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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ARCOT J. PREETHAM, ANDREW S. POMIANOWSKI,
and RAJA KODURI

Appeal 2016-002336
Application 13/540,406¹
Technology Center 2600

Before JEAN R. HOMERE, ERIC B. CHEN, and
DANIEL N. FISHMAN, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134(a) of the Examiner's Final Rejection of claims 2–21, which constitute all of the claims pending in this appeal. Claim 1 has been canceled. App. Br. 3. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ Appellants identify the real party in interest as ATI, Technologies Inc. App. Br. 3.

Appellants' Invention

Appellants' invention is directed to a video data processing method and apparatus using a plurality of video processing units (VPUs) to process a same video frame data in a single pass. Spec. ¶ 35. In particular, upon receiving a command from a driver (106) to process video frame data from an application, a first and second VPUs (108, 110) process the frame data at a first and second sampling rates, respectively. Subsequently, a compositor (112) composites the sampled frame data to generate an output video. *Id.* ¶¶ 36–40, Fig. 1.

Illustrative Claim

Independent claim 2 is illustrative, and reads as follows:

2. A video processing system comprising:
 - a driver that allows video data input from an application;
 - a plurality of video processing units (VPUs) that receive at least one command from the driver to process frame data from the video data and process the frame data in a single pass by sampling the pixels of the frame data such that at least a first VPU processes the frame data using a first sampling and a second VPU processes the frame data using a second different sampling; and
 - a compositor that composites the processed frame data that are based upon at least two different samplings and generates an output frame;wherein the first and second samplings are from the same frame data.

Prior Art Relied Upon

Hayes et al.	US 6,574,753 B1	June 3, 2003
Leather et al.	US 2004/0066388 A1	Apr. 8, 2004
Morgan III et al.	US 6,756,989 B1	June 29, 2004
Kaufman et al.	US 2004/0125103 A1	July 1, 2004
Lefebvre et al.	US 6,924, 799 B2	Aug. 2, 2005
Hancock	US 2005/0206645 A1	Sept. 22, 2005
Cote et al.	US 6,952,211 B1	Oct. 4, 2005
Bastos et al.	US 6,967,663 B1	Nov. 22, 2005
McGee et al.	US 2006/0034190 A1	Feb. 16, 2006

Rejections on Appeal

Claims 2, 4–10, 14–16, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination Lefebvre and Morgan.

Claims 3, 17, 19, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Lefebvre, Morgan, Hancock, and Leather.

Claims 11 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Lefebvre, Morgan, Haynes, and McGee.²

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Lefebvre, Morgan, Haynes and McGee.

² This Examiner's statement of the rejection inadvertently includes claim 14, which was discussed in an earlier rejection. Final Act. 8.

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Lefebvre, Morgan, Hancock, Leather, Bastos, and Kaufman.

ANALYSIS

We consider Appellants' arguments *seriatim*, as they are presented in the Appeal Brief, pages 6–19 and the Reply Brief, pages 4–12.³

Regarding the rejection of claim 2, Appellants argue that the combination of Lefebvre and Morgan does not teach or suggest a video processing unit that processes frame data. App. Br. 13. In particular, Appellants argue that Morgan relates to a system for filtering a texture applied to a surface of a computer-generated object, whereas the claimed video processing system uses frame data. *Id.* at 13–14. According to Appellants, Morgan's computer generated object is not compatible with the processing of video frame data processed by a video processing system, which would not use "images" having alpha pixel data. *Id.* at 14–18, Reply

³ Rather than reiterate the arguments of Appellants and the Examiner, we refer to the Appeal Brief (filed July 17, 2015), the Reply Brief (filed Dec. 4, 2015), and the Answer (mailed Oct. 5, 2015) for their respective details. We have considered in this Decision only those arguments Appellants actually raised in the Briefs. Any other arguments Appellants could have made but chose not to make in the Briefs are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2012). We note Appellants' arguments alleging the Examiner's failure to practice compact prosecution, but instead provides different theories of rejection based upon Lefebvre alone or in combination with other references. App. Br. 8–12. However, such arguments would be better suited in a petition to the Director of the Technology center that oversees the Examiner's Art Unit. Consequently, we do not reach those arguments.

Br. 7. That is, Morgan's system is suitable for rendering data, as opposed to processing video frame data. *Id.* These arguments are not persuasive.

At the outset, we note Appellants' own Specification indicates that embodiments of the invention can be implemented using multisampling and oversampling techniques in a system with a video processing unit (VPU) or a graphics processing unit (GPU), wherein VPU and GPU are interchangeable terms. Spec. ¶ 35. Thus, one of ordinary skill would have been readily apprised that the texture image processing performed by a GPU is analogous to the frame data processing performed by a VPU. Accordingly, we agree with the Examiner that Morgan's rendering of texture image by a graphics processing system (800/900) or a GPU (as evidenced by Cote 6:18–22) teaches or suggests the processing of frame data by a VPU. Ans. 7–8. Therefore, we are not persuaded the Examiner erred in rejecting claim 1.

Regarding claims 3–21, because Appellants reiterate substantially the same arguments as those previously discussed for patentability of claim 2 above, claims 3–21 fall therewith. *See* 37 C.F.R. § 41.37(c)(1)(iv).

DECISION

For the above reasons, we affirm the Examiner's rejections of claims 2–21.

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