



spin digital



HIGH PERFORMANCE VIDEO CODECS

Spin Digital Video Technologies GmbH

Specialists on video codecs:
focus on HEVC/H.265

Spin-off of the Technical
University of Berlin

In-house developed
software IP & products

Based in Berlin

Innovative B2B company with
decades of accumulative
research experience

>80% of employees are
video codec engineers

Technology

Next generation Ultra High Definition video - Huge spike in data volume - Next generation codecs needed

Full HD 1x

Data volume

4K 10x

True 8K not only means higher resolution, but also higher frame rates, extended bit depths & better color formats

8K 192x



	Full HD	4K	8K
Resolution	1920x1080	3840x2160	7680x4320
Color format	4:2:0	4:2:0	4:4:4
Bitdepth	8	10	12
Framerate	30	60	120
Mbps	746	7,465	143,327

Spin Digital Codec delivers superior performance for 8K, 4K & Full HD

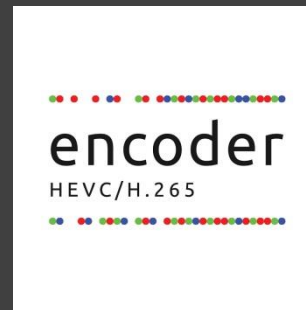
Products

Pure Software Solution

Ready for 4K, 8K & beyond

Optimized HEVC/H.265 Implementation

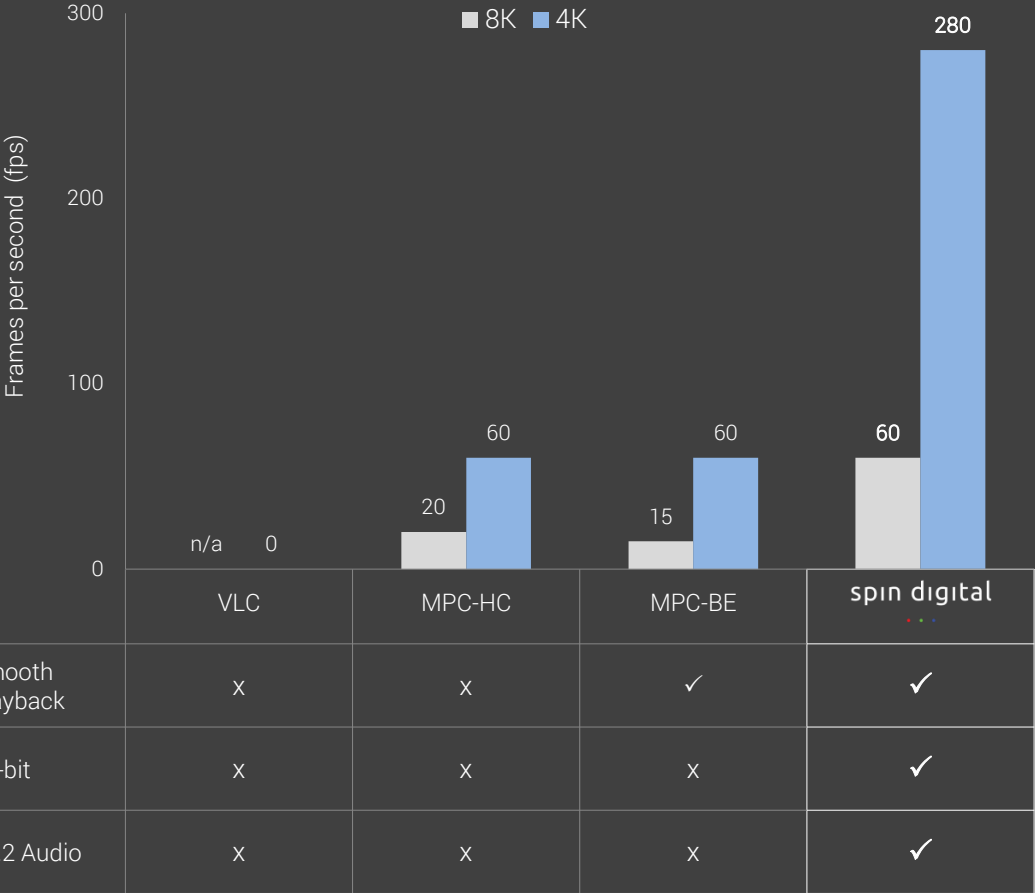
Leading Performance and Compression Efficiency





Media Player

Performance comparison of Media Players



Media player for 4K, 8K HEVC video and 22.2 audio

Pure software solution ready for 8K & beyond

Features

- 8Kp60 playback on PC platforms
- High performance HEVC/H.265 decoding
- High performance optimized rendering
- High quality playback: 4:2:0, 10-bit
- Professional quality playback: 4:2:2, 4:4:4, RGB, up to 12-bit
- Media file formats: MP4, MPEG2-TS, MKV
- Multichannel audio: 5.1, 7.1, 22.2

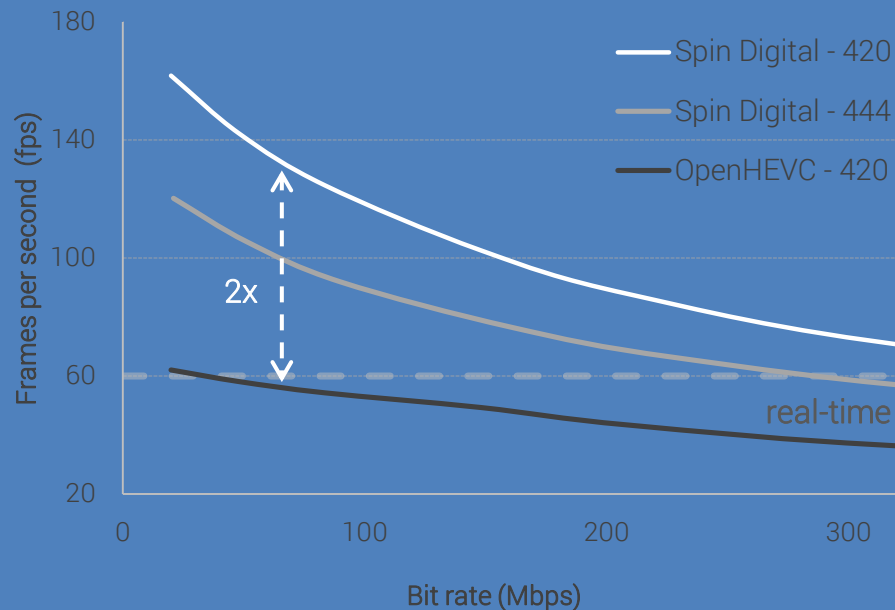
Media Player Package

- Based on Media Player Classic BE
- Integrated Spin Digital HEVC/H.265 Decoder
- Integrated Spin Digital DirectX 12 Renderer



HEVC Decoder

7680x4320 10-bit



- 8Kp60, 4:4:4, 10-bit, up to 250 Mbps
- 2x higher frame rate than competition
- Significant higher bit rates in real-time than competition

Very High Performance

Real-time 8K decoding using a 24 core workstation

Features

- Support for 4:2:0, up to 10-bit
- Support for 4:2:2 & 4:4:4, up to 12-bit
- Advanced multithreading
- SIMD processing
- Efficient pixel formats
- Minimal memory bandwidth

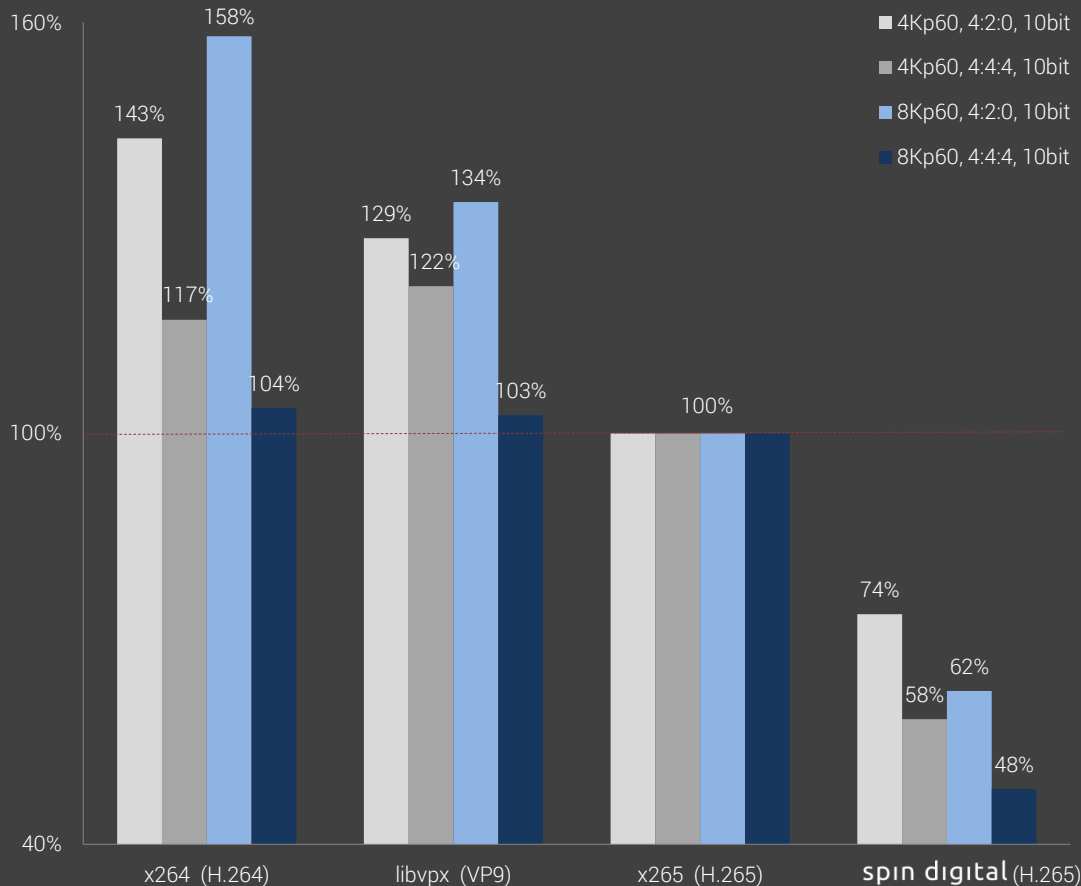
Decoder Package

- SDK: Windows, Linux, x86, x86-64, ARM
- DirectShow filter
- High Performance DX12 renderer



HEVC Encoder

Relative video file size for same objective quality and encoding speed



Higher compression & quality than leading open source encoders

Support for 4K, 8K & beyond

Fast offline compression

HDR Ready

Features

- Support for 4:2:0, 4:2:2, 4:4:4 & RGB up to 12-bit
- High precision preprocessing filters
- Flexible hierarchical GOP structures
- VBR & CBR rate control

Encoder Package

- SDK: Windows, Linux, x86, x86-64
- FFmpeg transcoder plugin
- Standalone raw video encoder

Licensing

END USER

End User

- Licenses:
 - Testing
 - Developer Kit
 - Single / Multi

INTEGRATOR

Integrator

- Royalty based
- One-off License

CLOUD

Cloud/Server

- Usage based
- Unit based

Team

Mauricio
Alvarez-Mesa



CEO

PhD

- Postdoc TU Berlin
- Researcher - Fraunhofer HHI
- PhD in Computer Engineering - Polytechnic University of Catalonia

Alexander
Papachristos

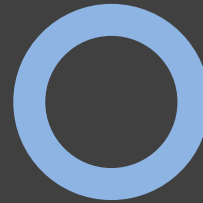


CFO

MBA

- Visiting Professor
- Stints in Private Equity and M&A
- MBA in Finance - Peking University - Guanghua School of Management

Chi Ching
Chi

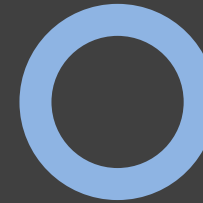


CTO

MSc

- PhD Candidate Computer Engineering - TU Berlin
- MSc in Computer Engineering - TU Delft

Sergio
Sanz-Rodriguez

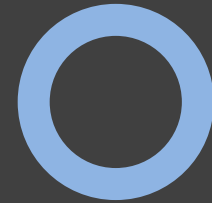


Senior Researcher

PhD

- Postdoc TU Berlin
- Researcher - Fraunhofer HHI
- PhD in Multimedia & Communication - Charles III University Madrid

Ben
Juurlink

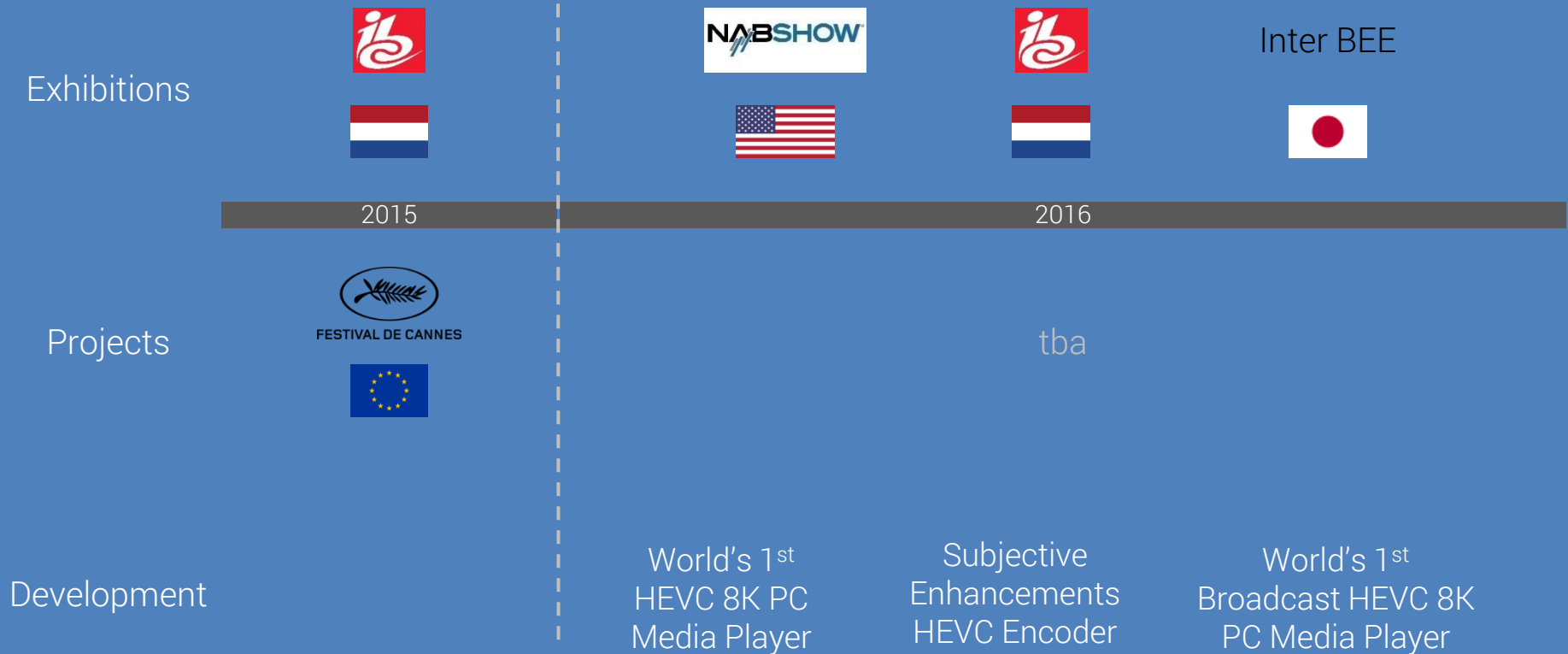


Scientific Advisor

Prof. PhD

- Professor at TU Berlin
- Associate Professor at TU Delft
- PhD in Computer Science & Engineering – Leiden University

Roadmap





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