

AVer PTZ310/330/N and TR3xx/TR3xxV2 Camera

Integration using vMix

(February 2022)

Steps to integrate the Aver PTZ and TR Cameras into the vMix Software

AVer has high quality image Cameras (PTZ310/330/N and TR3xx/TR3xxV2) that will integrate with production/broadcast workflows for peak performance and ease of use. We will show the configuration process for these cameras and the vMix Production Software.

vMix offers different options for mixing video sources, live streaming, Video Delivery Solution, or Webcasting and Live Events.

There are some pre-requisites for this to happen, see below.

- Chrome Browser, version 79.0.3945.xxx and later.
- vMix 23 Software for Windows, currently version (23.0.0.39), approx. 350MB in size.

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- .Net Framework 3.5 installed for VMix Software.
- Windows 10 Pro OS used in this setup.

PTZ310/330 Camera

• AVer PTZ330 Camera and accessories.



PTZ310/330 Camera (continued)



- 1. If vMix software is not installed, install, and follow the prompts.
- 2. There are 3 main ways to integrate the AVer PTZ camera with vMix, they are:
 - USB Connection
 - NDI (PTZ330N and PTZ310N only)
 - (Streaming) Input and Output
- USB Connection: Connect the AVer PTZ330/N Camera to a USB port on the PC using a USB to Micro-USB cable and verify that Windows does see the device in the "Device Manager" window.



Here is a link to an AVer Support Article for the USB compatibility list: <u>https://averusa.force.com/support/s/article/USB-Extender-Compatibility-List-ProAV</u>

4. Next, open the vMix software and select "Add Input" located on the lower left of display.

PTZ310/PTZ330 Camera with vMix – USB Connection

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5. You should now see the following dialog box.

In	put Select		\times
		Select the Video file to open.	
0	DVD		
	List		Browse
	Camera		
Ţ	NDI / Desktop Capture		
(in all	Stream / SRT		
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	Image Sequence / Stinger		
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	Web Browser		
R	Video Call	Number 2 V OK C	ancel

6. Next, select Camera, there will be a drop-down menu for Camera selection, select the AVer PTZ330 camera.

In	put Select				×
	Video	Camera:	PTZ330 ~	1	Use VMR
0	DVD	Input:	Sample Input HP HD Camera		
F		Resolution:	PTZ330		
	Camera	Frame Rate:			
\Box	NDI / Desktop Capture				
(11g)	Stream / SRT	Video Format:			
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Ē	Image Sequence / Stinger	Audio Input:			
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PTZ310/PTZ330 Camera with vMix – USB Connection (continued)

- 7. Select the Resolution and Frame rate as well as Video Format and Audio, then select "OK" once configured.
- 8. You will be brought back to the vMix Main page, you should now see video in the Input display.



9. Next, select the "Settings/Gear" icon next to Record; this will open the selections for the Recording Setup for both Audio and Video.

Reco	ord		
PS: 30 Render Tim	e: 11 ms		
Recording Setup			×
1 2		Output 1 V	
AVI	Filename:	C:\Users\v002712\Documents\vMixStorage\capture.mp4	
WMV		Browse	
WMV Streaming	Size:	1920x1080	~
MP4	Frame Rate:	NTSC 29.97p	\sim
PEMPEG	Bit Rate:	8 V Mbps	
VMIX AVI	Profile:	H264Baseline V Use Hardware Encoder	
	Audio:	Master V	
	Audio Delay:	0 Millise	conds
	Audio Bit Rate:	128 ~ Kops	
	New File Every:	None v Minut	es
다) WAV File Record		OK Cancel	

PTZ310/PTZ330 Camera with vMix – USB Connection (continued)

- 10. Once the selections have been made, select "OK" to confirm.
- 11. When you are ready to Record, select the "Record" button and you should see the "Settings/Record/I" selection turn red, as well as a red REC icon in the Preview Out.



12. Once you are ready to "Stop" recording, select the RECORD button, a pop-up will appear asking if you are ready to "Stop Recording".

vMix	×
? Stop Recor	ding?
Yes	No

 The recorded media can be found where you had selected the Filename earlier in the "Recording Setup", typically located in

"C:\Users\Rich\Documents\vMixStorage\capture.xxx".

Network Device Interface (NDI) / Desktop Connection

NDI is a high-performance standard that allows anyone to use real time, ultra-low latency video on existing IP video networks.

For this configuration the AVer camera will be designated as a PTZ330N or PTZ310N, the "N" designates that the camera can integrate with the NewTek NDI protocol. You can go to <u>https://www.ndi.tv/</u> to learn more about NDI or download the NDI Virtual Input application if needed.

 First step is to verify that your PTZ310N/PTZ330N camera is setup for NDI, use the Web Login and go to the "Video & Audio" settings, verify that the "NDI" radio button has been selected for Video Mode.

AVer Live View	Video Mode Stream Only	USB Only	USB + Streaming	O NDI				
Camera Settings	Stream Video Output	Ţ	Bitrate 8Mbps	_	Encoding	Туре	•	
Video & Audio	Framerate	_	I-VOP Interval (S)	1	s Rate Cont	H.264 rol		
Network	60	v	l 1 💽 ——		10	O VBR	O CBR	
Advanced Settings	Audio Input Type	_	Audio Volume		5	_		_
System	Line In	O MIC In	0	D	10			
	Encoding Type		Sampling Rate					
	AAC	G.711	48K	_	▼			

*Note: The camera will need to re-boot when changing to/from NDI video mode.

2. Next, go to vMix and select "Add Input", located in the lower left of the display, it will open the "Input Select" window.

1 Blank		2 B	lank				
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Lose Quick Play Cut		Llose	Quick May	Cut	Loop	*	
		1 2	3 4		~	¥	
Add Input +	🔅 Re	ecord					٥
(20060 EX FPS: 60	Render Time	: 1 ms	GPU Mem: ()% CP	U vMix:	0 %	Т

3. Next, select "NDI / Desktop Capture" setting, you should see a selection for AVER-PTZ330N and the live video camera capture.

Network Device Interface (NDI) / Desktop Connection (continued)



- Next, select the AVER-PTZ330 NDI device and "OK" at the bottom of the screen.
 *Note: The Number field should be assigned/incremented automatically when this happens.
- 5. You should now have a new NDI AVER video Input assigned to vMix as a source.



*Note: When the PTZ camera is in NDI mode, the USB video output will be disabled.

 Connect the PTZ310/330 camera via Network RJ45 Cat5E connection; verify IP address of Camera to connect via Web browser. Locate the remote, select the "Menu" icon on the remote and navigate to the "Network->DHCP->" setting, verify it is set to DHCP "On" to grab an available IP address. If you are reserving IP addresses, verify it is set to "OFF" and that the correct IP address has been set.

Go to Camera > DHCP > DHCP > On.

Camera				
Video Output				
Network	DHCP	On	Off	
Advanced Setting	Static IP		On	
System				

After turning DHCP on, go to *Information* to view the IP address.

Camera					
Video Output					
Network					
Advanced Setting					
System	Camera Selector				
	Status OSD	On			
	Language	English			
	Information		Model Name	PTZ310	
	Factory Default		Version	0.0.0000.32	
			IP Address	192.168.0.100	
			MAC	50:33:8b:9a:94:38	

2. Once you have the IP address setup, type the IP address in your Chrome browser (Setup on same subnet) and you should now see the login to the PTZ330 camera shown below.

Sign in							
http://192.168.0.106 Your connection to this site is not private							
Username							
Password							
		Sign in	Cancel				

3. The default Username/Password is "admin / admin".

*Note: If this is the first time accessing the PTZ330 camera via the Web login, it will ask you to change the Username/Password. Please write down the NEW credentials.

4. Next, you should now see the main login screen with a "Live View" of the PTZ Camera.



Next, after selecting the Video & Audio setting, verify that you have either "Stream Only" selected or "USB + Streaming" selected. Select your Stream Video Output, Bitrate, Framerate, Encoding, etc. *Note: Some servers require a minimum bitrate of 2.5Mbps for their environment.

AV er	Video Mode	• •	
O Live View	Stream Only USB Only	USB + Streaming NDI	
Camera Settings	Stream Video Output	Bitrate	Encoding Type
Video & Audio	1920x1080 Framerate	I-VOP Interval (S) 1s	H 264 MJPEG
器 Network	30	1 • 10	O O VBR CBR
Advanced Settings	Audio Input Type	Audio Volume 5	
System	● O Line In MIC In	0 10	
	Encoding Type	Sampling Rate	
	AAC G.711	48K *	

*Note: Once streaming has started do not change the Stream Video Output on the fly, you will need to "STOP" streaming, change the Stream Video Output, then "Start" the stream again.

RTMP Settings	
Server URL	
Stream Key	
Start Stream	STOP

Video Standard->	Stream Only (Various)	USB Only (Various)	USB + Streaming (Various)	NDI (1080p/60)
SDI Output	✓	×	\checkmark	\checkmark
HDMI Output	×	\checkmark	\checkmark	\checkmark
USB Output	x	✓	✓	x
RTSP Output	✓	x	✓	✓

6. Next, select the "*Network*" setting, set the "RTSP Security" to "Off". Once you are finished with Streaming, you can put the RTSP Security back to "On", ensuring there is nothing being broadcast.

AVer	DHCP	
O Live View	On Off IP Netmask	
Camera Settings	192.168.0.106 255.255.255.0	
Video & Audio	Galeway	
器 Network	192.168.0.1	Confirm
Advanced Settings	RTMP Settings RTSP Security	
-v- System	Server URL On rtmp://1_wkpffdtj.p.kpublish.kaltura.com:1	OT OT
	Stream Key 1_wkpffdtj_1 Start Stream STOP	

7. Next, go to vMix and select "*Add Input*", located in the lower left of the display, it will open the "Input Select" window.

1 Blank	2 Blank	
Close Quick Play Cut Loop	Close Quick Play Cut Loop	
1234 into 🖵 🕸	1 2 3 4 Audio 🖵	٠
Add Input 🔸 🈫 Re	cord	٠
120p60 EX FPS: 60 Render Time:	1 ms GPU Mem: 0 % CPU vMix:	0% Te

8. Next, select the "Stream / SRT" setting, where the URL setting is type in the following syntax for the PTZ330 RTSP feed,

"rtsp://Camera IP:554/live_st1", where Camera IP is the actual IP address of the camera.

In	put Select		X	
Þ	Video	Stream Type	RTSP over UDP V	
0	DVD	URL	rtsp://192.168.0.105:554/live_st1	
D	List	Buffer	300 milliseconds Low Latency Mode	
	Camera			
Ţ	NDI / Desktop Capture			
⁽ A)	Stream / SRT			
Ł	Instant Replay			
	Image Sequence / Stinger			
Û	Video Delay			
R	Image			
	Photos			
팊	PowerPoint			
	Colour			
	Audio			
Ţ	Audio Input			
Т	Title / XAML			
կլլՈլ	Flash			
•	Virtual Set		Clear	
	Web Browser			
R	Video Call		Number 1 OK Cancel	

9. Next, select "OK", you should now be seeing camera video on your vMix display streaming from the PTZ330 camera.

1 RTSPUDP rtsp://192.168.0.105:554/	2 Colour Bars
Close Quick Play Cut Loop	Close Quick Play Cut Loop
1 2 3 4 Audio 🖵 🏟	1 2 3 4 Audio 🖵 🏶
Add Input 🔺 🌞 Rec	cord 🔅 External
720p60 EX FPS: 60 Render Time:	1 ms GPU Mem: 6 % CPU vMix: 2 % Total: 9 %

PTZ310/PTZ330 Camera RTMP Output STREAMING from vMix

To connect to a streaming service like YouTube, Vimeo, Twitch, Facebook, etc., from vMix, do the following steps.

1. In vMix select the gear icon located next to "Stream" Stream . Select "Add" at the

top of the window, give it a name, then select "OK".

Streaming Settings			-	
Profile	Default	~	Add	Delete
Destinatio	Irofile	×		
UR Stream Name or Ke	Name YouTube		Adva	anced
Quality	H264 720p 2.5mbps AAC 128kbps	~	*	
Application	FFMPEG V			
Start All	Start 1 View Status		Save and	Close

- 2. Next, select the "*Destination*" you want to stream to, in this example we are using YouTube Live.
- Next, you will need your YouTube "Stream Key" to complete the process, go to your account and find the "Encoder Setup" information, copy the "Stream name/key" information. You may have to switch to "Classic view" to find it quicker.

ENCODER SETUP		
Server URL		
rtmp://a.rtmp.youtube.com/live2		
Stream name/key		
	Reveal	

4. Next, go to the vMix Stream Key selection and paste that information into the space provided.

Streaming Settings				—	
Profile	YouTube		~	Add	Delete
	1 2 :	3			
Destination	YouTube Live		\sim		
Stream Key	I				
			YOI		be
				Sign Up	
Quality	H264 720p 2.5mbps AAC 1	28kbps	~	¢	
Application	FFMPEG ~				
Start All	Start 1	View Status		Save and	Close

PTZ310/PTZ330 Camera RTMP Output STREAMING from vMix (continued)

5. Next, select "OK", then select "Stream" and it should change color, from grey to orange, then red.



6. You can select more streams like Facebook, StreamingChurch.tv, Twitch, etc. the process would be the same way.



7. To verify, go to your YouTube Live Dashboard and verify the video feed from vMix.



8. To end the streaming feed from vMix, select "Stream", another window will pop up, select "Yes" to stop streaming, the indicator will turn back to grey.



PTZ310/PTZ330 Camera RTMP Output STREAMING from vMix (continued)

9. To verify on YouTube, go back to your YouTube Live Dashboard, it should now be displaying "OFFLINE".



10. This concludes the AVer PTZ310/330 Camera integration within the vMix Software.

PTZ310/PTZ330 Camera Control from vMix system

There are two main ways to control the PTZ camera via USB/UVC from vMix, either using standard PTZ commands or by using shortcut (hotkeys) from the vMix interface.

PTZ commands using UVC PTZ:

1. Open vMix software and add an Input by selecting "Add Input" in the lower left corner, then select "Camera" as the source.

i In	put Select	_		
	Video	Camera:	~	1
0	DVD	Input:	×	
Þ	List	Resolution:	720x480 ~	
	Camera	Frame Rate:	NTSC 29.97p ~	
	NDI / Desktop Capture			
le M	Stream / SBT	Video Format:	Default ~	
A	Steamy Sin	Audio Device:	Built In Audio 🗸	
ъ	Instant Replay	Audio Input:	Default 🗸	
	Image Sequence / Stinger	Audio Format:	~ ~	
Û	Video Delay			
	Impan			

2. Next, select the PTZ310/330 camera as the source input.



3. Next, select "OK" on the bottom of the display.



4. Next, you should now see a new video Input in vMix.



PTZ310/PTZ330 Camera Control from vMix system (continued)

5. Next, select the gear icon "Settings" to access the menu and select the PTZ submenu.



6. Next, under "*Device Type*" select **UVC PTZ**, then "*Connect*" to have Pan/Tilt/Zoom control of the AVer PTZ310/330 camera from vMix as a USB device.

vMix Pro NFR	- 22.0.0.60 x64					_
Preset	Input: 1 PTZ310			— C	ı ×	
	General					¢
	Colour Adjust	Device Type	UWC PIZ ~			
	Colour Key					
	Colour Correction					
	Position		Connect			
	Multi View		S A Zoom			
	Triggen					
	Tally Lights					
	Advanced	Spe	a			
			Always show thumbneil in input	review		

7. At this point you should have Pan/Tilt/Zoom control of the camera from vMix.

1. Open vMix and in the upper right corner you will see the "Settings" tab, select it, then select "Shortcuts".



2. Next, typically there will be nothing displayed in the Shortcuts window, select "Add" to open another menu.

Add Shortcut			×
General	Key/Control:	A	Y Brid
Advanced	-		
	Function:		~
	Duration:	1000	Miliseconds
	Input:	Preview	~
		Assign Shortcut to Input Number	
	Title:		
	Description 1:		
	Description2:		
	Display:	Default ~	
		C Louis Destrut (Die Desse Only)	
		Local Shortcut (This Preset Unly) Show to Web Controller	
		C	
		ок	Cancel

3. Next, select the Key/Control you would like for the shortcut, in this example we are using the letter "H" for Pan Left control of the PTZ310 camera connected via USB.

Add Shortcut		×
General	Kev/Control:	H V Find
Advanced		
	Function:	PTZMoveLeft ~
	Input:	2 PTZ310 ~
		Assign Shortcut to Input Number
	Value:	1 ^
	Speed 0-1	
	Trie:	Pan Left
	Description 1:	Pan Left Camera
	Description2:	
	Display:	Default v
		Local Shortcut (This Preset Only)
		Show in Web Controller
		OK Cancel

Pan/Tilt/Zoom commands using HotKeys/Shortcuts (continued)

4. Next, use the same configuration process to create shortcuts for Pan Right, MoveUp, etc. from the available PTZ selections.



5. This concludes the setup process for Hotkeys/Shortcuts for the PTZ310/330 camera connected via USB.

TR3xx/TR3xxV2 Cameras

AVer Pro-AV first introduced the New AI Auto Tracking Algorithms with the TR3xx line of cameras. We have introduced a NEW V2 version of these cameras that are now TAA compliant, the TR313V2 and TR333V2. We will describe these New TAA compliant cameras as TR3xxV2 in this document.

- 12X Ultra HD PTZ live streaming camera Featuring NEW AI Auto Tracking HIDINI 3G-SDI IP USB 3. 12X+ Ultra HD 0 AVer PRODUCT (intel) UNITE SIT Back AVe 1
- AVer TR313 Camera and accessories.

Package Contents









880

Remote control



Cable ties(x5)

Power adapter & Power cord

> mm M3 x 6mm Screw(x3)

Quick Guide

Ð

M2 x 4mm Screw(x4)



Overview

 (1) Tally Lamp
 (5) PoE+ IEEE 802.3AT

 (2) IR Sensor
 (6) RS232 Port

 (3) Power Indicator
 (7) RS422 Port

 (4) Kensington Lock
 (8) Audio In



(9) USB 3.0 Port (Type C)
(10) HDMI Port
(11) 3G-SDI Port
(12) DC Power Jack

- Chrome Browser, version 79.0.3945.xxx and later.
- vMix 23 Software for Windows, currently version (23.0.0.39), approx. 350MB in size.



- .Net Framework 3.5 installed for VMix Software.
- Windows 10 Pro OS used in this setup.
- 1. If vMix software is not installed, install, and follow the prompts.
- 2. There are 3 main ways to integrate the AVer TR camera with vMix, they are:
 - USB Connection
 - NDI (TR311HN, TR3xxNV2 only with *NDI Key)
 - (Streaming) RTSP Input and RTMP Output

USB Connection (TR313): Connect the AVer TR313 Camera to a USB port on the PC using a Type-C USB cable to Type-A/C USB cable and verify that Windows does see the device in the "Device Manager" window.

***Note:** If it is a long cable run, you can "step down" the Type-C USB 3.0 to a USB Type-A/C 2.0 cable and still get good quality video (1080p/30) with USB 2.0 cable.



USB Connection (TR313V2): Connect the AVer TR313V2 Camera to a USB port on the PC using a Type-B USB cable to Type-A/C USB cable and verify that Windows does see the device in the "Device Manager" window.

***Note:** If it is a long cable run, you can "step down" the Type-B USB 3.0 to a USB Type-A/C 2.0 cable and still get good quality video (1080p/30) with USB 2.0 cable.



Here is a link to an AVer Support Article for the USB compatibility list: <u>https://averusa.force.com/support/s/article/USB-Extender-Compatibility-List-ProAV</u>

Typical Connection: Power Supply is needed.



3. Next, open the vMix software and select "Add Input" located on the lower left of display.



4. You should now see the following dialog box.

In	put Select		×
		Select the Video file to open.	
0			0
Þ	List		browse
	Camera		
\Box	NDI / Desktop Capture		
"A"	Stream / SRT		
R	Instant Replay		
	Image Sequence / Stinger		
Û	Video Delay		
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豆	PowerPoint		
	Colour		
Ŧ	Audio		
Ŧ	Audio Input		
т	Title / XAML		
11111	Flash		
	Virtual Set	Video contains Apha Channel Video is Interfaced	Clear
	Web Browser		Conserl
	Video Call	Nullider 2 V OK	Canca

5. Next, select Camera, there will be a drop-down menu for Camera selection, select the AVer TR313 camera.

I n	put Select			
	Video	Camera:	AVer TR313 🗸 🧳	53
0	DVD	Input:	Default ~	
Ē	List	Resolution:	720x480 ~	
	Camera	Frame Rate:	NTSC 29.97p 🗸	
	NDI / Desktop Capture			
le n	Stream / SBT	Video Format:	Default ~	
Ā	Instant Boolau	Audio Device:	Microphone (AVer TR313)	
		Audio Input:	Default \vee	
	Image Sequence / Stinger	Audio Format:	48000 Hz 16 Bit 2 Channels \checkmark	
9	Video Delay			
	Image			
	Photos			
亘	PowerPoint			
	Colour			
Ē	Audio			
I.	Audio Input			

- 6. Select the Resolution and Frame rate as well as Video Format and Audio, then select "OK" once configured.
- 7. You will be brought back to the vMix Main page, you should now see video in the Input display.



8. Next, select the "Settings/Gear" icon next to Record; this will open the selections for the Recording Setup for both Audio and Video.

Record	i i			
PS: 30 Render Time	: 11 ms			
Recording Setup				×
1 2		Output 1	~	
AVI	Filename:	C:\Users\v00271	2\Documents\vMixSto	prage\capture.mp4
WMV				Browse
WMV Streaming	Size:	1920x1080		~
	Frame Rate:	NTSC 29.97p		~
vMix AVI	Bit Rate:	8		V Mbps
	Frome.	H264Baseline		erant
	Audio:	✓ Master		~
	Audio Delay:	0		Milliseconds
	Audio Bit Rate:	128		∼ Kbps
	New File Every:	None		~ Minutes
			OK	Capacit
니까 WAV File Record			UK	Cancel

- 9. Once the selections have been made, select "OK" to confirm.
- 10. When you are ready to Record, select the "Record" button and you should see the "Settings/Record/I" selection turn red, as well as the red REC icon in the Preview Out.



11. Once you are ready to "Stop" recording, select the RECORD button, a pop-up will appear asking if you are ready to "Stop Recording".

vMix	×
? Stop Reco	ding?
Yes	No

12. The recorded media can be found where you had selected the Filename earlier in the "Recording Setup", typically located in

"C:\Users\Rich\Documents\vMixStorage\capture.xxx".

TR313 Camera with vMix – USB connection and UVC

There are two main ways to control the TR camera via USB/UVC from vMix, either using standard PTZ commands or by using shortcut (hotkeys) from the vMix interface.

PTZ commands using UVC PTZ:

1. Open vMix software and add an Input by selecting "*Add Input*" in the lower left corner, then select "Camera", then select the TR313 camera as the source input.



2. Next, select "OK" on the bottom of the display.



3. Next, you should now see a new video Input in vMix.



TR313/TR3xxV2 Cameras with vMix – USB connection and UVC (continued)

4. Next, select the gear icon "Settings" to access the menu and select the PTZ submenu.



5. Next, under "*Device Type*" select **UVC PTZ**, then "*Connect*" to have Pan/Tilt/Zoom control of the AVer TR313 series camera from vMix as a USB device.

vMix Pro NFR	- 22.0.0.60 x64					_
Preset	Input: 1 PTZ310			- C) ×	:
	General					¢
	Colour Adjust	Device Type	UWC PTZ ~			-
	Colour Key					
	Colour Correction					
	Position		Connect			
	Multi View		κ γ σ Zoom			
	Triggers					
	Tally Lights					
	Advanced	Spe	d			
			Always show thumbneil in input pre	view		
					C	9

6. At this point you should have Pan/Tilt/Zoom control of the camera from vMix.

TR3xx/TR33xxV2 Camera USB connected CaptureShare Software

Aver Information Inc. offers a <u>free</u> software for the NEW TR series of cameras, *CaptureShare*, that works with Windows and MAC machines. It allows you to be able to configure the TR3xx/TR3xxV2 camera for Presenter, Zone, and Hybrid Tracking Modes, as well as some of the basic video settings such as Contrast, Saturation, Mirroring, and video output settings while ONLY being connected to the camera via USB.

Once downloaded and installed you will have two modules:

- AverCamera Setting Tool; used if you only need control/configuration of the camera.
- CaptureShare; has additional features, like PiP, annotation, recording, streaming, etc.



For more detailed information, download the User Manual on the AVer Pro-AV website. The following is used to setup the TR3xx/TR3xxV2 camera with CaptureShare.

1. Once CaptureShare is opened, select the Camera carrot, and then select the TR313 camera as the source.



- 2. Next, you should see video from the camera, and have control via the Up/Down and Left/Right arrows.
- 3. Use the Up/Down and Left/Right arrows to position the camera to save Preset #1, then select *"Save"*. This preset is used when in *Presenter Mode* tracking, if tracking is lost, the camera will automatically go to Preset #1 after 5 seconds.

	TR313	- i @ +⊞
< ↑ ►		1-10
•	14	PRACTICE THE 3 85
[A]●- + Q●- +		· PESSET FRE SHEET
Preset setting		· Cramine
 4 4 5 6 7 		-
Save	1.10	

TR3xx/TR33xxV2 Camera USB connected CaptureShare Software (continued)

- 4. Next, save Presets 6, 7, 8, and 9, these presets are used when in *Zone Mode* tracking.
- 5. You can Enable/Disable Tracking via CaptureShare and the camera remote.



6. You can also record locally and "stream" out to YouTube/FB/other streaming services once the RTMP Server / RTMP Key are configured.

		Stream Setting		×
		Automatic record		
		Select Service	YouTube	-
		Stream URL	rtmp://a.rtmp.youtube.com/live2	
		Stream Key	zjx4-q	
		Resolution	720p	-
((0))	₽		Apply	

7. Opening the *AVerCamera Setting Tool* will allow you to setup the camera without the additional tools for Streaming, Recording, etc. This can be used while the camera is being used on a Zoom/Teams call.

	TR313	- 0
ĊĢ	< 合 ▶	
	•	
	[AF]	- +
¥0	Q - •	- +
	Preset setting	_
	 ↓ 0 1 2 ↓ 4 5 6 	3 7 ►
	Save	
	Auto tracking	
	Tracking mode	
	Presenter	•
0		

8. This concludes the brief introduction to *CaptureShare* and the *AVerCamera Setting Tool*.

TR3xx/TR3xxV2 (NDI) / Desktop Connection

The Network Device Interface (NDI) is a high-performance standard that allows anyone to use real time, ultra-low latency video on existing IP video networks.

For this configuration the AVer camera will be designated as a TR311HN or TR323NV2, the "N" designates that the camera can integrate with the NewTek NDI protocol. You can go to <u>https://www.ndi.tv/</u> to learn more about NDI or download the NDI Tools software pack if needed.

 First step is to verify that your TR311HN or TR323NV2 has the NDI key enabled, and is setup for NDI, use the Web Login and go to the "Video & Audio" settings, verify that "NDI" is selected via the "Video Mode" drop down menu.

*Note: The camera will need to re-boot when changing to/from NDI video mode, re-boot takes about 1:30 – 2:00 minutes. The NDI video resolution for the TR3xx camera is adjustable from 1080p/60 to 360p/60.

The HDMI/SDI video output will only have the following selections in NDI mode for video output:

- 1080p/60
- 1080p/30
- 1080i/60
- 720p/60

Also, when in NDI Mode, the **<u>USB output will be disabled</u>**, this is by design.

AVer	Priority Mode		
	2160p	0 1080p	
Live View	21000	10000	
Camera Settings	Power Frequency	•	
Video & Audio	50Hz 59.94	Hz 60Hz	
윰 Network	Video Mode		
Tracking Settings	USB + Streaming Stream Only USB Only	~	
-∿- System	USB + Streaming NDI		Bitrate
	1920x1080	~	4Mbps 🗸
	Framerate		I-VOP Interval (S) 1s
	30	~	1 🕤 10

192.168.0.223 says		
The camera will reboot. Do you want to continue? (O	K, Cancel)	
	ОК	Cancel
		curreer

TR3xx/TR3xxV2 (NDI) / Desktop Connection

2. Next, go to vMix and select "Add Input", located in the lower left of the display, it will open the "Input Select" window.

1 Blank	2 Blank
Close Quick Play Cut Loop	Close Quick Play Cut Loop
	1 2 3 4 Audio 🖳 🛊
Add Input 🔸 🔅 Re	cord 🔅
720pb0 EX FPS: 60 Render Time:	1 ms GPU Mem: 0 % CPU vMix: 0 %

3. Next, select "NDI / Desktop Capture" setting, you should see a selection for AVER-TR313 and the live video camera capture.



- Next, select the AVER-TR313 NDI device and "OK" at the bottom of the screen.
 *Note: The Number field should be assigned/incremented automatically when this happens.
- 5. You should now have a new NDI AVER video Input assigned to vMix as a source.

2 NE)I AVER (AVe	r_TR31	3_NDI_(Came
	¥	u		
-	-	- under		
		+#.P		
2		<u>l</u> t	6	
Close	Quick Play	Cut	Loop	-
				-

TR3xx/TR3xxV2 Camera RTSP STREAMING to the vMix system

 Connect the TR313 camera via Network RJ45 connection; verify IP address of Camera to connect via Web browser. Locate the remote, select the "Menu" icon on the remote and navigate to the "Network->DHCP->" setting, verify it is set to DHCP "On" to grab an available IP address. If you are reserving IP addresses, verify it is set to "OFF" and that the correct IP address has been set.

*Note: The DEFAULT IP address of the camera is set to **192.168.1.168**, and is set to "DHCP – OFF" by default.

Camera	DHCP	OFF				
Advanced Setting	Static IP	>	192	168		168
Video Output				Gate	way	
Network			192	168		254
System				Neto	nask	
			255	255	255	0
				DI		

If using **DHCP-ON**, you would then go to "System \rightarrow Information \rightarrow IP to see what IP address was assigned to the camera.

		Column Column			
TR31	ame	Model N		Camera Selector	Camera
0.0.0000.1	e Version	Firmwan	ON	Status OSD	Advanced Setting
			English	Language	Video Output
1:04:4C:71	00:18:1	MAC	OFF	NDI	Network
	the	1 -17	R_Camera	Carnebulb_TR313_N	
LEA	ESN9		Enable	Tally	
-				Information	
150			OFF	Factory Default	
				r botory somant	

2. Once you have the IP address setup, type the IP address in your Chrome browser (Setup on same subnet) and you should now see the login to the TR313 camera shown below.

Sign in			
http://192.16 Your connecti	8.0.106 ion to this site is not private		
Username			
Password			
		Sign in	Cancel

The default Username/Password is "admin / admin". *Note: If this is the first time accessing the TR313 camera via the Web login it will ask you to change the Username/Password. Please write down the NEW credentials.

TR3xx/TR3xxV2 Camera RTSP STREAMING to the vMix system (continued)

4. Next, you should now see the main login screen with a "Live View" of the TR Camera.



 Next, select the Video & Audio setting, verify that you have either "Stream Only" selected or "USB + Streaming" selected. Select your Stream Video Output, Bitrate, Framerate,

Encoding, etc.	
AVer	Priority Mode
O Live View	2160p 1080p
Camera Settings	Power Frequency
Video & Audio	50Hz 59.94Hz 60Hz
몹 Network	Video Mode
. Tracking Settings	USB + Streaming V Stream Only USB Only
-v∕- System	USB + Streaming Bitrate Encoding Type
	1920x1080

***Note:** If using the H.265 Encoder, make sure you have the H.265 Decoder installed on the receiver end.

Video Standard->	Stream Only (Various)	USB Only (Various)	USB + Streaming (Various)	NDI (1080p/60)
SDI Output	×	✓	\checkmark	✓
HDMI Output	×	✓	\checkmark	✓
USB Output	x	✓	✓	x
RTSP Output	×	x	\checkmark	✓

6. Next, select the "*Network*" setting, set the "RTSP Security" to either "On" or "Off", depending on how you configure the security of the Stream on the network to be accessed.

AVer	DHCP		
	On Off		
Live View	IP I	Netmask	
Camera Settings	192.168.0.223	255.255.255.0	
Video & Audio	Gateway	DNS	
品 Network	192.168.0.1	192.168.0.1	Confirm
Tracking Settings	RTMP Settings	RTSP Security	
	Server URL		
	rtmp://a.r/	Oli Oli	
	cyyq-		
	Start Stream STOP		

7. Next, go to vMix and select "*Add Input*", located in the lower left of the display, it will open the "Input Select" window.

1 Blank	2 Blank	
Close Quick Play Cut Loop	Close Quick Play Cut Loop	
1224 🛶 🖵 🛊	1 2 3 4 Audio 🖵 🕯	\$
Add Input 🔸 🌞 Re	cord	٠
720p60 EX FPS: 60 Render Time:	1 ms GPU Mem: 0 % CPU vMix: 0)% Te

8. Next, select the "*Stream / SRT*" setting, where the URL setting is type in the following syntax for the TR313 RTSP feed,

"rtsp://Camera IP:554/live_st1", where Camera IP is the actual IP address of the camera.



9. Next, select "OK", you should now be seeing camera video on your vMix display streaming from the TR313 camera.



Streaming RTMP Output from vMix system

To connect to a streaming service like YouTube, Vimeo, Twitch, Facebook, etc., from vMix, do the following steps.

1. In vMix select the gear icon located next to "Stream" Stream . Select "Add" at the

top of the window, give it a name, then select "OK".

Streaming Settings				- X
Profile	Default		~	Add Delete
Destinatio p	Profile		×	
UR	Name	YouTube		
Stream Name or Ke				
		ок	Cancel	
				Advanced
Quality	H364 730a 3 Embras AAC	129kbas		*
Quality	H204 7200 2.5mbps AAC	120KDps	Ť	
Application	FFMPEG ~			
Start All	Start 1	View Status		Save and Close

- 2. Next, select the "*Destination*" you want to stream to, in this example we are using YouTube Live.
- Next, you will need your YouTube "Stream Key" to complete the process, go to your account and find the "Encoder Setup" information, copy the "Stream name/key" information. You may have to switch to "Classic view" to find it quicker.

ENCODER SETUP		
Server URL rtmp://a.rtmp.youtube.com/live2		
Stream name/key	Reveal	

4. Next, go to the vMix Stream Key selection and paste that information into the space provided.

Streaming Settings				-		×
Profile	YouTube		~	Add	Delete	
	1 2 3	3				
Destination	YouTube Live		\sim			
Stream Key	I					
			Yol		be	
				Sign Up		
Quality	H264 720p 2.5mbps AAC 1	28kbps	~ 3	¢ŧ		
Application	FFMPEG ~					
	0-+ 1	Vérana Christian		C	Cl	
Start All	Start 1	View Status		Save and	Closë	
Quality Application Start All	H264 720p 2.5mbps AAC 1 FFMPEG V Start 1	28kbps View Status	~]	Save and	Close	

Streaming RTMP Output from vMix system (continued)

5. Next, select "OK", then select "Stream" and it should change color, from grey to orange, then red.



6. You can select more streams like Facebook, StreamingChurch.tv, Twitch, etc. the process would be the same way.



7. To verify, go to your YouTube Live Dashboard and verify the video feed from vMix.



8. To end the streaming feed from vMix, select "Stream", another window will pop up, select "Yes" to stop streaming, the indicator will turn back to grey.



Streaming RTMP Output from vMix system (continued)

9. To verify on YouTube, go back to your YouTube Live Dashboard, it should now be displaying "OFFLINE".



10. This concludes the AVer TR3xx/TR3xV2 series Camera integration within the vMix Software.

Check the AVer Pro-AV website for any additional support documentation.

https://www.averusa.com/pro-av/support/