

Configuring Nvidia Surround/Mosaic SimVisuals 2

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Introduction	2
Nvidia Surround	2
Maximising windows across the entire display	4
Nvidia Mosaic	5

Introduction

Nvidia Geforce GTX and RTX graphics cards allow you to use a feature called **Surround** to group multiple graphics card outputs into one seamless spanned display. Nvidia Quadro cards call this feature **Mosaic** which has slightly different benefits and use cases.

Nvidia Surround

When using Nvidia Geforce graphics cards, you will need to set up Nvidia Surround to use desktop applications with SimVisuals 2.

Right-click on the desktop and click **NVIDIA Control Panel**, otherwise, open the start menu and search for **NVIDIA Control Panel**.

Under 3D Settings, click Configure Surround, PhysX

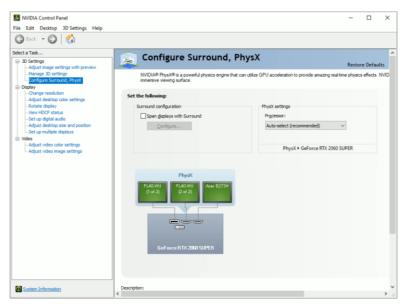


Figure.1. Nvidia Control Panel – Geforce Graphics Card

Click the checkbox Span Displays with Surround, then click Configure.



Note: There may be some apps that Nvidia Control Panel requires you to close before proceeding, once you have closed the apps, click **Continue**.

		2
Displays Topology: i×2 Deplays: Geforce RTX 2060 SUPER □LF.40 •VU □.3.Acer 8273+1 2 Deplays are selected.	Resolution Resolution: @99 x 1080 V E ² Refresh Rate: @9 Hz V	Bezel Correction Bezels: V1 0 + 00

Figure.2. Nvidia Surround Configuration

Select the **Topology** that your projectors are laid out in, this is represented by rows and columns. In our example, we have two projectors side-by-side, 1 row with 2 columns, 1 x 2.

Next, select the checkboxes next to the displays/projectors that form a part of your overall system.

In the resolution section, attempt to select a multiple of your projector's native resolution. In our example, the projectors are 1920x1200, we have 2 columns, the native resolution is 3840x1200.

Drag the displays so the numbering matches the identifiers shown across each projector.

Click Enable Surround.

Note: In some cases, Nvidia Surround will select a default resolution which may not be native for your projectors and you may not have any other options in the dropdown box, we can resolve this issue in the following step.

	Add or remove resolutions	
	Choose Surround resolutions	
	Inactive: Active: 3460 + 1000 3501 + 1050 3200 + 1024 3300 + 1024 3200 + 1024 3200 + 2000 3200 + 2024 3200 + 2000 2202 + 758 2204 + 964 22563 + 800 2565 + 800 2560 + 800 ✓	
Resolution:	Restore It is see bezel-corrected resolutions, activate bezel correction with the wizard.	
4096 × 1080 V E		

Figure.3. Nvidia Surround Resolution Selection



Now that surround is enabled, there should be more options in the dropdown box, if not, click the **+/-** button next to the dropdown. Select your projector's native resolution multiple, and use the right arrow button to add it to the **Active** list.

IDIA Set Up Surround		×
1	Surround is emailed	2
Displays	Resolution	Bezel Correction
Topology: 1 × 2 ~	Resolution: 4096 × 1080 ~ 4096 × 1080	Bezels: V1 0 ÷ 00
Deplays: Geforce TX 2060 SUPER ☑ 1.F.40-WU ☑ 2.F.40-WU ☑ 3.Acer 8273+ <	Big 0 1200 (#commended) 200 # 1200 1200 200 # 1200 1200 201 # 100 1200 137 # 1080 1300 1400 # 1050 1200 1500 # 1200 1200 1500 # 1200 1200 1500 # 1200 1200 1500 # 1200 900 1400 * 1050 1200 1200 # 1200 1201 1200 # 1000 1200 1200 # 960 1200 1200 # 960 1200	
Keyboard Shortcuts	1280 × 720 1152 × 864 1024 × 768	Disable Surround Apply Cancel

Figure.4. Nvidia Surround Native Projector Resolution

You should now be able to select the native resolution for your projectors, then press **Apply**.

Tip: If the apply button is off the screen and you can't reach it, press **Alt + A** on the keyboard.

Maximising windows across the entire display

By default, when you press the maximise button on any window with Surround enabled, it will only maximise to the size of one projector.

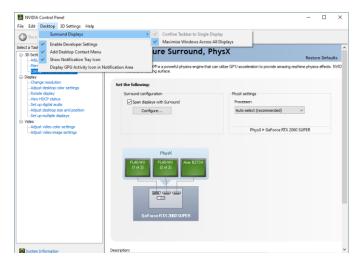


Figure.5. Nvidia Surround Maximising Windows Configuration

To have windows maximise to the full size of your screen, Click **Desktop > Surround Displays > Maximise Windows Across All Displays**

Nvidia Mosaic

When using Nvidia Quadro graphics cards, you will need to set up Nvidia Mosaic to use desktop applications with SimVisuals 2.

Right-click on the desktop and click **NVIDIA Control Panel**, otherwise, open the start menu and search for **NVIDIA Control Panel**.

Under Workstation, click on Set up Mosaic

MVIDIA Control Panel			-	\times
File Edit Desktop Workstation Help				
🕝 Back 🝷 🜍 🛛 🐔				
Select a Task	Set Up Mosaic			^
30 Settings -Adjust Image settings with preview -Amage 3D settings -Set Physit Configuration Depiay -Ohange resolution -Adjust decktop color settings	Mose: technology creates a single deskto from multiple displays and GPUs. Bead correction is available	to create a seamless image.		
Rotate display View HDCP status Set up digital audio Adjust desktop size and position Set up multiple displays	Create new confloaration			
⊕-Video		Identify displays		
- Adjust video color settings - Adjust video image settings	Sync Capability Information			
Workstation View system topology				
- Bad Rational - Orange (CC) State - Manage GPU Utilization	GPU (Upopiya) Sync capibility Quada STX 5000 R 1. Benc (P3 2. Benc (P3			
	Conditions to set up Mosaic: • All displays must have at least one display timing (including all advanced timing parameters) in common.			
	All oppays must neve at least one oppay owng (recording an advanced owng parameters) in common. You may use NVIDIA approved adaptors to connect the GPUs to the displays.			
System Information				

Figure.6. Nvidia Control Panel – Geforce Graphics Card

Click Create new configuration

Note: There may be some apps that Nvidia Control Panel requires you to close before proceeding, once you have closed the apps, click **Continue**.

NVIDIA Mosaic set up		-		\times
Mosaic Displays	Topology: 1 x 2			_
Select topology 2. Select displays 3. Arrange displays	4. Adjust overlap and bezel correction			
Number of displays:	Configuration Name Mosaic setup			
	Prosac setup			
Topology (rows x columns): 1 × 2 v				
Orientation of displays:				
Landscape ~				
Maximum GPU Topology				
Minimum GPU Topology				
I am using recommended connections for the selecte	d topology,			
Enable Mosaic				
Selected topology:				
selected topology:			_	
_				
_				
_				
	•			
		Back	Next	
				_

Figure.7. Nvidia Mosaic Topology

Select the **Topology** that your projectors are laid out in, this is represented by rows and columns. In our example, we have two projectors side-by-side, 1 row with 2 columns, 1 x 2. Then press **Next**

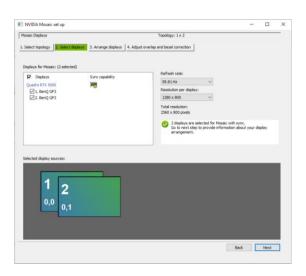


Figure.8. Nvidia Mosaic Display Selection

Next, select the checkboxes next to the displays/projectors that form a part of your overall system. In the resolution section, select the projector's native resolution. Then click **Next**

NVIDIA Mosaic set up	-	- 0	×
Mosaic Displays	Topology: 1 x 2	_	
1. Select topology 2. Select displays	Arrange displays 4. Adjust overlap and bezel correction		
Display arrangement for Mosaic	is complete. To enable Mosaic, click 'Apply'.		
Topology:			
2 _{0,1}	1		
0.1	0,0		
0,1	0,0		
Total Resolution: 2560 x 800 pixels	8pply	Çano	
	Back Henry	Finis	

Figure.9. Nvidia Mosaic Display Arrangment

Drag the displays so the numbering matches the identifiers shown across each projector, then click **Apply**

Once you have confirmed that the settings have applied correctly, click **Finish**, then close Nvidia Control Panel.