

# Spin Digital Media Player

HEVC/H.265 software media player for 4K, 8K and beyond video, enabling next-generation applications in broadcast, immersive media, and large screen visualization.

---

## Product Highlights

- HEVC decoding up to 16Kp60 on a single PC
  - Advanced renderer with SDI and GPU outputs
  - Optimized for live applications
  - 12-bit, HDR, and WCG support
  - Color conversion and tone mapping
  - Interactive 360° video playback
  - 22.2-channel audio
-



## VIDEO DECODING

High-performance HEVC software decoder

Profiles: Main, Main 10, Range Extensions (HEVCv2)

Maximum resolutions and frame rates: 4Kp240, 8Kp120, 16Kp60

Color formats: 4:2:0, 4:2:2, 4:4:4, RGB

Bit depths: 8-bit, 10-bit, 12-bit

## VIDEO RENDERING

High-performance render engine:

GPU rendering based on DirectX 12

CPU rendering for professional SDI output

Bit depths: 8-bit, 10-bit

Color spaces: BT.601, BT.709, DCI-P3, BT.2020

Transfer functions:

SDR: BT.1886 (BT.709), sRGB

HDR: HDR10 (ST2084), HLG (STD-B67)

Color conversion: color format, color space, color range, transfer function

Tone mapping: HDR to HDR/SDR

Flexible image overlays

Interactive 360° video playback:

Input projections: equirectangular, cubemap

Output projections: rectilinear for flat screens, cylindrical for curved screens

Multi-device configurations: single large surface (tiled), clone, alternate

Rendering devices:

GPU (4x HDMI 2.0): NVIDIA Quadro, AMD Radeon Pro

GPU (1x HDMI 2.1): NVIDIA RTX 3000 Series

3G SDI: AJA Corvid 88

12G SDI: AJA Kona 5, AJA Corvid 44 12G

8K playback over 12G SDI:

8Kp60: Two-Sample Interleave (2SI) and Square Division (SQD) modes

8Kp120: 2x 8Kp60 in alternate rendering mode

## AUDIO

Codecs: AAC, Opus

Channels: 2.0, 5.1, 7.1, 22.2

Output devices: Windows (WASAPI), SDI

## INPUT FORMATS

File: ES, MP4, TS, MKV, HLS

Live: TSolP (RTP, UDP)



## RECOMMEND SYSTEMS FOR HIGH-END PLAYBACK



spin player

### 8K 60 Hz

| Use case                   | Format                | Bitrate        | Platform                                                                                                                                                                                                                                    |
|----------------------------|-----------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Distribution<br>GPU output | 8Kp60<br>4:2:0 10-bit | 50 - 120 Mbps  | CPU: Intel Core i9-10900X (10 cores),<br>or AMD Ryzen 9 3900X (12 cores)<br><br>Memory: 16 GB (4x 4 GB, DDR4-3200) /<br>(Ryzen, 2x 8 GB, DDR4-3200)<br><br>GPU: NVIDIA GeForce RTX 3060 (HDMI 2.1),<br>or NVIDIA Quadro P4000 (4x HDMI 2.0) |
| Contribution<br>SDI output | 8Kp60<br>4:2:2 10-bit | 200 - 250 Mbps | CPU: Intel Xeon Gold 6330N (28 cores)<br><br>Memory: 64 GB (8x 8 GB, DDR4-2667)<br><br>12G SDI: AJA Kona5, or AJA Corvid 44 12G                                                                                                             |
| High fidelity              | 8Kp60<br>RGB 12-bit   | 500 - 600 Mbps | CPU: 2x Intel Xeon Silver 4316 (2x 20 cores)<br><br>Memory: 128 GB (16x 8 GB, DDR4-2667)<br><br>GPU: NVIDIA GeForce RTX 3060 (HDMI 2.1),<br>or NVIDIA Quadro P4000 (4x HDMI 2.0)                                                            |

### 8K 120 Hz

| Use case           | Format                 | Bitrate        | Platform                                                                                                                                 |
|--------------------|------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------|
| High<br>frame rate | 8Kp120<br>4:2:0 10-bit | 200 - 250 Mbps | CPU: 2x Intel Xeon Gold 5318N (2x 24 cores)<br><br>Memory: 128GB (16x 8GB, DDR4-2667)<br><br>12G SDI: 2x AJA Kona 5, or 2x AJA Corvid 44 |

### 16K 60 Hz

| Use case                     | Format                 | Bitrate  | Platform                                                                                                                                               |
|------------------------------|------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Very large<br>screen display | 16Kp60<br>4:2:0 10-bit | 400 Mbps | CPU: 2x Intel Xeon Gold 6330 (2x 28 cores)<br><br>Memory: 128GB (16x 8GB, DDR4-2933)<br><br>GPU: 4x NVIDIA Quadro P4000<br>Sync: NVIDIA Quadro Sync II |



## PACKAGE

*spinplayer*: Full-featured media player based on Media Player Classic BE  
*spindec*: Command line HEVC/H.265 decoder  
*spinrender*: Command line raw video renderer



## OPERATING SYSTEMS

Windows 10 64-bit:

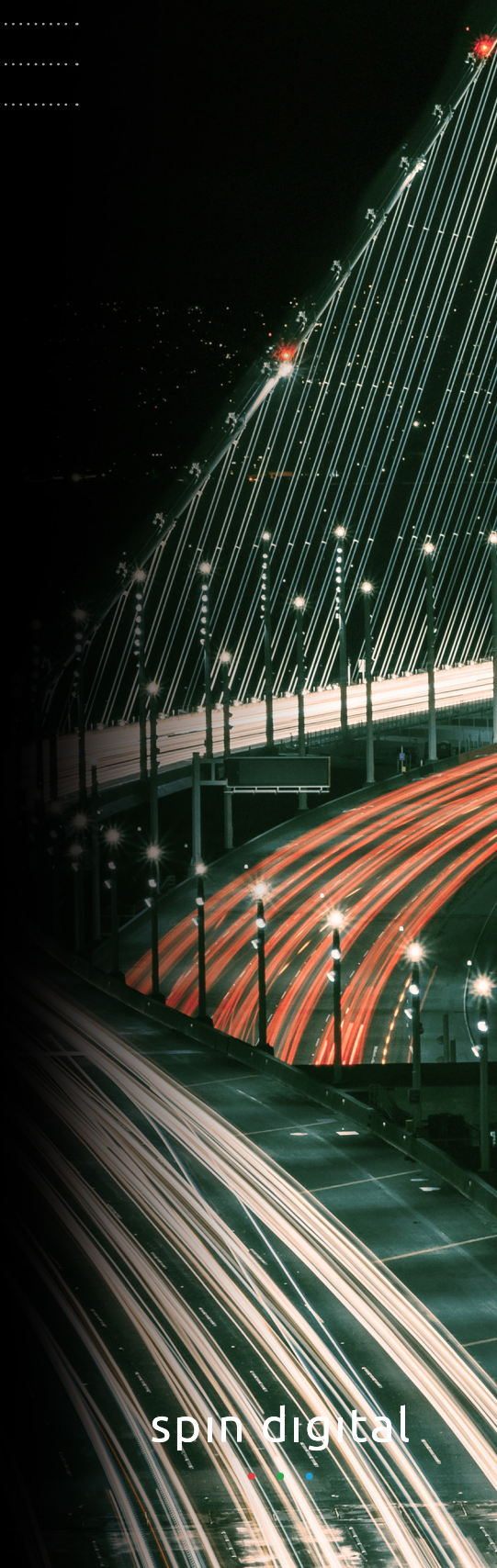
HEVC decoding

GPU and SDI rendering

Linux CentOS 8.0:

HEVC decoding

SDI rendering



spin digital