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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GREGG D. WILENSKY, NATHAN A. CARR,
ALAN L. ERICKSON, YUYAN SONG, MANISH KUMAR,
BRADEE RAE EVANS, SARAH A. KONG, MICHAEL J. ORTS,
MEREDITH L. STOTZNER, HEATHER M. DOLAN, and
YUKIE TAKAHASHI

Appeal 2017-006524
Application 14/470,785¹
Technology Center 2600

Before MARC S. HOFF, THU A. DANG, and JOHN A. EVANS, DANG,
Administrative Patent Judges.

HOFF, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from a Final Rejection of
claims 1–13, 15–19, and 21.² We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

¹ The real party in interest is Adobe Systems, Inc. App. Br. 2.

² Claim 20 has been cancelled. Claim 14 stands objected to as being
dependent upon a rejected base claim, but would be allowable if rewritten in
independent form.

Appellants' invention is a dynamic path motion blur interface. A user may specify a path to constrain a motion blur effect to be applied to a single image. A flash effect may be included to simulate strobe flashes along with ambient light continuous exposures. *See* Spec. ¶¶ 3, 4.

Claims 1 and 8 are exemplary of the claims on appeal:

1. A method comprising:
 - displaying a path in a user interface of a computing device, the path input by a user through interaction with the user interface, in which:
 - the path is formed from a plurality of points, each of the points being selectable by the user through the interaction with the user interface to modify the path; and
 - the path is configured to constrain a motion blur to be applied as a motion blur effect to an image;
 - responsive to receipt of one or more inputs via the user interface involving movement of at least one point of the path from a first location to a second location in the user interface:
 - calculating the motion blur as part of the motion blur effect to transform the image by the computing device independently of a size of the image using the path in a mesh domain separate from an image domain of the image; and
 - modifying a display of the image in the image domain in the user interface by the computing device to include the calculated motion blur from the mesh domain as part of the motion blur effect as the movement of the at least one point from the first location to the second location occurs.
8. A method comprising:
 - receiving inputs, detected by a computing device via a user interface, that describe a path to constrain a motion blur to be applied as a motion blur effect to an image;
 - applying the motion blur effect to the image, by the computing device, to transform the image to include the motion blur effect as the inputs are received; and
 - responsive to the receiving, outputting a result of the application of the motion blur effect to the image in the user interface by the computing device in real time as the inputs are received by the computing device.

The Examiner relies upon the following prior art in rejecting the claims on appeal:

Berger et al.	US 2011/0169829 A1	July 14, 2011 ("Berger")
Sumner et al.	US 2011/0181606 A1	July 28, 2011 ("Sumner")
Wang et al.	US 2014/0250522 A1	Sept. 4, 2014 ("Wang")

VirtualRigStudio, Creating curved motion blur,
<https://www.youtube.com/watch?v=jbo3BHdDmhw>, Jan. 13, 2010

After Effects CS6-Advanced Rotoscoping and Strobe Masking Effect
Tutorial-for Music Videos,
<https://www.youtube.com/watch?v=coYxpBlkyvA>, Dec 10, 2012
("Photoshop").

Claims 8–13, 15, and 16 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 1, 2, and 4–7 stand rejected under 35 U.S.C. § 102(a) as being anticipated by VirtualRig.

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over VirtualRig and Wang.

Claims 8–10, 12, 15, and 16 stand rejected under 35 U.S.C. § 102(a) as being anticipated by VirtualRig.

Claims 11 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over VirtualRig and Berger.

Claims 17 and 19 stand rejected under 35 U.S.C. § 102(a) as being anticipated by Sumner.

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sumner and Photoshop.

Claim 21 stands rejected under 35 U.S.C. § 102(a) as being unpatentable over Sumner and VirtualRig.

Throughout this decision, we make reference to the Appeal Brief (“App. Br.,” filed November 30, 2016), the Reply Brief (“Reply Br.,” filed March 15, 2017), and the Examiner’s Answer (“Ans.,” mailed February 8, 2017) for their respective details.

ISSUES

1. Does the invention recited in claim 8 constitute patent-eligible subject matter?
2. Does VirtualRig disclose calculating the motion blur effect in a mesh domain separate from an image domain of the image?
3. Has the Examiner provided evidence that a real-time render preview function was disclosed in the cited prior art?
4. Does Sumner disclose calculating a motion blur using a path that describes a motion blur trajectory to constrain application of the motion blur effect to an image?

ANALYSIS

SECTION 101 REJECTION OF CLAIMS 8–13, 15, AND 16

Appellants argue that the Examiner has not identified the supposed “abstract idea” in the claims, has failed to address the claims as a set of “rules,” and has unjustly simplified the claims. App. Br. 7. Appellants further contend that the Examiner is incorrect in finding that the steps of the

claim can be performed mentally. App. Br. 8. Appellants assert that the features recited in the claims enable “calculation of the motion blur . . . in a domain separate from [the] domain of the image, such as in a mesh domain.” App. Br. 10, citing Spec. ¶ 42. Last, Appellants argue that the claimed applying of a motion blur effect in real time as inputs are received is rooted in computer technology to solve specific problems, and thus the claims include features that amount to significantly more than an abstract idea. App. Br. 11.

We are not persuaded by Appellants that the Examiner erred. We agree with the Examiner’s finding that claim 8 recites an abstract idea, i.e., “applying a motion blur effect to an image,” including the related features of receiving inputs that describe a path to constrain the motion blur, and outputting a result of the application of the motion blur effect “in real time as the inputs are received.” *See* Ans. 3. We are not persuaded by Appellants’ allegation that the claimed motion blur “cannot be performed mentally.” Reply Br. 2. A motion blur is an image processing technique developed to give the appearance of movement of objects within the image. Spec. ¶¶ 1, 2. Image processing consists of computation done on image data to result in revised image data. We find that such computation, though labor-intensive and tedious, *could* be performed mentally by human operators.

We are not persuaded by Appellants’ analogy of these claims to the claims at issue in *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016). The claimed invention in *McRO* was concerned with an improvement allowing computers to produce accurate and realistic lip synchronization and facial expressions in animated characters that

previously could only be produced by human animators. *McRO*, 837 F.3d at 1313. The claims in *McRO* recited several specific steps in this process, resulting in the Federal Circuit’s finding that the specific rules claimed prevented preemption of all processes for achieving automated lip-synchronization of 3-D characters. *See McRO*, 837 F.3d at 1315; App. Br. 8–9. In contrast, Appellants’ claim 8 recites only a data gathering step, a very broad “application of a motion blur effect” step, and an output step.

We are likewise unpersuaded that claim 8 recites “significantly more” than an abstract idea such that the claim is transformed into patent-eligible subject matter under the second prong of *Alice*.³ Appellants’ argument that the claimed invention improves computer technology in the current art through “calculation of the motion blur [that] may be performed in a domain separate from a domain of the image, such as in a mesh domain” is inapplicable to the invention recited in claim 8, which contains no limitations directed to calculating motion blur in a mesh domain. *See App. Br. 11.*

We find that claim 8 recites an abstract idea, without reciting significantly more such that the claim is directed to patent-eligible subject matter. We sustain the Examiner’s § 101 rejection of claims 8–13, 15, and 16.

PRIOR ART REJECTION OF CLAIMS 1, 2, AND 4–7

Appellants argue that VirtualRig does not disclose the domain in which the motion blur is calculated and thus cannot disclose the [limitation] in claim 1. App. Br. 12.

³ *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014).

The Examiner finds that “VirtualRigStudio discloses generating a motion blur along the path and user could adjust the path along a plurality of points in the different location based on user’s need (see Fig 1) and further discloses a path is used to separate blur area and no blur area.” Ans. 6–7. The Examiner further finds that VirtualRig discloses “generat[ing] a blur effect in [mesh] domain,” citing to a screenshot from the VirtualRig Studio video labelled “Figure 2.” Ans. 6–7. We do not agree with the Examiner’s finding. We have reviewed the VirtualRig reference and the YouTube video mentioned by the Examiner. We agree with Appellants that neither VirtualRig nor the associated video discloses “calculating the motion blur . . . using the path in a mesh domain separate from an image domain of the image.” *See* App. Br. 12–13.

We find that VirtualRig does not teach all the limitations of claims 1, 2, and 4–7. We do not sustain the Examiner’s § 102 rejection.

PRIOR ART REJECTION OF CLAIM 3

Claim 3 depends from independent claim 1. We have reviewed Wang, and we find that Wang does not remedy the deficiencies of VirtualRig, discussed *supra*. Accordingly, we do not sustain the Examiner’s § 103 rejection of claim 3 over VirtualRig and Wang, for the reasons given *supra* with respect to the rejection of claim 1.

PRIOR ART REJECTION OF CLAIMS 8–13, 15, AND 16

Appellants contend, *inter alia*, that the Examiner relies on “realtime render preview” functionality first disclosed in the “VirtualRig Studio 3.0 User Manual,” which was published after the filing date of the instant application, and thus would not qualify as prior art. App. Br. 16. In response, the Examiner reiterates reliance on the VirtualRig Studio video

published on Jan. 13, 2010. Ans. 12. The Examiner finds that the VirtualRig video illustrates the claimed “outputting a result of the application of the motion blur effect . . . in real time as the inputs are received.” *Id.* The Examiner further states that the video teaches the concept of a “real-time render preview function.” *Id.* We have reviewed the video, however, and we find no teaching of such a real-time render preview function.

We find that Appellants traversed a specific finding in the Examiner’s rejection. In response, the Examiner has failed to support his position with evidence. Consequently, we find that the Examiner erred in rejecting claims 8–13, 15, and 16, as the Examiner lacks evidence for the finding that VirtualRig discloses outputting a result of the application of the motion blur effect in real time as the input are received. We do not sustain the § 102 rejection of claims 8–10, 12, 15, and 16. We also do not sustain the § 103 rejection of claims 11 and 13, not separately argued.

PRIOR ART REJECTION OF CLAIMS 17 AND 19

Appellants argue that Sumner discloses motion blur in the context of animation creation and allege that applying motion blur to frames of animation is not analogous to a motion blur effect for an image. App. Br. 18. We are not persuaded by this argument, as Appellants provide no evidence in support.

Appellants assert that Sumner does not disclose the claimed “*path that describes a motion blur trajectory to constrain application of the motion blur effect to an image.*” App. Br. 18. We are not persuaded by Appellants’ assertion. We agree with the Examiner that Sumner discloses a path that describes a motion blur trajectory. Ans. 14. Sumner describes a

trace segment that comprises two end points, ts.left and ts.right. Sumner ¶ 116. This trace segment is used in a weighted motion blur. Sumner ¶ 118.

Appellants contend that applying an effect in a “real-time proof generator” cannot be considered as the image as it is a lower resolution version of the image. App. Br. 19. This argument is not persuasive. The section of Sumner relied upon by Appellants states only that real-time proof generator “*can be* a lower resolution and/or quality renderer.” Sumner ¶ 61 (emphasis added).

We find that the Examiner did not err in rejecting claim 17 under § 102(b) as being anticipated by Sumner. We sustain the Examiner’s rejection of claim 17, and of claim 19 not separately argued. We also sustain the Examiner’s § 103(a) rejection of claim 18, not separately argued, for the same reasons given with respect to claim 17.

PRIOR ART REJECTION OF CLAIM 21

Appellants argue that VirtualRig does not teach that the motion blur effect comprises a motion field that is calculated independent of the image. According to Appellants, there is “nothing in the VirtualRig reference about how the motion blur is calculated.” App. Br. 20.

We agree with Appellants. The Examiner finds that VirtualRig Studio discloses such a motion field, and cites to the VirtualRig YouTube video (mentioned *supra*) as evidence. Ans. 16. We have reviewed the Examiner’s reasoning and the video presentation, and we do not find support for the Examiner’s position that the video shows a motion field calculated “independent of the image.” *Id.*

We find that the combination of Sumner and VirtualRig does not teach all the limitations of claim 21. We do not sustain the Examiner's § 103(a) rejection.

CONCLUSIONS

1. The invention recited in claim 8 does not constitute patent-eligible subject matter.
2. VirtualRig does not disclose calculating the motion blur effect in a mesh domain separate from an image domain of the image.
3. The Examiner has not provided evidence that a real-time render preview function was disclosed in the cited prior art.
4. Sumner discloses calculating a motion blur using a path that describes a motion blur trajectory to constrain application of the motion blur effect to an image.

ORDER

The Examiner's decision to reject claims 8–13 and 15–19 is affirmed. The Examiner's decision to reject claims 1–7 and 21 is reversed.

TIME PERIOD FOR RESPONSE

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

AFFIRMED-IN-PART