

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

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte

Appeal No. 2006-2658
Application No. 09/790,334

ON BRIEF

Before HAIRSTON, KRASS, and BARRY, Administrative Patent Judges.
KRASS, Administrative Patent Judge.

This is a decision on appeal from the final rejection of claims 1-17.

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The invention is directed to a system and method for using computer image processing for selectable task-based digital video compression.

Representative independent claim 1 is reproduced as follows:

1. A system for compressing one or more video streams comprising:

one or more image input devices creating the one or more video streams; and

a selector process that selects a semantic compression process out of a set of semantic compression processes, the selected semantic compression process compressing the one or more video streams based on a task that required the compression of the one or more video streams and that utilizes content of the one or more video streams.

The examiner relies on the following references:

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| Gates et al (Gates) | 5,073,819 | Dec. 17, 1991 |
| Weiman et al (Weiman) | 5,103,306 | Apr. 07, 1992 |
| Lee | 5,805,221 | Sep. 08, 1998 |
| Moura et al (Moura) | 5,854,856 | Dec. 29, 1998 |
| Beretta et al (Beretta) | 5,883,979 | Mar. 16, 1999 |
| Sato et al (Sato) | 6,249,324 | June 19, 2001 (Filed Dec. 30, 1996) |
| Koyanagi et al (Koyanagi) | 6,323,898 | Nov. 27, 2001 (Filed Dec. 14, 1996) |

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Claims 1, 2, 4, and 11-17 stand rejected under 35 U.S.C. § 102(e) as anticipated by Sato.

Claims 3 and 5-10 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner offers Sato as the primary reference, together with Beretta with regard to claim 3, Gates with regard to claim 6, Koyanagi with regard to claim 7, Moura with regard to claim 9, Weiman with regard to claim 10, and Lee with regard to claims 5, 8, and 9.

Reference is made to the briefs and answer for the respective positions of appellants and the examiner.

OPINION

A rejection for anticipation under section 102 requires that the four corners of a single prior art document describe every element of the claimed invention, either expressly or inherently, such that a person of ordinary skill in the art could practice the invention without undue experimentation. See Atlas Powder Co. v. Ireco Inc., 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999); In re Paulsen, 30 F.3d 1475, 1478-79, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

Taking independent claim 1 as exemplary, at page 4 of the answer, the examiner asserts that Sato discloses the compressing of one or more video streams comprising one or more image input

devices (in Figure 1) creating one or more video image streams (Figure 1, item 16). The examiner also asserts that the claimed "selector process" is met by Sato by the selector 20 of Figure 1 selecting a semantic compression process out of a set of compression processes (referring to 18 of Figure 1, e.g., a set of compression processes is a set of video compression processes that comprises M-JPEG, MPEG, and H.261), wherein the selected semantic compression process compresses one or more of the video streams based on a task that required the compression of the one or more video streams and that utilizes content of the one or more video streams (The examiner refers to the "task" being a control 26 of Figure 1, item 20 of Figure 1 being the selector selecting one of the compression processes based on the controller 26).

Appellants argue that a "semantic compression process" is a compression process that compresses based on the semantics of the content, and they note, at page 4 of the supplemental brief, that at the time of the instant invention (December 30, 1996), none of the compression processes disclosed or suggested by Sato were semantic compression processes, "as would be apparent to a person of ordinary skill in the art."

Moreover, note appellants, Sato teaches that the selector selects a compression process "according to control commands received through the network" (column 3, lines 62-63), while

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independent claims 1 and 14-17 require compressing the one or more video streams "based on a task that required the compression."

Still further, appellants argue that Sato teaches selecting a frame rate (referring to column 4, lines 9-19), with a frame rate being only a parameter of a compression process, so that selecting a frame rate is not selecting a compression process (supplemental brief-page 4).

Appellants also contend that Sato teaches selecting such compression encoding means based on the information exchange with the communication partner and/or on the status of the communication path (column 15, lines 48-50) and so Sato cannot satisfy the claimed requirement of selecting a compression process based on a task.

The examiner's response to these arguments is at pages 10-11 of the answer. Therein, the examiner notes that in claim 2, appellants define a "task" as one or more of "surveillance, diagnosis, inspection, navigation, objection localization, **control**, and maintenance" (emphasis added). The examiner further notes that appellants define "semantic compression processes" in claim 4, as including "Motion Picture Experts Group compression standards, M-JPEG, M-JBIG, H.261, H.323..."

Therefore, the examiner contends that by appellants' own definitions, since Sato discloses MPEG and H.261 processes (see the abstract, for example), it discloses "semantic compression processes," as claimed. Further, the examiner contends, this semantic compression process is selected based on a "task," because it is selected based on "control commands" and "control" is one type of "task" as defined by appellants.

While appellants do not argue the examiner's response re the definition of a "task" including the control commands of Sato, appellants do argue that claim 4 does not define a "semantic compression process" as M-JPEG, M-JBIG, or H.261. Rather, according to appellants, that claim merely recites these standards as "compression processes" which may be included in "semantic compression processes."

Since the examiner's rationale regarding the control commands of Sato as constituting the claimed "task," within the definition established by appellants' own claim 2, and this point is not further addressed by appellants in their reply brief, we find for the examiner on this point.

While appellants may be correct in their assertion that claim 4 only defines the M-JPEG, M-JBIG, and H.261 standards as "compression processes" which may be included within "semantic compression processes," it appears to us that the real issue here is what is the definition of "semantic compression processes."

We must determine what constitutes such "semantic compression processes" before we can make a reasoned judgment as to whether Sato anticipates the independent claims.

Appellants contend that the Motion Picture Experts Group compression standards recited in claim 4 do not constitute "semantic compression processes." At page 4 of the supplemental brief, appellants assert that a "semantic compression process" is "a compression process that compresses based on the semantics of the content." This appears to comport with the definition in the specification, as in the description of the invention using computer vision techniques to find "semantically important image features" (page 13) or the description of prior art "semantic or content-based compression" (top line of page 9).

Thus, to say that a compression technique is a "semantic compression process" would appear to mean at least that the compression process is "content-based," in accordance with the description in the instant specification. Moreover, we note that the specification describes prior art techniques of H.263, MPEG-1 and MPEG-2 as not being based on anything "semantically meaningful" as far as the content of the image is concerned, and that is where the new MPEG-4 is an improvement (page 2). These prior art techniques are described as having "no notion of what is important to a particular task and hence degrade all information uniformly" (page 8).

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In view of these observations in the instant specification, we agree with appellants that the Motion Picture Experts Group compression standards recited in claim 4 are not recited as examples of the claimed "semantic compression processes" but, rather are merely prior art compression processes which are included in the claimed "semantic compression processes," and that a semantic compression process must be a process capable of compression of information based on the content of that information. The examiner has not shown that any of these prior art MPEG compression standards disclosed by Sato are capable of compressing information therein based on content.

Accordingly, we will not sustain the rejection of claims 1, 2, 4, and 11-17 under 35 U.S.C. § 102(e).

Since none of the other applied references provide for the deficiency of Sato in teaching a "semantic compression process," as claimed, and we agree with appellants that not one of these additional references addresses the issue of selecting a semantic compression process out of a set of semantic compression processes based on a task, we also will not sustain the rejection of claims 3 and 5-10 under 35 U.S.C. § 103.

The examiner's decision is reversed.

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REVERSED

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| KENNETH W. HAIRSTON |) |
| Administrative Patent Judge |) |
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| |) BOARD OF PATENT |
| ERROL A. KRASS |) |
| Administrative Patent Judge |) APPEALS AND |
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| |) INTERFERENCES |
| |) |
| LANCE LEONARD BARRY |) |
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