

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 19

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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

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Ex parte STEVEN D. MAURER

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Appeal No. 2004-0204  
Application No. 09/231,128

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ON BRIEF

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Before KRASS, JERRY SMITH, and RUGGIERO, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-3, 7-11, 14, 16 and 18-20.

The invention pertains to processing compressed video streams. In particular, the invention provides for detecting content based defects in a video stream by testing the field data and changes in field data to generate an appropriate alarm signal for an operator.

Representative independent claim 1 is reproduced as follows:

1. An apparatus for detecting content based defects in a video stream comprising:

means for detecting a specified content characteristic in the video stream;

means for determining whether the specified content characteristic meets a predetermined alarm criterion; and

means for reporting an error when the predetermined alarm criterion is met.

The examiner relies on the following references:

Tamer	4,430,671	Feb. 7, 1984
Rao et al. (Rao)	6,041,142	Mar. 21, 2000 (Filed Apr. 8, 1996)
Hasegawa	6,075,552	Jun. 13, 2000 (Filed Jun. 11, 1997)
Dimitrova et al. (Dimitrova)	6,100,941	Aug. 8, 2000 (Filed Jul. 28, 1998)
Van De Schaar-Mitrea et al. (Van De Schaar-Mitrea)	6,175,386	Jan. 16, 2001 (Filed Jun. 2, 1998)
Japanese Patent Application Hirokawa	JP9-266567-A	Oct. 7, 1997

Claims 1 and 18 stand rejected under 35 U.S.C. §102 (e) as anticipated by Hasegawa.

Claims 1-3, 7-11, 14, 16 and 18-20 stand rejected under 35 U.S.C. §103. As evidence of obviousness, the examiner offers Hasegawa with regard to claims 2, 16 and 19, adding Rao with regard to claims 1-3, 8, 9, 11/8 and 18-20. The examiner offers

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Tamer or Dimitrova in view of Hasegawa with regard to claims 1, 2, 7, 11/7, 18 and 19, while offering Van De Schaar-Mitrea in view of Hasegawa with regard to claims 1, 2, 10, 18 and 19. The examiner offers Hirokawa in view of Hasegawa with regard to claims 1, 2, 14, 18 and 19.

Reference is made to the brief and answer for the respective positions of appellant and the examiner.

#### OPINION

First, with regard to the rejection of independent claims 1 and 18 under 35 U.S.C. §102 (e), a rejection for anticipation 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. In re Paulsen, 30 F.3d 1475, 1478-79, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

The examiner postulates that Hasegawa discloses a system, in Figure 1, and a method, in Figure 7, for detecting errors, which the examiner equates to “abnormalities,” in a video stream sent by headend 21, wherein count values indicative of specific video content are stored and compared with a preset value, and a visual alarm, indicated by the examiner as a “background color,” is displayed to the viewer. The examiner further alleges that the Hasegawa system reports the occurrence of the detected error back to the headend via element 36.

Appellant's view is that Claims 1 and 18 recite "detecting a specified content characteristic in the video stream" and that a "specified content characteristic" is not equivalent to a count value that indicates whether a picture frame has been decoded or not between computer interrupts. That is, appellant argues that one cannot equate an interrupted service of Hasegawa, indicated by a lack of a decoded picture frame to a content characteristic of the instant invention, wherein such characteristic is based on comparing decoded picture frames with other picture frames, i.e., what is actually in the picture frame is the content characteristic, not the absence of a picture frame (brief-page 4).

We agree with the examiner that a broad, yet reasonable, interpretation of the claim limitation, "specified content characteristic" would include the disclosure by Hasegawa wherein an abnormality, causing an interruption, is an indication of a "content characteristic" since detection of presence or absence of a video signal can certainly be a "content characteristic." If a signal is absent, there is no content; hence the "characteristic" of the content is that it is not present. Moreover, as pointed out by the examiner, Hasegawa, in the background section of the patent, discusses prior art detection of an abnormal state from picture data of a monitor, wherein brightness value of pixel data of a moving picture frame is compared with that of a picture frame taken previously. Clearly, "brightness" can be considered as a "content characteristic," as

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claimed. Brightness is “actually in the picture frame” and thus meets appellant’s definition of “content characteristic” at page 4 of the brief.

Accordingly, we will sustain the rejection of claims 1 and 18 under 35 U.S.C. §102 (e).

With regard to the rejection of claims 2, 16 and 19 under 35 U.S.C. §103 over Hasegawa, the examiner explains that although Hasegawa does not specify the video parameter being detected, it would have been obvious to apply the counter of Hasegawa to the brightness data since video data is uniquely represented by and presented as brightness and color information (answer-page 5).

Appellant argues that the examiner erroneously contends that it would have been obvious to apply the counter of Hasegawa to brightness data. Appellant contends that the rejection is “difficult to understand” since the brightness detector is just one of many listed in claims 2 and 19, and is not mentioned in claim 18. The appellant urges that only claim 16 recites that a brightness detector is used as the detecting means. In any event, appellant contends that there is no teaching or suggestion in Hasegawa that a brightness detector may be used ‘because Hasegawa is based on the absence of a decoded picture frame” (brief-page 5).

We are unpersuaded by appellant’s arguments. First, in Hasegawa’s background section, mentioned supra, detection of an abnormal state of a picture frame based on brightness value is disclosed.

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With regard to appellant's difficulty in understanding the rejection because brightness is "just one of many listed" in claims 2 and 19, these claims list the detectors in a Markush group, "the group consisting of..." Accordingly, a showing of any one of the items in that group is sufficient to meet the claim language. The examiner has shown the obviousness of employing a brightness detector in view of Hasegawa. This is all that is required, as broadly as the subject matter is claimed.

While Hasegawa's preferred embodiment may involve detecting the absence of a decoded picture frame, the discussion of the prior art to Hasegawa, still part of the Hasegawa disclosure, makes it clear that it was known to detect brightness in detecting defects, or abnormalities, of a picture frame.

Accordingly, we will sustain the rejection of claims 2, 16 and 19 under 35 U.S.C. §103.

With regard to claims 1-3, 8, 9, 11/8 and 18-20, the examiner contends that since Rao analyzes content in a video stream, by detecting duplicate fields, to decide which compression mode should be applied, with signal 418 used to indicate the results of the data detected in video sequence (the indication being reasonably considered a type of alarm), that it would have been obvious to register the detection, or to make a note or record of it, constituting a report as specifically taught by Hasegawa, at least for the purpose of informing the operator of the results, with the subsequent processing

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applied to the identified video stream, for the operator's own information or personal benefit (see answer-pages 5-6).

Appellant argues that since Rao does not teach that the disclosed 3:2 pulldown detection is a defect, but only affects the compression decision when detected, the artisan would have had no reason for combining this detection with Hasegawa, which only looks for missing decoded fields for interruption of the transmission of the VOD stream.

Appellant's argument is not persuasive since, as discussed supra, Hasegawa already teaches/suggests detection of a "defect," or, as broadly claimed, a determination of a specific content characteristic and the report of an error when a predetermined alarm criterion is met. Appellant has not pointed to any specific claim language, other than "specified content characteristic" on which he relies for patentability.

Accordingly, we will sustain the rejection of claims 1-3, 9, 11/8 and 18-20 under 35 U.S.C. §103.

Similarly, with regard to the rejection of claims 1, 2, 7, 11/7, 18 and 19 under 35 U.S.C. §103 over Tamer or Dimitrova in view of Hasegawa, appellant merely points out that Tamer teaches the display of a channel number when video fades to black and the artisan would not have introduced this feature into Hasegawa except to display the selected video channel when the VOD service is interrupted; that Tamer does not teach

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the “specific content characteristic”; that Dimitrova teaches locating a commercial within a video data stream, that one factor in the method is whether a black frame has occurred based on certain criteria, that this is not a detection of an error or a defect, and that while combining Dimitrova and Hasegawa may produce the ability to skip commercials when the video is interrupted, it does not indicate any error or defect in video content.

Again, appellant points to no specific claim language, other than “specific content characteristic,” on which he relies for patentability. The “specific content characteristic” language has been dealt with supra, with regard to Hasegawa. Since it is unclear as to on what other claim limitations appellant bases his argument for patentability, we will sustain the rejection of claims 1, 2, 7, 11/7, 18 and 19 under 35 U.S.C. §103.

With regard to the rejection of claims 1, 2, 10, 18 and 19 under 35 U.S.C. §103 over Van De Schaar-Mitrea and Hasegawa, appellant again argues that Van De Schaar-Mitrea’s different compressions, dependent on whether the signals are graphic or video, is not a detection of errors or defects in the video content.

Since the examiner has already shown how Hasegawa broadly discloses the claimed detection of errors in video content, appellant’s argument that another reference does not show this is unpersuasive of patentability.

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Thus, we will sustain the rejection of claims 1, 2, 10, 18 and 19 under 35 U.S.C. §103.

Finally, with regard to claims 1, 2, 14, 18 and 19 and their rejection under 35 U.S.C. §103 over Hirokawa and Hasegawa, we will also sustain this rejection since appellant again argues no suggestion of detecting errors in the video content while we have decided, supra, that Hasegawa already discloses this broadly claimed limitation.

Since we find none of appellant's arguments persuasive of patentability, we have sustained the rejection of claims 1 and 18 under 35 U.S.C. §102 (e) and the rejection of claims 1-3, 7-11, 14, 16 and 18-20 under 35 U.S.C. §103.

The examiner's decision is, accordingly, affirmed.

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

AFFIRMED

Errol A. Krass	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
Jerry Smith	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
Joseph F. Ruggiero	)	
Administrative Patent Judge	)	

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