The Basics of Curling Webcasting

With TESN's

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QUICK HISTORY

In 2010, the *12th End Sports Network* began as a way for our competitive curling team to document and learn from video game review.

What started as an iPod Touch pointed at the ice from behind the glass evolved into a multiple camera set-up, full scoreboard capability, on ice audio, and audio play-by-play. We realized our efforts could be replicated by others.

The *12th End Sports Network* (TESN.US LLC) is the natural extension of these efforts. We're providing an outlet for great curling content and the ability for teams and curling clubs to support the game at the same time.

WHY 12th END SPORTS NETWORK?

Have you ever thrown a rock through an empty house in an extra end?

WHERE TO START

WHAT ARE YOUR GOALS?

- Are you doing this for your club?
- Do you have a dedicated club or are you part of an arena club?
- Are you traveling with your team?
- How many sheets?
- On-ice audio?
- Commentary?

All are factors when planning!

THE COMMANDMENTS OF WEBCASTING

Our beliefs are based on years of experience, and while you can do things differently, and many people do, we see fewer problems when following the following concepts.

Equipment

- Two cameras are the MINIMUM The ability to see both houses is extremely important.
- On ice audio, even ambient sound, is important. It helps your audience be more than an observer.

- vMix is the most cost efficient streaming/video solution, but is only usable on machines running Windows.
- Wireless camera technology is improving significantly, but wired technology generally needs less technical knowledge and has more uptime.
- Give yourself enough time to practice and test.

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Venue

- Make sure you have sufficient outgoing internet bandwidth and make sure it is dedicated to your streaming effort.
- Dedicate a space within your club that will house your equipment. Ideally this will be an area with a view of the games you plan to stream.

- Be sure to show the score!
- Some clubs try to cover more than one game per stream. We find this less easy to follow. Sometimes you have to follow rocks diagonally to see the thrower and the object house. One sheet, one stream.

This is confusing!
Don't do this.

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Audience

- No matter what you do, if you plan to stream games from different sheets, you are always showing the wrong game. Be prepared to adjust.

- Consider that not everyone watches your games from beginning to end. or that they are actually watching and not just listening. Provide scoring recaps, reset announcer names, don't be afraid to make it sound a little like radio.

Video Equipment

The cameras and connectors you need to succeed.

Cameras

- IP Cameras or HD SDI?
- For quality and reliability, we recommend HD SDI cameras for permanent installs.
- Pan tilt and zoom cameras provide greater flexibility for broadcasting.
- Power considerations. Power over ethernet (POE), 12 volt vs 24 volt.
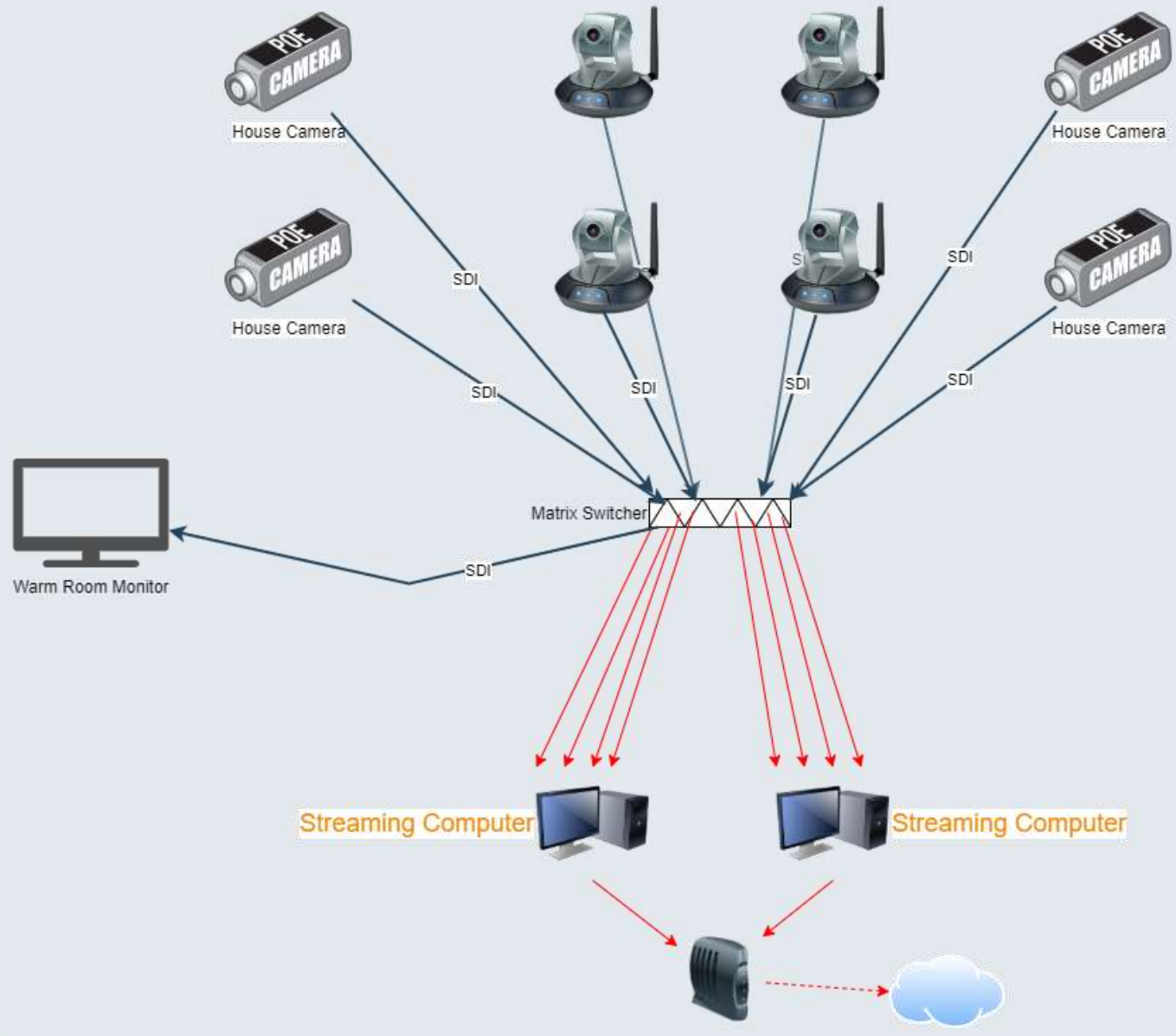- Don't forget the tripods or camera mounts

Video Hub

- For club installations consider routing for warm room monitors.
- Matrix switchers provide flexibility. Blackmagic Videohub.

PTZ Optics Pan, Tilt, Zoom Camera

PTZ Optics Box Camera

Blackmagic 12X12 SmartVvideo Hub

House Camera

House Camera

House Camera

House Camera

House Camera

SDI

SDI

SDI

SDI

SDI

SDI

Matrix Switcher

SDI

Warm Room Monitor

Streaming Computer

Streaming Computer

Audio Equipment

Audio adds a layer of complexity to your stream, what do you need to support it?

ON ICE AUDIO

- Wireless player worn microphones
- Ambient microphones
- Cameras with microphones

Line 6 Wireless

COMMENTATORS

- Headsets vs. Table top Microphones
- Cough buttons

Sennheiser HMD 300 Pro

MIXER

- USB mixer for direct input to computer
- Routing for on ice audio and commentator

Simple USB Mixer

Mobile Equipment

If you are going to stream your team's games, these are things you should be thinking about.

VIDEO/AUDIO APPS

- ManyCam or Switcher - Useful for phone based streaming. Can link two or more phones together to stream from different angles
- Live Now - connects an iphone/ipad to facebook, youtube, vimeo or twitch
- Be aware... streaming from behind the glass means you may get all the armchair skip talk, gossip, and other ambient noise. Streaming from in front of the glass means you may get team talk not meant for broadcast.

PERIPHERALS

- Capture devices - can convert feeds from in house monitors to HDMI or other inputs a computer/laptop can use to stream
- Tripods or camera mounts

Computer Equipment

What do you need to ensure your stream will be mixed correctly and stream without a hitch?

HARDWARE

- Desktop vs Laptop
- Capture Cards for video feeds
- xKeys

Blackmagic Design DeckLink Duo 2

X-keys Video Switcher Kit for vMix

(124 Key, T-bar)

SOFTWARE/PERIPHERALS

- ScoreStreamer - TESN software available to our affiliates that displays scores, colors, hammer designation and many other video elements that support a webstream

Streaming Software & End Player

There are many options for both how you stream and where you stream.

VIDEO MIXER

- vMix
- OBS
- Wirecast
- Xsplit

END PLAYER

- Facebook
- YouTube
- Other

Be aware of changing time limits for livestreams. Curling matches last two or more hours. Sometimes certain providers cut streams short of their end. If you have no one attending the stream, this could mean your audience misses out.

Basic Troubleshooting

Something isn't right. What can you do to fix it?

VIDEO PROBLEMS

- Check your power
- Check your wires
- Restart the computer
- Check your internet connection
- Restart your router

- Restart the software
- Check the destination stream URL
- Check camera orientation

AUDIO PROBLEMS

- Restart your computer
- Check your power
- Check your batteries
- Check your wires
- Check your connections in and out of mixer and computer

VENUE PROBLEMS

- Scope out elevated positions
- Check wireless connection
- Is there power? Extension cords?

- Can you tap into venue feeds?
- If using data, know how much you have and how much you are using
- International? Better be on WiFi!

Resources

Want to learn more? Here are some of our go-to sources of info.

StreamGeeks - https://streamgeeks.us/

PTZ Optics User Group - https://www.facebook.com/groups/1289436631175662

Streaming Idiots - https://www.facebook.com/groups/StreamingIdiots/

World of Live Streaming FB Group - https://www.facebook.com/groups/682429348610470

vMix YouTube Page - https://www.youtube.com/channel/UCIb-SjM3xveITsQ9VTwIeKg

vMix User Group - https://www.facebook.com/groups/786740714843868

Webcasters FB Page - https://www.facebook.com/groups/sportscasters/

THANK YOU!

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