IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

U.S. PHILIPS CORPORATION, Plaintiff, v. EASTMAN KODAK COMPANY, Defendant.	Civil Action No. 06-251 (GMS)

FINAL JOINT CLAIM CHART

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Pursuant to Paragraph 4 of the Final Scheduling Order (D.I. 20), the parties jointly submit this Final Joint Claim Chart.

The parties have agreed on the following constructions:

U.S. Patent No. 4,901,075, claims 3 and 11

(1) "predetermined run length" in claim 11 means "a run length determined prior to coding."

(2) "pixel" in claim 3 means "a number representing an image at a single point."

(3) "quantization" in claim 3 means "a process that substitutes a single whole number for a range of signal values."

Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
"coefficient" [all claims]	"a multiplication factor that results from transform coding" '075 patent, col. 1:18-23, col. 1:24-30, col. 2:23-27. W. Chen & W. K. Pratt, "Scene Adaptive Coder," IEEE Transactions on Communications, Vol. Com. 32, No. 3, (March 1984), at 225-26 ("Chen & Pratt").	"a whole number" '075 patent, claims 3, 4, 7, 8, and 11. '075 patent, 2:30-35 and Figures 2-5.
"zero coefficient" [all claims]	"a coefficient whose value is zero or approximately zero" '075 patent, col. 2:30-33.	"a whole number whose value is zero" '075 patent, claims 3, 4, 7, 8, and 11. '075 patent, 1:24-30; 2:30-33.
"non-zero coefficient" [all claims]	"a coefficient whose possible magnitudes proceed through the natural numbers without the zero" '075 patent, col. 2:33-35, col. 2:55-56 Application No. 07/096,177, Amendment, June 12, 1989, at 5.	"a whole number whose value is not zero" '075 patent, claims 3, 4, 7, 8, and 11. '075 patent, 2:30-35.

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
"code word" [all claims]	"a sequence of bits assigned to represent a particular event or events in accordance with a predefined set of rules" '075 patent, col. 3:28-32, col. 3:38-44.	"a unique representation for an event in a single code table" '075 patent, claims 3, 4, 7, 8, and 11. '075 patent, 4:55-5:2; Figs. 3-5 '075 Prosecution History, June 1, 1989 Response at pg. 6 ("However, in accordance with the instant invention, there is assigned only one codeword to the entire event. This codeword depends on the number of zero coefficients (in this case six) and the value of the non-zero coefficient. Different codewords are assigned to events having the same number of zero coefficients but different values of the non-zero coefficient.")

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
"assigning a code word to represent said non-zero coefficient and said run length" [claim 3]	Plain meaning for terms not otherwise construed, i.e., "assigning a sequence of bits to represent the non-zero coefficient and the run length of the event in accordance with a predefined set of rules" '075 patent, col. 3:28-32, col. 3:38-44.	"selecting a unique entry in the single code table for the event. From this code word, the original run length of zero coefficients and the magnitude of the non-zero coefficient can be determined, without any additional information." '075 patent, claim 3. '075 patent, 4:55- 5:2; 5:32-66; Figs. 3-5. '075 Prosecution History, June 2, 1989 Response at pp. 5-6 ("As specifically described in the claims, for example claim 11, the method comprises the step of deriving from said signal a plurality of events each comprising not only a run of zero coefficients but a run of zero coefficients having a respective run length of which is preceded or followed by at least one non-zero coefficient. In other words, we define events, and an event is constituted for example, by a run of zero coefficients and the subsequent or preceding non-zero coefficient. Consider an event 000000C where each zero indicates a zero coefficient and the "C" indicates a non-zero coefficient.

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
		According to the teaching of Fukuoka there would be assigned a code word to the run of six zeros and a further codeword to the non-zero coefficient. However, in accordance with the instant invention, there is assigned only one codeword to the entire event. This code word depends on the number of zero coefficients (in this case six) and the value of the non-zero coefficient. Different codewords are assigned to events having the same number of zero coefficients but different values of the non-zero coefficient.")
"assigning a code word to represent said run length and said non-zero coefficient" [claim 8]	Plain meaning for terms not otherwise construed, i.e., "assigning a sequence of bits to represent the run length and the non-zero coefficient of the event in accordance with a predefined set of rules" '075 patent, col. 3:28-32, col. 3:38-44.	"selecting a unique entry in the single code table for the event. From this code word, the original run length of zero coefficients and the magnitude of the non-zero coefficient can be determined, without any additional information." '075 patent, claim 8. '075 patent, 4:55- 5:2; 5:32-66; Figs. 3-5 '075 Prosecution History, June 2, 1989 Response at pp. 5-6 ("As specifically described in the claims, for example claim

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
		11, the method comprises the step of deriving from said signal a plurality of events each comprising not only a run of zero coefficients but a run of zero coefficients having a respective run length of which is preceded or followed by at least one non-zero coefficient. In other words, we define events, and an event is constituted for example, by a run of zero coefficients and the subsequent or preceding non-zero coefficient. Consider an event 000000C where each zero indicates a zero coefficient and the "C" indicates a non-zero coefficient. According to the teaching of Fukuoka there would be assigned a code word to the run of six zeros and a further codeword to the non-zero coefficient. However, in accordance with the instant invention, there is assigned only one codeword to the entire event. This code word depends on the number of zero coefficients (in this case six) and the value of the non-zero coefficient. Different codewords are assigned to events having the same number of zero coefficients but different values of the non-zero coefficient.")

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
"Huffman code word" [all claims]	"a sequence of bits assigned to represent a particular event or events in accordance with a predefined set of rules with the following characteristics: a) the code words may be of different lengths; b) no code word is a prefix of another code word; and c) the predefined set of rules strives to minimize the average code word length by exploiting the distribution of event probabilities" '075 patent, col. 1:36-45.	"a variable-length code word that identifies each unique event, where the code word is shorter for more frequently occurring events and longer for less frequently occurring events, whereby no Huffman code word is the prefix of another Huffman code word." '075 patent, claims 3, 4, 7, 8, and 11. '075 patent, 1:36-45 and Figures 3-5.
"Huffman codeword is independent of the sign of that nonzero coefficient" [claim 7]	Plain meaning for terms not otherwise construed, i.e., "the sequence of bits assigned to represent a particular event or events is independent of the sign of the non-zero coefficient"	"the Huffman codeword is separate from the single bit that only provides whether the non-zero coefficient is positive or negative" '075 patent, claim 7. '075 patent, 4:55- 5:2; Figs. 3-5

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
"the sign is coded by a separate bit" [claim 7]	"the sign can be determined solely by examining a single bit" '075 patent, Figs. 3-5.	"a single bit that only provides whether the nonzero coefficient is positive or negative" '075 patent, claims 3, 4, 7, 8, and 11. '075 patent, 4:55- 5:2; Figs. 3-5.
"event" [all claims]	"an occurrence of a run of zero coefficients and the non-zero coefficient which immediately precedes or follows that run, some occurrences being more likely than others" '075 patent, col. 2:36-44, 3:36-38.	"a run of zero coefficients and the value of the non-zero coefficient which immediately precedes or follows that run" '075 patent, claims 3, 4, 7, 8, and 11. '075 patent, 2:36-42. '075 Prosecution History, Dec. 8, 1988 Response at pg. 8 ("Widergren, however, does not disclose the encoding of events comprising a run of zero value coefficients and the subsequent or preceding non-zero coefficient. Therefore, claims 4-17 are patentable under 35 U.S.C. 102(b) over Widergren.")

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
		'075 Prosecution History, June 2, 1989 Response at pp. 5-6 ("As specifically described in the claims, for example claim 11, the method comprises the step of deriving from said signal a plurality of events each comprising not only a run of zero coefficients but a run of zero coefficients having a respective run length of which is preceded or followed by at least one non-zero coefficient. In other words, we define events, and an event is constituted for example, by a run of zero coefficients and the subsequent or preceding non-zero coefficient. Consider an event 000000C where each zero indicates a zero coefficient and the "C" indicates a non-zero coefficient. According to the teaching of Fukuoka there would be assigned a code word to the run of six zeros and a further codeword to the non-zero coefficient. However, in accordance with the instant invention, there is assigned only one codeword to the entire event. This code word depends on the number of zero coefficients (in this case six) and the value of the non-zero coefficient. Different codewords are assigned to events having the

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
		same number of zero coefficients but different values of the non-zero coefficient.")

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
"run" [all claims]	"a sequence (possibly of length zero) of successive identical particular values" '075 patent, col. 2:39-41, 4:16-18, 4:20-23, Figs. 1, 3, and 4, items 2, 5, 11, 18, 19, 27, 32, 33, 42, and 60.	"a sequence of equal value coefficients" '075 patent, claims 3, 4, 7, 8, and 11. '075 patent, 1:66- 2:2; 2:36-39 and 4:55 – 5:2. '075 Prosecution History June 2, 1989 Response at p. 5 ("In each of these methods, a run is defined as a series of equal elements, for instance a run of "zero"elements may consist of one, two, or three, or even 100 zeros. Similarly run of "one"elements may consist of one or 2 or three, etc. ones."and "In the instant invention, the coefficients are not limited to either ones or zeros, i.e., they are not merely binary.")
"run length" [all claims]	"the number (which can be zero) of identical particular values in a run" '075 patent, col. 2:39-41, 4:16-18, 4:20-23, Figs. 1, 3, and 4, items 2, 5, 11, 18, 19, 27, 32, 33, 42, and 60.	"the number of equal value coefficients in a sequence" '075 patent, claims 3, 4, 7, 8, and 11. '075 patent, 2:47-57; 4:55 – 5:2 and Figures 1-5.

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
		'075 Prosecution History June 2, 1989 Response at p. 5 ("In each of these methods, a run is defined as a series of equal elements, for instance a run of "zero"elements may consist of one, two, or three, or even 100 zeros. Similarly run of "one"elements may consist of one or 2 or three, etc. ones."and "In the instant invention, the coefficients are not limited to either ones or zeros, i.e., they are not merely binary.")

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
"transform" [claim 3]	"a mathematical operation which yields an alternative representation of a sequence or array of values" Chen & Pratt, at 225.	"A mathematical operation that converts a signal" '075 patent, claim 3. '075 patent, 1:18-23.
"transforming" [claim 8]	"performing a mathematical operation which yields an alternative representation of a sequence or array of values" Chen & Pratt, at 225.	"performing a mathematical operation that converts a signal" '075 patent, claim 8. '075 patent, 1:18-23.
"a blockwise transform of pixels" [claim 3]	"a mathematical operation that yields an alternative representation of a 2-dimensional array of pixels" Chen & Pratt, at 225.	"a mathematical operation that converts a signal representing a block of pixels" '075 patent, claim 3. '075 patent, 1:18-23.

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
"a sequence of coefficients which results after a blockwise transform of pixels of a video signal with subsequent quantization" [claim 3]	"a sequence of coefficients that results from a mathematical operation that yields an alternative representation of a 2-dimensional array of pixels in a rectangular portion of an image, and subsequent quantization" Chen & Pratt, at 225-26.	"a mathematical operation that converts video frames to a sequence of whole numbers following a blockwise transformation and quantization" '075 patent, claim 3. '075 patent, 1:18-26.
"signal comprising a sequence of coefficients which results after a blockwise transform of pixels of a video signal" [claim 3]	"signal comprising a sequence of coefficients that results from a mathematical operation that yields an alternative representation of a 2-dimensional array of pixels in a rectangular portion of an image" Chen & Pratt, at 225.	"a signal resulting from a mathematical operation that converts video frames to a sequence of whole numbers following a blockwise transformation and quantization" '075 patent, claim 3. '075 patent, 1:18-26.

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
"transforming said signal" [claim 8]	"performing a mathematical operation which yields an alternative representation of the sequence or array of values" Chen & Pratt, at 225.	"performing a mathematical operation that converts a video signal" '075 patent, claim 8. '075 patent, 1:11-30.
"transforming said signal into a sequence comprising zero coefficients occurring in runs and non-zero coefficients" [claim 8]	"performing a mathematical operation on a sequence or array of values that yields an alternative representation comprising zero coefficients occurring in runs and non-zero coefficients" Chen & Pratt, at 225.	"performing a mathematical operation that converts video signal frames into a sequence comprising zero coefficients occurring in runs and nonzero coefficients" '075 patent, claim 8. '075 patent, 1:11-30.

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
"signal" [all claims]	"a sequence or array of values that represents information" '075 patent, col. 8:8-10, col. 2:23-27.	"a sequence of values comprised of sequential and interdependent image frames that when rapidly displayed are capable of depicting movement" '075 patent, claims 3, 4, 7, 8, and 11. '075 patent, 1:11-35. Chen, Wen-Hsiung and Pratt, William K.; Scene Adaptive Coder IEEE Transactions on Communications, vol. Com-32, No. 3, March 1984, pages 225-232 (cited in the '075 patent, 1:11-16) at pg. 229: The scene adaptive coder described herein encodes cosine transform coefficients in a simple manner. The coding process involves only thresholding, normalization, roundoff, and rate buffer equalization. The performance of the coder is quite good in terms of mean square error and subjective evaluation. Because the coding process is dependent upon the instantaneous coefficient content inside the block and the accumulated rate buffer content, it is well suited for intraframe coding of moving images. At Compression Labs, Inc., the coder has been implemented with real-time hardware to code NTSC color video at a channel rate of 1.5 Mbits/s.

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
"video signal" [claim 3]	"a sequence or array of values that represents visual information (e.g., an image)" '075 patent, col. 2:23-25. Chen & Pratt, at 225, 229. U.S. Pat. No. 4,316,222 to Subramium, at col. 1:8-12.	"a sequence of values comprised of sequential and interdependent image frames that when rapidly displayed are capable of depicting movement" '075 patent, claim 3. '075 patent, 1:11-35. Chen, Wen-Hsiung and Pratt, William K.; Scene Adaptive Coder IEEE Transactions on Communications, vol. Com-32, No. 3, March 1984, pages 225-232 (cited in the '075 patent, 1:11-16) at pg. 229: The scene adaptive coder described herein encodes cosine transform coefficients in a simple manner. The coding process involves only thresholding, normalization, roundoff, and rate buffer equalization. The performance of the coder is quite good in terms of mean square error and subjective evaluation. Because the coding process is dependent upon the instantaneous coefficient content inside the block and the accumulated rate buffer content, it is well suited for intraframe coding of moving images. At Compression Labs, Inc., the coder has been implemented with real-time hardware to code NTSC color video at a channel rate of 1.5 Mbits/s.

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
"for transmission at a reduced bit rate" [claim 3]	"for transmission with fewer bits per pixel" '075 patent, col. 1:11-17, col. 1:60-65, col. 3:13-17. Chen & Pratt, at 225.	"for transmission with 12% fewer bits as compared to the Chen method" Otherwise, indefinite under 35 U.S.C. § 112. '075 patent, claim 3. '075 patent, 1:11-57; 3:13-17
"for transmission at a reduced bandwidth" [claim 8]	"for transmission with fewer bits per pixel" '075 patent, col. 1:11-17, col. 1:60-65, col. 3:13-17. Chen & Pratt, at 225.	"for transmission with 12% less bandwidth as compared to the Chen method" Otherwise, indefinite under 35 U.S.C. § 112. '075 patent, claim 8. '075 patent, 1:11-57; 3:13-17

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
"determining whether the run length of each event exceeds a predetermined run length" [claim 11]	Plain meaning for terms not otherwise construed, i.e., "determining whether the number (which can be zero) of identical particular values in the run occurring in each event exceeds a run length determined prior to coding"	"selecting an event and then determining whether the number of consecutive equal value coefficients exceeds the predetermined run length" '075 patent, claim 11. '075 patent, 3:53-61; 4:3-13 and 6:28-34
"splitting said respective event into a plurality of sections" [claim 11]	Plain meaning for terms not otherwise construed, i.e., "splitting the respective occurrence of a run of zero coefficients and the non-zero coefficient which immediately precedes or follows that run, some occurrences being more likely than others, into two or more sections"	"dividing a single event into two or more sub-events" '075 patent, claim 11. '075 patent, 3:53 -4:45.

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
"assigning a code word to each section" [claim 11]	Plain meaning for terms not otherwise construed, i.e., "assigning to each section a sequence of bits to represent a particular event or events in accordance with a predefined set of rules"	"selecting a unique entry in the single code table for each sub-event" '075 patent, claim 11. '075 patent, 4:55-65; 5:32-66; Figs. 3-5 '075 Prosecution History, June 2, 1989 Response at pp. 5-6 ("As specifically described in the claims, for example claim 11, the method comprises the step of deriving from said signal a plurality of events each comprising not only a run of zero coefficients but a run of zero coefficients having a respective run length of which is preceded or followed by at least one non-zero coefficient. In other words, we define events, and an event is constituted for example, by a run of zero coefficients and the subsequent or preceding non-zero coefficient. Consider an event 000000C where each zero indicates a zero coefficient and the "C" indicates a non-zero coefficient.

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Term/Phrase	Philips' Proposed Construction	Kodak's Proposed Construction
		According to the teaching of Fukuoka there would be assigned a code word to the run of six zeros and a further codeword to the non-zero coefficient. However, in accordance with the instant invention, there is assigned only one codeword to the entire event. This code word depends on the number of zero coefficients (in this case six) and the value of the non-zero coefficient. Different codewords are assigned to events having the same number of zero coefficients but different values of the non-zero coefficient.")
"coding" [all claims]	Plain meaning, i.e., "to put in encoded form"	"converting from one form to another based on a set of rules" '075 patent, claims 3, 4, 7, 8, and 11. '075 patent, 1:17-35.

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