How to configure the Auxiliary Screen on an NVR



Function Overview

Auxiliary Screen enables different outputs on two monitors. Users can operate on the main screen and watch video on the secondary screen at the same time. If two monitors are connected to the NVR, the output images on both screens are duplicated by default. Users need to go to System > Auxiliary Screen to enable it.

Please verify whether the secondary screen feature is supported on the NVR/XVR. You may refer to the product specifications. Some models have 1 HDMI and 1 VGA, while some models have dual HDMI and can use the auxiliary screen by HDMI 1 and HDMI 2. When both HDMI and VGA are connected to a monitor, the HDMI port is set as the main display (where the mouse can be used), and the VGA port is set as the auxiliary display. For models with two HDMI ports, HDMI 1 is the main display and HDMI 2 is the auxiliary display.

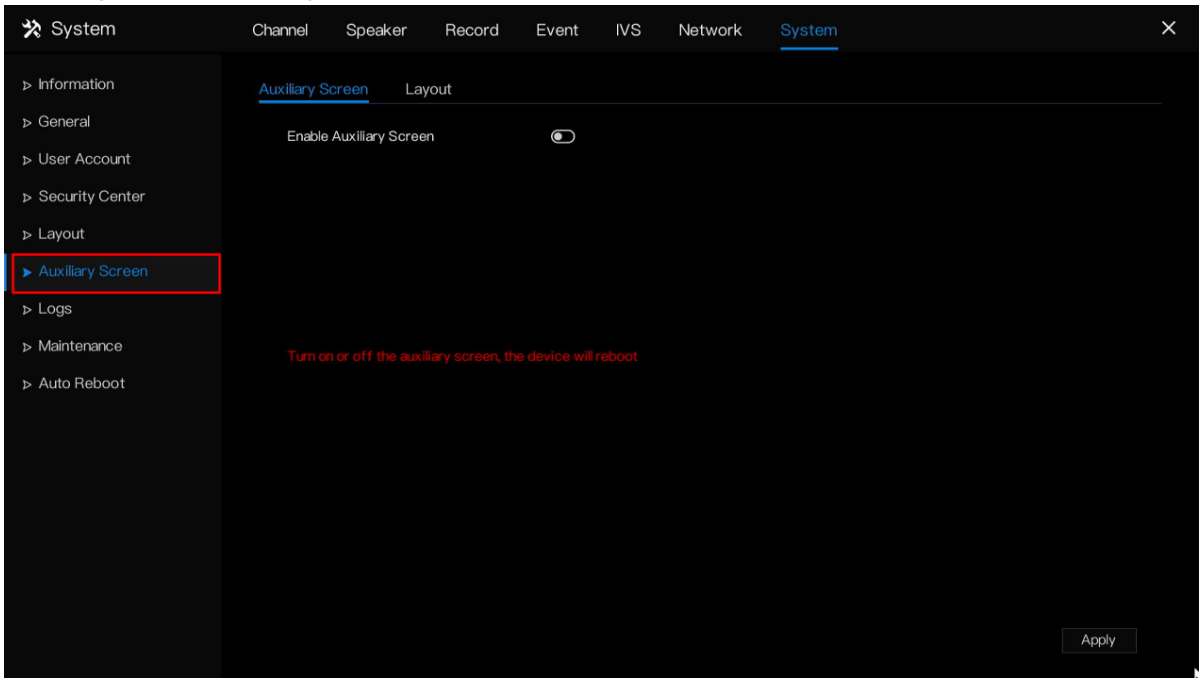
Support Auxiliary Screen Products:

- XVR: XVR3832, XVR3916 Series
- NVR: NVR3808, NVR3816, NVR3832 Series, NVR3904, NVR3908, NVR3916, NVR3932, NVR3964, NVR39128 Series

Important Note: The auxiliary screen can be configured on the local UI only, not available on the web UI.
In this article, we use SN-NVR3808E1-P8-J (III) as the example, which has 1 HDMI port and 1 VGA port.

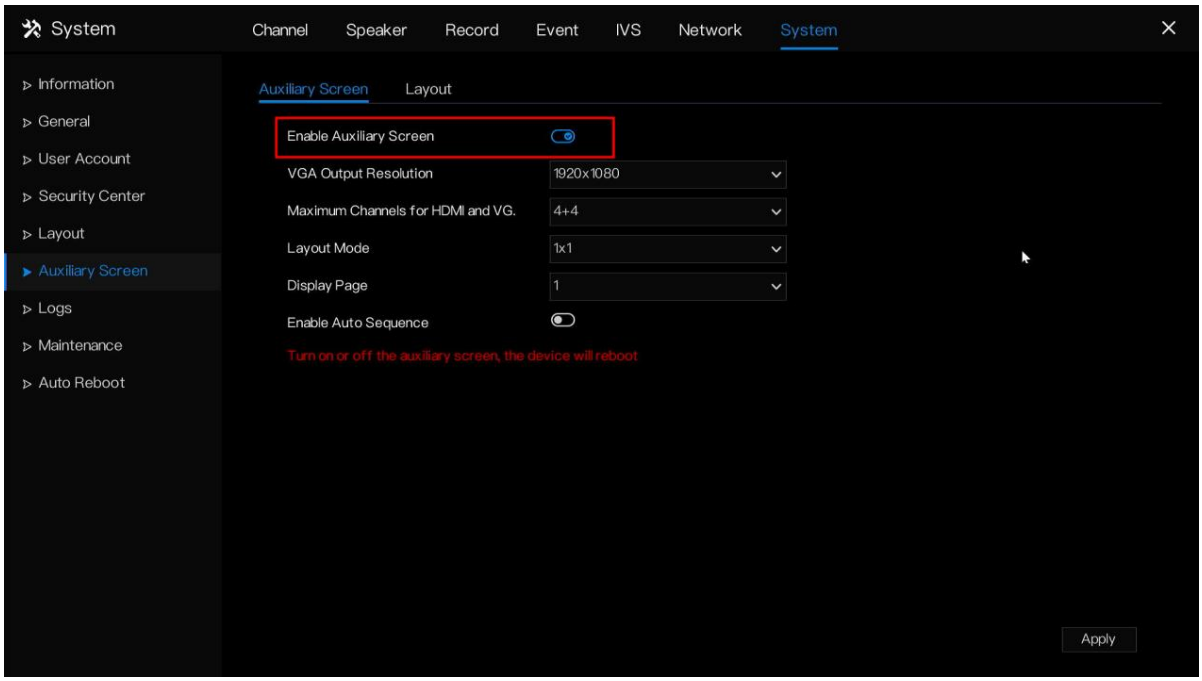
NVR Local Configuration

1. Go to System > Auxiliary Screen.

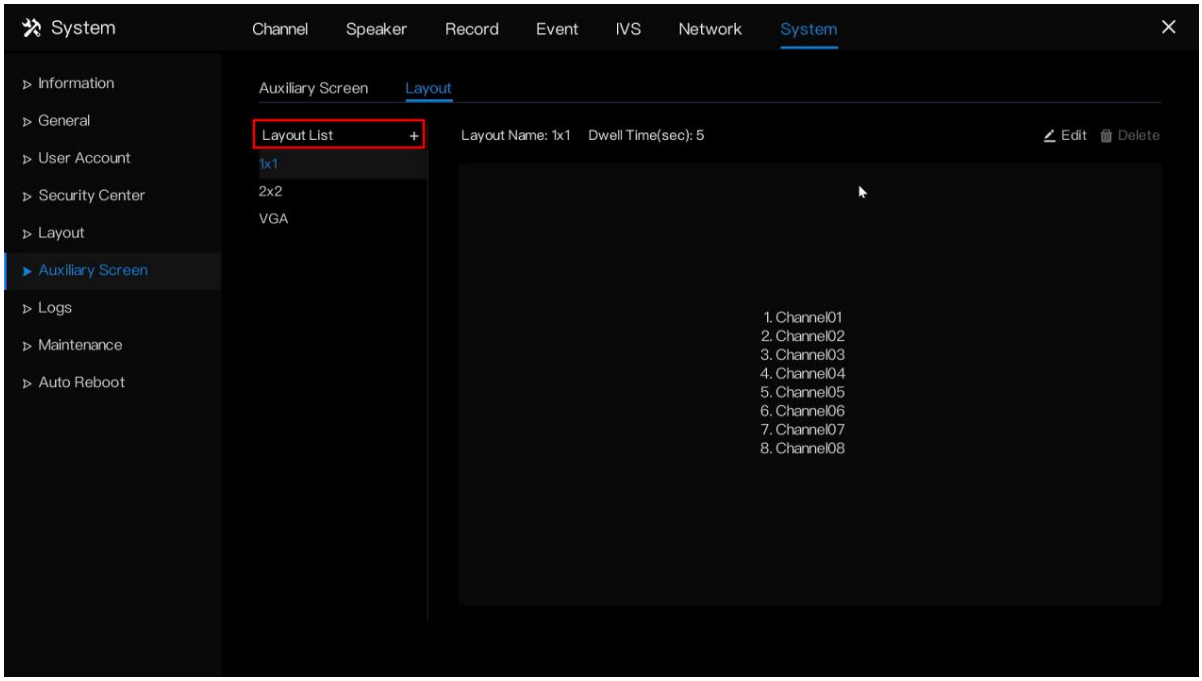


Enable the auxiliary screen function. After clicking Apply to save the changes, the NVR will restart automatically. Do not disconnect the power.

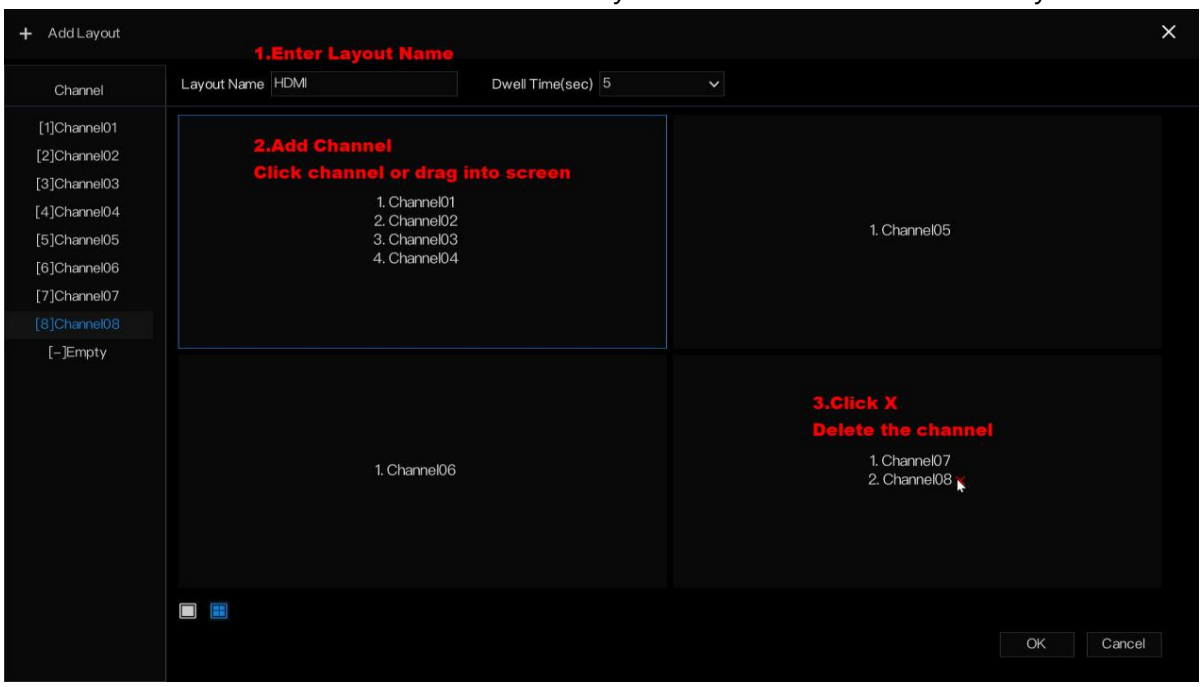
- **VGA Output Resolution:** Resolution of the VGA auxiliary screen output. Supports 1920x1080, 1280x1024, 1024x768 resolution by default
- **Maximum Channels for HDMI and VGA:** Limit the number of decoding channels available for the main and auxiliary screen. In some models, the main screen supports 1/4/8/9, while the auxiliary screen may only support 1/4. Setting this value too high may exceed decoding capacity, resulting in a black screen or frame drops.
- **Layout Mode:** Set the layout. User can customize and add layout modes. The default layouts are 1x1 and 2x2.
- **Display Page:** When a layout contains multiple pages (for example, a 16-screen layout with 2 pages), the user needs to set the default page where the secondary screen stops.
- **Enable Auto Sequence:** Enable the Auto Sequence feature to automatically play the camera feed. The dwell time for the main screen can be configured in System > Layout.



2. Go to System > Auxiliary Screen > Layout. Click + to create a new layout for secondary screen and customize the camera channel display layout.



3. Name the new layout. Click a channel on the left or drag it to the layout screen to add it. Click the x next to a channel to remove it from the layout. Click OK to save the new layout.



4. After saving the new layout, select it in the Auxiliary Screen layout options.

Important Note: After the initial configuration is saved, the NVR will automatically restart. Ensure a stable power supply during the restart.

Verification Steps: After restarting, the main screen should return to the standard preview interface (with the menu bar), while the auxiliary screen should display only the layout you selected (without the menu bar). If the auxiliary screen still looks the same as the main screen, it means the auxiliary screen was not enabled successfully, or the wrong layout was selected.

Troubleshooting common issues:

- **Black screen on the auxiliary display:** Check that the VGA cable is securely connected. Go to System > Auxiliary Screen to confirm that the feature is enabled. Try manually lowering the VGA resolution by one level.
- **Stuttering or missing channels on the auxiliary display:** Reduce the value in Maximum Channels to ensure the total number of decoded channels on both the main and auxiliary displays do not exceed the device's capacity.