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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KEIKO SAEKI,
MOTOMASA, FUTAGAMI, and
TOSHIHIRO ISHIZAKA

Appeal 2010-005710
Application 11/117,985
Technology Center 2100

Before JEAN R. HOMERE, ST. JOHN COURTENAY III, and
CAROLYN D. THOMAS, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

The Patent Examiner finally rejected claims 1, 2, 6-25, 29-34, and 38-40. Appellants appeal therefrom under 35 U.S.C. § 134(a). We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

INVENTION

This invention relates to methods and systems for detecting the falsification of certain metadata related to the files. (Spec. 1). Claim 9, reproduced below, is illustrative of the claimed subject matter:

9. A method of processing metadata in a media file having a first portion and a second portion, wherein the first portion consists of metadata and the second portion is comprised of media data, the method comprising:

selecting a first plurality of sets of user data, wherein the first plurality is stored in a first box in the first portion of the media file;

creating a first hash value as a function of the first plurality of sets of user data;

storing the first hash value in a second box in the media file;

selecting a second plurality of sets of user data, wherein the second plurality is stored in a third box in the first portion of the media file;

creating a second hash value as a function of the second plurality of sets of user data; and

storing the second hash value in a fourth box in the media file, wherein the user data includes metadata relating to the media data.

REJECTIONS

R1. Claims 1-2, 6-23, 32-34 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over THEX “*Tree Hash EXchange format (THEX)*” by J. Chapweske and G. Mohr, 4 March 2003, accessed online: <http://open-content.net/specs/draftjchapweske-thex-02.html>) and Aksu (U.S. Pat. App. Pub. No.: 2003/0061369 A1).

R2. Claims 24-25 and 29-31 are rejected under 35 U.S.C. §103(a) as being unpatentable over THEX and MPEG “*MPEG Audio Frame Header*” by Predrag Supurovic, 22 December 1999, accessed online: <http://www.dv.co.yu/mpgscript/mpeghdr.htm>).

ANALYSIS

We disagree with Appellants’ contentions regarding the Examiner’s obviousness rejections of the claims. We adopt as our own: (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken, and (2), the reasons set forth by the Examiner in the Answer in response to arguments made in Appellants’ Appeal Brief. (Ans. 13-20). We highlight and address specific findings and arguments below.

R1. REJECTION OF CLAIMS 1-2, 6-23, 32-34 AND 38-40

A.

Issue: Under § 103, did the Examiner err in combining the cited references relied upon in the rejection R1?

1. Problems and Motivation

Appellants contend that the combination of THEX and Aksu is improper because THEX and Aksu are directed "to problems associated with the streaming of data" and the "claims are generally directed to the problem of providing a media file having a media data portion and a metadata portion wherein any alteration or falsification of certain metadata can be detected without regard to the encrypted status of the media data." (App. Br. 10). Appellants also contend that there is no motivation to combine the references. (*Id.*).

Appellants' contentions are not persuasive because the references and Appellants' invention are from the same field of endeavor of online content delivery.¹ (Ans. 14; *see* Spec. ¶ [0002]). Moreover, Appellants do not rebut the Examiner's proffered motivation to combine the references:

THEX discloses a P2P system. Aksu discloses a method for streaming MPEG files. MPEG files (i.e. movies) are a file type that is commonly shared on peer-to-peer (P2P) systems. Thus, a person of ordinary skill in the art who was developing a P2P system would be motivated to consider literature related to the data carried on such a system.

(Ans. 14).

Appellants' contention that the references do not acknowledge the specific advantage of the Appellants' claim is not persuasive because Appellants do not rebut the Examiner's motivation for combination, and

¹ It has been held that a prior art reference must either be in the field of Appellants' endeavor or, if not, then be reasonably pertinent to the particular problem with which the Appellant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. *See In re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir.1992).

because the Examiner's motivation does not need to be the same as Appellants' stated advantage.² (Ans. 14).

2. Hindsight

Appellants also contend that the combination of THEX and Aksu could only be made using hindsight. (App. Br. 10).

Regarding Appellants' hindsight argument, we are cognizant that our reviewing courts have not established a bright-line test for hindsight.

In *KSR Int'l v. Teleflex, Inc.*, 550 U.S. 398 (2007), the U.S. Supreme Court guides that “[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of argument reliant upon ex post reasoning.” See *KSR*, 550 U.S. at 421 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 36 (1966)). Nevertheless, in *KSR* the Supreme Court also qualified the issue of hindsight by stating that “[r]igid preventative rules that deny factfinders recourse to common sense, however, are neither necessary under our case law nor consistent with it.” *KSR*, 550 U.S. at 421.

Here, we see the question before us to be whether the Examiner’s modification of THEX's method of processing files with the teachings of Aksu (Ans. 4-5) is merely “the predictable use of prior art elements

² “In determining whether the subject matter of a patent claim is obvious, neither the particular motivation nor the avowed purpose of the patentee controls.” *KSR*, 550 U.S. at 419. For a prima facie case of obviousness to be established, the reference need not recognize the same problem solved by the Appellants. See *In re Kemps*, 97 F.3d 1427, 1430 (Fed. Cir. 1996); *In re Beattie*, 974 F.2d 1309, 1312 (Fed. Cir. 1992); *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Int. 1985) (“The fact that appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious.”).

according to their established functions” (*KSR*, 550 U.S. at 417), consistent with common sense, or, would an artisan reasonably have modified Jacobs in the manner proffered by the Examiner to formulate the claimed circuit *but for* having the benefit of the claim to use as a guide (i.e., impermissible hindsight)?

It is our view that an artisan having knowledge of sending MPEG files over peer-to-peer [P2P] content delivery systems at the time of Appellants' invention would have found it obvious to use Asku's teachings (regarding the content and structure of MPEG files) in THEX's peer-to-peer file delivery system using tree hashes. (*See* Ans. 4-5; 14). In particular, we agree with the rationale articulated by the Examiner: “it would have been obvious to one of ordinary skill in the relevant art at the time the invention was made to have modified THEX by the teaching of Aksu *because* THEX is designed for "modern peer-to-peer [P2P] content delivery systems" (see THEX, section 2, paragraph 3, line 1) and *MPEG files are commonly shared on P2P networks*. (Ans. 5, emphasis added). Thus, we find the proffered combination is merely the predictable use of prior art elements according to their established functions,” consistent with common sense. *KSR*, 550 U.S. at 417. For these reasons, we are not persuaded of Examiner error.

3. TEACHING AWAY

Appellants contend:

In this case, THEX includes comments that explicitly teach away from its combination for 35 U.S.C. 103(a) purposes:

It is RECOMMENDED that implementers assume that the serialized file was obtained from an untrusted source, thus the use of this format to store non-verifiable information, such as general file metadata, *is highly discouraged*. For instance, a

malicious party could easily forge metadata, such as the author or file name.

(THEX, Section 3.2, p. 5) (Emphasis added).

THEX says that it is "highly discouraged" to use its format for general file metadata, such as the author or file name. On the other hand, Applicants' abstract states: "There are disclosed methods and systems (and related data structures) for processing metadata in files, including media files, so *that an alteration or falsification of the metadata can be detected.*" (emphasis added) Thus the application states that it discloses methods, systems, etc. for processing metadata to detect its alteration/falsification. Yet THEX "highly" discourages its use for general file metadata.

(App. Br. 12).

The Examiner disagrees:

Appellant[s'] position is based on an incorrect interpretation of the cited portion of THEX. The authors were describing the types of data to be stored in the XML Tree Description, not the types of data to be operated on by the algorithm in general (i.e., "files and file subranges"). A client in the P2P network obtains the XML Tree Description file (e.g., page 5-6, spanning) from a trusted source (see page 5, section 3.2). The client then obtains the binary serialization of the tree itself (see page 5, paragraph 1). This binary serialization of the [Merkle Hash] tree is the "serialized file" that THEX refers to in the portion cited by Appellant (see page 5, section 3.2., paragraph 2). It has nothing to do with the file that is being shared (i.e., hashed). It is a feature meant to enforce the verification of all untrusted data. The authors of THEX were saying, in essence: do not use the binary serialization of the tree to store anything besides the values produced by the hashing process. This aspect of THEX is not relevant to the claimed invention nor is it relevant to the combination of the references because the intricacies of binary serialization of the tree has nothing to do with the comparatively simple steps of file segmenting ("selecting"), hashing and storage.

(Ans. 15-16).

Appellants' contentions are not persuasive. We agree with the Examiner because we find that THEX's hashing algorithm processes an original file to create two different payloads: (a) XML Tree Description, and (b) binary serialized file of the hash tree. (THEX 5, sections 3, 3.2). THEX Section 3.2 recommends storing only verifiable information, (not non-verifiable information, such as file metadata) in [(b)] the binary serialized file of the hash tree. (THEX 5, section 3.2). Contrary to Appellants' contentions, THEX Section 3.2 does not discuss storing metadata in the original file that is hashed using THEX's algorithm. (THEX 5; Ans. 15-16). Therefore, THEX Section 3.2 does not teach away from including metadata in the original file that is operated on by THEX's algorithm. (THEX 5, section 3.2; Ans. 15-16). Moreover, Appellants fail to file a Reply Brief to rebut the Examiner's findings. Second, Appellants' claims do not positively recite any "processing metadata to detect its alteration/falsification." (App. Br. 12). We decline Appellants' invitation to read limitations from the Specification into the claims.

For these reasons, we are not persuaded of Examiner error in combining the cited references relied upon in the rejection R1.

B.

CLAIM 19

Appellants contend that the Examiner did not address the claim 19 limitation of "creating a *digital signature* as a function of at least the first set of metadata and as a function of an additional set of data that is other than the data in the second portion." (App. Br. 15).

Appellants' contentions are not persuasive. The Examiner rejects redundant claim limitations by referring to the rejections of claims with similar limitations. (App. Br. 17). The Examiner's findings and reasoning for the art rejections used for claims 6, 9, 23, 24 and 25, are applicable to the claim 19 limitation at issue. (See App. Br. 17, 6, 11). Appellants do not present any new contentions regarding claim 19. (App. Br. 15). Appellants do not rebut the Examiner's findings that THEX's hashing of an input sent along with the input would have taught or suggested digital signatures. (Ans. 17; 10-12). Appellants do not rebut the Examiner's findings (Ans. 11) for claims 24 and 25 which are commensurate to the claim 19 limitation at issue that THEX (Page 4, "F=IH(A+B)"; section 2.2) would have taught or suggested the claim 19 limitation at issue.

Appellants contend (App. Br. 10) that the Examiner has not addressed the claim 19 limitation "wherein the first set of metadata is *other than a hash value*." (App. Br. 15). Appellants' contention is not persuasive because the Examiner relies upon THEX as modified to teach the claim 19 and 23 limitations first and second "set[s] of metadata is other than a hash value." (Ans. 6, 17). Appellants do not rebut the Examiner's findings.

For these reasons, we are not persuaded of Examiner error. Accordingly, we sustain the rejection of claim 19.

D.

CLAIMS 1, 9, 32, AND 33

Appellants contend that the combination of references would not teach or suggest the limitations: "storing the first hash value in a second box in the media file" and "storing the second hash value in a fourth box in the

media file" as recited claim 9 and commensurate limitations of claims 1, 32, and 33. (App. Br. 16-17).

Appellants contend:

There has been no citation to a portion of Aksu that discloses the storing of *any hash value* in a box or atom - not to mention a hash value that is a function of user data." . . .

The cited portions of THEX only discuss the creation and use of hashes in a very general sense, but do not disclose the storing of a hash value in a second box in a media file as required by claim 9. . . . Because the cited portions of neither THEX nor Aksu disclose the above recited limitations of independent claims 1, 9, 32 and 33, their rejection should be reversed.

(App. Br. 17).

Appellants' contentions are not persuasive. Appellants' arguments focus on the *individual* teachings of the applied prior art references instead of addressing what their *combined* teachings would have suggested to one of ordinary skill in the art, and are thus not persuasive. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Appellants do not rebut the Examiner findings that the combination of references would have taught or suggested the limitation at issue. (Ans. 4-5, 18-19).

Regarding Appellants' contentions (App. Br. 16) concerning "boxes," Appellants do not cite to a definition of "boxes" in the specification or claim. However, see App. Br. 16: "At paragraph 0033 Aksu notes that in this context "atoms" are the same as "boxes." Applicants agree." Therefore, we conclude the broadest reasonable interpretation of boxes covers Aksu's

atoms. (Ans. 4-5; 18; see discussion below regarding claim 24). For these reasons, we are not persuaded of Examiner error.

F. CLAIMS 2, 7, 34, AND 39

Appellants contend that THEX would not teach or suggest the limitation "creating a digital signature as a function of at least the hash value," as recited in claims 2, 7, 34, and 39. (App. Br. 17-18).

Appellants' contentions are not persuasive because Appellants do not rebut the Examiner's findings that THEX's hashing of an input sent along with the input would have taught or suggested the limitation "the digital signature is a function of at least the hash value." (Ans. 17; 6). Appellants also fail to file a Reply Brief to further rebut the Examiner's findings.

For these reasons, we are not persuaded of Examiner error.

CLAIMS 14 AND 16-18

Appellants contend that the Examiner did not address the limitations of claims 14 and 16-18 by analyzing these claims with claim 22. (App. Br. 18-20; Ans. 8-9). Appellants contend that no portion of THEX and Aksu disclose the limitations of claims 14 and 16-18. (App. Br. 18-20).

The Examiner responds:

The relevant features of the claimed invention for patentability concern hashing and other calculations carried out on generic data. It would be obvious to execute the system of THEX on any kind of data and to break up data into any number of boxes or other units.

The data structure defined in the claims is simply a collection of "data boxes". The claimed invention is directed towards "storing", "selecting" and "hashing" data. These operations treat the data inside a box the same regardless of its

subjective interpretation. That is to say, it does not matter if a box is, for example, "a movie-level user data box", it will be stored (written), selected (read), and hashed in exactly the same way.

(Ans. 18-19).

Appellants' contentions are not persuasive. The Examiner relies on the *combination* of THEX and Asku to teach or suggest the limitations at issue. (Ans. 8). Specifically, the Examiner relies on Asku for the teaching or suggestion of any number of locations, movie-level user data boxes and a track-level user data boxes. (Ans. 8; 19-19). Appellants also agree that Asku's box would teach or suggest the claimed boxes regardless of the monikers of the boxes. (App. Br. 16: "At paragraph 0033 Aksu notes that in this context "atoms" are the same as "boxes." Applicants agree.") Moreover, Appellants fail to cite any definition of "boxes" in the Specification. For these reasons, we are not persuaded of Examiner error.

CLAIM 23

Appellants contend:

In addressing claim 23, the Final Office Action has cited to no portion of THEX or Aksu that discloses "wherein the second set of *metadata* is *other than* a hash value," or that discloses "creating the *digital signature* as a function of at least the first and second sets of metadata."

(App. Br. 20).

Appellants' contention is not persuasive. The Examiner relies on the combination of THEX and Aksu to teach or suggest the limitations of claim 23. (Ans. 6; 4-5). Aksu would have taught or suggested that media data in a MPEG file is not (other than) a hash value (Abstract, Fig. 1 and ¶ [0006]).

Moreover, we agree with the Examiner it would have been obvious in view of Thex and Aksu to create a digital signature (hash) as a function of additional sets of metadata. (Ans. 6, 17). In particular, THEX section 2.2 shows multiple digital signatures (hashes) made from a file. (THEX section 2.2; Ans. 4). For these reasons, we are not persuaded of Examiner error.

CLAIMS 8 AND 40

Appellants contend that "for use in decrypting ..." as recited in claims 8 and 40 should be accorded patentable weight. (App. Br. 20).

Appellants' contentions are not persuasive. We conclude that the recited "for use in decrypting ..." is a statement of intended use. (Claim 8). "An intended use or purpose usually will not limit the scope of the claim because such statements usually do no more than define a context in which the invention operates." *Boehringer Ingelheim Vetmedica, Inc. v. Schering-Plough Corp.*, 320 F.3d 1339, 1345 (Fed. Cir. 2003). Although "[s]uch statements often . . . appear in the claim's preamble," *In re Stencel*, 828 F.2d 751, 754 (Fed. Cir. 1987), a statement of intended use or purpose can appear elsewhere in a claim. *Id.* Therefore, we are not persuaded of Examiner error.

CLAIMS 11-13

Appellants contend that claims 11, 12, and 13 limitations are not obvious in view of the Examiner's findings and reasoning regarding claim 6. (App. Br. 21-22). The Examiner rejects redundant claim limitations by referring to the rejections of claims with similar limitations. (App. Br. 17). Appellants present no new arguments. (App. Br. 21-22). For the reasons

given above regarding claims 14 and 16-18, which have similar or commensurate limitations, Appellants' contentions are not persuasive. (*See* Ans. 6-8; 16, 18-19). We agree that THEX would have taught or suggested digital signatures. (*See* Ans. 17, 10-12). The Examiner relies on Asku for the teaching or suggestion of any number of locations and track boxes. (Ans. 8). *See* App. Br. 16: "At paragraph 0033 Aksu notes that in this context "atoms" are the same as "boxes." Applicants agree." For these reasons, we are not persuaded of Examiner error.

R1. CONCLUSION

Appellants also contend that claims 2, 6 - 8, 10 - 18, 34, and 38 – 40 are patentable by virtue of their dependency from their parent claims. (App. Br. 17). However, we find no defects for the reasons discussed above. Therefore, on this record, we are not persuaded of Examiner error.

Although Appellants presents nominal separate arguments for claims 1-2, 6-23, 32-34, and 38-40, we sustain the Examiner's rejection R1 for all rejected claims for the reasons set forth by the Examiner in the Answer and for the reasons discussed above regarding commensurate limitations and issues.

R2. CLAIMS 24-25 AND 29-31

CLAIM 24

Regarding claim 24³, Appellants contend that "[t]he audio frame header disclosed in page 2 of MPEG is not the same as the boxes of claim 24. Applicants' specification, especially paragraphs 0036, 0037 and FIG. 4,

³ In the event of further prosecution of claim 24 and its dependent claims, we leave it to the Examiner to consider whether these claims should be rejected under § 101 as being directed to an unpatentable data structure per se.

describes a box and its structure." (App. Br. 13; emphasis added).

Appellants further contend that "Claim 24 is with explicit reference to an MPEG file, and the term 'box' is well understood in the art in the context of MPEG files." (App. Br. 14).

Appellants' contentions are not persuasive. In the preamble of claim 24, "[a] data structure for a MPEG file" is an intended use and therefore the claim term "boxes" is not limited to MPEG files. Second, Appellants fail to cite any definition of "boxes" in the Specification.⁴ However, see App. Br. 16: "At paragraph 0033 Aksu notes that in this context "atoms" are the same as "boxes." Applicants agree." We further decline to read limitations into the claims.⁵ We agree with the Examiner that MPEG's file headers would have taught or suggested the broadest reasonable interpretation of "boxes" because file headers are separate parts of a file. (Ans. 16).

For these reasons, we are not persuaded of Examiner error. Accordingly, we sustain the rejection of claim 24.

⁴ Any special meaning assigned to a term "must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention." *Multiform Desiccants Inc. v. Medzam Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998); see also *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1381 (Fed. Cir. 2008) ("A patentee may act as its own lexicographer and assign to a term a unique definition that is different from its ordinary and customary meaning; however, a patentee must clearly express that intent in the written description.").

⁵ A basic canon of claim construction is that one may not read a limitation into a claim from the written description. *Renishaw plc v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998).

CLAIMS 25 AND 30

Appellants contend that THEX would not have taught or suggested the limitation of "wherein the digital signature is a function of at least the hash value" as recited in claims 25 and 30. (App. Br. 15).

Appellants contend:

The Final Office Action (at pages 10 and 11) rejected these claims, citing section 3.2.3 of THEX. While this cited portion of THEX makes reference to a "signature," it does not disclose the foregoing claim limitation. The cited portion of THEX only describes a URI (Uniform Resource Identifier) naming convention, and says that this naming convention "is inspired" by the URI convention in the XML Signature specification. This portion of THEX goes no further than this, and certainly does not disclose "wherein the digital signature is a function of at least the hash value," as required by claims 25 and 30. The rejection of these claims therefore should be reversed.

(App. Br. 14-15).

Appellants' contentions are not persuasive because Appellants do not rebut the Examiner's finding that THEX's hashing of an input sent along with the input would have taught or suggested the limitation "the digital signature is a function of at least the hash value." (Ans. 17; 10-12). The Examiner concludes in the rejection of claim 6, and Appellants do not rebut, that boxes, hashes, and sets of metadata would have been obvious in view of the combined teachings and suggestions of THEX and MPEG:

The THEX data structure can hash any number of data sets and the version of MPEG described by Aksu can contain an arbitrary number of boxes. It would be obvious to use any number of boxes and hashes. Thus all claims which specify additional boxes, hashes, sets of metadata, etc., are obvious in view of THEX and MPEG).

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(Ans. 6). Appellants also fail to file a Reply Brief to rebut the Examiner's findings.

For these reasons, we are not persuaded of Examiner error. Accordingly, we sustain the rejection of claims 25 and 30.

R2. CONCLUSION

Regarding the remaining rejection R2 of claims 25 and 29-31, Appellants contend these claims are patentable by virtue of their dependency from parent claim 24. (App. Br. 14). However, we find no defects for the reasons discussed above.

For the reasons discussed above, we sustain the Examiner's rejection of claims 25 and 29-31.

DECISION

We affirm the Examiner's rejections of claims 1, 2, 6 - 25, 29 - 34 and 38 - 40 under § 103.

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

AFFIRMED

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