

Switchboard Control Panel

— For Atem/OBS/vMix



Features

- One device for three purposes, can support ATEM series devices OBS software and vMix software control, support button customization.
- Multi-function switchboard control panel, ideal for audio and video live broadcasting system, audio and video recording system.
- Connected to ATEM switchers by LAN, and compatible with ATEM Software Control.
- 12 channels live streaming switcher, and supports 12 channels PGM +12 channels PVW live streaming switch.
- 40 physical buttons are integrated on control panel for switching of channels and effects.
- Built-in audio adjustment function, and up to 5 channels' audio volume can be adjusted by 5 knobs integrated on the control panel.
- Easy connection, and only 1 network cable is needed to connect ATEM equipment with PC; USB mode for docking with OBS; Optional USB mode or IP mode for docking with vMix.
- Stylish appearance, anodized aluminum alloy panel, and can be adapted to various environments.
- Tally function, and supports 24 channels Tally signals (12 channels PGM +12 channels PVW) outputs by DB25 interface.

Attention:

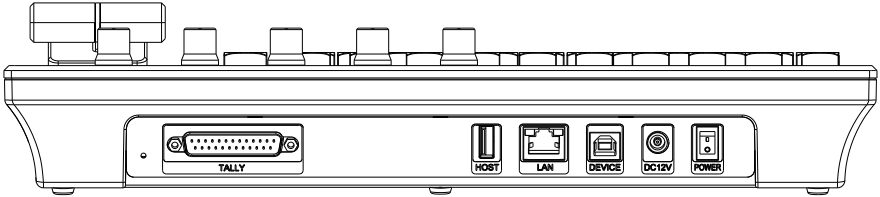
1. Our company does not provide Blackmagic ATEM Switcher/OBS/vMix equipment or software, and Customers need to buy related products by themselves;
2. Our company only sells switchboard control panel;
3. This switchboard control panel only provides quick operations for Blackmagic ATEM switchers/OBS/vMix software, but cannot implement function that Switchers do not have;
4. Our company will provide you a file of a well-defined key function template for you to import into vMix software when you purchase this product, customers can also redefine key function according to your own needs, for specific definition of key functions, you can refer to: Add key shortcuts;
5. To learn more about the functions of ATEM /OBS/ vMix software, please download its related product manuals from Blackmagic's official website, which will help you better understanding the application of this switchboard control panel.

Input & Output Connector

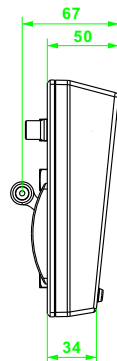
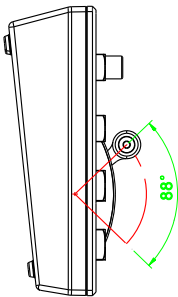
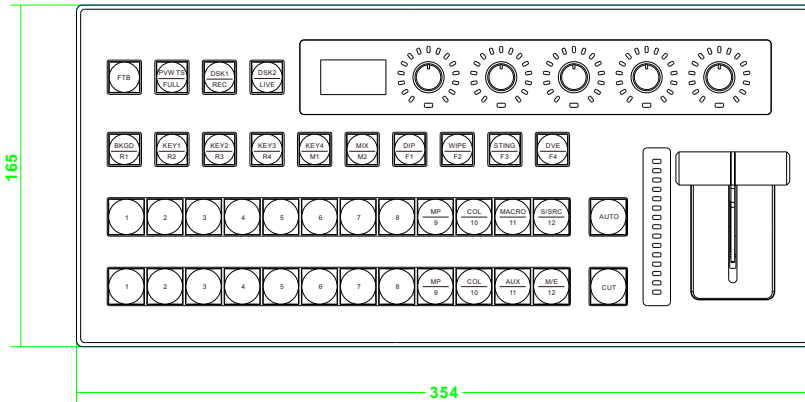
Power supply: DC12V (8~20V) 1000mA

ATEM mode: RJ45 output (LAN)

vMix/OBS mode: USB output: USB2.0 HID protocol(USB Audio Device)

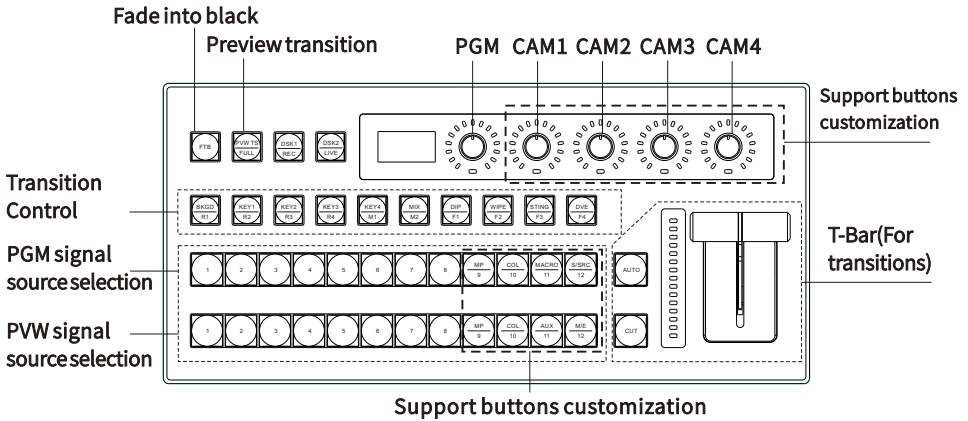


Overview



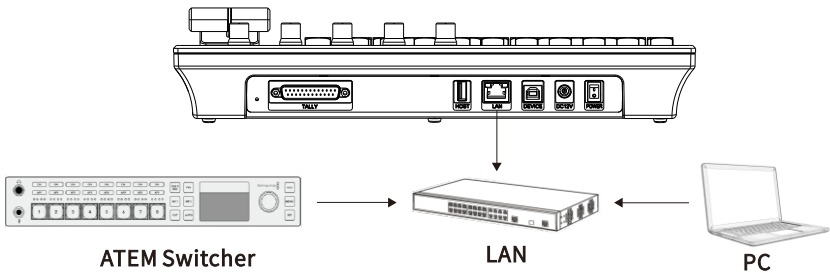
ATEM Mode Instructions

Button/ Panel Introduction

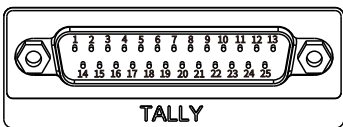


Equipment Connection Diagram

As the image shown, get the control panel, ATEM switcher equipment, and the computer (with ATEM Software Control installed) connected to same LAN by network cables;



Tally Line Sequence Diagrams



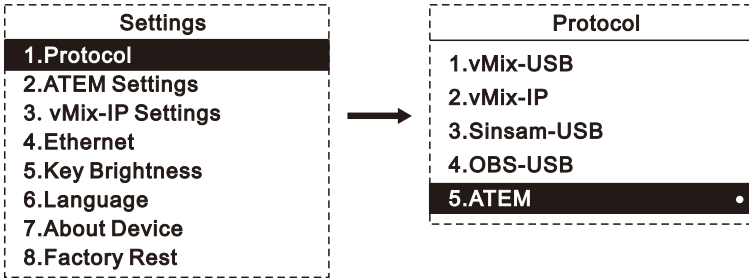
No.	Function	No.	Function
1	GND	14	PVW_TY12
2	PGM_TY12	15	PVW_TY11
3	PGM_TY11	16	PVW_TY10
4	PGM_TY10	17	PVW_TY09
5	PGM_TY09	18	PVW_TY08
6	PGM_TY08	19	PVW_TY07
7	PGM_TY07	20	PVW_TY06
8	PGM_TY06	21	PVW_TY05
9	PGM_TY05	22	PVW_TY04
10	PGM_TY04	23	PVW_TY03
11	PGM_TY03	24	PVW_TY02
12	PGM_TY02	25	PVW_TY01
13	PGM_TY01		

Menu Control

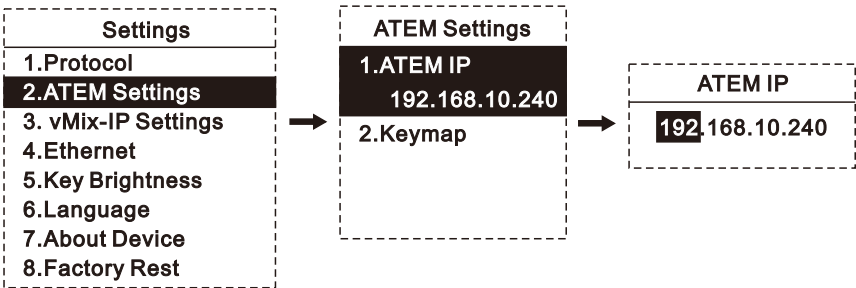
Long press the PGM audio knob to enter the menu interface, rotate the PGM knob to control the cursor up, down, left, right, and short press to confirm; CAM audio rotates to control the digital adjustment, and short press to exit the previous menu.

Menu Settings

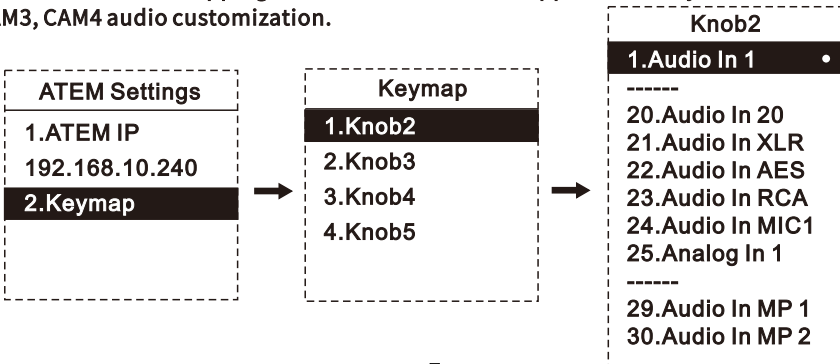
1、 Mode selection: Long press the PGM audio knob to enter the main menu interface, as shown in the picture below, adjust the knob to the first item Protocol, short press the PGM audio knob to confirm the mode selection (default is ATEM mode).



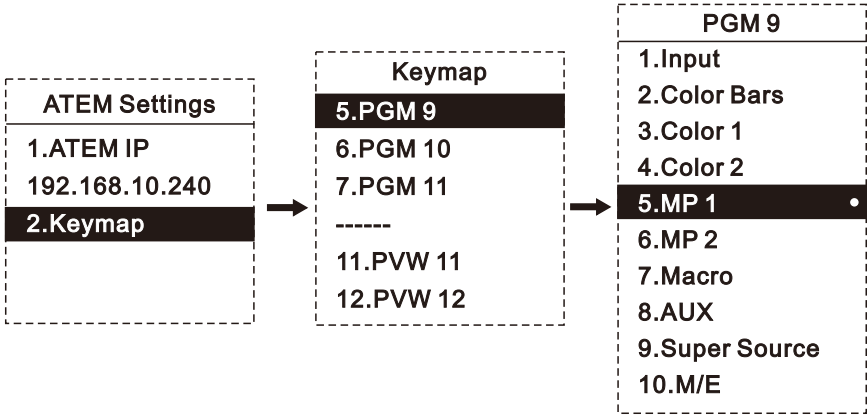
2、 ATEM IP setting: After step 1 is completed, short press the CAM1 audio knob to return to the main menu, use the PGM knob to adjust to the second item ATEM Setting, and short press the PGM audio knob to confirm to enter this option. Set the network IP of the ATEM switcher to be connected (please refer to the ATEM device operation manual for the network IP configuration of the ATEM switcher).



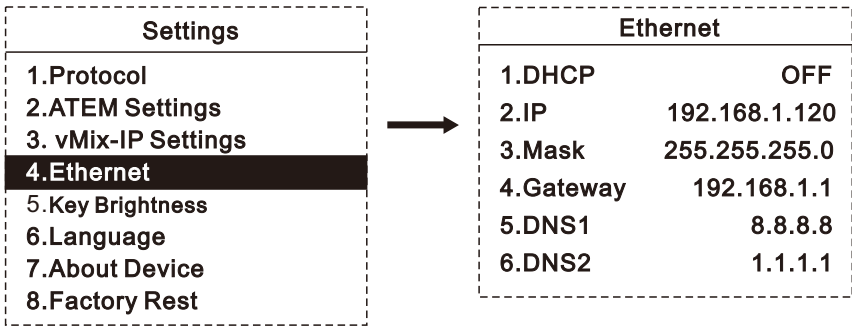
3-1、 Audio button mapping function introduction: support four-way volume CAM1, CAM2, CAM3, CAM4 audio customization.



3-2、 Introduction of button customization functions: support eight-way buttons PGM9, PGM10, PGM11, PGM12, PVW9, PVW10, PVW11, PVW12 button customization.



4、 Network Configuration.



5、 Short press the CAM1 audio knob to exit main menu, and the configuration will be completed.

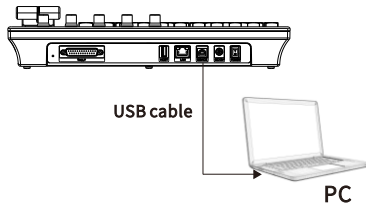
Operation By Switchboard Control Panel

After the network information is configured and worked out well, the control panel will be automatically connected to the ATEM switcher and keep communicating. The light status of the button panel will be synchronized with the current status of the ATEM switcher, and the operations on the control panel and ATEM will be synchronized all the time.

OBS Mode Instructions

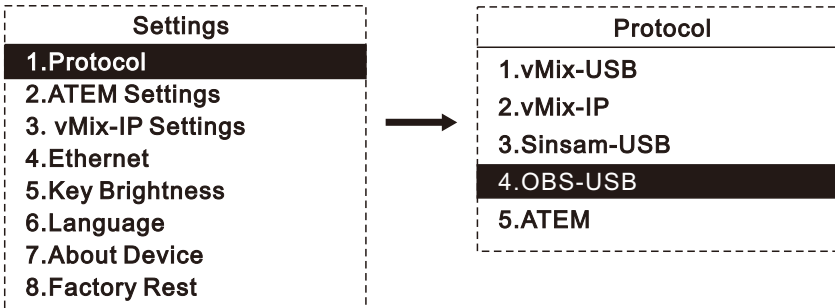
Equipment Connection Diagram

As shown in the picture, directly connect the keyboard and the computer with OBS software installed through a USB cable.



Menu Settings

1. Mode selection: Long press the PGM audio knob to enter the main menu interface, as shown in the picture below, adjust the knob to the first item Protocol, short press the PGM audio knob to confirm the mode selection (default is ATEM mode).



Notice before further operation:

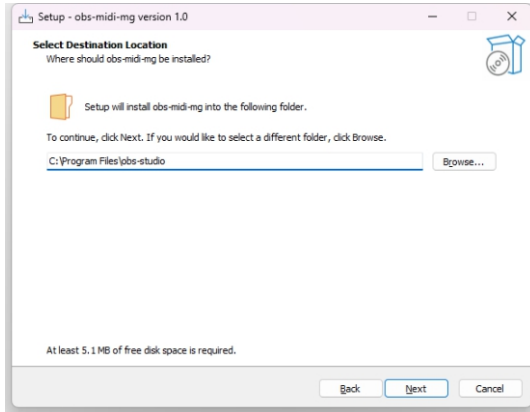
1. It is a **MUST** to use OBS version V29.0.2.(other OBS version maybe have compatibility issue)
2. Please disable all the firewall & antivirus software before OBS plugin installation.

OBS plugin installation

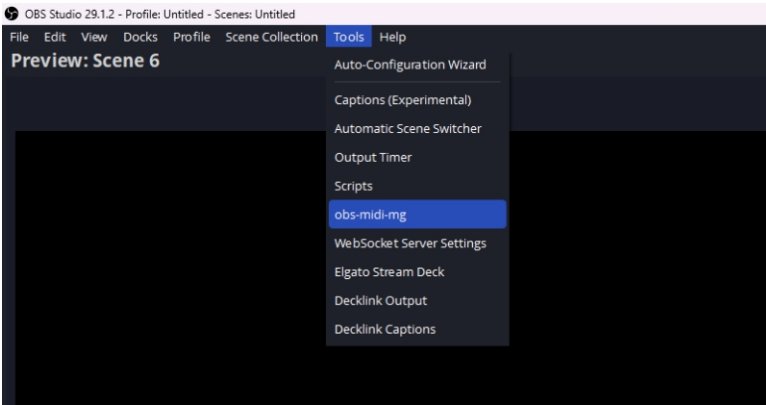
1. please install the plugin 1stly.

1.1 get the plugin installation file.

1.2 install the plugin to the OBS installation destination as below shown.



2. after that, you will find a new option named obs-midi-mg as below image shown.



3. reboot OBS to get it worked. After that, connect the KD50 to this PC with an USB cable.

Default buttons' function



(From left to right)

Part 1: Fade to Black, Studio Mode Toggle, Start/Stop Recording, Start/Stop Streaming.

Part 2: no function, PVW Volume, PGM Volume, Video Capture Volume, Desktop Volume.

Part 3: Rotate 90° Clockwise, rotate 90° Anti-Clockwise, Center to Screen, Fit to Screen.

Part 4: PVW Media Source Play/Pause, PGM Media Source Play/Pause.

Part 5: (Transition Effects) Fade, Swipe, Luma Wipe, Fade to colour.

Part 6: PVW scenes switch buttons.

Part 7: Scenes Sources switch buttons.

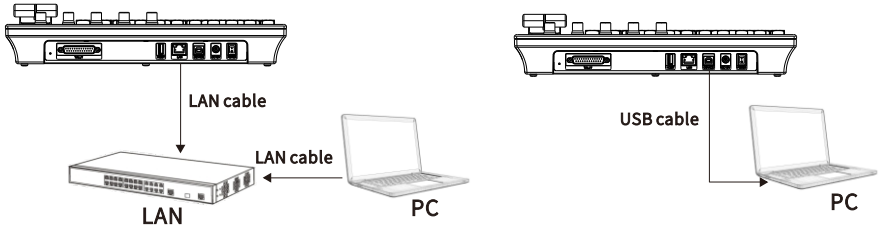
Part 8: Transition buttons.

Part 9: T-bar for PGM/PVW transition.

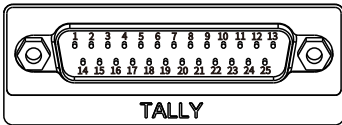
vMix Mode Instructions

Equipment Connection Diagram

As shown in the picture, connect the keyboard and the computer with vMix software installed to the same local area network through a network cable; or directly connect the keyboard and the computer with vMix software installed through a USB cable.



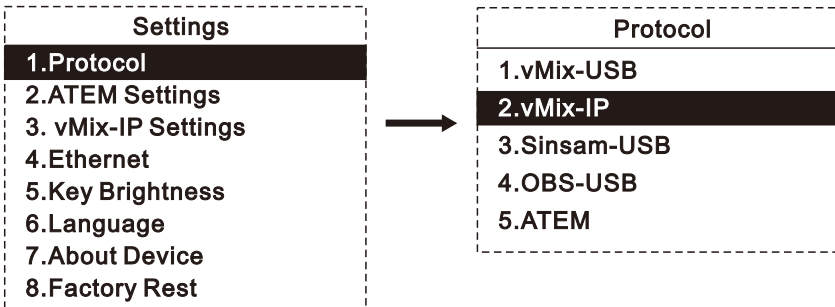
Tally Line Sequence Diagrams



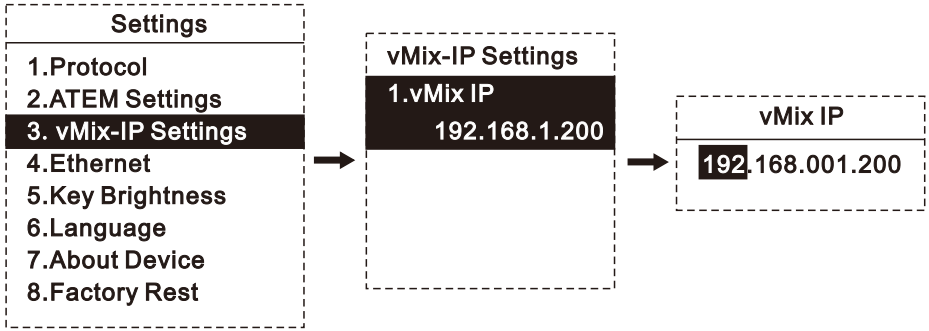
No.	Function	No.	Function
1	GND	14	PVW_TY12
2	PGM_TY12	15	PVW_TY11
3	PGM_TY11	16	PVW_TY10
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6	PGM_TY08	19	PVW_TY07
7	PGM_TY07	20	PVW_TY06
8	PGM_TY06	21	PVW_TY05
9	PGM_TY05	22	PVW_TY04
10	PGM_TY04	23	PVW_TY03
11	PGM_TY03	24	PVW_TY02
12	PGM_TY02	25	PVW_TY01
13	PGM_TY01		

Menu Settings

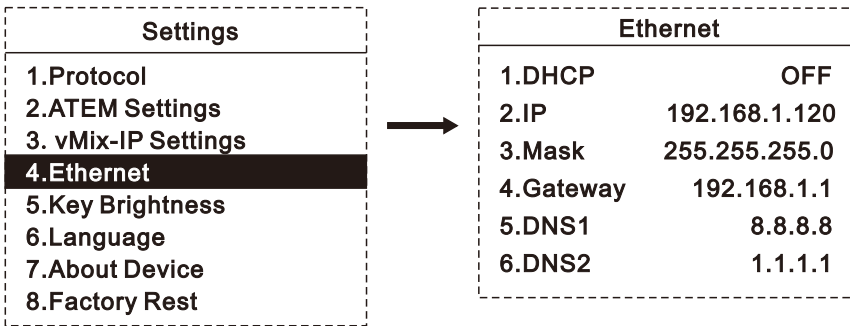
1. Mode selection: Long press the PGM audio knob to enter the main menu interface, as shown in the picture below, adjust the knob to the first item Protocol, short press the PGM audio knob to confirm the mode selection (default is ATEM mode).



2、vMix IP setting: After step 1 is completed, short press the CAM1 audio knob to return to the main menu, use the PGM knob to adjust to the third item vMix-IP Setting, and short press the PGM audio knob to confirm to enter this option. Set the vMix network IP (please refer to the "Web Control" of the vMix client for the network IP of vMix)



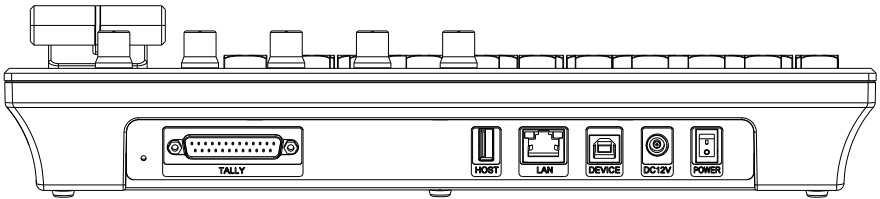
3、Network Configuration



1. Computer recognition of switchboard control panel device.

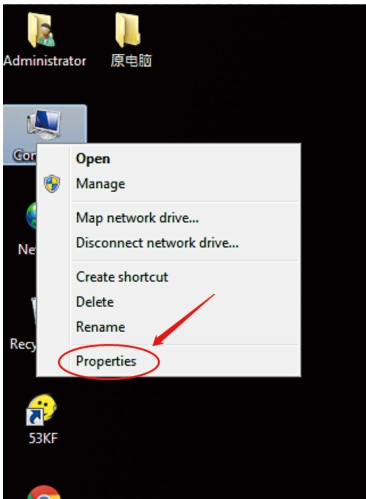
1-1. Connect to computer

A computer with vMix software installed; when using the control panel for the first time, please connect the controller with USB cable to computer first before opening the software, USB interface can be powered separately, can also use external 12V power supply;

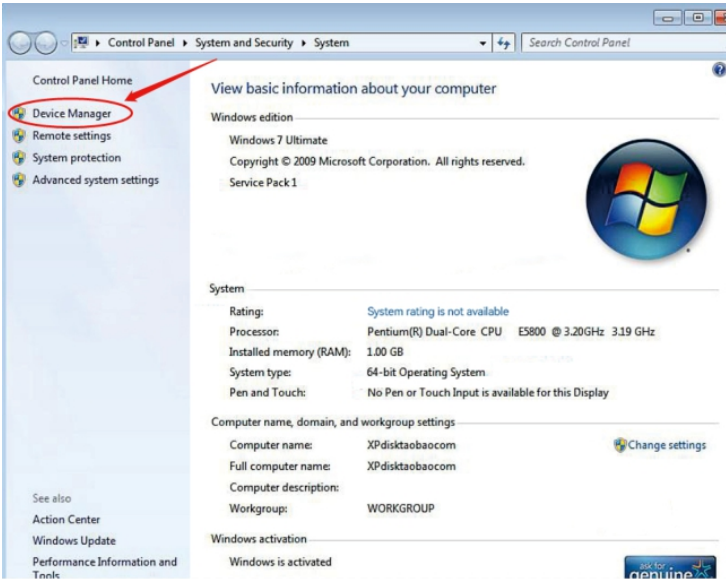


1-2. Whether the control panel is successfully recognized by the computer

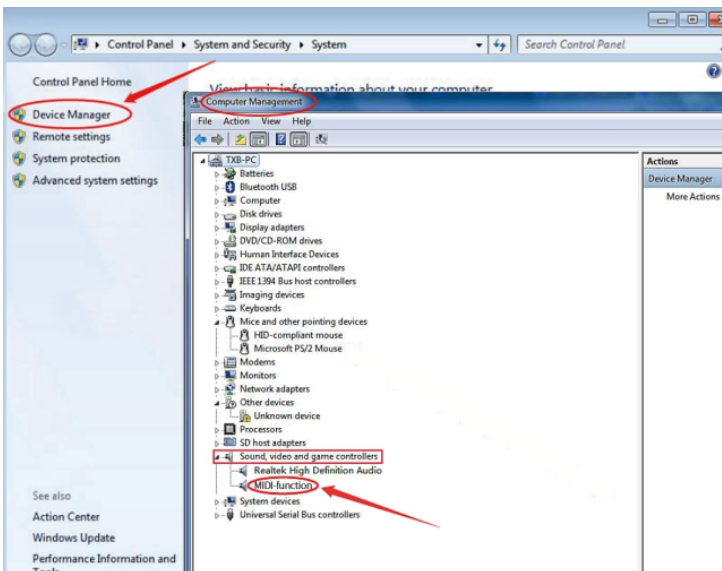
1-2-1. Click " Computer " icon on the desktop, and right click " properties " ;



1-2-2. Click on " Device Manager " ;

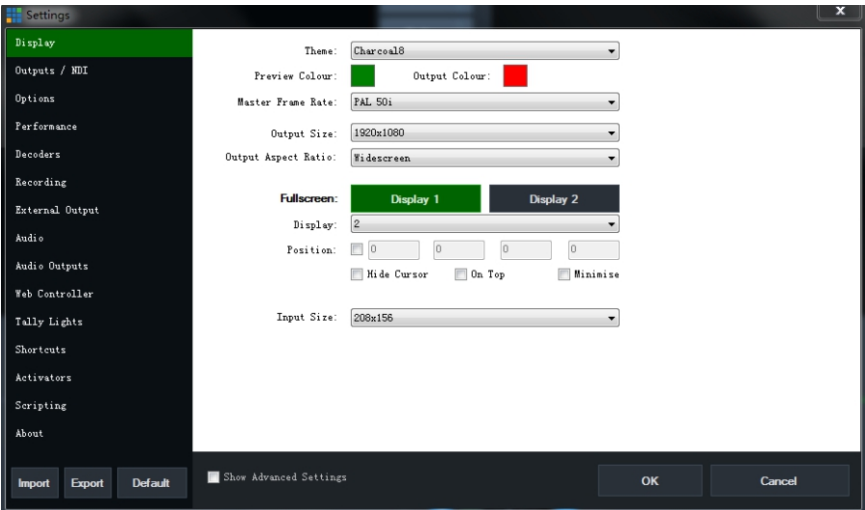
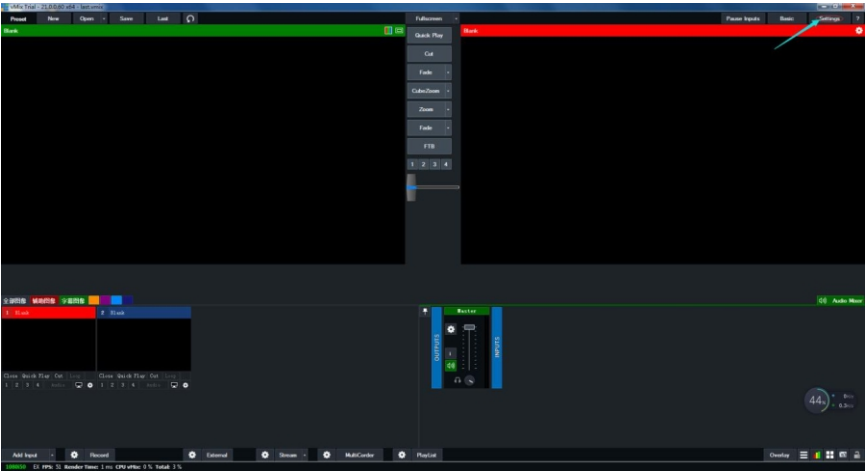


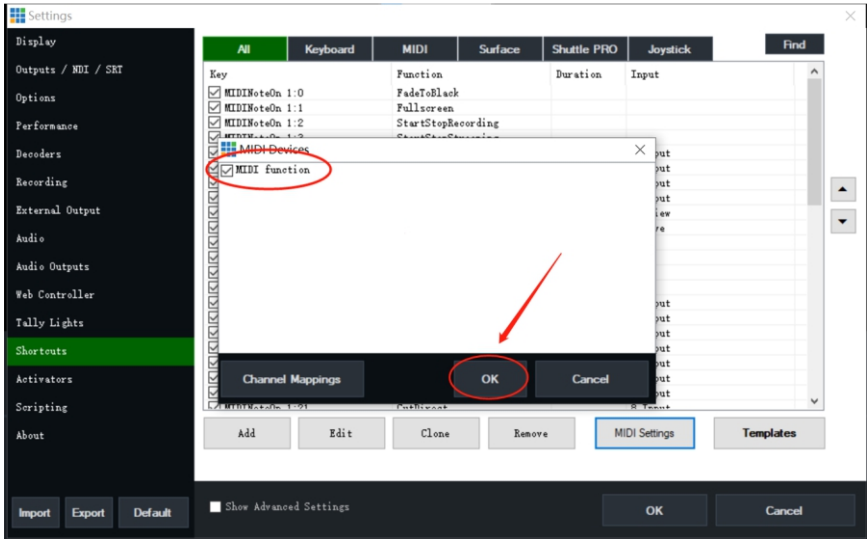
1-2-3. Find " sound, video and game controller " in device manager, if you find " MIDI-function " in lower menu, indicating that the device has been recognized by the computer; our device driver name " MIDI-function " ;



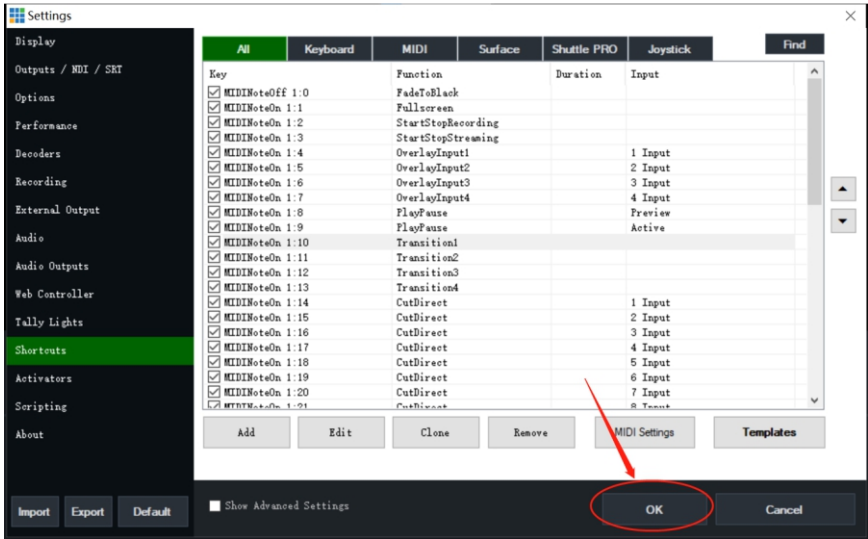
2.Recognized by vMix software.

2-1.Open vMix software and click "settings";



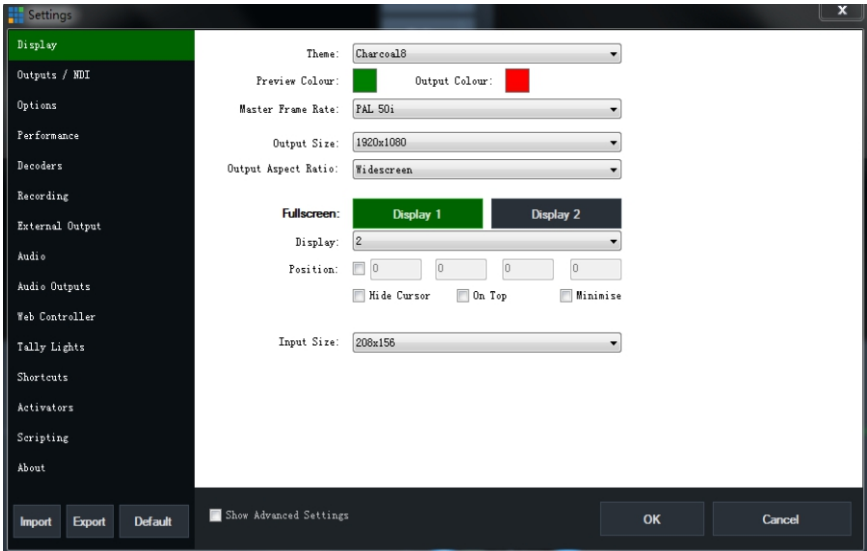
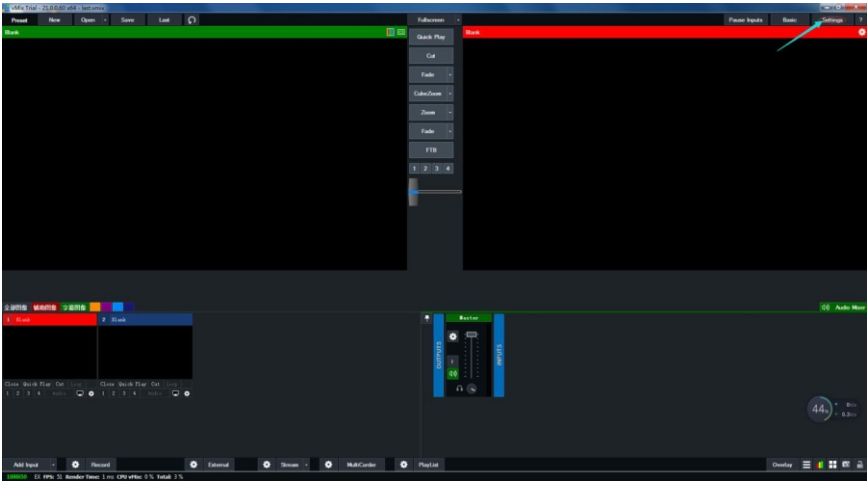


2-4. Confirm "ok" again, and return to the current operation interface;

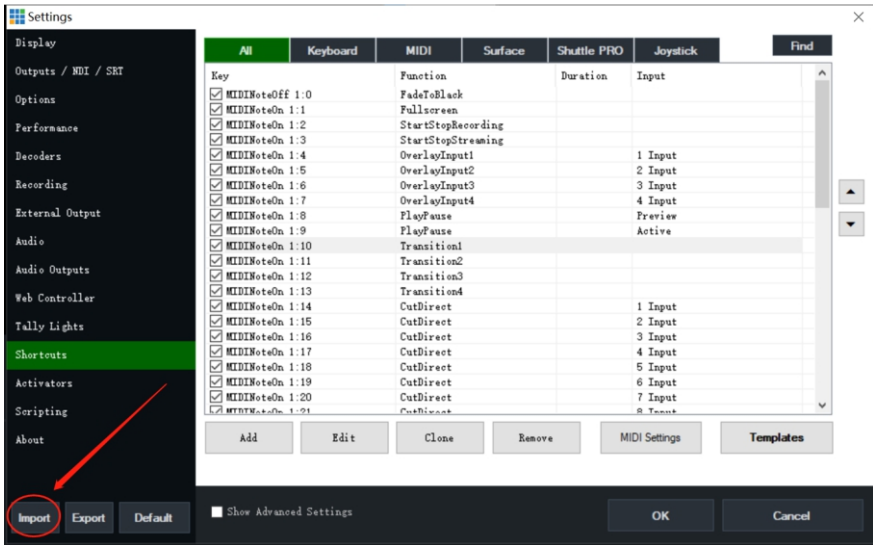


3. Import shortcut key templates.

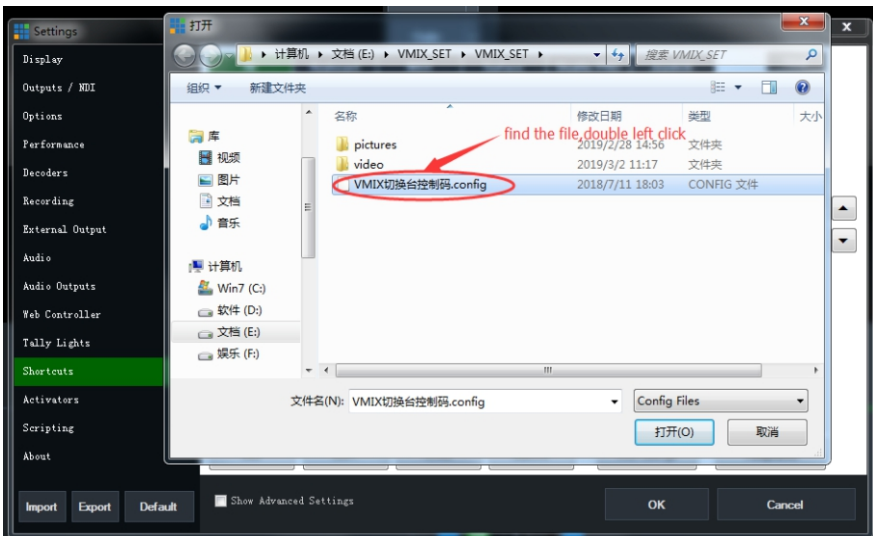
3-1. Open vMix software and click " settings "

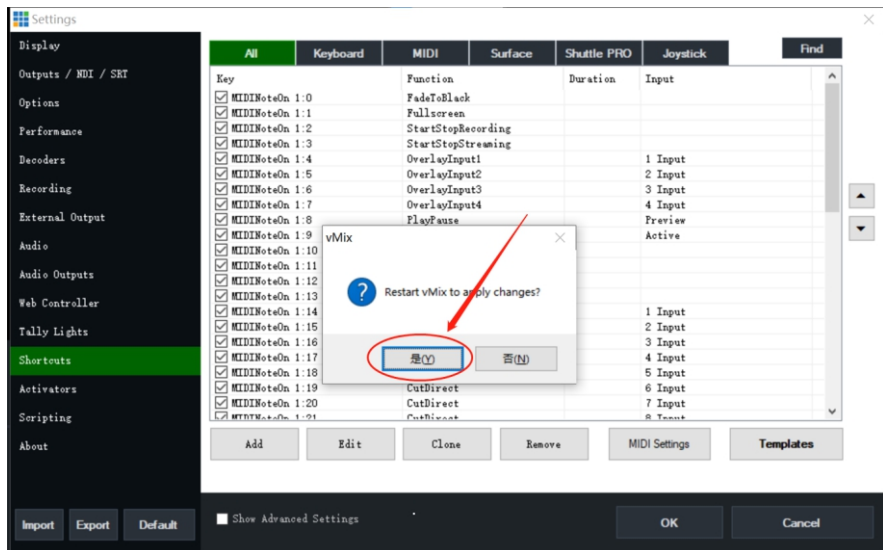
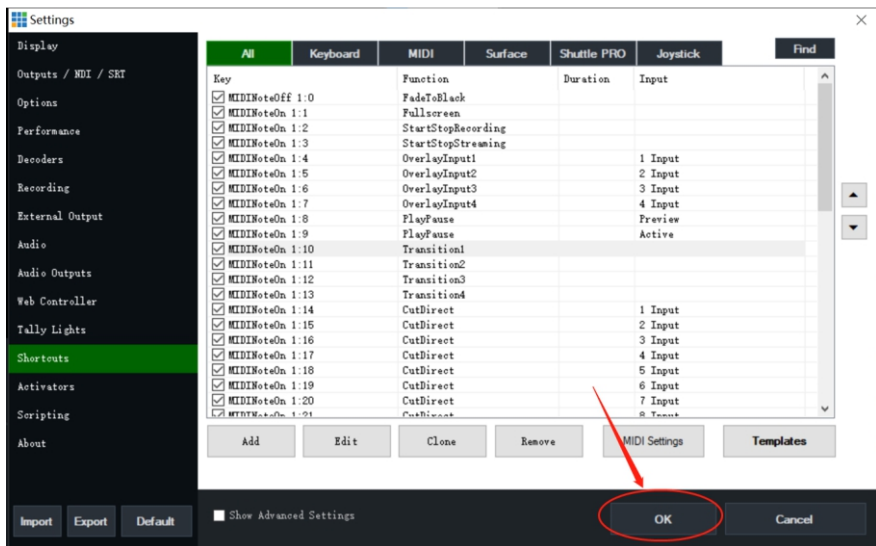


3-2. Click " Shortcuts " and then " Import " to see the file entry;

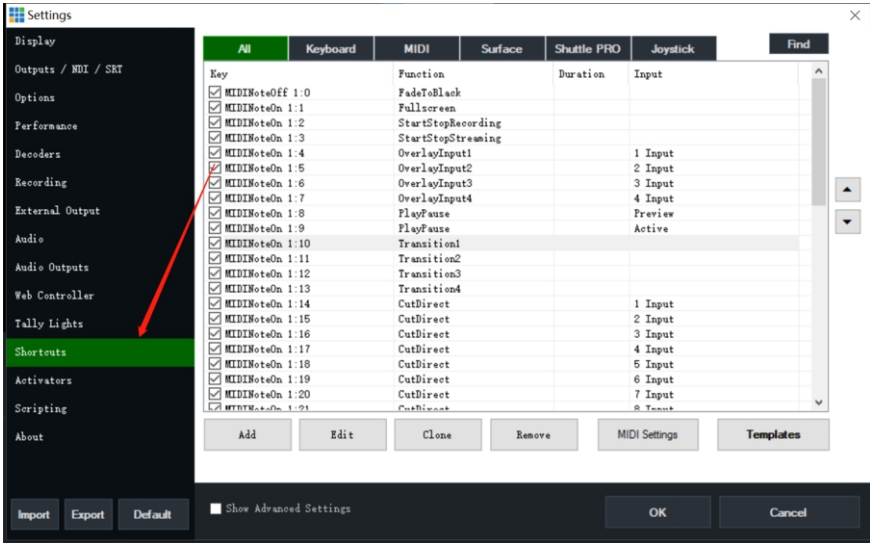


3-3. Find the path to file, double click(choose)the file, click " OK ". A pop-up dialog box occurs then click " OK " again to restart vMix software, at this timethe shortcut key templates are imported successfully;

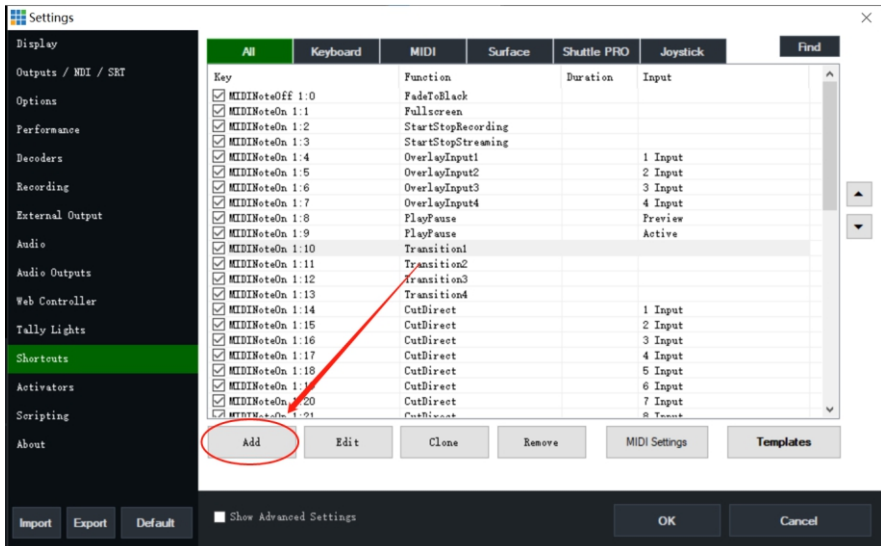


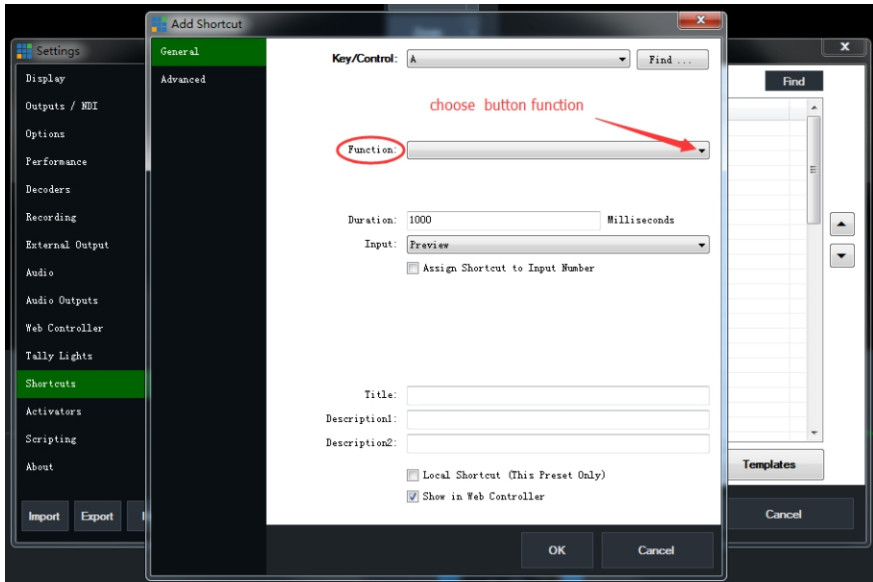


4-2. Click Shortcuts;

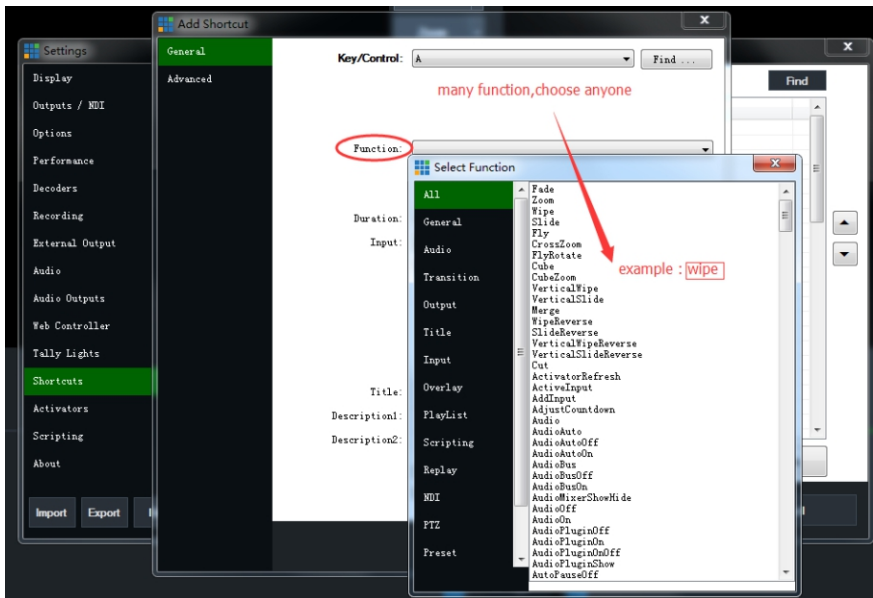


4-3. Click the " Add " button and select the function to be added;

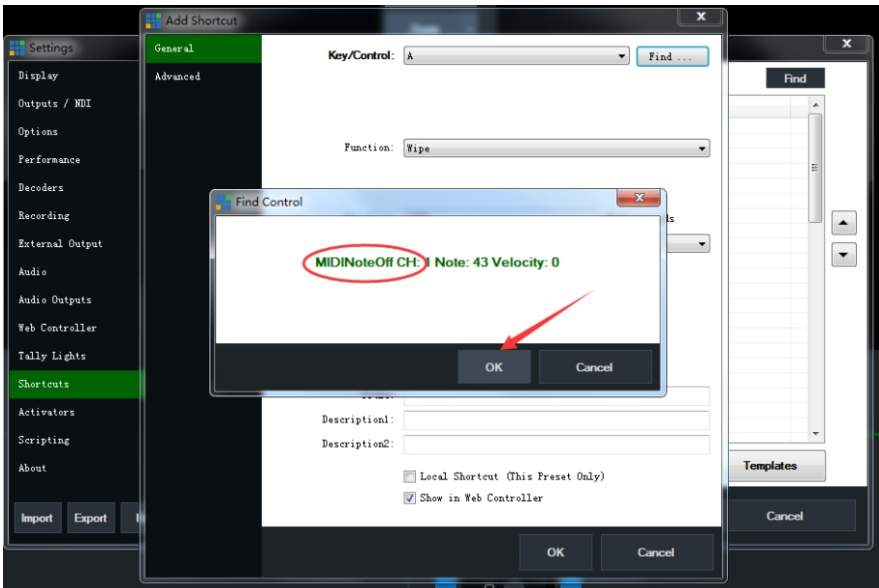
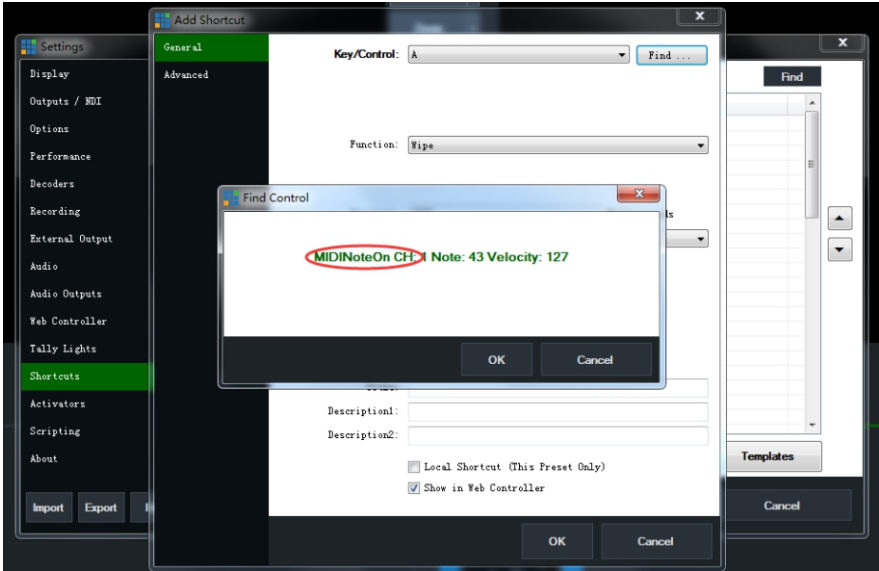




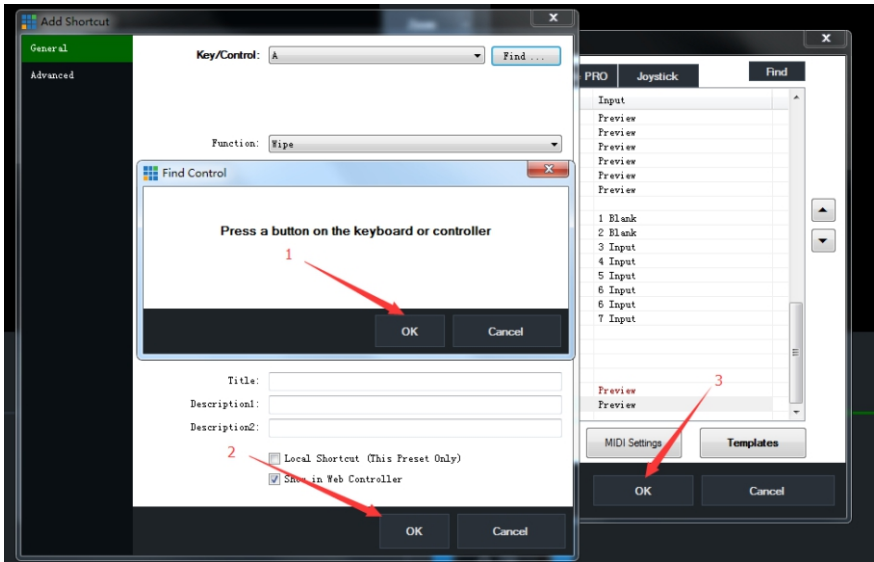
4-4. For example: how to achieve Wipe transition effect by shortcut;



4-4-1. Click " Find " , and a dialog box will pop up, prompting: press 1 button on the control panel; press and hold 1 button of the function to be set, the dialog box will display the information: MIDINoteOn CH.....; if you release the button there will also be a prompt message: MIDINoteOff CH.....; at this time the button has been recognized by software, click " OK " ;

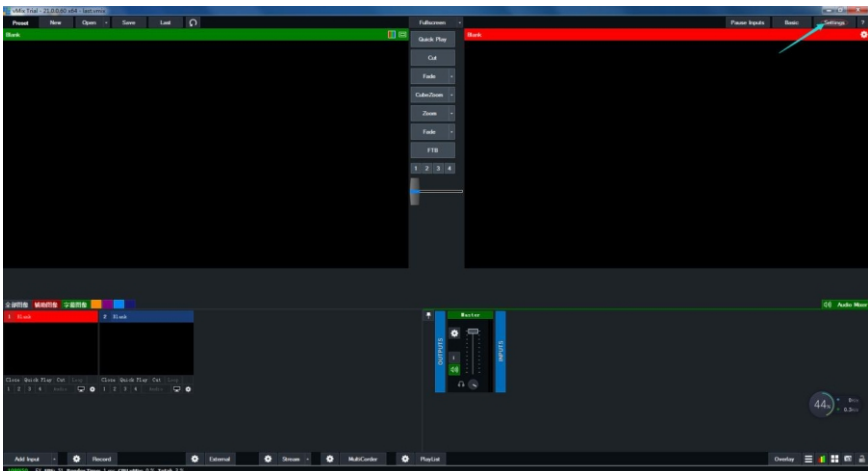


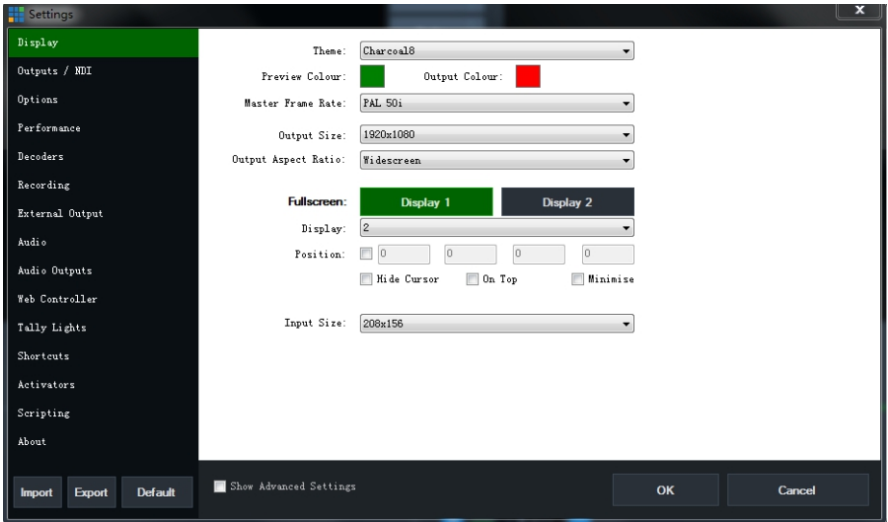
4-4-2. Click " OK " in the order of 1, 2, 3 respectively; the button has been defined as a " Wipe " special effect, which can demonstrate the function of defining the button;



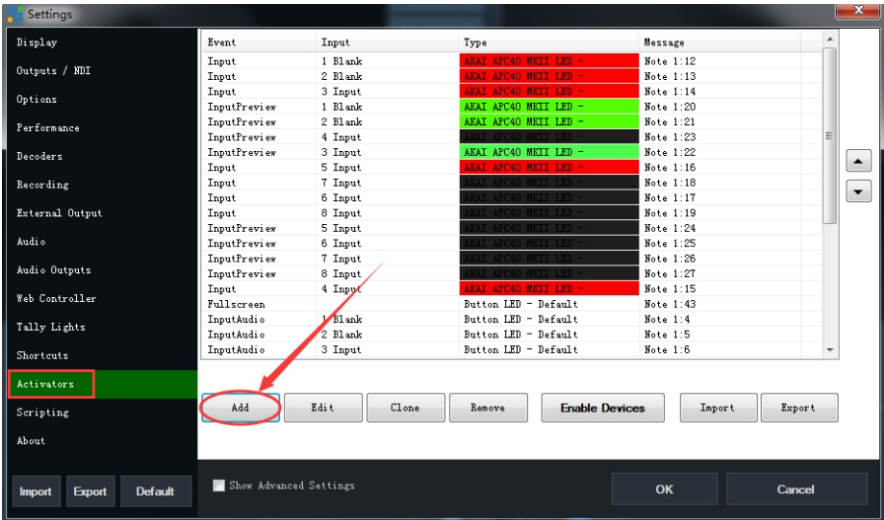
5. Set the control of button indicator.

5-1. Open vMix software and click " settings " ;

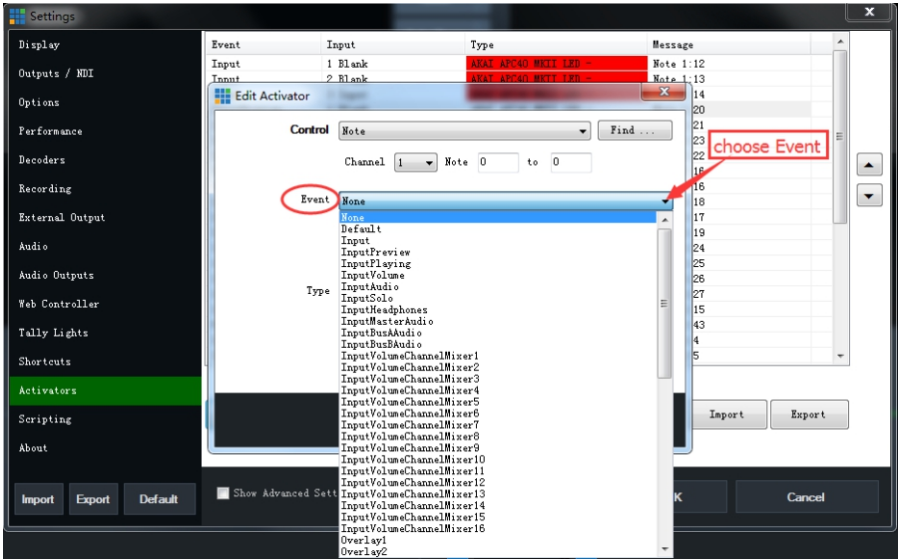




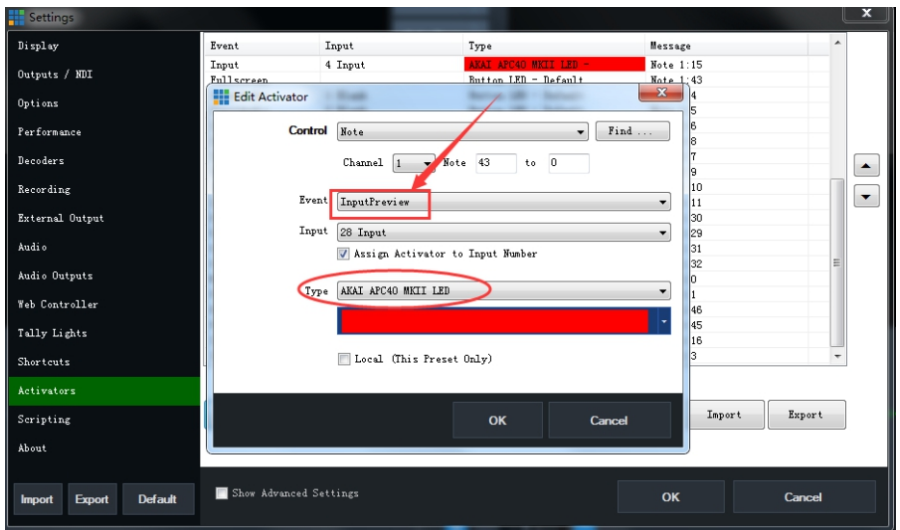
5-2. Click " Activators ", then click " Add " to choose the function;



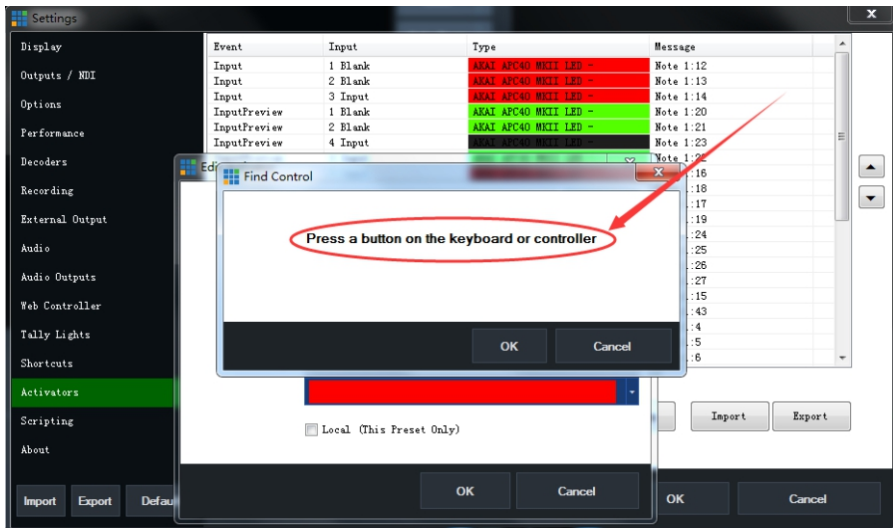
5-3. Click "Event", choose the event in below menu;



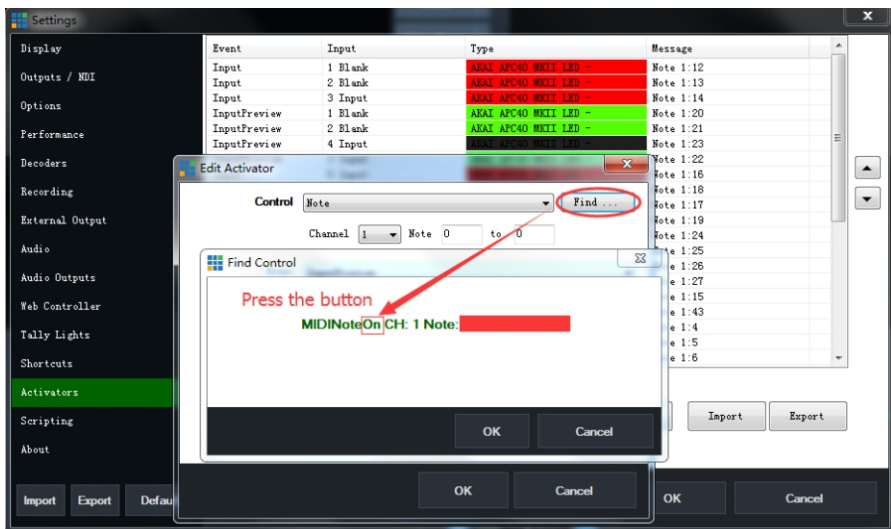
5-4. Event input and add more types;

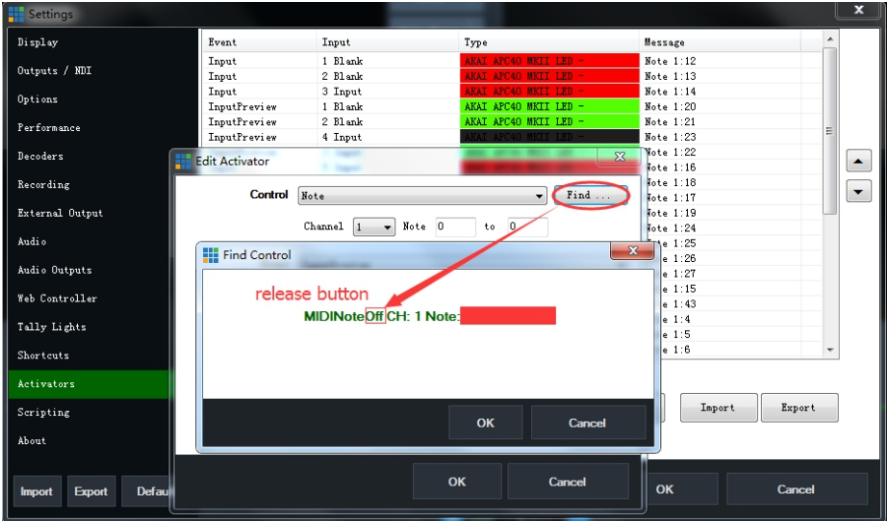


5-5. Click " Find ", a dialog box will pop up, prompting you to press a switcher button;



5-6. Press and hold a button, the dialog box will display: MIDINoteOn CH..., the button will also display: MIDINoteOff CH...when the button is released; at this time the button has been recognized by the software, click " OK " ;





5-7. Click ok for three times in the window, the button lights will be controlled by the computer after operation;

