How Z CAM VR Camera Benefited from VRWorks™ Integration

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www.z-cam.com
- Z CAM introduction
- VR live streaming trend
- Why VRWorks
- Key benefits of VRWorks
- Z CAM solution enabled by VRWorks
Z CAM

- Professional camera company based in Shenzhen.
- Team of 60.
- Own algorithm of AF, AE & AWB.
- Patented multiple camera synchronisation algorithm.
- Focus on image tuning & optimisation.
- Global leader in Professional VR Camera.
Z CAM E1

World’s smallest MFT interchangeable lens 4K camera
- Launched in Q2 2015
Z CAM S1

Our first professional VR camera
- 4 x 190° lens, 6K 30fps/4K 60fps
- Coordinated AE & AWB
- Launched in Q4 2016
Z CAM S1 Pro

Our first Cinematic VR camera
- 4/3” sensor, 4 x 220° lens, 6K 30fps
- Coordinated AE & AWB
- Launched in Q1 2017
Z CAM V1 Pro

Our first Stereoscopic VR Cinematic Camera
- 4/3” sensor, 9x 220° lens
- 8K 30fps / 4K 60fps
- Coordinated AE & AWB
- Launched in Q2 2017

Stereo 360° Live Streaming Enabled by NVIDIA VRWorks™
Z CAM K1 Pro

Our first Cinematic VR180 camera
- Format Certified by Google
- 4/3” sensor, dual 220° lens, 6K 30fps
- Coordinated AE & AWB
- Launched in Q1 2018
VR Live Streaming

- Ideal for music and sports live events.
- VR headset view gives truly immersive experience.
- Growing in demand.
Professional set up

- Professional VR Camera - Z CAM
- Single Ethernet cable connection to stitching PC.
- Z CAM WonderLive - live stitching software solution.
- RTMP output: Facebook Live 360, YouTube, others
- User selectable camera bit rate and uplink bandwidth.
Challenges

- 360 VR live processing is complex and computationally intensive.
- Requires high quality and low latency.
- Stability - frame drop issue
Why VRWorks™

- Need to leverage on GPU
- Need to use a live stitching engine
- Need real time stitching capability
VRWorks™ 360 video SDK

Mono 360 implementation

- Camera candidate - Z CAM S1
- 4 x video stream
- 1x NVIDIA GTX1060 or above

Stereo 360 implementation

- Camera candidate - Z CAM V1 Pro
- 8 x video stream
- 2x NVIDIA GTX1080Ti
Key Benefits of VRWorks™

- Complete API
- Clear and self explanatory SDK
- High quality 360 video output
- Leverage NVIDIA GPU - fast stitching low latency
- Integration completed within one week
Going forward

- Z CAM video streaming SDK available for partners
- Implementation on Z CAM V1 – 10x video stream
- Improved functionalities