United States District Court,
N.D. California, San Jose Division.

In re COMPRESSION LABS, INC., Patent Litigation

Microsoft Corporation,
Plaintiff.
v.
Compression Labs, Inc., et al,
Defendants.

No. C 05-01654 JF (RS), C 05-01567 JF (RS)

June 28, 2006.

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ORDER FN1 **CONSTRUING CLAIMS OF** UNITED STATES PATENT NO. 4,698,672

FN1. This disposition is not designated for publication and may not be cited.

JEREMY FOGEL**, J.**

On March 9, 2006, the Court held a hearing for the purpose of construing key disputed terms in the claims of United States Patent No. 4,698,672 ("the '672 patent"). After consideration of the arguments and evidence presented by the parties and the relevant portions of the record, the Court construes the disputed terms as set forth below.

I. BACKGROUND

On February 16, 2005, the Judicial Panel on Multidistrict Litigation ("Panel") issued a Transfer Order pursuant to 28 U.S.C. s. 1407, transferring and consolidating eight actions, then pending in the Eastern District of Texas, the District of Delaware, and this district. These actions are: *Compression Labs, Inc. v. Adobe Systems Inc., et al.,* C.A. No. 2:04-158 (E.D.Tex.), *Compression Labs, Inc. v. Dell, Inc., et al.,* C.A. No. 2:04-159 (E.D.Tex.), *Compression Labs, Inc. v. Acer America Corp. et al.,* C.A. No. 2:04-294 (E.D.Tex.), *Agfa Corp., et al. v. Compression Labs, Inc., et al.,* C.A. No. 1:04-818 (D.Del.), *Yahoo! Inc. v.*

Compression Labs, Inc., et al., C.A. No. 1:04-918 (D.Del.), *Audiovox Corp., et al. v. Compression Labs, Inc., et al.,* C.A. No. 1:04-1293 (D.Del.), *Sun Microsystems, Inc. v. Compression Labs, Inc.,* C.A. No. 3:04-3124 (N.D.Cal.), and *Google, Inc. v. Compression Labs, Inc., et al.,* C.A. 4:04-3934 (N.D.Cal.). The Panel noted that all of the actions involve the '672 patent, owned by Plaintiff Compression Labs, Inc. ("CLI"), acquired by Forgent Networks in 1997. In each action, the parties dispute whether the '672 patent is valid and whether it is infringed by products that use the Joint Photographic Experts Group ("JPEG") international standard for the compression of digital still images. On April 4, 2005, *Compression Labs Inc. v. Creo Inc. et al.,* C.A. 2:04-410 (E.D.Tex), was transferred to this district pursuant to a Conditional Transfer Order. In a related action filed on April 15, 2005, *Microsoft Corp. v. Compression Labs, Inc., et al.,* C 05-1567 JF, Microsoft requests declaratory, injunctive, and other relief with respect to the alleged invalidity of and Microsoft's alleged non-infringement of the '672 patent. Because of the pending multidistrict litigation, the *Microsoft Corp.* action was stayed on July 5, 2005. On December 22, 2005, Plaintiff filed a Second Amended Complaint, alleging infringement of the '672 patent.

Plaintiff, together with Defendants and Declaratory Judgment Plaintiffs Acer America Corp., Agfa Corp., Apple Computer, Inc., BancTec, Inc., Canon U.S.A., Inc., Concord Camera Corp., Creative Labs, Inc. and Creative Technology, Inc., Creo, Inc. and Creo Americas, Inc., Dell, Inc., Eastman Kodak Company, Fujitsu Computer, Gateway, Inc., Hewlett-Packard Company, International Business Machines Corporation, JVC Americas Corporation, Kyocera Wireless, Mitsubishi Digital Electronics America, Inc., Microsoft Corporation, Palm, Inc., Panasonic Corporation of North America (formerly known as Matsushita Electric Corporation of America), Ricoh Corporation, Sun Microsystems, Inc., Thomson, S.A., and TiVo, Inc. (collectively, "Defendants"), FN2 requests a construction of eleven terms, located in claims 1, 2, 3, 4, 6, 7, 8, 10, and 38 of the '672 patent, and a determination as to whether the preambles of claims 1, 6, 10, and 38 recite claim limitations.

FN2. Numerous Defendants and Declaratory Judgment Plaintiffs have been dismissed voluntarily or voluntarily dismissed their claims against Plaintiff, including Audiovox Electronics Corporation, Axis Communications Incorporated, BenQ America Corp., Color Dreams, Incorporated, Google, Inc., JASC Software, Inc., Nuance Communications Inc. f/k/a ScanSoft, Inc., Oce North America, Inc., Onkyo U.S.A. Corporation, Riverdeep, Inc., Xerox Corporation, and Yahoo! Inc.

The '672 patent, issued to Plaintiff on October 6, 1987, covers methods and apparatus for the compression of digital data. The system described by the patent uses ordered redundancy coding to reduce the amount of data so that it may be transmitted more easily. Taking advantage of the fact that certain values (often "0" and "1") occur more frequently, it represents data using two types of runlength codes-a first type that represents runlengths of the most common value (frequently "0") followed by the second-most common value (frequently "1"), and a second type that represents runlengths of the most common value (frequently "0") followed by other values. The parties dispute the construction of numerous terms in the '672 patent. Significantly, Defendants contend that the '672 patent covers only video data compression, while Plaintiff argues that it also covers still image data compression (used by JPEGs).

II. DISCUSSION

1. Claim term construction

Claim construction is a question of law to be decided by the Court. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). "It is

'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude." ' Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed.Cir.2005). When assessing claim meaning the Court must ask what a person having ordinary skill in the art would understand the claim language to mean at the time of the invention. DeMarini Sports, Inc. v. Worth, Inc., 239 F.3d 1314, 1324 (Fed.Cir.2001). The general rule is "that terms in the claim are to be given their ordinary and accustomed meaning." Johnson Worldwide Assocs. v. Zebco Corp., 175 F.3d 985, 989 (Fed.Cir.1999). The Federal Circuit has held that "the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." Phillips, 415 F.3d at 1313. However, the patentee may choose to be its own lexicographer and may use terms in a manner other than their ordinary meaning so long as the special definition is stated clearly in the patent specification or file history. *Vitronics,* 90 F.3d at 1582. The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication, and is considered to be "the single best guide to the meaning of a disputed term." *Id*.

The Court must look first to the intrinsic evidence of record: the patent claims, the specification, and, if in evidence, the prosecution history. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). The Court begins its "decisionmaking process by reviewing the same resources as would [a person in that field of technology], *viz.,* the patent specification and the prosecution history." Phillips, 415 F.3d at 1313 (quoting Multiform Desiccants, Inc. V. Medzam, Ltd., 133 F.3d 1473, 1477 (Fed.Cir.1998)). The specification, which is usually dispositive, " 'is the single best guide to the meaning of a disputed term." ' Id. at 1315 (quoting Vitronics, 90 F.3d at 1582).

In most situations, analysis of the intrinsic evidence will resolve any ambiguity regarding a disputed claim term. Vitronics Corp., 90 F.3d at 1583. In such circumstances, the Court may not rely on extrinsic evidence. *Id*. However, where the intrinsic evidence is ambiguous as to a disputed term or the scope of the invention, the Court may turn to extrinsic evidence such as expert testimony, prior art, and inventor testimony. *Id*. at 1584. Such evidence may be used to help the Court understand the claims but may not be used to vary or contradict the claim language. *Id*. Dictionaries and comparable sources may be used in claim interpretation, "so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents." Phillips., 415 F.3d at 1322-23. Expert testimony may be useful, for example, "to provide background on the technology at issue, to explain how an invention works, to ensure that the Court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field." Id. at 1318.

As a general claim construction principle, the Court must "avoid the danger of reading limitations from the specification into the claim." Phillips, 415 F.3d at 1323. While "the specification often describes very specific embodiments of the invention," the Federal Circuit has "repeatedly warned against confining the claims to those embodiments." *Id*. The Federal Circuit has "expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment." *Id*. (citing Gemstar-TV Guide Int'l, Inc. v. Int'l Trade Comm'n, 383 F.3d 1352, 1366 (Fed.Cir.2004)); *see also* Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1344 (Fed.Cir.2001) ("Our case law is clear that an applicant is not required to describe in the specification every conceivable and possible future embodiment of his invention."). However, in some instances limitations from the specification may be imported into a claim. In such instances, the Court "looks to whether the specification refers to a limitation only as part of less than all possible embodiments or whether the specification read as a whole suggests that the very character of the invention requires the limitation be a part of every embodiment."

Alloc Inc. v. Int'l Trade Comm'n, 342 F.3d 1361, 1370 (Fed.Cir.2003). Where "the specification makes clear at various points that the claimed invention is narrower than the claim language might imply, it is entirely permissible and proper to limit the claim." *Id*.

a. Claim term one

"digital signals" (claims 1 and 38) & "processed signals" (claim 6)

The parties' dispute with respect to term one is a dispute as to whether the '672 patent applies only to video signals or also to other types of signals (including, significantly, still images). Plaintiff argues that term one should be construed as: "*A sequence of data to be runlength encoded, having multiple values and a predetermined length*." Defendants argue that this term should be construed as: "*A digital signal or processed signal is a set of data representing frames of a video*."

As Defendants argue, in the context of the "typical[ ]" utilization of the ordered redundancy coding system, the specification of the '672 patent clarifies that "processed signals" include only video signals: "The processed signals are in the form of a *plurality* of multivalued digital numbers, X(k), typically one number X(k), for each frame." '672 Patent col.3 ll.49-56 (emphasis added). Plaintiff argues that the foregoing definition must include a typographical error because there are necessarily many numbers in a block and many blocks in a frame. Tr. 117:3-10. However, because the specification makes clear that "X(k)" represents a series of values, FN3 the foregoing description of "processed signals" is consistent with Plaintiff's view that there are many numbers in a block. Accordingly, as explained in the specification, "processed signals" typically are comprised of *plural* frames, thus indicating that processed signals are video signals.

FN3. "In general, a K-valued digital number, X(k), is formed by a series of K values, x(k), as follows: *X(k) = x(1), x(2), x(3), ... x(k), ..., x(K)* where 1<=k<=K."'672 Patent col. 12 ll.38-43.

Plaintiff contends that its construction of "processed signals" and "digital signals" is supported by the doctrine of claim differentiation. This doctrine "refers to the presumption that an independent claim should not be construed as requiring a limitation added by a dependent claim." Curtiss-Wright Flow Control Corp. v. Velan, Inc., 438 F.3d 1374, 1380 (Fed.Cir.2006); *see also* Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 910 (Fed.Cir., 2004) ("the presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim."). While claim 19 is limited to "input signals represent[ing] images ... presented in sequential frames," claim 6, which addresses "processed signals" and upon which claim nineteen is dependent, does not include such a restriction. '672 Patent col.24 ll. 13-16; col.25 ll.52-65. Plaintiff argues that this necessarily means that claim six does not include a requirement that the signals be video signals. However, "that the claims are presumed to differ in scope does not mean that every limitation must be distinguished from its counterpart in another claim, but only that at least one limitation must differ." Kraft Foods, Inc. v. Int'l Trading Co., 203 F.3d 1362, 1368 (Fed.Cir.2000). As Defendants point out, because claim 19 adds limitations that are not in claim 6-the steps of forming the mean-square difference and error and selecting a mode-the doctrine of claim differentiation does not compel the Court to read out the restriction that the processed signals in claim 6 are video signals.

Although the specification does not provide a similar explanation of "digital signals," the parties initially agreed "that the Court should construe the terms 'processed signals' and 'digital signals' identically for the

purposes of the claims at issue." FN4 Defendants and Declaratory Judgment Plaintiffs' Responsive Markman Brief, p. 7 n. 3. Because "processed signals" are a subset of "digital signals," the Court was hesitant to apply the above explanation of "processed signals" also to "digital signals." Accordingly, the Court requested and received supplemental briefing addressing the question of whether "digital signals" and "processed signals" should be given the same construction and, if so, why.

FN4. Plaintiff's expert, Dr. Sheila Hemami, indicated that both "digital signals" and "processed signals" have a special meaning: "The terms 'digital signals' and 'processed signals' normally have a very broad meaning, but those terms are given a special and more particular meaning in the specification of the '672 Patent and as they are used [in] the claims." Declaration of Tibor L. Nagy ("Nagy Decl."), Ex. 2, p. 18. During oral argument, Plaintiff's counsel indicated that this was an "error" and that Dr. Hemami and Plaintiff's counsel "both regret having opened this can of worms [that Plaintiff conceded that the term 'processed signals' is not being used in the patent in accordance with how those ordinarily skilled in the art would commonly understand it] by suggesting that there is some special meaning to 'digital processed signals." ' Tr. 109:4-20. While the Court finds it somewhat instructive that Dr. Hemami wrote that "digital signals" and "processed signals" have a special and particular meaning in the '672 patent, the Court's construction of these terms does not turn on her statement.

Plaintiff argues in its supplemental brief that, if the Court gives the above construction to "processed signals," FN5 "digital signals" should not be similarly limited. Plaintiff emphasizes that "processed signals" are a subset of "digital signals," pointing out that "digital signals" are equivalent to "input signals" FN6 and "input signals" are *processed* to form "processed signals." FN7 Plaintiff argues also that the "processing" referred to in claims 1 and 38 is different than the "processing" in claim 6. However, assuming arguendo that "digital signals" are *not* video signals, Plaintiff does not provide any explanation for how the processing of "digital signals" to create "processed signals" converts non-video signals into video signals. As Defendants argue, if "processed signals" are video signals, and processing does not convert non-video signals into video signals, the input signals or "digital signals" must also be video signals. In light of Plaintiff's initial concession that the terms should be construed identically, and in the absence of a persuasive argument as to how processing "digital signals" would convert non-video signals into video signals, the Court concludes that, if "processed signals" are video signals, "digital signals" must be given the same restriction.

FN5. Plaintiff disputes that "processed signals" should be limited to video signals in its supplemental brief. Plaintiff's Second Supplemental Brief, p. 1.

FN6. "Digital signals to be processed are input on lines 5 to the transmitter 2. The input signals on lines 5 are processed in one of a number of different modes so as to efficiently compress the data input signals to form processed signals for transmission to a receiver."'672 Patent col.4 ll.33-37.

FN7. Claim 6 describes "[a] method for processing input signals to reduce the amount of data utilized to represent the input signals, the steps comprising, processing the input signals to form processed signals where the processed signals are digital numbers having first values, second values, and other values."'672 Patent col.24 ll.10-16; *see also* id.

Considering that the above explanation of "processed signals" is given in the context of a "typical[ ]" system, it does not on its own persuade the Court that "processed signals" and "digital signals" must be construed as video signals. However, this clear explanation of "processed signals," combined with numerous other indications that the patent applies exclusively to video signals, most logically supports such a construction. As noted above, where "the specification makes clear at various points that the claimed invention is narrower than the claim language might imply, it is entirely permissible and proper to limit the claim." Alloc, 342 F.3d at 1370.

The abstract of the '672 patent indicates that the patent is limited to video data: "The present invention specifically relates to methods and apparatus useful in video compression systems." '672 Patent, abstract; Hill-Rom Co., Inc. v. Kinetic Concepts, Inc., 209 F.3d 1337, 1341 (Fed.Cir.2000) ("We have frequently looked to the abstract to determine the scope of the invention, [citations], and we are aware of no legal principle that would require us to disregard that potentially helpful source of intrinsic evidence as to the meaning of claims."). The location of a statement within the specification "can signal the likelihood that the statement will support a limiting definition of a claim term." C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 864 (Fed.Cir.2004). Specifically, "[s]tatements that describe the invention as a whole [which are more likely to be found in certain sections of the specification], rather than statements that describe only preferred embodiments, are more likely to support a limiting definition of a claim term." *Id*. Although "certain sections of the specification are more likely to contain statements that support a limiting definition of a claim term than other sections," the Court must determine the significance of language in the specification "on a case-by-case basis." *Id*. Because the abstract of the '672 patent states that it is "*useful in* video compression systems," this language in itself does not necessarily limit the patent to video data. However, the language is another significant factor supporting the Court's conclusion that the patent applies specifically to video signals.

Another such factor is the explanation in the specification that the '672 patent was designed to solve a problem specific to video data. "In construing claims, the problem the inventor was attempting to solve, as discerned from the specification and the prosecution history, is a relevant consideration." CVI/Beta Ventures, Inc. v. Tura LP, 112 F.3d 1146, 1160 (Fed.Cir.1997). The patent specification describes the need that the '672 patent was designed to meet:

If the communications link is an earth satellite, an unprocessed video signal typically occupies nearly the entire bandwidth of the satellite, with very few channels, if any, left over for other uses. AT1 communication channel is typical and has only a 1.5 megabit per second bandwidth. *A practical yet effective way to reduce the bandwidth of digitalized television signals is needed* so that fewer channels are required for transmission over a communications path and so that the quality of transmitted signals is maintained even when reduced bandwidth transmission is employed.

'672 Patent col.1 ll.34-44 (emphasis added).

Plaintiff argues that video data is referred to in the specification as an *example* of how the ordered redundancy coding system may be applied.FN8 However, Plaintiff does not identify any examples in the patent that do *not* involve video data. Plaintiff's argument that the specified application of the patent to the "intraframe mode" demonstrates that the patent was intended to be applied to still images is not persuasive. The specification explains that "[t]he decision as to which mode to select is made based upon an analysis of the frame-to-frame differences (motion) between the current input signals and the previous input signals. "

'672 Patent, col.3 ll.61-64. While the specification describes a "single image frame" in intraframe coding, it does so in the broader context of describing video:

FN8. *See, e.g.,* "The present invention specifically relates to methods and apparatus useful in video compression systems,"'672 Patent, col.1 ll.19-20; "The ordered redundancy coding of the present invention is typically utilized in a system that processes input signals, such as spatial domain image signals occurring in successive frames, to form processed signals for each frame," id. col. 3 ll.49-53.

The U.S. Pat. No. 4,302,775 patents reduces redundancy by employing intraframe coding techniques utilizing intraframe comparisons of cosine transform coefficients. While the patent provides significant improvement over other techniques, there is a need for even greater compression.
In addition to intraframe coding techniques, interframe coding techniques have been used to reduce the rate required for video transmission as described, for example, in the above-identified application. Typically, each video frame is held in memory at both the transmitter and the receiver and only frame-to-frame changes are transmitted over the communication link. In contrast to intraframe coding schemes in which the quality of coded images is dependent upon the amount of detail in each *single image frame,* the quality of the coded image in interframe coding is dependent upon the differences from frame to frame. Frame-to-frame differences are often referred to as "motion."

'672 Patent, col.2 ll.12-31 (emphasis added). Nor is Plaintiff's argument that Defendants' proposed construction excludes intraframe coding persuasive, as intraframe coding is a type of video coding. Considered together, the explanation that "processed signals" typically are comprised of plural frames, the language of the abstract, the purpose of the invention, and the absence of any example expressly identified as applying to still images all point to the conclusion that the '672 patent applies exclusively to video data. Defendants note that Plaintiff's conduct over the past two decades FN9 is persuasive extrinsic evidence that the '672 patent applies exclusively to video data. This line of argument is unnecessary to support the Court's conclusion that "digital signals" and "processed signals" are video signals and is in the outer bounds of the type of extrinsic evidence that a Court should consider in construing patent claims. Accordingly, while evidence that Plaintiff may have delayed asserting that the use of JPEGs infringes the '672 patent would be highly relevant to a defense of laches at a later stage of litigation, the Court need not and does not rely on this argument in construing term one.

FN9. For example, Defendants argue that even though Plaintiff was aware of the work being done by JPEG standard-setting committee and itself voted to approve the JPEG standard, it neither disclosed the '672 patent to the committee nor sought to license it. *See* Scarsi Decl., Ex. 2, pp. 202-204; Ex. 3, pp. 153-56; Ex. 15. In contrast, Plaintiff was involved in the MPEG committee and disclosed the '672 patent to that committee. *See, e.g.,* Scarsi Decl., Exs. 12 and 13.

For the reasons stated above, the Court adopts Defendants' proposed construction of term one.

b. Claim term two

"[to form statistically coded signals such that] the more frequently occurring values of digital signals are represented by shorter code lengths and the less frequently occurring values of digital signals are represented by longer code lengths" (claims 1 and 38)

"[to form statistically coded signals such that] the more frequently occurring values in the digital numbers are represented by shorter code lengths and the less frequently occurring values of coded signals are represented by longer code lengths" (claim 6)

The constructions proposed by Plaintiff and Defendants reflect disagreement over two issues. First, the parties dispute whether "values" should be construed to encompass "groups/sets/sequences of values" or instead to include only "each value in the 'digital numbers' or 'digital signals" ' or an "individual value." Second, the parties dispute whether the term "how often," which would require that the statistical coding be based on the *actual* number of times a value occurs in a digital signal, should be included in the construction of term two. Plaintiff proposes the following construction for term two:

To form coded signals based on the statistical frequency of occurrence such that more frequently occurring values or groups/sets/sequences of values are represented by shorter code lengths and less frequently occurring values or groups/sets/sequences of values are represented by longer code lengths. See also the definitions of digital signals and digital numbers set forth above.

Defendants propose that term two should be construed as:

To form statistically coded signals such that] the length of the code representing each value in the 'digital numbers' or 'digital signals' depends on how often that individual value appears in the 'digital numbers' or 'digital signal.'

During oral argument, the parties initially conceded to using the plain language of the term without further construction. Tr. 201:9-202:24. However, Defendants later withdrew their concession as to the second issue, that is, whether the statistical coding must be applied to the actual values being coded.FN10 With respect to the first issue, the Court will not give additional construction to the term "values."

FN10. Counsel for Defendants stated: "We said we thought we would be okay with this construction, but we were concerned that there might be more guidance actually needed. And, in fact, what's been pointed out to me is that it appears that there still, in fact, is an issue hanging out there. And I don't know if the proposed construction resolves that. And here's the issue: The issue is whether the statistical coding is applied to the values in the signals that are actually being coded, if you will, or processed." Tr. 208:15-209:2.

Defendants argue that the language of the specification and claims requires that the statistical coding of signals be done with actual data rather than with representative or model data. Defendants argue that the following language in claim 6 requires statistical coding of actual data: "processing the input signals to form processed signals *where the processed signals are digital numbers* having first values, second values, and other values" and "that the *more frequently occurring values in the digital numbers* are represented by shorter code lengths." '672 Patent, col.24, ll.13-24 (emphasis added). However, this language does not establish clearly that the actual data must be coded. While it is *possible* to infer that the clause "that the more frequently occurring values *in the* digital numbers" indicates that the values *in the* particular digital data must be coded, this is not the only conclusion that may be drawn from this language. It is also possible to conclude that this term simply specifies what type of code length is assigned to the more frequently occurring values, without inferring how the frequency of the values is determined.

Neither Plaintiff's nor Defendants' arguments based on the opinions of their experts are persuasive.

Plaintiff's expert, Dr. Sheila Hemami, explained that "the required frequency of occurrence information can be computed from a statistical model, from a set of training data, or from a particular signal-there is no requirement that it represent only how often a particular value appears in a signal or group of signals." Declaration of Tibor L. Nagy ("Nagy Decl."), Ex. 2, p. 20. Dr. Hemami concludes that requiring "the length of the code to represent how often a value appears is not commensurate with any practical implementation." Id. Defendants' expert, Dr. James A. Storer, stated that "it was well-known in the mid-1980s to create statistical codes from the actual data being compressed." Declaration of Dr. James A. Storer in Support of Defendants and Declaratory Judgment Plaintiffs' Responsive Markman Brief ("Storer Decl."), para. 69. Dr. Storer's statement that it was well known at the time of invention how to compute frequency with the actual data is consistent with Dr. Hemami's statement that it is possible to compute frequency of occurrence from a model. To the extent that Dr. Hemami reaches the further conclusion that the analysis of actual data would not be practical, that opinion is conclusive and without clear evidentiary support. Accordingly, the Court relies on neither expert's opinion in reaching its conclusion as to the proper construction of term two.

Defendants' argument that the specification requires coding of the actual data is not persuasive. While Table Three does describe how to create statistical codes from the amplitude values, it is merely an *example* of a preferred embodiment. '672 Patent, col.14, ll.3-6 ("The TABLE 3 formulation is for one preferred embodiment of the ordered redundancy coding. Many variations, some hereinafter described, are possible.").FN11

FN11. When arguing that runlengths of zero length are not required, Defendants themselves point out that Table Three is merely an example. Responsive Br., p. 21; Tr. 178:16-24.

Instead, the specification indicates that coding of "probable frequencies"-rather than actual frequencies-may be used: "Typically, the statistical frequencies of the values to be coded have an order. Particularly, that order is based upon the *probable frequency of occurrence* of the different values. " '672 Patent, col.5, ll.22-25. Defendants argue that "probable frequency" applies to "the probability that any value in the digital signals to be coded will have a particular numerical value." Responsive Br., p. 36, n. 28. However, this interpretation of "probable frequency" is not required by the language cited by Defendants:

The signals to be coded are *typically* multiple values where the multivalued digital numbers, X(k), are typically the integers 0, 1, 2, 3, 4, ..., and so on arranged in any order. Frequently, some values are repeated in forming digital numbers and hence the *probable frequency of occurrence* of some values is different than for other values.

'672 Patent, col.3, ll.16-22 (emphasis added). The specification merely explains that some values are more likely to occur than others; it does not establish a clear requirement that the probable frequencies are generated from the actual data that is coded. Moreover, this portion of the specification expressly describes a *typical* scenario.

Accordingly, the Court concludes that there is no clear evidence in the language of the claim terms nor in the specification that statistical coding of the actual data is required. The Court will adopt neither of the parties' proposed constructions. Instead, as it suggested it would do during oral argument, the Court will use the plain language of the claim term as its construction.

c. Claim terms three and four

"forming first runlength code values representing the number of consecutive first values of said digital signals followed by [term 3:] said second value *or* [term 4:] one of said other values" (claim 1)
"forming first runlength code values representing the number of consecutive first values of said digital signals followed by [term 3:] said second value in a digital number *or* [term 4:] one of said other values in the digital number" (claim 6)

[term 3:] "a first code value is formed representing a set of said first values followed by said second value"
[term 4:] "a second code value is formed representing a set of said first values followed by one or more of said other values" (claim 38)

The essence of the dispute with respect to the proposed constructions of terms three and four is whether the terms require the inclusion of runlengths of zero length. Plaintiff's proposed constructions include this requirement:

Term 3: "Forming, from the digital signal to be runlength encoded, code values of a first type that represent both the number of consecutive first values in a series (*including runlengths of zero length*) and the second value that follows, thereby eliminating the need to explicitly code the first values and the second value."

Term 4: "Forming, from the digital signal to be runlength encoded, code values of a second type that represent both the number of consecutive first values in a series (including runlengths of zero length) and the second value that follows, thereby eliminating the need to explicitly code the first values." FN12

FN12. Plaintiff's proposed constructions for terms three and four originally included the word "uniquely." During oral argument, Plaintiff's counsel instructed the Court to remove the word "uniquely" from its proposed constructions. Tr. 175:23-25.

Defendants' proposed constructions do not include a requirement that runlengths of zero length be used:

Term 3: "Forming code values of a first type that represent both the number of consecutive first values in a series and the second value that follows, where the second value is implied and not separately encoded."

Term 4: "Forming code values of a second type that represent both the number of consecutive first values in a series and the second value that follows, where the other value is separately encoded."

Plaintiff acknowledges that "[i]f given its ordinary meaning, this language would cover any coding technique that employs runlength encoding of values where there are two or more values, *including the prior art distinguished in the patent*." Plaintiff Compression Labs Inc.'s Reply Brief, p. 8. Accordingly, Plaintiff seeks to import limitations from the specification into the meaning of terms three and four, such that these terms include the additional requirement of runlengths of zero length.

Plaintiff contends that runlengths of zero length are a necessary element of the '672 patent. However, as Defendants have demonstrated, it is possible to embody the invention without the use of runlengths of zero length. As described in detail by Dr. Storer, where a second value is preceded by a value other than a first value, it is possible to use an indicator other than a runlength of zero length to signal the presence of a first value. Storer Decl., para.para. 46-54. Plaintiff argues that treatment of the first runlength code as a "flag," as is done in Dr. Storer's alternative embodiment, disregards the purpose of using runlength codes that imply

the second value. This argument ignores the fact that in the alternative examples a "flag" other than a runlength of zero length is used *only* when a second value is not preceded by a first value, that is, when a second value is preceded by a first value, a runlength code implying the second value is used. While examples of the alternatives suggested by Dr. Storer are not included in the specification, the specification specifically indicates that other embodiments may be possible: "While the invention has been particularly shown and described with reference to preferred embodiments thereof, it will be understood by those skilled in the art that the foregoing and other changes in form and details may be made therein without departing from the spirit and scope of the invention." '672 Patent, col.23, ll.39-44.

The exemplary embodiments described in the specification include runlengths of zero length. Plaintiff argues that Defendants' proposed construction would exclude these preferred embodiments. *See, e.g.,* Anchor Wall Systems, Inc. v. Rockwood Retaining Walls, Inc., 340 F.3d 1298, 1308 (Fed.Cir.2003) ("[I]t is axiomatic that a claim construction that excludes a preferred embodiment ... 'is rarely, if ever correct and would require highly persuasive evidentiary support." '). However, as stated above, the Federal Circuit has "expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment." Phillips, 415 F.3d at 1323. Defendants' proposed construction does not read out any of the embodiments described in the specification. Their proposed construction does not *require* the use of runlengths of zero length, but it also does not *preclude* their use. Accordingly, Plaintiff's argument is not persuasive.

Plaintiff asserts that the requirement that runlengths of zero length be used is described in the specification in order to distinguish the '672 patent from prior art. The Federal Circuit has held that "a claim term will not carry its ordinary meaning if the intrinsic evidence shows that the patentee distinguished that term from prior art on the basis of a particular embodiment, expressly disclaimed subject matter, or described a particular embodiment as important to the invention." CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366-67 (Fed.Cir.2002). However, it is not at all clear that the patentee intended to distinguish the '672 patent from prior art by requiring the use of runlengths of zero length. There is no language in the patent claims that references runlengths of zero length. The only indication in the patent that runlengths of zero lengths will be used is found in Table Three of the specification, which is only "one preferred embodiment of the ordered redundancy coding." '672 Patent, col.14, ll.3-19. Where the specification does distinguish the patented invention from prior art (Scene Adaptive Coding), the use of runlengths to imply second values is described as being useful to identify "*isolated* ones":

One observation that can be made in the motion compensated coefficient differences (non-zero after normalization and quantization) and, to a certain degree, the interframe coefficient differences (non-zero differences) is that most of these differences are sparsely distributed with an overwhelming majority of them having an absolute value of one. Also, within these differences of ones, a significant portion of them are *isolated (surrounded by zero-valued coefficients)* along the path of a scanning. It is wasteful to use one amplitude code word to code each of these *isolated ones* in addition to using one runlength code word to identify their address (Runlength alone should be enough).

'672 Patent, col.12, ll.16-28 (emphasis added). Thus, the specification emphasizes the use of runlengths with an implied second value as an improvement over prior art *only* with respect to second values that are *surrounded by* first values-i.e., runlengths of greater than zero length.

Plaintiff also argues that the following language, used twice in the specification to describe the operation of the "most preferable example," requires the use of runlengths of zero length:

Whenever the first type, R, of runlength coding is employed, no coding of the second value (usually 1) is required because an amplitude of 1 is implied simply by the use of the first type, R, of runlength coding.

'672 Patent, col.3, ll.45-48; col.5, ll.45-49. However, the plain terms of this sentence do not require that the first type of runlength coding is used when second values are not preceded by first values. Instead, it only requires that the second value is implied *when* the first type of runlength coding is used. Additionally, language found elsewhere in the specification can be interpreted to indicate that a second value is implied *only* when a first value is used:

In the present invention, the *presence of a first value* (or first set of values) is used to imply the existence of a second value (or a second set of values) thereby eliminating the need to code the second value (or second set of values).

'672 Patent, col.13, ll.18-22 (emphasis added).

Accordingly, for the foregoing reasons, the Court will adopt Defendants' proposed constructions for terms three and four, as they are stated above.

d. Claim term five

"number(s) [of consecutive first values]" (claims 1, 4, 6, and 10)
The parties' dispute with respect to term five also concerns whether the '672 patent necessarily includes runlengths of zero length. However, there is essentially no substantive difference between the constructions proposed by the parties. Plaintiff proposes that term five be construed as: "*The non-negative integers 0, 1, 2, 3, ...*" While Plaintiff may intend by this definition to incorporate the requirement that there are runlengths of zero length, it is not clear that this language would have that effect. The claim construction offered by Plaintiff includes the entire set of non-negative integers beginning with zero, which is an *infinite* set. Accordingly, unless Plaintiff intends to mean that the patent covers only those embodiments in which *every* non-negative integer is included (which seems impossible), this proposed construction must necessarily be interpreted as providing the set of *possible* integers. Thus, the construction offered by Plaintiff essentially is identical to the construction proposed by Defendants, that term five be construed as: "*A count of consecutive first values-i.e., a run length*." A "count" similarly would include zero as a possible, but not required, number. Because the Court is reluctant to imply that a runlength of zero length is necessarily included, even though Plaintiff's definition probably would not require it, the construction proposed by Defendants is preferable. Accordingly, the Court will construe "number(s) [of consecutive first values]" as "A count of consecutive first values-i.e., a run length."

e. Claim term six

"amplitude encoding" (claims 2 and 7)
During oral argument, the parties agreed to construe "amplitude encoding" as "Encoding the exact amplitude of said following other values but not the first value or the second value." FN13 Tr. 204:14-206:5. Accordingly, the Court adopts this construction.

FN13. This construction is identical to Plaintiff's proposed construction, with the exception that "specifying" is replaced with "encoding."

f. Claim term seven

"sign value" (claims 3 and 8)
A sign indicates whether a number is positive (+) or negative (-). The value of the number without the sign is a magnitude (i.e., an absolute value). For example, the numbers -3 and 3 have the same magnitude, but with different signs. Plaintiff argues that "sign value" should be construed as "*A bit or code which indicates the sign*." Defendants suggest that it should be construed as "*An indicator of the sign of a value-i.e., whether a value is positive or negative-independent of the representation of the magnitude of the value*."

The essence of the parties' disagreement is whether the sign value must be "independent of the representation of the magnitude of the value." Defendants argue that, for the purpose of later establishing infringement, Plaintiff seeks to construe "sign value" in such a way as to establish that a "one's complement" system of coding uses a sign value. The following charts show two possible systems for indicating positive and negative values: FN14

FN14. Defendants provided these examples in their brief, and they have not been challenged by Plaintiff.

binary numbers with additional bit		"one's complement" coding	
-3	011	-3	00
3	111	3	11
-4	0101	-4	011
4	1101	4	100

In the first coding system, the magnitudes of each value are represented by the same code, and the first bit of each code represents the sign value. In this case, "0" represents negative and "1" represents positive. In the "one's complement" coding system, the negative and positive values of each magnitude are represented by inverting the code. However, in this example, each positive value begins with a "1" and each negative value begins with a "0." Defendants suggest that Plaintiff's proposed construction inappropriately would allow for an interpretation of "sign value" that would include the first bit of the code in a "one's complement" coding system, even though the first bit is "integrally part of the representation of the value itself." Defendants and Declaratory Judgment Plaintiffs' Responsive Markman Brief ("Responsive Br."), p. 42 n. 37.

Defendants contend that "sign value" must be construed as "independent of the representation of the magnitude of the value" because it must be distinct from "first values, second values and other values" in independent claims 1 and 6. Dependent claims 3 and 8 state:

The method of claim [1/6] further including the step of encoding said first and second runlength code values with a *sign value*.

'672 Patent, col.23, ll.63-65; col.24, ll.30-32 (emphasis added). Dependent claims 3 and 8 represent distinct elements which, arguably, require that the sign value is encoded separately and during a separate step than the magnitude of first and second runlength code values. However, this does not necessarily imply that the term "sign value" must *itself* encompass the requirement that the sign value is construed independently from

the magnitude. As stated in the specification, it is possible to encode the sign within a table:

The TABLES 6 and 7 were formed based upon the assumption that a separate sign bit, S or -S, not in the tables is to be used to indicate the sign of each value coded in the manner indicated in TABLE 5. *Alternatively, the sign information can be encoded into TABLE 6 or TABLE 7.* For example, a table like TABLE 6 can be used to represent runlengths of 0's that are followed both by positive and by negative non-zero numbers. Such a table would be greater in length than TABLE 6 (expanded essentially to double the length) to provide entries for runlengths of 0's followed by both negative and positive non-zero numbers. Of course, such a table would be ordered in accordance with the statistical frequency of both positive and negative numbers.

'672 Patent, col.18, ll.6-17 (emphasis added). The possibility that a table may include positive and negative values, not necessarily with the sign value separately encoded, does not lead to the conclusion that claims 3 and 8 do not require separate encoding of a sign value. However, this possibility does caution against incorporating an unnecessary limitation into the construction of the term "sign value."

The Court will not incorporate the requirement that a "sign value" is "independent of the representation of the magnitude of the value" into the construction of this term. However, the first portion of Defendants' proposed construction is consistent with the use of "sign value" in the patent. Accordingly, the Court construes "sign value" as "An indicator of the sign of a value-i.e., whether a value is positive or negative."

g. Claim term eight

"a table [is provided storing a plurality of runlength code values representing a plurality of different numbers of consecutive first values followed by said second value, and storing a plurality of second runlength code values representing a plurality of different numbers of consecutive first values followed by one of said other values]"

During oral argument, the parties agreed to the following construction of "table": "A collection of data, in which each item is uniquely identified by a label, by its position relative to the other items, or by some other means." Tr. 234-36; Scarsi Decl., Ex. 5, p. 37 (*IEEE 917: IEEE Standard Dictionary of Electrical and Electronic Terms* (3d. ed.1984)). Accordingly, the Court adopts this definition for the construction of "table."

h. Claim term nine

"set [of said first values followed by said second value]" & "set [of said first values followed by one or more of said other values]" (claim 38)
The parties' dispute with respect to the construction of this term is the same as their dispute with respect to claim terms three, four, and five: whether runlengths of zero length are necessarily required by the claim terms. Plaintiff proposes that this term should be construed as: "*A sequence of zero or more values;*" while Defendants propose that it should be construed as: "*A count of consecutive first values 'followed by said second value;*" "*A count of consecutive first values 'followed by one or more of said other values*." ' As with the proposed constructions of term five, the Court perceives little if any substantive difference between the proposed constructions for term nine. While neither construction necessarily *requires* that runlengths of zero length be used, both allow runlengths of zero length as a possibility. Additionally, the Court is not persuaded that this term would be clarified further by using either "sequence" or "count" instead of set. No party has addressed whether there is any difference between the terms "sequence" and "count" or why it

would be beneficial to use either of these terms rather than "set." Accordingly, without any persuasive argument for giving term nine any construction other than its plain meaning, the Court will provide no additional construction for this term.

i. Claim terms ten and eleven

Term 10: "decoding said first code value to form a set of said first values followed by said second value" (claim 38)
Term 11: "decoding said second code value to form a set of said first values followed by one or more of said other values" (claim 38)

Defendants propose that terms ten and eleven be construed to mean "*converting a code value of a first type to a number of consecutive first values and the second value, where the second value is implied by the first code value and not separately encoded*" and "*converting a code value of a second type to a number of consecutive first values to be followed by at least one of the other values, where the other value is separately encoded,*" respectively. Plaintiff initially argued that terms ten and eleven require no construction apart from the construction of "set," which is construed separately as term nine. During oral argument, Plaintiff's counsel accepted Defendants' proposed constructions, with the qualification that "number" is defined to include zero.FN15 Tr. 220:3-17, 230:3-8. The Court has already concluded that, while the set of numbers includes zero, the term "number" does not necessarily imply that there are runlengths of zero length. Accordingly, the Court does not adopt the condition requested by Plaintiff during oral argument. However, because the Court nevertheless concludes that there is no substantive dispute about the proper construction of terms ten and eleven, separate from the independent dispute regarding "number," the Court adopts Defendants' proposed constructions for these terms.

FN15. Plaintiff argued similarly in its papers that if the Court does construe terms 10 and 11, the terms should be construed such that it is clear that a set includes runlengths of zero length.

2. Preamble claim limitations

Defendants argue that the Court should construe the preambles of claims 1, 6, 10 and 38 as reciting claim limitations. During the claim construction hearing, it became apparent that there was an inadvertent miscommunication between Plaintiff and Defendants as to whether the preamble of claim 38 recites claim limitations. Accordingly, the Court requested and received supplemental briefing addressing whether the preamble of claim 38 recites claim limitations and, to the extent that the issue had not been addressed in previous briefings or at oral argument, whether the preambles of claims 1, 6, and 10 similarly recite claim limitations.

It is "not unusual" to treat the preamble language of a claim as limiting. Bicon, Inc. v. Straumann Co., 441 F.3d 945, 952 (Fed.Cir.2006). The decision as to whether to treat a preamble as a claim limitation is based "on the facts of each case in light of the claim as a whole and the invention described in the patent," Storage Tech. Corp. v. Cisco Sys., Inc., 329 F.3d 823, 831 (Fed.Cir.2003), and "there is no 'litmus test' for determining whether preamble language is limiting," Bicon, Inc. v. Straumann Co., 441 F.3d 945, 952 (Fed.Cir.2006) (citing Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc., 289 F.3d 801, 808 (Fed.Cir.2002)).

Preamble language generally is limiting "if it recites essential structure or steps, or if it is 'necessary to give life, meaning, and vitality' to the claim." Catalina Marketing Int'l, Inc., 289 F.3d at 808. For example,

"dependence on a particular disputed preamble phrase for antecedent basis may limit claim scope because it indicates a reliance on both the preamble and claim body to define the claimed invention." *Id*. Also, if "the preamble is essential to understand limitations or terms in the claim body" or the preamble recites "additional structure or steps underscored as important by the specification," the preamble may be construed to limit the claim. *Id*. In *On* Demand Machine Corp. v. Ingram Industries, Inc., 442 F.3d 1331, 1343 (Fed.Cir.2006), the Federal Circuit found that a preamble "necessarily limits the claims" because "it states the framework of the invention."

Preamble language generally is not limiting " 'where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention." ' *Id*. (quoting Rowe v. Dror, 112 F.3d 473, 478 (Fed.Cir.1997)). If the preamble language "merely extoll[s] benefits or features of the claimed invention," it "does not limit the claim scope without clear reliance on those benefits or features as patentably significant." *Id*. at 809. Preambles that "describ[e] the use of an invention generally do not limit the claims because the patentability of apparatus or composition claims depends on the claimed structure, not on the use or purpose of that structure." *Id*.

a. Claim 1

[1] FN16 *A method for processing digital signals, [2] where the digital signals have first values, second values and other values, [3] to reduce the amount of data utilized to represent the digital signals and [4] to form statistically coded signals such that the more frequently occurring values of digital signals are represented by shorter code lengths and the less frequently occurring values of digital signals are represented by longer code lengths, comprising,*
FN16. The Court adopts the system used by the parties in their supplemental briefs for identifying specific phrases within the claims.

forming first runlength code values representing the number of consecutive first values of said digital signals followed by said second value,
forming second runlength code values representing the number of consecutive first values of said digital signals followed by one of said other values.

Plaintiff concedes that phrase [2] is limiting, but argues that the other three phrases are not. Defendants contend that the entire preamble is limiting, and the Court agrees.

Phrase [1] provides the antecedent basis for phrase [2], which all parties agree is limiting. Plaintiff's reliance on cases in which courts have held that preambles are not limiting because they merely recite a purpose are not persuasive. For example, in Embrex, Inc. v. Service Engineering Corp., 216 F.3d 1343 (Fed.Cir.2000), the court concluded that the preamble "simply describe[d] the purpose of the claimed method." Id. at 1348. However, the preamble in that case included *only* the following description of purpose: "A method for controlling an immunizable disease of viral, bacterial, or microbial origin in an avian species." Id. at 1346. In contrast, the preamble to claim 1 of the '672 patent includes specific limiting language, and phrase [1] provides the antecedent bases for this limiting language.

Phrase [3] is necessary to give meaning to the claim. As Plaintiff has explained, "[d]igital image compression is the science of *reducing* the amount of data used to convey the information that comprises an image." Plaintiff Compression Labs, Inc.'s Opening Markman Brief, p. 3 (emphasis added). The patent

specification states that "[t]he present invention relates to methods and apparatus for processing signals to *remove* redundant information thereby making the signals more suitable for transfer through a limited-bandwidth medium." '672 Patent col.1 ll.15-18 (emphasis added). Accordingly, a necessary aspect of the claim is that it *reduces* the amount of data used, and thus phrase [3] is limiting.

Similarly, because the method of representing more frequently occurring values with shorter code lengths and less frequently occurring values with longer code lengths is a fundamental characteristic of the '672 patent and an integrated part of the entire preamble, phrase [4] is necessary to give meaning to the claim. Plaintiff argues that Catalina Marketing Int'l, Inc., 289 F.3d at 810-11, stands for the proposition that if a phrase is used in the body of one claim and in the preamble of another, it must not be limiting where it is used only in the preamble. However, this is an improper reading of *Catalina,* which held only that particular preamble language was not limiting because it "would effectively impose a method limitation on an apparatus claim without justification." *Id*. at 810. Plaintiff also argues in its supplemental brief that if the Court concludes that phrase [4] is limiting, it should construe "values" as referring to the first and second runlength code values described in the body of the claim. Plaintiff is reasserting the position that it took initially with respect to term two. However, as noted above, during oral argument the parties accepted the Court's proposal that additional construction not be given to the term "values." The Court requested supplemental briefing to address whether the preamble of this claim is limiting, not to address an issue of claim construction that previously had been briefed and argued. Accordingly, without further construing "values," the Court concludes that phrase [4] is limiting.

b. Claim 6

[1] A method for processing input signals [2] to reduce the amount of data utilized to represent the input signals, the steps comprising,
processing the input signals to form processed signals where the processed signals are digital numbers having first values, second values, and other values,

coding each digital number to form statistically coded signals such that the more frequently occurring values in the digital numbers are represented by shorter code lengths and the less frequently occurring values of coded signals are represented by longer code lengths, said coding including,

forming first runlength code values representing the number of consecutive first values followed by said second value in a digital number,

forming second runlength code values representing the number of consecutive first values followed by one of said other values in the digital number.

For the reasons stated above with respect to phrases [1] and [3] of claim 1, which are substantially similar to phrases [1] and [2] of claim 6, the Court concludes that the entire preamble of claim 6 is limiting.

c. Claim 10

The method of claim 6 wherein a table is provided storing a plurality of runlength code values representing a plurality of different numbers of consecutive first values followed by said second value, and storing a plurality of second runlength code values representing a plurality of different numbers of consecutive first values followed by one of said other values, said first runlength code values and said second runlength code values statistically organized in said table such that the statistically more frequently occurring runlength

code values are represented by shorter code lengths and the less frequently occurring values are represented by longer code lengths, and wherein
said step of forming first runlength code values is performed by table lookup from said table,

said step of forming second runlength code values is performed by table lookup from said table.

Plaintiff contends that Defendants improperly characterize the first section of this claim, preceding and including the word "wherein," as a preamble. Plaintiff concedes that the entirety of this section is limiting, but conditions its concession on the construction of "numbers" always to include zero. However, the Court has not adopted such a construction of "numbers," and Plaintiff does not state what effect the Court's decision *not* to adopt Plaintiff's construction would have on its concession. Accordingly, because Plaintiff has stated that this section is not a preamble, the Court concludes that the entirety of claim 10 limits the claimed subject matter.

d. Claim 38

[1] A method for processing digital signals, [2] where the digital signals have first values, second values and other values, [3] where the processing reduces the amount of data utilized to represent the digital signals and [4] where the processing forms statistically coded signals such that the more frequently occurring values of digital signals are represented by shorter code lengths and the less frequently occurring values of digital signals are represented by longer code lengths, where
[5] a first code value is formed representing a set of said first values followed by said second value,

[6] a second code value is formed representing a set of said first values followed by one ore more of said other values comprising,

decoding said first code value to form a set of said first values followed by said second value,

decoding said second code value to form a set of said first values followed by one or more of said other values.

For the reasons stated above with respect to the preamble of claim 1, which is substantially similar to the first four phrases of claim 38, the Court concludes that the first four phrases of claim 38 are limiting. Additionally, the parties dispute whether phrases [5] and [6] limit claim 38 such that it requires both encoding and decoding. The Court concludes these phrases do limit claim 38 in such a manner.

Because phrases [5] and [6] are not merely descriptions of the purpose of the claim and instead provide specific limitations and antecedents to further claim limitations, the Court concludes that these phrases are limiting. Plaintiff argues that it would be illogical to construe claim 38 such that it would require encoding and decoding in the same device. Defendants' proposed construction, however, does not require such an (arguably illogical) interpretation. Defendants argue merely that the claim requires that both steps be performed, not that the same device perform them. The plain language of the claim requires that the step of encoding is performed, not simply that the values have the characteristic of having been encoded-phrase [5] requires that "a first code value *is formed*" and phrase [6] requires that "a second code value *is formed*." Accordingly, the Court concludes that phrases [5] and [6] are limiting and, thus, that claim 38 requires both encoding and decoding.

III. ORDER

For the reasons discussed herein, the Court construes the disputed claim terms as set forth above.

IT IS SO ORDERED.

N.D.Cal.,2006.
In re Compression Labs, Inc.