

United States District Court,  
E.D. Virginia, Norfolk Division.

**KBA-GIORI, NORTH AMERICA, INC,**  
Plaintiff.

v.

**MUHLBAUER, INC., et al,**  
Defendants.

Civil Action No. 2:08cv34

**May 11, 2009.**

Edward Kyle McNew, Troutman Sanders LLP, Norfolk, VA, Jeffrey M. Olson, Matthew S. Jorgenson, Paul H. Meier, Sean A. Commons, Sidley Austin LLP, Los Angeles, CA, Mary Catherine Zinsner, Troutman Sanders LLP, McLean, VA, for Plaintiff.

Christopher Thana Sukhaphadhana, Gary Melchior Ropski, Michael Paul Chu, Mircea Adrian Tipescu, Richard Edward Stanley, Jr., Richard Duane Watkins, Brinks Hofer Gilson & Lione, Chicago, IL, Brett Alexander Spain, Michael Robert Katchmark, Willcox & Savage PC, Norfolk, VA, for Defendants.

### ***ORDER AND OPINION***

**HENRY COKE MORGAN, JR., Senior District Judge.**

On May 5, 2009, the Court conducted a Markman hearing for the purpose of construing the claims in Plaintiff's patent at issue. After careful consideration of the parties' briefs and oral argument, the Court ruled from the bench and hereby issues this Order and Opinion detailing the claim constructions and reasons therewith.

#### ***I. FACTUAL BACKGROUND AND PROCEDURAL HISTORY FN1***

FN1. This section does not constitute the entire factual background and procedural history. Rather, it details only those aspects of the facts and procedural history relevant to the issues presently before the Court.

The United States Patent and Trademark Office issued Patent No. 5,384,859 ("the '859 patent") on January 24, 1995. The '859 patent details a process whereby the quality and acceptability of printed images is judged automatically. In particular, the invention purports to provide a method of inspecting printed sheets "utiliz[ing] the properties of the human eye and brain for subjective error detection to the greatest degree possible for image comparison quality control," thereby obtaining results "substantially identical" to those "obtained by a trained human operator." '859 Patent, Col 2:25-32.

On January 22, 2008, KBA-Giori, North America, Inc. ("Plaintiff" or "KBA") filed its complaint alleging infringement of the '859 Patent. Doc. 1. On June 5, 2008, Muhlbauer, Inc. ("Defendant" or "Muhlbauer") filed a motion dismiss the complaint or, in the alternative, for a more definite statement. Doc. 10. On July 24, 2008, the Court denied Muhlbauer's motion to dismiss, but granted its motion for a more definite statement. Doc. 22. On August 4, 2008, KBA filed its first amended complaint. Doc. 23.

On October 9, 2008, Muhlbauer filed a motion for leave to file separate motion for summary judgment under 28 U.S.C s. 1498(a) with a memorandum in support thereof. Docs. 37-38. KBA filed a response in opposition to this motion on October 23, 2008. Doc. 36. Muhlbauer filed its rebuttal on October 31, 2008. The Court granted Muhlbauer's motion for leave to file separate motion for summary judgment on January 21, 2009. Doc. 160.

On October 27, 2008, the United States filed a motion to intervene with a memorandum in support thereof. Docs. 37-38. On October 28, 2008, Muhlbauer filed a notice indicating its consent to the United States' motion to intervene. Doc. 41. On November 10, 2008, KBA filed its response to the Government's motion, indicating that it did not oppose the motion. Doc. 63. On January 21, 2009, the Court granted the United States' motion to intervene. Doc. 160.

On November 4, 2008, KBA filed a motion for leave to amend its complaint (Doc. 47) and a motion for leave to amend the scheduling order (Doc. 56). On November 20, 2008, Muhlbauer filed its responses in opposition to KBA's motions to amend the complaint and amend the scheduling order. Docs. 80, 82. On December 2, 2008, KBA filed its rebuttals to Muhlbauer's responses. Docs. 98-99. On January 21, 2009, the Court granted KBA's motion to amend the complaint. Doc. 160. KBA filed its second amended complaint on January 21, 2009. Doc. 158.

Because KBA's second amended complaint added a new defendant, TEMA GmbH, in the action and an additional claim of infringement, the Court determined that a revised discovery schedule and trial date was necessary. Accordingly, the Court ordered the parties to submit a proposed discovery schedule, which was subsequently submitted on January 16, 2009. Doc. 153. The Court considered and approved the proposed dates and entered an order on January 21, 2009 mandating that the parties comply with the revised schedule. Doc. 160.

In its January 21, 2009 order, the Court also ordered that the parties submit a joint claim construction statement on April 3, 2009 and that, if the Court determines that a *Markman* hearing is necessary, such a hearing would be held on May 5, 2009. Pursuant to the Court's order, Plaintiff and Defendants filed a joint claim construction statement on April 3, 2009. Doc. 182. Upon consideration of the joint claim construction statement, the Court determined that a *Markman* hearing was desirable.

The parties worked together to establish a *Markman* briefing schedule, which they submitted to the Court on April 3, 2009. Doc. 182. In accordance with the briefing schedule, Defendants filed their claim construction brief on April 24, 2009. Doc. 189. Plaintiff filed its claim construction brief on April 25, 2009. Doc. 190. FN2 The Court conducted a *Markman* hearing on May 5, 2009 and construed the terms from the bench.

FN2. It should be noted that Plaintiff filed its claim construction brief one day late because, under the terms of the briefing schedule, Plaintiff should have filed its brief on April 24, 2009.

The final pretrial conference in this case is set for October 5, 2009. An eight-day jury trial is scheduled to commence on October 14, 2009.

## **II. LEGAL PRINCIPLES OF CLAIMS CONSTRUCTION**

The purpose of a *Markman* hearing is to assist the Court in construing the meaning of the patent(s) at issue. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 371 (1996); *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed.Cir.1995), *aff'd*, 517 U.S. 370 (1996). Patents consist of "claims," and the construction of those claims "is a question of law, to be determined by the court." *Markman*, 517 U.S. at 371; *Markman*, 52 F.3d at 970-71. A court need only construe, however, claims "that are in controversy, and only to the extent necessary to resolve the controversy." *Vivid Techs., Inc. v. Am. Science Eng'g, Inc.*, 200 F.3d 795, 803 (Fed.Cir.1999) (citations omitted). To be clear, "[c]laim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy." *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1311 (Fed.Cir.2005) (citing *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed.Cir.1997)).

Claim construction begins with the words of the claims. *Vitronics Corp. v. Conceptromc, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996) ("First, we look to the words of the claims themselves...."). Words in a claim are generally given their ordinary meaning as understood by a person of ordinary skill in the art. *Id.* This "person of ordinary skill in the art is deemed to read the claim term not only in the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed.Cir.2005) (en banc). "In some cases, ... the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than application of the widely accepted meaning of commonly understood words." *Id.* at 1314. Often, however, "determining the ordinary and customary meaning of the claim requires examination of terms that have a particular meaning in a field of art. Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, and because patentees frequently use terms idiosyncratically, the court looks to those sources available to the public that show what a person of skill in the art would have understood disputed claims language to mean." *Id.*

Further, the claims themselves can provide substantial guidance as to the meaning of particular claim terms. *Id.* First, "... the context in which a term is used within a claim can be highly instructive." *Id.* In addition, other claims of the patent in question, both asserted and unasserted, can also be useful because claim terms are "normally used consistently throughout the patent," and therefore "can often illuminate the meaning of the same term in other claims." *Id.*

The claims should not be read alone, however, but rather should be considered within the context of the specification of which they are a part. *Markman*, 52 F.3d at 978. As the Federal Circuit stated in *Vitronics* and restated in *Phillips*, "the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Phillips*, 415 F.3d at 1315. In addition to consulting the specification, a court may also consider the patent's prosecution history, if in evidence, because it provides information regarding how the United States Patent and Trademark Office and the inventor understood the patent. *See id.* at 1317.

These elements of the patent itself-the claims, the specification, and its prosecution history-constitute

intrinsic evidence of claim construction. In addition to such intrinsic evidence, a court may consider extrinsic evidence to determine the meaning of disputed claims. Phillips, 415 F.3d at 1317. Such extrinsic evidence "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." Phillips, 415 F.3d at 1317 (citing Markman, 52 F.3d at 980).

Such extrinsic evidence, however, is generally held as less reliable than the intrinsic evidence, and "is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of intrinsic evidence." *Id.* at 1317-18. With respect to expert evidence, for example, "[c]onclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court ... [and] a court should discount any expert testimony that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent." *Id.* at 1318.

Therefore, with these principles in mind, the Court will now examine the ' 859 patent and the disputed claim terms.

### **III. *THE* '859 PATENT**

The '859 patent includes eighteen (18) claims. The patent includes three independent claims: claims 1, 7, and 17. The remainder of the claims are dependent claims: claims 2-6, 8-16, and 18. The disputed terms appear in claims 1, 7, and 16, which are reproduced below:

#### *Claim 1:*

A procedure for judging the quality of printed images printed on a printing carrier, by means of an opto-electronic exposure device and a reference information storing device for memorizing image information in high contrast image elements of a printed image, characterized in that a printed image is divided into a multitude of image elements of a size to be chosen, and that to each of these individual image elements is coordinated an individual, reference grey value within an envelope of image locations, and an individual, allowable reference ink density value variation to provide an allowable grey value tolerance in each image element.

#### *Claim 7:*

A process for quality control of an image, comprising:

defining within a printed image to be inspected a plurality of individual elements, each element encompassing an image pattern;

storing a master printed image incorporating said plurality of individual image elements, the stored master image including for each image element a stored nominal pattern value;

storing an acceptable tolerance range for each image element nominal pattern value to provide minimum and maximum allowable pattern values for each said image element;

measuring individual image elements of a printed image to obtain individual measured pattern values; and

comparing said individual measured pattern values with corresponding allowable maximum and minimum stored pattern values to determine errors in said printed image.

*Claim 16:*

The process of claim 7, wherein the step of storing an acceptable tolerance range includes: scanning a plurality of proof images to measure pattern values for each image element of each proof image; selecting proof images judged to have acceptable register and ink density in all its image elements; and storing measured pattern values for each image element of each selected proof image.

#### **IV. CLAIM CONSTRUCTION OF THE '859 PATENT**

The parties have agreed to the construction of one term. As explained in their Joint Claim Construction Statement and confirmed at the *Markman* hearing, the parties are in agreement concerning the term "image element." *See* Doc. 182 at 2. In accordance with the agreed construction, the Court therefore **ORDERS** that the proper construction of the term "**image element**" is "**selected area of measurement.**"

Since the filing of the Joint Claim Construction Statement, the parties reached an agreement concerning another term. Defendants now agree with Plaintiff that the phrase "determining from a plurality of acceptable proof copies" does not require construction by the Court. Doc. 189 at 14. The Court therefore **ORDERS** that the phrase "**determining from a plurality of acceptable proof copies**" **does not require construction.**

The parties disagree as to the construction of eight terms that appear in claims 1, 7, and 16 of the '859 patent. With respect to the disputed terms, the parties' stances and the Court's claim constructions are detailed below.

##### **A. "Opto-Electronic Exposure Device"**

Plaintiff proposes that "opto-electronic exposure device" be construed as "a device having optics and electronic circuitry for scanning an image." Defendants, on the other hand, propose that the term be construed as "anything that senses an image."

Plaintiff argues that the '859 patent specification supports its construction when it describes "an optical system for determining nominal and tolerance values for printed images." *See* '859 Patent, Col. 4:42-43. Plaintiff also notes that devices such as CCD-matrix or single line cameras, which are understood to be opto-electronic exposure devices, combine optical and electronic elements. *See* '859 Patent, Col. 3:58-60; Mihran Decl. at para. 20-21. Plaintiff notes that Defendants' proposed construction is overbroad insofar as the definition of "opto-electronic exposure device" should not encompass "anything that senses an image," which would include human eyes. Plaintiff further argues that the term "opto-electronic exposure device" should be considered a limitation inasmuch as the device is a necessary part of the invention. *See* *Computer Docking Station Corp v. Dell, Inc.*, 519 F.3d 1366, 1375 (Fed.Cir.2008) (holding that a claim preamble reciting a "portable computer" was a limitation even though it did not appear in the body of the

claim because, when "considering whether a preamble limits a claim, the preamble is analyzed to ascertain whether it states a necessary and defining aspect of the invention, or is simply an introduction to the general field of the claim").

Defendants, on the other hand, argue that the term should not be considered a limitation because it only appears in the preamble of the claim. Defendants argue that the preamble of a claim is only limiting if it is "necessary to give life, meaning, and vitality to the claim. *See* Pitney Bowes, Inc v. Hewlett-Packard Co., 182 F.3d 1298, 1305 (Fed.Cir.1999). Defendants argue that the term "opto-electronic exposure device" is not necessary because that patent merely describes a method or process and: (1) the term is not repeated again in claim 1, (2) the body of claim 1 sets out the "complete invention," and (3) the term is not mentioned in any other claim. Moreover, Defendants maintain that Plaintiff's construction is too narrow because there are no references to the terms "circuit" or "circuitry" anywhere within the specification.

The Court finds, however, that "opto-electronic exposure device" gives life, meaning, and vitality to the claim because, without the opto-electronic exposure device, the method or process described within the '859 Patent cannot function. Indeed, the objective of the process is to improve on properties of the human eye, thereby rendering inspections more reliable and efficient. Although the human eye is able to sense an image, it differs from an opto-electronic exposure device because it is less consistent and more susceptible to day-to-day variances than a machine such as the opto-electronic exposure device. It is not possible for "anything that senses an image" to perform the role associated with the opto-electronic exposure device. Indeed, the plain and ordinary meaning of a "device" does not include the human eye. The Court thus accepts Plaintiff's construction of the term. The Court therefore **ORDERS** that the proper construction of the term "**opto electronic exposure device**" is "**a device having optics and electronic circuitry for scanning an image.**"

## **B. "Reference Information Storing Device"**

Plaintiff proposes that no construction of this term is necessary but that, if the term is to be construed, it should be construed as "a memory device for storing digital data corresponding to a reference image." Defendants, on the other hand, propose that the term be construed as "anything that stores information."

Plaintiff argues that Defendants' attempt to expand the term "reference information storing device" to include "anything that stores information," which would include objects such as the human brain or a filing cabinet, is simply unsupported. It is not possible, according to Plaintiff, for "anything that stores information," such as a human brain, to perform the role associated with the "reference information storing device." In support of its construction of the device, Plaintiff notes that the patent specification describes an optical system for determining nominal and tolerance values for printed images containing "main memory" and "intermediate memory" elements. *See* '859 Patent, Col. 4:42-43; Col. 6:28; Col. 3:19-20, 61-62. Plaintiff asserts that such values, which include reference images, are transferred and stored by computer programs in the form of digital data. *See* '859 Patent, Col. 6:50-56; Col. 7:17-39. Plaintiff thus asserts that it has proposed a reasonable construction of the term. Plaintiff further argues that the device is limiting because it is necessary and integral to the invention.

Defendants argue that Plaintiff's proposed construction is too narrow because, although the specification discloses various forms of "memory," it does not disclose any structure for that memory. Defendants further point out that the terms "digital" and "data" do not appear in the specification and should not be read into the definition to narrow the claim's breadth. Defendants argue that its definition of "anything that stores information" is consistent with the patent specification, which makes references to "memory," including an

"image memory," "intermediate memory," "main memory," "memory locations," and "memory elements." *See* '859 Patent, Col 3:9-10, 20, 62; Col. 4:9; Col 5:22; Col 6:28, 33, 42, 45-46. Defendants further argue that the reference information storing device should not be considered a limitation because it provides no meaningful contribution to the invention.

The Court finds, however, that "reference information storing device" gives life, meaning, and vitality to the claim because, without the device, the method or process described within the '859 Patent cannot function. Indeed, the objective of the device is to improve on the properties of the human brain, thereby rendering the process more reliable and efficient. Although the human brain is able to store information, it cannot store information digitally with variables in the same manner as the reference information storing device. Nonetheless, the Court finds that Plaintiff's proposed construction of the term is more obtuse than the term itself. The Court therefore **ORDERS** that the term "**reference information storing device**" **does not require construction.**

### C. "Envelope"

Plaintiff proposes that no construction of this term is necessary but that, if the term is to be construed, it should be construed as "range." Defendants, on the other hand, propose that the term be construed as "a boundary of an area."

In support of its construction, Plaintiff argues that the patent specification uses the term "envelope" to refer not only to the borders of a region within an image element, but also to the spatial range of the image located between such borders. *See* '859 Patent, Col 9:44-49. As used in the patent, Plaintiff asserts that it is clear that the phrase "envelope of image locations" does not refer simply to a boundary of an area; rather, it is an entire range. *See* '859 Patent, Figs. 11-12.

Defendants argue that their proposed construction is appropriate because the ordinary meaning of the term "envelope" is a boundary of an area. Defendants further argue that their definition is consistent with the patent specification, which describes an "envelope" within which a line or image pattern may lie. *See* '859 Patent, Col. 9:4-7, 44-49. Defendants state that Plaintiff's proposed construction focuses upon what is encompassed by the envelope rather than what the envelope itself actually is—a boundary. Defendant argues that the term "envelope," as used in the specification, serves to provide a range rather than constituting a range in and of itself. Defendant thus proposes that their construction is the most logical and consistent with the use of the term throughout the specification.

The Court finds that "envelope," as used within the patent, is a technical term of art that is not commonly understood by a layperson and thus requires construction. The Court is not convinced, however, that either party's proposed definition fully clarifies the language. The Court therefore **ORDERS** that the proper construction of the term "**envelope**" is "**within an envelope or boundary.**"

### D. "Grey Value"

Plaintiff proposes that "grey value" be construed as "a value representing an intensity or brightness level." Defendants, on the other hand, propose that the term be construed as "a number on a scale of shades of grey between black and white."

Plaintiff argues that there is no restriction in the claims, specification, or elsewhere indicating that a "grey value" cannot include any color besides "shades of grey between black and white," as Defendants

have proposed. *See* '859 Patent, Col. 3:34-40. Plaintiff argues that intensity and brightness measurements are features of light of any color and are not limited solely to what the human eye might perceive as "black," "white," or "grey." Indeed, Plaintiff argues that the processes claimed in the '859 patent are fully operative when applied to "color images ." *See* Mihran Decl. at para. 45-49. Accordingly, Plaintiff maintains that Defendants' proposed construction, which excludes colors other than shades of grey between black and white, is unsupportable.

Defendants argue, however, that a "grey value" is generally a number on a scale of shades of grey between black and white. According to Defendants, their proposed construction is consistent with the patent specification, which describes a percentage value as an ink density value for an image element. *See* '859 Patent, Col. 5:33. Defendants argue that Plaintiff's proposed construction improperly eliminates the color/non-color implications of the term "grey" and ignores the plain meaning of the word. Defendants argue that grey has an ordinary meaning, as evidenced by the patent specification, that excludes all other colors other than white and/or black. Indeed, Defendants note that, in an "analogous situation," the District of Massachusetts interpreted "color" as precluding "black and white and shades of gray." *Vivid Techs. Inc v. Am. Sci & Eng'g, Inc.*, 997 F.Supp. 93, 102 (D.Mass.1997). According to Defendants, there is nothing in the specification or prosecution history that would support a broader definition of "grey."

The Court, however, finds that grey value is a term of art and that the definition of grey value does not equate to the dictionary definition of grey. In light of the evidence presented, the Court finds that grey value encompasses more than mere shades of grey between black and white. The Court will therefore adopt Plaintiff's proposed construction. The Court therefore **ORDERS** that the proper construction of the term **"grey value" is "a value representing an intensity or brightness level."**

#### **E. "Nominal"**

Plaintiff proposes that no construction of this term is necessary but that, if the term is to be construed, it should be construed as "desired" or "reference." Defendants, on the other hand, propose that the term be construed as "derived from a master image."

Plaintiff argues that the term "nominal" is an ordinary term of English usage and, as used in the '859 patent, does not have any specialized or narrowed meaning. In support of their construction as "desired" or "reference," Plaintiffs note that "nominal values could, for example, be determined by scanning an 'ideal' printed sheet ..." *See* '859 Patent, Col. 5:17-18. Plaintiff states that Defendants seek to conflate "nominal" and "master" and improperly attach a specialized meaning based on a preferred embodiment. According to Plaintiff, however, the '859 patent indicates that the use of a "master" or "ideal" image is merely one example of how to establish a nominal value. Plaintiff points out, for instance, that the patent offers an example of a different way of establishing a nominal value by manually entering a range of values into the appropriate memory location. *See* '859 Patent, Col. 7:29-35. Therefore, Plaintiff argues that there is no basis for restricting the meaning of "nominal."

In support of its proposed construction, Defendants argue that the patent specification indicates that "nominal" values are obtained from a master image. *See* '859 Patent, Col. 6:27-30 ("After nominal values for each of the image elements are established in a main memory from a master image ..."). Defendants thus argue that the context provides its own definition of "nominal" by using the term in this manner. *See* Phillips, 415 F.3d at 1316 ("Even when guidance is not provided in explicit definitional format, the specification may define claim terms by implication such that the meaning may be found in or ascertained

by a reading of the patent documents." ). During the *Markman* hearing, Defendants proposed two additional constructions for the term nominal: "baseline" or "initial."

First, the Court finds that this term necessitates construction. The Court finds that "desired" is not an appropriate construction, however, because the invention measures values inside or outside of the "desired" range. The Court further finds that, although it is accurate to state that nominal values are derived from a master image, that does not imply that the term "nominal" should be defined as "derived from a master image" merely because the terms appear in the same phrase. The Court additionally finds that "baseline" and "initial" erroneously imply a starting point and thus confuse rather than clarify the term. Conversely, the Court notes that it is a reference value that is obtained through the storing of reference information in the reference information storing device. *See* '859 Patent, Col. 5:16-20. All of these stored images are references that are used to determine whether a given image is acceptable. The Court therefore **ORDERS** that the proper construction of the term "**nominal**" is "**reference**."

#### F. "Image Pattern"

Plaintiff proposes that no construction of this term is necessary but that, if the term is to be construed, it should be construed as "variations within the image." Defendants, on the other hand, propose that the term be construed as "variations in ink density."

Plaintiff argues that Defendants' effort to limit the term to a specific preferred embodiment of the patent specification is not supportable because, under accepted principles of claim construction, it is not appropriate to limit otherwise plain claim language to a specific preferred embodiment. Plaintiff maintains that nothing in the specification, file history, or elsewhere renders any specialized restrictive meaning or definition to the term "pattern." Although the specification states that a "pattern" may correspond to variations in ink density, Plaintiff argues that image pattern is not limited to ink density. Rather, image pattern may be based on the presence or absence of a high contrast line, the position of the image, and the density of ink. *See* '859 Patent, Col.3:25-34.

Defendants argue that the only "patterns" discussed in the patent specification correspond to variations in ink density within an image element. *See* '859 Patent, Col. 3:1-4. Inasmuch as the only "patterns" disclosed in the specification are variations in ink density within an image element, Defendants argue that the term "image pattern" must include "variations in ink density" within its definition. Defendants further argue that Plaintiff's proposed construction is insufficient because it fails to define what varies within the image.

The Court finds that this term necessitates construction. The Court further finds that an image pattern can be rejected for brightness, location, or shape. *See* '859 Patent, Col.3:25-34. Defendants' proposed construction, however, does not mention any variable besides variations in ink density. The Court will therefore adopt Plaintiff's proposed construction, which allows for the inclusion of all variations. The Court therefore **ORDERS** that the proper construction of the term "**image pattern**" is "**variations within the image**." The evidence may establish that all variations, including those pertaining to location and shape, are achieved by varying the ink density. If the evidence so proves, this definition will remain accurate.

#### G. "Pattern Value"

Plaintiff proposes that "pattern value" be construed as "a representation of variations within an image element." Defendants, on the other hand, propose that the term be construed as "a grey value."

Plaintiff argues that Defendants improperly attempt to read a dependent claim into an independent claim. Plaintiff maintains that nothing in the specification, file history, or elsewhere gives any specialized restrictive meaning or definition of "grey value" to this term. To the contrary, the patent identifies examples of pattern characteristics, such as shape and pixel location, that are not tied to the concept of a "grey value." *See* '859 Patent, Col. 10:23-29 (discussing the concept of a "pattern" in terms of the shape of an image within the image element, and in terms of locations within an image element).

Defendants argue, however, that Plaintiff's proposed construction is erroneous because: (1) the only "patterns" discussed in the patent specification correspond to variations in ink density and (2) the only "value" discussed in the specification and associated with ink density variation is a grey value. *See* '859 Patent, Col 3:1-4; 9:22-23. Defendants note that there is no discussion of any color, color spaces, or any other kinds of values other than grey values. Defendants therefore argue that the term "pattern value" must be construed to be a "grey value." *See* Phillips, 415 F.3d at 1315 (noting that a claim is to be construed in light of the written description that supports it). Defendants further argue that Plaintiff's proposed construction is insufficient because it fails to define what varies within the image element.

The Court finds that the language Defendants cite simply does not support defining the term as a grey value. The Court further finds that Plaintiff's and Defendants' proposed constructions are not vastly different and that, under Plaintiff's construction, Defendants would still be able to argue to the jury that the variations are the grey value. The Court will therefore adopt Plaintiff's construction. The Court therefore **ORDERS** that the proper construction of the term "**pattern value**" is "**a representation of variations within an image element.**"

#### H. "Judged"

Plaintiff proposes that no construction of this term is necessary but that, if the term is to be construed, it should be construed as "determined." Defendants, on the other hand, propose that the term be construed as "decided by a human inspector after visual review."

Plaintiff argues that "judged" is an ordinary term of English usage and, as used in the '859 patent, does not require any specialized or narrowed meaning. Plaintiff states that nothing in the specification, file history, or elsewhere gives any specialized restrictive meaning or definition to the term. Furthermore, Plaintiff notes that the specification indicates that printed sheets may be judged by electronic review and thus are not necessarily "decided by a human inspector." *See* '859 Patent, Col. 1:16-22 ("Subsequently, printed sheets are electronically reviewed and ... [s]heets with grey values within the allowable tolerance ranges are judged acceptable, while those with values outside the master tolerance ranges are rejected.").

Defendants argue, however, that the specification supports their definition where it states that "... the numbered sheets, or proof sheets, are subjected to visual review by an inspector who decides whether each sheet is acceptable or not." *See* '859 Patent, Col. 6:38-40. Defendants note that this procedure involving humans is further elaborated throughout the specification, providing support for their construction. *See* Renishaw PLC v. Marposs Societa' per Anzioni, 158 F.3d 1243, 1250 (Fed.Cir.1998) ("The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction"). Defendants note that Plaintiffs construction fails to identify the party or entity that is making the judgment.

The Court finds, however, that Defendants' proposed construction is precluded by the Court's ruling on

"opto-electronic exposure device." Furthermore, Defendants' construction does not naturally align with the patent's description of the invention because nothing within the patent indicates that the definition of "judged" should be limited to human inspection. Rather, the patent clearly indicates that sheets may be judged by electronic review. *See* '859 Patent, Col. 1:16-22. On the other hand, Plaintiff's proposed construction of "determined" adds no further clarity to "judged," which is a commonly-understood term. The Court therefore **ORDERS** that the term "**judged**" **does not require construction**.

### *V. CONCLUSION*

For the reasons set forth above, the Court issues this Order and Opinion as the construction of the claims in the '859 patent.

The Clerk is **REQUESTED** to send a copy of this Order and Opinion to counsel of record.

It is so **ORDERED**.

E.D.Va.,2009.

KBA-Giori, North America, Inc. v. Muhlbauer, Inc.

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