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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* MARK SINCLAIR KREBS

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Appeal 2016-002538
Application 11/107,952[1]
Technology Center 2400

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Before CAROLYN D. THOMAS, JEFFREY S. SMITH, and TERRENCE W. McMILLIN, *Administrative Patent Judges*.

McMILLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) of the Final Rejection of claims 5, 6, 8–12, and 20. Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] According to Appellant, the real party in interest is Mark Sinclair Krebs (App. Br. 1).

## REJECTIONS ON APPEAL

Claims 5, 6, 8–12, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vetro et al. (US 6,490,320 B1, published Dec. 3, 2002), Jayant et al. (US 2011/0292996 A1, published Dec. 1, 2011), and Lin et al. (US 2004/0194144 A1, published Sept. 30, 2004).

## THE CLAIMED INVENTION

The present invention generally relates to "issues of the wireless Internet," and more particularly to "methods of multimedia transmission and playback for mobile clients." Spec. 1. Independent claims 5 and 20 are directed to methods. App. Br. 10, 12.

Claim 5 recites (emphasis added):

> 5. A method of creating multimedia objects, where, in the case of a live multimedia stream, the input multimedia stream is:
>
> first transcoded into a optimal audiovisual format such as MPEG4/ AAC and at an optimal encoding rate reflecting available cellular network bandwidth,
>
> then dynamically converted into discrete multimedia objects by splitting the encoded stream into specified intervals by scanning after the specified intervals for the next I-frame, and each multimedia segment is split at that next I-frame to create another discrete multimedia object, and
>
> then immediately transmitted to distributed content servers transmitting the recently created discrete multimedia objects to wireless clients;
>
> *alternatively, in the case of converting an archived multimedia file*, the input multimedia stream is first transcoded into a optimal audiovisual format such as MPEG4/ AAC and at an optimal encoding rate reflecting available cellular network bandwidth, and
>
> then converted into discrete multimedia objects by splitting the encoded stream into specified intervals by scanning after the specified intervals for the next I-frame, and each multimedia segment is split at that next I-frame to create another discrete multimedia object;

wherein each of said discrete multimedia objects includes a video segment forming part of a stream of video and each video segment is provided with a distinctive Internet address;

wherein each of said distinctive Internet addresses are read sequentially to play back said stream of video and maintain visual fluidity.

ANALYSIS

We have reviewed the Examiner's rejections in light of Appellant's arguments that the Examiner erred. We are not persuaded that Appellant identifies reversible error. Upon consideration of the arguments presented in the Appeal Brief and Reply Brief, we agree with the Examiner that all the pending claims are unpatentable over the cited combination of references. We adopt as our own the findings and reasons set forth in the rejection from which this appeal is taken and in the Examiner's Answer. We provide the following explanation to highlight and address specific arguments and findings primarily for emphasis.

*Claims 5, 6, 8–12, and 20*

Appellant contends Vetro does not teach an improvement to image quality and reduction in receiving irrelevant data over a costly network, and thereby Vetro's bitstream is different from the claimed multimedia stream. *See* App. Br. 5. In response, the Examiner finds such improvement and reduction "are not recited in the rejected claims." Ans. 10. We agree with the Examiner.

Claim 5 is directed towards an "*input multimedia stream*" that is "*transcoded into a optimal audiovisual format such as MPEG4/AAC* and at an optimal encoding rate reflecting available cellular network bandwidth," and *the multimedia stream is "then dynamically converted into discrete multimedia objects* by splitting the encoded stream into specified intervals

by scanning after the specified intervals for the next I-frame, and each multimedia segment is split at that next I-frame to create another discrete multimedia object" (emphases added). The claim does not require any particular steps in the presence of network congestion or other network interruption, as argued by Appellant. *See* App. Br. 5.

Appellant further contends Jayant's MPEG video stream and frames "are not discrete multimedia objects but rather a portion of a MPEG stream." App. Br. 5–6.

Claim 5 is directed towards dynamically converting a multimedia stream "into *discrete multimedia objects* by splitting the encoded stream into specified intervals by scanning after the specified intervals for the next I-frame, and *each multimedia segment is split at that next I-frame to create another discrete multimedia object*" (emphases added). Appellant's Specification states the "multimedia object creator produces discrete multimedia objects from video and audio segments of a continuous stream," and that the discrete multimedia objects provide the mobile client with "the opportunity to interact with any given media sequence on a per object basis." Spec. 6, 7. However, Appellant provides no limiting definition of the claimed discrete multimedia object that excludes portions of video streams, and rather merely describes a method for how a discrete multimedia object may be formed. *See* claim 5.

In response, the Examiner finds Jayant's video sequences composed of series of groups of pictures "read on 'discrete multimedia objects.'" Ans. 11; *see also* Ans. 3–4. As cited by the Examiner, Jayant describes that each "video sequence is composed of a series of groups of pictures (GoPs)" and that "[e]ach GoP is composed of a series of frames, beginning with an I-

frame." Jayant ¶ 21. In other words, Jayant's video is separated into groups of pictures, separated by I-frames. Appellant has not provided persuasive evidence or argument that discrete multimedia objects from splitting a stream into intervals and splitting the segments at I-frames, as claimed, is not taught or otherwise suggested by Jayant's groups of pictures separated by I-frames.

Appellant further contends Jayant does not split "an encoded stream into specified intervals" but rather is dividing uncompressed video frames in order to encode them. App. Br. 6. Appellant's argument against Jayant separately from Vetro does not persuasively rebut the combination made by the Examiner. One cannot show non-obviousness 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); *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Specifically, we agree with the Examiner's finding that Vetro teaches "that the "multimedia stream is first transcoded' and the coding of audiovisual objects." Ans. 11; *see also* Ans. 3. For example, Vetro describes MPEG-4 as "allow[ing] arbitrary-shaped objects to be encoded and decoded as separate video object planes," as well as the delivery of "a compressed bitstream 301 with information content through a network 350 to a user device 360" wherein "[t]he content of the bitstream can be visual, audio . . . ." Vetro, col. 1, ll. 44–50, col. 7, ll. 44–48. In other words, Vetro describes encoding a stream for a compressed bitstream.

Appellant has not provided persuasive evidence or argument that "the input *multimedia stream is: first transcoded into a optimal audiovisual format such as MPEG4*/ AAC and at an optimal encoding rate reflecting

available cellular network bandwidth, *then* dynamically converted into discrete multimedia objects *by splitting the encoded stream* into specified intervals," as claimed, is not taught or otherwise suggested by Vetro's encoding of a stream for a compressed bitstream and Jayant's separating the stream into groups of pictures.

Claim 5 further requires:

> wherein each of said *discrete multimedia objects includes a video segment forming part of a stream of video* and *each video segment is provided with a distinctive Internet address*; wherein *each of said distinctive Internet addresses are read sequentially to play back said stream of video and maintain visual fluidity.*

(Emphases added.) With regards to this limitation, Appellant contends Lin's IP address corresponds to a channel and does not teach or suggest "each of said discrete multimedia objects includes a video segment forming part of a stream of video and each video segment is provided with a distinctive Internet address," and Lin's retrieval of sequential programs does not teach or suggest "each of said distinctive Internet addresses are read sequentially to play back said stream of video and maintain visual fluidity." App. Br. 6–7. In response, the Examiner finds Lin teaches "*at least one* IP address" representing "corresponding video programs," and Lin teaches "the receiving of the connection from the user's end electronic devices 16 through the IP address 121 and sequentially retrieving program 1291 from a program bank 129, and then transmit the retrieved programs." Ans. 12; *see also* Ans. 5. We agree with the Examiner.

As cited by the Examiner, Lin describes "at least one IP (internet protocol address)" that "represents corresponding video programs, e.g. x0.x1.x2.x3 represents the video programs in channel 39 and y0.y1.0y2.y3

represents the video programs in channel 40," and "to receive the connection from the user's end electronic devices 16 through the IP address 121 and retrieve sequentially program 1291 from a program bank 129 and then transmit the retrieved programs to the user's end electronic devices 16." Lin ¶ 31. In other words, Lin teaches at least one internet address, and different internet addresses for each of the corresponding video programs, and the use of the internet addresses to sequentially retrieve programs. Appellant has not provided persuasive evidence or argument that each video segment is provided with a distinctive Internet address with each Internet address read sequentially to play back stream of video, as claimed, is not taught or otherwise suggested by Lin's IP addresses corresponding to video programs and sequential program playback.

Appellant further contends that the Examiner's rejection fails to provide sufficient rationale to sustain a 35 U.S.C. § 103 rejection, and Lin's "asynchronous viewing is altogether different from appellant's claims." App. Br. 8. However, "[i]n determining whether the subject matter of a patent claim is obvious, neither the particular motivation nor the avowed purpose of the patentee controls." *KSR Intern. Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007). In accordance with *KSR*, 550 U.S. at 418 (quotations and citation omitted), the Examiner has provided "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *See* Final Act. 4–5, 12–13. Specifically, the Examiner finds it would have been obvious to modify and combine the references provide "efficient compression and transport of video over a network by providing a multi-scale adaptive video coding system" and "that the user can control playback of a cable program." Final Act. 5, 6; Ans. 4–5. As Appellant has

failed to acknowledge or address the Examiner's articulated reasoning, we are not persuaded the Examiner erred.

Appellant further argues that the Examiner's contemplated combination of references would render Vetro and Jayant inoperable and frustrate the purpose of the system. App. Br. 8. We are not persuaded by Appellant's argument. We agree with the Examiner's findings that Jayant is in the same field of endeavor as Vetro, as well as the Examiner's findings that Lin is in the same field of endeavor as Jayant and Vetro. *See* Ans. 3, 5. We further agree with the Examiner's findings that it would have been obvious to apply Jayant's efficient compression and transport of video over a network to Vetro, and to apply Lin's teaching of asynchronous viewing of programs from the internet to Jayant and Vetro. *See* Ans. 4, 5. Specifically, Vetro is directed towards information delivery systems adapting information to available bit rates of a network; Jayant is directed towards enhancing improved efficiency and quality of video presentation at a display device; and Lin is directed to asynchronously watching programs from the internet. *See* Vetro, col. 1, ll. 15–18; *see also* Jayant, Abstract; *see also* Lin, Abstract. We find Vetro's intended purposes of providing media delivery is furthered by Jayant's improvements for video presentation as well as Lin's asynchronous viewing of media programs.

Accordingly, we sustain the § 103 rejection of independent claim 5, as well as commensurate independent claim 20 and dependent claims 6 and 8–12, not separately argued. *See* App. Br. 4.

DECISION

The rejection of claims 5, 6, 8–12, and 20, is affirmed.

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