

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte FREDERIC BAUCHOT, DANIEL MAUDUIT, and BENOIT SIROT

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Appeal No. 2006-0688  
Application No. 09/838,425

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ON BRIEF

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Before JERRY SMITH, RUGGIERO, and MACDONALD, Administrative Patent Judges.  
JERRY SMITH, Administrative Patent Judge.

**DECISION ON APPEAL**

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1-7, which constitute all the claims pending in this application.

The disclosed invention pertains to a mechanism in an electronic spreadsheet for comparing two series of cells using Boolean attributes which are assigned to each of the cells.

Representative claim 1 is reproduced as follows:

1. A method of comparing two series of cells in a multidimensional spreadsheet comprising a plurality of cells

identified by a cell address along each dimension, a series of cells comprising one or a plurality of cell range, a cell range comprising one or a plurality of cells, said method comprising the steps of:

defining a Boolean attribute, said Boolean attribute having a first and a second value;

assigning the first value of said Boolean attributes to each cell of a first series of cells;

assigning the second value of said Boolean attribute to each cell of a second series of cells;

determining in a first operation whether all the cells of said first series of cells share the same first value of said Boolean attribute, or share the same second value of said Boolean attribute or do not share single value of said Boolean attribute;

for a second operation, again assigning the first value of said Boolean attribute to each cell of the first series of cells;

determining in a second operation whether all the cells of the second series of cells share the same first value of said Boolean attribute, or share the same second value of said Boolean attribute or do not share a same single value of said Boolean attribute;

recording intermediary information from the first operation and the second operation in a comparison table, stored in a memory of a computer;

determining whether the first series and the second series are the same or not by comparing results of the first operation and the second operation:

if all the cells of the first series share the same second value of said Boolean attribute in said first operation and if all the cells of the second series share the same first value of said Boolean attribute in said second operation, the first series and second series are the same.

The examiner relies on the following references:

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Julia Kelly, "Using Microsoft® Excel® 97," 3<sup>rd</sup> edition, Que Corp., 1998, pages 124-131, 138-144, 154-189, 209-210 and 337-343.

H. M. Deitel et al. (Deitel), "C++:How to Program," 2<sup>nd</sup> edition, Prentiss Hall, 1994, pages 10, 106-110, 147, 243-244, 256-262, 448, 473-479, 483-485, 707-730, 981-987 and 1043-1045.

Microsoft® Computer Dictionary, 4th edition, Microsoft Press, 1999, pages 29, 56-58, 79, 229, 272, 420 and 434.

The following rejections are on appeal before us:

1. Claims 1-7 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

2. Claim 7 stands rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which appellants regard as the invention.

3. Claims 6 and 7 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

4. Claims 1-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Kelly in view of Deitel. The Microsoft® Dictionary has been used to supply definitions of various computer terms.

Rather than repeat the arguments of appellants or the examiner, we make reference to the briefs and the answer for the respective details thereof.

### OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the prior art rejection. We have, likewise, reviewed and taken

into consideration, in reaching our decision, the appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the invention of claims 1-7 is enabled by the specification of this application. We are also of the view that the invention set forth in claim 7 complies with the second paragraph of 35 U.S.C. § 112. We are further of the view that claims 6 and 7 are directed to statutory subject matter. Finally, we are of the view that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in the claims on appeal. Accordingly, we reverse.

We consider first the rejection of claims 1-7 under the first paragraph of 35 U.S.C. § 112. The examiner asserts that the preferred embodiment discloses a technically incorrect solution because the only possible processing option for step number 515 in Figure 5 of the application is step number 518 "Result=DISJOINED" [answer, page 6]. Appellants argue that the examiner fails to understand how the Boolean values are assigned in step number 505 of Figure 5 of the application. Specifically, appellants note that the second operation in step number 505 may change the values established in the first operation of step number 505 when cells in the two series of cells overlap. Appellants have provided an example showing that the operations of Figure 5 correctly represent the claimed invention [brief, pages 5-10]. The examiner reiterates that the

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flow chart of Figure 5 is incorrect, but does not address appellants' arguments regarding the examiner's alleged misunderstanding of step 505 [answer, pages 15-17].

Appellants essentially reiterate that the examiner has mischaracterized the manner in which the flow chart of Figure 5 operates [reply brief, pages 2-5].

We will not sustain the examiner's rejection of claims 1-7 as being based on a non-enabling disclosure for essentially the reasons argued by appellants in the briefs. The examiner's position that the flow chart of Figure 5 always ends in the same result is simply incorrect and demonstrates a lack of understanding of how the invention works. The examiner apparently fails to appreciate that when cells of the B series overlap with cells of the A series, then the second operation of step 505 in Figure 5 changes the previously set true values for those cells to false values. It is this fact that brings about the various outcomes shown in Figure 5. This manner in which the invention operates is clear from appellants' description of the invention and in the working example given by appellants in the brief. It is not clear to us on this record why the examiner simply ignored appellants' evidence that the disclosure satisfied the first paragraph of 35 U.S.C. § 112.

We now consider the rejection of claim 7 under the second paragraph of 35 U.S.C. § 112. The examiner states that the computer readable medium of claim 7 was not defined in the specification, and as such, the scope of the claim is indeterminable [answer, page 7]. Appellants argue that those of ordinary skill in the art are well aware of what a computer readable medium is and that the term does need to be defined in

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the specification. Appellants note that the term is even used in the MPEP as exemplary of claim language directed to statutory subject matter [brief, pages 8-10]. The examiner responds that there is no evidence within the specification to support appellants' definition of a computer readable medium and that it could be read on a thing like a piece of paper that could be scanned [answer, pages 18-19]. Appellants respond that the examiner has confused a question of claim breadth with claim definiteness [reply brief, pages 5-7].

We will not sustain the examiner's rejection of claim 7 as being indefinite. We agree with appellants that the examiner's rejection is concerned with the breadth of the claim language rather than its definiteness. A claim must set out and circumscribe a particular area with a reasonable degree of precision and particularity when read in light of the disclosure as it would be by the artisan. In re Moore, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971); In re Johnson, 558 F.2d 1008, 194 USPQ 187 (CCPA 1977). Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed in light of the specification. Seattle Box Co., v. Industrial Crating & Packing, Inc., 731 F.2d 818, 826, 221 USPQ 568, 574 (Fed. Cir. 1984). We agree with appellants that the artisan having read the disclosure in this application would understand what is covered by the claimed "computer readable medium."

We now consider the rejection of claims 6 and 7 as being directed to non-statutory subject matter. With respect to claim 6, the examiner asserts that it is directed to a

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computer program per se or an abstract idea that is not tied to any technological environment and does not result in a practical application producing a concrete, useful and tangible result. With respect to claim 7, the examiner asserts that the recited computer readable medium may encompass an intangible embodiment such as a carrier wave or transmission media [answer, page 7]. Appellants argue that claim 6 is directed to a system having “means for” elements. Appellants note that these elements relate to a computer system such as shown in Figure 1A and cannot be a computer program per se. With respect to claim 7, appellants argue that computer readable media have been held to be statutory subject matter. Appellants assert that there is no requirement that the computer readable medium itself be tangible, but only that it produce a result that is useful, concrete and tangible. They argue that the fact that a computer readable medium might read on carrier waves or transmission media is not a basis to find the claimed invention to be non-statutory [brief, pages 10-14]. With respect to claim 6, the examiner responds that the claim requires no hardware and may encompass a purely software system. With respect to claim 7, the examiner responds that the claim includes an intangible embodiment which is not statutory subject matter [answer, pages 19-20]. Appellants respond that the means of claim 6 is supported by the system of Figure 1A which may include software but is not software only. Appellants also respond that there is no requirement that the data be permanently recorded on the media. They also assert that carrier waves and transmission media are tangible because they are capable of being perceived [reply brief, pages 7-10].

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We will not sustain the examiner's rejection of these claims as being directed to non-statutory subject matter for essentially the reasons argued by appellants in the briefs. As noted by appellants, claim 6 is in the form of means plus function. The functions recited in claim 6 clearly cannot read on software only because the functions can only be performed in cooperation with the computer hardware. Therefore, the examiner's position that the invention of claim 6 requires no hardware is simply incorrect. With respect to claim 7, the examiner's position seems to be that the claimed invention includes within its scope an intangible embodiment. We agree with appellants that claim 7 is directed to the medium which carries the instructions for performing the method of claim 1. As noted by appellants, the courts have held that computer readable media having instructions therein are directed to statutory subject matter.

We now consider the rejection of claims 1-7 under 35 U.S.C. § 103. In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). The examiner must articulate reasons for the examiner's decision. In re Lee, 277 F.3d 1338, 1342, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002). In particular, the examiner must show that there is a teaching, motivation, or suggestion of a motivation to combine references relied on as evidence of obviousness. Id. at 1343,

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61 USPQ2d at 1433-34. The examiner cannot simply reach conclusions based on the examiner's own understanding or experience - or on his or her assessment of what would be basic knowledge or common sense. Rather, the examiner must point to some concrete evidence in the record in support of these findings. In re Zurko, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). Thus the examiner must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the examiner's conclusion. However, a suggestion, teaching, or motivation to combine the relevant prior art teachings does not have to be found explicitly in the prior art, as the teaching, motivation, or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. In re Kahn, 441 F.3d 977, 987, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) (citing In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313 (Fed. Cir. 2000)). See also In re Thrift, 298 F. 3d 1357, 1363, 63 USPQ2d 2002, 2008 (Fed. Cir. 2002). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the

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relative persuasiveness of the arguments. See id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered and are deemed to be waived [see 37 CFR § 41.37(c)(1)(vii)(2004)].

The examiner has indicated how the claimed invention is deemed to be rendered obvious by the teachings of the applied references [answer, pages 8-15]. Appellants argue that none of the references teach or suggest the specific methodology recited in claim 1. Specifically, appellants argue that the scenario comparison of Kelly has nothing to do with determining if series are the same, overlap, etc. Appellants also argue that the comparison in Kelly does not use a Boolean variable as claimed. With respect to Deitel, appellants argue that the code cited by the examiner does not relate to any Boolean attribute, but instead, relates to an array size. Appellants argue that the examiner has pointed to portions of the references that have nothing to do with the claimed invention [brief, pages 12-21]. The examiner responds that the claim limitations are merely a laundry list of operations that are well known in the art. The examiner asserts that performing these well known operations on specific variables and using a specific data type is an obvious design choice [answer, pages 21-26]. Appellants

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respond that the examiner is relying on broad generalizations rather than finding the specific recitations of the claimed invention [reply brief, pages 10-12].

We will not sustain the examiner's rejection of the claims based on Kelly and Deitel. We agree with appellants that the examiner's rejection is based on broad generalizations of what is obvious and substantially ignores the specific recitations of the claims. We can find nothing in the portions of the applied references cited by the examiner that relate to the claimed invention. The examiner has failed to establish a prima facie case of obviousness because the examiner has broadly dismissed the specific recitations of the claimed invention as being obvious without any supporting evidence.

In summary, we have not sustained any of the examiner's rejections of the claims on appeal. Therefore, the decision of the examiner rejecting claims 1-7 is reversed.

REVERSED

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Administrative Patent Judge	)	
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	)	BOARD OF PATENT
JOSEPH F. RUGGIERO	)	APPEALS
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	)	INTERFERENCES
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