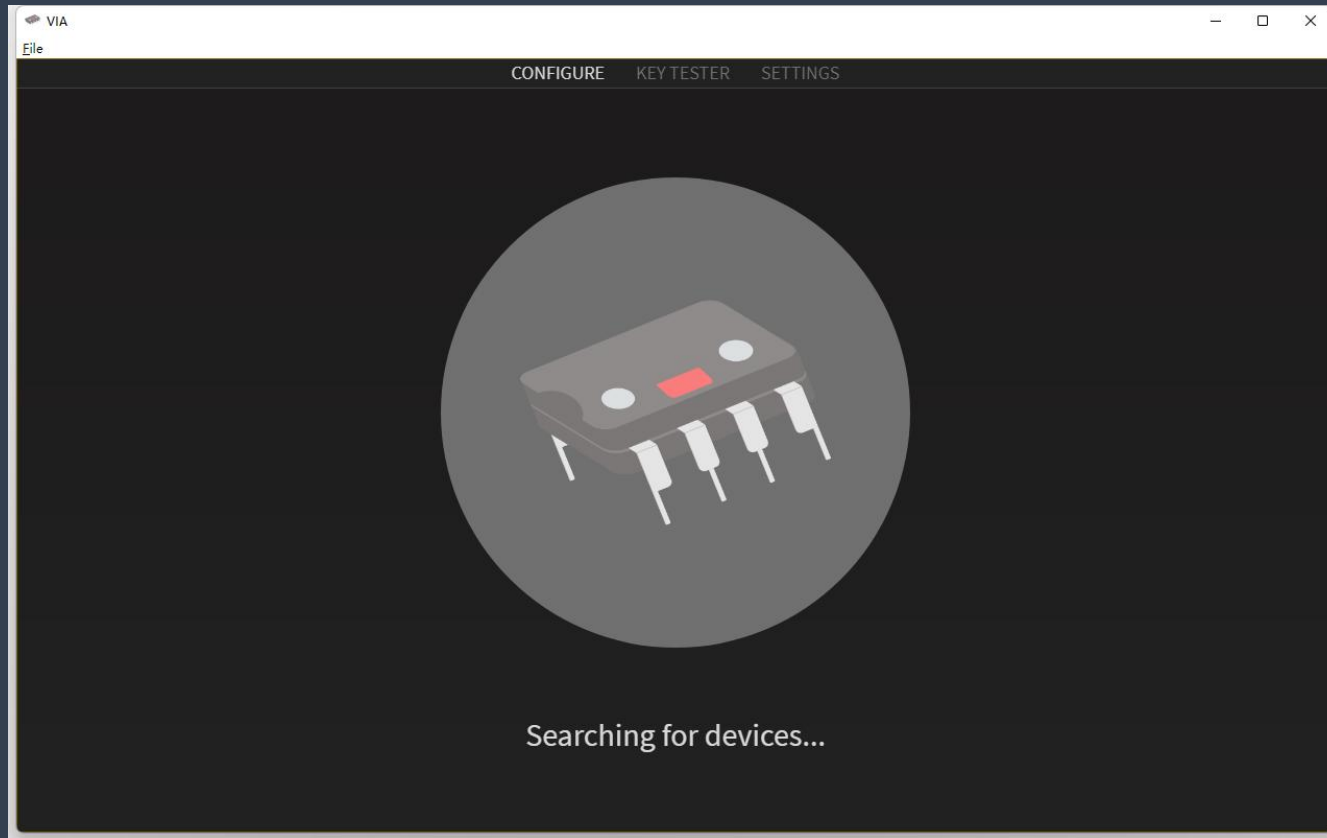
Find the downloaded VIA program package, decompress it, click Start program, click file-import Keymap in the upper left corner, select and open the corresponding JSON File in the pop-up box, and then the keyboard layout will be displayed on the VIA program interface; If the home page is still displayed, check whether the USB cable on the keyboard is properly connected. After the USB cable is correctly connected, open the VIA software again and load the JSON file.

Program Interface Description
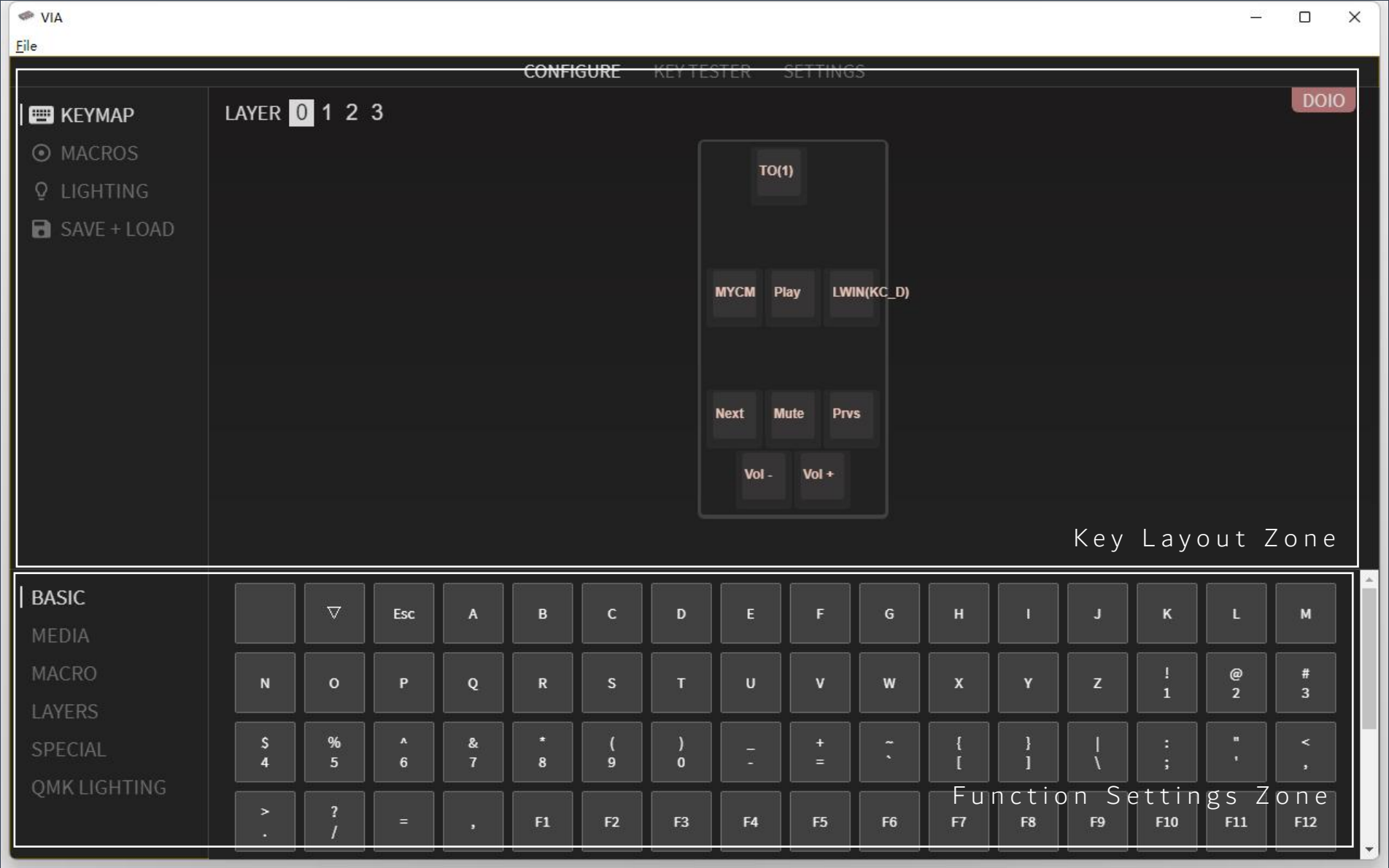
VIA Program Interface Description--Key Layout Zone

VIA — □ ×

File

CONFIGURE   KEY TESTER   SETTINGS

Navigation Bar: shows the various actions that can be performed with the keyboard

DOIO

⌨ KEYMAP

◉ MACROS

♀ LIGHTING

💾 SAVE+LOAD

LAYER 0 1 2 3

Level Display: shows the total number of layers that can be edited on the current keyboard

TO(1)

MYCM   Play   LWIN(KC_D)

Next   Mute   Prvs

Vol -   Vol +

Functional Zone :
   KEYMAP: change keyboard key values
   MACROS: edit macro commands
   SAVE+LOAD: An operation that saves and loads the current key-value layout

Key Layout: shows the current keyboard key layout

VIA Program Interface Description--Function setting area

	▽	Esc	A	B	C	D	E	F	G	H	I	J	K	L	M
BASIC															
MEDIA	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	! 1	@ 2	# 3
MACRO															
LAYERS	$ 4	% 5	^ 6	& 7	* 8	(9	) 0	_ -	+ =	~ `	{ [	}]	| \	: ;	" '	< ,
SPECIAL															
QMK LIGHTING	> .	? /	=	,	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
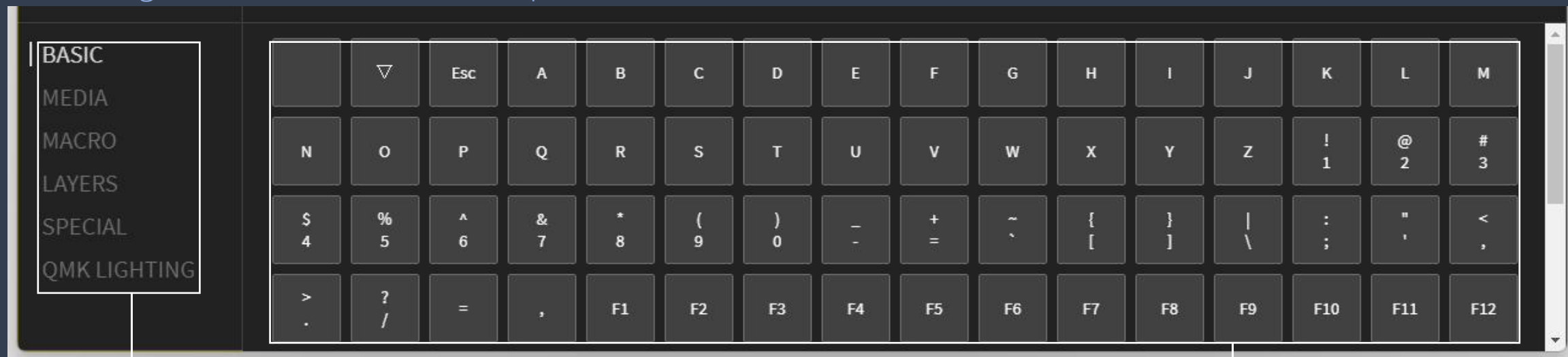
Key Value Types:
   BASIC： Basic Key Value Type
   MEDIA： Multimedia key Type
   MACRO： Macro Command Key Value Type
   LAYERS： Hierarchical Change of Key Value Types
   SPECIAL:Special Key Value Type
   LIGHTING:Light Key Value Type

Key Values::
   Show the current key values under this zone . You can change the keyboard key values by selecting the key values in this zone .

Basic Key Changes
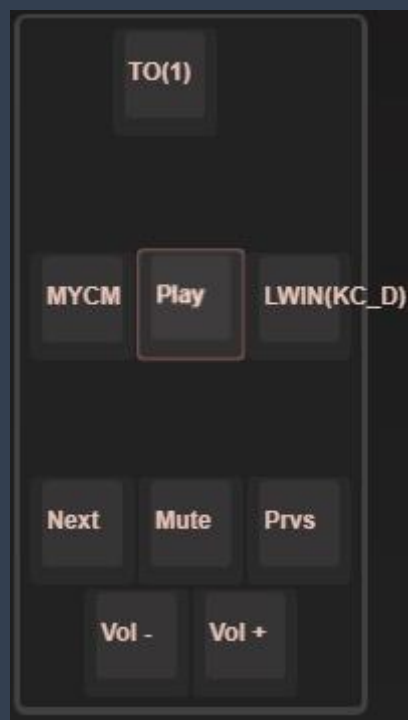
Figure 1
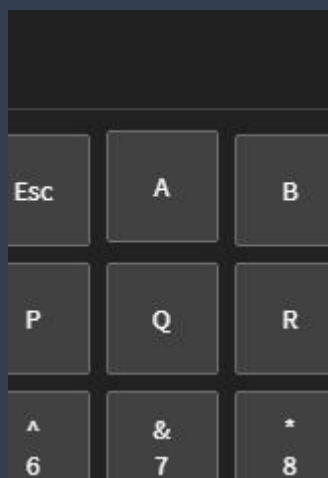
Figure 2

Figure 3

Through VIA, we can modify the key values of each key on the keyboard, including basic single-key values, multimedia key values, layer key value modifications, lighting function key value modifications, combination key value settings, macro commands, and ANY key settings

Let's start with the easiest example.

Let's try changing key Play on the keyboard to A,

First, click the Play key value in the key layout zone above (Figure 1). In the function settings zone below, click to select the key value category on the left. We find A in the corresponding category and click (Figure 2). At this point, we will see that Play in the key layout has programmed A (Figure 3). At this point, there is no need to click Save key; the key value takes effect immediately.

For other keys, if they are also changed to single-key values, just repeat the above steps.

The method for changing the value of a knob is the same as the method for changing for pressing a key.

How to use Layer
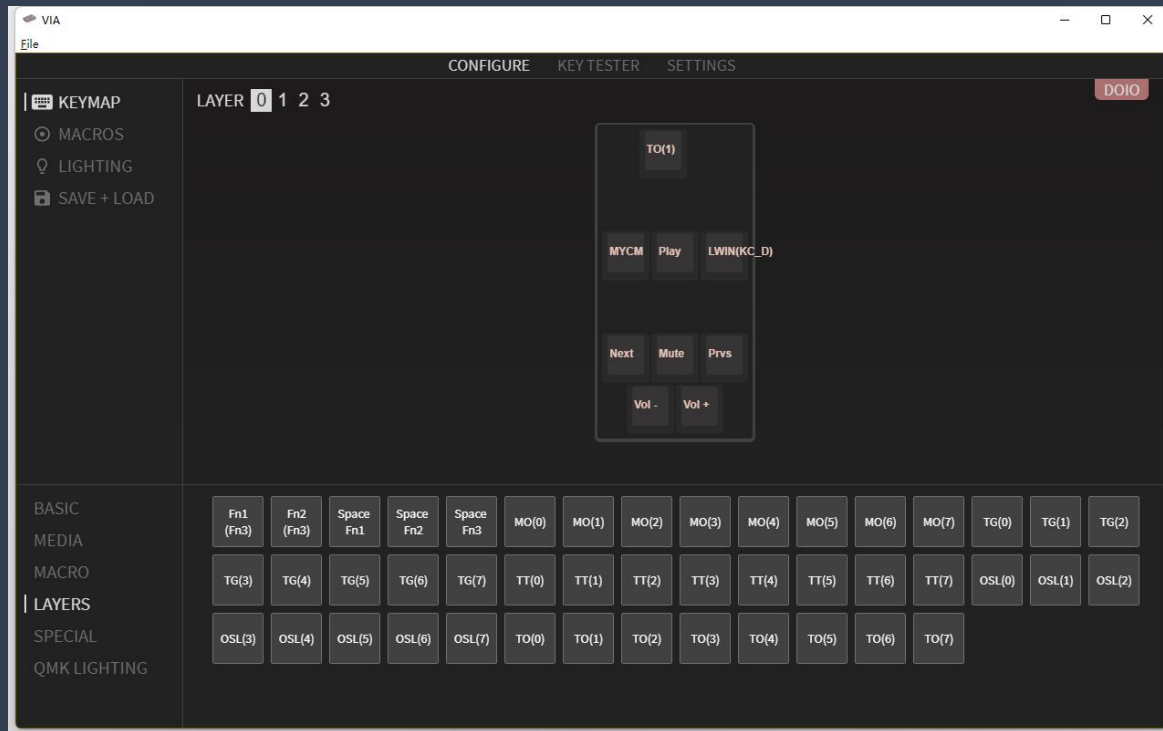
There are various command methods that can be used for the slice function key values, the most common being MO and TO

MO(*) When this key is pressed, the current keyboard key value is temporarily switched to the corresponding layer's keyboard key value, and by pressing the corresponding layer key at the same time, the corresponding layer key value function input can be realized. Release the MO (*) key to return to the original layer.

TO(*)：This key is a layer switch key, and you can switch to the target layer keyboard key value by pressing it.

TG(*)：This key is a layer switch key. If you press it, you can switch the current keyboardkey value to the target layer's keyboard key value, and press it again to return to the original keyboard key value.

TT(*)：1、Press to temporarily switch the current keyboard key value to the corresponding layer's keyboard key value, and press the corresponding layer key at the same time to enter the corresponding layer's key value function.2. Click 5 times in a row to switch the current keyboard key value to the target layer key value.

OSL(*)：When this key is pressed, the keyboard key value will be switched to the target layer key value. After clicking on a key in the target layer, the original keyboard key value will be restored.

How to use macros
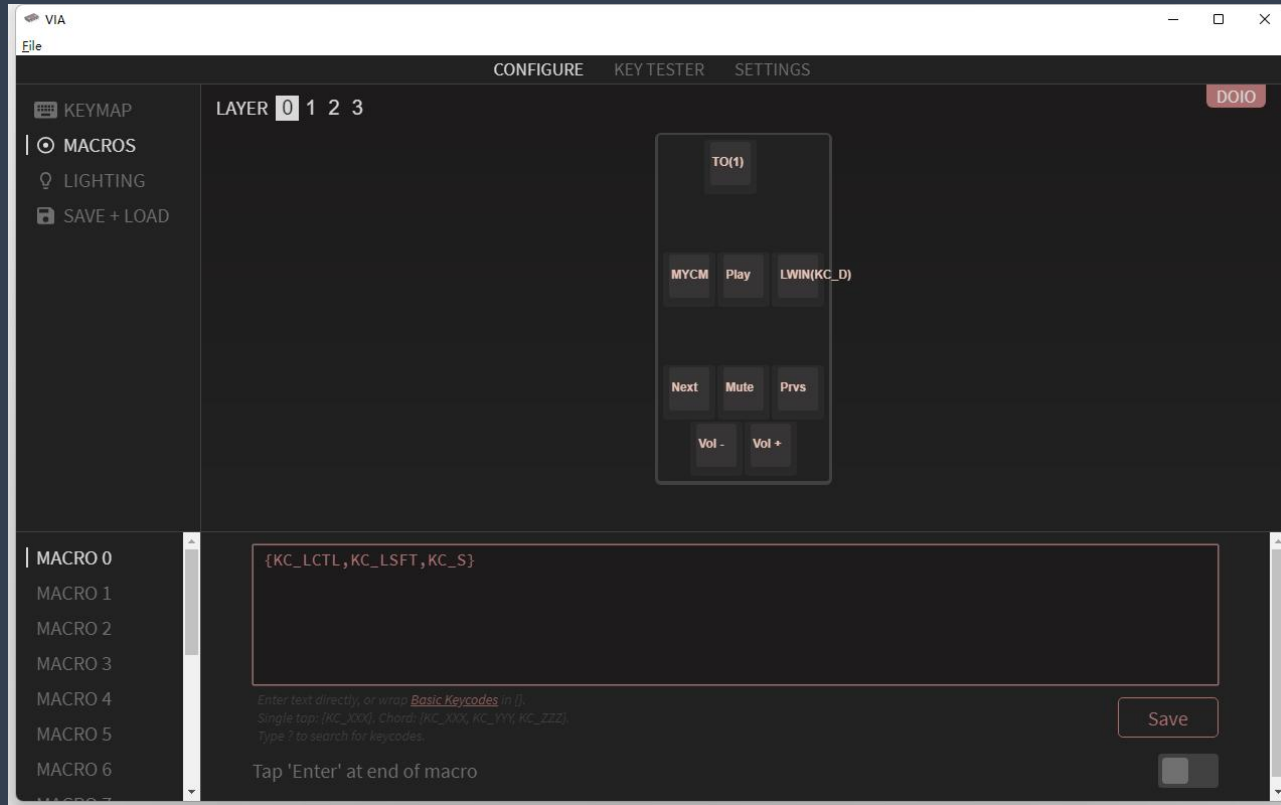
There are 16 editable macro command keys under macro editing. By editing macro commands, a single key can trigger a combination of key values.

Examples are as follows (Take Windows VIA for example):

Ctrl+Shift+S: {KC_LCTL,KC_LSFT,KC_S}

Note: The macro function cannot support some simulated mouse operations. If you need to simulate mouse operation, please check the details of the ANY function section in the manual

How to use ANY
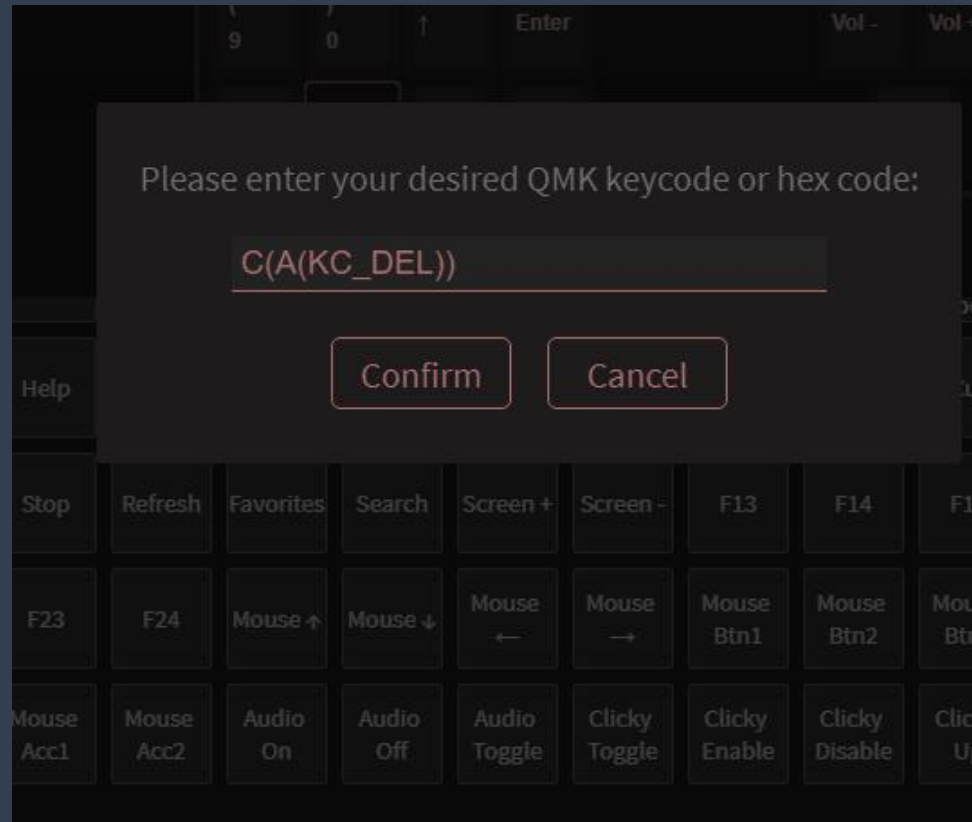
Note:
The ANY key can define the key value of only multiple function keys and one letter (number) key
For example, CTRL+ALT+A The values of function keys and multiple letters (digits) cannot be set, for example, ALT+A+O

The ANY key can edit custom key combinations.You can apply key values to the keys and knobs. First click the key you want to modify, then click the| SPECIAL key value type in the function settings zone below, and select the key value list on the right scroll down to the bottom, click the
Any key , and enter the corresponding ANY key value in the input box that pops up; the followthe ANY key:

Examples (Take Windows VIA for example):
How to write Ctrl+Alt+Del： C(A(KC_DEL))
"C" stands for "Ctrl" in this command
"A"stands for"AlT"；
"KC_DEL"stands for"Delete"key

Under the Apple MAC system, the keyboard key values correspond to the Windows key values:

Option = Alt

Control = Ctrl

Command = Win = Meta key = Gui

Right Alt = AltGr = Option

Usage of the ANY Key "LT"

LT is a two-in-one key, hold down to switch to the specified layer, click to another key value
Note that clicking on a key value cannot be a modifier such as CTRL, ALT, GUI, or SHIFT

Please enter your desired QMK keycode or hex code:
Example:

LT(1,KC_A)

Confirm   Cancel
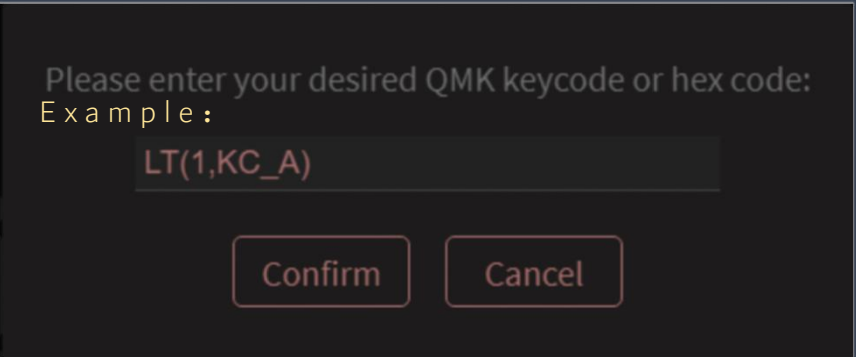
For example： LT(1,KC_A)
        When you hold it down, it switches to layer 1, and when you click it, it's the letter A

Usage of the ANY Key "MT"

MT is a two-in-one key. Holding down is one key value, and clicking is another key value
Note that you can only hold down modifier keys such as CTRL, ALT, GUI, and SHIFT

Modifier	Description
MOD_LCTL	Left Control
MOD_LSFT	Left Shift
MOD_LALT	Left Alt
MOD_LGUI	Left GUI (Windows/Command/Meta key)
MOD_RCTL	Right Control
MOD_RSFT	Right Shift
MOD_RALT	Right Alt (AltGr)
MOD_RGUI	Right GUI (Windows/Command/Meta key)
MOD_HYPR	Hyper (Left Control, Shift, Alt and GUI)
MOD_MEH	Meh (Left Control, Shift, and Alt)

For example:
    MT(MOD_LALT,KC_A)
It's ALT when you hold it down, and the letter A when you click:

If you need to change the key value to a backlight adjustment key, you can use basic remapping to change the key value to a backlight control type key, or you can use the ANY key to change it to one of the following key values:

SWITCH：RGB_TOG   COLOR+：RGB_HUI   Saturation+：RGB_SAI   Bright+：RGB_VAI   Speed+：RGB_SPI

MODE：RGB_RMOD   COLOR-：RGB_HUD   Saturation-：RGB_SAD   Bright-：RGB_VAD   Speed-：RGB_SPD

Letters and Numbers

Key	Description
KC_A	a and A
KC_B	b and B
KC_C	c and C
KC_D	d and D
KC_E	e and E
KC_F	f and F
KC_G	g and G
KC_H	h and H
KC_I	i and I
KC_J	j and J
KC_K	k and K
KC_L	l and L
KC_M	m and M
KC_N	n and N
KC_O	o and O
KC_P	p and P
KC_Q	q and Q
KC_R	r and R

Key	Description
KC_S	s and S
KC_T	t and T
KC_U	u and U
KC_V	v and V
KC_W	w and W
KC_X	x and X
KC_Y	y and Y
KC_Z	z and Z
KC_1	1 and !
KC_2	2 and @
KC_3	3 and #
KC_4	4 and $
KC_5	5 and %
KC_6	6 and ^
KC_7	7 and &
KC_8	8 and *
KC_9	9 and (
KC_0	0 and)

At the end of the article, please find the reference key value codes for inputting key value commands in macros and ANY key:

F Keys

Key	Description	Key	Description
KC_F1	F1	KC_F13	F13
KC_F2	F2	KC_F14	F14
KC_F3	F3	KC_F15	F15
KC_F4	F4	KC_F16	F16
KC_F5	F5	KC_F17	F17
KC_F6	F6	KC_F18	F18
KC_F7	F7	KC_F19	F19
KC_F8	F8	KC_F20	F20
KC_F9	F9	KC_F21	F21
KC_F10	F10	KC_F22	F22
KC_F11	F11	KC_F23	F23
KC_F12	F12	KC_F24	F24

Punctuation

Key	Aliases	Description
KC_ENTER	KC_ENT	Return (Enter)
KC_ESCAPE	KC_ESC	Escape
KC_BACKSPACE	KC_BSPC	Delete (Backspace)
KC_TAB		Tab
KC_SPACE	KC_SPC	Spacebar
KC_MINUS	KC_MINS	-and_
KC_EQUAL	KC_EQL	=and+
KC_LEFT_BRACKET	KC_LBRC	[and{
KC_RIGHT_BRACKET	KC_RBRC	]and}
KC_BACKSLASH	KC_BSLS	\and|
KC_NONUS_HASH	KC_NUHS	Non-US#and~
KC_SEMICOLON	KC_SCLN	;and:
KC_QUOTE	KC_QUOT	'and"
KC_GRAVE	KC_GRV	`and~
KC_COMMA	KC_COMM	,and<
KC_DOT		.and>
KC_SLASH	KC_SLSH	/and?
KC_NONUS_BACKSLASH	KC_NUBS	Non-US\and|

Lock Keys

Key	Aliases	Description
KC_CAPS_LOCK	KC_CAPS	Caps Lock
KC_SCROLL_LOCK	KC_SCRL,KC_BRMD	Scroll Lock, Brightness Down (macOS)
KC_NUM_LOCK	KC_NUM	Keypad Num Lock and Clear
KC_LOCKING_CAPS_LOCK	KC_LCAP	Locking Caps Lock
KC_LOCKING_NUM_LOCK	KC_LNUM	Locking Num Lock
KC_LOCKING_SCROLL_LOCK	KC_LSCR	Locking Scroll Lock

Modifiers

Key	Aliases	Description
KC_LEFT_CTRL	KC_LCTL	Left Control
KC_LEFT_SHIFT	KC_LSFT	Left Shift
KC_LEFT_ALT	KC_LALT,KC_LOPT	Left Alt (Option)
KC_LEFT_GUI	KC_LGUI,KC_LCMD,KC_LWIN	Left GUI (Windows/Command/Meta key)
KC_RIGHT_CTRL	KC_RCTL	Right Control
KC_RIGHT_SHIFT	KC_RSFT	Right Shift
KC_RIGHT_ALT	KC_RALT,KC_ROPT,KC_ALGR	Right Alt (Option/AltGr)
KC_RIGHT_GUI	KC_RGUI,KC_RCMD,KC_RWIN	Right GUI (Windows/Command/Meta key)

International

Key	Aliases	Description
KC_INTERNATIONAL_1	KC_INT1	JIS \ and _
KC_INTERNATIONAL_2	KC_INT2	JIS Katakana/Hiragana
KC_INTERNATIONAL_3	KC_INT3	JIS ¥ and |
KC_INTERNATIONAL_4	KC_INT4	JIS Henkan
KC_INTERNATIONAL_5	KC_INT5	JIS Muhenkan
KC_INTERNATIONAL_6	KC_INT6	JIS Numpad ,
KC_INTERNATIONAL_7	KC_INT7	International 7
KC_INTERNATIONAL_8	KC_INT8	International 8
KC_INTERNATIONAL_9	KC_INT9	International 9
KC_LANGUAGE_1	KC_LNG1	Hangul/English
KC_LANGUAGE_2	KC_LNG2	Hanja
KC_LANGUAGE_3	KC_LNG3	JIS Katakana
KC_LANGUAGE_4	KC_LNG4	JIS Hiragana
KC_LANGUAGE_5	KC_LNG5	JIS Zenkaku/Hankaku
KC_LANGUAGE_6	KC_LNG6	Language 6
KC_LANGUAGE_7	KC_LNG7	Language 7
KC_LANGUAGE_8	KC_LNG8	Language 8
KC_LANGUAGE_9	KC_LNG9	Language 9

Commands

Key	Aliases	Description	Key	Aliases	Description
KC_PRINT_SCREEN	KC_PSCR	Print Screen	KC_UNDO		Undo
KC_PAUSE	KC_PAUS,KC_BRK,KC_BRMU	Pause, Brightness Up (macOS)	KC_CUT		Cut
KC_INSERT	KC_INS	Insert	KC_COPY		Copy
KC_HOME		Home	KC_PASTE	KC_PSTE	Paste
KC_PAGE_UP	KC_PGUP	Page Up	KC_FIND		Find
KC_DELETE	KC_DEL	Forward Delete	KC_KB_MUTE		Mute
KC_END		End	KC_KB_VOLUME_UP		Volume Up
KC_PAGE_DOWN	KC_PGDN	Page Down	KC_KB_VOLUME_DOWN		Volume Down
KC_RIGHT	KC_RGHT	Right Arrow	KC_ALTERNATE_ERASE	KC_ERAS	Alternate Erase
KC_LEFT		Left Arrow	KC_SYSTEM_REQUEST	KC_SYRQ	SysReq/Attention
KC_DOWN		Down Arrow	KC_CANCEL	KC_CNCL	Cancel
KC_UP		Up Arrow	KC_CLEAR	KC_CLR	Clear
KC_APPLICATION	KC_APP	Application (Windows Context Menu Key)	KC_PRIOR	KC_PRIR	Prior
KC_KB_POWER		System Power	KC_RETURN	KC_RETN	Return
KC_EXECUTE	KC_EXEC	Execute	KC_SEPARATOR	KC_SEPR	Separator
KC_HELP		Help	KC_OUT		Out
KC_MENU		Menu	KC_OPER		Oper
KC_SELECT	KC_SLCT	Select	KC_CLEAR_AGAIN	KC_CLAG	Clear/Again
KC_STOP		Stop	KC_CRSEL	KC_CRSL	CrSel/Props
KC_AGAIN	KC_AGIN	Again	KC_EXSEL	KC_EXSL	ExSel

Media Keys

Key	Aliases	Description	Key	Aliases	Description
KC_SYSTEM_POWER	KC_PWR	System Power Down	KC_WWW_SEARCH	KC_WSCH	Browser Search
KC_SYSTEM_SLEEP	KC_SLEP	System Sleep	KC_WWW_HOME	KC_WHOM	Browser Home
KC_SYSTEM_WAKE	KC_WAKE	System Wake	KC_WWW_BACK	KC_WBAK	Browser Back
KC_AUDIO_MUTE	KC_MUTE	Mute	KC_WWW_FORWARD	KC_WFWD	Browser Forward
KC_AUDIO_VOL_UP	KC_VOLU	Volume Up	KC_WWW_STOP	KC_WSTP	Browser Stop
KC_AUDIO_VOL_DOWN	KC_VOLD	Volume Down	KC_WWW_REFRESH	KC_WREF	Browser Refresh
KC_MEDIA_NEXT_TRACK	KC_MNXT	Next Track	KC_WWW_FAVORITES	KC_WFAV	Browser Favorites
KC_MEDIA_PREV_TRACK	KC_MPRV	Previous Track	KC_MEDIA_FAST_FORWARD	KC_MFFD	Next Track
KC_MEDIA_STOP	KC_MSTP	Stop Track	KC_MEDIA_REWIND	KC_MRWD	Previous Track
KC_MEDIA_PLAY_PAUSE	KC_MPLY	Play/Pause Track	KC_BRIGHTNESS_UP	KC_BRIU	Brightness Up
KC_MEDIA_SELECT	KC_MSEL	Launch Media Player	KC_BRIGHTNESS_DOWN	KC_BRID	Brightness Down
KC_MEDIA_EJECT	KC_EJCT	Eject	KC_CONTROL_PANEL	KC_CPNL	Open Control Panel
KC_MAIL		Launch Mail	KC_ASSISTANT	KC_ASST	Launch Assistant
KC_CALCULATOR	KC_CALC	Launch Calculator	KC_MISSION_CONTROL	KC_MCTL	Open Mission Control
KC_MY_COMPUTER	KC_MYCM	Launch My Computer	KC_LAUNCHPAD	KC_LPAD	Open Launchpad

Number Pad

Key	Aliases	Description	Key	Aliases	Description
KC_KP_SLASH	KC_PSLS	Keypad /	KC_KP_6	KC_P6	Keypad 6 and Right Arrow
KC_KP_ASTERISK	KC_PAST	Keypad *	KC_KP_7	KC_P7	Keypad 7 and Home
KC_KP_MINUS	KC_PMNS	Keypad -	KC_KP_8	KC_P8	Keypad 8 and Up Arrow
KC_KP_PLUS	KC_PPLS	Keypad +	KC_KP_9	KC_P9	Keypad 9 and Page Up
KC_KP_ENTER	KC_PENT	Keypad Enter	KC_KP_0	KC_P0	Keypad 0 and Insert
KC_KP_1	KC_P1	Keypad 1 and End	KC_KP_DOT	KC_PDOT	Keypad . and Delete
KC_KP_2	KC_P2	Keypad 2 and Down Arrow	KC_KP_EQUAL	KC_PEQL	Keypad =
KC_KP_3	KC_P3	Keypad 3 and Page Down	KC_KP_COMMA	KC_PCMM	Keypad ,
KC_KP_4	KC_P4	Keypad 4 and Left Arrow	KC_KP_EQUAL_AS400		Keypad = on AS/400 keyboards
KC_KP_5	KC_P5	Keypad 5			