UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
WACO DIVISION

VIDEOLABS, INC., Plaintiff, v. DELL TECHNOLOGIES INC. and DELL INC. Defendants.	Civil Action No. 6:21-cv-932 **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff VideoLabs, Inc. ("VideoLabs" or "Plaintiff"), by and through its undersigned counsel, complains and alleges against Dell Technologies Inc. and Dell Inc. (collectively "Dell" or "Defendants") as follows:

NATURE OF THE ACTION

1. This is a civil action for infringement of U.S. Patent No. 7,970,059 ("the'059 patent") arising under the patent laws of the United States, 35 U.S.C. §§ 1 et seq.

THE PARTIES

2. VideoLabs is a corporation organized under the laws of the State of Delaware, with its principal place of business in Palo Alto, California. Founded in October 2019, VideoLabs is a professional intellectual property services company and licensing platform with a primary focus on acquiring and licensing high-quality patents relevant to the video ecosystem. Video is a megatrend – it is an extremely important way in which people create, communicate and consume information and entertainment. Thousands of companies and their employees around the world use video and video technologies in their businesses. VideoLabs' principals recognized that a large number of companies would substantially benefit from an efficient avenue through which to

take licenses to collections of highly valuable video-related patents. Based on this, at its founding and through to today, VideoLabs has acquired patents originating from some of the world's most recognizable and inventive companies, including Nokia Corporation, Alcatel-Lucent S.A., Siemens AG, Swisscom AG, 3Com, Panasonic, Ericsson, Samsung, LG, and Hewlett Packard Enterprise. VideoLabs has invested heavily and continues to identify and acquire important patents thereby continually increasing the value of its licensing platform and promoting greater efficiency for the industry.

3. On information and belief, defendant Dell Technologies Inc. is a Delaware corporation with its principal place of business at One Dell Way, Round Rock, Texas 78682.

4. On information and belief, defendant Dell Inc. is a Delaware corporation with its principal place of business at One Dell Way, Round Rock, Texas 78682. Dell Inc. has additional offices at 1404 Park Center Dr., Austin, Texas, 701 E. Parmer Lane, Bldg. PS2, Austin, Texas, 12500 Tech Ridge Road, Austin, Texas, 9715 Burnet Road, Austin, Texas, and 4309 Emma Browning Avenue, Austin, Texas.

JURISDICTION AND VENUE

5. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

6. This Court has personal jurisdiction over Dell pursuant to due process and/or the Texas Long Arm Statute because Dell maintains its principal place of business in this state, has committed and continues to commit acts of patent infringement, including acts giving rise to this action, within the State of Texas and this District, and because Dell recruits Texas residents, directly or through an intermediary located in this state for employment inside or outside this state. The Court's exercise of jurisdiction over Dell would not offend traditional notions of fair play and substantial justice because Dell has established minimum contacts with the forum.

7. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391 and 1400

because a substantial part of the events or omissions giving rise to the claims occurred in this District, and Dell has committed acts of infringement and has a regular and established place of business in this District.

8. Dell has committed acts of infringement in this District, directly and/or through intermediaries, by, among other things, making, using, offering to sell, selling, and/or importing products and/or services that infringe the '059 patent, as alleged herein.

9. Dell has regular and established places of business in this District including a shared corporate office at One Dell Way, Round Rock, Texas 78682. Dell is also registered to do business in Texas.

VIDEOLABS' '059 PATENT

10. On June 28, 2011, the United States Patent Office issued U.S. Patent No. 7,970,059, titled "Variable Length Coding Method and Variable Length Decoding Method" (the "'059 patent"). A true and correct copy of the '059 patent is attached hereto as Exhibit A.

11. VideoLabs is the owner of all right, title, and interest in and to the '059 patent with full and exclusive right to bring suit to enforce the '059 patent, including the right to recover for past damages and/or royalties prior to the expiration of the '059 patent.

12. The '059 patent is valid and enforceable.

BACKGROUND

13. Dell manufactures, uses, imports, offers for sale, and/or sells products that incorporate context adaptive binary arithmetic coding (CABAC) defined in the H.264 standard ("Accused Products"). The Accused Products include, but are not limited to, laptops (*e.g.*, Latitude, Vostro, Inspiron, XPS, G- Series, Rugged, Chromebook Enterprise, Education, and Alienware), tablets and 2-in-1s (*e.g.*, XPS, Latitude, Inspiron, Rugged, Chromebook Enterprise, and Education), desktops (*e.g.,* OptiPlex and OptiPlex Ultra) and servers (*e.g.*, PowerEdge).

Infringement of the '059 Patent

14. VideoLabs re-alleges and incorporates by reference the allegations of the preceding paragraphs of this Complaint as if fully set forth herein.

15. In violation of 35 U.S.C. § 271(a), Dell has infringed the '059 patent by making, using, selling, offering for sale, and/or importing into the United States, without authority, the Accused Products which practice each and every limitation of at least claim 2 of the '059 patent. Dell has infringed literally and/or under the doctrine of equivalents.

16. The Accused Products support the H.264 standard and CABAC entropy decoding defined in the standard. In addition, the Accused Products are implemented in a manner that not only complies with the H.264 standard, but also infringes the '059 patent.

17. Each Accused Product is a decoding apparatus comprising a receiving unit configured to receive multiplexed data obtained by multiplexing coded picture data that is obtained by coding a moving picture and audio data that is obtained by coding an audio signal.

18. H.264 carries audio and video multiplexed in a single stream. H.264 is directed to the picture portion of video, so devices containing H.264 encoders and decoders must demultiplex audio and picture data in order to obtain the H.264 picture data. Encoders multiplex the audio and pictures into a single stream, so that decoders receive the complete video presentation including sound. Decoders decode the stream to recreate the video. In the ISO Media File Format, which each Accused Product is capable of processing, a coded stream such as an H.264 video sequence or an audio stream is stored as a track, representing a sequence of coded data items or samples. Figure 8.32 below, illustrates an example of such multiplexed data, in which coded audio data and coded picture data are multiplexed together.

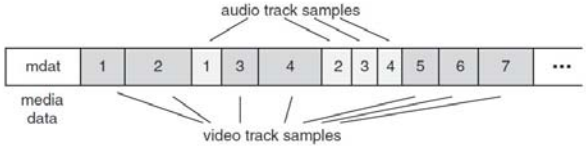

Figure 8.32 ISO Media File

See The H.264 Advanced Video Compression Standard, 2nd Edition, Iain E. Richardson, ISBN: 978-0-470-51692-8, p. 247, Figure 8.32. Each Accused Product must therefore incorporate circuitry to receive the coded audio and coded picture data in order to obtain the H.264 picture data. *Id*. Each Accused Product complies with the H.264 standard and is configured to perform decoding of coded audio and picture data multiplexed in a single stream.

19. In that regard, each Accused Product includes a demultiplexing unit configured to demultiplex the multiplexed data received by the receiving unit into the coded picture data and the audio data. H.264 is directed to only the picture portion of video. Each Accused Product must therefore incorporate demultiplex circuitry to separate the coded audio and coded picture data in order to obtain the H.264 picture data. *Id*.

20. Each Accused Product also includes an arithmetic decoding unit configured to decode the coded picture data into a first bit of binary data corresponding to each absolute value of coefficients of a two-dimensional array of frequency components, on a block basis, according to a predetermined scanning order starting at a high frequency component toward a low frequency component by using a plurality of probability tables, the coefficients being generated by frequency transformation performed on picture data of a block which has a predetermined size of pixels. By way of one representative example, the Dell XPS 13 2-in-1 laptop incorporates an integrated Intel graphics processor (either UHD or Iris XE) that supports H.264 hardware decoding. The integrated graphics processor is configured to decode the separated coded picture data in accordance with H.264 standard requirements.

Processor

The following table lists the details of the processors supported by your XPS 13 2-in-1 (9310 2n1).

Table 3. Processor

Description	Option one	Option two	Option three	Option Four	Option Five
Processor type	11th Generation Intel Core i3-1115G4	11th Generation Intel Core i5-1135G7	11th Generation Intel Core i5-1145G7	11th Generation Intel Core i7-1165G7	11th Generation Intel Core i7-1185G7
Processor wattage	13 W	13 W	15 W	13 W	15 W
Processor core count	2	4	4	4	4
Processor thread count	4	8	8	8	8
Processor speed	Up to 4.1 GHz	Up to 4.2 GHz	Up to 4.4 GHz	Up to 4.7 GHz	Up to 4.8 GHz
Processor cache	6 MB	8 MB	8 MB	12 MB	12 MB
Integrated graphics	Intel UHD Graphics	Intel Iris Xe Graphics	Intel Iris Xe Graphics	Intel Iris Xe Graphics	Intel Iris Xe Graphics

See XPS 13 2-in-1 Setup and Specifications, Chapter 3, p. 11 (2020)

Features

DirectX* Support	12.1
Vulkan* Support	Yes
OpenGL* Support	4.6
H.264 Hardware Encode/Decode	Yes
H.265 (HEVC) Hardware Encode/Decode	Yes, 12-bit

See https://ark.intel.com/content/www/us/en/ark/products/211014/intel-iris-xe-dedicated-graphics-card-80-eu.html

21. In accordance with the H.264 standard, H.264-compliant decoders, such as that in the integrated Intel graphics processor, operate on a macroblock, consisting of a 16 x 16 block of luma samples and two corresponding blocks of chroma samples. A macroblock can be further portioned for inter-prediction forming segmentations for motion representation as small as 4 x 4 luma samples in size. *See generally, ITU-T H.264, Series H: Audio Visual and Multimedia Systems, Infrastructure of Audiovisual Services – Coding of Moving Video, Advanced Video Coding for Generic Audio Visual Services ("H.264 Standard"), Section 0.6.3, p. 5 (09/2019).* Two main coding types are specified in H.264, intra-coding and inter-coding. Intra-coding is done

without reference to other pictures while inter-coding uses inter-prediction of each block of sample values from some previously decoded picture. *See generally, H.264 Standard, Section 0.6.1, p. 4 (09/2019).* H.264 decoding is based on the use of a block-based transform method for spatial redundancy removal. The resulting residual block is split into 4 x 4 blocks. These residual blocks are converted into the transform domain where they are quantized. *See generally, H.264 Standard, Section 0.6.4, p. 5 (09/2019).* H.264 specifies an *entropy_coding_mode* flag that dictates the entropy encoding algorithm used to encode the picture data. When this flag is set to "1" the residual block data is coded using a CABAC scheme. *See generally, H.264 Standard, Section 7.4.2.2, pp. 81-82 (09/2019).* In H.264, CABAC coding a data symbol involves binarizing the frequency transform coefficients, in scan order, and then further encoding the binary codes. Since CABAC is a context-adaptive binary arithmetic coding technique, it relies on probability model ("context model") selection for one or more bins of the binarized code. Context models and binarization schemes are defined in the H.264 standard. *See generally, H.264 Standard, Section 9.3, pp. 223-278 (09/2019).* The context model stores the probability of each bin being "1" or "0". An arithmetic coder then encodes each bin according to the selected probability model and the selected context model is updated based on the actual coded value for further encoding. *See generally, H.264 Standard, Sections 7.4.5.3.3, 9.3, and Figure 9-1, pp. 110-111, 223-278, (09/2019).* A H.264 compliant decoder reverses this process to decode the coded picture data.

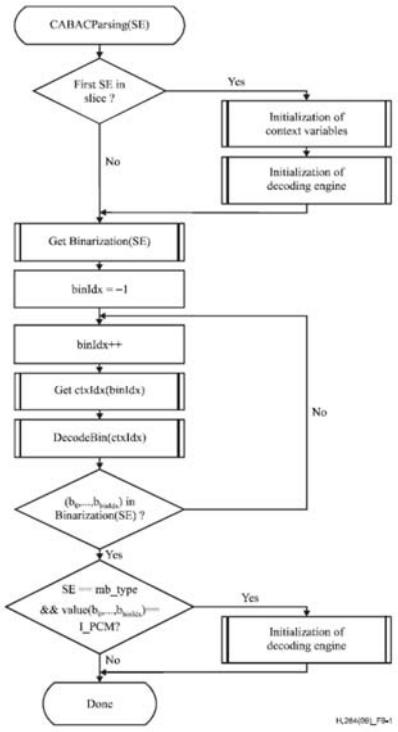

Figure 9-1 – Illustration of CABAC parsing process for a syntax element SE (informative)

See generally, H.264 Standard, Figure 9-1.

22. Each Accused Product includes a second switching unit configured to switch between the plurality of probability tables, from a current probability table for the first bit of the binary data corresponding to a first coefficient to be decoded, to a new probability table for the first bit of the binary data corresponding to a second coefficient to be decoded, based on a result of a comparison between an absolute value of the first coefficient to be decoded and a predetermined threshold value. In accordance with H.264 standard requirements, at the beginning of each coded slice, the context models are initialized. Initializing the context models produces context model tables that are accessed by index "ctxIdx". *See generally, H.264 Standard, Section 9.3.1, Table 9-11, pp. 225-228 (09/2019).* The CABAC decoding engine applies a specific table to decode each bin of a H.264 syntax element, such as a residual block. In particular, the H.264 standard defines six sets of probability tables assigned to residual block types. Residual blocks in categories 0-4 are assigned a group of tables starting at table ctxIdx_227. LumaLevel8x8 blocks

(category 5) are assigned a group of tables starting at table ctxIdx_426. The first table within a group is denoted as ctxIdxOffset. *See H.264 Standard, Section 9.3.3.1.3, Tables 9-34 and 9-42, pp. 249-251, 267-270.*

23. Each of the Accused Products necessarily incorporates switching logic to effect switching between probability tables in accordance with H.264 Standard requirements when performing CABAC entropy decoding. Specifically, to decode the transform coefficient block, H.264-compliant decoders must implement switching logic that follows the mandates of Equations 9-23 and 9-24 of the H.264 Standard, depending on whether the absolute value of transform coefficients is greater than or equal to 1:

– If binIdx is equal to 0, ctxIdxInc is derived by

ctxIdxInc = ((numDecodAbsLevelGt1 != 0) ? 0: Min(4, 1 + numDecodAbsLevelEq1)) (9-23)

– Otherwise (binIdx is greater than 0), ctxIdxInc is derived by

ctxIdxInc = 5 + Min(4 − ((ctxBlockCat == 3) ? 1 : 0), numDecodAbsLevelGt1) (9-24)

See H.264 Standard, Section 9.3.3.1.3, Equations 9-23 and 9-24, pp. 267-270 (09/2019).

24. To effect the table switching mandated by the H.264 Standard, the CABAC entropy decoder computes index ctxIdx to access the table for decoding the first bit (b0) corresponding to a first transform coefficient to be decoded. To decode the first bit (b0) corresponding to a second transform coefficient to be decoded the CABAC entropy decoder computes another index ctxIdx to access the corresponding table. *Id.* Index ctxIdx is specified in the H.264 Standard to be the sum of ctxIdxOffset and ctxIdxBlockCatOffset(ctxBlockCat) and variable ctxIdxInc. *See H.264 Standard, Section 9.3.3.1, Table 9-40, pp. 257-259 (09/2019).* In accordance with Equation 9-23, as long as the absolute value of the corresponding decoded transform coefficient is 1 and the number of previous decoded single bit coefficients is less than 4, the context increment index ctxIdxInc is incremented by 1 (i.e., the switching unit switches to a new probability table correlated to ctxIdx).

25. Each Accused Product also includes an audio decoding unit configured to decode audio data. By way of one representative example, the Dell XPS 13 2-in-1 laptop incorporates the Realtek ALC3281-CG audio controller that is configured to decode separated coded audio data.

Audio

The following table lists the audio specifications of your XPS 13 2-in-1 (9310 2n1).

Table 9. Audio specifications

Description		Values
Audio controller		Realtek ALC3281-CG
Stereo conversion		Supported
Internal audio interface		High definition audio interface
External audio interface		Universal Audio Jack
Number of speakers		2
Internal-speaker amplifier		Supported (Audio codec integrated)
External volume controls		Keyboard shortcut controls
Speaker output:		
	Average speaker output	2 W
	Peak speaker output	2.5 W
Subwoofer output		Not supported
Microphone		Digital-array microphones

See XPS 13 2-in-1 Setup and Specifications, Chapter 3, p. 14 (2020).

26. In each Accused Product the second switching unit is configured to switch between the plurality of probability tables in a predetermined one direction within each block such that each of the probability tables, which has been used for performing arithmetic decoding on the first bit of the binary data corresponding to an already decoded coefficient before switching to the new probability table, is not used within each block after switching to the new probability table and not to switch in the direction opposite to the predetermined one direction regardless of the result of the comparison.

27. In accordance with Equation 9-23, for H.264-compliant decoders, the switching between the plurality of tables is performed in a predetermined increasing direction (i.e., from ctxIdxInc 1 to 4) and will not reverse direction, as long as the absolute value of the corresponding decoded transform coefficient is 1 and the absolute value of the previous decoded coefficient is not greater than 1 (i.e., the switching increment ctxIdxInc for bin0 of a transform coefficient

increases monotonically from 1 to 4 with each successive coefficient to be decoded and will not reverse direction). *See H.264 Standard, Equation 9-23 p. 270* (09/2019).

28. Similarly, in each Accused Product, within each block, if a predetermined one of the plurality of probability tables has been used to perform arithmetic decoding, said second switching unit is configured not to switch between the plurality of probability of tables regardless of the result of the comparison.

29. For H.264-compliant decoders Equation 9-23 mandates that no switching between the plurality of tables is performed when the table ctxIdx corresponding to ctxIdxInc = 4 has been used to decode a transform coefficient with absolute value 1 and bin0 of the next single-bit coefficient is received. In such case the same ctxIdx table will be used for decoding additional trailing 1s without further table switching. Additionally, after decoding a transform coefficient with an absolute value greater than 1, the table ctxIdx corresponding to ctxIdxInc = 0 will be used and no further switching will occur. *See H.264 Standard, Equation 9-23, p. 270 (09/2019).*

30. H.264-compliant decoders, such as those in each Accused Product, are configured to decoded coded picture data, including picture data that has already been encoded by an arithmetic coding apparatus using CABAC entropy encoding. Products capable of decoding H.264-complaint coded picture data typically also incorporate an audio codec to decode related audio data previously encoded in accordance with various audio coding standards, such as AAC. An arithmetic coding apparatus typically constitutes a H.264-complaint codec for coding picture data and one or more audio codecs for coding the audio data.

31. A H.264-compliant arithmetic coding apparatus, whether embodied in the Accused Products or otherwise embodied separately, includes a coefficient scanning unit configured to scan coefficients of frequency components, which are generated by frequency transformation performed on the picture data of a block which has a predetermined scanning order starting at a

high frequency component toward a low frequency component. As noted previously, H.264-complaint encoders operate on a macroblock, consisting of a 16 x 16 block of luma samples and two corresponding blocks of chroma samples. A macroblock can be further portioned for inter-prediction forming segmentations for motion representation as small as 4 x 4 luma samples in size. *See generally, ITU-T H.264, Series H: Audio Visual and Multimedia Systems, Infrastructure of Audiovisual Services – Coding of Moving Video, Advanced Video Coding for Generic Audio Visual Services ("H.264 Standard"), Section 0.6.3, p. 5 (09/2019).* Two main coding types are specified in H.264, intra-coding and inter-coding. Intra-coding is done without reference to other pictures while inter-coding uses inter-prediction of each block of sample values from some previously decoded picture. *See generally, H.264 Standard, Section 0.6.1, p. 4 (09/2019).* H.264 decoding is based on the use of a block-based transform method for spatial redundancy removal. The resulting residual block is split into 4 x 4 blocks. These residual blocks are converted into the transform domain where they are quantized. *See generally, H.264 Standard, Section 0.6.4, p. 5 (09/2019).* H.264 specifies an *entropy_coding_mode* flag that dictates the entropy encoding algorithm used to encode the picture data. When this flag is set to "1" the residual block data is coded using a CABAC scheme. *See generally, H.264 Standard, Section 7.4.2.2, pp. 81-82 (09/2019).*

32. A H.264-compliant arithmetic coding apparatus, whether embodied in the Accused Products or otherwise embodied separately, includes a converting unit configured to convert each absolute value of the coefficients into binary data. In H.264 CABAC encoding generally, coding a data symbol involves binarizing the frequency transform coefficients, in scan order, and then further encoding the binary codes.

33. A H.264-compliant arithmetic coding apparatus, whether embodied in the Accused Products or otherwise embodied separately, includes an arithmetic coding unit configured to perform arithmetic coding on a first bit of the binary data corresponding to each absolute value of

the coefficients according to the predetermined scanning order by using a plurality of probability tables. Since CABAC is a context-adaptive binary arithmetic coding technique, it relies on probability model ("context model") selection for one or more bins of the binarized code. Context models and binarization schemes are defined in the H.264 standard. *See generally, H.264 Standard, Section 9.3, pp. 223-278 (09/2019).* The context model stores the probability of each bin being "1" or "0". An arithmetic coder then encodes each bin according to the selected probability model and the selected context model is updated based on the actual coded value for further encoding. *See generally, H.264 Standard, Sections 7.4.5.3.3, 9.3, and Figure 9-1, pp. 110-111, 223-278, (09/2019).*

34. A H.264-compliant arithmetic coding apparatus, whether embodied in the Accused Products or otherwise embodied separately, includes a first switching unit configured to switch between the plurality of probability tables, from a current probability table for the first bit of the binary data corresponding to a first coefficient to be coded, to a new probability table for the first bit of the binary data corresponding to a second coefficient to be coded, based on a result of a comparison between an absolute value of the first coefficient to be coded and a predetermined threshold value. In accordance with H.264 CABAC encoding, at the beginning of each coded slice, the context models are initialized. Initializing the context models produces context model tables that are accessed by index "ctxIdx". *See generally, H.264 Standard, Section 9.3.1, Table 9-11, pp. 225-228 (09/2019).* The CABAC encoder applies a specific table to encode each bin of a H.264 syntax element, such as a residual block. In particular, the H.264 standard defines six sets of probability tables assigned to residual block types. Residual blocks in categories 0-4 are assigned a group of tables starting at table ctxIdx_227. LumaLevel8x8 blocks (category 5) are assigned a group of tables starting at table ctxIdx_426. The first table within a group is denoted as ctxIdxOffset. *See H.264 Standard, Section 9.3.3.1.3, Tables 9-34 and 9-42, pp. 249-251, 267-270.*

35. H.264 complaint encoders, whether embodied in the Accused Products or embodied separately, necessarily incorporate switching logic to effect switching between probability tables in accordance with H.264 requirements when performing CABAC entropy encoding. Specifically, to encode the transform coefficient block H.264 compliant encoders must implement switching logic that follows the mandates of Equations 9-23 and 9-24 of the H.264 Standard, depending on whether the absolute value of transform coefficients is greater than or equal to 1:

– If binIdx is equal to 0, ctxIdxInc is derived by

ctxIdxInc = ((numDecodAbsLevelGt1 != 0) ? 0: Min(4, 1 + numDecodAbsLevelEq1)) (9-23)

– Otherwise (binIdx is greater than 0), ctxIdxInc is derived by

ctxIdxInc = 5 + Min(4 − ((ctxBlockCat == 3) ? 1 : 0), numDecodAbsLevelGt1) (9-24)

See H.264 Standard, Section 9.3.3.1.3, Equations 9-23 and 9-24, pp. 267-270 (09/2019).

36. To effect the mandated table switching, the CABAC entropy encoder computes index ctxIdx to access the table for encoding the first bit (b0) corresponding to a first transform coefficient to be encoded. To encode the first bit (b0) corresponding to a second transform coefficient to be encoded, the CABAC entropy encoder computes another index ctxIdx to access the corresponding table. *Id.* Index ctxIdx is specified in the H.264 Standard to be the sum of ctxIdxOffset and ctxIdxBlockCatOffset(ctxBlockCat) and variable ctxIdxInc. *See H.264 Standard, Section 9.3.3.1, Table 9-40, pp. 257-259 (09/2019).* In accordance with Equation 9-23, as long as the absolute value of the corresponding encoded transform coefficient is 1 and the number of previous encoded single bit coefficients is less than 4, the context increment index ctxIdxInc is incremented by 1 (i.e., the switching unit switches to a new probability table correlated to ctxIdx).

37. Typical audio encoders, whether embodied in the Accused Products or embodied separately, as an element of the arithmetic coding apparatus include an audio coding unit

configured to code an audio signal in a standard audio format like AAC.

38. In H.264-complaint encoders, whether embodied in the Accused Products or embodied separately, said first switching unit is configured to switch between the plurality of probability tables in a predetermined one direction within each block such that each of the probability tables, which has been used for performing arithmetic coding on the first bit of the binary data corresponding to an already coded coefficient before switching to the new probability table, is not used within each block after switching to the new probability table and not to switch between the plurality of probability tables in the direction opposite to the predetermined one direction regardless of the result of the comparison.

39. In accordance with Equation 9-23, for H.264-compliant encoders, the switching between the plurality of tables is performed in a predetermined increasing direction (i.e., from ctxIdxInc 1 to 4) and will not reverse direction, as long as the absolute value of the corresponding encoded transform coefficient is 1 and the absolute value of the previous encoded coefficient is not greater than 1 (i.e., the switching increment ctxIdxInc for bin0 of a transform coefficient increases monotonically from 1 to 4 with each successive coefficient to be encoded and will not reverse direction). *See H.264 Standard, Equation 9-23, pp. 270* (09/2019).

40. Similarly, in H.264-complaint encoders, whether embodied in the Accused Products or embodied separately, within each block, if a predetermined one of the plurality of the probability tables has been used to perform arithmetic coding, said first switching unit is configured not to switch between the plurality of probability tables regardless of the result of the comparison.

41. Equation 9-23 mandates that no switching between the plurality of tables is performed when the table ctxIdx corresponding to ctxIdxInc = 4 has been used to encode a transform coefficient with absolute value 1 and bin0 of the next single-bit coefficient is to be

coded. In such case the same ctxIdx table will be used for encoding additional trailing 1s without further table switching. Additionally, after encoding a transform coefficient with an absolute value greater than 1, the table ctxIdx corresponding to ctxIdxInc = 0 will be used for subsequent coefficient coding and no further switching will occur. *See H.264 Standard, Equation 9-23, p. 270* (09/2019).

42. Dell is not licensed or otherwise authorized to practice the claims of the '059 patent.

43. By reason of Dell's infringement, VideoLabs has suffered and continues to suffer damages.

44. VideoLabs is entitled to recover the damages sustained as a result of Dell's wrongful acts in an amount subject to proof at trial.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiff hereby demands a trial by jury as to all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully prays for the following relief:

(a) A judgment that Defendants have infringed the '059 patent;

(b) Damages adequate to compensate VideoLabs for Defendants' infringement of the '059 patent pursuant to 35 U.S.C. § 284;

(c) Pre-judgment interest;

(d) Post-judgment interest; and

(e) Such other relief as the Court deems just and equitable.

Dated: September 10, 2021

/s/ M. Elizabeth Day w/permission Wesley Hill
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