

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PETRUS VAN BEEK, MUHAMMED IBRAHIM SEZAN
and GEORGE R. BORDEN IV

Appeal 2008-2033
Application 09/882,416
Technology Center 2100

Decided: January 16, 2009

Before: ALLEN R. MACDONALD, ST. JOHN COURTENAY III and
DEBRA K. STEPHENS, *Administrative Patent Judges.*

STEPHENS, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 (2002) from a final rejection of claims 1-31, 33-42, and 44- 59. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

STATEMENT OF CASE

The Invention

According to the Appellants, the invention is a computer-readable JPEG2000 image file format that extends uses of the JPEG2000 metadata boxes (Spec. 4). The metadata boxes may be extended to include data representative of a description of content depicted by the JPEG2000 file or to otherwise provide interactivity with the rendered image (*Id.*).

Exemplary Claim(s)

Exemplary Claims for each grouping of the rejections are as follows:

1. A digital file stored on a computer-readable medium, said digital file comprising:
 - (a) a plurality of boxes containing data arranged in a manner consistent with the JPEG2000 specification and suitable to render an image when read by a computer;
 - (b) at least one of said boxes being a metadata box; and
 - (c) including information within said metadata box describing the content of said image.

15. A digital file stored on a computer-readable medium, said digital file comprising:
 - (a) a plurality of boxes containing data arranged in a manner consistent with the JPEG2000 specification and suitable to render an image when read by a computer;
 - (b) at least one of said boxes being a UUID box; and
 - (c) including information within said UUID box describing the content of said image.

29. A digital file stored on a computer-readable medium, said digital file comprising:
 - (a) a plurality of boxes containing data arranged in a manner consistent with the JPEG2000 specification and suitable to render an image when read by a computer;
 - (b) at least one of said boxes containing information that provides interactivity with said image.

41. A digital file stored on a computer-readable medium, said digital file comprising:
 - (a) a MPEG-7 description scheme that includes the identification of the format of at least one of audio and visual media;
 - (b) said description scheme including data for rendering said at least one of said audio and visual media when read by a computer; and
 - (c) said at least one of said audio and visual media being contained within said description scheme wherein said description scheme includes a choice of two different encoding schemes for data, namely, base16 and base64.

47. A digital file stored on a computer-readable medium, said digital file comprising:
 - (a) a plurality of boxes containing data arranged in a manner consistent with the JPEG2000 specification and suitable to render an image when read by a computer;
 - (b) at least one of said boxes being a UUID box; and
 - (c) including information within said UUID box indicating the location of binary data, within said file and not within said UUID box, associated with said image.

Prior Art

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

ISO/IEC, *JPEG 2000 Image Coding System*, Final Committee Draft Version 1.0 (2000) (hereinafter “JPEG 2000”).

Fernando Pereira, *MPEG-7: A Standard for Describing Audiovisual Information*, IEE Colloquium on Multimedia Databases and MPEG-7 (Ref. No. 1999/056), (1999) (hereinafter “Pereira”).

ISO/IEC, *MPEG-7 Multimedia Description Scheme, Description Definition Language V3.0*, N3391 (2000) (hereinafter “N3391”).

Rejections

The Examiner rejected claims 1-31, 33-42, and 44-59 under 35 U.S.C. § 101.

The Examiner rejected claims 47-49, and 54 under 35 U.S.C. § 102(a) as being anticipated by JPEG 2000.

The Examiner rejected claims 41-42 and 44-46 under 35 U.S.C. § 103(a) as being obvious over Pereira in view of N33391.

Claims 32 and 43 have been cancelled.

SUMMARY OF DECISION

We REVERSE IN PART and AFFIRM IN PART. We also enter new grounds of rejection for claims 1, 15, 29 and 50 pursuant to our authority under 37 C.F.R. § 41.50(b).

ISSUE 1

35 U.S.C. § 101 Rejection: Claims 1-31, 33-42 and 44-59

Appellants contend their recited invention, a digital file “stored on a computer readable medium,” is directed to an object not merely an abstract arrangement of data; therefore, the recited invention meets the statutory requirements (App. Br. 6). Additionally, Appellants further contend several claims recite user-interactivity with the image rendered by the computer (App. Br. 7). Appellants continue that this user-interactivity is functional and not mere organization of data and thus, these claims recite statutory inventions (*Id.*).

The Examiner finds the claims are nonfunctional descriptive material per se since the claims recite mere arrangements of data; therefore, the Examiner concludes that the claims are directed to nonstatutory subject matter (Ans. 4).

Issue: Do claims 1-31, 33-42, and 44-59 recite statutory subject matter under § 101?

PRINCIPLES OF LAW

§101

The court in *In re Lowry*, 32 F.3d 1579, 1583-84 (Fed. Cir. 1994) considered the rejection of claims to memory storing a data structure and found the data structure resulted in electrical or magnetic differences in the structure of the memory, resulting in a memory that performed differently. In view of this performance relationship between the data structure and the memory the court held that no prima facie case of obviousness had been established. *See id.* at 1584.

ANALYSIS

Based on the record before us, we conclude the Examiner has erred in rejecting the claims as not comprising statutory subject matter under 35 U.S.C. § 101. The Examiner's argument centers on the claims reciting nonfunctional descriptive material since it is a mere arrangement of data and is not a data structure that imparts functionality when employed as a computer component (Ans. 4).

It has been the practice for a number of years that a “Beauregard Claim” of this nature be considered statutory at the USPTO as a product claim. (MPEP 2106.01, I). Though not finally adjudicated, this practice is not inconsistent with *In re Nuijten*, 500 F.3d 1346 (Fed. Cir. 2007). The claims at issue recite a digital file stored on a computer readable medium. This has been found statutory under *In re Lowry*, 32 F.3d 1579. In view of the totality of these precedents, we reverse the Examiner’s rejection under 35 U.S.C. § 101.

CONCLUSION OF LAW

We conclude that claims 1-31, 33-42, and 44-59 recite statutory subject matter.

ISSUE 2

35 U.S.C. § 102(a) Rejection: Claims 47-49 and 54

GROUPING OF CLAIMS

In their Appeal Brief, Appellants argue the rejection of claims 47-49 and 54 based on claim 47 alone; therefore, we decide the appeal of claims 47-49 and 54 based on claim 47 alone. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Appellants contend a UUID box and a UUID Info Box are functionally distinguishable from each other in a JPEG2000 file (App. Br. 7). Appellants therefore contend since JPEG 2000 distinguishes between the two types of boxes, the term UUID Box cannot be read onto a UUID Info Box (Reply Br. 8).

The Examiner finds UUID Boxes can store binary data and UUID Info boxes contain a list of UUIDs and links to more information (Ans. 5). Further, the Examiner finds no difference exists between the UUID box and UUID Info box as they both have the same structure and the name/label of the box is nonfunctional descriptive material (Ans. 12).

Issue: Have Appellants shown error in the Examiner's finding that a UUID Info Box can be mapped to a UUID Info Box?

FINDINGS OF FACT (FF)

Appellants' Invention

(1) Appellants contend their invention extends the JPEG2000 file format to include data representative of a description of the content depicted by the JPEG2000 file or to otherwise provide interactivity with the rendered image (Spec. 4, ll. 9-15).

JPEG 2000

(2) JP2 file format is an optional file format applications may choose to contain JPEG 2000 compressed image data (p. 137, § I.1). The JP2 file format provides a foundation for storing application specific data (metadata) in association with a JPEG 2000 codestream, such as information

required to display the image (p. 138, § I.4). JP2 is a contiguous sequence of boxes (p. 137, § I.2.1).

(3) A box is a building block defined by a unique box type and length (p. 137, § I.2.1). Box type specifies the kind of information that shall be stored with the box (p. 137, § I.2.1). Some particular boxes may contain other boxes (p. 137, § I.2.1). Other boxes may be found between the boxes; however all such data shall be in box format (p. 139, § I.4.2). Since all data is encapsulated in boxes, new boxes can be created (p. 140, § I.4.5).

(4) One important aspect of the JP2 format is the ability to add metadata to a JP2 file (p. 140, § I.4.5). The optional JP2 file format contains metadata about the image in addition to the codestream (p. 11, § 8.2).

(5) The JP2 header box, UUID Info box as well as many “optional” boxes and boxes within boxes, i.e., image header box within the JP2 header box, describe the content of the image (p. 145-146, § I.7.3; p. 157, §§ I.7.4, I.9.1; p. 158, §§ I.9.2 - I.9.3; and p. 146, § I.7.3.1). The JP2 header box, for example, includes information regarding the colorspace, palette map, and resolution of the image (p. 145-146, § I.7.3).

(6) Vendors can extend the JP2 file by adding binary data using UUID boxes (p. 158, § I.9.3). UUID boxes contain vendor specific data (p. 158, § I.9.2). The UUID box is optional as is the UUID Info box and a particular order of the boxes is not generally implied except the JP2 Signature box must be the first box and the JP2 header box must precede the Contiguous codestream box (p. 139, § I.4.2).

(7) The UUID Info box includes a list of UUIDs for which this UUID Info box specifies a link to more information and the respective URLs and may be found anywhere in the top level of the JP2 file (p. 158, § I.9.3).

PRINCIPLES OF LAW

Claim Construction

"Our analysis begins with construing the claim limitations at issue." *Ex Parte Filatov*, No. 2006-1160, 2007 WL 1317144, at *2 (BPAI 2007).

"The Patent and Trademark Office (PTO) must consider all claim limitations when determining patentability of an invention over the prior art." *In re Lowry*, 32 F.3d at 1582 (citing *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983)). "Claims must be read in view of the specification, of which they are a part." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc). "[T]he PTO gives claims their 'broadest reasonable interpretation.'" *In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004) (quoting *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000)). "Moreover, limitations are not to be read into the claims from the specification." *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (citing *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989)).

Anticipation- §102

It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984).

ANALYSIS

A UUID box and UUID Info box, as well as the JP2 file are all boxes as defined by JPEG 2000 (FF 2, FF 5). The JP2 file is a plurality of boxes (FF 2). One such box, the UUID Info box, contains information that indicates the location of binary data (FF 7). Boxes are created by specifying the type of information and length of the information (FF 3). Accordingly, a user may change the contents of a box by changing the box type.

The functionality recited for the UUID box in Appellants' claim is described by JPEG 2000 as for the UUID Info box. Appellants argue the boxes are different according to JPEG 2000; Appellants' claim 47, states the boxes are "consistent with the JPEG2000 specification." However, JPEG 2000 allows addition of boxes so long as the data is in box format (FF 2). Such boxes include the optional UUID box and UUID Info Box.

Moreover, Appellants do not define the term "consistent with" in their specification. Therefore, we look to the ordinary meaning of the term "consistent with" which is defined as "compatible with." *See Merriam-Webster's Collegiate Dictionary* (10th ed. 2000). Therefore, the invention as claimed need only be compatible or harmonious with the JPEG2000 specification – not compliant with or conforming to JPEG2000 specification as Appellants describe in their specification (Spec. 5, ll. 7-10 and Spec 5, l.21 – Spec. 6, l. 2). "Consistent with" is a broader term that does not require complete conformity with the JPEG2000 specification. Again, since the boxes need only be in box format as described in JPEG 2000, we find a file with changes in an optional box name is "consistent with" the JPEG2000 specification.

Appellants additionally argue the boxes are functionally distinguished from each other by position of the data within the file as a whole (Reply Br. 7); however, since each box is optional and a particular order of boxes is not required for these two boxes or many others (FF 6), we find the position of the data within the file as a whole does not affect the functionality.

Since the functionality of the UUID Info Box is the same as Appellants' UUID box, we find mere renaming of the box is inadequate to differentiate between the elements. The difference is semantic and relates to the label attached to the box not to its function.

Therefore, we find JPEG 2000 anticipates the invention as recited in claim 47. Since claims 48, 49 and 54 depend directly from claim 47 and these claims were not argued separately, claims 48, 49 and 54 fall with claim 47.

CONCLUSION OF LAW

Appellants have not shown the Examiner erred in finding a UUID Info Box can be mapped to a UUID Info Box.

Therefore, Appellants have not established the Examiner erred in rejecting claims 47-49 and 54 as being anticipated under 102(a) over JPEG 2000.

ISSUE 3

35 U.S.C. § 103(a) Rejection: Claims 41, 42 and 44-46

Appellants contend their recited invention describes the “data for rendering said at least one of said audio and visual media” is **within** the MPEG-7 description scheme (which is contrary to Pereira, which states the

MPEG-7 description scheme and the “reproduction data” are “co-located” (Reply Br. 8-9).

The Examiner finds Pereira teaches “MPEG-7 descriptions may be physically co-located with the reproduction data, in the same data stream” and therefore, Pereira in view of N33391 renders the present invention obvious (Ans. 4).

Issue: Have Appellants shown the Examiner erred in finding audio and visual media being contained within the MPEG-7 description scheme would have been obvious to an ordinary person skilled in the art in light of Pereira in view of N33391?

FINDINGS OF FACT (FF)

Pereira

(8) MPEG-7 is a standard representation of audiovisual information (p. 6/1). MPEG-7 is mainly intended for content identification purposes, while other representation formats, such as MPEG-2 and MPEG-4 are mainly intended for content reproduction purposes, although the boundaries may be not so sharp (p. 6/2).

PRINCIPLES OF LAW

Obviousness - §103

Appellant has 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.”).

GROUPING OF CLAIMS

Claims 41, 42 and 44-46

In their Appeal Brief, Appellants argue the rejection of claims 41-42 and 44-46 based on claim 41 alone. Claims 42 and 44-46 depend directly from claim 41 and thus, we decide the appeal of claims 41, 42 and 44-46, on the basis of claim 41 alone. *See* 37 C.F.R. § 41.37(c)(1)(vii).

ANALYSIS

MPEG-7 is mainly used for content identification and MPEG-2 and MPEG-4 mainly for content reproduction purposes (FF 8). However, Pereira teaches the boundaries are not sharp between the functionality associated with the MPEG-7 files and the other MPEG files (FF 8).

Therefore, we find Pereira suggests the MPEG-7 file may be used for content reproduction purposes along with its main use of content identification.

CONCLUSION OF LAW

For the reasons above, Appellants have not established the Examiner erred in finding audio and visual media being contained within the MPEG-7 description scheme would have been obvious to a person of ordinary skill in the art over Pereira in view of N33391.

Therefore, Appellants have not shown the Examiner erred in rejecting claims 41, 42, and 44-46 as being obvious under 35 U.S.C. § 103(a) over Pereira in view and N33391.

NEW GROUNDS OF REJECTION

Using our authority under 37 C.F.R. § 41.50(b), we reject claims 1 and 15 under 35 U.S.C. §102(a) as being anticipated by JPEG 2000. We also reject claims 29 and 50 under 35 U.S.C. §103(a) as being obvious over JPEG 2000.

ANALYSIS

35 U.S.C. §102(a): claims 1 and 15

Claim 1 recites “a plurality of boxes containing data arranged in a manner consistent with the JPEG2000 specification and suitable to render an image when read by a computer.” JPEG 2000 describes the JP2 file as a sequence of boxes that contains image data used to create an image through chosen applications (FF 2). We therefore find JPEG 2000 teaches a plurality of boxes containing data arranged in a manner consistent with the JPEG2000 specification and suitable to render an image when read by a computer.

Claim 1 additionally recites at least one of the boxes is a metadata box that includes information within itself describing the content of the image to be rendered. The JP2 file format is able to add metadata in association with a codestream to a JP2 file (FF 2 and FF 4). The JP2 file contains metadata about the image (FF 4). Since the data is encapsulated in boxes (FF 4), the metadata is within a box.

Therefore, we find JPEG 2000 teaches at least one of the boxes of the digital file is a metadata box and information within that box describes the content of the image. Accordingly, we reject claim 1 under 35 U.S.C. §102(a) as anticipated by JPEG 2000.

Claim 15 recites also recites “a plurality of boxes containing data arranged in a manner consistent with the JPEG2000 specification and suitable to render an image when read by a computer.” For the reasons set forth above, we find that JPEG 2000 teaches this element.

Claim 15 further recites at least one of the boxes is a UUID box that contains information describing the content of the image. As discusses

above, UUID is a label – several boxes within the JP2 file include information describing the content of the image. For example, the UUID box provides vendor specific information and the JP2 Header box provides colorspace, palette map, and resolution information (FF 5). Also, since the “consistent with” means compatible with, the renaming of a box would still be consistent with the JP2 file.

Based on the foregoing, we find JPEG 2000 describes a plurality of boxes, at least one of the boxes describing the content of the image within a data file that is consistent with the JPEG2000 specification. We therefore reject claim 15 under 35 U.S.C. §102(a) as anticipated by JPEG 2000.

ISSUES

35 U.S.C. §103(a): claims 29 and 50

Claim 29 recites “a plurality of boxes containing data arranged in a manner consistent with the JPEG2000 specification and suitable to render an image when read by a computer” as recited in claim 1. For the reasons set forth in the discussion with respect to claim 1, we find JPEG 2000 teaches this element.

Claim 29 additionally recites at least one of the boxes in the digital file contains information provides interactivity with the image. Appellants do not provide a definition of interactivity. The ordinary meaning of “interactive” is mutually or reciprocally active. *See Merriam-Webster’s Collegiate Dictionary* (10th ed. 2000). Using this definition, the at least one of the boxes containing information and the image must be mutually or reciprocally active.

We find data in a JP2 file is interactive with the rendered image. For example, the resolution data (in the Image Header box) and the rendered image are interactive – the data and image act with each other to produce the image in the proper resolution for that particular image. Therefore, we find at least one of the boxes of the JP2 file contains information that provides interactivity with the image.

Since we find JPEG 2000 teaches the invention as recited in claim 29, we reject claim 29 as being obvious under 35 U.S.C. §103 over JPEG 2000.

Claim 50 depends from independent claim 47 which we have found to be anticipated by JPEG 2000. Claim 50 further recites the “information provides interactivity with the image.” Further to the reasons stated above with respect to claims 29 and 47, we find the information in the UUID box and the image are interactive – the data and image act together with each other to produce the image with respect to the vendor information or other information that may be contained in the UUID box. Therefore, we find JPEG 2000 teaches the “information provides interactivity with said image” and as a result, claim 50 is obvious under 35 U.S.C. §103 over JPEG 2000

Dependent claims 2-14, 16-28, 30-40, 51-53 and 55-59

The Board of Patent Appeals and Interferences is a review body, rather than a place of initial examination. We have made rejections above under 37 C.F.R. § 41.50(b). However, we have not reviewed claims 2-14, 16-28, 30-31, 33-40, 51-53 and 55-59 to the extent necessary to determine whether these claims are patentable over JPEG 2000, Pereira and/or N3391. We leave it to the Examiner to determine the appropriateness of any further

rejections based on the JPEG 2000, Pereira and/or N3391 alone or in combination with any other prior art references.

DECISION

The Examiner's rejection of claims 1-31, 33-42 and 44-59 under 35 U.S.C. §101 is reversed.

The Examiner's rejection of claims 47-49, and 54 under 35 U.S.C. § 102(a) as being anticipated by JPEG 2000 is affirmed.

The Examiner's rejection of claims 41-42 and 44-46 under 35 U.S.C. § 103(a) as being unpatentable over Pereira in view of N3391 is affirmed.

In addition to affirming the Examiner's rejections, this decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b), specifically, we reject claims 1 and 15 under 35 U.S.C. §102(a) as being anticipated by JPEG 2000. We also reject claims 29 and 50 under 35 U.S.C. §103(a) as being obvious over JPEG 2000.

37 C.F.R. § 41.50(b) provides that “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that the Appellant, **WITHIN TWO MONTHS FROM THE DATE OF THE DECISION**, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

- (1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record

Should Appellants elect to prosecute further before the Examiner pursuant to 37 C.F.R. § 41.50(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the Examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If Appellants elect prosecution before the Examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

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- IN -PART
REVERSED-IN-PART
37 C.F.R. § 41.50(b)

msc

TIMOTHY A. LONG
CHERNOFF, VILHAUER, MCCLUNG AND STENZEL, L.L.P.
1600 ODS TOWER
601 SW SECOND AVE.
PORTLAND OR 97204