

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF RHODE ISLAND

ACCESS SOLUTIONS )  
INTERNATIONAL, INC. )  
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Plaintiff )  
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v. ) C.A. No. 97-0501-L  
 )  
DATA/WARE DEVELOPMENT, INC. )  
and )  
EASTMAN KODAK COMPANY )  
 )  
Defendants )

DECISION AND ORDER

Ronald R. Lagueux, Chief Judge.

Access Solutions International, Inc. ("plaintiff") has sued Data/Ware Development, Inc. and Eastman Kodak Company ("defendants") for infringement of two patents held by plaintiff -- U.S. Patent nos. 4,775,969 ("`969 patent") and 5,034,914 ("`914 patent"). Defendants have moved for summary judgment on three grounds: 1) that the `969 patent is invalid because it violates the best mode requirement of 35 U.S.C. § 112, 2) that it is invalid because it violates the enablement requirement of § 112 and 3) that an amendment added during the patent's prosecution impermissibly contained "new matter" in violation of 35 U.S.C. § 132. If either defendants' best mode theory or enablement theory is sustained, then that would dispose of the `969 patent infringement action. However, because this Court concludes that there are genuine issues of material fact with

regard to both theories, defendants' motion for summary judgment on these grounds must be denied. With regard to the "new matter" argument, this Court finds that the issue is not appropriate for summary judgment, as its resolution would have no dispositive effect on any issue in the case.

## I. Background

### Description of the Invention

Both the '969 and the '914 patents are "directed to Optical Disk Storage systems and [are] more particularly directed to a new and improved embedded directory technique for storing data on an optical disk to permit rapid access thereto." '969 patent, Col. 1, ll. 12-15; '914 patent, Col. 1, ll. 12-15. Prior to the invention, data from a host computer was stored on a magnetic tape drive. Records containing variable numbers of data bytes were written from the host computer to the tape in a sequential fashion and separated by "file marks." When data needed to be retrieved, the host computer would issue commands to move from one file mark to the next until the appropriate record was located.

An optical disk, unlike a magnetic tape drive, has a single spiral "track" which is divided into "sectors." Each sector can store approximately 1,024 bytes of data. Reading and writing operations can begin only at a sector location. Using the sequential method of data storage described above thus would be

inefficient because each sector would necessarily need to correspond to only one record, resulting in incomplete usage of the sector.

One of the purposes of the invention at issue was to store variable-length data efficiently on an optical disk. Another purpose was to achieve this storage by emulating the communication interface utilized when data was stored on magnetic tape drives. This would allow the invention to be used with existing host computers without the need for additional software, which would have been commercially undesirable. This is known as "tape emulation."<sup>1</sup>

To achieve these goals, the invention consists of a communication interface which employs a host computer, a tape drive interface, a buffer memory, an optical disk interface, an optical disk system and a controller. In a write operation, the host computer, using the same format and commands utilized to write to a magnetic tape drive, transmits a series of records to the buffer memory through the tape drive interface. The controller constructs an "embedded directory" in the buffer

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<sup>1</sup>Data was also traditionally stored on magnetic disks. However, because magnetic disks are erasable and optical disks are not, storage techniques for magnetic disks would be entirely inappropriate for storage to optical disk. Thus, for this reason and others discussed in more detail in the patent descriptions, "disk-emulation" was not a goal of the invention.

Both parties agree that there is no longer a market for new systems using this "tape-emulation" technology, as magnetic tapes have become faster and magnetic disks have become cheaper.

memory, which contains the record lengths (number of bytes) of the records to be stored. The controller then writes the data and the corresponding embedded directory to the optical disk through the optical disk interface. While this is occurring, the controller generates information to construct a "high-level directory" in the buffer memory, the purpose of which is to note the disk address of the embedded directory. Once the high-level directory is completed, it is written to the optical disk. In a read operation, the host computer accesses the high-level directory, again using the same format and commands used to retrieve data from a magnetic tape drive, to determine the disk address of the appropriate embedded directory. Once the record length information in the embedded directory is accessed, bytes of data are counted in accordance with the information to access the desired record.

#### Prosecution of the '969 Patent

Both patents originated from a patent application filed on May 15, 1986. On April 13, 1987, a continuation-in-part ("CIP") application to the May 15 application was filed. ("April 13th application"). In August of 1987, the U.S. Patent and Trademark Office ("PTO") issued an Office Action rejecting all of the claims of the April 13th application under paragraph two of 35 U.S.C. § 112, "as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention." PTO Office Action (attached as Ex. 6 to Defs'. Mot. for Summ. J. that the '969 Patent Violates the New Matter and Enablement Rules ("Defs'. New Matter and Enablement Motion"))).

On February 29, 1988, an amendment was filed which contained changes to the patent specification. ("Substitute Specification"). The PTO accepted the amendment, noting that it "does not appear to have any new matter." PTO Examiner Interview Summary Record (attached as Ex. 11 to Defs'. New Matter and Enablement Motion). The '969 patent, containing the changes made by the Substitute Specification, was thus issued on October 4, 1988. The '914 patent, not implicated in this motion, was issued on July 23, 1991, after a CIP to the '969 application was filed on June 16, 1988.

## II. Procedural History

On August 29, 1997, plaintiff brought this infringement action against defendants, alleging infringement of one or more of claims 1, 4, 6, 13 and 18 of the '969 patent and one or more of claims 1 and 4 of the '914 patent. On April 7, 1999, defendants filed two motions for summary judgment relative to the '969 patent infringement action. The first alleges that the '969 patent violates the best mode requirement of 35 U.S.C. § 112 and, thus, is invalid. The second alleges that the '969 patent violates the enablement requirement of 35 U.S.C. § 112 and the

"new matter" prohibition contained in 35 U.S.C. § 132.

### III. Summary Judgment

Although defendants have not clarified this point, this motion is properly considered under Rule 56(d) as a motion for partial summary judgment. Even if defendants succeeded on their motion, they would only be entitled to resolution of the infringement allegations with regard to the '969 patent; the allegations regarding the '914 patent would still go forward. Rule 56(d) addresses this type of case where the movant requests less than full relief.

Partial summary judgment under Rule 56(d) is separate and distinct from a motion for summary judgment under Rule 56(c), although the two are often improperly interchanged. Rule 56(d) arms the court with a tool to "narrow the factual issues for trial." Rivera-Flores v. Puerto Rico Tel. Co., 64 F.3d 742, 747 (1st Cir. 1995). The rule provides that when "judgment is not rendered upon the whole case or for all the relief asked and a trial is necessary," the court may "ascertain what material facts exist without substantial controversy and what material facts are actually and in good faith controverted." Fed. R. Civ. P. 56(d). Based upon such an inquiry, the court may then devise an appropriate order "including the extent to which the amount of damages or other relief is not in controversy, and directing such further proceedings in the action as are just." Id.

The standard for ruling on a Rule 56(d) motion is "identical to that deployed when considering a summary judgment motion under Rule 56(c)." URI Cogeneration Partners, L.P. v. Board of Governors for Higher Educ., 915 F.Supp. 1267, 1279 (D.R.I. 1996) (citing Flanders & Medeiros Inc. v. Bogosian, 868 F.Supp. 412, 415-417 (D.R.I. 1994), aff'd in part, rev'd in part, 65 F.3d 198 (1st Cir. 1995)). Rule 56(c) of the Federal Rules of Civil Procedure sets forth the standard for ruling on a summary judgment motion:

The judgment sought shall be rendered forthwith if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law.

Fed. R. Civ. P. 56(c). Thus, summary judgment may be granted when no "reasonable jury could return a verdict for the nonmoving party." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). In determining whether summary judgment is appropriate, the Court must view the facts on the record and all inferences therefrom in the light most favorable to the nonmoving party. See Continental Cas. Co. v. Canadian Universal Ins. Co., 924 F.2d 370, 373 (1st Cir. 1991).

A grant of summary judgment "is not appropriate merely because the facts offered by the moving party seem most plausible, or because the opponent is unlikely to prevail at

trial." Gannon v. Narragansett Elec. Co., 777 F.Supp. 167, 169 (D.R.I. 1991). At the summary judgment stage, there is "no room for credibility determinations, no room for the measured weighing of conflicting evidence such as the trial process entails, no room for the judge to superimpose his own ideas of probability and likelihood[.]" Greenburg v. Puerto Rico Maritime Shipping Auth., 835 F.2d 932, 936 (1st Cir. 1987). Summary judgement is only available when there is no dispute as to any material fact and only questions of law remain. See Blackie v. Maine, 75 F.3d 716, 721 (1st Cir. 1996).

Additionally, in ruling on a motion for summary judgment, this Court must consider the burdens of proof underlying the claims. See Anderson, 477 U.S. at 254; National Presto Indus., Inc. v. West Bend Co., 76 F.3d 1185, 1189 (Fed. Cir. 1996).

Here, defendants have a heightened burden of proof with regard to their affirmative defenses that the '969 patent is invalid for failure to comply with the best mode and enablement requirements. A patent is presumed valid. 35 U.S.C. § 282 (1994). Invalidity must be proved by clear and convincing evidence. Carella v. Starlight Archery & Pro Line Co., 804 F.2d 135, 138 (Fed. Cir. 1986). The Federal Circuit has made clear that a party asserting invalidity by reason of failure to comply with § 112 bears no less a burden and no fewer responsibilities than any other patent challenger. Ralston Purina Co. v. Far-Mar-

Co., Inc., 772 F.2d 1570, 1574 (Fed. Cir. 1985). At trial, then, defendants would have to prove their best mode and enablement defenses by clear and convincing evidence. Thus, to grant summary judgment, this Court must find that no reasonable juror could conclude that defendants had not proved invalidity by clear and convincing evidence; or, to take out the double negative, that any reasonable juror would conclude that defendants had proved invalidity by clear and convincing evidence. See Chiron Corp. v. Abbot Lab., 902 F.Supp. 1103, 1110 (N.D.Cal. 1995) ("When the defendant in a patent infringement case moves for summary judgment on an affirmative defense, the elements of which the defendant must prove by clear and convincing evidence, the non-moving party must simply produce enough evidence to allow a rational trier of fact to find that there is not clear and convincing evidence.").

With these standards in mind, the Court will consider each of defendants' summary judgment claims in turn.

#### IV. Defendants' Claims

##### **A. Best Mode**

35 U.S.C. § 112 sets forth the disclosure requirements of a patent. Paragraph one provides, in relevant part, that the specification "shall set forth the best mode contemplated by the inventor of carrying out his invention." 35 U.S.C. § 112 (1994). "The purpose of the best mode requirement is to ensure that the

public, in exchange for the rights given the inventor under the patent laws, obtains from the inventor a full disclosure of the preferred embodiment of the invention." Dana Corp. v. IPC Ltd. Partnership, 860 F.2d 415, 418 (Fed. Cir. 1988). It is immaterial whether an inventor's failure to disclose the best mode is intentional or accidental. Id.

Compliance with the best mode requirement is a question of fact. Scripps Clinic & Research Found. v. Genentech, Inc., 927 F.2d 1565, 1578 (Fed. Cir. 1991). In Chemcast Corp. v. Arco Indus. Corp., 913 F.2d 923, 927-28 (Fed. Cir. 1990), the Federal Circuit announced a two-step analysis to determine compliance with the best mode requirement. The first step, which is wholly subjective, is to determine whether, at the time the patent application was filed, the inventor had a best mode of practicing the claimed invention. Id. If the inventor did contemplate such a mode, the second step is to determine whether the specification adequately disclosed what the inventor contemplated as the best mode so that those having ordinary skill in the art could practice it. Id. A general reference to the best mode of practicing the claimed invention will be insufficient if the quality of the disclosure is so poor as to effectively conceal it. Transco Prod., Inc. v. Performance Contracting, Inc., 38 F.3d 551, 560 (Fed. Cir. 1994).

There are, however, limits to a best mode inquiry.

Specifically, "the parameters of a section 112 [best mode] inquiry are set by the CLAIMS." Zygo Corp. v. Wyko Corp, 79 F.3d 1563, 1567 (Fed. Cir. 1996)(emphasis theirs)(citing Engel Indus., Inc. v. Lockformer Co., 946 F.2d 1528, 1531 (Fed. Cir. 1991)("The best mode inquiry is directed to what the applicant regards as the invention, which in turn is measured by the claims.") and Chemcast, 913 F.2d at 927 ("The other objective limitation on the extent of the disclosure required to comply with the best mode requirement is, of course, the scope of the claimed invention.")).

In addition, the best mode requirement does not apply to "production details." Young Dental Mfg. Co., Inc. v. Q3 Special Products, Inc., 112 F.3d 1137, 1144 (Fed. Cir. 1997)(citing Wahl Instruments, Inc. v. Acvious, Inc., 950 F.2d 1575, 1579-80 (Fed. Cir. 1991)). The Federal Circuit has recognized two such types of details: "true" production details which do not relate to the quality or nature of the invention and "routine details" which, although they do relate to the quality or nature of the invention, do not need to be disclosed because they are "apparent to one of ordinary skill in the art." Id.

A best mode inquiry is conducted claim by claim, Engel, 946 F.2d at 1531, and only those claims involving the challenged subject matter can be invalidated. Amgen, Inc. v. Chugai Pharm. Co., Ltd., 927 F.2d 1200, 1209 n.5 (Fed. Cir. 1991).

Defendants allege that the '969 patent does not comply with the best mode requirement because the patent does not set forth Direct Memory Access ("DMA") as the preferred method of data transfer between the host computer, the buffer memory and the optical disk system. DMA is a method of transferring bytes of data, by which special hardware allows the data to pass directly into and out of memory under the control of the microprocessor, but without the need for the microprocessor to retrieve and issue instructions for every byte of data. Such individual processing slows data transfer. Thus, the advantage of DMA is that it can speed up the process.

Although plaintiff has only alleged infringement of Claims 1, 4, 6, 13 and 18, defendants apparently seek to establish that data transfer is a "mode" of all 21 claims of the '969 patent, with the exception of claims 3 and 5, and consequently invalidate those claims because the patent fails to disclose DMA as the best mode of data transfer.

Plaintiff offers three independent arguments to defeat summary judgment. First, plaintiff disputes defendants' underlying premise that data transfer is a "mode of the claimed invention" and thus argues under Zygo that the best mode requirement is inapplicable as to all claims of the '969 patent. Second, plaintiff argues that, even if data transfer is a mode of the claimed invention, there is a genuine issue of material fact

as to whether the inventor, Steven Osterlund, believed DMA to be the best mode for data transfer at the time the application was filed. Finally, plaintiff argues that, even if Osterlund believed DMA to be the best mode of data transfer, there is a genuine issue of material fact as to whether DMA was adequately disclosed in the '969 patent so that those having ordinary skill in the art could practice it. Success on any one of these three arguments will defeat summary judgment. This Court will address all three.

Is Data Transfer a "Mode" of the Invention?

As the court in Zygo noted, "[t]he phrases 'best mode' and 'carrying out the invention' are not statutorily defined. What is a 'mode' of the 'invention'? What acts or ideas are meant to be encompassed by the phrase 'carrying out the invention'? These questions are not answered by a mechanical rule." Zygo, 79 F.3d at 1567. The Federal Circuit, however, has provided guidance on how to answer these questions. For example, it is clear that elements that are specifically claimed in the invention are subject to the best mode requirement. See Chemcast, 913 F.2d at 928 (finding a best mode violation where the "mode" concealed was the "preferred embodiment of a claimed element"). It is equally clear that non-claimed elements may also be subject to the requirement if they are necessary to implement the claimed invention. See id. ("most of the cases in which we have said

that the best mode requirement was violated addressed situations where an inventor failed to disclose non-claimed elements that were nevertheless necessary to practice the best mode of carrying out the claimed invention"). See also Randomex, Inc. v. Scopus Corp., 849 F.2d 585, 590 (Fed. Cir. 1988)("the best mode requirement would require a patentee to divulge the fuel on which [his invention] would best run"); Dana, 860 F.2d at 420 (finding best mode violation when inventor failed to adequately disclose an unclaimed surface treatment that was necessary for satisfactory performance of the invention); Refac Int'l Ltd. v. IBM, 689 F.Supp. 422, 432 (D.N.J. 1988)(stating that the best mode requirement applies "to what is essential for carrying out the invention, as well as to the forms of the invention itself."), aff'd, Refac Int'l Ltd. v. IBM Corp, 891 F.2d 299 (Fed. Cir. 1989). If a non-claimed element is not necessary to implement the invention, however, it will not constitute a "mode." See Zygo, 79 F.3d at 1568.

Plaintiff argues that data transfer is not claimed in the invention because no method of data transfer is specified in the claims at issue. However, merely because a method of data transfer is not specified does not necessarily mean that data transfer itself is not claimed. In fact, the claims in issue<sup>2</sup> do

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<sup>2</sup>Although defendants seek to invalidate all claims, with the exception of 3 and 5, this Court will only focus on those claims currently at issue in the infringement action -- claims 1, 4, 6, 13 and 18. However, this Court agrees with the parties that

seem to claim data transfer. Claims 1 and 4 refer to a means for "recording" on the optical disk data segments, an embedded directory and a high-level directory. Claim 6 refers to a "method of emulating a magnetic tape drive," which comprises "receiving" data from a host computer and "writing" that data to an optical disk. Similarly, claims 13 and 18 refer to "writing" data to an optical disk. It is difficult to see how words like "record," "receive" and "write" do not implicate the transfer of data.

Even if data transfer is not explicitly claimed, plaintiff's argument that data transfer is not necessary to implement these claims must clearly fail. This case is totally distinguishable from Zygo, where no violation was found because the non-claimed and allegedly concealed element, an encasement for an interferometer invention, was unnecessary to carry out the invention. Zygo, 79 F.3d at 1568. There, the invention would function properly without an encasement. The claimed invention in this case simply will not function unless data is transferred

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claims 3 and 5 neither claim nor require data transfer, and notes that plaintiff exposes the problem with its argument that the remaining claims are on the same footing by the word choice in describing the claims. Plaintiff states that claims 3 and 5 do not "specify the transfer of data," Pl's. Obj. to Defs'. Mot. for Summ. J. that the '969 Patent Violates the Best Mode Requirement at 29, while it states that the remaining claims do not "refer specifically to the *mode* of data transfer." Id. at 21 (emphasis added). Clearly, the remaining claims may in fact specify data transfer, without necessarily specifying how the data transfer is achieved.

-- in order to implement an invention that stores and retrieves data, one must transfer the data from the host computer to the optical disk and back. This case is instead similar to Refac, 689 F.Supp. at 432, where random number generation was a "mode" of the invention because it was a prerequisite to the invention's function of comparing a secret code word to randomly encoded data on a credit card to allow the cardholder access to cash.

Plaintiff's own argument reveals its flaws: "DMA relates only to the mode by which data is moved about within a controller [plaintiff] employed *to implement the invention.*" Pl's. Surreply to Defs'. Mot. for Summ. J. Regarding the Best Mode Issue at 10(emphasis added). In addition, plaintiff attempts to support its argument by referring to Osterlund's testimony that the implementation of the invention would be the same whether or not DMA were used. This argument goes more to whether DMA is actually the best mode of data transfer, rather than addressing the issue of whether data transfer itself is a mode of the invention. It is clear to this Court for the above reasons that data transfer is a mode of the claimed invention. Thus, if Osterlund believed that DMA was the best method by which to achieve data transfer, DMA must be adequately disclosed in the patent.

#### Inventor's Contemplation of Best Mode

Defendants assert that the following uncontroverted facts

constitute clear and convincing evidence that Osterlund contemplated DMA as the best mode of data transfer at the time the '969 application was filed: 1) Osterlund used DMA in a prototype of his invention before filing the April 13th application; 2) Osterlund believed that DMA was "potentially... always faster[,] " Osterlund Dep. Vol. I at 68; 3) a draft of the '969 patent application contained a drawing with which Osterlund "intended to convey...[DMA,]" Osterlund Dep. Vol. I at 59,<sup>3</sup> and 4) the '914 patent, for which Osterlund applied one year after applying for the '969 patent and which describes essentially the same invention as the '969 patent with the exception of some additions not relevant to this motion, stated in the "Detailed Description of the Invention" that "[DMA] techniques are preferably employed to transfer data into and out of the buffer memory." '914 patent, Col. 9, ll. 33-35.

Plaintiff maintains that the first three pieces of evidence do not establish that Osterlund considered DMA to be the best mode of data transfer. It claims that this evidence, when viewed

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<sup>3</sup>Plaintiff attempts to establish that this fact is disputed by pointing to an affidavit filed by Osterlund subsequent to the filing of this motion, in which he states that the drawing was intended merely to convey a "data path." However, it is well established that a party cannot create a genuine issue of fact by submitting a later affidavit that contradicts deposition testimony without sufficiently explaining the contradiction. See Sinskey v. Pharmacia Ophthalmics, Inc., 982 F.2d 494, 498 (Fed. Cir. 1992); Colantuoni v. Calcagni & Sons, Inc., 44 F.3d 1, 4-5 (1st Cir. 1994). Plaintiff has failed to adequately explain the direct contradiction of Osterlund's deposition testimony; thus, this fact cannot be considered to be genuinely disputed.

in conjunction with the record as a whole, establishes only that Osterlund viewed DMA as merely one among several modes of data transfer. In his deposition testimony, and in consistent statements made in his subsequent affidavit, Osterlund outlined three other modes of data transfer which can be used instead of DMA. Osterlund stated that the transfer mode used depends on circumstances such as the amount of data to be transferred and the hardware available. Although he stated that DMA was "potentially...always faster," Osterlund testified in his deposition that there are actually some situations in which it was "faster not to use DMA." When asked about commercial embodiments of the invention, Osterlund testified that, while DMA was utilized, there was "always a little bit of mixture" of data transfer modes.

Plaintiff also maintains that the fourth piece of evidence is entirely irrelevant to Osterlund's state of mind on April 13, 1987, the date the '969 application was filed.

While defendants do not dispute the fact that other modes of data transfer may have been appropriate under certain circumstances, they rightly point out that Osterlund's testimony regarding those other modes of data transfer does not explain his claim that, on April 13, 1987, he didn't believe DMA was the best mode of data transfer, when, on June 16, 1988 (the date on which the '914 application was filed), he clearly believed that it was

indeed "preferable." His testimony regarding the different types of data transfer does not in any way suggest that those other methods ceased to become available or appropriate in June of 1988. Thus, while plaintiff is correct that the '914 patent does not speak to the critical date, April 13, 1987, it fails to recognize that Osterlund's testimony also does not target that date. Defendants are correct that the logical conclusion to draw from this evidence is that Osterlund believed in 1988 and in 1987 that, although some circumstances warranted the use of different modes of data transfer, DMA was in general the best mode.

Nonetheless, defendants have the heavy burden of establishing Osterlund's state of mind by clear and convincing evidence. None of the evidence they have set forth is direct evidence that Osterlund believed DMA to be the best mode in April of 1987. Osterlund's statements that DMA was "potentially...always faster," his use of DMA in a prototype and his depiction of DMA in a draft of the patent application are all consistent with plaintiff's theory that Osterlund believed that DMA was but one of several acceptable modes of data transfer. The statement in the '914 patent, while suggestive, simply does not speak to the critical time period. Thus, this Court cannot conclude that every reasonable juror would be compelled to find that Osterlund believed DMA to be the best mode in April, 1987. See Evans Med. Ltd. v. American Cyanamid Co., 11 F.Supp.2d 338,

360 (S.D.N.Y. 1998), aff'd, Evans Med. Ltd. v. American Cyanamid Co., ---F.3d---, 1999 WL 594310 (Fed. Cir. 1999)(absence of direct evidence as to inventor's state of mind created a genuine issue of material fact in a best mode inquiry, even where the conclusion that he contemplated a best mode was "virtually inescapable"). See also Hahn v. Sargent, 523 F.2d 461, 468 (1st Cir. 1975)("State of mind is difficult to prove and great circumspection is required where summary judgment is sought on an issue involving state of mind.").

Summary judgment on the best mode issue, therefore, must be denied on the basis of the existence of a genuine issue of material fact as to the first prong of the Chemcast test.

#### Adequacy of Disclosure

Even if defendants could establish that Osterlund contemplated DMA as the best mode of data transfer, there remains a genuine issue of material fact with regard to the adequacy of disclosure.

It is clear that the '969 patent does not disclose DMA on its face. The '969 patent obviously depicts the data to be stored flowing from the host computer to the buffer memory through a microprocessor for individual processing and from the buffer memory to the optical disk again through a microprocessor. The same process is followed in reverse to retrieve data. Clearly, this does not depict DMA because, by definition, DMA

requires data to flow directly in and out of memory, without the need for individual byte processing.

Plaintiff, however, offers two related reasons why a fact finder could, nevertheless, determine that the best mode was adequately disclosed.

First, plaintiff argues that DMA was implicitly disclosed in the patent by reference to the "Motorola Model 68010" microprocessor ("Motorola chip"), such that one of ordinary skill in the art would have known to use it. Alternatively, relying on Young Dental, 112 F.3d at 1144, plaintiff argues that disclosure of DMA is not required at all, as it was such a "routine detail" that one of ordinary skill in the industry would have known to use it. To support both contentions, plaintiff cites to the affidavits of David Newman, Ph.D. (in electrical engineering), J.D. and Frederick Blades, an electrical engineering consultant. Both Newman and Blades state in their affidavits that one of ordinary skill in the art would have reviewed the "Technical Summary" pertaining to the Motorola chip and "would there find explicit suggestion of the use of DMA to speed the data transfer process." In addition, both men state that "DMA is [and was at the time the application was filed] a very widely used and entirely conventional technique" for data transfer. Finally, Newman states that the conventionality of DMA is evidenced by the fact that it was and still is found in standard textbooks and

taught to undergraduate electrical engineering majors.

Defendants offer no affirmative evidence to refute either of these claims.

Instead, defendants rely on Dana, 860 F.2d at 419, to argue that plaintiff's reference to the prior art is not sufficient as a matter of law to create a genuine issue of material fact as to whether DMA was adequately disclosed. In Dana, the alleged infringer of a patent for a valve stem seal argued that the patent failed to satisfy the best mode requirement because it did not disclose a fluoride treatment that was necessary for satisfactory performance of the seal. Id. at 417. To resist a motion for judgment notwithstanding the verdict, the patent holder produced evidence that fluoride treatment of such seals was known to those of ordinary skill in the art. Id. at 418-419. In finding a best mode violation, the Federal Circuit stated:

The best mode requirement is not satisfied by reference to the level of skill in the art, but entails a comparison of the facts known to the inventor regarding the invention at the time the application was filed and the disclosure in the specification....Accordingly, Dana's argument that the best mode requirement may be met solely by reference to what was known in the prior art is incorrect.

Id. at 419.

Defendants' reliance on Dana is misplaced. Plaintiff's first argument is not relying "solely" on what was known in the prior art. Instead, plaintiff claims that, because of what was

disclosed in the patent, one of ordinary skill in the art could have determined that DMA was the best mode of data transfer. Federal Circuit cases since Dana establish that plaintiff's argument is appropriate to attempt to establish adequate disclosure. Specifically, in concluding that "the level of skill in the art is a relevant and necessary consideration in assessing the adequacy of a best mode disclosure," the Chemcast Court cited Dana for the proposition that "whether a best mode disclosure is adequate...is a function of not only what the inventor knew but also how one skilled in the art would have understood his disclosure." Chemcast, 913 F.2d at 927 (finding no explicit or implicit disclosure of the best mode of practicing the invention to one of ordinary skill in the art). See also U.S. Gypsum Co. v. National Gypsum Co., 74 F.3d 1209, 1213-1214 (Fed. Cir. 1996)(finding no issue of material fact that patent in issue did not disclose the best mode "in a way that would enable those having ordinary skill in the art to practice it"); Transco, 38 F.3d at 562(finding an issue of material fact as to whether the patent in issue was "sufficient to have apprised a skilled artisan of what was needed to practice the best mode of the invention").

Other district courts have similarly recognized the legitimacy of such arguments. See Harso Corp. v. Kerkam, Stowell, Kondracki & Clarke, P.C., 965 F.Supp. 580, 585-587

(M.D.Pa. 1997)(distinguishing Dana because patent holder specifically referenced the patent's disclosure and recognizing that a best mode disclosure "need only be adequate enough to allow one skilled in the art to make the best mode"); Advanced Semiconductor Materials Am., Inc. v. Applied Materials, Inc., 922 F.Supp. 1439, 1447-1449 (N.D.Ca. 1996)(finding no issue of material fact that patent in issue did not explicitly or implicitly disclose the best mode to one skilled in the art); McNeil-PPC, Inc. v. Procter & Gamble Co., 767 F.Supp. 1081, 1084 (D.Colo. 1991)(finding issue of material fact as to whether patent "is sufficiently descriptive that one skilled in the art would be able to practice the best mode"). Thus, if the '969 patent's reference to the Motorola chip would have lead one skilled in the art to utilize DMA, then the disclosure will be deemed adequate.

Plaintiff's alternative argument does rely solely on what is known in the prior art and thus might at first seem to run afoul of Dana. However, in a series of cases following Dana and Chemcast, the Federal Circuit has synthesized the two, although not explicitly acknowledging as much, and developed the idea of "routine details" noted above. Such details, although they relate to the nature and quality of the invention, as did the fluoride treatment in Dana, do not require disclosure because they are "apparent to one of ordinary skill in the art." Young

Dental, 112 F.3d at 1144; Great Northern Corp. v. Henry Molded Prod., Inc., 94 F.3d 1569, 1572 (Fed. Cir. 1996); Wahl, 950 F.2d at 1584. See also Sigma-Tau Industrie Farmaceutiche Riunite v. Lonza, Ltd., ---F.Supp.2d---, 1999 WL 705914, \*12 (D.D.C. 1999)(finding an issue of material fact as to whether the alleged "best mode" constituted a routine detail, such that disclosure was not necessary, where expert testimony differed on the issue). Thus, if using DMA for data transfer was apparent to one of ordinary skill in the industry, such that it was a "routine detail," then disclosure will again be deemed adequate, as no disclosure is actually required.

For the preceding reasons, Dana alone cannot be used to defeat either of plaintiff's arguments on the second prong of the Chemcast test. Since plaintiff has produced evidence that would at least support the factual findings it suggests and defendants have not produced any evidence to the contrary, summary judgment for the defendants on the best mode issue must be denied on the basis of the existence of a genuine issue of material fact as to the adequacy of disclosure.

#### **B. Enablement**

In addition to requiring that the patent set forth the best mode of carrying out the invention, paragraph one of § 112 also requires that "[t]he specification shall contain a written description of the invention, and of the manner and process of

making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains...to make and use the same." 35 U.S.C. § 112 (1994). This is known as the "enablement" requirement. Although not specifically stated in the statute, the Federal Circuit has specified that the description must enable one skilled in the art to make and use the full scope of the claimed invention without "undue experimentation." In re Wright, 999 F.2d 1557, 1561 (Fed. Cir. 1993).

Defendants claim that the '969 patent runs afoul of this requirement because the description of the high-level directory function of the invention is insufficient to enable one skilled in the art to make and use the invention without undue experimentation. Defendants focus their arguments, however, not on the description in the issued patent, which contains the changes made in the Substitute Specification, but on the description in the April 13th application. To avoid including the Substitute Specification in the enablement analysis, defendants assert that "enablement is determined *at the time the patent application is filed.*" Defs'. New Matter and Enablement Motion at 22 (emphasis theirs). However, the precedent defendants cite for this proposition actually teaches that, in an enablement inquiry, *the ordinary skill of the art* must be determined at the time the application is filed. Wright, 999

F.2d at 1563 n.8 ("the issue is not what the state of the art is today or what a skilled artisan today would believe, but rather what the state of the art was [at the time the patent application was filed] and what a skilled artisan would have believed at that time."); In re Koller, 613 F.2d 819, 824 (C.C.P.A. 1980)("language in a specification is to be understood for what it meant to one having ordinary skill in the art at the time the application was filed"); In re Glass, 492 F.2d 1228, 1232 (C.C.P.A. 1974)("If information to be found only in subsequent publications is needed for such enablement, it cannot be said that the disclosure in the application evidences a completed invention.").

Thus, defendants cannot rely upon this proposition to focus their enablement inquiry on the description in the April 13th application rather than the description in the patent as issued.

Defendants, however, can focus the enablement inquiry on the April 13th application if, and only if, the high-level directory description in the Substitute Specification constituted impermissible "new matter" in violation of 35 U.S.C. § 132, which states that "[n]o amendment shall introduce new matter into the disclosure of the invention." 35 U.S.C. § 132 (1994). An amendment will not be considered "new matter" merely because it "clarif[ies] or make[s] definite that which was expressly or inherently disclosed in the parent application or which

conform[s] the specification to matter originally disclosed in the drawings or claims." Stearn v. Superior Distrib. Co., 674 F.2d 539, 544 (6th Cir. 1982). The test for inherency "is whether a person skilled in the relevant art, reading [the original] application, would have found...[inherency] ... and would not have to undertake any independent experimentation in order to do so." Id. See also O'Hara Mfg. Ltd. v. Eli Lilly & Co., 1986 WL 8391, \*4-6 (N.D.Ill. 1986)(denying summary judgment upon finding of issue of material fact as to whether amendments to patent specification constituted "new matter," where expert testimony conflicted as to whether the amendments were inherent in original application).

The structure of this case is parallel to that in Brooktree Corp. v. Advanced Micro Devices, Inc., 977 F.2d 1555, 1574-1575 (Fed. Cir. 1992). In that case, plaintiff was suing defendant for allegedly infringing on its patent for a static random access memory (SRAM) cell used in its semiconductor chips. Id. at 1561. The patent application as filed did not state the cell's use in video display; however, an amendment was proposed and accepted during prosecution of the patent which added the words "for video display" to the preamble of each claim in the issued patent. Id. at 1573-1574. Defendant claimed that the words "for video display" constituted impermissible new matter and thus could not be considered, thereby rendering the patent invalid for failing

to comply with the description, enablement and best mode requirements of 35 U.S.C. § 112. Id. at 1574. The Federal Circuit stated that the "controlling question was whether the words 'for video display' were new matter." Id. When the Court affirmed the jury finding that the words were not impermissible new matter, the enablement question was "mooted" because the defendant had not argued that the patent as issued failed the enablement requirement. Id. at 1575. Similarly, here, if the high-level directory description changes contained in the Substitute Specification are considered impermissible new matter, the changes should be disregarded in the enablement inquiry, focusing the inquiry on the April 13th application; however, if the changes do not constitute new matter, defendants' focus on the April 13th application will be moot, as the enablement inquiry will be focused on the patent as issued.

"Whether particular technological information is 'new matter' depends on the facts of the case: the nature of the disclosure, the state of the art, and the nature of the added matter." Id. at 1574. In addition, a determination by the PTO that an amendment does not constitute new matter, such as the one in this case, is "entitled to an especially weighty presumption of correctness." Id. at 1574-1575 (quoting In re Smythe, 480 F.2d 1376, 1385 n.5 (C.C.P.A. 1973)).

Defendants have not offered any evidence that the high-level

directory description contained in the Substitute Specification should be considered new matter, except for their observation that the Substitute Specification adds a good deal of language to that description. They try to distinguish Brooktree by contrasting the controversial amendment in that case, which only added three words. Clearly, this observation, without more, does not necessitate a finding that the changes to the high-level directory description contained in the Substitute Specification constitute impermissible new matter. Id. See also In re Oda, 443 F.2d 1200, 1203 (C.C.P.A. 1971) ("In a sense, anything inserted in a specification that was not there before is new to the specification but that does not necessarily mean it is prohibited as 'new matter.'"). Plaintiff, on the other hand, points to the affidavits of Newman and Blades, which state that one of ordinary skill in the art would have found the high-level directory description changes contained in the Substitute Specification to be inherent in the original application and thus no new matter was added. This evidence clearly establishes a genuine issue of material fact with regard to whether the changes to the high-level directory description contained in the Substitute Specification are impermissible new matter. Since defendants have not established this fact, they cannot focus the enablement inquiry on the April 13th application.

As for the issued patent, defendants have not made any

arguments that the high-level directory description is nonenabling, save for the bald assertion that the description is "still inadequate under section 112." Defs'. New Matter and Enablement Motion at 26. Such a conclusory announcement cannot possibly comprise the clear and convincing evidence needed for defendants to prevail on their invalidity defense. Thus, summary judgment on the enablement issue must be denied.

### **C. New Matter**

In addition to the implicit new matter arguments raised above, defendants explicitly argue that the Substitute Specification changed the invention in two material ways, thus violating the new matter prohibition of § 132. First, defendants assert that the April 13th application defined an "embedded directory" as limited to a portion of data on a complete tape, while the Substitute Specification made no such limitation. Second, defendants assert that the April 13th application equated a "file" to an entire collection of magnetic tape information, while the Substitute Specification made no such correlation.

Defendants, however, do not argue that the patent is invalid as a result of the alleged new matter; rather, defendants have framed this as a claim construction issue.

A patent infringement analysis "entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing

the properly construed claims to the device accused of infringing." Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed. Cir. 1995)(citation omitted), aff'd, Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996). The first step, claim construction, is a matter of law. See Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1455-1456 (Fed. Cir. 1998)(en banc). The second step is a factual inquiry. See North Am. Vaccine, Inc. v. American Cyanamid Co., 7 F.3d 1571, 1574 (Fed. Cir. 1993). In construing the claims as a matter of law, the specification acts as a dictionary to the claim terms. Markman, 52 F.3d at 979.

Thus, defendants seek to establish that the modified descriptions of embedded directories and files contained in the Substitute Specification are new matter, such that when the claims containing those terms are construed, the new descriptions cannot be used to aid construction. See, e.g., Dresser Indus., Inc. v. U.S., 432 F.2d 787, 792-93 (Ct. Cl. 1970); Schering Corp. v. Amgen, Inc., 25 F.Supp.2d 293, 296 (D.Del. 1998). The defendants' ultimate goal, of course, is to establish a claim construction that will not support a finding of infringement in the second step of the analysis.

Interestingly, though, defendants do not request a particular claim construction, nor do they suggest that resolution of the new matter issue will compel a particular claim

construction. See Defs'. New Matter and Enablement Motion at 19 n.17 ("In the event the added language is not determined to be new matter, defendants would seek a claim construction consistent with the [April 13] specification"). Defendants merely ask this Court to decide the new matter issue. Defendants argue that since claim construction is a matter of law, the new matter issue presented in their motion can also be decided as a matter of law since the purpose of its resolution is to aid in claim construction. See Cybor, 138 F.3d at 1456 ("[W]e therefore reaffirm that, as a purely legal question, we review claim construction *de novo* on appeal *including any allegedly fact-based questions relating to claim construction.*")(emphasis added).

The issue of whether a new matter determination necessary for claim construction, after Markman and Cybor, is for the judge or the jury is debatable. See, e.g., Amgen, 25 F.Supp.2d at 296 (discussing the effects of Markman and Cybor on a new matter determination for the purpose of claim construction, concluding that it should be decided as a matter of law), appeal docketed, No. 99-1251 (Fed. Cir. 1999). But see Brooktree, 977 F.2d at 1574 (recognizing the highly factual nature of the new matter inquiry). However, even if this Court can decide the new matter issue as a matter of law, it need not do so at this stage of the proceedings. The new matter issue will not be dispositive of any element of the case -- it will only establish one

consideration for claim construction, which the parties have not yet begun to address. Thus, this Court finds that the issue should not be resolved on this motion for summary judgment, but that it should be resolved during the claim construction phase of the infringement inquiry, should the case reach that point.

V. Conclusion

For the reasons set forth above, both of defendants' motions for partial summary judgment are denied.

It is so ordered.

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Ronald R. Lagueux  
Chief Judge  
November ,1999