

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STEVEN E. WEISS, RAYMOND J. GILSTRAP, ROBERT
ABRAMOVITZ, DAVID S. GORDON, GREGORY S. JUMPER,
DANIEL J. HAIN, and FONGYAN GANG

Appeal 2007-2664
Application 10/413,170
Technology Center 2100

Decided: February 19, 2008

Before ALLEN R. MACDONALD, JEAN R. HOMERE, and
JAY P. LUCAS, *Administrative Patent Judges*.

MACDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL
STATEMENT OF THE CASE

Appellants appeal a Final Rejection of claims 1-8, 11, 13-23, 26, 28-38, 41, 43-45, and 47-55 under 35 U.S.C. § 134. We have jurisdiction under 35 U.S.C. § 6(b).

Appellants invented a method and system that store data in a memory device of a field replaceable unit, where the data indicates dynamic information associated with a service life of the field replaceable unit.
(Spec. 4:5-16.)

Exemplary claims 1, 15, 48, and 49 are reproduced below:

1. A method, comprising:

generating a first data element including dynamic information associated with a service life of a field replaceable unit having a memory device;

generating a first tag for the first data element, wherein the first tag comprises a type field indicating a type of tag, a tag code identifying the first tag within the type, and a length field indicating a length of the first data element;

prepend the first tag to the first data element to generate a first tagged data element; and

storing the first tagged data element in the memory device.

15. The method of claim 1, wherein the first data element comprises a plurality of sub-data elements without associated tags distinct from the first tag.

48. The method as recited in claim 1 wherein an iteration count attribute is associated with the first data element, and wherein the iteration count attribute indicates a number of iterations of the first data element storable in the memory device.

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49. The method as recited in claim 48 wherein an iteration organization attribute is associated with the first data element, and wherein the iteration organization attribute indicates an organization of the iterations.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Hatakeyama US 5,794,065 Aug. 11, 1998

Scheidt EP 0623900 A1 Nov. 9, 1994

“IPMI: Platform Management FRU Information Storage Definition,” v1.0, Document Revision 1.1, Sep. 27, 1999, 27 pages.

Claims 1-8, 11, 13-23, 26, 28-38, 41, 43-45, and 47-55 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combined teachings and suggestions of Scheidt, Hatakeyama, and Intel.

We affirm.

FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

Hatakeyama

1. Hatakeyama teaches generating a tag and associating the tag with data. (Col. 3, ll. 22-24 and Col. 4, ll. 59-63.)

PRINCIPLES OF LAW

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S. Ct. at 1734 ("While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.")

Non-functional descriptive material refers to data content that does not exhibit a functional interrelationship with the substrate and does not

affect the way the computing processes are performed. *See* MPEP § 2106.01 (2007) (“‘Non-functional descriptive material’ includes but is not limited to music, literary works and a compilation of mere arrangement of data.”). *See also Ex parte Curry*, 84 USPQ2d 1272 (BPAI 2005) (nonprecedential) (Federal Circuit Appeal No. 2006-1003; affirmed without opinion Jun. 12, 2006).

Non-functional descriptive material cannot render nonobvious an invention that would have otherwise been obvious. *In re Ngai*, 367 F.3d 1336, 1339 (Fed. Cir. 2004). Cf. *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983) (when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability).

ANALYSIS

Claims 1, 16, and 31

The Examiner concludes that a combination consisting of Scheidt, Hatakeyama, and Intel (hereafter “combination”) renders claims 1, 16, and 31 obvious. (Ans. 3-6 and 17-21.) In addition, the Examiner concludes that a claimed first tag contents comprising “a type field indicating a type of tag, a tag code identifying the first tag within the type, and a length field indicating a length of the first data element” is non-functional descriptive material. (Adv. Action 2.)

Appellants argue that Intel does not teach or suggest the claimed first tag contents and that the claimed first tag contents are functional descriptive

material. (App. Br. 4-5.) However, Appellants do not allege that the Examiner erred by combining teachings and suggestions of the cited references. (App. Br. 4-9.) Therefore, the issue is whether the combination renders claims in this group obvious.

Because Appellants do not separately argue any claim in this group, we select claim 1 as the sole claim on which to decide the issue.

First, we determine whether the claimed first tag contents are given patentable weight for purposes of determining non-obviousness. Appellants allege that the claimed first tag contents are not non-functional descriptive material because (a) they are statutory when claimed as a data structure of data stored in memory and (b) the “analysis of descriptive material is only a factor in medium claims and method claims that are clearly related to an abstract idea such as a mathematical algorithm or law of nature.” (App. Br. 5.) However, non-functional descriptive material refers to data content that does not exhibit a functional interrelationship with the substrate and does not affect the way computing processes are performed. *See MPEP § 2106.01.* Thus, except for alleging that the claimed first tag contents are stored in a memory, Appellants’ arguments do not address whether the claimed first tag contents are *functionally interrelated* with its substrate or *affect* the way computing processes are performed.

The claimed first tag contents bear no functional relationship to the substrate (i.e., the memory device) because they are merely stored and do not change the function of the memory device. In addition, the claimed first

tag contents do not affect the way the claimed computing processes are performed because they do not affect the claimed steps of “generating a first data element,” “prepend,” and “storing” of claim 1. Merely generating a particular content of data does not affect the way computing processes are performed. Rather, the content of data must affect computing processes other than generating the content. Therefore, we agree with the Examiner’s conclusion that the claimed first tag contents are non-functional descriptive material.

Non-functional descriptive material cannot render nonobvious an invention that would have otherwise been obvious. *See In re Ngai*, 367 F.3d at 1339 (cited above). Thus, if the prior art teaches generating data, merely choosing a particular arrangement of data would be presumed to be well within the level of ordinary skill in the art at the time the invention was made. Hatakeyama teaches generating data in the form of a tag (FF 1) and thus meets the limitations of claim 1.

Because Appellants have not shown that the Examiner erred, we sustain the rejection of claims 1, 16, and 31 as being unpatentable under 35 U.S.C. § 103(a) over Scheidt, Hatakeyama, and Intel.

Claims 15, 30, and 45

The Examiner concludes that the combination renders claims in this group obvious. (Ans. 12-13 and 22.) Appellants argue that Hatakeyama does not teach or suggest a sub-element requirement that the first data element comprises a plurality of sub-data elements without associated tags

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distinct from the first tag. (App. Br. 6.) Therefore, the issue is whether the combination teaches the sub-element requirement.

Because Appellants do not separately argue any claim in this group, we select claim 15 as the sole claim on which to decide the issue.

The sub-element requirement describes content of the first data element. However, the sub-element requirement does not alter the function of the substrate (i.e., memory device) on which it is stored. In addition, the sub-element requirement imparts no functionality to the claimed “generating a first tag,” “prepend,” and “storing” steps of base claim 1. Accordingly, the sub-element requirement refers to non-functional descriptive material because it refers to data content that does not exhibit a functional interrelationship with the substrate and does not affect the way the computing processes are performed. *See MPEP § 2106.01*. We give no patentable weight to the sub-element requirement and construe claim 15 to require generating data. *See In re Ngai*, 367 F.3d at 1339 (cited above). Hatakeyama teaches generating data in the form of a tag (FF 1) and thus meets the limitations of claim 15.

In addition, we find that Hatakeyama teaches the sub-element requirement. Appellants’ Specification provides no explicit definition of “sub-data elements” but indicates that “sub-data elements” are an *arrangement of data* by stating that “fields 430 that belong to records 440, and records 440 that are subordinate to higher-level records 440 are not tagged” (Spec. 20:16-18). Accordingly, we broadly but reasonably construe

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“sub-data elements” as an arrangement of data. Hatakeyama teaches associating a tag with data. (FF 1.) Hatakeyama’s data can include *multiple bits*. In one scenario, each bit of data is a sub-element. Accordingly, Hatakeyama teaches multiple sub-elements have the same tag and thus teaches the sub-element requirement.

Because Appellants have not shown that the Examiner erred, we sustain the rejection of claims 15, 30, and 45 as being unpatentable under 35 U.S.C. § 103(a) over Scheidt, Hatakeyama, and Intel.

Group A (Claims 48, 51, and 54) and

Group B (Claims 49, 52, and 55)

The Examiner concludes that the combination renders claims in these groups obvious. (Ans. 16-17 and 23-25.) With regard to Group A, Appellants argue that Hatakeyama fails to teach an iteration count attribute that indicates a number of iterations of the first data element storables in the memory device (App. Br. 7-8 and Reply Br. 3), whereas with regard to Group B, Appellants argue that Hatakeyama fails to teach an iteration organization attribute that indicates an organization of the iterations (App. Br. 8 and Reply Br. 3). Thus the issues are whether the combination renders claims in Groups A and B obvious.

Because Appellants do not separately argue any claim in Groups A or B, we select claim 48 as the sole claim on which to decide the issue for Group A and we select claim 49 as the sole claim on which to decide the issue for Group B.

The iteration count attribute and the iteration organization attribute do not change the function of the substrate (i.e., memory device) on which they are stored. In addition, neither the iteration count attribute nor the iteration organization attribute affect the claimed “generating a first data element,” “generating a first tag,” “prepend,” and “storing” steps of base claim 1. In addition, there are no claims dependent to claims 48 and 49 and thus no steps whose functions would be affected by the iteration count attribute or the iteration organization attribute. Thus, the iteration count attribute and iteration organization attribute are non-functional descriptive material because they do not exhibit a functional interrelationship with the substrate and do not affect the way the computing processes are performed. *See MPEP § 2106.01.*

We give no patentable weight to the information conveyed in the iteration count attribute and the iteration organization attribute and construe claims 48 and 49 to require associating information with a data element. *See In re Ngai*, 367 F.3d at 1339 (cited above). Hatakeyama teaches associating a tag with data (FF 1) and thus meets the requirements of claims 48 and 49.

Because Appellants have not shown that the Examiner erred, we sustain the rejection of claims 48, 49, 51, 52, 54, and 55 as being unpatentable under 35 U.S.C. § 103(a) over Scheidt, Hatakeyama, and Intel.

Other Claims

As to dependent claims 2-8, 11, 13, 14, 17-23, 26, 28, 29, 32-38, 41, 43, 44, 47, 50, and 53, Appellants make no separate arguments of Examiner

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error. (App. Br. 6.) Therefore, as to the rejection of these dependent claims, Appellants have not shown Examiner error for the same reasons discussed *supra* with respect to claims 1, 16, and 31.

CONCLUSION OF LAW

We conclude:

(1) Appellants have not shown that the Examiner erred in rejecting claims 1-8, 11, 13-23, 26, 28-38, 41, 43-45, and 47-55 as unpatentable under 35 U.S.C. § 103(a) over the combined teachings and suggestions of Scheidt, Hatakeyama, and Intel.

(2) Claims 1-8, 11, 13-23, 26, 28-38, 41, 43-45, and 47-55 are not patentable.

DECISION

The Examiner's rejection of claims 1-8, 11, 13-23, 26, 28-38, 41, 43-45, and 47-55 under 35 U.S.C. § 103(a) is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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