

## US Granted Patents



Below is a partial list of the more than 400 global patent assets in the Velos Media portfolio.

Patent Number	Title
US10075717B2	Methods and devices for context set selection
US10116950B2	Multi-level significance map scanning
US10205945B2	Multi-level significance maps for encoding and decoding
US10205948B2	Context initialization based on slice header flag and slice type
US10230963B2	Decoding device, encoding device, decoding method, encoding method, and non-transitory computer readable recording medium
US10250875B2	Device for decoding a video bitstream
US10257520B2	Modified coding for transform skipping
US10306237B2	Image decoder, image decoding method, image encoder, and image encode method
US10341662B2	Methods and systems for entropy coder initialization
US10390013B2	Method for encoding video
US10397613B2	Method for deriving a motion vector
US10440365B2	Methods and devices for emulating low-fidelity coding in a high-fidelity coder
US10448052B2	Significance map encoding and decoding using partition selection
US10491900B2	Arithmetic decoding method, image decoding apparatus, arithmetic coding method, and image coding apparatus
US10506227B2	Device for decoding a video bitstream
US10531091B2	Context initialization based on slice header flag and slice type
US10595024B2	Modified coding for transform skipping
US10602156B2	Devices and methods for identifying a leading picture
US10609386B2	Decoding device, encoding device, decoding method, encoding method, and non-transitory computer readable recording medium
US10659782B2	Multi-level significance maps for encoding and decoding
US10659786B2	Methods and systems for decoding a video bitstream
US10681362B2	Multi-level significance map scanning
US10743028B2	Multiple sign bit hiding within a transform unit
US10771816B2	Method for deriving a motion vector
US10812799B2	Method for encoding video
US10848764B2	Arithmetic decoding device, image decoding apparatus, arithmetic coding device, and image coding apparatus
US10848783B2	Significance map encoding and decoding using partition selection
US10911752B2	Device for decoding a video bitstream
US10911758B2	Multi-level significance maps for encoding and decoding
US10931951B2	Context initialization based on slice header flag and slice type

Patent Number	Title
US10939122B2	Modified coding for transform skipping
US10979715B2	Methods and devices for emulating low-fidelity coding in a high-fidelity coder
US10999579B2	Methods and systems for decoding a video bitstream
US11019340B2	Methods and devices for context set selection
US11076160B2	Devices and methods for identifying a leading picture
US11109037B2	Image decoder, image decoding method, image encoder, and image encode method
US11109040B2	Decoding device, encoding device, decoding method, encoding method, and non-transitory computer readable recording medium
US11245893B2	Device for decoding a video bitstream
US11272210B2	Significance map encoding and decoding using partition selection
US11350129B2	Method and device for encoding and decoding a video bitstream using a selected motion vector
US8644382B2	Image encoding device, image encoding method, image decoding device, image decoding method, program, and storage medium
US8767824B2	Video decoder parallelization for tiles
US8891630B2	Significance map encoding and decoding using partition set based context assignment
US8964849B2	Multi-level significance maps for encoding and decoding
US9008184B2	Multiple sign bit hiding within a transform unit
US9060173B2	Context initialization based on decoder picture buffer
US9143801B2	Significance map encoding and decoding using partition selection
US9161037B2	Image encoding device, image encoding method, image decoding device, image decoding method, program, and storage medium
US9185411B2	Video decoder parallelization for tiles
US9300962B2	Video decoder parallelization for tiles
US9313514B2	Methods and systems for entropy coder initialization
US9325999B2	Video decoder for slices
US9338465B2	Context initialization based on decoder picture buffer
US9338472B2	Context initialization based on decoder picture buffer
US9351016B2	Devices for identifying a leading picture
US9380301B2	Image intra-prediction mode estimation device, image encoding device, image decoding device, and encoded image data that adaptively decides the number of estimated prediction modes to be estimated
US9398307B2	Video decoder for tiles
US9491471B2	Context initialization based on decoder picture buffer
US9491486B2	Significance map encoding and decoding using partition selection
US9497469B2	Devices for identifying a leading picture

Patent Number	Title
US9525877B2	Video decoder parallelization for tiles
US9538198B2	Image intra-prediction mode estimation device, image encoding device, image decoding device, and encoded image data that adaptively decides the number of estimated prediction modes to be estimated
US9538205B2	Arithmetic decoding device, image decoding apparatus, arithmetic coding device, and image coding apparatus
US9584812B2	Methods and devices for context set selection
US9667971B2	Video decoder for slices
US9667976B2	Image encoding device, image encoding method, image decoding device, image decoding method, program, and storage medium
US9699479B2	Arithmetic decoding device, image decoding apparatus, arithmetic coding device, and image coding apparatus
US9743098B2	Multi-level significance map scanning
US9749657B2	Buffer compression for motion vector competition
US9774885B2	Significance map encoding and decoding using partition selection
US9794572B2	Arithmetic decoding device, image decoding apparatus, arithmetic coding device, and image coding apparatus
US9883181B2	Video decoding methods and video encoding methods
US9900597B2	Multi-level significance maps for encoding and decoding
US9900622B2	Multiple sign bit hiding within a transform unit
US9924173B2	Decoding device, encoding device, method for decoding, method for encoding, and computer-readable recording medium storing a program
US9955171B2	Image decoder, image decoding method, image encoder, and image encode method
US9986246B2	Devices for identifying a leading picture
USRE48074E1	Image encoding device and image decoding device