The Honorable James L. Robart

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

MICROSOFT CORPORATION, a Washington corporation, Plaintiff, v. MOTOROLA, INC., and MOTOROLA MOBILITY, INC., and GENERAL INSTRUMENT CORPORATION, Defendants.	CASE NO. C10-1823-JLR THE PARTIES' JOINT CLAIM CONSTRUCTION CHART
MOTOROLA MOBILITY, INC., and GENERAL INSTRUMENT CORPORATION, Plaintiffs/Counterclaim Defendant, v. MICROSOFT CORPORATION, Defendant/Counterclaim Plaintiff.	

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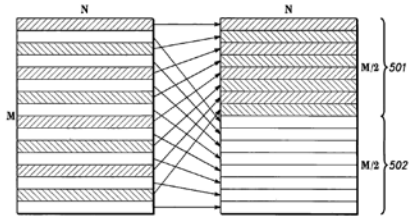
Joint Claim Construction Chart for U.S. Patent Nos. 7,310,374, 7,310,375, and 7,310,376[1]

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
macroblock Found in claim numbers: '374 Patent: 8, 14 '375 Patent: 6, 13, 14 '376 Patent: 14, 15, 18-20, 22, 23, 26-28, 30	**macroblock** Proposed Construction: a picture portion comprising a 16×16 pixel region of luma and corresponding chroma samples Intrinsic Evidence: Exhibit A at col 18:49-50 ("wherein each of said smaller portions has a size that is larger than one macroblock"); '374 Patent Abstract ("Each of the pictures comprises macroblocks that can be further divided into smaller blocks."); Exhibit A at col 1:17-20 ("the present invention relates to frame mode and field mode encoding of digital video content at a macroblock level as used in the MPEG-4 Part 10 AVC/H.264 standard video coding standard."); Exhibit A at col 2:56-60 ("Each of the pictures comprises macroblocks that can be further divided into smaller blocks. The method entails encoding and decoding each of the macroblocks in each picture in said stream of pictures in either frame mode or in field mode."); Exhibit A at col 5:54-58 ("FIG. 2 shows that each picture (200) is preferably divided into slices (202). A slice (202) comprises a group of macroblocks	Proposed Construction: a rectangular group of pixels Intrinsic Evidence: '374 Patent, at Fig. 5  500 FIG. 5 '374 Patent, at 5:56-58 ("A macroblock (201) is a rectangular group of pixels. As show in in FIG. 2, a preferable macroblock (201) size is 16 by 16 pixels."); 7:7-10 ("In FIG. 5, the macroblock has M rows of pixels and N columns of pixels. A preferable value of N and M is 16, making the macroblock (500) a 16 x 16 pixel macroblock."). '374 Patent, at 4:48-51 ("Although this method of AFF encoding is compatible with and will be

[1] The parties dispute whether it is appropriate to consolidate certain terms for construction. The chart below identifies such terms in both separate and consolidated form

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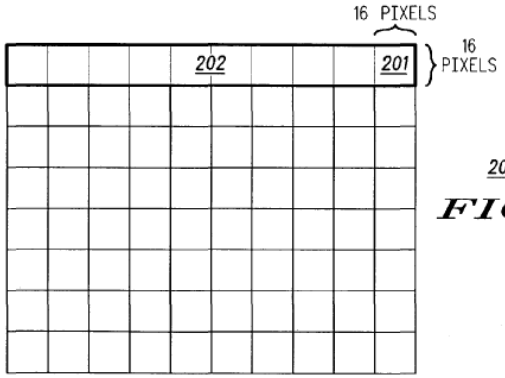
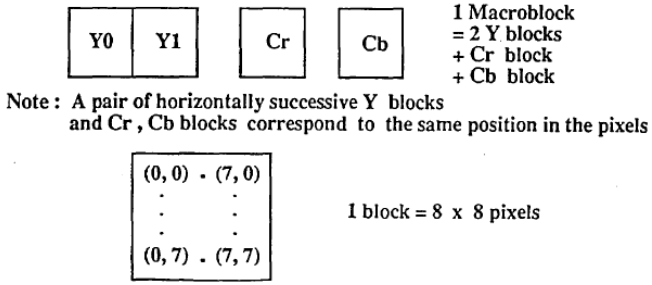
	(201). A macroblock (201) is a rectangular group of pixels. As shown in FIG. 2, a preferable macroblock (201) size is 16 by 16 pixels.");  FIG. 2 Exhibit A at col 5:59-67 ("FIGS. 3a–f shows that a macroblock can be further divided into smaller sized blocks. For example, as shown in FIGS. 3a–f, a macroblock can further be divided into block sizes of 16 by 8 pixels (FIG. 3a; 300), 8 by 16 pixels (FIG. 3b; 301), 8 by 8 pixels (FIG. 3c; 302), 8 by 4 pixels (FIG. 3d; 303), 4 by 8 pixels (FIG. 3e; 304), or 4 by 4 pixels (FIG. 3f: 305). These smaller block sizes are preferable in some applications that use the temporal prediction with motion compensation algorithm."); Exhibit A at col 7:15-24 ("As shown in FIGS. 6a-d, a macroblock that is encoded in field mode can be divided into four additional blocks. A block is required to have a single parity. The single parity requirement is that a block cannot comprise both top and bottom	explained using the MPEG-4 Part 10 AVC/H.264 standard guidelines, it can be modified and used as best serves a particular standard or application." <u>Extrinsic Evidence</u>: ISO-IEC/JTCl/SC29/WGll MPEG 91/228, November 1991 [MS-MOTO_1823_00000720812], at 4 ("A block contains 8 x 8 pixels …. A Macroblock consists of four blocks, i.e. two Y blocks together with corresponding Cr block and Cb block.").  *Id.* ISO/IEC JTC1/SC2/WG11 MPEG 91/221 [MS-MOTO_1823_00000720713], at 3-4 ("A block consists of an array of 8 pixels x 8 lines of either luminance or one of the color difference signals…. A macroblock consists of 2 horizontally adjacent luminance blocks (16 pixels x 8 lines) and the co-sited single 8x8 Cb block and single 8x8 Cr block.").

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	fields. Rather, it must contain a single parity of field. Thus, as shown in FIGS. 6a-d, a field mode macroblock can be divided into blocks of 16 by 8 pixels (FIG. 6a; 600), 8 by 8 pixels (FIG. 6b; 601), 4 by 8 pixels (FIG. 6c; 602), and 4 by 4 pixels (FIG. 6d; 603). FIGS. 6a-d shows that each block contains fields of a single parity."); Exhibit A at col 7:58-60 ("In FIG. 8, each macroblock in the pair of macroblocks (700) has N=16 columns of pixels and M=16 rows of pixels."); Exhibit A at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461773) ("3.46 macroblock: The 16x16 luma samples and the two corresponding blocks of chroma samples.") Exhibit K at MOTM_WASH1823_0336282 ("Each macroblock is 16 x 16 pixels."); Exhibit L at MOTM_WASH1823_0336317 ("[a] MB of 16 x 16"); Exhibit M at MOTM_WASH1823_0336328 ("[a] MB of 16 x 16"); Exhibit O at col. 3:12-21 ("The frame is divided into N slices in the vertical direction and each slice is divided into M macro blocks in the horizontal direction, each macro block consisting of a 16x16 array of picture elements. For each macro block there are formed four 8x8 blocks Y[1] to Y[4] of brightness data, which together represent all of the 16x16 picture elements in the macro block. At the same time, two 8x8 data blocks Cb[5] and Cr[6] representing color difference signals are included in each macro block.").	U.S. Patent No. 5,878,166 (filed Dec 26, 1995, issued Mar 2, 1999) [MS-MOTO_1823_00000718345], at 10:12-15 ("This results in a macroblock which comprises 4x4 pixels, so that there is a 4x2 macroblock in Field F_1 and 4x2 [sic] macroblock in field F_2."); 10:37-38 ("This results in a 8x8 macroblock comprising an 8x4 macroblock in Field F_1 and an 8x4 macroblock in Field F_2.").

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	Extrinsic Evidence: Exhibit X at MOTM_WASH1823_0055404 ("macroblock: A 16x16 block of luma samples and two corresponding blocks of chroma samples of a picture that has three sample arrays, or a 16x16 block of samples of a monochrome picture or a picture that is coded using three separate colour planes. The division of a slice or a macroblock pair into macroblocks is a partitioning."); Exhibit Y at MOTM_WASH1823_0336711 ("A picture is partitioned into fixed-size macroblocks that each cover a rectangular picture area of 16×16 samples of the luma component and 8×8 samples of each of the two chroma components. This partitioning into macroblocks has been adopted into all previous ITU-T and ISO/IEC JTC1 video coding standards since H.261."); Exhibit Z at MOTM_WASH1823_0336350 (under "Standard Hybrid Video Codec Terminology," defining "macroblock" as "a region of size 16 x 16 in luminance picture and the corresponding region of chrominance information…"); Exhibit AA at MOTM_WASH1823_0336338 ("In many video standards, motion compensation is applied to 16×16 macroblocks, while the residual error is DCT coded with 8×8 blocks.").	
using said plurality of decoded [smaller portions/ processing blocks] to construct a decoded picture	**using said plurality of decoded [smaller portions/processing blocks] to construct a decoded picture**	Proposed Construction: assembling the decoded [smaller portions/processing blocks] to form a decoded

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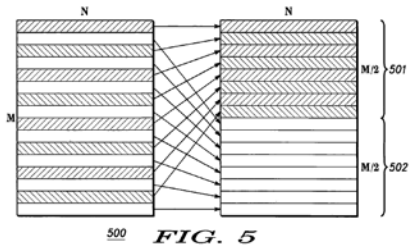
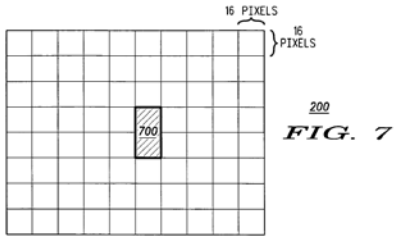
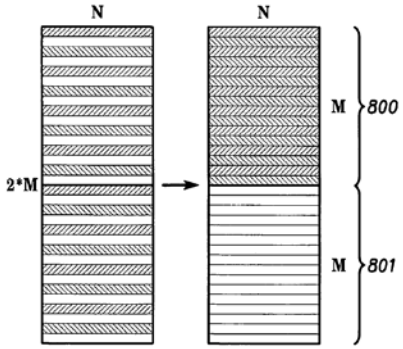
Found in claim numbers: '374 Patent: 8, 14 '375 Patent: 6, 13, 17 '376 Patent: 22	<u>Proposed Construction:</u> *No construction necessary*. *If construed*: generating a decoded picture from the plurality of decoded [smaller portions/processing blocks] <u>Intrinsic Evidence:</u> Exhibit A at col 18:44-54 ("A method of decoding an encoded picture having a plurality of smaller portions from a bitstream, comprising: decoding at least one of said plurality of smaller portions at a time in frame coding mode and at least one of said plurality of smaller portions at a time in field coding mode, wherein each of said smaller portions has a size that is larger than one macroblock, wherein at least one block within said at least one of said plurality of smaller portions at a time is encoded in inter coding mode; and using said plurality of decoded smaller portions to construct a decoded picture."); Exhibit A at col 1:59-67 ("The general idea behind video coding is to remove data from the digital video content that is "non-essential." The decreased amount of data then requires less bandwidth for broadcast or transmission. After the compressed video data has been transmitted, it must be decoded, or decompressed. In this process, the transmitted video data is processed to generate approximation data that is substituted into the video data to replace the "non-essential" data that was removed	"picture" <u>Intrinsic Evidence</u>: '374 Patent, at Figs. 5  FIG. 5 '374 Patent, at Figs. 7  FIG. 7 '374 Patent, at Figs. 8 

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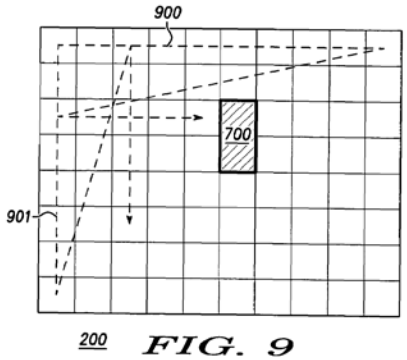
	in the coding process."); Exhibit A at col 6:1-37 ("FIG. 4 shows a picture construction example using temporal prediction with motion compensation that illustrates an embodiment of the present invention. Temporal prediction with motion compensation assumes that a current picture, picture N (400), can be locally modeled as a translation of another picture, picture N-1 (401). The picture N-1 (401) is the reference picture for the encoding of picture N (400) and can be in the forward or backwards temporal direction in relation to picture N (400). As shown in FIG. 4, each picture is preferably divided into slices containing macroblocks (201a,b). The picture N-1 (401) contains an image (403) that is to be shown in picture N (400). The image (403) will be in a different temporal position in picture N (402) than it is in picture N-1 (401), as shown in FIG. 4. The image content of each macroblock (201b) of picture N (400) is predicted from the image content of each corresponding macroblock (201a) of picture N-1 (401) by estimating the required amount of temporal motion of the image content of each macroblock (201a) of picture N-1 (401) for the image (403) to move to its new temporal position (402) in picture N (400). Instead of the original image (402) being encoded, the difference (404) between the image (402) and its prediction (403) is actually encoded and transmitted.	'374 Patent, at Figs. 9  FIG. 9 '374 Patent, at 3:32-33 ("FIG. 5 shows that a macroblock is split into a top field and a bottom field if it is to be encoded in field mode.") '374 Patent, at 3:46-54 (" FIG. 7 illustrates an exemplary pair of macroblocks that can be used in AFF coding on a pair of macroblocks according to an embodiment of the present invention.") '374 Patent, at 7:43 – 8:45 ("FIG. 7 illustrates an exemplary pair of macroblocks (700) that can be used in AFF coding on a pair of macroblocks according to an embodiment of the present invention. If the pair of macroblocks (700) is to be encoded in frame mode, the pair is coded as two frame-based macroblocks. In each macroblock, the two fields in each of the macroblocks are encoded jointly. Once encoded as frames, the macroblocks

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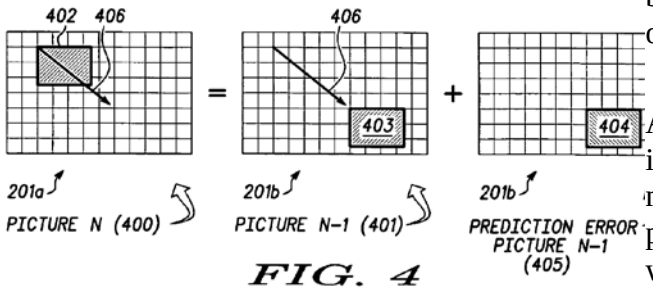
	For each image (402) in picture N (400), the temporal prediction can often be described by motion vectors that represent the amount of temporal motion required for the image (403) to move to a new temporal position in the picture N (402). The motion vectors (406) used for the temporal prediction with motion compensation need to be encoded and transmitted. FIG. 4 shows that the image (402) in picture N (400) can be represented by the difference (404) between the image and its prediction and the associated motion vectors (406). The exact method of encoding using the motion vectors can vary as best serves a particular application and can be easily implemented by someone who is skilled in the art.");  FIG. 4 Exhibit A at col 12:57-60 ("According to another embodiment of the present invention, a macroblock in a P picture can be skipped in AFF coding. If a	can be further divided into the smaller blocks of FIGS. 3a-f for use in the temporal prediction with motion compensation algorithm. However, if the pair of macroblocks (700) is to be encoded in field mode, it is first split into one top field 16 by 16 pixel block (800) and one bottom field 16 by 16 pixel block (801), as shown in FIG. 8. The two fields are then coded separately. In FIG. 8, each macroblock in the pair of macroblocks (700) has N=16 columns of pixels and M=16 rows of pixels. Thus, the dimensions of the pair of macroblocks (700) is 16 by 32 pixels. As shown in FIG. 8, every other row of pixels is shaded. The shaded areas represent the rows of pixels in the top field of the macroblocks and the unshaded areas represent the rows of pixels in the bottom field of the macroblocks. The top field block (800) and the bottom field block (801) can now be divided into one of the possible block sizes of FIGS. 3a-f. According to an embodiment of the present invention, in the AFF coding of pairs of macroblocks (700), there are two possible scanning paths. A scanning path determines the order in which the pairs of macroblocks of a picture are encoded. FIG. 9 shows the two possible scanning paths in AFF coding of pairs of macroblocks (700). One of the scanning paths is a horizontal scanning path (900). In the horizontal scanning path (900),

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	macroblock is skipped, its data is not transmitted in the encoding of the picture. A skipped macroblock in a P picture is reconstructed by copying the co-located macroblock in the most recently coded reference picture."). Exhibit C at col 19:17-31 ("A method of decoding an encoded picture having a plurality of processing blocks, each processing block containing macroblocks, each macroblock containing a plurality of blocks, from a bitstream, comprising: decoding at least one of a plurality of processing blocks at a time, wherein each of said plurality of processing blocks includes a pair of macroblocks or a group of macroblocks, in frame coding mode and at least one of said plurality of processing blocks at a time in field coding mode, wherein said decoding is applied to a pair of blocks, or a group of blocks, wherein said decoding is performed in a horizontal scanning path or a vertical scanning path; and using said plurality of decoded processing blocks to construct a decoded picture."); Exhibit C at col 1:59-67 ("The general idea behind video coding is to remove data from the digital video content that is "non-essential." The decreased amount of data then requires less bandwidth for broadcast or transmission. After the compressed video data has been transmitted, it must be decoded, or decompressed. In this process, the transmitted video data is processed to generate approximation data that is substituted into the	the macroblock pairs (700) of a picture (200) are coded from left to right and from top to bottom, as shown in FIG. 9. The other scanning path is a vertical scanning path (901). In the vertical scanning path (901), the macroblock pairs (700) of a picture (200) are coded from top to bottom and from left to right, as shown in FIG. 9. For frame mode coding, the top macroblock of a macroblock pair (700) is coded first, followed by the bottom macroblock. For field mode coding, the top field macroblock of a macroblock pair is coded first followed by the bottom field macroblock. Another embodiment of the present invention extends the concept of AFF coding on a pair of macroblocks to AFF coding on a group of four or more neighboring macroblocks (902), as shown in FIG. 10. AFF coding on a group of macroblocks will be occasionally referred to as group based AFF coding. The same scanning paths, horizontal (900) and vertical (901), as are used in the scanning of macroblock pairs are used in the scanning of groups of neighboring macroblocks (902). Although the example shown in FIG. 10 shows a group of four macroblocks, the group can be more than four macroblocks. If the group of macroblocks (902) is to be encoded in frame mode, the group coded as four frame-based macroblocks. In each macroblock, the two

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	video data to replace the "non-essential" data that was removed in the coding process."); Exhibit C at col 6:4-40 ("FIG. 4 shows a picture construction example using temporal prediction with motion compensation that illustrates an embodiment of the present invention. Temporal prediction with motion compensation assumes that a current picture, picture N (400), can be locally modeled as a translation of another picture, picture N-1 (401). The picture N-1 (401) is the reference picture for the encoding of picture N (400) and can be in the forward or backwards temporal direction in relation to picture N (400). As shown in FIG. 4, each picture is preferably divided into slices containing macroblocks (201a,b). The picture N-1 (401) contains an image (403) that is to be shown in picture N (400). The image (403) will be in a different temporal position in picture N (402) than it is in picture N-1 (401), as shown in FIG. 4. The image content of each macroblock (201b) of picture N (400) is predicted from the image content of each corresponding macroblock (201a) of picture N-1 (401) by estimating the required amount of temporal motion of the image content of each macroblock (201a) of picture N-1 (401) for the image (403) to move to its new temporal position (402) in picture N (400). Instead of the original image (402) being encoded, the difference (404) between the image (402) and its prediction (403) is actually encoded and	fields in each of the macroblocks are encoded jointly. Once encoded as frames, the macroblocks can be further divided into the smaller blocks of FIGS. 3a-f for use in the temporal prediction with motion compensation algorithm. However, if a group of four macroblocks (902), for example, is to be encoded in field mode, it is first split into one top field 32 by 16 pixel block and one bottom field 32 by 16 pixel block. The two fields are then coded separately. The top field block and the bottom field block can now be divided into macroblocks. Each macroblock is further divided into one of the possible block sizes of FIGS. 3a-f. Because this process is similar to that of FIG. 8, a separate figure is not provided to illustrate this embodiment.") '374 Patent File History, Examiner's Amendment, June 23, 2007, at 2-4 (e.g., "decoding at least one of said plurality of smaller portions <u>at a time</u> in frame coding mode and at least one of said plurality of smaller portions <u>at a time</u> in field coding mode, wherein each of said smaller portions has a size that is larger than one macroblock, wherein at least one block within said at least one of said plurality of smaller portions <u>at a time</u> is encoded in inter coding mode …."). '374 Patent File History, Reasons for Allowance,

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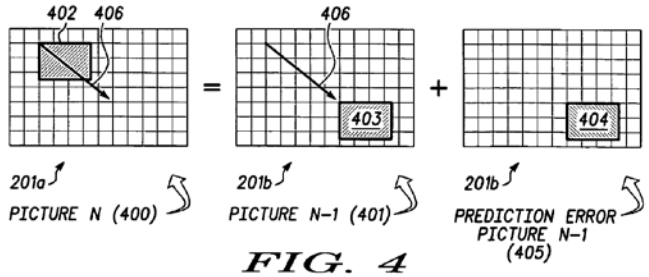
	transmitted. For each image (402) in picture N (400), the temporal prediction can often be described by motion vectors that represent the amount of temporal motion required for the image (403) to move to a new temporal position in the picture N (402). The motion vectors (406) used for the temporal prediction with motion compensation need to be encoded and transmitted. FIG. 4 shows that the image (402) in picture N (400) can be represented by the difference (404) between the image and its prediction and the associated motion vectors (406). The exact method of encoding using the motion vectors can vary as best serves a particular application and can be easily implemented by someone who is skilled in the art.");  FIG. 4 Exhibit C at col 12:60-65 ("According to another embodiment of the present invention, a macroblock in a P picture can be skipped in AFF coding. If a	June 23, 2007, at 5-6 ("Claims … are allowed as having incorporated novel features comprising … decoding at least one of said plurality of smaller portions *at a time* of the encoded picture that is encoded in frame coding mode and at least one of said plurality of smaller portions *at a time* of the encoded picture in field coding mode, wherein each of said smaller potions has a size that is larger than one macroblock, where at least one block within at least one of said plurality of smaller portions at a time is encoded in inter coding mode …. The prior art of record fails to anticipate or make obvious the novel features (emphasis added on *underlined claims(s) limitations*) as specified above."). Extrinsic Evidence: The American Heritage Dictionary (2nd College Ed.) at 315 [MS-MOTO_1823_00005194890] ("**construct** … 1. To form by assembling parts; build.").

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	macroblock is skipped, its data is not transmitted in the encoding of the picture. A skipped macroblock in a P picture is reconstructed by copying the co-located macroblock in the most recently coded reference picture.").	
wherein at least one motion vector is received for said at least one block within at least one of said plurality of smaller portions Found in claim number: '374 Patent: 9	**wherein at least one motion vector is received for said at least one block within at least one of said plurality of smaller portions** <u>Proposed Construction:</u> *No construction necessary*. *If construed*: wherein at least one value is received for said at least one block within at least one of said plurality of smaller portions, from which an amount of motion may be determined <u>Intrinsic Evidence:</u> Exhibit A at col 6:25-31 ("For each image (402) in picture N (400), the temporal prediction can often be described by motion vectors that represent the amount of temporal motion required for the image (403) to move to a new temporal position in the picture N (402). The motion vectors (406) used for the temporal prediction with motion compensation need to be encoded and transmitted."); Exhibit A at col 9:38-45 ("Each block in a frame or field based macroblock can have its own motion vectors. The motion vectors are spatially predictive coded. According to an embodiment of the present	<u>Proposed Construction</u>: receiving as part of the bitstream at least one value containing the amount of temporal motion required for the image to move to a new temporal position in the picture for each "said at least one block within at least one of said plurality of smaller portions" 374 Patent at 6:25-31 ("For each image (402) in picture N (400), the temporal prediction can often be described by motion vectors that represent the amount of temporal motion required for the image (403) to move to a new temporal position in the picture N (402). The motion vectors (406) used for the temporal prediction with motion compensation need to be encoded and transmitted.") '374 Patent, at 9:38-45 ("Each block in a frame or field based macroblock can have its own motion vectors. The motion vectors are spatially predictive coded. According to an embodiment of the present invention, in inter coding, prediction motion vectors (PMV) are also calculated for each block. The

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	invention, in inter coding, prediction motion vectors (PMV) are also calculated for each block. The algebraic difference between a block's PMVs and its associated motion vectors is then calculated and encoded. This generates the compressed bits for motion vectors."); Exhibit A at col 13:20-24 ("Another embodiment of the present invention is direct mode macroblock coding for B pictures. In direct mode coding, a B picture has two motion vectors, forward and backward motion vectors. Each motion vector points to a reference picture."); Exhibit A at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461773) ("3.53 motion vector: A two-dimensional vector used for motion compensation that provides an offset from the coordinate position in the decoded picture to the coordinates in a reference picture.").	algebraic difference between a block's PMVs and its associated motion vectors is then calculated and encoded. This generates the compressed bits for motion vectors.")
said pair of macroblocks comprises a top block and a bottom block Found in claim numbers: '376 Patent: 19, 27	**said pair of macroblocks comprises a top block and a bottom block** <u>Proposed Construction:</u> *No construction necessary*. *If construed*: said pair of macroblocks comprises a top macroblock and a bottom macroblock <u>Intrinsic Evidence:</u> Exhibit C at col 19:47-58 ("19. The method of claim 15, wherein said pair of macroblocks	<u>Proposed Construction</u>: said pair of macroblocks comprises a block that is vertically higher than any other block in the pair of macroblocks and a block that is vertically lower than any other block in the pair of macroblocks <u>Intrinsic Evidence</u>:

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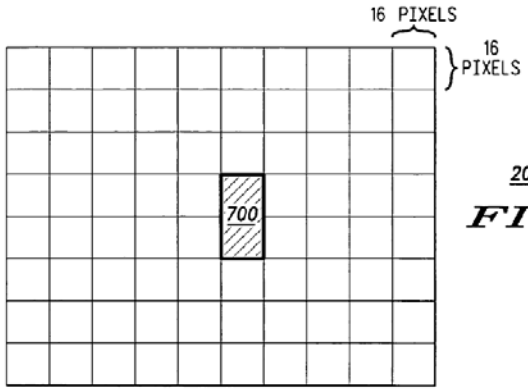
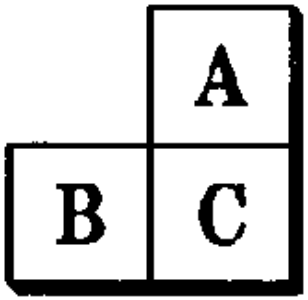
	comprises a top block and a bottom block, where said top block is decoded prior to said bottom block in said frame coding mode. 20. The method of claim 15, wherein said pair of macroblocks is represented by a top field block and a bottom field block in said field coding mode, the method further comprising: decoding said top field block and said bottom field block, and joining said top field block and said bottom field block into said pair of macroblocks."); Exhibit C at col 8:16-20 ("For frame mode coding, the top macroblock of a macroblock pair (700) is coded first, followed by the bottom macroblock. For field mode coding, the top field macroblock of a macroblock pair is coded first followed by the bottom field macroblock.");  200 FIG. 7 Exhibit C at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461773) ("3.50 macroblock pair: A pair of vertically-contiguous macroblocks in a picture that is coupled for use in macroblock-	'374 Patent, at Fig. 16a  '374 Patent, at 15:45-51 ("An embodiment of the present invention includes the following rules that apply to intra mode prediction for an intra-prediction mode of a 4 by 4 pixel block or an intra-prediction mode of a 16 by 16 pixel block. Block C and its neighboring blocks A and B can be in frame or field mode. One of the following rules shall apply. FIGS. 16a-b will be used in the following explanations of the rules.") '374 Patent at 15:64 – 16:4 ("Rule 4: This rule applies to macroblock pairs only. In the case of decoding the prediction modes of blocks numbered 3, 6, 7, 9, 12, 13, 11, 14 and 15 of FIG. 16b, the above and the left neighboring blocks are in the same macroblock as the current block. However, in the case of decoding the prediction modes of blocks numbered 1, 4, and 5, the top block (block A) is in a different macroblock pair than the current

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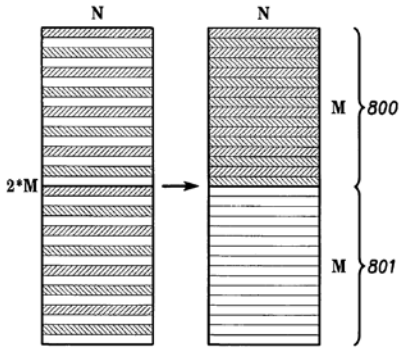
	adaptive frame/field decoder processing.").	macroblock pair.") '374 Patent, at Figs. 8  '374 Patent, at 3:49-52 ("FIG. 8 shows that a pair of macroblocks that is to be encoded in field mode is first split into one top field 16 by 16 pixel block and one bottom field 16 by 16 pixel block.") '374 Patent, at 8:37-45 ("However, if a group of four macroblocks (902), for example, is to be encoded in field mode, it is first split into one top field 32 by 16 pixel block and one bottom field 32 by 16 pixel block. The two fields are then coded separately. The top field block and the bottom field block can now be divided into macroblocks. Each macroblock is further divided into one of the possible block sizes of FIGS. 3a-f. Because this process is similar to that of FIG. 8, a separate figure is not provided to illustrate this embodiment.")

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		Extrinsic Evidence: The American Heritage Dictionary (2nd College Ed.), at 1278 [MS-MOTO_1823_00005194902] ("**top** … n. 1. The uppermost part, point surface, or end."). The American Heritage Dictionary (2nd College Ed.), at 199 [MS-MOTO_1823_00005194886] ("**bottom** … n. 1. the lowest or deepest part of something.").
means for decoding at least one of a plurality of smaller portions at a time of the encoded picture that is encoded in frame coding mode and at least one of said plurality of smaller portions at a time of the encoded picture in field coding mode, wherein each of said smaller portions has a size that is larger than one macroblock, wherein at least one block within at least one of said plurality of smaller portions at a time is encoded in inter coding mode	**means for decoding at least one of a plurality of smaller portions at a time of the encoded picture that is encoded in frame coding mode and at least one of said plurality of smaller portions at a time of the encoded picture in field coding mode, wherein each of said smaller portions has a size that is larger than one macroblock, wherein at least one block within at least one of said plurality of smaller portions at a time is encoded in inter coding mode** Proposed Construction: This is a means-plus function limitation that must be construed according to 35 U.S.C. §112,¶6 *Function*: Decoding at least one of a plurality of smaller portions at a time of the encoded picture that is encoded in frame coding mode and at least one of said plurality of smaller portions at a time of	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
Found in claim number: '374 Patent: 14	the encoded picture in field coding mode, wherein each of said smaller portions has a size that is larger than one macroblock *Structure*: Decoder, and equivalents thereof <u>Intrinsic Evidence:</u> Exhibit A at col 4:58-5:3 ("the decoder decodes the pictures. The… decoder can be a processor, application specific integrated circuit (ASIC), field programmable gate array (FPGA), coder/decoder (CODEC), digital signal processor (DSP), or some other electronic device that is capable of encoding the stream of pictures…. The term "decoder" will be used to refer expansively to all electronic devices that decode digital video content comprising a stream of pictures.").	
means for selectively decoding at least one of a plurality of smaller portions at a time of the encoded picture that is encoded in frame coding mode and at least one of said plurality of smaller portions at a time of the encoded picture in field coding mode, wherein each of said smaller portions has a size that is larger than	**means for selectively decoding at least one of a plurality of smaller portions at a time of the encoded picture that is encoded in frame coding mode and at least one of said plurality of smaller portions at a time of the encoded picture in field coding mode, wherein each of said smaller portions has a size that is larger than one macroblock, wherein at least one block within at least one of said plurality of smaller portions is encoded in intra coding mode at a time** <u>Proposed Construction:</u>	

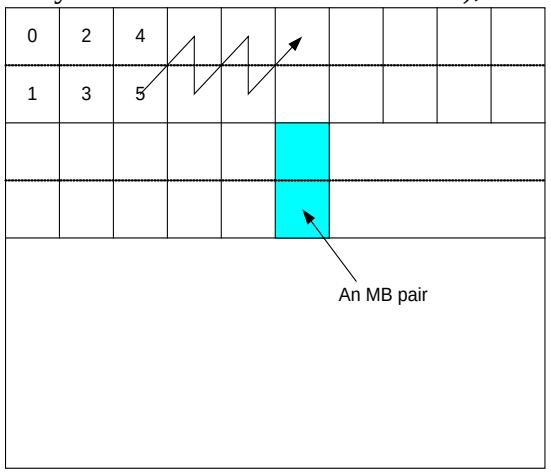
Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
one macroblock, wherein at least one block within at least one of said plurality of smaller portions is encoded in intra coding mode at a time Found in claim number: '375 Patent: 13	This is a means-plus function limitation that must be construed according to 35 U.S.C. §112,¶6 *Function*: selectively decoding at least one of a plurality of smaller portions at a time of the encoded picture that is encoded in frame coding mode and at least one of said plurality of smaller portions at a time of the encoded picture in field coding mode. *Structure*: Decoder, and equivalents thereof <u>Intrinsic Evidence:</u> Exhibit B at col 4:58-5:3 ("the decoder decodes the pictures. The… decoder can be a processor, application specific integrated circuit (ASIC), field programmable gate array (FPGA), coder/decoder (CODEC), digital signal processor (DSP), or some other electronic device that is capable of encoding the stream of pictures…. The term "decoder" will be used to refer expansively to all electronic devices that decode digital video content comprising a stream of pictures.").	
means for decoding at least one of a plurality of processing blocks at a time, each processing block containing a pair of macroblocks or a group of macroblocks, each	**means for decoding at least one of a plurality of processing blocks at a time, each processing block containing a pair of macroblocks or a group of macroblocks, each macroblock containing a plurality of blocks, from said encoded picture that is encoded in frame coding mode and at least one of said plurality of**	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
macroblock containing a plurality of blocks, from said encoded picture that is encoded in frame coding mode and at least one of said plurality of processing blocks at a time that is encoded in field coding mode, wherein said decoding is performed in a horizontal scanning path or a vertical scanning path Found in claim number: '376 Patent: 22	**processing blocks at a time that is encoded in field coding mode, wherein said decoding is performed in a horizontal scanning path or a vertical scanning path** <u>Proposed Construction:</u> This is a means-plus function limitation that must be construed according to 35 U.S.C. §112,¶6 *Function*: decoding at least one of a plurality of processing blocks at a time, each processing block containing a pair of macroblocks or a group of macroblocks, each macroblock containing a plurality of blocks, from said encoded picture that is encoded in frame coding mode and at least one of said plurality of processing blocks at a time that is encoded in field coding mode, wherein said decoding is performed in a horizontal scanning path or a vertical scanning path. *Structure*: Decoder, and equivalents thereof <u>Intrinsic Evidence:</u> Exhibit C at col 4:58-5:3 ("the decoder decodes the pictures. The… decoder can be a processor, application specific integrated circuit (ASIC), field programmable gate array (FPGA), coder/decoder (CODEC), digital signal processor (DSP), or some other electronic device that is capable of encoding the stream of pictures…. The term "decoder" will be used to refer expansively to all electronic devices that decode digital video content	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	comprising a stream of pictures.").	
means for using said plurality of decoded smaller portions to construct a decoded picture Found in claim numbers: '374 Patent: 14 '375 Patent: 13	**means for using said plurality of decoded smaller portions to construct a decoded picture** <u>Proposed Construction:</u> This is a means-plus function limitation that must be construed according to 35 U.S.C. §112,¶6 *Function*: using said plurality of decoded smaller portions to construct a decoded picture *Structure*: Decoder, and equivalents thereof <u>Intrinsic Evidence:</u> Exhibit A at col 4:59-5:3 ("The… decoder can be a processor, application specific integrated circuit (ASIC), field programmable gate array (FPGA), coder/decoder (CODEC), digital signal processor (DSP), or some other electronic device that is capable of encoding the stream of pictures…. The term "decoder" will be used to refer expansively to all electronic devices that decode digital video content comprising a stream of pictures.").	
means for using said plurality of decoded processing blocks to construct a decoded picture Found in claim number:	**means for using said plurality of decoded processing blocks to construct a decoded picture** <u>Proposed Construction:</u> This is a means-plus function limitation that must	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
'376 Patent: 22	be construed according to 35 U.S.C. §112,¶6 *Function*: using said plurality of decoded processing blocks to construct a decoded picture *Structure*: Decoder, and equivalents thereof <u>Intrinsic Evidence:</u> Exhibit C at col 4:59-5:3 ("The… decoder can be a processor, application specific integrated circuit (ASIC), field programmable gate array (FPGA), coder/decoder (CODEC), digital signal processor (DSP), or some other electronic device that is capable of encoding the stream of pictures…. The term "decoder" will be used to refer expansively to all electronic devices that decode digital video content comprising a stream of pictures.").	
decoding at least one of said plurality of smaller portions at a time in frame coding mode and at least one of said plurality of smaller portions at a time in field coding mode Found in claim number: '374 Patent: 8	**decoding at least one of said plurality of smaller portions at a time in frame coding mode and at least one of said plurality of smaller portions at a time in field coding mode** <u>Proposed Construction:</u> decoding more than one macroblock together in frame coding mode and more than one macroblock together in field coding mode <u>Intrinsic Evidence:</u> Exhibit A at col 18:44-54 ("A method of decoding an encoded picture having a plurality of smaller portions from a bitstream, comprising: decoding at	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	least one of said plurality of smaller portions at a time in frame coding mode and at least one of said plurality of smaller portions at a time in field coding mode, wherein each of said smaller portions has a size that is larger than one macroblock, wherein at least one block within said at least one of said plurality of smaller portions at a time is encoded in inter coding mode; and using said plurality of decoded smaller portions to construct a decoded picture."); Exhibit A at col 6:57-64 ("An embodiment of the present invention is that AFF coding can be performed on smaller portions of a picture. This small portion can be a macroblock, a pair of macroblocks, or a group of macroblocks. Each macroblock, pair of macroblocks, or group of macroblocks or slice is encoded in frame mode or in field mode, regardless of how the other macroblocks in the picture are encoded. AFF coding in each of the three cases will be described in detail below."); Exhibit A at col 8:46-60 ("In AFF coding at the macroblock level, a frame/field flag bit is preferably included in a picture's bitstream to indicate which mode, frame mode or field mode, is used in the encoding of each macroblock. The bitstream includes information pertinent to each macroblock within a stream, as shown in FIG. 11. For example, the bitstream can include a picture header (110), run information (111), and macroblock type (113) information. The frame/field flag (112) is preferably included before each macroblock in the bitstream if AFF is	

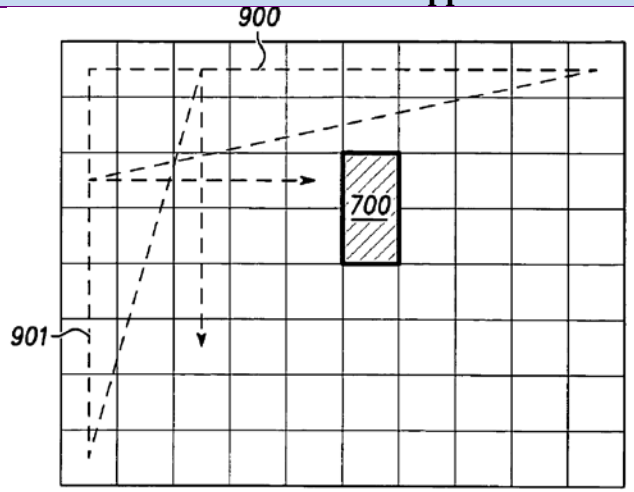
Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	performed on each individual macroblock. If the AFF is performed on pairs of macroblocks, the frame/field flag (112) is preferably included before each pair of macroblock in the bitstream. Finally, if the AFF is performed on a group of macroblocks, the frame/field flag (112) is preferably included before each group of macroblocks in the bitstream."); Exhibit A at col 8:14-18 ("For frame mode coding, the top macroblock of a macroblock pair (700) is coded first, followed by the bottom macroblock. For field mode coding, the top field macroblock of a macroblock pair is coded first followed by the bottom field macroblock.");  Exhibit A at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461781) ("Figure 6-4 – Partitioning of the decoded frame into macroblock pairs. An MB pair can be coded as two frame MBs,	

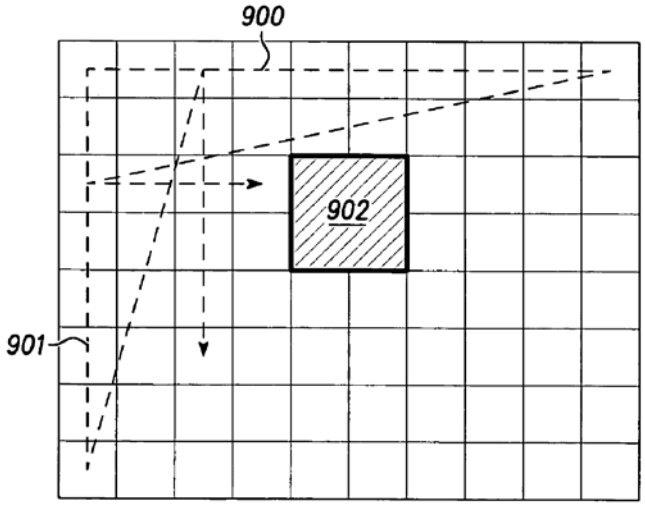
Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	or one top-field MB and one bottom-field MB. The numbers indicate the scanning order of coded MBs."); Exhibit A at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461773) ("3.50 macroblock pair: A pair of vertically-contiguous macroblocks in a picture that is coupled for use in macroblock-adaptive frame/field decoder processing.). <u>Extrinsic Evidence</u>: Exhibit X at MOTM_WASH1823_0055403 ("field macroblock pair: A macroblock pair decoded as two field macroblocks."); Exhibit X at MOTM_WASH1823_0055403 ("frame macroblock pair: A macroblock pair decoded as two frame macroblocks."); Exhibit X MOTM_WASH1823_0055404 ("macroblock pair: A pair of vertically contiguous macroblocks in a frame that is coupled for use in macroblock-adaptive frame/field decoding. The division of a slice into macroblock pairs is a partitioning.").	
decoding at least one of a plurality of processing blocks at a time, each processing block containing a pair of macroblocks or a group of macroblocks, each macroblock containing a	**decoding at least one of a plurality of processing blocks at a time, each processing block containing a pair of macroblocks or a group of macroblocks, each macroblock containing a plurality of blocks, from said encoded picture that is encoded in frame coding mode and at least one of said plurality of processing blocks at a time that is encoded in field coding mode**	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
plurality of blocks, from said encoded picture that is encoded in frame coding mode and at least one of said plurality of processing blocks at a time that is encoded in field coding mode Found in claim numbers: '376 Patent: 22, 30	<u>Proposed Construction:</u> decoding at least one of a plurality of processing blocks together, each processing block containing a pair of macroblocks or a group of macroblocks, each macroblock containing a plurality of blocks, from said encoded picture that is encoded in frame coding mode and at least one of said plurality of processing blocks together that is encoded in field coding mode <u>Intrinsic Evidence:</u> Exhibit C at col 19:17-31 ("A method of decoding an encoded picture having a plurality of processing blocks, each processing block containing macroblocks, each macroblock containing a plurality of blocks, from a bitstream, comprising: decoding at least one of a plurality of processing blocks at a time, wherein each of said plurality of processing blocks includes a pair of macroblocks or a group of macroblocks, in frame coding mode and at least one of said plurality of processing blocks at a time in field coding mode, wherein said decoding is applied to a pair of blocks, or a group of blocks, wherein said decoding is performed in a horizontal scanning path or a vertical scanning path; and using said plurality of decoded processing blocks to construct a decoded picture."); Exhibit C at col 6:60-67 ("An embodiment of the present invention is that AFF coding can be performed on smaller portions of a picture. This	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	small portion can be a macroblock, a pair of macroblocks, or a group of macroblocks. Each macroblock, pair of macroblocks, or group of macroblocks or slice is encoded in frame mode or in field mode, regardless of how the other macroblocks in the picture are encoded. AFF coding in each of the three cases will be described in detail below."); Exhibit C at col 8:46-60 ("In AFF coding at the macroblock level, a frame/field flag bit is preferably included in a picture's bitstream to indicate which mode, frame mode or field mode, is used in the encoding of each macroblock. The bitstream includes information pertinent to each macroblock within a stream, as shown in FIG. 11. For example, the bitstream can include a picture header (110), run information (111), and macroblock type (113) information. The frame/field flag (112) is preferably included before each macroblock in the bitstream if AFF is performed on each individual macroblock. If the AFF is performed on pairs of macroblocks, the frame/field flag (112) is preferably included before each pair of macroblock in the bitstream. Finally, if the AFF is performed on a group of macroblocks, the frame/field flag (112) is preferably included before each group of macroblocks in the bitstream."); Exhibit C at col 8:3-20 ("According to an embodiment of the present invention, in the AFF coding of pairs of macroblocks (700), there are two possible scanning paths. A scanning path determines the order in which the pairs of	

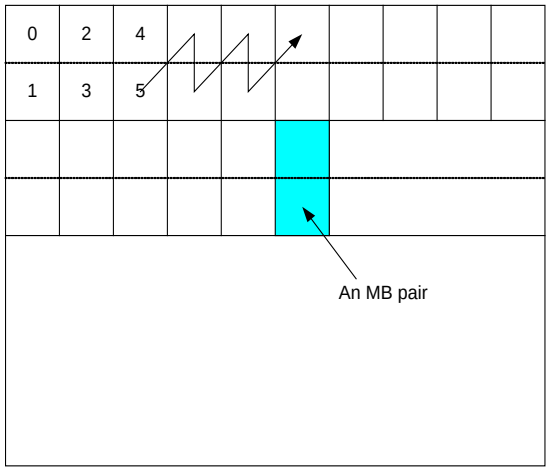
Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	macroblocks of a picture are encoded. FIG. 9 shows the two possible scanning paths in AFF coding of pairs of macroblocks (700). One of the scanning paths is a horizontal scanning path (900). In the horizontal scanning path (900), the macroblock pairs (700) of a picture (200) are coded from left to right and from top to bottom, as shown in FIG. 9. The other scanning path is a vertical scanning path (901). In the vertical scanning path (901), the macroblock pairs (700) of a picture (200) are coded from top to bottom and from left to right, as shown in FIG. 9. For frame mode coding, the top macroblock of a macroblock pair (700) is coded first, followed by the bottom macroblock. For field mode coding, the top field macroblock of a macroblock pair is coded first followed by the bottom field macroblock."); 	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	 200 FIG. 9 Exhibit C at col 8:21-31 ("Another embodiment of the present invention extends the concept of AFF coding on a pair of macroblocks to AFF coding on a group of four or more neighboring macroblocks (902), as shown in FIG. 10. AFF coding on a group of macroblocks will be occasionally referred to as group based AFF coding. The same scanning paths, horizontal (900) and vertical (901), as are used in the scanning of macroblock pairs are used in the scanning of groups of neighboring macroblocks (902). Although the example shown in FIG. 10 shows a group of four macroblocks, the group can be more than four macroblocks."); 	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	 200 FIG. 10 Exhibit C at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461773) ("3.50 macroblock pair: A pair of vertically-contiguous macroblocks in a picture that is coupled for use in macroblock-adaptive frame/field decoder processing"); See Exhibit J at MOTM_WASH1823_0047410 (deleting from claim 6 "wherein said decoding is applied to a pair of blocks, or a group of blocks,"); See Exhibit J at MOTM_WASH1823_0047434 (showing examiner failed to delete portion of claim 6 removed in Applicant's Amendment). <u>Extrinsic Evidence</u>: Exhibit X at MOTM_WASH1823_0055403 ("field	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	macroblock pair: A macroblock pair decoded as two field macroblocks."); Exhibit X at MOTM_WASH1823_0055403 ("frame macroblock pair: A macroblock pair decoded as two frame macroblocks."); Exhibit X at MOTM_WASH1823_0055403 ("macroblock pair: A pair of vertically contiguous macroblocks in a frame that is coupled for use in macroblock-adaptive frame/field decoding. The division of a slice into macroblock pairs is a partitioning.").	
selectively decoding at least one of [a/said] plurality of smaller portions at a time in frame coding mode and at least one of said plurality of smaller portions at a time in field coding mode Found in claim numbers: '375 Patent: 6, 17	**selectively decoding at least one of a plurality of smaller portions at a time in frame coding mode and at least one of said plurality of smaller portions at a time in field coding mode** <u>Proposed Construction:</u> decoding, based on a mode selection, more than one macroblock together in frame coding mode and more than one macroblock together in field coding mode <u>Intrinsic Evidence:</u> Exhibit B at col 18:44-55 ("A method of decoding an encoded picture having a plurality of smaller portions from a bitstream, comprising: selectively decoding at least one of a plurality of smaller portions at a time in frame coding mode and at least one of said plurality of smaller portions at a time in field coding mode, wherein each of said	

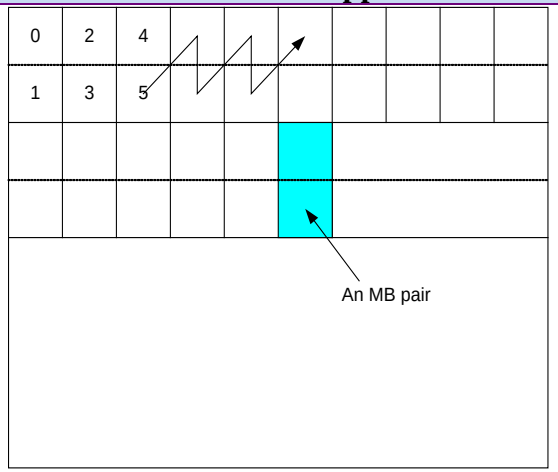
Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	smaller portions has a size that is larger than one macroblock, wherein at least one block within said at least one of said plurality of smaller portions is encoded in intra coding mode at a time; and using said plurality of decoded smaller portions to construct a decoded picture."); Exhibit B at col 6:60-67 ("An embodiment of the present invention is that AFF coding can be performed on smaller portions of a picture. This small portion can be a macroblock, a pair of macroblocks, or a group of macroblocks. Each macroblock, pair of macroblocks, or group of macroblocks or slice is encoded in frame mode or in field mode, regardless of how the other macroblocks in the picture are encoded. AFF coding in each of the three cases will be described in detail below."); Exhibit B at col 8:46-60 ("In AFF coding at the macroblock level, a frame/field flag bit is preferably included in a picture's bitstream to indicate which mode, frame mode or field mode, is used in the encoding of each macroblock. The bitstream includes information pertinent to each macroblock within a stream, as shown in FIG. 11. For example, the bitstream can include a picture header (110), run information (111), and macroblock type (113) information. The frame/field flag (112) is preferably included before each macroblock in the bitstream if AFF is performed on each individual macroblock. If the AFF is performed on pairs of macroblocks, the frame/field flag (112) is preferably included before each pair of macroblock in the bitstream. Finally, if	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	the AFF is performed on a group of macroblocks, the frame/field flag (112) is preferably included before each group of macroblocks in the bitstream."); Exhibit B at col 8:14-18 ("For frame mode coding, the top macroblock of a macroblock pair (700) is coded first, followed by the bottom macroblock. For field mode coding, the top field macroblock of a macroblock pair is coded first followed by the bottom field macroblock.");  Exhibit B at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461781) ("Figure 6-4 – Partitioning of the decoded frame into macroblock pairs. An MB pair can be coded as two frame MBs, or one top-field MB and one bottom-field MB. The numbers indicate the scanning order of coded MBs."); Exhibit B at col 4:38-39 (incorporating by	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	reference Exhibit N at MS-MOTO_1823_00001461773) ("3.50 macroblock pair: A pair of vertically-contiguous macroblocks in a picture that is coupled for use in macroblock-adaptive frame/field decoder processing."). Extrinsic Evidence: Exhibit X at MOTM_WASH1823_0055403 ("field macroblock pair: A macroblock pair decoded as two field macroblocks."); Exhibit X at MOTM_WASH1823_0055403 ("frame macroblock pair: A macroblock pair decoded as two frame macroblocks."); Exhibit X at MOTM_WASH1823_0055404 ("macroblock pair: A pair of vertically contiguous macroblocks in a frame that is coupled for use in macroblock-adaptive frame/field decoding. The division of a slice into macroblock pairs is a partitioning.").	
selectively decoding at least one of a plurality of smaller portions at a time of the encoded picture that is encoded in frame coding mode and at least one of said plurality of smaller portions at a time of the encoded picture in field coding mode	**selectively decoding at least one of a plurality of smaller portions at a time of the encoded picture that is encoded in frame coding mode and at least one of said plurality of smaller portions at a time of the encoded picture in field coding mode** Proposed Construction: decoding, based on a mode selection, more than one macroblock together of the encoded picture that is encoded in frame coding mode and more	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
Found in claim number: '375 Patent: 13	than one macroblock together of the encoded picture that is encoded in field coding mode <u>Intrinsic Evidence:</u> Exhibit B at col 18:44-55 ("A method of decoding an encoded picture having a plurality of smaller portions from a bitstream, comprising: selectively decoding at least one of a plurality of smaller portions at a time in frame coding mode and at least one of said plurality of smaller portions at a time in field coding mode, wherein each of said smaller portions has a size that is larger than one macroblock, wherein at least one block within said at least one of said plurality of smaller portions is encoded in intra coding mode at a time; and using said plurality of decoded smaller portions to construct a decoded picture."); Exhibit B at col 6:60-67 ("An embodiment of the present invention is that AFF coding can be performed on smaller portions of a picture. This small portion can be a macroblock, a pair of macroblocks, or a group of macroblocks. Each macroblock, pair of macroblocks, or group of macroblocks or slice is encoded in frame mode or in field mode, regardless of how the other macroblocks in the picture are encoded. AFF coding in each of the three cases will be described in detail below."); Exhibit B at col 8:46-60 ("In AFF coding at the macroblock level, a frame/field flag bit is preferably included in a picture's bitstream to indicate which mode, frame mode or field mode, is used in the encoding of each	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	macroblock. The bitstream includes information pertinent to each macroblock within a stream, as shown in FIG. 11. For example, the bitstream can include a picture header (110), run information (111), and macroblock type (113) information. The frame/field flag (112) is preferably included before each macroblock in the bitstream if AFF is performed on each individual macroblock. If the AFF is performed on pairs of macroblocks, the frame/field flag (112) is preferably included before each pair of macroblock in the bitstream. Finally, if the AFF is performed on a group of macroblocks, the frame/field flag (112) is preferably included before each group of macroblocks in the bitstream."); Exhibit B at col 8:14-18 ("For frame mode coding, the top macroblock of a macroblock pair (700) is coded first, followed by the bottom macroblock. For field mode coding, the top field macroblock of a macroblock pair is coded first followed by the bottom field macroblock.");	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	 Exhibit B at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461781) ("Figure 6-4 – Partitioning of the decoded frame into macroblock pairs. An MB pair can be coded as two frame MBs, or one top-field MB and one bottom-field MB. The numbers indicate the scanning order of coded MBs."); Exhibit B at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461773) ("3.50 macroblock pair: A pair of vertically-contiguous macroblocks in a picture that is coupled for use in macroblock-adaptive frame/field decoder processing."). <u>Extrinsic Evidence</u>: Exhibit X at MOTM_WASH1823_0055403 ("field macroblock pair: A macroblock pair decoded as two field macroblocks."); Exhibit X at	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	MOTM_WASH1823_0055403 ("frame macroblock pair: A macroblock pair decoded as two frame macroblocks."); Exhibit X at MOTM_WASH1823_0055404 ("macroblock pair: A pair of vertically contiguous macroblocks in a frame that is coupled for use in macroblock-adaptive frame/field decoding. The division of a slice into macroblock pairs is a partitioning.").	
wherein at least one block within [said] at least one of said plurality of smaller portions [at a time] is encoded in inter coding mode Found in claim numbers: '374 Patent: 8, 14	**wherein at least one block within [said] at least one of said plurality of smaller portions [at a time] is encoded in inter coding mode** <u>Proposed Construction:</u> wherein at least one block within [said] at least one of said plurality of smaller portions [at a time] is encoded in inter coding mode, a coding mode that uses information from both within the picture and from other pictures <u>Intrinsic Evidence:</u> Exhibit A at col 18:44-54 ("A method of decoding an encoded picture having a plurality of smaller portions from a bitstream, comprising: decoding at least one of said plurality of smaller portions at a time in frame coding mode and at least one of said plurality of smaller portions at a time in field coding mode, wherein each of said smaller portions has a size that is larger than one macroblock, wherein at least one block within said at least one	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	of said plurality of smaller portions at a time is encoded in inter coding mode; and using said plurality of decoded smaller portions to construct a decoded picture."); Exhibit A at col 9:9-15 ("According to an embodiment of the present invention, each frame and field based macroblock in macroblock level AFF can be intra coded or inter coded. In intra coding, the macroblock is encoded without temporally referring to other macroblocks. On the other hand, in inter coding, temporal prediction with motion compensation is used to code the macroblocks."); Exhibit A at col 9:16-35 ("If inter coding is used, a block with a size of 16 by 16 pixels, 16 by 8 pixels, 8 by 16 pixels, or 8 by 8 pixels can have its own reference pictures. The block can either be a frame or field based macroblock. The MPEG-4 Part 10 AVC/H.264 standard allows multiple reference pictures instead of just two reference pictures. The use of multiple reference pictures improves the performance of the temporal prediction with motion compensation algorithm by allowing the encoder to find a block in the reference picture that most closely matches the block that is to be encoded. By using the block in the reference picture in the coding process that most closely matches the block that is to be encoded, the greatest amount of compression is possible in the encoding of the picture. The reference pictures are stored in frame and field buffers and are assigned reference frame numbers and reference field	

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	numbers based on the temporal distance they are away from the current picture that is being encoded. The closer the reference picture is to the current picture that is being stored, the more likely the reference picture will be selected."); Exhibit A at col 9:41-42 ("in inter coding, prediction motion vectors (PMV) are also calculated for each block."); Exhibit A at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461767) ("Intra coded pictures (I-pictures) are coded without reference to other pictures. They provide access points to the coded sequence where decoding can begin, but are coded with only moderate compression. Inter-coded pictures (P-pictures) are coded more efficiently using motion compensated prediction of each block of sample values from some previously decoded picture selected by the encoder."); Exhibit A at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461772) ("3.37 inter coding: Coding of a block, macroblock, slice, or picture that uses information from both, within the picture and from other pictures."); Exhibit A at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461773) ("motion compensation: Part of the inter prediction process for sample values, using previously decoded samples that are spatially displaced as signalled by means of motion vectors.").	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
wherein at least one block within [said] at least one of said plurality of smaller portions is encoded in intra coding mode [at a time] Found in claim numbers: '375 Patent: 6, 13, 17	**wherein at least one block within [said] at least one of said plurality of smaller portions is encoded in intra coding mode at a time** <u>Proposed Construction:</u> wherein at least one block within [said] at least one of said plurality of smaller portions is encoded in intra coding mode, a coding mode that uses information from within the same picture[, at a time] <u>Intrinsic Evidence:</u> Exhibit B at col 18:44-55 ("A method of decoding an encoded picture having a plurality of smaller portions from a bitstream, comprising: selectively decoding at least one of a plurality of smaller portions at a time in frame coding mode and at least one of said plurality of smaller portions at a time in field coding mode, wherein each of said smaller portions has a size that is larger than one macroblock, wherein at least one block within said at least one of said plurality of smaller portions is encoded in intra coding mode at a time; and using said plurality of decoded smaller portions to construct a decoded picture."); Exhibit B at col 5:9-15 ("The three types of pictures are intra (I) pictures (100), predicted (P) pictures (102a,b), and bi-predicted (B) pictures (101a-d). An I picture (100) provides an access point for random access to stored digital video content and can be encoded only-with slight compression. Intra pictures (100)	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	are encoded without referring to reference pictures."); Exhibit B at col 9:11-17 ("According to an embodiment of the present invention, each frame and field based macroblock in macroblock level AFF can be intra coded or inter coded. In intra coding, the macroblock is encoded without temporally referring to other macroblocks. On the other hand, in inter coding, temporal prediction with motion compensation is used to code the macroblocks."); Exhibit B at col 14:41-42 ("As previously mentioned, a block can be intra coded. Intra blocks are spatially predictive coded."); Exhibit B at col 14:42-48 ("There are two possible intra coding modes for a macroblock in macroblock level AFF coding. The first is intra__4x4 mode and the second is intra__16x16 mode. In both, each pixel's value is predicted using the real reconstructed pixel values from neighboring blocks. By predicting pixel values, more compression can be achieved."); Exhibit B at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461767) ("Intra coded pictures (I-pictures) are coded without reference to other pictures. They provide access points to the coded sequence where decoding can begin, but are coded with only moderate compression."); Exhibit B at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461772) ("3.39 intra coding: Coding of a block, macroblock, slice or picture that uses intra prediction."); Exhibit B at col 4:38-39	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	(incorporating by reference Exhibit N at MS-MOTO_1823_00001461772) ("3.35 intra prediction: A prediction derived from the decoded samples of the same decoded picture.").	
decoding at least one of a plurality of processing blocks at a time, wherein each of said plurality of processing blocks includes a pair of macroblocks or a group of macroblocks, in frame coding mode and at least one of said plurality of processing blocks at a time in field coding mode, wherein said decoding is applied to a pair of blocks, or a group of blocks Found in claim number: '376 Patent: 14	**decoding at least one of a plurality of processing blocks at a time, wherein each of said plurality of processing blocks includes a pair of macroblocks or a group of macroblocks, in frame coding mode and at least one of said plurality of processing blocks at a time in field coding mode, wherein said decoding is applied to a pair of blocks, or a group of blocks, wherein said decoding is performed in a horizontal scanning path or a vertical scanning path** <u>Proposed Construction:</u> decoding at least one of a plurality of processing blocks together, wherein each of said plurality of processing blocks includes a pair of macroblocks or a group of macroblocks, in frame coding mode and at least one of said plurality of processing blocks together in field coding mode <u>Intrinsic Evidence:</u> Exhibit C at col 19:17-31 ("A method of decoding an encoded picture having a plurality of processing blocks, each processing block containing macroblocks, each macroblock containing a plurality of blocks, from a bitstream, comprising:	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	decoding at least one of a plurality of processing blocks at a time, wherein each of said plurality of processing blocks includes a pair of macroblocks or a group of macroblocks, in frame coding mode and at least one of said plurality of processing blocks at a time in field coding mode, wherein said decoding is applied to a pair of blocks, or a group of blocks, wherein said decoding is performed in a horizontal scanning path or a vertical scanning path; and using said plurality of decoded processing blocks to construct a decoded picture."); Exhibit C at col 6:60-67 ("An embodiment of the present invention is that AFF coding can be performed on smaller portions of a picture. This small portion can be a macroblock, a pair of macroblocks, or a group of macroblocks. Each macroblock, pair of macroblocks, or group of macroblocks or slice is encoded in frame mode or in field mode, regardless of how the other macroblocks in the picture are encoded. AFF coding in each of the three cases will be described in detail below."); Exhibit C at col 8:46-60 ("In AFF coding at the macroblock level, a frame/field flag bit is preferably included in a picture's bitstream to indicate which mode, frame mode or field mode, is used in the encoding of each macroblock. The bitstream includes information pertinent to each macroblock within a stream, as shown in FIG. 11. For example, the bitstream can include a picture header (110), run information (111), and macroblock type (113) information. The	

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	frame/field flag (112) is preferably included before each macroblock in the bitstream if AFF is performed on each individual macroblock. If the AFF is performed on pairs of macroblocks, the frame/field flag (112) is preferably included before each pair of macroblock in the bitstream. Finally, if the AFF is performed on a group of macroblocks, the frame/field flag (112) is preferably included before each group of macroblocks in the bitstream."); Exhibit C at col 8:3-20 ("According to an embodiment of the present invention, in the AFF coding of pairs of macroblocks (700), there are two possible scanning paths. A scanning path determines the order in which the pairs of macroblocks of a picture are encoded. FIG. 9 shows the two possible scanning paths in AFF coding of pairs of macroblocks (700). One of the scanning paths is a horizontal scanning path (900). In the horizontal scanning path (900), the macroblock pairs (700) of a picture (200) are coded from left to right and from top to bottom, as shown in FIG. 9. The other scanning path is a vertical scanning path (901). In the vertical scanning path (901), the macroblock pairs (700) of a picture (200) are coded from top to bottom and from left to right, as shown in FIG. 9. For frame mode coding, the top macroblock of a macroblock pair (700) is coded first, followed by the bottom macroblock. For field mode coding, the top field macroblock of a macroblock pair is coded first followed by the bottom field macroblock.");	

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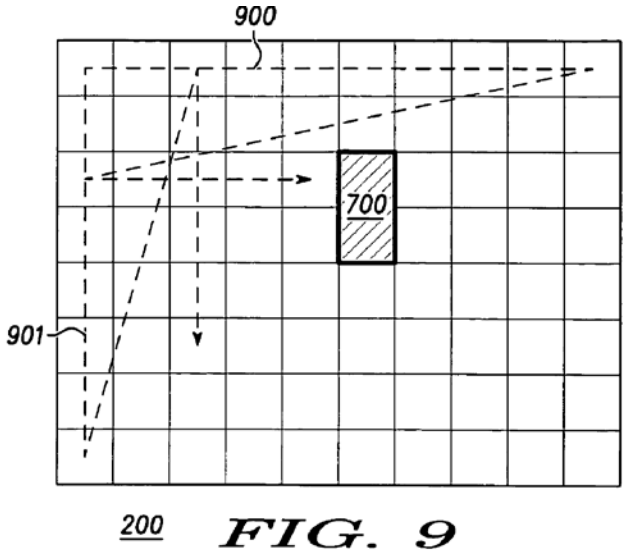
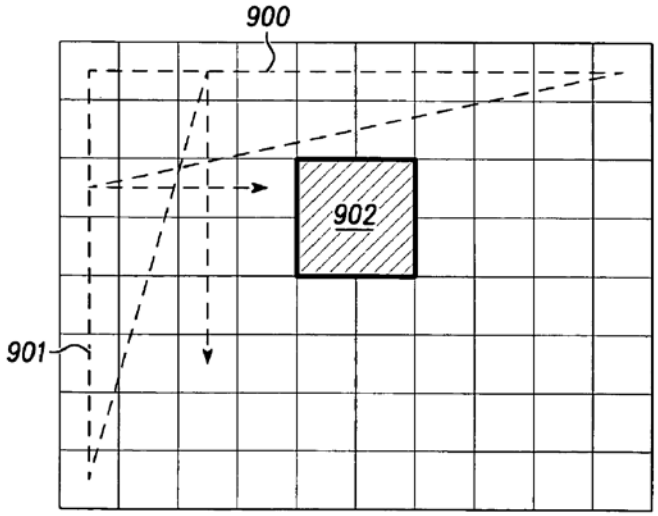
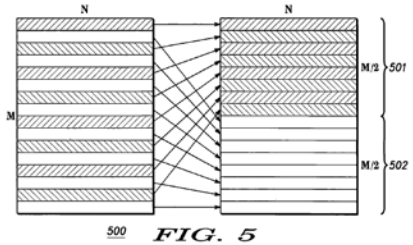
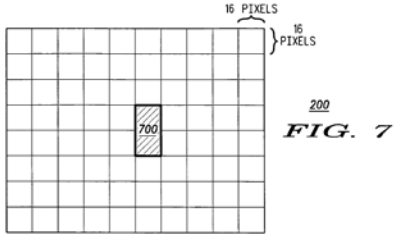
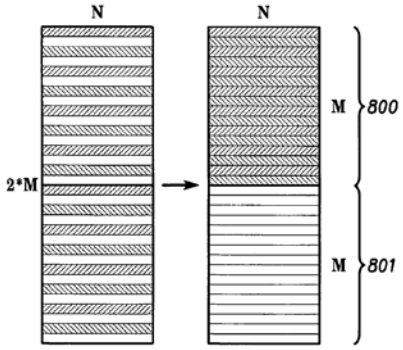
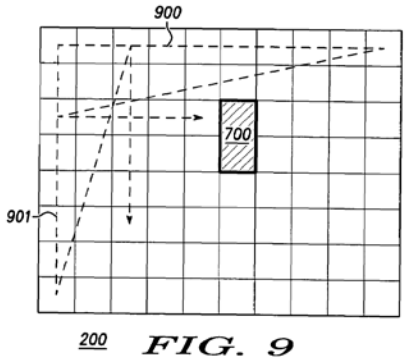
	 FIG. 9 Exhibit C at col 8:21-31 ("Another embodiment of the present invention extends the concept of AFF coding on a pair of macroblocks to AFF coding on a group of four or more neighboring macroblocks (902), as shown in FIG. 10. AFF coding on a group of macroblocks will be occasionally referred to as group based AFF coding. The same scanning paths, horizontal (900) and vertical (901), as are used in the scanning of macroblock pairs are used in the scanning of groups of neighboring macroblocks (902). Although the example shown in FIG. 10 shows a group of four macroblocks, the group can be more than four macroblocks.");	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	 200 FIG. 10 Exhibit C at col 4:38-39 (incorporating by reference Exhibit N at MS-MOTO_1823_00001461773) ("3.50 macroblock pair: A pair of vertically-contiguous macroblocks in a picture that is coupled for use in macroblock-adaptive frame/field decoder processing"); See Exhibit J at MOTM_WASH1823_0047410 (deleting from claim 6 "wherein said decoding is applied to a pair of blocks, or a group of blocks,"); See Exhibit J at MOTM_WASH1823_0047434 (showing examiner failed to delete portion of claim 6 removed in Applicant's Amendment). <u>Extrinsic Evidence</u>:	

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	Exhibit X at MOTM_WASH1823_0055403 ("field macroblock pair: A macroblock pair decoded as two field macroblocks."); Exhibit X at MOTM_WASH1823_0055403 ("frame macroblock pair: A macroblock pair decoded as two frame macroblocks."); Exhibit X at MOTM_WASH1823_0055404 ("macroblock pair: A pair of vertically contiguous macroblocks in a frame that is coupled for use in macroblock-adaptive frame/field decoding. The division of a slice into macroblock pairs is a partitioning.").	
decoding at least one of [a/said] plurality of [smaller portions/processing blocks] at a time […] in frame coding mode and at least one of said plurality of [smaller portions/processing blocks] at a time […] in field coding Found in claim numbers: '374 Patent: 8 '376 Patent: 14, 22, 30	Microsoft's proposed term for construction is an amalgamation of 3 different claim terms: **decoding at least one of said plurality of smaller portions at a time in frame coding mode and at least one of said plurality of smaller portions at a time in field coding mode** **decoding at least one of a plurality of processing blocks at a time, wherein each of said plurality of processing blocks includes a pair of macroblocks or a group of macroblocks, in frame coding mode and at least one of said plurality of processing blocks at a time in field coding mode, wherein said decoding is applied to a pair of blocks, or a group of blocks** **decoding at least one of a plurality of processing blocks at a time, each processing block containing a pair of macroblocks or a group of**	<u>Proposed Construction</u>: removing the frame coding mode from more than one macroblock together and removing the field coding mode from more than one macroblock together to obtain at least one of a plurality of ["decoded smaller portions"/ "decoded processing blocks"] <u>Intrinsic Evidence</u>: '374 Patent, at Figs. 5  FIG. 5 '374 Patent, at Figs. 7

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	macroblocks, each macroblock containing a plurality of blocks, from said encoded picture that is encoded in frame coding mode and at least one of said plurality of processing blocks at a time that is encoded in field coding mode Motorola does not believe that it would be appropriate to construe these terms jointly and provides its proposed construction for each term, separately, above.	 FIG. 7 '374 Patent, at Figs. 8  '374 Patent, at Figs. 9  FIG. 9 '374 Patent, at 3:32-33 ("FIG. 5 shows that a macroblock is split into a top field and a bottom

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		field if it is to be encoded in field mode.") '374 Patent, at 3:46-54 (" FIG. 7 illustrates an exemplary pair of macroblocks that can be used in AFF coding on a pair of macroblocks according to an embodiment of the present invention.") '374 Patent, at 7:1-6 ("Once encoded as a frame, the macroblocks can be further divided … for use in the temporal prediction with motion compensation algorithm. However, if the macroblock is to be encoded in field mode, the macroblock (500) is split into a top field (501) and a bottom field (502), as shown in FIG. 5.") '374 Patent, at 7:43 – 8:45 ("FIG. 7 illustrates an exemplary pair of macroblocks (700) that can be used in AFF coding on a pair of macroblocks according to an embodiment of the present invention. If the pair of macroblocks (700) is to be encoded in frame mode, the pair is coded as two frame-based macroblocks. In each macroblock, the two fields in each of the macroblocks are encoded jointly. Once encoded as frames, the macroblocks can be further divided into the smaller blocks of FIGS. 3a-f for use in the temporal prediction with motion compensation algorithm.

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		However, if the pair of macroblocks (700) is to be encoded in field mode, it is first split into one top field 16 by 16 pixel block (800) and one bottom field 16 by 16 pixel block (801), as shown in FIG. 8. The two fields are then coded separately. In FIG. 8, each macroblock in the pair of macroblocks (700) has N=16 columns of pixels and M=16 rows of pixels. Thus, the dimensions of the pair of macroblocks (700) is 16 by 32 pixels. As shown in FIG. 8, every other row of pixels is shaded. The shaded areas represent the rows of pixels in the top field of the macroblocks and the unshaded areas represent the rows of pixels in the bottom field of the macroblocks. The top field block (800) and the bottom field block (801) can now be divided into one of the possible block sizes of FIGS. 3a-f. According to an embodiment of the present invention, in the AFF coding of pairs of macroblocks (700), there are two possible scanning paths. A scanning path determines the order in which the pairs of macroblocks of a picture are encoded. FIG. 9 shows the two possible scanning paths in AFF coding of pairs of macroblocks (700). One of the scanning paths is a horizontal scanning path (900). In the horizontal scanning path (900), the macroblock pairs (700) of a picture (200) are coded from left to right and from top to bottom, as shown in FIG. 9. The other scanning path is a vertical scanning path (901). In the vertical scanning path (901), the macroblock pairs (700) of

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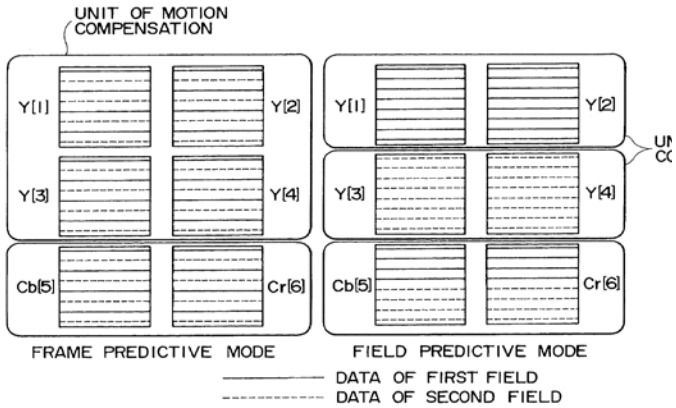
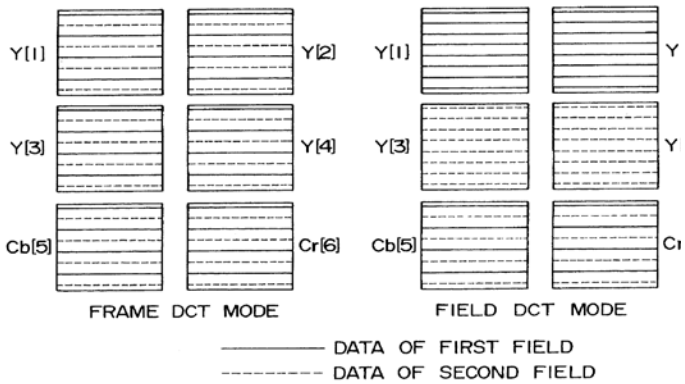
		a picture (200) are coded from top to bottom and from left to right, as shown in FIG. 9. For frame mode coding, the top macroblock of a macroblock pair (700) is coded first, followed by the bottom macroblock. For field mode coding, the top field macroblock of a macroblock pair is coded first followed by the bottom field macroblock. Another embodiment of the present invention extends the concept of AFF coding on a pair of macroblocks to AFF coding on a group of four or more neighboring macroblocks (902), as shown in FIG. 10. AFF coding on a group of macroblocks will be occasionally referred to as group based AFF coding. The same scanning paths, horizontal (900) and vertical (901), as are used in the scanning of macroblock pairs are used in the scanning of groups of neighboring macroblocks (902). Although the example shown in FIG. 10 shows a group of four macroblocks, the group can be more than four macroblocks. If the group of macroblocks (902) is to be encoded in frame mode, the group coded as four frame-based macroblocks. In each macroblock, the two fields in each of the macroblocks are encoded jointly. Once encoded as frames, the macroblocks can be further divided into the smaller blocks of FIGS. 3a-f for use in the temporal prediction with motion compensation algorithm.

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		However, if a group of four macroblocks (902), for example, is to be encoded in field mode, it is first split into one top field 32 by 16 pixel block and one bottom field 32 by 16 pixel block. The two fields are then coded separately. The top field block and the bottom field block can now be divided into macroblocks. Each macroblock is further divided into one of the possible block sizes of FIGS. 3a-f. Because this process is similar to that of FIG. 8, a separate figure is not provided to illustrate this embodiment.") '374 Patent File History, Examiner's Amendment, June 23, 2007, at 2-4 (e.g., "decoding at least one of said plurality of smaller portions <u>at a time</u> in frame coding mode and at least one of said plurality of smaller portions <u>at a time</u> in field coding mode, wherein each of said smaller portions has a size that is larger than one macroblock, wherein at least one block within said at least one of said plurality of smaller portions <u>at a time</u> is encoded in inter coding mode …."). '374 Patent File History, Reasons for Allowance, June 23, 2007, at 5-6 ("Claims … are allowed as having incorporated novel features comprising … decoding at least one of said plurality of smaller portions <u>at a time</u> of the encoded picture that is encoded in frame coding mode and at least one of

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		said plurality of smaller portions at a time of the encoded picture in field coding mode, wherein each of said smaller potions has a size that is larger than one macroblock, where at least one block within at least one of said plurality of smaller portions at a time is encoded in inter coding mode …. The prior art of record fails to anticipate or make obvious the novel features (emphasis added on *underlined claims(s) limitations*) as specified above."). '375 File History, Reasons for Allowance, July 17, 2007, at 4-5. '376 File History, Reasons for Allowance, May 24, 2007, at 2-9. '374 Patent family file history, United States Patent No. 5,504,530 (to Okibane et al.) United States Patent No. 5,504,530 (to Okibane et al.) ('530 patent), Figs. 2(A), 2(B), 3(A), 3(B).

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		FIG. 2(A) FIG. 2(B)  FIG. 3(A) FIG. 3(B)  '530 patent, at 6:2-9 ("FIGS. 2(A) and 2(B) are diagrammatic illustrations of the operation of a predictive mode change-over circuit that is part of the image signal coding apparatus of FIGS. 1(A)-1(C);")

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		'530 patent, at 7:55-67 ("Image data representing a picture stored in the frame memory 51 is read out for processing in a frame predictive mode or a field predictive mode by a predictive mode change-over circuit 52. Further, under the control of a predictive mode determination circuit 54, calculations with respect to intra-picture prediction, forward prediction, backward prediction or bi-directional prediction are performed by a calculation section 53. The determination of which type of processing should be performed is based on a prediction error signal formed as a difference between a reference original picture for the frame being processed and a predictive picture. Accordingly, the motion vector detection circuit 50 generates predictive error signals in the form of sums of absolute values or sums of squares for the purpose of the determination. Operation of predictive mode change-over circuit 52 in a frame predictive mode and a field predictive mode will now be described. When operation is to be in the frame predictive mode, the predictive mode change-over circuit outputs four brightness blocks Y[1] to Y[4] as the same are received from the motion vector detection circuit 50. The blocks output from predictive mode change-over circuit 52 are provided to the calculation section 53. In particular, data

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		representing lines of both odd-numbered and even-numbered fields are presented mixed together in each block of brightness data as shown in FIG. 2(A). In the frame predictive mode, prediction is performed on the basis of four blocks of brightness data (i.e. an entire macro block) with one motion vector being provided for the four blocks of brightness data. On the other hand, in the field predictive mode, the predictive mode change-over circuit performs processing upon an input signal which is provided thereto from the motion vector detection circuit 50 so that the signal is arranged in the form shown in FIG. 2(B). Thus, the brightness data blocks Y[1] and Y[2] represent picture elements from the lines for an odd-numbered field, while the other two brightness data blocks Y[3] and Y[4] represent data for lines from even-numbered fields. The resulting data is output from predictive mode change-over circuit 52 to the calculation section 53. In this case, a motion vector for odd-numbered fields corresponds to the two blocks of brightness data Y[1] and Y[2], while a separate motion vector for even-numbered fields corresponds to the other two blocks of brightness data Y[3] and Y[4]. The motion vector detection circuit 50 outputs to the predictive mode change-over circuit 52 respective sums of absolute values of predictive errors for the frame predictive mode and the field

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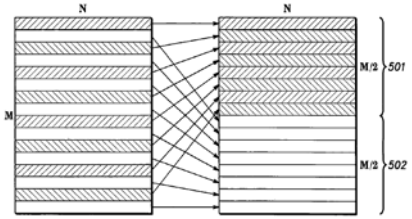
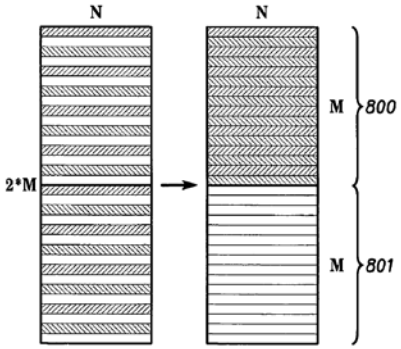
		predictive mode. The predictive mode change-over circuit 52 compares the two sums of predictive errors, performs processing on the absolute value sum corresponding to the predictive mode in which the absolute value sum has a lower value, and outputs the resulting data to the calculation section 53. However, according to a preferred embodiment of the invention, the processing described above is entirely performed within the motion vector detection circuit 50, which outputs a signal in the form corresponding to the appropriate predictive mode to the predictive mode change-over circuit 52, which simply passes that signal on without change to the calculation section 53. Concerning the color difference signal, it should be understood that in the frame predictive mode that signal is supplied to the calculation section 53 in the form of data for mixed lines of odd-numbered fields and even-numbered fields as shown in FIG. 2(A). On the other hand, in the field predictive mode, the first four lines of the color difference blocks Cb[5] and Cr[6] are color difference signals for odd-numbered fields corresponding to the blocks of brightness data Y[1] and Y[2], while the last four lines are color difference signals for even-numbered fields, corresponding to the blocks of brightness data Y[3] and Y[4] as shown in FIG. 2(B). The motion vector detection circuit 50 also produces a

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		sum of absolute values of predictive errors from which it is determined whether the predictive mode determination circuit 54 performs intra-picture processing, forward prediction, backward prediction or bi-directional prediction.") '530 patent, at 9:62-67 ("The DCT mode change-over circuit 55 arranges data contained in the four blocks of brightness data so that, for a frame DCT mode, lines of odd-numbered and even-numbered fields are mixed, or, in a field DCT mode, so that the lines for odd-numbered fields and even-numbered fields are separated, as respectively shown in FIGS. 3(A) and 3(B). The DCT mode change-over circuit 55 outputs the resulting data to a DCT circuit 56. More specifically, the DCT mode change-over circuit 55 performs a comparison of the coding efficiency that would be provided depending on whether the data for odd-numbered fields and even-numbered fields are presented mixed together or separately, and based on the comparison selects the mode which will result in higher coding efficiency.") <u>Extrinsic Evidence</u>: The American Heritage Dictionary of Idioms (1997) [MS-MOTO_1823_00005194906], at 25 ("**at a time** – see at one time, def. 1."), 30 (**at one time 1.** Simultaneously, at the same time, as in *All the boys jumped into the pool at one time*. For

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		synonyms, see at once, def. 1; at the same time, def. 1."), 29 ("**at once 1.** At the same time, as in *We can't all fit into the boat at once*. [First half of 1200s] Also see at one time, def. 1."), 33 ("**at the same time 1.** Simultaneously, as in *We were all scheduled to leave at the same time*. This idiom was first recorded in 1526. For synonyms, see at once, def. 1; at one time, def. 1."). The American Heritage Dictionary (2nd College Ed.), at 1271 [MS-MOTO_1823_00005194898] ("**at one time. 1**. Simultaneously.").
selectively decoding at least one of [a/said] plurality of smaller portions at a time [...] in frame coding mode and at least one of said plurality of smaller portions at a time […] in field coding mode Found in claim numbers: '375 Patent: 6, 13, 17	Microsoft's proposed term for construction is an amalgamation of 3 different claim terms: **selectively decoding at least one of [a/said] plurality of smaller portions at a time in frame coding mode and at least one of said plurality of smaller portions at a time in field coding mode** **selectively decoding at least one of a plurality of smaller portions at a time of the encoded picture that is encoded in frame coding mode and at least one of said plurality of smaller portions at a time of the encoded picture in field coding mode** Motorola does not believe that, beyond the treatment of "[a/said]" noted above, it would be appropriate to construe these terms jointly and	<u>Proposed Construction</u>: choosing to remove the frame coding mode from more than one macroblock together or to remove the field coding mode from more than one macroblock together to obtain at least one of a plurality of "decoded smaller portions" <u>Intrinsic Evidence</u>: '374 Patent, at Figs. 5  500 FIG. 5

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
	provides its proposed construction for each term, separately, above.	'374 Patent, at Figs. 8  '374 Patent, at 3:32-33 ("FIG. 5 shows that a macroblock is split into a top field and a bottom field if it is to be encoded in field mode.") '374 Patent, at 3:50-52 ("FIG. 8 shows that a pair of macroblocks that is to be encoded in field mode is first split into one top field 16 by 16 pixel block and one bottom field 16 by 16 pixel block.") '374 Patent, at 4:17-34 ("The present invention provides a method of adaptive frame/field (AFF) coding of digital video content comprising a stream of pictures or slices of a picture at a macroblock level. The present invention extends the concept of picture level AFF to macroblocks. In AFF coding at a picture level, each picture in a stream of pictures

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		that is to be encoded is encoded in either frame mode or in field mode, regardless of the frame or field coding mode of other pictures that are to be coded. If a picture is encoded in frame mode, the two fields that make up an interlaced frame are coded jointly. Conversely, if a picture is encoded in field mode, the two fields that make up an interlaced frame are coded separately. The encoder determines which type of coding, frame mode coding or field mode coding, is more advantageous for each picture and chooses that type of encoding for the picture. The exact method of choosing between frame mode and field mode is not critical to the present invention and will not be detailed herein.") '374 Patent, at 6:50-57 ("Picture level AFF is preferable to fixed frame/field coding in many applications because it allows the encoder to chose which mode, frame mode or field mode, to encode each picture in the stream of pictures based on the contents of the digital video material. AFF coding results in better compression than does fixed frame/field coding in many applications. An embodiment of the present invention is that AFF coding can be performed on smaller portions of a picture.") '374 Patent, at 6:58-64 ("An embodiment of the

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		present invention is that AFF coding can be performed on smaller portions of a picture. This small portion can be a macroblock, a pair of macroblocks, or a group of macroblocks. Each macroblock, pair of macroblocks, or group of macroblocks or slice is encoded in frame mode or in field mode, regardless of how the other macroblocks in the picture are encoded. AFF coding in each of the three cases will be described in detail below.") '374 Patent, at 7:26 – 8:65 ("AFF coding on macroblock pairs will now be explained. AFF coding on macroblock pairs will be occasionally referred to as pair based AFF coding. A comparison of the block sizes in FIGS. 6a-d and in FIGS. 3a-f show that a macroblock encoded in field mode can be divided into fewer block patterns than can a macroblock encoded in frame mode. The block sizes of 16 by 16 pixels, 8 by 16 pixels, and 8 by 4 pixels are not available for a macroblock encoded in field mode because of the single parity requirement. This implies that the performance of single macroblock based AFF may not be good for some sequences or applications that strongly favor field mode coding. In order to guarantee the performance of field mode macroblock coding, it is preferable in some applications for macroblocks that are coded in field mode to have the same block sizes as macroblocks that are coded in frame mode. This can be achieved by performing AFF coding on

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		macroblock pairs instead of on single macroblocks. FIG. 7 illustrates an exemplary pair of macroblocks (700) that can be used in AFF coding on a pair of macroblocks according to an embodiment of the present invention. If the pair of macroblocks (700) is to be encoded in frame mode, the pair is coded as two frame-based macroblocks. In each macroblock, the two fields in each of the macroblocks are encoded jointly. Once encoded as frames, the macroblocks can be further divided into the smaller blocks of FIGS. 3a-f for use in the temporal prediction with motion compensation algorithm. However, if the pair of macroblocks (700) is to be encoded in field mode, it is first split into one top field 16 by 16 pixel block (800) and one bottom field 16 by 16 pixel block (801), as shown in FIG. 8. The two fields are then coded separately. In FIG. 8, each macroblock in the pair of macroblocks (700) has N=16 columns of pixels and M=16 rows of pixels. Thus, the dimensions of the pair of macroblocks (700) is 16 by 32 pixels. As shown in FIG. 8, every other row of pixels is shaded. The shaded areas represent the rows of pixels in the top field of the macroblocks and the unshaded areas represent the rows of pixels in the bottom field of the macroblocks. The top field block (800) and the bottom field block (801) can now be divided into one of the possible block sizes of FIGS. 3a-f.

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		According to an embodiment of the present invention, in the AFF coding of pairs of macroblocks (700), there are two possible scanning paths. A scanning path determines the order in which the pairs of macroblocks of a picture are encoded. FIG. 9 shows the two possible scanning paths in AFF coding of pairs of macroblocks (700). One of the scanning paths is a horizontal scanning path (900). In the horizontal scanning path (900), the macroblock pairs (700) of a picture (200) are coded from left to right and from top to bottom, as shown in FIG. 9. The other scanning path is a vertical scanning path (901). In the vertical scanning path (901), the macroblock pairs (700) of a picture (200) are coded from top to bottom and from left to right, as shown in FIG. 9. For frame mode coding, the top macroblock of a macroblock pair (700) is coded first, followed by the bottom macroblock. For field mode coding, the top field macroblock of a macroblock pair is coded first followed by the bottom field macroblock. Another embodiment of the present invention extends the concept of AFF coding on a pair of macroblocks to AFF coding on a group of four or more neighboring macroblocks (902), as shown in FIG. 10. AFF coding on a group of macroblocks will be occasionally referred to as group based AFF coding. The same scanning paths, horizontal (900) and vertical (901), as are used in the scanning of

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		macroblock pairs are used in the scanning of groups of neighboring macroblocks (902). Although the example shown in FIG. 10 shows a group of four macroblocks, the group can be more than four macroblocks. If the group of macroblocks (902) is to be encoded in frame mode, the group coded as four frame-based macroblocks. In each macroblock, the two fields in each of the macroblocks are encoded jointly. Once encoded as frames, the macroblocks can be further divided into the smaller blocks of FIGS. 3a-f for use in the temporal prediction with motion compensation algorithm. However, if a group of four macroblocks (902), for example, is to be encoded in field mode, it is first split into one top field 32 by 16 pixel block and one bottom field 32 by 16 pixel block. The two fields are then coded separately. The top field block and the bottom field block can now be divided into macroblocks. Each macroblock is further divided into one of the possible block sizes of FIGS. 3a-f. Because this process is similar to that of FIG. 8, a separate figure is not provided to illustrate this embodiment. In AFF coding at the macroblock level, a frame/field flag bit is preferably included in a picture's bitstream to indicate which mode, frame

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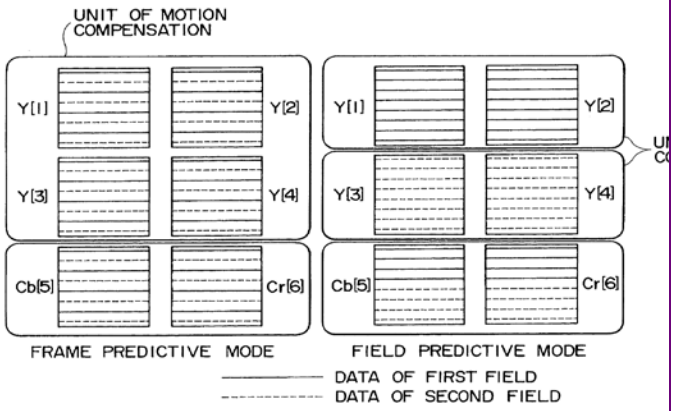
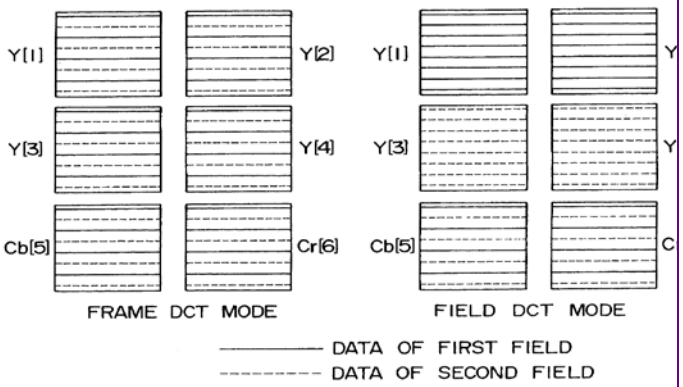
		mode or field mode, is used in the encoding of each macroblock. The bitstream includes information pertinent to each macroblock within a stream, as shown in FIG. 11. For example, the bitstream can include a picture header (110), run information (111), and macroblock type (113) information. The frame/field flag (112) is preferably included before each macroblock in the bitstream if AFF is performed on each individual macroblock. If the AFF is performed on pairs of macroblocks, the frame/field flag (112) is preferably included before each pair of macroblock in the bitstream. Finally, if the AFF is performed on a group of macroblocks, the frame/field flag (112) is preferably included before each group of macroblocks in the bitstream. One embodiment is that the frame/field flag (112) bit is a 0 if frame mode is to be used and a 1 if field coding is to be used. Another embodiment is that the frame/field flag (112) bit is a 1 if frame mode is to be used and a 0 if field coding is to be used.") '374 Patent File History, Examiner's Amendment, June 23, 2007, at 2-4 (e.g., "decoding at least one of said plurality of smaller portions <u>at a time</u> in frame coding mode and at least one of said plurality of smaller portions <u>at a time</u> in field coding mode, wherein each of said smaller portions has a size that is larger than one macroblock, wherein at least one block within said at least one of said plurality of smaller portions <u>at a time</u> is encoded in inter coding mode ….")

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		'374 Patent File History, Reasons for Allowance, June 23, 2007, at 5-6 ("Claims … are allowed as having incorporated novel features comprising … decoding at least one of said plurality of smaller portions at a time of the encoded picture that is encoded in frame coding mode and at least one of said plurality of smaller portions at a time of the encoded picture in field coding mode, wherein each of said smaller potions has a size that is larger than one macroblock, where at least one block within at least one of said plurality of smaller portions at a time is encoded in inter coding mode …. The prior art of record fails to anticipate or make obvious the novel features (emphasis added on *underlined claims(s) limitations*) as specified above."). '375 File History, Reasons for Allowance, July 17, 2007, at 4-5. '376 File History, Reasons for Allowance, May 24, 2007, at 2-9. '374 Patent family file history, United States Patent No. 5,504,530 (to Okibane et al.) United States Patent No. 5,504,530 (to Okibane et al.) ('530 patent), Figs. 2(A), 2(B), 3(A), 3(B).

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		FIG. 2(A) FIG. 2(B)  FIG. 3(A) FIG. 3(B)  '530 patent, at 6:2-9 ("FIGS. 2(A) and 2(B) are diagrammatic illustrations of the operation of a predictive mode change-over circuit that is part of the image signal coding apparatus of FIGS. 1(A)-1(C);")

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		'530 patent, at 7:55-67 ("Image data representing a picture stored in the frame memory 51 is read out for processing in a frame predictive mode or a field predictive mode by a predictive mode change-over circuit 52. Further, under the control of a predictive mode determination circuit 54, calculations with respect to intra-picture prediction, forward prediction, backward prediction or bi-directional prediction are performed by a calculation section 53. The determination of which type of processing should be performed is based on a prediction error signal formed as a difference between a reference original picture for the frame being processed and a predictive picture. Accordingly, the motion vector detection circuit 50 generates predictive error signals in the form of sums of absolute values or sums of squares for the purpose of the determination. Operation of predictive mode change-over circuit 52 in a frame predictive mode and a field predictive mode will now be described. When operation is to be in the frame predictive mode, the predictive mode change-over circuit outputs four brightness blocks Y[1] to Y[4] as the same are received from the motion vector detection circuit 50. The blocks output from predictive mode change-over circuit 52 are provided to the calculation section 53. In particular, data

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		representing lines of both odd-numbered and even-numbered fields are presented mixed together in each block of brightness data as shown in FIG. 2(A). In the frame predictive mode, prediction is performed on the basis of four blocks of brightness data (i.e. an entire macro block) with one motion vector being provided for the four blocks of brightness data. On the other hand, in the field predictive mode, the predictive mode change-over circuit performs processing upon an input signal which is provided thereto from the motion vector detection circuit 50 so that the signal is arranged in the form shown in FIG. 2(B). Thus, the brightness data blocks Y[1] and Y[2] represent picture elements from the lines for an odd-numbered field, while the other two brightness data blocks Y[3] and Y[4] represent data for lines from even-numbered fields. The resulting data is output from predictive mode change-over circuit 52 to the calculation section 53. In this case, a motion vector for odd-numbered fields corresponds to the two blocks of brightness data Y[1] and Y[2], while a separate motion vector for even-numbered fields corresponds to the other two blocks of brightness data Y[3] and Y[4]. The motion vector detection circuit 50 outputs to the predictive mode change-over circuit 52 respective sums of absolute values of predictive errors for the frame predictive mode and the field

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		predictive mode. The predictive mode change-over circuit 52 compares the two sums of predictive errors, performs processing on the absolute value sum corresponding to the predictive mode in which the absolute value sum has a lower value, and outputs the resulting data to the calculation section 53. However, according to a preferred embodiment of the invention, the processing described above is entirely performed within the motion vector detection circuit 50, which outputs a signal in the form corresponding to the appropriate predictive mode to the predictive mode change-over circuit 52, which simply passes that signal on without change to the calculation section 53. Concerning the color difference signal, it should be understood that in the frame predictive mode that signal is supplied to the calculation section 53 in the form of data for mixed lines of odd-numbered fields and even-numbered fields as shown in FIG. 2(A). On the other hand, in the field predictive mode, the first four lines of the color difference blocks Cb[5] and Cr[6] are color difference signals for odd-numbered fields corresponding to the blocks of brightness data Y[1] and Y[2], while the last four lines are color difference signals for even-numbered fields, corresponding to the blocks of brightness data Y[3] and Y[4] as shown in FIG. 2(B). The motion vector detection circuit 50 also produces a

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		sum of absolute values of predictive errors from which it is determined whether the predictive mode determination circuit 54 performs intra-picture processing, forward prediction, backward prediction or bi-directional prediction.") '530 patent, at 9:62-67 ("The DCT mode change-over circuit 55 arranges data contained in the four blocks of brightness data so that, for a frame DCT mode, lines of odd-numbered and even-numbered fields are mixed, or, in a field DCT mode, so that the lines for odd-numbered fields and even-numbered fields are separated, as respectively shown in FIGS. 3(A) and 3(B). The DCT mode change-over circuit 55 outputs the resulting data to a DCT circuit 56. More specifically, the DCT mode change-over circuit 55 performs a comparison of the coding efficiency that would be provided depending on whether the data for odd-numbered fields and even-numbered fields are presented mixed together or separately, and based on the comparison selects the mode which will result in higher coding efficiency.") <u>Extrinsic Evidence</u>: Webster's New World Dictionary, (2nd College Ed.) at 1291 [MS-MOTO_1823_00005194926] ("**select** … adj. [L. selectus, pp. of seligere, to choose, pick out < se, apart + legere, to choose: see logic] … to

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		choose or pick out from among others, as for excellence, desirability, etc. –vi. to make a selection; choose –SYN, see choose"). The American Heritage Dictionary of Idioms (1997) [MS-MOTO_1823_00005194906], at 25 ("**at a time** – see at one time, def. 1."), 30 (**at one time 1.** Simultaneously, at the same time, as in *All the boys jumped into the pool at one time*. For synonyms, see at once, def. 1; at the same time, def. 1."), 29 ("**at once 1.** At the same time, as in *We can't all fit into the boat at once*. [First half of 1200s] Also see at one time, def. 1."), 33 ("**at the same time 1.** Simultaneously, as in *We were all scheduled to leave at the same time*. This idiom was first recorded in 1526. For synonyms, see at once, def. 1; at one time, def. 1."). The American Heritage Dictionary (2nd College Ed.), at 1271 [MS-MOTO_1823_00005194898] ("**at one time. 1**. Simultaneously.").
wherein at least one block within [said] at least one of said plurality of smaller portions [at a time is encoded in inter coding mode/is encoded in intra coding mode at a time] Found in claim numbers:	Microsoft's proposed term for construction is an amalgamation of 4 different claim terms: **wherein at least one block within [said] at least one of said plurality of smaller portions [at a time] is encoded in inter coding mode** **wherein at least one block within [said] at least one of said plurality of smaller portions is**	<u>Proposed Construction</u>: encoding at least one block within at least one of said plurality of smaller portions at a time in [inter/intra] coding mode <u>Intrinsic Evidence</u>: '374 Patent at 9:11-15, ("In intra coding, the macroblock is encoded without temporally referring

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'374 Patent: 8, 14 '375 Patent: 6, 13, 17	**encoded in intra coding mode [at a time]** Motorola does not believe that, beyond the consolidations reflected by the bracketed terms above, it would be appropriate to construe these terms jointly and provides its proposed construction for the terms, separately, above.	to other macroblocks. On the other hand, in inter coding, temporal prediction with motion compensation is used to code the macroblocks.")
means for [selectively] decoding at least one of a plurality of [smaller portions/processing blocks] at a time [...] in frame coding mode and at least one of said plurality of [smaller portions/processing blocks] at a time [...] in field coding mode Found in claim numbers: '374 Patent: 14 '375 Patent: 13 '376 Patent:. 22	Microsoft's proposed term for construction is an amalgamation of 3 different claim terms: **means for decoding at least one of a plurality of smaller portions at a time of the encoded picture that is encoded in frame coding mode and at least one of said plurality of smaller portions at a time of the encoded picture in field coding mode** **means for selectively decoding at least one of a plurality of smaller portions at a time of the encoded picture that is encoded in frame coding mode and at least one of said plurality of smaller portions at a time of the encoded picture in field coding mode** **means for decoding at least one of a plurality of processing blocks at a time, each processing block containing a pair of macroblocks or a group of macroblocks, each macroblock containing a plurality of blocks, from said encoded picture that is encoded in frame coding mode and at least one of said plurality of processing blocks at a time that is encoded in**	<u>Proposed Construction</u>: Function: same as construction of functional language in method claims. Structure: a processor, application specific integrated circuit (ASIC), field programmable gate array (FPGA), coder/decoder (CODEC), or digital signal processor (DSP) performing the algorithm of: in field mode, creating in memory one or more macroblocks each containing one field and one or more macroblocks each containing the other field and processing each such macroblock together with the other macroblocks to create in memory at least two macroblocks containing lines from both fields and in frame mode, creating in memory one or more macroblocks each containing lines from both fields and processing each such macroblock together to create in memory at least two macroblocks containing lines from both fields <u>Intrinsic Evidence</u>: '374 Patent, at Figs. 5

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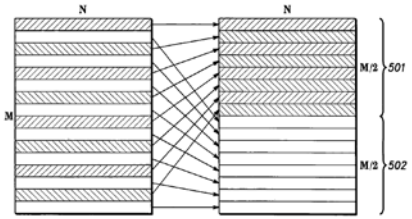
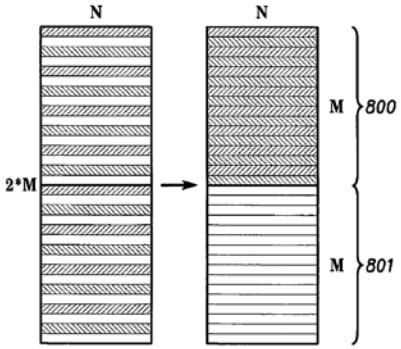
	field coding mode Motorola does not believe that it would be appropriate to construe these terms jointly and provides its proposed construction for each term, separately, above.	 500 FIG. 5 '374 Patent, at Figs. 8  '374 Patent, at 3:32-33 ("FIG. 5 shows that a macroblock is split into a top field and a bottom field if it is to be encoded in field mode.") '374 Patent, at 3:50-52 ("FIG. 8 shows that a pair of macroblocks that is to be encoded in field mode is first split into one top field 16 by 16 pixel block and one bottom field 16 by 16 pixel block.")

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		'374 Patent, at 4:17-34 (" The present invention provides a method of adaptive frame/field (AFF) coding of digital video content comprising a stream of pictures or slices of a picture at a macroblock level. The present invention extends the concept of picture level AFF to macroblocks. In AFF coding at a picture level, each picture in a stream of pictures that is to be encoded is encoded in either frame mode or in field mode, regardless of the frame or field coding mode of other pictures that are to be coded. If a picture is encoded in frame mode, the two fields that make up an interlaced frame are coded jointly. Conversely, if a picture is encoded in field mode, the two fields that make up an interlaced frame are coded separately. The encoder determines which type of coding, frame mode coding or field mode coding, is more advantageous for each picture and chooses that type of encoding for the picture. The exact method of choosing between frame mode and field mode is not critical to the present invention and will not be detailed herein.") '374 Patent, at 6:50-57 ("Picture level AFF is preferable to fixed frame/field coding in many applications because it allows the encoder to chose which mode, frame mode or field mode, to encode each picture in the stream of pictures based on the contents of the digital video material. AFF coding results in better compression than does fixed

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		frame/field coding in many applications. An embodiment of the present invention is that AFF coding can be performed on smaller portions of a picture.") '374 Patent, at 6:58-64 ("An embodiment of the present invention is that AFF coding can be performed on smaller portions of a picture. This small portion can be a macroblock, a pair of macroblocks, or a group of macroblocks. Each macroblock, pair of macroblocks, or group of macroblocks or slice is encoded in frame mode or in field mode, regardless of how the other macroblocks in the picture are encoded. AFF coding in each of the three cases will be described in detail below.") '374 Patent, at 7:26 – 8:65 ("AFF coding on macroblock pairs will now be explained. AFF coding on macroblock pairs will be occasionally referred to as pair based AFF coding. A comparison of the block sizes in FIGS. 6a-d and in FIGS. 3a-f show that a macroblock encoded in field mode can be divided into fewer block patterns than can a macroblock encoded in frame mode. The block sizes of 16 by 16 pixels, 8 by 16 pixels, and 8 by 4 pixels are not available for a macroblock encoded in field mode because of the single parity requirement. This implies that the performance of single

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		macroblock based AFF may not be good for some sequences or applications that strongly favor field mode coding. In order to guarantee the performance of field mode macroblock coding, it is preferable in some applications for macroblocks that are coded in field mode to have the same block sizes as macroblocks that are coded in frame mode. This can be achieved by performing AFF coding on macroblock pairs instead of on single macroblocks. FIG. 7 illustrates an exemplary pair of macroblocks (700) that can be used in AFF coding on a pair of macroblocks according to an embodiment of the present invention. If the pair of macroblocks (700) is to be encoded in frame mode, the pair is coded as two frame-based macroblocks. In each macroblock, the two fields in each of the macroblocks are encoded jointly. Once encoded as frames, the macroblocks can be further divided into the smaller blocks of FIGS. 3a-f for use in the temporal prediction with motion compensation algorithm. However, if the pair of macroblocks (700) is to be encoded in field mode, it is first split into one top field 16 by 16 pixel block (800) and one bottom field 16 by 16 pixel block (801), as shown in FIG. 8. The two fields are then coded separately. In FIG. 8, each macroblock in the pair of macroblocks (700) has N=16 columns of pixels and M=16 rows of pixels. Thus, the dimensions of the pair of

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		macroblocks (700) is 16 by 32 pixels. As shown in FIG. 8, every other row of pixels is shaded. The shaded areas represent the rows of pixels in the top field of the macroblocks and the unshaded areas represent the rows of pixels in the bottom field of the macroblocks. The top field block (800) and the bottom field block (801) can now be divided into one of the possible block sizes of FIGS. 3a-f. According to an embodiment of the present invention, in the AFF coding of pairs of macroblocks (700), there are two possible scanning paths. A scanning path determines the order in which the pairs of macroblocks of a picture are encoded. FIG. 9 shows the two possible scanning paths in AFF coding of pairs of macroblocks (700). One of the scanning paths is a horizontal scanning path (900). In the horizontal scanning path (900), the macroblock pairs (700) of a picture (200) are coded from left to right and from top to bottom, as shown in FIG. 9. The other scanning path is a vertical scanning path (901). In the vertical scanning path (901), the macroblock pairs (700) of a picture (200) are coded from top to bottom and from left to right, as shown in FIG. 9. For frame mode coding, the top macroblock of a macroblock pair (700) is coded first, followed by the bottom macroblock. For field mode coding, the top field macroblock of a macroblock pair is coded first followed by the bottom field macroblock.

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		Another embodiment of the present invention extends the concept of AFF coding on a pair of macroblocks to AFF coding on a group of four or more neighboring macroblocks (902), as shown in FIG. 10. AFF coding on a group of macroblocks will be occasionally referred to as group based AFF coding. The same scanning paths, horizontal (900) and vertical (901), as are used in the scanning of macroblock pairs are used in the scanning of groups of neighboring macroblocks (902). Although the example shown in FIG. 10 shows a group of four macroblocks, the group can be more than four macroblocks. If the group of macroblocks (902) is to be encoded in frame mode, the group coded as four frame-based macroblocks. In each macroblock, the two fields in each of the macroblocks are encoded jointly. Once encoded as frames, the macroblocks can be further divided into the smaller blocks of FIGS. 3a-f for use in the temporal prediction with motion compensation algorithm. However, if a group of four macroblocks (902), for example, is to be encoded in field mode, it is first split into one top field 32 by 16 pixel block and one bottom field 32 by 16 pixel block. The two fields are then coded separately. The top field block and the bottom field block can now be divided into

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		macroblocks. Each macroblock is further divided into one of the possible block sizes of FIGS. 3a-f. Because this process is similar to that of FIG. 8, a separate figure is not provided to illustrate this embodiment. In AFF coding at the macroblock level, a frame/field flag bit is preferably included in a picture's bitstream to indicate which mode, frame mode or field mode, is used in the encoding of each macroblock. The bitstream includes information pertinent to each macroblock within a stream, as shown in FIG. 11. For example, the bitstream can include a picture header (110), run information (111), and macroblock type (113) information. The frame/field flag (112) is preferably included before each macroblock in the bitstream if AFF is performed on each individual macroblock. If the AFF is performed on pairs of macroblocks, the frame/field flag (112) is preferably included before each pair of macroblock in the bitstream. Finally, if the AFF is performed on a group of macroblocks, the frame/field flag (112) is preferably included before each group of macroblocks in the bitstream. One embodiment is that the frame/field flag (112) bit is a 0 if frame mode is to be used and a 1 if field coding is to be used. Another embodiment is that the frame/field flag (112) bit is a 1 if frame mode is to be used and a 0 if field coding is to be used.") '374 Patent File History, Examiner's Amendment, June 23, 2007, at 2-4 (e.g., "decoding at least one of

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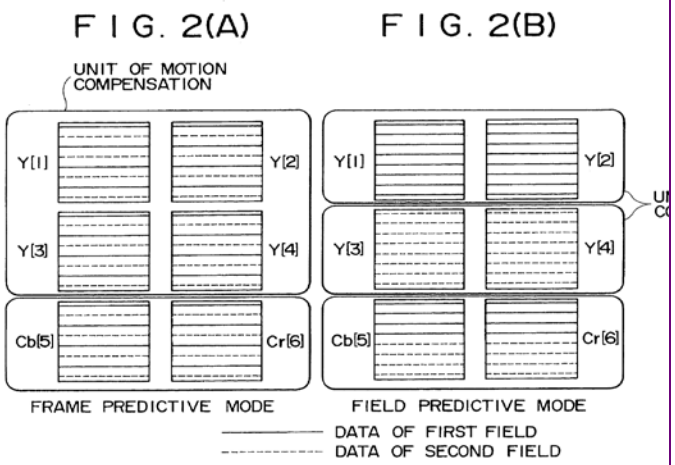
		said plurality of smaller portions at a time in frame coding mode and at least one of said plurality of smaller portions at a time in field coding mode, wherein each of said smaller portions has a size that is larger than one macroblock, wherein at least one block within said at least one of said plurality of smaller portions at a time is encoded in inter coding mode …."). '374 Patent File History, Reasons for Allowance, June 23, 2007, at 5-6 ("Claims … are allowed as having incorporated novel features comprising … decoding at least one of said plurality of smaller portions at a time of the encoded picture that is encoded in frame coding mode and at least one of said plurality of smaller portions at a time of the encoded picture in field coding mode, wherein each of said smaller potions has a size that is larger than one macroblock, where at least one block within at least one of said plurality of smaller portions at a time is encoded in inter coding mode …. The prior art of record fails to anticipate or make obvious the novel features (emphasis added on *underlined claims(s) limitations*) as specified above."). '375 File History, Reasons for Allowance, July 17, 2007, at 4-5. '376 File History, Reasons for Allowance, May 24, 2007, at 2-9.

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		'374 Patent family file history, United States Patent No. 5,504,530 (to Okibane et al.) United States Patent No. 5,504,530 (to Okibane et al.) ('530 patent), Figs. 2(A), 2(B), 3(A), 3(B). 

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		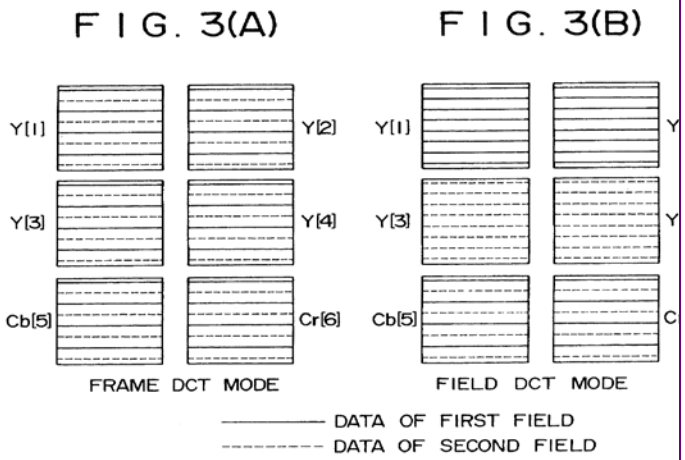 '530 patent, at 6:2-9 ("FIGS. 2(A) and 2(B) are diagrammatic illustrations of the operation of a predictive mode change-over circuit that is part of the image signal coding apparatus of FIGS. 1(A)-1(C);") '530 patent, at 7:55-67 ("Image data representing a picture stored in the frame memory 51 is read out for processing in a frame predictive mode or a field predictive mode by a predictive mode change-over circuit 52. Further, under the control of a predictive mode determination circuit 54, calculations with respect to intra-picture prediction, forward prediction, backward prediction or bi-directional prediction are performed by a calculation section 53. The determination of which type of processing should be performed is based on a prediction error signal formed as a difference between a reference

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		original picture for the frame being processed and a predictive picture. Accordingly, the motion vector detection circuit 50 generates predictive error signals in the form of sums of absolute values or sums of squares for the purpose of the determination. Operation of predictive mode change-over circuit 52 in a frame predictive mode and a field predictive mode will now be described. When operation is to be in the frame predictive mode, the predictive mode change-over circuit outputs four brightness blocks Y[1] to Y[4] as the same are received from the motion vector detection circuit 50. The blocks output from predictive mode change-over circuit 52 are provided to the calculation section 53. In particular, data representing lines of both odd-numbered and even-numbered fields are presented mixed together in each block of brightness data as shown in FIG. 2(A). In the frame predictive mode, prediction is performed on the basis of four blocks of brightness data (i.e. an entire macro block) with one motion vector being provided for the four blocks of brightness data. On the other hand, in the field predictive mode, the predictive mode change-over circuit performs processing upon an input signal which is provided thereto from the motion vector detection circuit 50

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		so that the signal is arranged in the form shown in FIG. 2(B). Thus, the brightness data blocks Y[1] and Y[2] represent picture elements from the lines for an odd-numbered field, while the other two brightness data blocks Y[3] and Y[4] represent data for lines from even-numbered fields. The resulting data is output from predictive mode change-over circuit 52 to the calculation section 53. In this case, a motion vector for odd-numbered fields corresponds to the two blocks of brightness data Y[1] and Y[2], while a separate motion vector for even-numbered fields corresponds to the other two blocks of brightness data Y[3] and Y[4]. The motion vector detection circuit 50 outputs to the predictive mode change-over circuit 52 respective sums of absolute values of predictive errors for the frame predictive mode and the field predictive mode. The predictive mode change-over circuit 52 compares the two sums of predictive errors, performs processing on the absolute value sum corresponding to the predictive mode in which the absolute value sum has a lower value, and outputs the resulting data to the calculation section 53. However, according to a preferred embodiment of the invention, the processing described above is entirely performed within the motion vector detection circuit 50, which outputs a signal in the form corresponding to the appropriate predictive

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		mode to the predictive mode change-over circuit 52, which simply passes that signal on without change to the calculation section 53. Concerning the color difference signal, it should be understood that in the frame predictive mode that signal is supplied to the calculation section 53 in the form of data for mixed lines of odd-numbered fields and even-numbered fields as shown in FIG. 2(A). On the other hand, in the field predictive mode, the first four lines of the color difference blocks Cb[5] and Cr[6] are color difference signals for odd-numbered fields corresponding to the blocks of brightness data Y[1] and Y[2], while the last four lines are color difference signals for even-numbered fields, corresponding to the blocks of brightness data Y[3] and Y[4] as shown in FIG. 2(B). The motion vector detection circuit 50 also produces a sum of absolute values of predictive errors from which it is determined whether the predictive mode determination circuit 54 performs intra-picture processing, forward prediction, backward prediction or bi-directional prediction.") '530 patent, at 9:62-67 ("The DCT mode change-over circuit 55 arranges data contained in the four blocks of brightness data so that, for a frame DCT mode, lines of odd-numbered and even-numbered fields are mixed, or, in a field DCT mode, so that the lines for odd-numbered fields and even-numbered fields are separated, as respectively

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		shown in FIGS. 3(A) and 3(B). The DCT mode change-over circuit 55 outputs the resulting data to a DCT circuit 56. More specifically, the DCT mode change-over circuit 55 performs a comparison of the coding efficiency that would be provided depending on whether the data for odd-numbered fields and even-numbered fields are presented mixed together or separately, and based on the comparison selects the mode which will result in higher coding efficiency.") <u>Extrinsic Evidence</u>: Webster's New World Dictionary, (2nd College Ed.) at 1291 [MS-MOTO_1823_00005194926] ("**select** … adj. [L. selectus, pp. of seligere, to choose, pick out < se, apart + legere, to choose: see logic] … to choose or pick out from among others, as for excellence, desirability, etc. –vi. to make a selection; choose –SYN, see choose"). The American Heritage Dictionary of Idioms (1997) [MS-MOTO_1823_00005194906], at 25 ("**at a time** – see at one time, def. 1."), 30 (**at one time 1.** Simultaneously, at the same time, as in *All the boys jumped into the pool at one time*. For synonyms, see at once, def. 1; at the same time, def. 1."), 29 ("**at once 1.** At the same time, as in *We can't all fit into the boat at once*. [First half of 1200s] Also see at one time, def. 1."), 33 ("**at the same time 1.** Simultaneously, as in *We were all*

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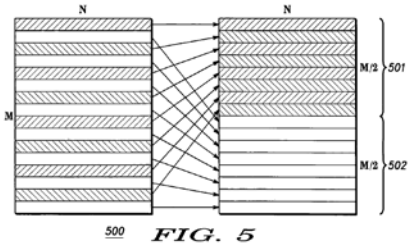
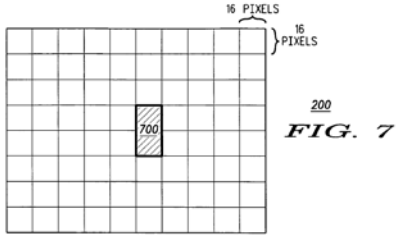
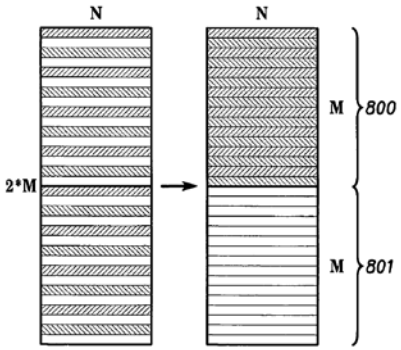
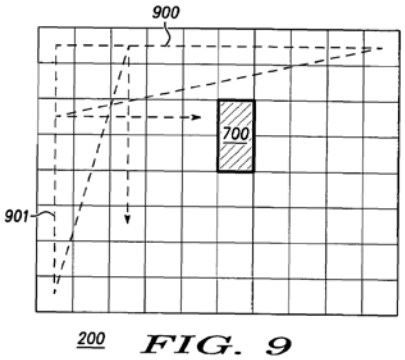
		scheduled to leave at the same time. This idiom was first recorded in 1526. For synonyms, see at once, def. 1; at one time, def. 1."). The American Heritage Dictionary (2nd College Ed.), at 1271 [MS-MOTO_1823_00005194898] ("**at one time. 1**. Simultaneously.").
means for using said plurality of decoded [smaller portions/processing blocks] to construct a decoded picture Found in claim numbers: '374 Patent: 14 '375 Patent: 13 '376 Patent: 22	Microsoft's proposed term for construction is an amalgamation of 2 different claim terms: **means for using said plurality of decoded smaller portions to construct a decoded picture** **means for using said plurality of decoded processing blocks to construct a decoded picture** Motorola does not believe that it would be appropriate to construe these terms jointly and provides its proposed construction for each term, separately, above.	<u>Proposed Construction</u>: Function: same as construction of functional language in method claims. Structure: a processor, application specific integrated circuit (ASIC), field programmable gate array (FPGA), coder/decoder (CODEC), or digital signal processor (DSP) performing the algorithm of assembling a decoded picture using the decoded [smaller portions/processing blocks] like bricks in a wall '374 Patent, at Figs. 5  FIG. 5 '374 Patent, at Figs. 7

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		 FIG. 7 '374 Patent, at Figs. 8  '374 Patent, at Figs. 9  FIG. 9 '374 Patent, at 3:32-33 ("FIG. 5 shows that a macroblock is split into a top field and a bottom

Claim Language	Motorola's Proposed Construction and Evidence in Support	Microsoft's Proposed Construction and Evidence in Support
		field if it is to be encoded in field mode.") '374 Patent, at 3:46-54 ("FIG. 7 illustrates an exemplary pair of macroblocks that can be used in AFF coding on a pair of macroblocks according to an embodiment of the present invention.") '374 Patent, at 7:43 – 8:45 ("FIG. 7 illustrates an exemplary pair of macroblocks (700) that can be used in AFF coding on a pair of macroblocks according to an embodiment of the present invention. If the pair of macroblocks (700) is to be encoded in frame mode, the pair is coded as two frame-based macroblocks. In each macroblock, the two fields in each of the macroblocks are encoded jointly. Once encoded as frames, the macroblocks can be further divided into the smaller blocks of FIGS. 3a-f for use in the temporal prediction with motion compensation algorithm. However, if the pair of macroblocks (700) is to be encoded in field mode, it is first split into one top field 16 by 16 pixel block (800) and one bottom field 16 by 16 pixel block (801), as shown in FIG. 8. The two fields are then coded separately. In FIG. 8, each macroblock in the pair of macroblocks (700) has N=16 columns of pixels and M=16 rows of pixels. Thus, the dimensions of the pair of macroblocks (700) is 16 by 32 pixels. As shown in FIG. 8, every other row of pixels is shaded. The

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		shaded areas represent the rows of pixels in the top field of the macroblocks and the unshaded areas represent the rows of pixels in the bottom field of the macroblocks. The top field block (800) and the bottom field block (801) can now be divided into one of the possible block sizes of FIGS. 3a-f. According to an embodiment of the present invention, in the AFF coding of pairs of macroblocks (700), there are two possible scanning paths. A scanning path determines the order in which the pairs of macroblocks of a picture are encoded. FIG. 9 shows the two possible scanning paths in AFF coding of pairs of macroblocks (700). One of the scanning paths is a horizontal scanning path (900). In the horizontal scanning path (900), the macroblock pairs (700) of a picture (200) are coded from left to right and from top to bottom, as shown in FIG. 9. The other scanning path is a vertical scanning path (901). In the vertical scanning path (901), the macroblock pairs (700) of a picture (200) are coded from top to bottom and from left to right, as shown in FIG. 9. For frame mode coding, the top macroblock of a macroblock pair (700) is coded first, followed by the bottom macroblock. For field mode coding, the top field macroblock of a macroblock pair is coded first followed by the bottom field macroblock. Another embodiment of the present invention

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		extends the concept of AFF coding on a pair of macroblocks to AFF coding on a group of four or more neighboring macroblocks (902), as shown in FIG. 10. AFF coding on a group of macroblocks will be occasionally referred to as group based AFF coding. The same scanning paths, horizontal (900) and vertical (901), as are used in the scanning of macroblock pairs are used in the scanning of groups of neighboring macroblocks (902). Although the example shown in FIG. 10 shows a group of four macroblocks, the group can be more than four macroblocks. If the group of macroblocks (902) is to be encoded in frame mode, the group coded as four frame-based macroblocks. In each macroblock, the two fields in each of the macroblocks are encoded jointly. Once encoded as frames, the macroblocks can be further divided into the smaller blocks of FIGS. 3a-f for use in the temporal prediction with motion compensation algorithm. However, if a group of four macroblocks (902), for example, is to be encoded in field mode, it is first split into one top field 32 by 16 pixel block and one bottom field 32 by 16 pixel block. The two fields are then coded separately. The top field block and the bottom field block can now be divided into macroblocks. Each macroblock is further divided into one of the possible block sizes of FIGS. 3a-f.

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		Because this process is similar to that of FIG. 8, a separate figure is not provided to illustrate this embodiment.") <u>Extrinsic Evidence</u>: The American Heritage Dictionary (2nd College Ed.) at 315 [MS-MOTO_1823_00005194890] ("**construct** … 1. To form by assembling parts; build.").

Joint Claim Construction Chart for U.S. Patent Nos. 6,339,780 and 7,411,582

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1. graphic element Found in claim numbers: all asserted claims (1–6, 9–14, 17–18, 20–21, and 32–42)	Proposed Construction: No construction needed; if the term needs to be construed it should be given its plain and ordinary meaning. Alternatively, the term should be construed as follows: A discrete image for viewing on a computer display screen Intrinsic Evidence: '780 Patent Claims 1, 20, 22 (Ex. A-11) ("wherein the temporary graphic element is not content"); '780 Patent col 4:15-56 (Ex. A-11) ("FIG. 3 shows an example of a graphical display 50 generated by a hypermedia browser 48 in conjunction with operating system 44. . . . Rather, the browser is configured to display a temporary graphic element 64 over content viewing area 56 during times when the browser is loading content.") (temporary graphic element surrounded in orange highlighting below):	Proposed Construction: A discrete image for viewing on a computer display screen that is not content. Intrinsic Evidence Specification '780 Patent col. 2:47-50 (Ex. D) ("A termporary, animated graphic element is presented in a corner of the content viewing area during times when the browser is loading content. The graphic element is not displayed during any other times.") '780 Patent col. 4:53-58 (Ex. D) ("Rather, the browser is configured to display a termporary graphic element 64 over content viewing area 56 during times when the browser is loading content. This temporary graphic element is preferably animated (such as the waving Microsoft® flag shown), and is displayed only when the browser is loading content.") '780 Patent col. 5:1-3 (Ex. D) ("The graphic element is created by opening a conventional window in conjunction with the Window® CE windowing operating environment.") '780 Patent col. 5:21-22 (Ex. D) ("The temporary graphic element is removed when content is no longer being loaded.")

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	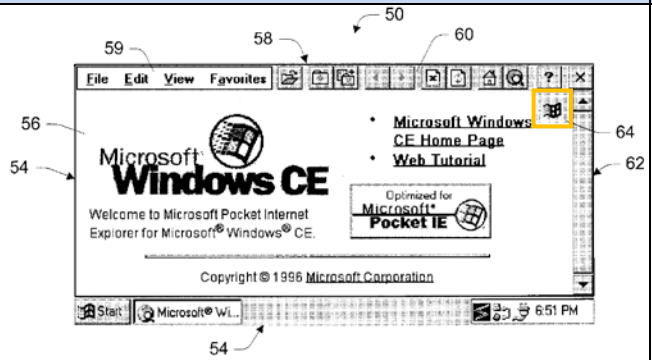 Fig. 3 Prosecution History, 03/23/2000 Response to Office Action at 11 (Ex. A-12) ("Blonder's 'padding' is not equivalent to the '. . . graphic element . . .' because the 'padding' is content and the '. . . graphic element. . .' is not."); Prosecution History, 06/26/2001Response to Office Action at 16 (Ex. A-14) ("The core concept is a non-content graphic element . . ."); Prosecution History, 09/09/2001 Notice of Allowability at 4 (Ex. A-15) (". . . the claimed invention is directed to covering a part of the content viewing area with a graphic element. This graphic element is not additional content."). <u>Dictionary/Treatise Definitions</u>:	<u>Prosecution History</u> '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050374-75 (3/23/00 amendment at 7-8) ("The use of 'over' in the claim language emphasizes that the graphic element is not part of the content. Content is displayed in the content viewing area. The graphic element is displayed '. . . <u>over</u> the content viewing area to only partially obstruct content in the content viewing area . . . '") '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050375 (3/23/00 amendment at 8) ("The temporary graphic element is not content.") '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050383 (3/23/00 amendment at 16) ("As mentioned previously, the ' . . . graphic element . . .' does not contain information content . . . .'") '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050434, MOTM_WASH1823_0050474, and MOTM_WASH1823_0050521 (12/1/00 amendment at 11; 6/26/01 amendment at 16; 8/15/01 amendment at 16) ("Although some claims are worded differently from others (and may have different claimed elements and features), claims 1-30 recite a common core concept that does not appear in any of the cited references. The core concept is a non-content graphic element appearing over a content area that is indicative of present condition where content is

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	The Computer Desktop Encyclopedia, 1996 (produced at MS-MOTO_1823_00005195112 – 21) (graphics: "Called computer graphics, it is the creation and manipulation of picture images in the computer. . . . A graphics computer system requires a graphics display screen, a graphics input device (tablet, mouse, scanner, camera, etc.), a graphics output device (dot matrix printer, laser printer, plotter, etc.) and a graphics software package.").	being loaded into the content area.") '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050441, MOTM_WASH1823_0050481, and MOTM_WASH1823_0050529 (12/1/00 amendment at 18; 6/26/01 amendment at 23; 8/15/01 amendment at 24) ("The ' . . . graphic element. . . ' of these claims is ' . . . not content . . . .'") '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050520 (8/15/01 amendment at 15) ("Applicant states that the term 'content' found in the claims comprises 'data for presentation which is from a source external to the browser.'") '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050472 (6/26/01 amendment at 14) ("Applicant submits that the term 'content' found in the claims comprises 'data for presentation which is from a source external to the browser.'") '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050411 (7/17/00 amendment at 11) ("To clarify, the Applicant expressly grants permission to the Office to reinterpret all pending claims of this application.") '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050553-54 (9/11/01 Notice of Allowability at 4-5) ("10. Upon considering all relevant issues, including these three terms, one can then assess the

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		meanings and the scopes of the claims. As noted during the file history (see amendment of August 20, 2001, especially pages 15-31), the claimed invention is directed to covering a part of the content viewing area with a graphic element. This graphic element is not additional content. Rather, this graphic element would indicate loading status of the content that is being loaded into the browser. To some degree, this appears counterintuitive and against the normal flow of the art. If such a graphic element would cover content, this would interfere with the view offered to the user. This is especially true since the browser is involved. Presumably, the user would be using the browser to browse; any content being loaded to the browser would be wanted by the user. Instead of having the graphic element away from the content, the graphic element covers the content. The prior art of record does not teach or suggest the claimed invention.”))
2. during times when the browser is loading content Found in claim numbers: 1–6, 9–11	Proposed Construction: No construction needed; if the term needs to be construed it should be given its plain and ordinary meaning. Alternatively, the term should be construed as follows: While the hypermedia browser is loading content (for the purpose of displaying the content) Intrinsic Evidence:	Proposed Construction: While the hypermedia browser is loading content into the content viewing area. Intrinsic Evidence Specification ‘780 Patent col. 1:42-44 (Ex. D) (“Activating a link causes the Web browser to load and render the document or resource that is targeted by the hyperlink.”) ‘780 Patent col. 1:64 - col. 2:12 (Ex. D) (“One persistent

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
	'780 Patent Claims 2, 12–14, 17–18, 20–21 (Ex. A-11) ("during times when the browser is loading visible content") '780 Patent Claims 12, 40 (Ex. A-11) ("a hypermedia browser executing on the processor to load and display content in a content viewing area on the display") '780 Patent Claim 19 (Ex. A-11) ("A method of browsing a hyperlink resource, comprising the following steps: loading content from the hyperlink resource in response to user selection of hyperlinks contained in said content; displaying the content in a content viewing area; . . . wherein the loading, the content displaying, and the temporary graphic element displaying steps occur at least partially concurrently") '780 Patent Claims 32, 36 (Ex. A-11) ("the method comprising: displaying loaded content within the content viewing area . . . loading such new content into the content viewing area; and while loading, displaying a "load status" graphic element over the content viewing area so that the graphic element obstructs only part of the content in such content viewing area"); '780 Patent Claim 40 (Ex. A-11) ("in the content-loaded mode, the hypermedia browser	characteristic of WWW browsing is that significant delays are often encountered when loading documents and other multimedia content. From the user's perspective, such delays can be quite frustrating. In severe cases involving long delays, users might be inclined to believe that their browsers have become inoperative. To avoid this situation, browsers typically include some type of status display indicating progress in loading content. In many browsers, this consists of a stationary icon such as a flag or globe that becomes animated during periods when content is being loaded. For instance, such an icon might comprise a flag that is normally stationary but that flutters or waves during content loading. An icon such as this is positioned in a tool area or status area outside of the content viewing area. The icon is visible at all times, but is animated only when content is being loaded.") '780 Patent col. 2:45-50 (Ex. D) ("In accordance with the invention, a browser has a content viewing area that is used for displaying graphical hypermedia content. A temporary, animated graphic element is presented in a corner of the content viewing area during times when the browser is loading content. The graphic element is not displayed during any other times.") '780 Patent col. 4:4-8 (Ex. D) ("As used here, the term "hypermedia browser" refers to an application or application program that is capable of displaying or otherwise rendering hypermedia content and of loading additional or alternative hypermedia content in response to

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	displays loaded content in the content viewing area and no "load status" graphic element is displayed, wherein absence of such "load status" graphic element indicates that the browser is in the content-loaded mode; in the content-loading mode, the hypermedia browser loads content, displays such content in the content viewing area as it loads, and displays a "load status" graphic element over the content view area obstructing part of the content displayed in the content viewing area") '780 Patent col 1:64 – 2: 9 (Ex. A-11) ("One persistent characteristic of WWW browsing is that significant delays are often encountered when loading documents and other multimedia content. From the user's perspective, such delays can be quite frustrating. In severe cases involving long delays, users might be inclined to believe that their browsers have become inoperative. To avoid this situation, [prior art] browsers typically include some type of status display indicating progress in loading content. In many browsers, this consists of a stationary icon such as a flag or globe that becomes animated during periods when content is being loaded. For instance, such an icon might comprise a flag that is normally stationary but that flutters or waves during content loading."); 	a user's selection of hyperlinks.") '780 Patent col. 4:50-63 (Ex. D) ("In contrast to prior art hypermedia browsers, browser 48 does not include a permanent 'loading status' icon. In fact, no portion of main window 54 is dedicated permanently to displaying loading status. Rather, the browser is configured to display a temporary graphic element 64 over content viewing area 56 during times when the browser is loading content. This temporary graphic element is preferably animated (such as the waving Microsoft® flag shown), and is displayed only when the browser is loading content. It is removed when the browser is not loading content. FIG. 4 shows display 50 after content has been loaded, during a period when no additional content is being loaded. Graphic element 64 has been removed in FIG. 4 because the current Internet page has been completely loaded.") '780 Patent col. 5:4-6 (Ex. D) ("This method of displaying loading status achieves the objective of alerting users during periods of time when content is actually being loaded.") '780 Patent col. 5:15-22 (Ex. D) ("The method includes a step of loading content from the hyperlink resource in response to user selection of hyperlinks contained in said content, and of displaying the content in a content viewing area. The invention also includes a step of displaying a temporary graphic element over the content viewing area during the loading step. The temporary graphic element is

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
	Prosecution History, 3/23/2000 Response to Office Action at 8 (Ex. A-12) ("Claims 6, 11, and 17. While the content is being loaded, that content is visible to the user. For clarification, Applicant changes the wording of independent claims 6 and 11 and adds dependent claim 17 (which is dependent from claim 1). Amended claim 6 now includes '. . . when the browser is loading visible content . . .' and the graphic element '. . . only partially obstructs visible . . . ." In claim 11, the following language is added: '. . . wherein the loading, the content displaying . . . occur at least partially concurrently. . . .' These changes are made to clarify that the loading content is visible.");[1] Prosecution History, 3/23/2000 Response to Office Action at 14 (Ex. A-12) ("Blonder never suggests a technique or a desire for currently displaying the delayed content and the 'padding' in the content viewing area. Since the delayed content is unavailable, it cannot be displayed. If it were available, the Blonder's service would not need to display the 'padding.' Likewise, Knowlton never suggests a technique or a desire for displaying any visible content of any kind while displaying its 'graphical icon.'");	removed when content is no longer being loaded.") <u>Prosecution History</u> '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050552 (9/11/01 Notice of Allowability at 3) ("7. First, regarding browsers, Applicant specially notes (such as at page 17 of the amendment) that the claimed invention is directed to loading into the browser. This means that the loading is not done merely to the hard drive or to the memory. The loading is done for the specific purpose of displaying the content with the browser.") '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050374-75 (3/23/00 amendment at 7-8) ("The use of 'over' in the claim language emphasizes that the graphic element is not part of the content. Content is displayed in the content viewing area. The graphic element is displayed '. . . <u>over</u> the content viewing area to only partially obstruct content in the content viewing area . . . '") '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050434, MOTM_WASH1823_0050474, and MOTM_WASH1823_0050521 (12/1/00 amendment at 11; 6/26/01 amendment at 16; 8/15/01 amendment at 16) ("Although some claims are worded differently from others

[1] Ultimately, amended claims 6, 11 and 17 became claims 12, 19, and 2, respectively, upon allowance and publication of the '780 Patent.

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
	Prosecution History, 3/23/2000 Response to Office Action at 15 (Ex. A-12) ("Claim 11 is a method claim that has distinguishing features that are similar to those of apparatus claims 1 and 6. In addition, Applicant adds the following language to claim 11: '. . . wherein the loading, the content displaying, and the temporary graphic element displaying steps occur at least partially concurrently . . . .' Nothing in the cited references suggests this. Knowlton never displays its 'graphical icon' while displaying content. Likewise, Blonder never displays its 'padding' while displaying its delayed content."); Prosecution History, 12/1/2000 Response to Office Action at 11 (Ex. A-13) ("Although some claims are worded differently from others (and may have different claimed elements and features), claims 1-30 recite a common core concept that does not appear in any of the cited references. The core concept is a non-content graphic element appearing over a content area that is indicative of present condition where content is being loaded into the content area. . . . For instance, claim 1 recites its view of the core concept this way: '. . . display a temporary graphic element over the content viewing area during times when the browser is loading content, wherein the temporary graphic element is positioned over the content viewing area to	(and may have different claimed elements and features), claims 1-30 recite a common core concept that does not appear in any of the cited references. The core concept is a non-content graphic element appearing over a content area that is indicative of present condition where content is being loaded into the content area.") '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050522 (8/15/01 amendment at 17) ("For instance, claim 1 recites its view of the core concept this way: '…display a temporary graphic element over the content viewing area during times when the browser is loading content, wherein the temporary graphic element is positioned over the content viewing area to obstruct only part of the content in the content viewing area, wherein the temporary graphic element is not content.' In this case the display of the non-content graphic element coincides with the loading of content. Claim 18, which is dependent upon claim 1, further elaborates that the display of the non-content graphic element is indicative of the browser '. . . loading content.'"

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	obstruct only part of the content in the content viewing are, wherein the temporary graphic element is not content.' In this case, the display of the non-content graphic element coincides with the loading of content."); Prosecution History, Notice of Allowability at 3 (Ex. A-15) ("First, regarding browsers, Applicant specially notes (such as at page 17 of the amendment) that the claimed invention is directed to loading into the browser. This means that the loading is not done merely to the hard drive or to the memory. The loading is done for the specific purpose of displaying the content with the browser."). <u>Dictionary/Treatise Definitions</u>: The Computer Desktop Encyclopedia, 1996 (produced at MS-MOTO_1823_00005195112 – 21) (loaded: "Brought into the computer and ready to go"). <u>Extrinsic Evidence</u> Several hypermedia browsers included a permanent graphic element that would animate during times when the browser was loading content. Such browsers include: • NCSA Mosaic versions 1 and 2 (available at	

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
	ftp://ftp.ncsa.uiuc.edu/Mosaic/), • Netscape Navigator versions 1, 2 and 3 (available at http://sillydog.org/narchive/); • Microsoft Internet Explorer versions 1, 2 and 3 (available at http://utilu.com/IECollection/).	
3. during times when the browser is loading visible content Found in claim numbers: 2, 12–14, 17–18, 20–21	Proposed Construction: No construction needed; if the term needs to be construed it should be given its plain and ordinary meaning. Alternatively, the term should be construed as follows: while the hypermedia browser is loading content (for the purpose of displaying the), where at least part of the content is capable of being seen. Intrinsic Evidence: '780 Patent Claims 1–6, 9–11 (Ex. A-11) ("during times when the browser is loading content"); '780 Patent Claims 12, 40 (Ex. A-11) ("a hypermedia browser executing on the processor to load and display content in a content viewing area on the display"); '780 Patent Claim 19 (Ex. A-11) ("A method of	Proposed Construction: While the hypermedia browser is loading content into the content viewing area. Intrinsic Evidence (see "**during times when the browser is loading content"**) '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050375 (3/23/00 amendment at 8) ("While the content is being loaded, that content is visible to the user.") '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050381 (3/23/00 amendment at 14) ("These claims are allowable because none of the cited references discloses a browser that displays '…a temporary graphic element over the content viewing area during times when the browser is loading visible content …' (emphasis added). The quoted text is from claim 6, but claim 11 and claim 17 also include similar language. Blonder never suggests a technique or a desire for currently displaying the delayed content and the 'padding' in the content viewing

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
	browsing a hyperlink resource, comprising the following steps: loading content from the hyperlink resource in response to user selection of hyperlinks contained in said content; displaying the content in a content viewing area; . . . wherein the loading, the content displaying, and the temporary graphic element displaying steps occur at least partially concurrently"); '780 Patent Claims 32, 36 (Ex. A-11) ("the method comprising: displaying loaded content within the content viewing area . . . loading such new content into the content viewing area; and while loading, displaying a "load status" graphic element over the content viewing area so that the graphic element obstructs only part of the content in such content viewing area"); '780 Patent Claim 40 (Ex. A-11) ("in the content-loaded mode, the hypermedia browser displays loaded content in the content viewing area and no "load status" graphic element is displayed, wherein absence of such "load status" graphic element indicates that the browser is in the content-loaded mode; in the content-loading mode, the hypermedia browser loads content, displays such content in the content viewing area as it loads, and displays a "load status" graphic element over the content view area obstructing part of the content displayed in the content	area. Since the delayed content is unavailable, it cannot be displayed.")

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
	viewing area") '780 Patent col 1:64 – 2: 9 (Ex. A-11) ("One persistent characteristic of WWW browsing is that significant delays are often encountered when loading documents and other multimedia content. From the user's perspective, such delays can be quite frustrating. In severe cases involving long delays, users might be inclined to believe that their browsers have become inoperative. To avoid this situation, [prior art] browsers typically include some type of status display indicating progress in loading content. In many browsers, this consists of a stationary icon such as a flag or globe that becomes animated during periods when content is being loaded. For instance, such an icon might comprise a flag that is normally stationary but that flutters or waves during content loading."); Prosecution History, 3/23/2000 Response to Office Action at 8 (Ex. A-12) ("Claims 6, 11, and 17. While the content is being loaded, that content is visible to the user. For clarification, Applicant changes the wording of independent claims 6 and 11 and adds dependent claim 17 (which is dependent from claim 1). Amended claim 6 now includes '. . . when the browser is loading visible content . . .' and the graphic element '. . . only partially obstructs visible . . . ." In claim 11, the following language is added:	

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
	'. . . wherein the loading, the content displaying . . . occur at least partially concurrently. . . .' These changes are made to clarify that the loading content is visible.");[2] Prosecution History, 3/23/2000 Response to Office Action at 14 (Ex. A-12) ("Blonder never suggests a technique or a desire for currently displaying the delayed content and the 'padding' in the content viewing area. Since the delayed content is unavailable, it cannot be displayed. If it were available, the Blonder's service would not need to display the 'padding.' Likewise, Knowlton never suggests a technique or a desire for displaying any visible content of any kind while displaying its 'graphical icon.'"); Prosecution History, 3/23/2000 Response to Office Action at 15 (Ex. A-12) ("Claim 11 is a method claim that has distinguishing features that are similar to those of apparatus claims 1 and 6. In addition, Applicant adds the following language to claim 11: '. . . wherein the loading, the content displaying, and the temporary graphic element displaying steps occur at least partially concurrently . . . ." Nothing in the cited references suggests this. Knowlton never displays its 'graphical icon' while displaying	

[2] Ultimately, amended claims 6, 11 and 17 became claims 12, 19, and 2, respectively, upon allowance and publication of the '780 Patent.

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
	content. Likewise, Blonder never displays its 'padding' while displaying its delayed content."); Prosecution History, 12/1/2000 Response to Office Action at 11 (Ex. A-13) ("Although some claims are worded differently from others (and may have different claimed elements and features), claims 1-30 recite a common core concept that does not appear in any of the cited references. The core concept is a non-content graphic element appearing over a content area that is indicative of present condition where content is being loaded into the content area. . . . For instance, claim 1 recites its view of the core concept this way: '. . . display a temporary graphic element over the content viewing area during times when the browser is loading content, wherein the temporary graphic element is positioned over the content viewing area to obstruct only part of the content in the content viewing are, wherein the temporary graphic element is not content.' In this case, the display of the non-content graphic element coincides with the loading of content."); Prosecution History, Notice of Allowability at 3 (Ex. A-15) ("First, regarding browsers, Applicant specially notes (such as at page 17 of the amendment) that the claimed invention is	

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	directed to loading into the browser. This means that the loading is not done merely to the hard drive or to the memory. The loading is done for the specific purpose of displaying the content with the browser."). <u>Dictionary/Treatise Definitions</u>: The Computer Desktop Encyclopedia, 1996 (produced at MS-MOTO_1823_00005195112 – 21) (loaded: "Brought into the computer and ready to go"); Webster's Third New International Dictionary, 3rd Edition (produced at MS-MOTO_1823_00005195122 – 27) (visible: "capable of being seen"). <u>Extrinsic Evidence</u> Several hypermedia browsers included a permanent graphic element that would animate during times when the browser was loading content. Such browsers include: • NCSA Mosaic versions 1 and 2 (available at ftp://ftp.ncsa.uiuc.edu/Mosaic/), • Netscape Navigator versions 1, 2 and 3 (available at http://sillydog.org/narchive/); Microsoft Internet Explorer versions 1, 2 and 3	

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	(available at http://utilu.com/IECollection/).	
4. load status Found in claim numbers: 32–42	Proposed Construction: No construction needed; if the term needs to be construed it should be given its plain and ordinary meaning. Alternatively, the term should be construed as follows: The condition or state of content being loaded Intrinsic Evidence: '780 Patent Claims 32, 36 (Ex. A-11) ("[a] method of indicating a content 'load status' of a hypermedia browser having a content viewing area for viewing content, the method comprising: displaying loaded content within the content viewing area of a screen of a hypermedia browser, the screen being without a 'load status' graphic element, wherein a 'load status' graphic element indicates a current content load status of the hypermedia browser"); '780 Patent Claim 40 (Ex. A-11) ("in the content-loaded mode, the hypermedia browser displays loaded content in the content viewing area and no "load status" graphic element is displayed, wherein absence of such "load status" graphic element indicates that the browser is in the content-loaded mode; in the content-loading mode, the hypermedia browser loads content,	Proposed Construction: information indicating that content is being loaded into the content viewing area of the hypermedia browser Intrinsic Evidence Specification '780 Patent col. 2:2-12 (Ex. D) ("To avoid this situation, browsers typically include some type of status display indicating progress in loading content. In many browsers, this consists of a stationary icon such as a flag or globe that becomes animated during periods when content is being loaded. For instance, such an icon might comprise a flag that is normally stationary but that flutters or waves during content loading. An icon such as this is positioned in a tool area or status area outside of the content viewing area. The icon is visible at all times, but is animated only when content is being loaded."). '780 Patent col. 4:50-63 (Ex. D) ("In contrast to prior art hypermedia browsers, browser 48 does not include a permanent 'loading status' icon. In fact, no portion of main window 54 is dedicated permanently to displaying loading status. Rather, the browser is configured to display a temporary graphic element 64 over content viewing area 56 during times when the browser is loading content. This temporary graphic element is preferably animated (such as the waving Microsoft® flag shown), and is displayed only when the browser is loading content. It is removed when

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
	displays such content in the content viewing area as it loads, and displays a 'load status' graphic element over the content view area obstructing part of the content displayed in the content viewing area, wherein presence of such 'load status' graphic element indicates that the browser is in the content-loading mode"); '780 Patent col 4:64 – 5:6 (Ex. A-11) ("The temporary graphic element is preferably located in a corner of the content viewing area, and obstructs a portion of the viewing area. The upper right corner is preferred because this position is often blank in Internet documents. The graphic element is created by opening a conventional window in conjunction with the Window® CE windowing operating environment. This method of displaying loading status achieves the objective of alerting users during periods of time when content is actually being loaded."); Prosecution History, 12/01/00 Response to Office action at 11 (Ex. A-13) ("Although some claims are worded differently from others (and may have different claimed elements and features), claims 1-30 recite a common core concept that does not appear in any of the cited references. The core concept is a non-content graphic element appearing over a content area	the browser is not loading content. FIG. 4 shows display 50 after content has been loaded, during a period when no additional content is being loaded. Graphic element 64 has been removed in FIG. 4 because the current Internet page has been completely loaded."). '780 Patent col. 5:4-8 (Ex. D) ("This method of displaying loading status achieves the objective of alerting users during periods of time when content is actually being loaded. It does this without requiring a permanent allocation of screen real estate, thus freeing space for other functions."). <u>Prosecution History</u> '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050434, MOTM_WASH1823_0050474, and MOTM_WASH1823_0050521 (12/1/00 amendment at 11; 6/26/01 amendment at 16; 8/15/01 amendment at 16) ("Although some claims are worded differently from others (and may have different claimed elements and features), claims 1-30 recite a common core concept that does not appear in any of the cited references. The core concept is a non-content graphic element appearing over a content area that is indicative of present condition where content is being loaded into the content area.")

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	that is indicative of present condition where content is being loaded into the content area. . . In another instance, claim 26 recites its view of the core concept this way: '. . . wherein a 'load status' graphic element indicates a current content load status of the hypermedia browser . . .' and '. . . loading . . . new content into the content viewing area; and while loading, displaying a 'load status' graphic element over the content viewing area so that the graphic element obstructs only part of the content in such content viewing area . . .'"); Dictionary/Treatise Definitions: The Computer Desktop Encyclopedia, 1996 (produced at MS-MOTO_1823_00005195112 – 21) (loaded: "Brought into the computer and ready to go"); Webster's Third New International Dictionary, 3rd Edition (produced at MS-MOTO_1823_00005195122 – 27) (status: "state of affairs").	
5. status information Found in claim numbers:	Proposed Construction: No construction needed; if the term needs to be construed it should be given its plain and ordinary meaning. Alternatively, the term should be construed as	Proposed Construction: information indicating that content is being loaded into the content viewing area of the hypermedia browser. Intrinsic Evidence

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9	follows: information about a state of affairs Intrinsic Evidence: '780 Patent Claim 9 (Ex. A-11) ("A hypermedia browser as recited in claim 1, wherein the temporary graphic element conveys status information of the browser"). Also, see evidence cited above for the disputed term "load status." Dictionary/Treatise Definitions: Webster's Third New International Dictionary, 3rd Edition (produced at MS-MOTO_1823_00005195122 – 27) (status: "state of affairs").	(see **load status**)
6. obstruct[s/ing] Found in claim numbers: all asserted claims (1–6, 9–14, 17–18, 20–21, and 32–42)	Proposed Construction: To block or otherwise interfere with Intrinsic Evidence: '780 Patent col 1: 53 – 63 (Ex. A-11) ("Hypermedia browsers have evolved in recent years and are available from several sources. Microsoft's Internet Explorer is one example of a popular browser that is particularly suitable for browsing the WWW and other similar network resources. Browsers such as the Internet	Proposed Construction: block from sight Intrinsic Evidence '780 Patent Abstract (Ex. D) ("The graphic element is removed after the content is loaded, allowing unobstructed viewing of the loaded content.") '780 Patent col. 1:60-63 (Ex. D) ("Browser controls such as menus, status displays, and tool icons are located in areas or windows adjacent the viewing area, so that they do

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	Explorer typically have a content viewing area or window, in which textual or other graphical content is displayed. Browser controls such as menus, status displays, and tool icons are located in areas or windows adjacent the viewing area, so that they do not obstruct or interfere with the viewing area."); '780 Patent col. 4:64 – 5:10 (Ex. A-11) ("The temporary graphic element is preferably located in a corner of the content viewing area, and obstructs a portion of the viewing area. The upper right corner is preferred because this position is often blank in Internet documents. The graphic element is created by opening a conventional window in conjunction with the Window® CE windowing operating environment. This method of displaying loading status achieves the objective of alerting users during periods of time when content is actually being loaded. It does this without requiring a permanent allocation of screen real estate, thus freeing space for other functions. Although there might be some obstruction of hypermedia content, such obstruction is minor and temporary."); Prosecution History, Notice of Allowability at 4-5 (Ex. A-15) ("Upon considering all relevant issues, including these three terms, one can then	not obstruct or interfere with the viewing area.") '780 Patent col. 4:64-67 (Ex. D) ("The temporary graphic element is preferably located in a corner of the content viewing area, and obstructs a portion of the viewing area. The upper right corner is preferred because this position is often blank in Internet documents.") '780 Patent col. 5:4-10 (Ex. D) ("This method of displaying loading status achieves the objective of alerting users during periods of time when content is actually being loaded. It does this without requiring a permanent allocation of screen real estate, thus freeing space for other functions. Although there might be some obstruction of hypermedia content, such obstruction is minor and temporary.") '780 Patent claim 1 (Ex. D) ("wherein the temporary graphic element is positioned over the content viewing area to obstruct only part of the content in the content viewing area") '780 Patent claim 12 (Ex. D) ("wherein the temporary graphic element is positioned only over a portion of the content viewing area and obstructs only part of the visible content in the content viewing area") '780 Patent claim 19 (Ex. D) ("wherein the temporary graphic element obstructs only part of the content in the content viewing area") '780 Patent claims 32, 36 (Ex. D) ("displaying a 'load

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
	assess the meanings and the scopes of the claims. As noted during the file history (see amendment of August 20, 2001, especially pages 15-31), the claimed invention is directed to covering a part of the content viewing area with a graphic element. This graphic element is not additional content. Rather, this graphic element would indicate loading status of the content that is being loaded into the browser. To some degree, this appears counterintuitive and against the normal flow of the art. If such a graphic element would cover content, this would interfere with the view offered to the user. This is especially true since the browser is involved. Presumably, the user would be using the browser to browse; any content being loaded to the browser would be wanted by the user. Instead of having the graphic element away from the content, the graphic element covers the content."). <u>Dictionary/Treatise Definitions</u>: Webster's Third New International Dictionary, 3rd Edition (produced at MS-MOTO_1823_00005195122 – 27) (obstruct: "1: to block up: stop up or close up: place an obstacle in or fill with obstacles or impediments to passing . . . 2: to be or come in the way of: hinder from passing, action or operation: IMPEDE, RETARD").	status' graphic element over the content viewing area so that the graphic element obstructs only part of the content in such content viewing area") '780 Patent claims 33, 39 (Ex. D) ("removing the 'load status' graphic element to reveal the part of the content in the content viewing area that the graphic element obstructed when the element was displayed.") '780 Patent claim 40 (Ex. D) ("displays a 'load status' graphic element over the content view area obstructing part of the content displayed in the content viewing area") <u>Prosecution History</u> '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050434, MOTM_WASH1823_0050474, and MOTM_WASH1823_0050521 (12/1/00 amendment at 11; 6/26/01 amendment at 16; 8/15/01 amendment at 16) ("Although some claims are worded differently from others (and may have different claimed elements and features), claims 1-30 recite a common core concept that does not appear in any of the cited references. The core concept is a non-content graphic element appearing over a content area that is indicative of present condition where content is being loaded into the content area.") '780 Patent Prosecution History Ex. F at MOTM_WASH1823_0050553-54 (9/11/01 Notice of Allowability at 4-5) "10. Upon considering all relevant issues, including these three terms, one can then assess the

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
		meanings and the scopes of the claims. As noted during the file history (see amendment of August 20, 2001, especially pages 15-31), the claimed invention is directed to covering a part of the content viewing area with a graphic element. This graphic element is not additional content. Rather, this graphic element would indicate loading status of the content that is being loaded into the browser. To some degree, this appears counterintuitive and against the normal flow of the art. If such a graphic element would cover content, this would interfere with the view offered to the user. This is especially true since the browser is involved. Presumably, the user would be using the browser to browse; any content being loaded to the browser would be wanted by the user. Instead of having the graphic element away from the content, the graphic element covers the content. The prior art of record does not teach or suggest the claimed invention.") <u>Extrinsic Evidence</u> Webster's II New College Dictionary (1995) ("obstruct: 1. To clog or block (a passage) with obstacles. 2. To impede, regard, or interfere with <*obstruct* legislation> 3. To cut off from sight.") (Ex. P at MOTM_WASH1823_0336213-215). American Heritage College Dictionary -- Third Edition (1997) ("obstruct: 1. To block or fill (a passage) with obstacles or an obstacle. See Syns at **block**. 2. To impede, retard, or interfere with; hinder. 3. To get in the way of so as to hide from sight.") (Ex. Q at MOTM_WASH1823_0336187-189).

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Microsoft's U.S. Patent No. 7,411,582 **Asserted Claims: 1–4, 6, 8–11, 13–23, 25–31**		
7. icon Found in claim numbers: 1-4, 6, 8-10, 15-18	Proposed Construction: An on-screen representation of something Intrinsic Evidence: '582 Patent col 5:6-12 (Ex. A-8) ("The SIP manager provides a user interface for permitting a user to toggle a SIP window (panel) 50 (FIG. 7) between an opened and closed state, as described in more detail below. The SIP manager 58 also provides a user interface enabling user selection from a displayable list of available input methods. A user interacting with the user interface may select an input method") Dictionary/Treatise Definitions: Microsoft Press, Computer Dictionary (3d ed. 1997) "icon": A small image displayed on the screen to represent an object that can be manipulated by the user. By serving as visual mnemonics and allowing the user to control certain computer actions without having to remember commands or type them at the keyboard, icons arc a significant factor in the user-friendliness of graphical user interfaces. See the illustration.	Proposed Construction: A small image displayed on the screen to represent an object that can be manipulated by the user Intrinsic Evidence Specification '582 Patent col. 10:36-39 (Ex. E) ("The Input Method is responsible for drawing the entire client area of the SIP window 50, and thus ordinarily creates its windows and imagelists (collections of displayable bitmaps 40 such as customized icons)[.]"); '582 Patent col. 12:4-7 (Ex. E) ("The Input Method 64 uses the callback interface pointer to send keystrokes to applications 29 via the SIP manager 58 and to change its SIP taskbar button icons 52.") '582 Patent col. 12:37-40 (Ex. E) ("The Input Method 64 uses the IIMCallback interface to call methods in the SIP manager 58, primarily to send keystrokes to the current application or to change the icon that the taskbar 56 is displaying in the SIP button 52."). '582 Patent col. 6:19-20 (Ex. E) ("The visible SIP button 52 is located on a taskbar 56 or the like[.]"). '582 Patent Prosecution History, Ex. G at

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	 Microsoft Computer Dictionary, 4th edition, 1999 (produced at MS-MOTO_1823_00005194882 – 85): "icon n. A small image displayed on the screen to represent an object that can be manipulated by the user. By serving as visual mnemonics and allowing the user to control certain computer actions without having to remember commands or type them at the keyboard, icons contribute significantly to the user-friendliness of graphical user interfaces and to PCs in general." Que's Computer & Internet Dictionary, 6th edition ,1995 (produced at MS-MOTO_1823_00005195107 – 11): "icon – In a graphical user interface (GUI), an on-screen symbol that represents a *program*, data *file*, or some other computer entity or function" The Computer Desktop Encyclopedia, 1996 (produced at MS-MOTO_1823_00005195112 – 21): "icon- a small, pictorial, on-screen representation of an object (file, program, disk, etc.) used in graphical interfaces…"	MOTM_WASH1823_0051086-87 (Page 11 of 9/5/06 Amendment to 5/3/06 Office Action) ("The Office claims that elements 40a and 40b shown in one or more figures of Berman stand for element (1) [of claim 1], above. Applicant disagrees. While elements 40a and 40b from Berman may represent icons and may be actuatable, Applicant contends that Berman elements 40a and 40b are not "representative of an input method list that includes one or more selectable input methods" as required by claim 1. Berman element 40a is an icon appearing as a depiction of a Rolodex card that, when actuated, displays contact information associated with a record corresponding to element 40a. Berman element 40b depicts a stack of sheets of paper that represents multiple items. Performing an action on element 40b causes that action to be performed on each item represented by element 40b, e.g., copy, paste, delete, move, etc.") Figure 2 from the Berman Reference (Ex. W U.S. Patent No. 5,760,773, which shows Elements 40a & 40b:

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		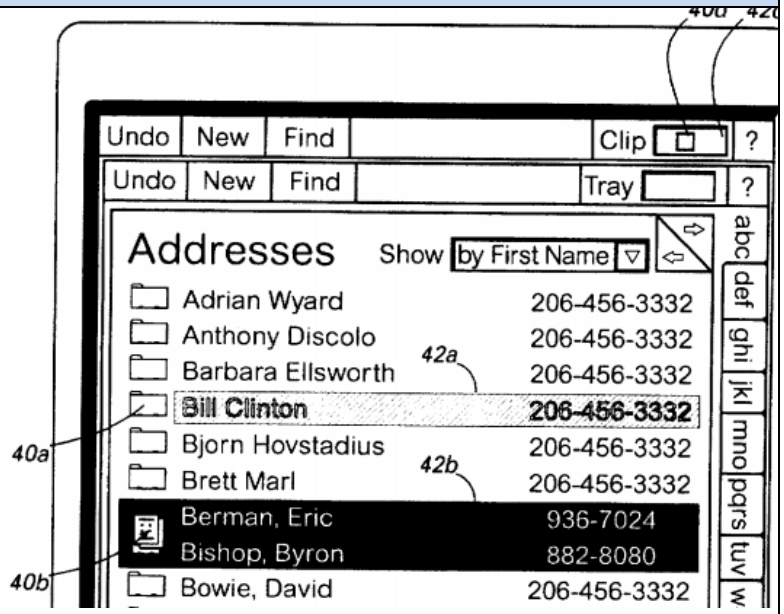 Extrinsic Evidence Dictionary/Treatise Definitions: Microsoft Press, Computer Dictionary, 3rd ed. (1997) ("A small image displayed on the screen to represent an object that can be manipulated by the user. By serving as visual mnemonics and allowing the user to control certain computer actions without having to remember commands or type them at the keyboard, icons arc a significant factor in the user-friendliness of graphical user interfaces. See the illustration. (Ex. R at MOTM_WASH1823_0336228)

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		 ") Random House Webster's Computer & Internet Dictionary, 3d ed. (1999) ("A small picture that represents an object or program. Icons are very useful in applications that use windows, because with the click of a mouse button you can shrink an entire window into a small icon. (This is sometimes called minimizing.) To redisplay the window, you merely move the pointer to the icon and click (or double click) a mouse button. (This is sometimes called restoring or maximizing.)") (Ex. S at MOTM_WASH1823_0336203-04) Webster's New World Dictionary of Computer Terms, 7th ed (1999) ("In a graphical user interface (GUI), an on-screen symbol that represents a program, data file, or some other computer entity or function. Several icons might appear together on an icon bar, an on-screen row of buttons, usually placed just above the document window, that enables the user to choose frequently accessed menu options without having to use the menus. On each button is an icon that shows the button's function. For example, the Print button might display a tiny picture of a printer.") (Ex. T at MOTM_WASH1823_0336221)

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8. interface Found in claim numbers: 3, 11, 13-14, 27	Proposed Construction: No construction needed; if the term needs to be construed it should be given its plain and ordinary meaning. Alternatively, the term should be construed as follows: The point at which a connection is made between two elements so that they can work with each other or exchange information Intrinsic Evidence: '582 Patent col 4:45-51 (Ex. A-8) ("In accordance with one aspect of the present invention, the present architecture employs a SIP manager 58 to provide a single and flexible interface for a plurality of different input methods 64. In general, the SIP manager 58 provides key strokes from a selected input method 64 to the graphical windowing environment 60 (e.g., the Windows CE operating system 28).") '582 Patent col 5:14-20 (Ex. A-8) ("In a preferred embodiment, each of the input methods communicates with the SIP manager 58 15 through a COM (Component Object Model) interface shown as IIMCallback 61 and IInputmethod 63. A COM object comprises a	Proposed Construction: A defined set of methods and data that allow for communication with a COM object Intrinsic Evidence '582 Patent col. 5:17-20 (Ex. E) ("A COM object comprises a data structure having encapsulated methods and data that are accessible through specifically defined interfaces."). Prosecution History of Grandparent Application to the '582 Patent Ex. I at MOTM_WASH1823_0049968 ("A COM object comprises a data structure having encapsulated methods and data that are accessible through specifically defined interfaces.") Prosecution History of Parent Application to the '582 Patent Ex. H at MOTM_WASH1823_0050832 (Page 2 of Appeal Brief) ("To facilitate interchangeability, the selected software input method (e.g., implemented as a COM object) has a defined interface set that makes it pluggable into the management component[.]") Prosecution History of Parent Application to the '582 Patent Ex. H at MOTM_WASH1823_0050834 (Page 4 of Appeal Brief) ("Each executable input method further includes a defined interface set including at least one interface therein to make the executable input method pluggable into other executable code that is capable of

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	data structure having encapsulated methods and data that are accessible through specifically defined interfaces.") '582 Patent col 5:35-47 (Ex. A-8) ("The selected input method 64 may also communicate information to the SIP manager 58 via the IIMCallback mechanism 61, such as which character or characters were entered by a user, irrespective of whether the character or characters are generated through keyboard selection, handwriting recognition, voice recognition, a formula editor, calculator or the like. Such character input is generally passed to the SIP manager 58, preferably received as (or converted to) a Unicode character (for Windows CE) by the SIP manager 58 and output to the graphical windowing environment 60. Command key information, such as "Ctrl" on a keyboard, may also be provided by the input method 64 to the SIP manager 58 via interface 61.") '582 Patent col 7:5-12 (Ex. A-8) ("Preferably, the Input Method 64 comprises a Component Object Model (COM) object that implements the IInputMethod interface. Notwithstanding, the Input Method 64 and SIP manager 58 can comprise virtually any components capable of communicating with one other through some mechanism, such as by receiving, responding to,	interfacing with the defined interface set.") <u>Extrinsic Evidence</u> <u>Dictionary/Treatise Definitions</u>: Kraig Brockschmidt, Inside OLE ("Brockschmidt") Ex. U at MOTM_WASH1823_0337479 ("When an object supports one or more outgoing interfaces, it is said to be *connectable*"). Brockschmidt Ex. U at MOTM_WASH1823_0337372 ("The first and foremost concept surrounding an interface is that it is a form of contract between the client using the interface and the object implementing it. This contract means that when a client has a pointer to an interface, the client can successfully call every member function in that interface."). Brockschmidt Ex. U at MOTM_WASH1823_0337373-74 ("The encapsulation of functionality in objects accessed through interfaces makes COM/OLE an open, extensible system. It is open in the sense that anyone can provide an implementation of a define interface and anyone can develop a client that uses such interfaces. It is extensible in the sense that new or extended interfaces can be defined without changing existing client or components, and those clients that understand the new interfaces can exploit them on newer components while continuing to interoperate with older components through the old interfaces."). Brockschmidt Ex. U at MOTM_WASH1823_0337318

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	and making function calls.")
	
	'582 Patent col 10:1-25 (Ex. A-8) ("The IInputMethod Interface IInputMethod is the interface implemented by the Input Method 64 components. The SIP manager 58 calls the methods of this interface to notify the Input Method 64 of state changes, and request action and information from the Input Method 64. In general, if the called method succeeds, a success is returned, and conversely, if the method fails, a failure result is returned. The following table sets forth the method calls available in this IInputMethod interface:"
	
	Interface IinputMethod : Iunknown
	{
	HRESULT Select ([in] HWND hwndSip);
	HRESULT Deselect(void);
	HRESULT Showing (void);
	HRESULT Hiding (void);
	HRESULT GetInfo ([out] IMINFO *pimi);
	HRESULT ReceiveSipInfo ([in] SIPINFO *psi);
	HRESULT RegisterCallback ([in] IIMCallback* pIMCallback);
	HRESULT GetImData ([in] DWORD dwSize, [out] LPVOID pvImData);
	HRESULT SetImData ([in] DWORD dwSize, [in] LPVOID pvImData);
	HRESULT UserOptionsDlg ([in] HWND hwndParent);
	}
	)
	
	'582 Patent col 11:65-12:7 (Ex. A-8) ("The RegisterCallback method is provided by the SIP manager 58 to pass a callback interface pointer to the Input Method 64. In other words, the RegisterCallback method call passes an IIMCallback interface pointer as a parameter to
		("OLE is in no way required as the solution *unless* you are dealing with an integration problem among components from multiple vendors. In that case, you want to adhere to the standards and interfaces that make up the various OLE technologies. In other words, integration among arbitrary components that were not known to each other during development requires standards, and that is what OLE provides.); see also MOTM_WASH1823_0337316-17
		
		Brockschmidt Ex. U at MOTM_WASH1823_0337304 ("The concepts that form the idea of an OLE object are collectively called the Component Object Model, or COM"); see also MOTM_WASH1823_0337305-15, 19-25
		
		Brockschimdt Ex. U at MOTM_WASH1823_0337317-18 ("Keep in mind that absolutely all of these technologies are built on the idea of components and objects and interfaces called the Component Object Model, or COM. Each technology has specific interfaces that apply to it . . . .")

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	the Input Method 64, whereby the Input Method 64 can call methods on this interface to send information back to the SIP manager 58 as described below. The Input Method 64 uses the callback interface pointer to send keystrokes to applications 29 via the SIP manager 58 and to change its SIP taskbar button icons 52") '582 Patent col 12:36-65 (Ex. A-8) ("The IIMCallback Interface The Input Method 64 uses the IIMCallback interface to call methods in the SIP manager 58, primarily to send keystrokes to the current application or to change the icon that the taskbar 56 is displaying in the SIP button 52. The Input Method 64 ordinarily calls the IIMCallback methods only in response to a call thereto which was received through an IInputMethod method call. In general, if the function succeeds, the return value will be a success HRESULT, while conversely, if the function fails, the return value is a failure HRESULT. The following table represents the IIMCallback Interface:"	

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	``Interface IIMCallback :
	Iunknown
	{
	Hresult SetImInfo(
	IMINFO *pimi);
	Hresult SendVirtualKey (
	BYTE bVk,
	DWORD dwFlags);
	Hresult SendCharEvents(
	UINT uVk,
	UINT uKeyFlags,
	UINT uChars,
	UINT *puShift,
	UINT *puChars);
	Hresult SendString(
	BSTR ptrzStr,
	DWORD dwChars);
	}```
	)
	'582 Patent col 6:62-7:2 (Ex. A-8) ("In accordance with one aspect of the present invention, the SIP system enables the selective installation of a specified Input Method 64. As generally described above, each Input Method 64 is an interchangeable component by which the user provides character, text or other user data via the touchscreen display (or some other input device). More particularly, the SIP manager 58 preferably exposes a COM interface that enables the selective installation of Input Methods 64.")
	'582 Patent Claim 17 (Ex. A-8) ("17. The computer-readable medium of claim 15 wherein each input method comprises a component object model (COM) object, and wherein the	

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	step of invoking the selected input method includes the step of instantiating the COM object.") Dictionary/Treatise Definitions: Microsoft Computer Dictionary, 4th edition, 1999 (produced at MS-MOTO_1823_00005194873 – 76): "interface n. 1. The point at which a connection is made between two elements so that they can work with each other or exchange information. 2. Software that enables a program to work with the user (the user interface, which can be a command-line interface, menu-driven, or a graphical user interface), with another program such as the operating system, or with the computer's hardware. See also application programming interface, graphical user interface. 3. A card, plug, or other device that connects pieces of hardware with the computer so that information can be moved from place to place. For example, standardized interfaces such as RS-232-C standard and SCSI enable communications between computers and printers or disks. See also RS-232-C standard, SCSI.	
9. invoking [a/the] selected input method	Proposed Construction: No construction needed; if the term needs to be construed it should be given its plain and	Proposed Construction: Loading and calling the selected input method by a management component

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Found in claim numbers: 15, 17	ordinary meaning. Alternatively, the term should be construed as follows: loading and calling the selected input method Intrinsic Evidence: '582 Patent col 5:28-31 (Ex. A-8) ("When a new input method is selected, the SIP manager 58, through the mechanism 63, informs any of the previously selected input methods to exit, 30 and loads the newly selected input method.") '582 Patent col 5:11-14 (Ex. A-8) ("A user interacting with the user interface may select an input method 64, and in response, the SIP manager 58 loads and calls the selected input method 64.") '582 Patent col 9:59-65 (Ex. A-8) ("SPI_SETCURRENTIM indicates that pvParam points to a CLSID structure which specifies the CLSID of the Input Method 64 to which the SIP will switch. If the CLSID is not valid, or if the specified Input Method 64 cannot be loaded, the call fails (return value equals zero) and a default Input Method 64 (e.g., the QWERTY-like keyboard 66) is loaded.") Dictionary/Treatise Definitions:	Intrinsic Evidence '582 Patent col. 2:29-30 (Ex. E) ("A management component operatively connected to the graphical windowing environment creates an input panel window for display on the screen.") Prosecution History of Parent Application to the '582 Patent Ex. H at MOTM_WASH1823_0050832 (Page 2 of Appeal Brief) ("The selected input method then is invoked, e.g., loaded and called by a management component (12:15-18). Any previously-selected input method is instructed by the management component to exit (13:8-11). To facilitate interchangeability, the selected software input method (e.g., implemented as a COM object) has a defined interface set that makes it pluggable into the management component (12:18-24).") Prosecution History of Parent Application to the '582 Patent Ex. H at MOTM_WASH1823_0050834 (Page 4 of Appeal Brief).("Each executable input method further includes a defined interface set including at least one interface therein to make the executable input method pluggable into other executable code that is capable of interfacing with the defined interface set.")

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	[none provided] Extrinsic Evidence: [none provided]	
10. distinct from . . . computer/application/ programs Found in claim numbers: 1, 11, 15, 19	Proposed Construction: No construction needed; if the term needs to be construed it should be given its plain and ordinary meaning. Alternatively, the term should be construed as follows: containing software code that is separate from the software code of the computer programs Intrinsic Evidence: '582 Patent col 1:45-67 (Ex. A-8) ("While a touch-screen device serves to provide a suitable means of user data entry, the data entry panel is typically part of the application program, i.e., each application needs to develop its own touch-sensitive interface. As a result, a substantial amount of duplication takes place. For example, both the word processor and a spreadsheet program require alphanumeric keyboard input, whereby each provides its own touch-screen keyboard interface. Other types of programs, such as a calculator program, need a numeric keypad with additional keys representing mathematical operations. This makes each program larger, more complex and consumes	Proposed Construction: Independent and separate from the computer programs and applications. Computer programs and applications are self-contained executable software. Intrinsic Evidence Prosecution Histories Prosecution History of Grandparent Application to '582 Patent Ex. I at MOTM_WASH1823_0050179 (Page 7 of May 18, 2001 Amendment) ("[N]either Mori nor Kono disclose, suggest or provide any motivation for interchangeable and executable software input methods that are distinct, separate and/or independent from the application programs that receive data from them, and/or a management component that is distinct from the application programs") Prosecution History of Grandparent Application to '582 Patent Ex. I at MOTM_WASH1823_0050182 (Page 11 of May 18, 2001 Amendment) ("In direct contrast, the management component of the present invention is distinct from the application programs[.]") Prosecution History of Grandparent Application to '582

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	computer system resources. Alternatively, the operating system can supply all the virtual keyboards and thus eliminate the redundancy, however this limits applications to using only those virtual keyboards supplied by the operating system. Newer applications (e.g., those added by plug-in modules) are unable to provide an input mechanism that is more tailored to its particular needs. For example, a new paintbrush program may need its own graphical input screen. In sum, there is a tradeoff between flexibility and efficiency that is inherent with present user data input mechanisms.") '582 Patent col 8:48-57 (Ex. A-8) ("Notwithstanding, applications 29 need not be aware of the SIP system in order to benefit from the present invention. Indeed, one aspect of the present invention is that applications do not ordinarily recognize whether data received thereby originated at a hardware input device such as the keyboard 36 or via user activity (e.g., contact or proximity detected by the screen 32 and detection circuitry 33) within the soft input panel window 50. This enables applications to operate with virtually any appropriate input method, irrespective of whether that application is SIP-aware."	Patent Ex. I at MOTM_WASH1823_0050183 (Page 10 of May 18, 2001 Amendment) ("a manually pluggable memory card does not come close to reasonably suggesting or providing any motivation for a software input method, let alone one that is "an interchangeable and executable software component that is distinct from the application programs"[.]") Prosecution History of Parent Application to '582 Patent Ex. I at MOTM_WASH1823_0050808 (Page 6 of January 30, 2003 Amendment) ("In contrast to the present invention, Stucka is directed towards providing *applications* with the ability to dynamically construct their own user interfaces using display components selected from a shared serer, via application-issued commands. Stucka, column 9, lines 3-13; see also Stucka, column 24, line 62 to column 28, line 4, for a specific example of how an application constructs its displayed user interfaces. Significantly, in Stucka, 'each application program controls the display and appearance of their user interfaces by issuing commands' to a server. Stucka, column 16, lines 51-53. Stucka's teachings are thus directly opposite the fundamental concept of an input method as defined and claimed in the claims of the present invention. For one, the input methods of the present invention are not built and output by the application program, but are independent software entities, that among other things, essentially draw themselves into an input method window. Note that the claims essentially point out that the input methods are

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	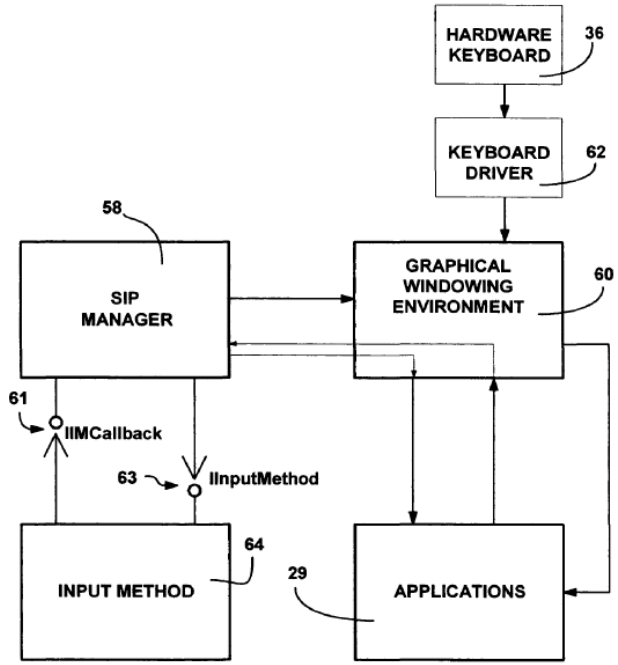 *FIG. 2*) '582 Patent col 2:13-15 (Ex. A-8) ("Yet another object is to provide a method and system as characterized above that enables a plurality of applications to receive user input from a common input method.")	distinct from the application programs that ultimately receive the data provided by the input methods. For another, the input methods of the present invention are interchangeable, user selectable and/or controllable, unlike the user interfaces of the application program in Stucka, in which the application program chooses and builds the user interfaces that the application program needs. In direct contrast to Stucka, with data received at an input method, the initial user interface is essentially external to the application's user interface, e.g., the input method gets the input data via its own control panel, transforms the input data in some way, and then provides it (e.g., via a message queue) to the application's user interface, as if the data (in its transformed state) was received directly by the application's user interface.") Prosecution History of Parent Application to '582 Patent Ex. H at MOTM__WASH1823_0050810 (Page 8 of January 30, 2003 Amendment) ("In sum, Stucka, which teaches that application programs build their own user interfaces, clearly fails to disclose or suggest an input method that draws a control panel and is distinct from the application program. Stucka simply does not disclose these limitations, let alone the elements as arranged as in the claim, and thus fails to support an anticipation rejection of the claims as a matter of law.") Prosecution History of Parent Application to '582 Patent Ex. H at MOTM_WASH1823_0050834 (Page 4 of Appeal Brief) ("Claim 21 also recites an input panel window on a

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	'582 Patent Prosecution History, 9/13/2007 (Ex. A-9) Response to Office Action at 14 ("Kono also discloses user interactive input to system 12 by one or more input devices, such as a touch panel, keyboard, mouse, or joystick (col. 9, lines 65-67). However, Kono only discloses hardware user input devices and Kono fails to disclose a user input method that is "an interchangeable software component distinct from one or more application programs." Further, Kono does not disclose that user input information is provided to an "active application program as if the information was received via user input at a hardware input device" as expressly claimed by the Applicant." Parent Application 10/072,111 Proseuction History, 1/30/03 Response to Office Action at 5 (Ex. A-10) ("Turning to the rejection on the art, the present invention is generally directed to input methods that are separate from application programs, and provide their own input panels to receive user input in windows that are distinct from the application program's window or windows. … [T]he input methods of the present invention are not built and output by the application program, but are independent software entities, that among other things, essentially draw themselves into an input	touch-sensitive display screen that is distinct from a window of the application[.]") Prosecution History of Parent Application to '582 Patent Ex. H at MOTM_WASH1823_0050835 (Page 5 of Appeal Brief) ("Claim 21 further recites a management component that is capable of interfacing with the defined interface set, the management component being distinct from the application programs") Prosecution History of Parent Application to '582 Patent Ex. H at MOTM_WASH1823_0050837 (Page 7 of Appeal Brief) ("However a fair reading of Stucka shows that the user interface server 48 of Stucka is no such thing. Instead, the user interface server of Stucka is a server that responds to application program commands to retrieve requested user interface components from the display object store, which the application controls to output a user interface. The user interface server 48 of Stucka is unquestionably not an input method as recited in the plain language of claim 21, e.g., one of a plurality of input methods, each of which is distinct from other executable input methods[.]") Prosecution History of Parent Application to '582 Patent Ex. H at MOTM_WASH1823_0050838 (Page 8 of Appeal Brief) ("Claim 36 essentially recites that the executable program (e.g., an application program) to which the user data received at the input method is ultimately communicated, is distinct from the selected executable input method. In other words, the input method that receives the user data is distinct from the program that gets

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	method window. Note that the claims essentially point out that the input methods are distinct from the application programs that ultimately receive the data provided by the input methods.") Dictionary/Treatise Definitions: Microsoft Press, Computer Dictionary (3d ed. 1997) "application": A program designed to assist in the performance of a specific task, such as word processing, accounting or inventory management. "computer program": A set of instructions in some computer language intended to be executed on a computer so as to perform some task. The term usually implies a self contained entity, as opposed to a routine or a library. Dictionary/Treatise Definitions: Microsoft Press, Computer Dictionary (3d ed. 1997) "application": A program designed to assist in the performance of a specific task, such as word processing, accounting or inventory management. "computer program": A set of instructions in some computer language intended to be executed on a computer so as to perform some task. The term usually implies a self contained entity, as opposed to a routine or a library.	the data. Although the applications of Stucka are distinct from one another, they receive their own data at their own user interfaces, and are thus not input methods. Note that there is no teaching or suggestion in Stucka that one application receives user data which is then somehow communicated to another application.") Prosecution History of Parent Application to '582 Patent Ex. H at MOTM_WASH1823_0050838 (Page 8 of Appeal Brief) "Clearly in Stucka the application program is what puts together the user interface components, for display and receiving user input via the application's own window, and not for example, in an input panel window that is "distinct from a window of the application." The application of Stucka receives the user data via its own user interface, and not via any other executable software entity that is distinct from that application. If anything, Stucka' s teachings in which the application outputs its own user interfaces to receive user input are thus directly opposite the fundamental concept of an input method as defined and claimed in the claims of the present invention, in which essentially an entity (the input method) that is distinct from a focused application program draws an input panel for receiving data for communicating to a distinct application program.") Extrinsic Evidence Dictionary/Treatise Definitions Microsoft Computer Dictionary, 3d ed (1997) ("computer

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	"library": 1. In programming, a collection of routines store in a file. Each set of instructions in a library has a name, and each performs a different task. 2. A collection of software or data files. "component": 1. A discrete part of a larger system or structure. 2. An individual modular software routine that has been compiled and dynamically linked, and is ready to use with other components or programs. "component software": Modular software routines, or components, that can be combined with other components to form an overall program. A programmer can use and reuse an existing component and not have to understand its inner workings, just how to have another program or component call it and pass data to and from it.	program: A set of instructions in some computer language intended to be executed on a computer so as to perform some task. The term usually implies a self-contained entity, as opposed to a routine or a library") (Ex. R at MOTM_WASH1823_0336231) Microsoft Computer Dictionary, 3d ed (1997) ("application: A program designed to assist in the performance of a specific task, such as word processing, accounting or inventory management.") (Ex. R at MOTM_WASH1823_0336233) Microsoft Computer Dictionary, 3d ed (1997) ("application program: *See* application"); ("application software: *See* application") (Ex. R at MOTM_WASH1823_0336234)
11. window Found in claim numbers: 11, 14, 15, 21, 22, 23, 29, 30, 31	Proposed Construction: No construction needed; if the term needs to be construed it should be given its plain and ordinary meaning. Alternatively, the term should be construed as follows: a portion of the screen that can contain its own document or message	Proposed Construction: a portion of the screen that can contain its own document or message and that is hidable, dockable, movable and resizable. Intrinsic Evidence '582 Patent col. 4:28-30 (Ex. E) ("For example, spoken words may be received at the microphone, recognized, and displayed as text in an on-screen window, i.e., a soft input

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	Intrinsic Evidence: '582 Patent col 6:13-29 (Ex. A-8) ("As shown in FIGS. 5-7, the soft input panel (SIP) functionality of the system collectively includes the visible window 50 (FIG. 7), a visible SIP button 52, and various methods and functions (described below). As shown in FIG. 7, the SIP window 50 is a rectangular area provided by the input method 64 that can be hidden or shown at the user's (or an application program's) request. The visible SIP button 52 is located on a taskbar 56 or the like, and provides a touch-sensitive interface by which the user displays or hides the SIP window 50. Thus, as represented in the state diagram of FIG. 4, the window 50 toggles between an open, visible state (FIG. 7) and a closed, hidden state (FIG. 5) as the user taps the SIP button 52. A 25 present design implements a 240 pixel wide by 80 pixel high SIP window 50 that is fixed (docked) on the display 32 at a position just above the taskbar 56. As will become apparent below, the soft input panel design supports other SIP window.") '582 Patent col 6:39-50 (Ex. A-8) ("The SIP manager thread 58 is given special status by the system. For example, windows created by the SIP manager 58 thread are topmost windows, and ordinarily will not be obscured by other windows, except, e.g., when the taskbar 56 is	panel.") '582 Patent col. 6:16-19 (Ex. E) ("[T]he SIP window is a rectangular area provided by the input method that can be hidden or shown at a user's (or an application's) request.") '582 Patent col. 6:25-27 (Ex. E) ("A present design implements a 240 pixel wide by 80 pixel high SIP window that is fixed (docked) on the display 32 at a position just above the taskbar.") '582 Patent col. 8:29-31 (Ex. E) ("If the SIP window is floating (not docked), this rectangle is equivalent to the user working area.") '582 Patent col. 13:28-38 (Ex. E) ("In response to the SetImInfo() call, the SIP manager will show or hide the SIP window as specified in the fdwFlags of the IMINFO structure. However, the SIP manager will not resize or move the SIP window if requested, but will instead update the size and placement information returned to applications when queried. If the specified values represent a change from the current SIP state, the SIP manager 58 will notify applications 29 that the SIP state has changed via a WM_SETTINGCHANGE message, described above.") Extrinsic Evidence Dictionary/Treatise Definitions: Microsoft Press, Computer Dictionary, 3rd ed. (1997) ("In applications and graphical interfaces, a portion of the

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
	activated in an auto-hide mode while the SIP window 50 is displayed. In this case, the SIP window 50 remains displayed in its current location and the taskbar 56 is displayed on top of the SIP window 50. More generally, any user interface element for controlling the SIP may (and should) be placed on top of (rather than underneath) the SIP window 50, whenever the controlling user interface element and the SIP window 50 overlap.") '582 Patent col 6:51-54 (Ex. A-8) ("Moreover, when tapped on, the SIP window 50 (and any child windows thereof such as pushbuttons, text entry fields, scrollbars and the like) will not receive the input focus as would conventional program windows.") '582 Patent col 13:39-45 (Ex. A-8) ("The SendVirtualKey( ) callback is used by an Input Method 64 to simulate a keystroke for a virtual key, e. g., a character or the like entered via the touch screen display 32 or some other Input Method 64. The key event will be sent to the window which currently has focus (i.e., the window which would have received keyboard input had a key been pressed on an external keyboard).") <u>Dictionary/Treatise Definitions</u>:	screen that can contain its own document or message. In window-based programs, the screen can be divided into several windows, each of which has its own boundaries and can contain a different document (or another view into the same document).") (Ex. R at MOTM_WASH1823_0336229) The Windows Interface Guidelines for Software Design (Glossary) (1995) ("window": A standard Windows object that displays information. A window is a separately controllable area of the screen that typically has a rectangular border.") (Ex. V at MOTM_WASH1823_0336270)

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
	Microsoft Press, Computer Dictionary (3d ed. 1997): "window" In applications and graphical interfaces, a portion of the screen that can contain its own document or message. In window-based programs, the screen can be divided into several windows, each of which has its own boundaries and can contain a different document (or another view into the same document).	
12. . . . as if the information was received via user input received from a hardware input device **. . . as if the input was received via a hardware keyboard** **. . . as if the information was received via user input at a hardware input**		Proposed Construction: As if the received information originated from a hardware input device rather than the interactive input panel. Intrinsic Evidence Specification '582 Patent col. 14:7-10 (Ex. E) ("In keeping with one aspect of the invention, applications 29 thus see keys as if they were sent from a keyboard (i.e., they get WM_KEYDOWN, WM_CHAR, and WM_KEYUP messages)."). '582 Patent col. 4:51-67 (Ex. E) ("Once received, the graphical windowing environment 60 sends information corresponding to the user input data to an application 29 (i.e., the application whose window currently has input focus) in the form of that keystroke, mouse or other message placed in the message queue of the application's

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
device **. . . as if the user data was received from a hardware input device** Found in claim numbers: 1, 4, 11, 15, 19		window. The passing of such messages is well known in Windows programming and is described in "*Programming Windows 95*," Charles Petzold, Microsoft Press (1996), hereby incorporated by reference. As a result, any application capable of handling keyboard input may be used with any appropriately-configured input method 64. Indeed, if an optional keyboard 36 is present, keystrokes are directly provided by a keyboard driver 62 to the graphical windowing environment 60, whereby appropriate keystrokes are likewise placed in the message queue of the active application's window without the application being provided with information as to the source."). '582 Patent col. 13:39-60 (Ex. E) ("The SendVirtualKey( ) callback is used by an Input Method 64 to simulate a keystroke for a virtual key, e. g., a character or the like entered via the touch screen display 32 or some other Input Method 64. The key event will be sent to the window which currently has focus (i.e., the window which would have received keyboard input had a key been pressed on an external keyboard). The SendVirtualKey callback modifies the global key state for the virtual key sent, whereby, for example, an Input Method 64 can use this function to send SHIFT, CONTROL, andALT key-up and key-down events, which will be retrieved correctly when the application 29 calls the GetKeyState() API. The SendVirtualKey callback should be used to send virtual key events that do not have associated characters (i.e., keys that do not cause a WM_CHAR sent as a result of TranslateMessage. Note that WM_ CHAR, TranslateMessage and other key-related messages are

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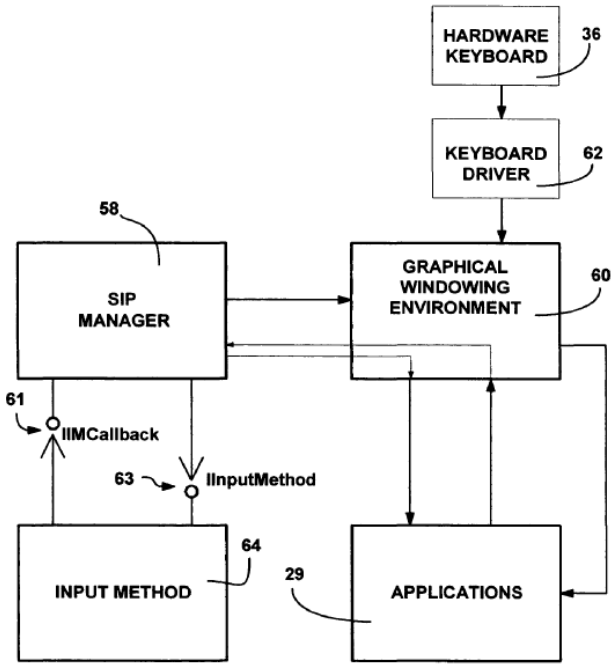
		described in the reference "Programming Windows 95", Charles Petzold, supra). If character-producing virtual keys are sent via this function, they will be modified by the global key state. For example, a virtual key ofVK_5 that is sent when the shift state is down will result in a '%' WM_ CHAR message for certain keyboard layouts."). '582 Patent col. 7:48-57 (Ex. E) ('Notwithstanding, applications 29 need not be aware of the SIP system in order to benefit from the present invention. Indeed, one aspect of the present invention is that applications do not ordinarily recognize whether data received thereby originated at a hardware input device such as the keyboard 36 or via user activity (e.g., contact or proximity detected by the screen 32 and detection circuitry 33) within the soft input panel window 50. This enables applications to operate with virtually any appropriate input method, irrespective of whether that application is SIP-aware."). '582 Patent Abstract (Ex. E) ("[T]he management component communicates the user data to the graphical windowing environment as a message, whereby an application program receives the message as if the message was generated on a hardware input device."). '582 Patent col. 2:35-42 (Ex. E) ("When user data is received via the input panel, the input method calls a function of the management component to pass the user data thereto, and in response, the management component communicates the user data to the graphical windowing environment such as in a windows message. An application

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
		program receives the message, such as corresponding to a keystroke, as if the message was generated on a hardware keyboard."). '582 Patent col. 6:9-12 (Ex. E) ("The application receives the character data from the graphical windowing environment 60 as if the user had entered those digits on a physical keyboard, regardless of the input method used."). <u>Prosecution Histories</u> Prosecution History of Grandparent Application to the '582 Patent Ex. I at MOTM_WASH1823_0050105 (Page 5 of July 20, 2000 Amendment) ("In essence, the input method and management component simulate a standard hardware input device on a portable computer.") Prosecution History of Parent Application to the '582 Patent Ex. H at MOTM_WASH1823_0050808 (Page 6 of January 30, 2003 Amendment to July 30, 2002 response). ("In direct contrast to Stucka, with data received at an input method, the initial user interface is essentially external to the application's user interface, e.g., the input method gets the input data via its own control panel, transforms the input data in some way, and then provides it (e.g., via a message queue) to the application's user interface, as if the data (in its transformed state) was received directly by the application's user interface.") '582 Patent Prosecution History Ex. G at MOTM_WASH1823_0051003-04 (Pages 13-14 of September 13, 2007 Amendment) ("On page 7 of the

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
		instant Office Action, the Examiner acknowledges that Stucka does not disclose an input method comprising an interchangeable software component. Since Stucka, by the Examiner's own statement, does not disclose a software input method, then clearly Stucka does not disclose a software input method that provides user input to an application program. Thus, Stucka does not disclose "*information corresponding to user input received by the selected executable input method via the interactive input panel is provided t*o the active application program as if the information was received via user input at a hardware input device" as expressly claimed by the Applicant.") '582 Patent Prosecution History Ex. G at MOTM_WASH1823_0051004 (Page 14 of September 13, 2007 Amendment) ("However, Kono fails to disclose that the software program on card 40 is for "supplying user input' as claimed by the Applicant. Further, Kono fails to disclose that the software program on card 40 is used to provide user input information to an "active application program as if the information was received via user input at a hardware input device as expressly claimed by the Applicant.") '582 Patent Prosecution History Ex. G at MOTM_WASH1823_0051004 (Page 14 of September 13, 2007 Amendment) ("Kono only discloses hardware user input devices and Kono fails to disclose a user input method that is "an interchangeable software component distinct from one or more application programs." Further, Kono does not disclose that user input information is

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
		provided to an "active application program as if the information was received via user input at a hardware input device as expressly claimed by the Applicant.")
13. . . . as if the information was received via user input received from a hardware input device Found in claim numbers: 1-4, 6, 8-10	Proposed Construction: No construction needed; if the term needs to be construed it should be given its plain and ordinary meaning. Alternatively, the term should be construed as follows: such that the [program / application] does not need to recognize whether the information was received from a hardware input device or not Intrinsic Evidence: '582 Patent col 7:48-57 (Ex. A-8) ("applications 29 need not be aware of the SIP system in order to benefit from the present invention. Indeed, one aspect of the present invention is that applications do not ordinarily recognize whether data received thereby originated at a hardware input device such as the keyboard 36 or via user activity (e.g., contact or proximity detected by the screen 32 and detection circuitry 33) within the soft input panel window 50. This enables applications to operate with virtually any appropriate input method, irrespective of whether that application is SIP-aware.")	(see claim term 12 above)

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
	 *FIG. 2*) Prosecution History, 9/13/2007 Response to Office action at 14 (Ex. A-9) ("Kono is directed to a compact portable audio/display electronic apparatus. On page 7 of the instant Office Action, the Examiner references interchangeable hardware component 21 A (Fig. 7) of Kono. Kono discloses	

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
	that a RAM IC card 40 in Fig. 11 (21 A in Fig. 7) may include a software program for operation relative to system controller 49. The program may be transferred to RAM system memory 68 for execution under the control of system controller 49 (col. 9, lines 37-45). However, Kono fails to disclose that the software program on card 40 is for "supplying user input' as claimed by the Applicant. Further, Kono fails to disclose that the software program on card 40 is used to provide user input information to an 'active application program as if the information was received via user input at a hardware input device' as expressly claimed by the Applicant. Kono also discloses user interactive input to system 12 by one or more input devices, such as a touch panel, keyboard, mouse, or joystick (col. 9, lines 65-67). However, Kono only discloses hardware user input devices and Kono fails to disclose a user input method that is "an interchangeable software component distinct from one or more application programs." Further, Kono does not disclose that user input information is provided to an 'active application program as if the information was received via user input at a hardware input device' as expressly claimed by the Applicant.")	
14. . . . as if the input was received via a	<u>Proposed Construction</u>: No construction needed; if the term needs to be construed it should be given its plain and ordinary	(see claim term 12 above)

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
hardware keyboard	meaning. Alternatively, the term should be construed as follows: such that the [program / application] does not need to recognize whether the input was received from a hardware keyboard or not <u>Intrinsic Evidence</u>: '582 Patent col 7:48-57 (Ex. A-8) ("applications 29 need not be aware of the SIP system in order to benefit from the present invention. Indeed, one aspect of the present invention is that applications do not ordinarily recognize whether data received thereby originated at a hardware input device such as the keyboard 36 or via user activity (e.g., contact or proximity detected by the screen 32 and detection circuitry 33) within the soft input panel window 50. This enables applications to operate with virtually any appropriate input method, irrespective of whether that application is SIP-aware.")	

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	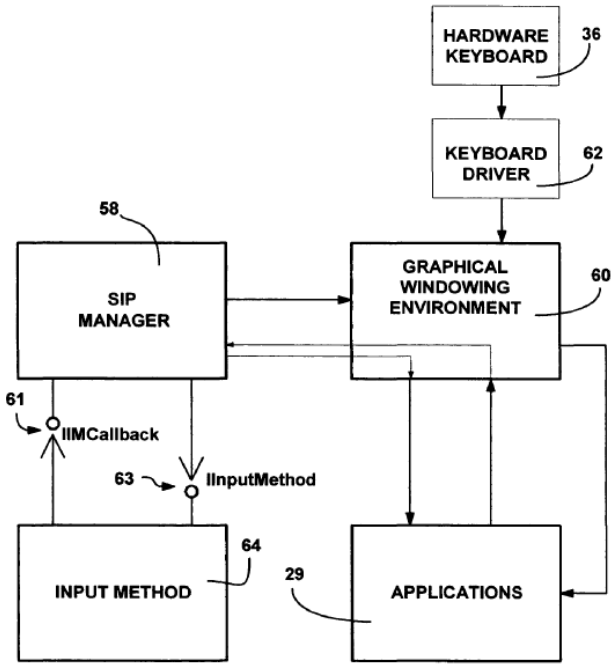 *FIG. 2*) Prosecution History, 9/13/2007 Response to Office action at 14 (Ex. A-9) ("Kono is directed to a compact portable audio/display electronic apparatus. On page 7 of the instant Office Action, the Examiner references interchangeable hardware component 21 A (Fig. 7) of Kono. Kono discloses	

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15. . . . as if the information was received via user input at a hardware input	<u>Proposed Construction</u>: No construction needed; if the term needs to be construed it should be given its plain and ordinary meaning.	(see claim term 12 above)

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
device Found in claim numbers: 11, 13-14	Alternatively, the term should be construed as follows: such that the [program / application] does not need to recognize whether the information was received from a hardware input device or not <u>Intrinsic Evidence</u>: '582 Patent col 7:48-57 (Ex. A-8) ("applications 29 need not be aware of the SIP system in order to benefit from the present invention. Indeed, one aspect of the present invention is that applications do not ordinarily recognize whether data received thereby originated at a hardware input device such as the keyboard 36 or via user activity (e.g., contact or proximity detected by the screen 32 and detection circuitry 33) within the soft input panel window 50. This enables applications to operate with virtually any appropriate input method, irrespective of whether that application is SIP-aware.")	

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	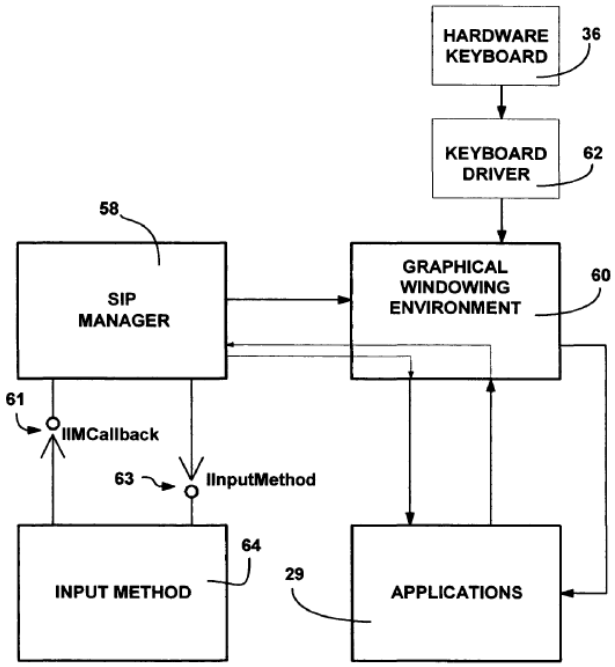 *FIG. 2*) Prosecution History, 9/13/2007 Response to Office action at 14 (Ex. A-9) ("Kono is directed to a compact portable audio/display electronic apparatus. On page 7 of the instant Office Action, the Examiner references interchangeable hardware component 21 A (Fig. 7) of Kono. Kono discloses	

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	that a RAM IC card 40 in Fig. 11 (21 A in Fig. 7) may include a software program for operation relative to system controller 49. The program may be transferred to RAM system memory 68 for execution under the control of system controller 49 (col. 9, lines 37-45). However, Kono fails to disclose that the software program on card 40 is for "supplying user input' as claimed by the Applicant. Further, Kono fails to disclose that the software program on card 40 is used to provide user input information to an 'active application program as if the information was received via user input at a hardware input device' as expressly claimed by the Applicant. Kono also discloses user interactive input to system 12 by one or more input devices, such as a touch panel, keyboard, mouse, or joystick (col. 9, lines 65-67). However, Kono only discloses hardware user input devices and Kono fails to disclose a user input method that is "an interchangeable software component distinct from one or more application programs." Further, Kono does not disclose that user input information is provided to an 'active application program as if the information was received via user input at a hardware input device' as expressly claimed by the Applicant.")	
16. . . . **as if the user data was**	<u>Proposed Construction</u>: No construction needed; if the term needs to be	(see claim term 12 above)

Claim Language	Microsoft's Proposed Construction and Evidence in Support	Motorola's Proposed Construction and Evidence in Support
received from a hardware input device Found in claim numbers: 15-18	construed it should be given its plain and ordinary meaning. Alternatively, the term should be construed as follows: such that the [program / application] does not need to recognize whether the data was received from a hardware input device or not <u>Intrinsic Evidence</u>: '582 Patent col 7:48-57 (Ex. A-8) ("applications 29 need not be aware of the SIP system in order to benefit from the present invention. Indeed, one aspect of the present invention is that applications do not ordinarily recognize whether data received thereby originated at a hardware input device such as the keyboard 36 or via user activity (e.g., contact or proximity detected by the screen 32 and detection circuitry 33) within the soft input panel window 50. This enables applications to operate with virtually any appropriate input method, irrespective of whether that application is SIP-aware.")	

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	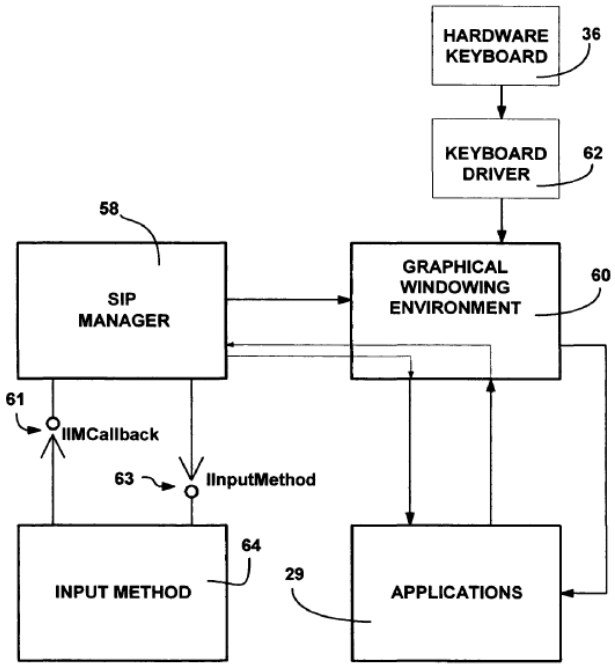 *FIG. 2*) Prosecution History, 9/13/2007 Response to Office action at 14 (Ex. A-9) ("Kono is directed to a compact portable audio/display electronic apparatus. On page 7 of the instant Office Action, the Examiner references interchangeable hardware component 21 A (Fig. 7) of Kono. Kono discloses	

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DATED this 6th day of January, 2012.

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