



Video Streaming

Workflow Guide



Streaming 101

It's important to understand the basics of how to get a stream from your venue to us. The complexity of your stream depends on what your goals and resources are.

Here are **3 major elements** you need to stream your events:



**Video &
Audio Sources**



**Capture Device
(Video to USB)**



**An Encoder
(Laptop or Device)**

Your Upload Speed is **Vital**

Test your upload speed at the venue to determine what encoding level to use. [Click Here](#)

The chart below is a guide of what speed you'll need to send out to each resolution and Frames Per Second.

This is based on Ethernet (wired) connection. Wi-Fi is less reliable, cell network even less reliable.

Upload MB/s	Resolution	FPS	Stream Bitrate
<u>15 Megabit</u>	1024 x 720 (720p)	30	2500 kb/s
25 Megabit	1024 x 720 (720p)	60	4000 kb/s



PrestoStream Studio

Broadcast Software

Launching This August!



August 2022

- Integrated Replay
- Sport Specific Scoreboards
- Network Cameras
- PC and Mac

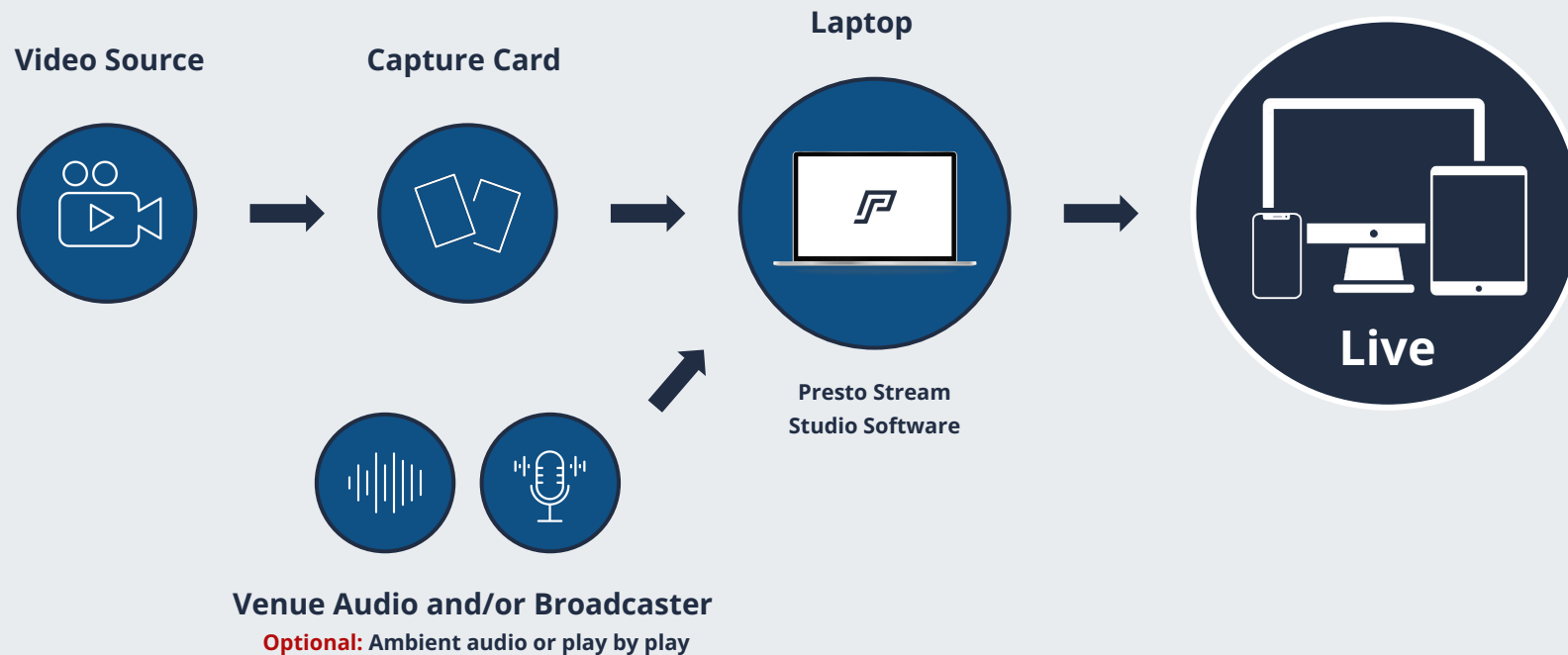
Coming Soon

- PrestoStats Automated Scorebug (Fall '22)
- Graphics Packages

Basic

One or Two Camera Workflow

The most common workflow is one camera angle, a capture device, and a laptop (PC or Mac) with PrestoStream Studio installed. Your laptop will produce/mix the shots together along with your sponsors, commercials, and scoreboard, then send to our network.



Thinking of Expanding?

You can easily add a second camera and capture card or connect to your venue's stationary or AI cameras.

We recommend NDI or RTMP connections to network cameras to avoid needing another Capture Card for each video source.

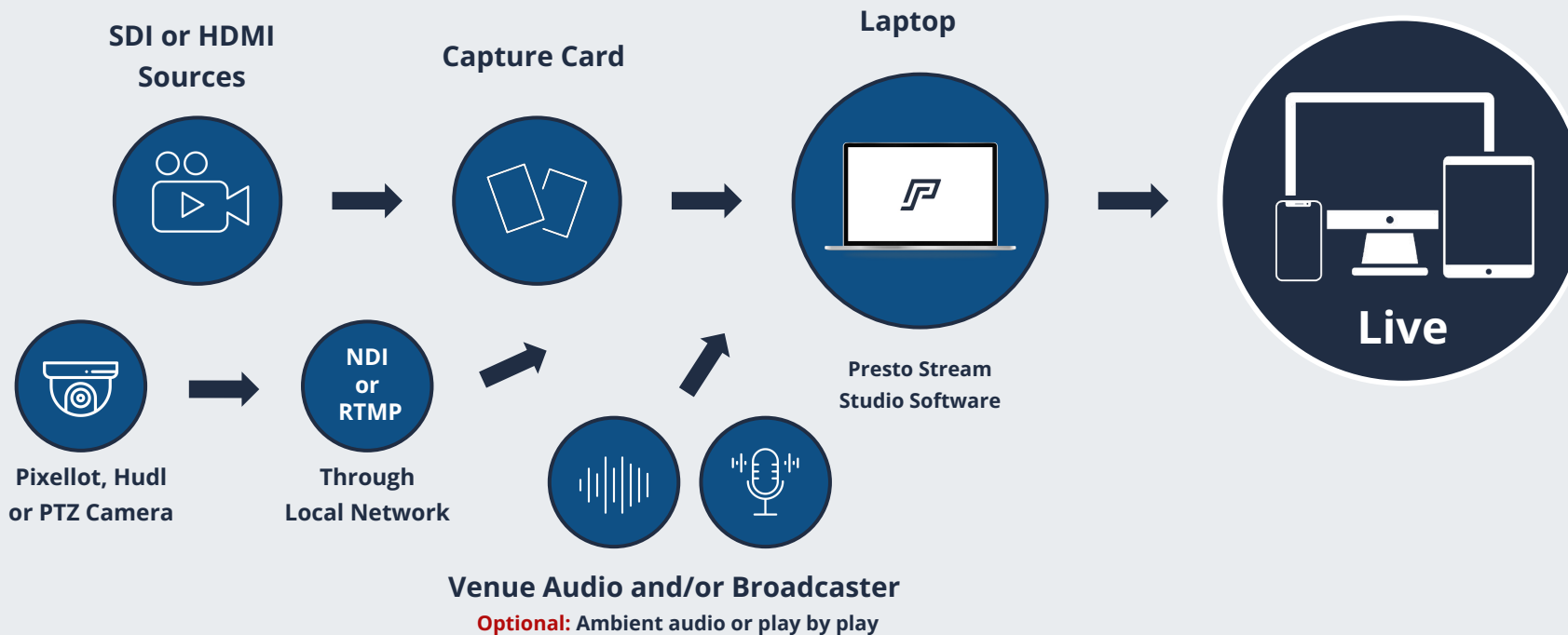
Equipment Requirements:

• Required * Optional

- | | |
|---------------------------------|-------------------------|
| • 1 Video Camera | • 1 Capture Card |
| • 1 Computer (Mac or PC) | * Audio Mixer |
| • Presto Stream Studio Software | * 1-2 Broadcast Headset |

Mid Range Multiple Camera Workflow

In the example let's say we have one Video Camera and Pixellot AI camera. We would still capture card to convert to USB into the laptop for the first video source. The second video source is shared through the network via NDI or RTMP. If you have a second video camera you can use a second capture card as well of course.



NDI vs RTMP

Both are standards for sending video through the network.

NDI is always local network only. You can purchase an HDMI or SDI to NDI converter to allow cameras to be closer to the sidelines.

RTMP is an open feed that can be pulled into Stream Studio as a video source. Only a bit different.

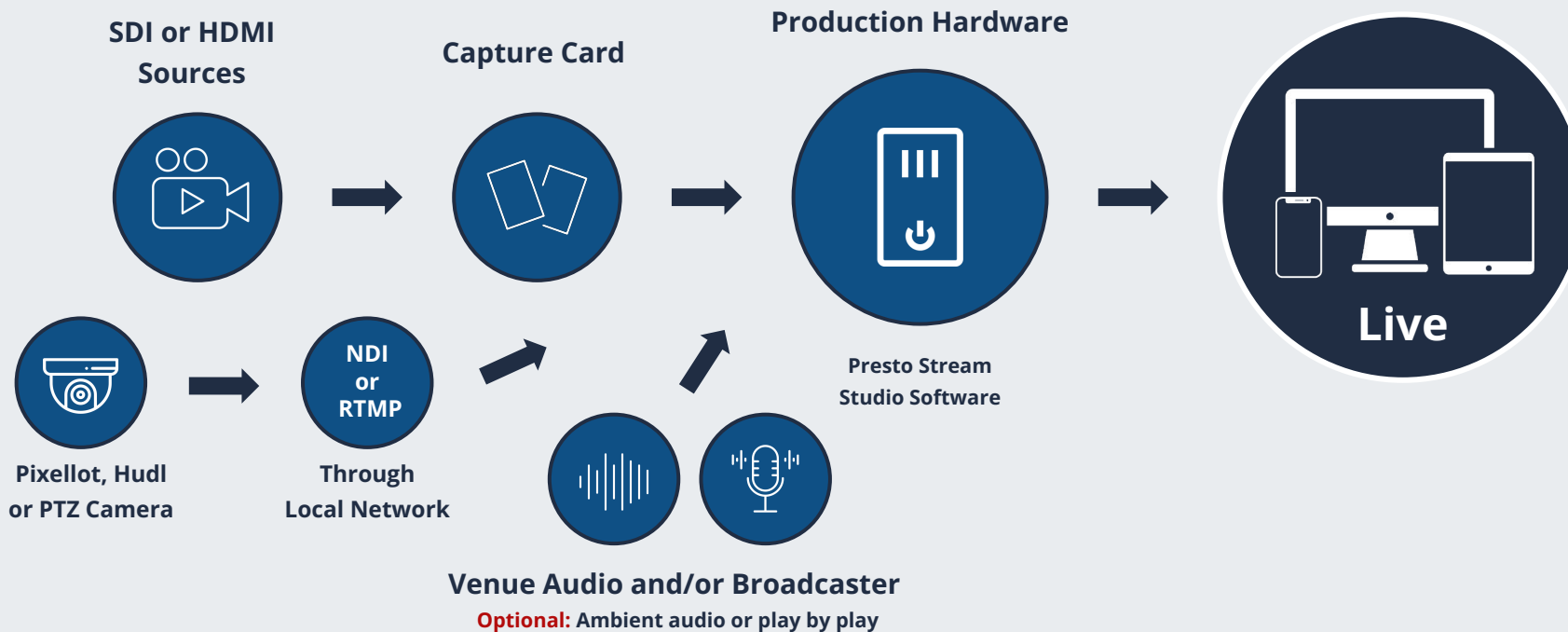
Equipment Requirements:

• Required * Optional

- 1 Video Camera
- 1 Computer
- Presto Stream Studio Software
- 1 Capture Card
- * Audio Mixer
- * 1-2 Broadcast Headset

Professional Multiple Camera Workflow

If you're serious about top notch production you'll want to look into trading out a laptop for a dedicated streaming device. These devices usually have built in capture cards for multiple cameras. It improves advanced features like Replay, Transition and pre-recorded content. Some work with a laptop, some on their own.



Broadcast Hardware:

Tricaster Mini - All in One - High End
<https://www.network.com/tricaster/>

Rolan- Mid to High
https://www.proav.roland.com/global/categories/streaming_switchers/

Atem Mini Pro - Low Cost - Mid
<https://www.blackmagicdesign.com/products/atemmini>

Equipment Requirements:

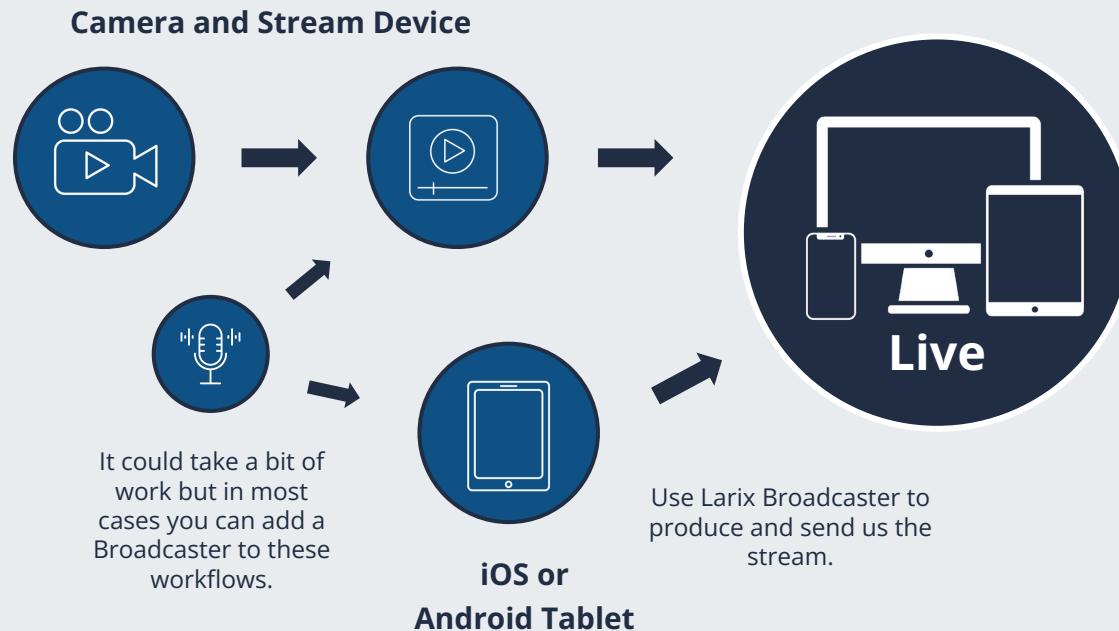
• Required * Optional

- 2+ Video Camera
- 1+ Capture Card
- 1 Computer
- * Audio Mixer
- 1 Professional Hardware
- * 1-2 Broadcast Headset

Streaming Devices and Tablets

One Camera Workflow

When resources aren't available or you need a more simple workflow here are two examples.



Streaming Devices

A device that captures video, produces the video and streams it out. These are greatly favored over a normal tablet.

Here are two examples:

YoloBox Pro

<https://www.blackmagicdesign.com/products/emmini>

Magewell Ultrastream

<https://www.magewell.com/ultra-stream>

Equipment Requirements:

- **Required** * **Optional**
 - iOS or Android Tablet
- or**
- 1 Video Camera
 - 1 Streaming Device

Recommended Hardware Options

In most cases you already have some equipment and you may want to add a piece or feature to the workflow. Please reach out to us at stream@prestosports.com or give us a call at (877) 778-7382. We'd be happy to assist you in reaching your production and streaming goals now and in the future. Extended List with links for purchase at shorturl.at/egSV8



Laptops

Dell Precision 3561 (\$1,999)
MSI Crosshair 17 (\$999)
Macbook Pro 14 Late '21 (\$2,399)



Cameras

Canon XA15 (\$1,799)
JVC GY-HM250 (\$1,745)
Canon Vixia HF (\$1,099)



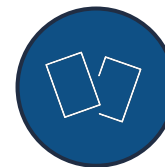
Professional Production

Tricaster Mini 4k (\$10,995)
Roland VR-4HD (\$2,795)
ATEM Mini Pro HDMI (\$495)



Streaming Devices

YoloBox Pro (\$999)
Magewell Ultra Stream (\$449)
LiveU Solo (Cellular) (\$895 + Monthly)



USB Capture Cards

Magewell Pro Convert (NDI) (\$542)
Magewell USB Capture 4k (\$479)
Magewell USB Capture (\$359)



Audio Equipment

Mackie Pro FX 6v3 (\$160)
Audio Technica BPHS1 Headset (\$199)
Pearstone Headphone Amp
(Needed for 2 Broadcasters) (\$23)

Contact Us

Email: stream@prestosports.com

Phone: (877) 778-7382

