

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA**

LUCENT TECHNOLOGIES, INC. and  
MULTIMEDIA PATENT TRUST

Plaintiffs and Counter-  
Defendants,

vs.

GATEWAY, INC., *et al.*

Defendants and Counterclaimants.

and

MICROSOFT CORPORATION,

Intervenor and Counterclaimant

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AND RELATED CLAIMS

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CASE NO. 07-CV-2000-H (CAB)  
consisting of matters severed from  
the consolidated cases:

CASE NO. 02-CV-2060-B (CAB)

CASE NO. 03-CV-0699-B (CAB)

CASE NO. 03-CV-1108-B (CAB)

ORDER DENYING MOTIONS  
FOR SUMMARY JUDGMENT  
OF INVALIDITY OF UNITED  
STATES PATENT NUMBERS  
4,958,226; 4,383,272; 5,347,295;  
4,763,356; 4,439,759

[Doc. Nos. 66, 68, 69, 70, 71, 72,  
83, and 85.]

On November 30, 2007, defendants and counterclaimants Gateway, Inc. and related entities ("Gateway"), Microsoft Corp. ("Microsoft"), and Dell Inc. ("Dell" and collectively "Defendants") brought various motions for summary judgment of invalidity with respect to United States Patent Numbers 4,958,226 ("Haskell '226"); 4,383,272 ("Netravali '272"); 5,347,295 ("Agulnick '295"); 4,763,356 ("Day '356"); and 4,439,759 ("Fleming '759"). (Doc. Nos. 66, 68-72, 83, 85.) More specifically, Gateway brought motions regarding the Haskell '226 and Fleming '759 patents. (Doc. Nos. 66, 70.) Dell brought motions regarding the Haskell '226, Netravali '272, Day

1 '356, and Fleming '759 patents. (Doc. Nos. 68-69, 71-72.) Microsoft brought motions  
2 regarding the Day '356 and Agulnick '295 patents. (Doc. Nos. 83, 85.) Gateway  
3 joined all of Dell's and Microsoft's motions. (Doc. Nos. 75, 86.) Dell joined all of  
4 Gateway's and Microsoft's motions. (Doc. Nos. 91-92.) Microsoft joined Dell's and  
5 Gateway's motions regarding the Haskell '226 and Day '356 patents. (Doc. No. 94.)

6 On December 14, 2007, Multimedia Patent Trust ("MPT") submitted responses  
7 in opposition to the motions regarding the Haskell '226 and Netravali '272 patents.  
8 (Doc. Nos. 139-40.) That same day, Lucent Technologies, Inc. ("Lucent") submitted  
9 responses in opposition to the motions regarding the Agulnick '295, Day '356, and  
10 Fleming '759 patents. (Doc. Nos. 146-47, 153, 157.) On December 21, 2007,  
11 Defendants submitted reply briefs in support of their motions. (Doc. Nos. 173, 176-77,  
12 181, 183, 185-88.)

13 On January 4, 2008, the Court permitted Plaintiffs to supplement the record with  
14 information from recent discovery relevant to the Day '356 patent. (Doc. Nos. 208-09.)  
15 On January 7, 2008, with the Court's approval, Defendants filed supplemental briefs  
16 addressing this new filing. (Doc. Nos. 213-16.)

17 The Court held a hearing on these motions on January 8, 2008. Robert A.  
18 Appleby, Paul A. Bondor, Gregory F. Corbett, Eric D. Hayes, James E. Marina, and  
19 Michael P. Stadnick appeared on behalf of Plaintiffs. Joel Freed and Joseph A.  
20 Micallef appeared for Dell. Jonathan D. Baker, Andrew Thomases, and Darren  
21 Mareiniss appeared for Gateway. Juanita E. Brooks, Lara S. Garner, John E. Gartman,  
22 Christopher S. Marchese, and Cathy Reese appeared for Microsoft. At the hearing,  
23 Defendants offered to submit two motions on the papers: Dell's motion on the Day  
24 '356 patent and Microsoft's motion on the Agulnick '295 patent. The parties argued  
25 the remaining motions at the hearing.

26 For the reasons set forth below, the Court denies Defendants' motions for partial  
27 summary judgment of obviousness.

28 / / /

## **Legal Standard**

### **I. Summary Judgment Standard**

Under Rule 56(c) of the Federal Rules of Civil Procedure, a court may grant summary judgment upon a claim “if the pleadings, the discovery and disclosure materials on file, and any affidavits show that there is no genuine issue as to any material fact and that the movant is entitled to judgment as a matter of law.” A party moving for summary judgment bears the initial burden of establishing the absence of a genuine issue of material fact for trial. See Devereaux v. Abbey, 263 F.3d 1070, 1076 (9th Cir. 2001) (citing Celotex Corp. v. Catrett, 477 U.S. 317, 323 (1986)). “On a motion for summary judgment the court examines the evidence in the light most favorable to the non-moving party.” Porter v. California Dep’t of Corrections, 419 F.3d 885, 887 n.1 (9th Cir. 2005). Because an issued patent is presumed valid, the burden of persuasion for invalidity is one of clear and convincing evidence See, e.g., Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd., 492 F.3d 1350, 1355 (Fed. Cir. 2007); Oakley, Inc. v. Sunglass Hut Int’l, 316 F.3d 1331, 1339 (Fed. Cir. 2003).

### **II. Standard for Obviousness**

The obviousness defense challenges a patent’s validity and, as noted above, it therefore requires proof by clear and convincing evidence. “The ultimate judgment of obviousness is a legal determination,” and summary judgment may be appropriate if “the content of the prior art, the scope of the patent claim, and the level of ordinary skill in the art are not in material dispute, and the obviousness of the claim is apparent in light of these factors.” KSR Int’l Co. v. Teleflex Inc., 550 U.S. \_\_\_, 127 S.Ct. 1727, 1745-46 (2007) (citing Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17 (1966)). Courts also consider secondary factors, including “‘commercial success, long felt but unsolved needs, failure of others, etc.’” which may dislodge a determination of obviousness. Id. at 1734 (quoting Graham, 353 U.S. at 17-18.) District courts weigh expert testimony to determine if there is an open question of fact, though a merely conclusory affidavit will not preclude summary judgment. See id. at 1745-46.

In KSR, the Supreme Court rejected a rigid application of the Federal Circuit’s

1 “teaching, suggestion, or motivation” test. See KSR Int’l Co., 127 S.Ct. at 1734 (citing  
2 Al-Site Corp. v. VSI Int’l, Inc., 174 F.3d 1308, 1323-24 (Fed. Cir. 1999), as an  
3 example of this test). Under this test, proof of obviousness required some teaching,  
4 suggestion, or motivation “found in the prior art, the nature of the problem, or the  
5 knowledge of a person having ordinary skill in the art.” Id. The Court determined that  
6 while “teaching, suggestion, or motivation” had “captured a helpful insight” into  
7 obviousness, it was incompatible with Supreme Court precedent when applied in a  
8 rigid and mandatory fashion. Id. at 1741. Although the Supreme Court overturned the  
9 Federal Circuit decision at issue, it observed that certain more recent decisions  
10 reflected a broader approach that may be consistent with its opinions. Id. at 1743  
11 (citing DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co., 464  
12 F.3d 1356, 1367 (Fed. Cir. 2006); Alza Corp. v. Mylan Labs., Inc., 464 F.3d 1286,  
13 1291 (Fed. Cir. 2006)).

14 When determining obviousness, “neither the particular motivation nor the  
15 avowed purpose of the patentee controls.” KSR Int’l Co., 127 S.Ct. at 1741-42.  
16 Instead, courts should determine whether the “objective reach of the claim”  
17 encompasses obvious subject matter. Id. at 1742. This may include “noting that there  
18 existed at the time of invention a known problem for which there was an obvious  
19 solution encompassed by the patent’s claims.” Id. “[T]he results of ordinary  
20 innovation are not the subject of exclusive rights under the patent laws.” Id. at 1746.  
21 However, courts must avoid “falling prey to hindsight bias,” “*ex post* reasoning,” and  
22 “[r]igid preventative rules that deny factfinders recourse to common sense.” Id. at  
23 1742-43. Furthermore, “when the prior art teaches away from combining certain  
24 known elements, discovery of a successful means of combining them is more likely to  
25 be nonobvious.” Id. at 1740.

26 “A patent composed of several elements is not proved obvious merely by  
27 demonstrating that each of its elements was, independently, known in the prior art.”  
28 KSR Int’l Co., 127 S.Ct. at 1740. A combination is likely nonobvious if the elements  
work together “in an unexpected and fruitful manner.” Id. at 1740. In contrast, a

1 patent is likely to be obvious if it merely yields a predictable result by substituting one  
2 element for another known in the field. Id.

### 3 Analysis of the Patents

#### 4 **I. Haskell ‘226**

##### 5 **A. The Patent**

6 On September 18, 1990, the United States Patent and Trademark Office (“PTO”)  
7 issued the Haskell ‘226 patent, entitled “Conditional Motion Compensated  
8 Interpolation of Digital Motion Video,” to inventors Barin G. Haskell (“Haskell”) and  
9 Atul Puri. The application was filed on September 27, 1989. The patent relates  
10 generally to the encoding and decoding of digital video signals of moving images in  
11 order to reduce the bandwidth required to transmit the images.

12 Independent claim 12 is the only one at issue with this patent, and it claims:

13 A circuit responsive to coded video signals where the video signals  
14 comprise successive frames and each frame includes a plurality of blocks  
15 and where the coded video signals comprise codes that describe  
deviations from approximated blocks and codes that describe deviations  
from interpolated blocks, comprising:

16 means for developing block approximations from said codes that describe  
deviations from approximated blocks; and

17 means responsive to said block approximations and to said codes that  
18 describe deviations from interpolated blocks to developed said  
interpolated blocks.

19 (Haskell ‘226 6:55-66.) The Court previously determined that the structures  
20 corresponding to the two means plus function elements of this claim are, respectively:

21 Decoder 22, DCT<sup>-1</sup> 24, Adder 27, and Shift Circuit 26, including all inputs  
22 and outputs of these elements related to the claimed function (*See* Fig. 2;  
Col. 4, lines 3-10, 26-32, Col. 4, lines 63 to Col. 5, line 7).

23 and

24 Decoder 25, DCT<sup>-1</sup> 34, Adder 35, and Shift Circuits 31 and 39, and  
25 Averager 32, including all inputs and outputs of these elements related to  
26 the claimed function (*See* Fig. 2; Col. 4, lines 63-65; Col. 5, lines 7-23  
[description of the structure and inputs that correspond to these elements  
is at Col. 4, lines 38-50]).

27 (Order Construing Claims for Haskell ‘226, Case No. 02-CV-2060, Doc. No. 311 at  
28 4-5.)

**B. Alleged Prior Art and Other Evidence of Obviousness**

Defendants assert that claim 12 is obvious in light of a group of patents obtained by inventors at the PictureTel Corporation in the mid- to late-1980s, referred to collectively as the “PictureTel patents.” Defendants’ expert Edward J. Delp III identifies this extensive group of patents, which cross-reference one another and involve interrelated subject matter, in his report regarding the obviousness of Haskell ‘226 and Netravali ‘272 (“the video patents”). (See Decl. James S. Blackburn Supp. Dell’s Mots. Summ. J. Invalidity (“Blackburn Decl.”) Ex. 18 at 888-891.) The PictureTel patents disclose a variety of video decoding and encoding techniques, including techniques for motion compensation and interpolation. (See generally Blackburn Decl. Exs. 31-37 (various PictureTel patents).)

As early as May 6, 1988, and no later than June 10, 1988, Haskell published a video coding textbook called *Digital Pictures, Representation and Compression* (“Digital Pictures”) (Ex. 21; Ex. 22 at 1100-01; Ex. 26 at 1194-96.) The text describes various interpolation schemes and observes that:

In this as well as other interpolation schemes, since at times the interpolation may be inaccurate, techniques have been devised where the quality of interpolation is checked at the transmitter, and if the interpolation error is larger than a threshold, side information is transmitted to the receiver. It appears that due to unavoidable inaccuracies of the displacement estimator (e.g. complex translational and rotational motion) and the segmentation process, such side information would be necessary to reduce artifacts that may otherwise be introduced due to faulty interpolation.

(Id. Ex. 21 at 1093). The book also discusses the application of the Discrete Cosine Transform (“DCT”), which is used in the Haskell ‘226 patent. Id. at 1092.

Thomas Micke wrote a 1986 Master’s Thesis at the University of Hanover Institut für Theoretische Nachrichtentechnik und Informationsverarbeitung (“Institute for Theoretical Communications Engineering and Information Processing” or “TNT”) entitled “Vergleich eines prädiktiven und eines interpolativen bewegungskompensierenden Codiervorgfahrens für Fernsehbildsignale” (“Comparison of a Predictive and an Interpolative Motion Compensating Coding Method for Television Video Signals”). (See Blackburn Decl. Ex. 23 (translated version of



1 thesis).) The Micke Thesis describes a general theoretical framework for combining  
2 “the DPCM method with motion compensating prediction” with “motion compensating  
3 interpolation of the video signal” into a single method called “motion compensating  
4 interpolation error coding.” (Id. at 1105.) The thesis examined the viability of these  
5 methods using a theoretical computer model, though it did not describe a specific  
6 implementation outside the simulation context.

7       There is conflicting testimony regarding the availability and accessibility of the  
8 Micke Thesis. Defendants offer the declaration of Thomas Wehberg, Head of  
9 Administration at the University of Hanover’s Information Technology Laboratory and  
10 former administrator for TNT and its library. (Blackburn Decl. Ex. 38.) He states that  
11 the library would have been open to the public in 1986 and that Micke’s thesis would  
12 have been shelved and indexed by name and title in 1986. (Id.) Plaintiffs’ expert  
13 Bernd Girod, who worked at TNT as a member of the research staff and was aware of  
14 Micke’s work, asserts that the TNT library was not open to the public and did not index  
15 its theses by subject matter. (Decl. Bernd Girod Supp. MPT’s Opp’n Dell’s Video  
16 Coding Summ. J. Mots. (“Girod Opp’n Decl.”) ¶¶ 82-83.) Girod cited the Micke  
17 Thesis in a 1987 article and told other colleagues about it. (Blackburn Decl. Ex. 20 at  
18 1045.1-45.9; Ex. 39 at 1444.)

19       Defendants offer several papers which they claim disclose the idea of  
20 transmitting both interpolation error and prediction error in the same system. N.K.  
21 Lodge authored “A Hybrid Interpolative and Predictive Code for the Embedded  
22 Transmission of Broadcast Quality Television Pictures” in a paper from the June 1986  
23 Second International Conference on Image Processing and its Applications.  
24 (Blackburn Decl. Ex. 28.) Masayuki Tanimoto and Taskashi Mori wrote “A Hybrid  
25 Scheme of Subsampled DPCM and Interpolative DPCM for the HDTV Coding” for the  
26 July 1987 Transactions of the Institute of Electronics, Information and  
27 Communications Engineers. (Id. Ex. 29.) Defendants also offer Document #81 from  
28 a CCITT Specialist Group on Coding for Visual Telephony, entitled “Comments on  
Conditional Motion Compensated Frame Interpolation” and dated March, 1986. (Id.

1 Ex. 30.) Plaintiffs counter that there is no evidence that Document #81 was available,  
2 outside confidential group meetings, early enough for it to be prior art. (See Girod  
3 Opp'n Decl. ¶ 76.)

4 **C. Person of Ordinary Skill**

5 The parties have not disputed the level of ordinary skill in the art, at least as it  
6 relates to this motion. For the present purposes, the Court applies the statement by  
7 Plaintiffs' expert that "a person of ordinary skill in the art of video compression  
8 throughout the 1980s would have had at least a Bachelor of Science degree in electrical  
9 engineering or a related field and 2 years experience working in the area of video  
10 compression systems." (Girod Opp'n Decl. ¶ 21.)

11 **D. Discussion**

12 Plaintiffs first argue that Girod conceded that claim 12 does not require "coding  
13 of interpolation errors," suggesting that Girod used "coding" in this context to mean  
14 "decoding." The Court disagrees. The relevant portion of Girod's deposition, viewed  
15 in the light most favorable to Plaintiffs, reveals that Defendants were ambiguous in  
16 their use of the term "coding" during the contested questioning. Although Girod stated  
17 that "coding" was not required, Defendants' questions failed to distinguish "encoding"  
18 from "decoding," and Plaintiffs raised objections to this effect. (See Blackburn Decl.  
19 Ex. 20 at 1083-85.) For summary judgment purposes, the point was not conceded.

20 Defendants next argue that, even if the patent requires blockwise decoding of  
21 interpolation error, it would have been obvious, in light of the prior art, to modify the  
22 PictureTel patents to include this. Again, Plaintiffs fail to meet their burden on  
23 summary judgment. In particular, the Court agrees that Defendants' expert Delp has  
24 failed to establish that the structure corresponding to the "means responsive to . . .  
25 codes that describe deviations from interpolated blocks . . . ." would have been obvious  
26 in light of the PictureTel patents, alone or in combination with the other prior art. (See  
27 Blackburn Decl. Ex. 18 (Delp report regarding obviousness).) The claim limitation is  
28 the overall structure, not each element taken individually. See Odetics Inc. v. Storage  
Tech. Corp., 185 F.3d 1259, 1268 (Fed. Cir. 1999). Although Defendants may have



1 established that certain individual structures were known in the prior art, Plaintiffs have  
 2 not met their burden to show why the particular structure would have been obvious,  
 3 taken as a whole. As stated by Plaintiffs' expert, many video coding techniques were  
 4 known at the time, and viewing this argument in a favorable light, it would have taken  
 5 "more than common sense and knowledge of the prior art" to settle on the particular  
 6 approach of claim 12, out of the many possibilities. (Girod Opp'n Decl. ¶ 53.) This  
 7 assertion by Girod is not merely conclusory, as he offers various examples and  
 8 explanations of his position. The dueling experts' contentions present material  
 9 questions of fact.

10 These reasons are enough to determine that summary judgment of obviousness  
 11 is not appropriate for claim 12 of the Haskell '226 patent. The Court also notes that  
 12 there are factual disputes over whether the Micke Thesis or Document #81 are prior art.  
 13 Even if a document is not prior art, a Court may consider it for motivation to combine,  
 14 at least to the extent that motivation to combine is treated flexibly under KSR.  
 15 See Nat'l Steel Car, Ltd. v. Canadian Pac. Ry., Ltd., 357 F.3d 1319, 1337-38 (Fed. Cir.  
 16 2004) (holding that evidence need not reach the level of prior art to be considered for  
 17 motivation to combine).

18 The Court denies Defendants' motion for summary judgment regarding the  
 19 Haskell '226 patent.<sup>1</sup>

## 20 **II. Netravali '272**

### 21 **A. The Patent**

22 On May 10, 1983, the PTO issued the Netravali '272 patent, entitled "Video  
 23 Signal Interpolation Using Motion Estimation," to inventors Arun N. Netravali and D.  
 24 Robbins. The application was filed on April 13, 1981. The Netravali patent relates  
 25 generally to the interpolation of video signals using motion estimation. Interpolation  
 26 allows reconstruction of missing portions of a video signal from preceding and

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27  
 28 <sup>1</sup>For all of the patents considered here, the Court does not discuss Plaintiffs' objective evidence of secondary considerations supporting nonobviousness since the Court concludes that Defendants have not made an adequate initial showing on summary judgment that might be dislodged by such evidence.

1 succeeding images.

2 Independent claim 13 is the only claim at issue here. It states:

3 A method of estimating the intensities of elements (pels) in a picture in  
4 accordance with information defining the intensities of pels in preceding  
5 and succeeding versions of the picture including the step of determining  
6 by interpolation intensities of pels in said picture in accordance with  
7 intensities of pels in related locations in said preceding and succeeding  
8 versions,

9 characterized in that said determining step includes selecting said related  
10 locations as a function of the displacement of objects in said picture.

11 (Netravali '272 11:17-27.) The Court previously construed certain terms of this claim.  
12 Though it did not expressly determine whether any claim limitation was restricted to  
13 the analog or digital domains, the Court did state that "pels" are "[p]icture elements,  
14 also referred to as pixels." (See Superceding Order Construing Claims for Netravali  
15 '272, Case No. 02-CV-2060, Doc. No. 329 at 6.)

### 16 **B. Alleged Prior Art and Other Evidence of Obviousness**

17 A 1961 paper by Dennis Gabor and Peter Hill, entitled "Television Band  
18 Compression by Contour Interpolation" ("Gabor & Hill"), describes a system for using  
19 contour interpolation to reduce the bandwidth needed for television waveforms.  
20 (Blackburn Decl. Ex. 40.) The paper describes the implementation of its method in a  
21 "photo-mechanical picture transformer." (See id. at 1448-53.) Gabor & Hill disclosed  
22 their implementation in some detail. Their optical system relied on analog components  
23 such as prisms, beam splitters, and lenses. (See id.) The Court previously determined  
24 that there was a material question of fact regarding whether Gabor & Hill disclosed  
25 "determining by interpolation intensities of pels in said picture in accordance with  
26 intensities of pels in related locations." (Order Denying-in-Part Dell's Mot. Summ. J.  
27 on Netravali '272, Case No. 02-CV-2060, Doc. No. 1963 at 6.) The Court noted that  
28 the parties disputed whether "pels," as defined in the Netravali '272 patent, required  
both vertical and horizontal sampling, whereas Gabor & Hill involved continuous  
horizontal scan lines, a form of vertical sampling only. (Id. at 5-6.)

Defendants also point to the article by inventor Arun N. Netravali and John O.  
Limb in the March, 1980, Proceedings of IEEE, entitled "Picture Coding: A Review"

1 (“Picture Coding”). (Blackburn Decl. 41.) The paper provides a survey of various  
2 techniques used for digital video encoding. In a section on “Interpolative Coding,”  
3 Picture Coding describes a method “due to” the Gabor & Hill paper “which, for  
4 example, drops alternate fields and attempts to construct them by making movement  
5 of edges temporarily continuous, i.e. placing the edges in the dropped field at places  
6 dictated by their uniform motion between the adjacent transmitted field.” (*Id.* at 1490.)  
7 Picture Coding goes on to note that this technique “has been found to be rather difficult  
8 to implement, since it requires definition of edges and their motion.” (*Id.*) Picture  
9 Coding acknowledges the benefits of motion compensated prediction, noting that  
10 “more successful adaptive predictors for frame-to-frame coding are the ones that take  
11 into account motion of objects.” (*Id.* at 1475.) It goes on to list a number of known  
12 motion compensated prediction methods. (*Id.* at 1476.)

13 As late as September 30, 1979, Dr. Janswant Jain submitted his Ph.D.  
14 dissertation to the State University of New York at Buffalo (“SUNY”), entitled  
15 “Interframe Adaptive Data Compression Techniques for Images” (“Jain Dissertation”).  
16 (Blackburn Decl. Ex. 47.) The Court previously determined, on a motion for summary  
17 judgment of invalidity under section 102(g), that a computer executing an algorithm  
18 described in the Jain Dissertation would practice all elements of claim 13, but a  
19 material question of fact exists regarding when, if at all, Dr. Jain reduced this method  
20 to practice. (Order Denying Gateway’s Mot. Summ. J. ‘272 is Invalid Under § 102(g)  
21 and Granting Summ. Adjudication Certain Predicate Issues, Case No. 02-CV-2060,  
22 Doc. No. 1948 at 3-6.)

### 23 **C. Person of Ordinary Skill**

24 With this motion, there is some dispute regarding the level of a person of  
25 ordinary skill in the art, particularly whether Dr. Jain’s dissertation is representative of  
26 a person of ordinary skill. Here, the Court must view the evidence in the light most  
27 favorable to Plaintiffs, and Defendants have not offered evidence sufficient to require  
28 a standard other than that offered by Plaintiffs’ expert. Accordingly, as with the  
Haskell ‘226 patent, “a person of ordinary skill in the art of video compression

1 throughout the 1980s would have had at least a Bachelor of Science degree in electrical  
2 engineering or a related field and 2 years experience working in the area of video  
3 compression systems.” (Girod Opp’n Decl. ¶ 21.)

#### 4 **D. Discussion**

5 First, Defendants argue that the claim is not limited to digital implementation.  
6 The Court concludes that there is a material question of fact on this issue. Plaintiffs’  
7 expert Girod has opined that the “[d]igital video has pixels (or pels), while analog  
8 video does not” and that the phrase “determining by interpolation intensities of pels in  
9 said picture in accordance with intensities of pels in related locations” requires  
10 sampling in the temporal, vertical, and horizontal directions, as in the case of digital  
11 pixels but not the analog scan lines of Gabor & Hill. (Blackburn Decl. Ex. 19 at 1019-  
12 20.) Defendants argue that Girod stated in his deposition that the term “pel” was used  
13 in the context of analog video technology, but Girod elsewhere explains that a person  
14 of ordinary skill would understand “pel” to mean a pixel in the context of the Netravali  
15 patent. (*Id.* Ex 20 at 1065-66; Girod Opp’n Decl. ¶¶ 38-41.) Viewed in the light most  
16 favorable to Plaintiffs, this presents a question of fact regarding whether the patent’s  
17 use of “pel” implies a digital context involving pixels. The Court already reached an  
18 equivalent conclusion in the context of other invalidity arguments. (Order Denying-in-  
19 Part Dell’s Mot. Summ. J. ‘272, Case No. 02-CV-2060, Doc. No. 1967 at 6.)

20 Defendants next contend that, even if claim 13 is limited to digital  
21 implementation, it would have been obvious in light of Gabor & Hill. To support their  
22 argument, they point to Picture Coding and the references discussed there. Although  
23 Picture Coding indicates that Gabor & Hill had some relevance in the context of digital  
24 video coding, it noted that the technique involved was difficult to implement.  
25 (Blackburn Decl. Ex. 41 at 1490.) Plaintiffs further argue that, even in light of Picture  
26 Coding, it would not have been obvious to modify Gabor & Hill with respect to at least  
27 two of the claim 13 limitations: the limitation to “pels” requiring horizontal sampling  
28 and the “related locations” limitation. The Court concludes that both arguments  
present material questions of fact.

1 First, Defendants have failed to meet their burden to show that any reasonable  
2 juror would determine by clear and convincing evidence that it would have been  
3 obvious to modify Gabor & Hill to operate on digital pixels. Gabor & Hill discloses  
4 a complex photomechanical system for interpolation of scan lines, without any  
5 horizontal sampling. If “pels” in claim 13 requires horizontal sampling, Defendants  
6 have not adequately explained why it would be obvious to adapt the Gabor & Hill  
7 system to operate in this particular context.

8 Second, Defendants do not meet their burden with respect to the “related  
9 locations” limitation. Plaintiffs’ expert argues that since Gabor & Hill only examined  
10 changes in intensity along the horizontal direction, it does not interpolate intensities of  
11 pels in “related locations” in the same sense as claim 13, which he contends would  
12 require consideration of changes in intensity along the vertical and horizontal  
13 directions. (Girod Opp’n Decl. ¶ 43.) Furthermore, he contends, such related locations  
14 must be selected as a function of the displacement of objects in the picture, not merely  
15 the location of edges located only in the horizontal direction. As with the factual  
16 question regarding “pels,” there is a question of whether this process must encompass  
17 both the horizontal and vertical directions.

18 Defendants invocation of the Jain Dissertation does not require a different result.  
19 The parties dispute whether Dr. Jain’s activity is representative of a person of ordinary  
20 skill. At the time of the dissertation, he already had several years more education and  
21 experience than that required by Girod’s definition of a person of ordinary skill. The  
22 fact that one other highly skilled individual reached the same result around the same  
23 time does not require a determination that the invention was obvious, particularly  
24 where that person’s skills may exceed those of one of ordinary skill.

25 For these reasons, the Court denies Defendants’ motion regarding the Netravali  
26 ‘272 patent.

27 / / /

28 / / /

### **III. Agulnick ‘295**

#### **A. The Patent**

On September 13, 1994, the PTO issued the Agulnick ‘295 patent, entitled “Control of a Computer Through a Position-Sensed Stylus” to inventors Todd Agulnick, et al. The patent application was filed on October 31, 1990. Lucent asserts ten claims against Microsoft: 1, 3-4, 6, 12, 39-41, 43, and 46. 1, 39, and 41 are independent claims. Each of the asserted independent claims recites an apparatus for controlling a computer system, and each includes several means-plus-function elements. Roughly summarized, these elements define means for detecting the movements of a stylus tip in contact with a screen, for recognizing gestures, and for performing actions in response to these gestures. The dependent claims provide additional limitations such as detecting proximity of the stylus to the screen, detecting direction of motion, and displaying a shape representing the gesture made by a user.

#### **B. Alleged Prior Art and Other Evidence of Obviousness**

Microsoft asserts five pieces of prior art to support its argument that this patent is invalid due to obviousness. In the proceedings of the IEEE conference on Computer Graphics and Applications, dated March 1988, Arto Kankaanpaa published “FIDS—A Flat-Panel Interactive Display System,” which described a system developed at Nokia Information Systems. (Decl. Owais A. Siddiqui Supp. Microsoft’s Mot. Summ. J. Obviousness Agulnick ‘295 (“Owais ‘295 Decl.”) Ex. B (“FIDS”).) The FIDS paper describes a system using three elements: “a flat-panel display with a touch-sensitive screen and a simple penlike pointing device, an intelligent display controller . . . , and application software . . . .” (*Id.* at 71.) FIDS analyzed input to the touch-sensitive screen using a personal computer (PC) environment. (*See id.* Fig. 3.) The paper discusses various possible applications for FIDS, focusing on one that allows a user to edit text using gestures representing proof correction marks. (*See id.* at 75-80.) Michael L. Coleman’s 1969 paper, “Text Editing on a Graphic Display Device Using Hand-Drawn Proofreader’s Symbols,” printed in the Proceedings of the Second University of Illinois Conference on Computer Graphics, presents an earlier conception



1 of similar ideas, though it also contemplates assigning different meanings depending  
2 on the direction of gestures. (See Owais ‘295 Decl. Ex. F (“Coleman Paper”) Fig. 1  
3 and accompanying text.)

4 The PTO issued United States Patent Number 4,845,478 (“Taguchi Patent”),  
5 entitled “Coordinate Input Device with Display,” to Yoshinori Taguchi and Tsuguya  
6 Yamanami on July 4, 1989. (Owais ‘295 Decl. Ex. C.) The patent involves a tablet,  
7 with a superposed display, that contains a digitizer for detecting the position of a stylus  
8 in contact with or near the display. (Id. 1:56-2:35.) Microsoft also asserts United  
9 States Patent Number 5,060,135 (“Levine Patent”), entitled “Apparatus for  
10 Manipulating Documents in a Data Processing System Utilizing Reduced Images of  
11 Sheets of Information Which are Movable” and issued to inventors Stephen R. Levine,  
12 et. al., on October 22, 1991. (Owais ‘295 Decl. Ex. E.) The invention describes a data  
13 processing system designed to resemble an office desk and to allow a user to interact  
14 with the “desk” using a stylus. (See id. 2:10-34.) Microsoft draws particular attention  
15 to the patent’s disclosure of a “touch and lift” method of using the stylus. (Id. 2:34-42.)  
16 In the Levine patent, this gesture may select icons in the operating system or objects  
17 displayed within an application, including names or numbers. (Id. 15:54-61, 16:1-3,  
18 21:3-17, Fig. 4.)

19 Finally, Microsoft offers a paper by William Buxton from the December 1979  
20 Computer Music Journal, entitled “The Evolution of the SSSP Score Editing Tools.”  
21 (Owais ‘295 Decl. Ex. G.) The paper describes the evolution of a system for editing  
22 musical notation using tools including “a refresh, vector-drawing graphics display, a  
23 digitizing tablet with accompanying cursor box, and a slider box.” (Id. at 14.) The  
24 system includes a “Char-rec” technique in which different gestures correspond to  
25 different note values. (Id. Figs. 10-11 and accompanying text.)

### 26 **C. Person of Ordinary Skill**

27 For the present purposes, Microsoft accepts the definition of a person of ordinary  
28 skill as provided by Lucent’s expert, Jean Renard Ward. (See Owais ‘295 Decl. Ex. J  
¶¶ 26-28). Under this definition, one needs a suitable technical degree and personal

1 experience in a variety of subjects related to pen computing, including: stylus-based  
2 user interfaces, software and drivers related to handwriting capture, touch pad hardware  
3 design, the behavior of digitizing tablets, and mechanical design of handwriting sensors  
4 or instruments. (See id. ¶ 28 (listing requirements).)

#### 5 **D. Discussion**

6 With the Agulnick '295 patent, the parties only dispute the relationship of the  
7 claims to the prior art. Lucent does not challenge that the publications offered by  
8 Microsoft constitute prior art.

9 The Court concludes that Microsoft has failed to show that any reasonable juror  
10 would conclude that the asserted claims are obvious by clear and convincing evidence.  
11 See Takeda Chem. Indus., Ltd. 492 F.3d at 1355 (Fed. Cir. 2007). Microsoft argues  
12 that the FIDS paper may be combined with one or more of the other references to  
13 supply the elements of each claim. Even assuming the prior art discloses all required  
14 elements, Microsoft has not established that the particular combinations are obvious.  
15 In so holding, the Court does not rigidly apply the “teaching, suggestion, or  
16 motivation” test. KSR Int’l Co., 127 S.Ct. at 1741. The test provides “helpful insight,”  
17 and the Court may consider this insight in a flexible, common sense manner. Id. Here,  
18 Microsoft’s argument focuses on showing the presence of each element in the prior art  
19 while offering limited explanation of how the patent’s particular combinations would  
20 have been obvious to one of ordinary skill. Though Microsoft is correct that a  
21 “teaching, suggestion, or motivation” is no longer strictly required in the prior art, a  
22 defendant must do more than merely showing that every element is present in the prior  
23 art. KSR Int’l Co., 127 S.Ct. at 1740. Microsoft does not demonstrate the obviousness  
24 of these particular combinations to an extent sufficient to grant summary judgment.

25 Furthermore, there is a material question of fact regarding whether it would have  
26 been obvious to use a pen-position digitizer co-processor in lieu of the PC environment  
27 described in the FIDS paper. Each of the disputed claims includes a limitation related  
28 to determining the termination of a gesture. (See, e.g., Agulnick '295 18:5-7.) The  
Court previously determined that the corresponding structures include the “pen position

digitizer co-processor 90” and associated software. (Order Construing Claims Agulnick ‘295, Case No. 02-CV-2060, Doc. No. 172 at 4, 8, 10.) Viewing the evidence in the light most favorable to Lucent, a reasonable trier of fact could conclude that there is not clear and convincing evidence that the co-processor is an obvious substitute for the PC environment of the FIDS paper.<sup>2</sup> For these reasons, the Court denies Microsoft’s motion.

#### IV. Day ‘356

##### A. The Patent

On August 9, 1988, the PTO issued the Day ‘356 patent, entitled “Touch Screen Form Entry System,” to inventors Benjamin W. Day, Jr., Alexander C. Gillon, and Raoul A. LeConte. The application was filed on December 11, 1986. Independent claim 19 and dependent claim 21 are at issue here. Claim 19 states:

A method for use in a computer having a display comprising the steps of displaying on said display a plurality of information fields, identifying for each field a kind of information to be inserted therein, indicating a particular one of said information fields into which information is to be inserted and for concurrently displaying a predefined tool associated with said one of said fields, said predefined tool being operable to supply information of the kind identified for said one field, said tool being selected from a group of predefined tools including a tool adapted to supply an individual entry from a menu of alternatives and at least a tool adapted to allow said user to compose said information, and inserting in said one field information that is derived as a result of said user operating said displayed tool.

(Day ‘356 17:26-18:14.) Claim 21 further limits the step of “displaying said pattern” to include “the step of displaying one or more of said information fields as a bit-mapped graphics field.” (Id. 18:19-22.) The Court previously construed “predefined tools associated with said one of said fields” as referring “to a tool specified by the system as an appropriate tool for filling in the information called for by that field.”

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<sup>2</sup>In reaching its conclusion, the Court does not necessarily accept Lucent’s other arguments, including its contentions that the Court’s claim construction must exclude the Levine patent’s “touch and lift” procedure or that Defendants are precluded from arguing it would have been obvious to add a rear-mounted digitizer to the FIDS system.

(See Claim Construction Order Clarifying and Superseding Order of Mar. 1, 2004, Construing Claims for Day ‘356, Case 02-CV-2060, Doc. No. 1552 (“Day ‘356 Claim Construction”) at 9.) The Court also held that a “tool adapted to allow said user to compose said information” is “a graphical keyboard tool or a graphical number keypad tool, which allows the user to compose information by pointing to the display keys of that tool.” (Id.)

### **B. Alleged Prior Art and Other Evidence of Obviousness**

Defendants brought three motions raising various alleged pieces of prior art relating to form entry systems. In January 1984, the magazine Datamation published an article by Michael Tyler entitled “Touch Screens: Big Deal or No Deal?” (“Tyler Article”). (Decl. James S. Blackburn Supp. Dell’s Mots. Summ J. Invalidity (“Blackburn Decl.”) Ex. 3; Decl. Johnathan D. Baker Supp. Gateway’s Mot. Summ J. Invalidity Day ‘356 (“Baker ‘356 Decl.”) Ex. 4.) The article describes a touch-screen system used by Chemical Bank, running on a platform called Easel, through which currency traders could fill out forms electronically. (Baker ‘356 Decl. Ex 4 at 49-50.) According to the project manager at Chemical Bank, H. Robert Long, this system was known as the Foreign Exchange Front End (“FXFE”). (Id. Ex. 7 ¶ 4.) Tyler based his article on a demonstration of the FXFE system conducted at Chemical Bank’s New York office no later than January 1984. (Id. ¶¶ 5-6.) In the FXFE system, as described by the Tyler Article and Long’s declaration, when a user selected a particular field in a form, the system would display different tools for completing the entry depending on the field selected, such as a list of brokers or a numeric keypad. (Id. Ex. 4 at 49, Ex. 7 ¶¶ 8-12.)

The Home Accountant and Financial Planner for the Macintosh (“Home Accountant”), designed to run on the original Apple Macintosh computer, was released in January 1985. (See Blackburn Decl. Ex. 4 at 58-59, Ex. 5.) Home Accountant includes various forms for entering financial data, such as a form resembling a check

1 register. (See Blackburn Decl. Ex 4 at 61-66, Ex 49.)<sup>3</sup> Home Accountant also displays  
 2 windows, which the user may position over or next to the forms, for selecting options  
 3 to be placed in the forms' fields. A user may enter data into a Home Accountant form  
 4 by cutting or copying information from the Apple-provided "Key Caps" accessory,  
 5 which permits a user to enter text by using the mouse pointer to select letters in a  
 6 window resembling a keyboard.

7 As indicated by a March 1985 Creative Computing article, Simon & Schuster  
 8 sold J. K. Lasser's Your Money Manager software ("Your Money Manager") to the  
 9 public starting some time before that issue's publication. (See Decl. Lara S. Garner  
 10 Supp. Microsoft's Mot Summ. J. Invalidity Day '356 ("Garner '356 Decl.") Ex. C at  
 11 39.) Your Money Manager was a tax record keeping program designed for computers  
 12 using the MS DOS operating system. (Id.) It includes forms for entering financial  
 13 information, such as its "Payments" form which collects information typical of a check  
 14 register. (Id. Ex. L.) Your Money Manager supplies graphical tools, displayed along  
 15 with its forms, to aid the user when entering data. These include a menu listing  
 16 alternative codes and an keypad display for inputting amounts using the keyboard. (Id.  
 17 Exs. —N.)

18 Microsoft released the Windows 1.01 operating system in November, 1985. It  
 19 includes a calculator program in which the user may select values or commands by  
 20 using a mouse pointer to select, or "click," elements of a display resembling a  
 21 calculator keypad. (Id. Exs. I, O.)

### 22 **C. Person of Ordinary Skill**

23 For the present purposes, the parties do not dispute Lucent's definition of a  
 24 person of ordinary skill. The '356 patent involves the field of human computer

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25  
 26 <sup>3</sup>Exhibit 49 is an excerpt from the videotaped deposition of Michael Farmer, submitted to the  
 27 Court as a digitized video file on a CD-ROM. For approximately the first 10 minutes of the excerpt,  
 28 a form for entering check information is visible along with separate windows for selecting names or  
 categories to be entered into the form. The witness discusses and demonstrates use of these objects.  
 Beginning around 10:25, for approximately four minutes, the witness activates the Macintosh "Key  
 Caps" window and demonstrates its use in conjunction with the Home Accounting form. In the final  
 portion of the excerpt, the witness demonstrates the potential for the user to overlay the various  
 windows on one another.

1 interaction. At the time of the '356 patent, a person of ordinary skill would have had  
 2 either: (1) 3-5 years of experience at an institution where one could learn graphical user  
 3 interface design, namely Xerox Palo Alto Research Center or Apple Computer, Inc.,  
 4 or (2) specific training at one of the few academic institutions with a program in this  
 5 area at that time including: University of California at San Diego, University of  
 6 Toronto, or University of Maryland. (Garner '356 Decl. Ex. B ¶¶ 28-30.)

## 7 **D. Discussion**

### 8 **1. Gateway's Motion**

9 The Court begins with Gateway's motion, which argues for obviousness based  
 10 on the earliest alleged prior art, namely the Tyler article and the FXFE system. Lucent  
 11 challenges the use of these references on the ground that Judge Brewster previously  
 12 struck a Gateway motion on the basis that these references were disclosed after the  
 13 discovery period. Defendants argue that more recent circumstances, including the  
 14 additional discovery period provided in light of KSR, should permit consideration of  
 15 the FXFE system. The Court will consider the FXFE system for purposes of this  
 16 motion, though it reserves the question of whether, in light of Judge Brewster's prior  
 17 order, it should ultimately admit evidence of the FXFE system at trial.

18 Lucent argues, as a threshold matter, that the FXFE system is not prior art because  
 19 the demonstration for the Tyler Article was not a sufficient public use. But even  
 20 assuming that the demonstration constituted public use,<sup>4</sup> the uncertainties about the  
 21 nature of the FXFE system are too great to grant summary judgment. The system itself

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22  
 23 <sup>4</sup>Defendants argue that the demonstration constitutes public use as in Harrington Mfg. Co., Inc.  
 24 v. Powell Mfg. Co., 815 F.2d 1478, 1480-81 (Fed Cir. 1996). There, the Federal Circuit affirmed  
 25 summary judgment that an invention was used publicly when demonstrated with obvious commercial  
 26 intentions to a reporter with no confidentiality obligations. Id. The demonstration for Tyler has many  
 27 similarities to Harrington. Lucent, however, challenges the operational capacity of the prototype  
 28 demonstrated, Chemical Bank's degree of control over the demonstration, and the extent that the  
 demonstration was for commercial purposes. Although the Court ultimately relies on other grounds,  
 these concerns would likely also prevent summary judgment on this issue, given the passage of time  
 and limited documentation of the demonstration itself. Although Harrington and similar cases involve  
 the public use standard under section 102, they are applicable here. Prior art for section 103 purposes  
 encompasses at least the prior art named in section 102. In re Wertheim, 646 F.2d 527, 532-33 (CCPA  
 1981). Although section 103 prior art may be broader in some circumstances, as with prior art by  
 admission, the parties have not raised such arguments with this patent. Riverwood Int'l Corp. v. R.A.  
Jones & Co. Inc., 324 F.3d 1346, 1353-54 (Fed. Cir. 2003).



1 is no longer available, and Defendants offer no evidence that it was ever  
2 commercialized. The remaining descriptions consist only of the Tyler Article and  
3 recollections made more than 20 years later. Though the article includes text and photos  
4 that describe the system in general, Lucent raises questions about certain details of the  
5 interface. For example, the photographs, which provide only a static view with limited  
6 resolution, do not clearly indicate whether the system indicates the current field. The  
7 descriptions of FXFE also leave questions of whether it was truly a “graphical” system  
8 or character-generated. When making inferences in Lucent’s favor for purposes of this  
9 summary judgment motion, there is too much uncertainty regarding the specifics of the  
10 system.<sup>5</sup>

## 11                   2.     Dell’s Motion

12           Dell’s motion contends that it would have been obvious to a person of ordinary  
13 skill in the art to modify Home Accountant, based on the Tyler article, to achieve the  
14 method disclosed in claim 19. The Court previously determined there is no dispute that  
15 Home Accountant satisfies every element of claim 19 except two: (1) “for concurrently  
16 displaying a predefined tool associated with one of said fields. . .” and (2) “inserting in  
17 said one field information that is derived as a result of said user operating said displayed  
18 tool.” (Order Denying Cross-Mots. Re. Invalidity of Day ‘356, Case No. 02-CV-2060  
19 Doc. No. 1795 at 4-6.) Dell would have the Court resolve these factual issues based on  
20 the Tyler article.

21           Regarding the first limitation, the Court concluded that there was a material  
22 question of fact regarding whether the Apple “Key Caps” tool could be considered a  
23 “predefined tool associated with one of said fields” within the meaning of the patent.  
24 (Id. at 4-5.) Dell now offers an excerpt from the Tyler Article stating that “[w]hen the  
25 trader touches the screen in [an area listing information about a transaction], a list of  
26 potentially valid entries or a numeric keypad appears on the left half, inviting the user  
27

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28           <sup>5</sup>Lucent has also challenged the reliability of the evidence and the sufficiency of corroboration  
of prior public use. The Court does not reach these challenges since it concludes that there are material  
questions of fact, even if Defendants can overcome these concerns.

1 to choose the information needed on the right.” (Blackburn Decl. Ex. 3 at 52.) The  
2 article also states that “[a] QWERTY layout can be called up on the left for entry . . . .”  
3 (Id.)

4 Even if the Court accepts the Tyler article as prior art, it does not completely  
5 resolve the factual questions left open by the Court’s prior order. First, Lucent argues  
6 that “concurrently displaying” should require display of an overlay, or window, on the  
7 form. FXFE, in contrast, uses a tiling system in which separate areas of the screen are  
8 dedicated to different types of functions, and there is no indication that they may be  
9 rearranged or placed on top of one another. Viewed in a light most favorable to Lucent,  
10 there is a factual question of whether the FXFE system involved “concurrently  
11 displaying” within the meaning of the claims. Furthermore, even if the FXFE system  
12 could be said to concurrently display a predefined tool, Dell has not met its burden to  
13 show that it would have been obvious to modify Home Accountant based on FXFE,  
14 particularly in light of the relatively limited description available for that system.

### 15 3. Microsoft’s Motion

16 Microsoft argues that Day ‘356 is obvious in light of Your Money Manager, or  
17 alternatively, Your Money Manager in combination with the Windows 1.01 calculator  
18 tool. The Court construed “tool adapted to allow said user to compose said  
19 information” as “a graphical keyboard tool or a graphical number keypad tool, which  
20 allows the user to compose information by pointing to the display keys of that tool.”  
21 (Day ‘356 Claim Construction at 9.) Lucent argues that Your Money Manager does not  
22 involve “graphical” tools, since its display is composed of text and symbols, and that  
23 it does not permit “pointing” to the display keys of any tool, since the user controls Your  
24 Money Manager only using the keyboard, without aid of a mouse, touch pad, or similar  
25 device.

26 The Court concludes that there are material questions of fact regarding both of  
27 these issues. Microsoft has not established by clear and convincing evidence either: (1)  
28 that the elements of Your Money Manager are “graphical” or that they involved  
“pointing” within the meaning of the patent, or (2) that modifications to meet these

1 limitations would have been obvious to a person of ordinary skill in the art. At the time  
 2 of the Day ‘356 patent, the personal computer industry was undergoing a change from  
 3 text-based, keyboard-only operation to operation using a keyboard and mouse along  
 4 with graphical user interfaces. The parties’ experts dispute the extent to which  
 5 incorporation of these ideas would have been obvious, and a reasonable fact finder  
 6 could conclude that there is not clear and convincing evidence in Defendants’ favor.  
 7 Although some of the interface conventions in question may seem obvious to a modern  
 8 computer user with the benefit of more than two decades of further progress in the art,  
 9 granting Microsoft’s motion at the summary judgment stage would risk improper  
 10 reliance on hindsight analysis.

11 As a result, the Court denies all three motions related to the Day ‘356 patent.

## 12 **V. Fleming ‘759**

### 13 **A. The Patent**

14 On March 27, 1984, the PTO issued the Fleming ‘759 patent, entitled “Terminal  
 15 Independent Color Memory for a Digital Image Display System,” to inventors James R.  
 16 Fleming, William A. Frezza, and Gerald S. Soloway. The application was filed on May  
 17 19, 1981. Three claims remain at issue: independent claims 1 and 2, and dependent  
 18 claim 3. Claim 1 states:

19 In a digital image display system:

20 a memory for storing color data values;

21 processing means responsive to a predetermined command and data  
 22 sequence comprising at least one command, the processing means  
 23 decoding the predetermined command and data sequence, the  
 predetermined command and data sequence selecting one of a plurality of  
 modes of access to color data values, the modes comprising

24 a first mode of access wherein an in-use foreground color is directly  
 25 specified as a color data value;

26 a second mode of access wherein the in-use foreground color is specified  
 as an index into the color memory; and

27 a third mode of access wherein the in-use foreground color and an in-use  
 28 background color are specified as indexes into the color memory; and

display means responsive to the processing means, the display means  
 displaying the colors associated with the color data values accessed by the

selected mode

(Fleming ‘759 14:20-44.) The Court construed an “in-use” foreground or background color as “a color that will be used as the [foreground/background] color for subsequently received text and graphics drawing commands until changed.” (See Order Construing Claims for Fleming ‘759, Case No. 02-CV-2060, Doc. No. 371 at 9.) The Court construed “specified as” to mean “called for by,” but it did not further construe “directly.” (Id.) Claim 2 contains a number of similar elements, though its processing means adds the function of setting a color data value in a color memory in response to a second command. In claim 3, the processing means responsive to the second command sets plural color data values.

The parties dispute whether the patent concedes that the three modes of access described in claim 1 were known in the prior art. The summary of the invention states that:

The above-stated problems and related problems of incompatibility among digital image display systems are solved by the principles of the present terminal independent color memory. Processing means are provided for accessing color data in a terminal independent manner, regardless of the size of the color memory or its permanent or semi-permanent nature. In accordance with the present invention, the known modes of color access are incorporated into the present algorithm for selecting a particular mode of color memory access, for selecting a particular color in a color map memory table or for setting foreground or background in-use drawing color.

(Fleming ‘759 1:49-61.) “Admissions in the specification regarding prior art are binding on the patentee for purposes of a later inquiry into obviousness.” PharmaStem Therapeutics, Inc. v. ViaCell, Inc., 491 F.3d 1342, 1362 (Fed. Cir. 2007). Before the above statement regarding “known modes of color access,” the patent describes known systems using both direct specification of color by red, green, and blue values and systems using a color look-up table. (See id. 1:11-46.)

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**B. Alleged Prior Art and Other Evidence of Obviousness**

Dell and Gateway brought separate motions challenging this patent. Gateway's motion focuses on prior art involving videotex systems, while Dell focuses on a NASA report describing a raster graphics display system developed at George Washington University.

Videotex technology uses a terminal to receive data and display corresponding text or symbols on an attached TV. (See, e.g., Fleming '759 1:39-46; 3:28-40.) The Fleming '759 patent discloses prior videotex systems and identifies a problem with incompatible approaches to storing and displaying color information. (Id. at 1:12-46.) The patent discloses the Canadian Telidon system that uses "a direct selection of data values for the primary colors—red, green and blue" and the British Prestel and French Antiope systems, which both use "a technique for specifying both a foreground and a background color by indexing a permanent read-only color memory. (Id. 1:16-27.)

A July 1980 article on videotex described compatibility concerns between videotex standards, including different methods for displaying graphics. (See Decl. Andrew Thomases Supp. Gateway's Mot. Partial Summ J. Invalidity Fleming '759 ("Thomases '759 Decl.") Ex. 6 at 187-92.) Beginning in the mid to late 1970s the international standards body CCITT began work on international videotex compatibility. (See, e.g., id. Ex 7 at 228:12-18.) This work resulted in Recommendation S.100, distributed in June, 1980, and approved in November, 1980. (Id. Exs. 2, 23.)

Recommendation S.100 describes several different options for presenting pictorial information in an international videotex system including: "mosaic character sets," "geometric system," "dynamically redefinable character sets," and "photographic representation." (Thomases '759 Decl. Ex. 2 § 1.2.4; see also id. §§ 5-8 (describing these options in more detail).) S.100 goes on to describe the workings of the "alphamosaic" mode, which Gateway argues corresponds to the Antiope and Prestel systems. (Id. § 5.) More specifically, the "alphamosaic parallel mode" corresponds to the Antiope system while the "alphamosaic serial mode" corresponds to the Prestel system. (Id. §§ 5.3 (serial), 5.4 (parallel).) S.100 describes "display control functions"

1 for the alphasosaic parallel mode, including functions for “defined display area  
2 attributes” that apply “to individual character locations.” (Id. § 5.4.2.1.) These defined  
3 display area attributes include a selection of foreground and background colors from a  
4 specific list. (Id. §§ 5.4.2.2.1, 5.4.2.2.10.) The alphasosaic parallel mode also permits  
5 definition of full-screen attributes and display of characters with a transparent  
6 background, resulting in application of the underlying background color to areas not  
7 occupied by the foreground. (Id. §§ 5.4.2.2.11, 5.4.2.3.) Figure 7 of S.100 defines the  
8 bit sequences for various codes, including 3-bits corresponding to eight possible colors  
9 for the foreground or background. (Id. Fig. 7 at 40.)

10 The patent also notes that “in the art of color computer graphics, the terminal  
11 manufacturers generally employ a color look-up table called a color map indexed to a  
12 binary number.” (Fleming ‘759 1:28-30.) The patent offers the Tektronix 4027 as a  
13 specific example of such a system which “is capable of providing 8 colors for direct use  
14 from the 64 possible color values that may be loaded into its color map.” (Id. 1:33-34.)

15 “Final Report – NASA Grant NSG 1508: Extension of the Core Graphics System  
16 for Raster Graphics Display” (“NASA Report”) describes research conducted at George  
17 Washington University between March 15, 1978 and March 31, 1980. (Decl. James S.  
18 Blackburn Supp. Dell’s Mot. Summ J. Invalidity (“Blackburn Decl.”) Ex. 9.)  
19 Regarding the availability of this report, Dell offers the affidavit of Jean A. Pec, Head  
20 of Collections Management Services at the George Washington University Melvin  
21 Gelman Library since February, 1993. (Blackburn Decl. Ex. 14 ¶ 1.) Ms. Pec asserts  
22 that, based on her knowledge of the library’s procedures and systems, a member of the  
23 public with access to the Library or its computer database could have located the NASA  
24 Report beginning on September 30, 1980. (Id. ¶¶ 2-19.) At her subsequent deposition,  
25 Lucent obtained various admissions that, viewed in a light favorable to Lucent, indicate  
26 that Ms. Pec: (1) was not employed by the library in 1980, (2) had a limited role in  
27 preparing the affidavit, and (3) lacks direct personal knowledge of the procedures used  
28 by the library and its database service at the time of the NASA Report. (Lucent’s Opp’n  
Dell’s Mot. Summ. J. Invalidity Fleming ‘759 at 3-6; Decl. James E. Marina Supp.



1 Lucent's Opp'n Defs.' Mots. Summ. J. Invalidity Fleming '759 ("Marina '759 Decl.")  
2 Ex. 1.) Lucent contends that the report was not meaningfully indexed, not physically  
3 accessible due to restrictions on access to the Special Collection Department, and/or not  
4 shelved in the library.

5 **C. Person of Ordinary Skill**

6 For purposes of this motion, there is no significant dispute regarding the  
7 definition of a person of ordinary skill in the art. It is an engineer with at least either:  
8 (1) a Bachelor of Science degree in electrical engineering, computer engineering, or  
9 computer science and two years of experience in computer graphics; or (2) a Master of  
10 Science degree in electrical engineering, computer engineering, or computer science  
11 with a course of study related to computer graphics technology. (See Thomases '759  
12 Decl. Ex 20 ¶ 13; id. Ex. 21 ¶ 22.)

13 **D. Discussion**

14 **1. Dell's Motion**

15 The parties dispute whether the NASA Report is prior art. Even assuming that  
16 Dell's evidence regarding the availability of the NASA Report is admissible, which  
17 Lucent challenges, the evidence presents a material issue of fact when viewed in the  
18 light most favorable to Lucent. In light of the affidavit and deposition of Jean Pec, a  
19 reasonable trier of fact could conclude that there is not clear and convincing evidence  
20 supporting the availability of the NASA Report. For example, Lucent has raised  
21 significant questions regarding the indexing procedures and scope of public access to  
22 the library's database. See In re Cronyn, 890 F.2d 1158, 1161 (Fed. Cir. 1989)  
23 (requiring that a library catalog or index prior art in a "meaningful way").

24 At oral argument, Dell encouraged the Court to grant summary adjudication on  
25 the question of whether the NASA Report would render the claims obvious, in the event  
26 that the trier of fact ultimately concludes it is prior art. The Court declines to do so.  
27 With regard to the first and third modes of color access, the parties' experts dispute:  
28 (1) whether the commands set forth in the NASA Report "directly" specify a color  
value, or nevertheless render the first mode of access obvious, given that the functions

1 in question require conversion of a floating point value to an integer value, and  
2 (2) whether the commands involve an “in-use” background color, given that the system  
3 draws the background for the entire screen at once, not individually with each  
4 command. The Court has reviewed the experts’ positions on these questions and  
5 determined that they are not merely conclusory. Viewed in the light most favorable to  
6 Lucent, they present material questions of fact on these issues.

7 Regarding the requested exclusion of Dell’s evidence, the Court will consider the  
8 pending motions in limine according to the schedule set by the Court’s prior orders.

## 9 **2. Gateway’s Motion**

10 The arguments over Gateway’s motion focus on whether the modes of color  
11 access set forth in the claims are in the prior art and whether the patent conceded this.  
12 Gateway argues that the patent concedes both that all three modes of access were known  
13 and that there was a known compatibility problem providing a motivation to combine.  
14 Gateway further contends that, whether or not the patent admitted these points, the  
15 claims would have been obvious in light of the prior art. Lucent disputes these  
16 assertions and specifically challenges whether the second and third modes of access  
17 were conceded by the patent or disclosed in the prior art.

18 The Court concludes that there is a question of fact regarding whether the patent’s  
19 description of “known modes of color access” conceded that the three modes in claim  
20 1 were disclosed by prior art. (See Fleming ‘759 1:55-61.) Lucent argues that admitting  
21 something is “known” is not equivalent to admitting it is prior art. For example,  
22 something may be “known” only to the inventors and therefore not necessarily prior art.  
23 This question is intertwined with how a person of ordinary skill in the art would read  
24 the relevant passages of the patent and understand the description of the prior art there.  
25 As described more specifically below, there are questions of fact regarding whether the  
26 prior art encompassed the second and third modes of access.<sup>6</sup> These are factual  
27 questions that should survive summary judgment.

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28 <sup>6</sup>Lucent did not dispute that the first mode of access was known.

1        There are material questions of fact regarding whether S.100 discloses the second  
2 and third modes of access. Gateway argues that the alphamosaic parallel mode of S.100  
3 does not disclose specifying colors as indexes to a color memory. For the present  
4 purposes, the Court concludes that this is a question of fact.<sup>7</sup> First, Lucent argues that  
5 S.100 does not disclose a color memory. Although S.100 contains a table specifying  
6 color values, it does not expressly describe how they are to be stored or retrieved. It  
7 would require a favorable inference for Gateway, inappropriate on summary judgment,  
8 to conclude that implementation of this table in a color memory was disclosed or would  
9 have been obvious. Furthermore, Lucent raises a question of fact regarding whether the  
10 specification of color in the alphamosaic parallel mode was indexed or direct. Although  
11 the colors are listed in a table, each bit corresponds to the presence or absence of a  
12 particular color. (See Lucent's Opp'n Gateway's Mot. Summ. J. Invalidity Fleming  
13 '759 at 19.) Based on the state of color graphics technology at the time, this presents  
14 a question of fact regarding whether this mode used indexed color, direct color, or  
15 perhaps even both.

16        Finally, the Court notes that Lucent has presented evidence that the prior art  
17 taught away from combining direct color and indexed color. In an August, 1979,  
18 quarterly report of the Graphic Standards Planning Committee of SIGGRAPH, the  
19 committee discussed various pros and cons of implementing both direct and indexed  
20 specification of color in the same system. (See Marina '759 Decl. Ex. 8 at 396.)  
21 Drawing the favorable inferences appropriate here, the document teaches away from  
22 implementing both modes in the same system, as practiced by the Fleming '759 patent.  
23 Based on this, a reasonable juror could conclude that there is not clear and convincing  
24 evidence that the combination of access modes in the Fleming '759 patent was obvious.

25        For these reasons, the Court denies both motions with respect to the Fleming '759  
26 patent.

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27  
28        <sup>7</sup>The Court does not necessarily accept Lucent's other arguments, including its characterization of "in-use" color as it relates to the alphamosaic parallel mode's specification of foreground and background colors. Lucent would have the Court require that the in-use foreground and background colors be specified by the same command.

1 **VI. Anticipation**

2 The Court previously granted the parties leave to file motions for summary  
3 judgment regarding the obviousness defense. (See Scheduling Order for Groups 1, 4,  
4 5, and 6 Patents, Case No. 02-CV-2060, Doc. No. 1876.) Plaintiffs object that  
5 Defendants' motions challenge the patents' validity on grounds beyond the leave  
6 granted by the Court. Since the Court previously considered summary judgment  
7 motions regarding other defenses and only granted leave to file new motions regarding  
8 the obviousness defense, the Court declines to reach these other invalidity challenges.  
9 The Court has considered all of the parties' arguments to the extent that they clarify  
10 their contentions regarding the obviousness defense. In any event, the fact questions  
11 recognized here would likely preclude summary judgment of anticipation.

12 **Conclusion**

13 For the reasons set forth above, the Court DENIES Defendants' motions for  
14 summary judgment of obviousness for all five patents [Doc. Nos. 66, 68, 69, 70, 71, 72,  
15 83, and 85].<sup>8</sup>

16 IT IS SO ORDERED.

17 DATED: January 17, 2008

18   
19 MARILYN L. HUFF, District Judge  
20 UNITED STATES DISTRICT COURT

21 COPIES TO:  
22 All parties of record.

23  
24  
25  
26 <sup>8</sup>In reaching its decision, the Court does not preclude the possibility that summary judgment  
27 or judgment as a matter of law may ultimately be appropriate. As the Supreme Court observed, "[t]he  
28 ultimate judgment of obviousness is a legal determination." KSR Int'l Co., 127 S.Ct. at 1733 (citing  
Graham, 383 U.S. at 17). Based on the record at trial, the Court may consider whether the evidence  
presents the factual questions identified above and whether obviousness therefore ultimately presents  
a jury question for the various patents in this case. Finally, the Court notes that nothing in this order  
is intended to reopen discovery.