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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* YASUSHI EBISAWA and EIJI MUKAO

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Appeal 2015-007876  
Application 13/028,329  
Technology Center 2600

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Before JOSEPH L. DIXON, MARC S. HOFF, and  
JOHN D. HAMANN, *Administrative Patent Judges*.

DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a rejection of claims 1–9 and 11–20. Dependent claim 10 has been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

The claims are directed to a computer-readable storage medium having stored therein a display control program, display control apparatus, display control method, and display control system. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A non-transitory computer-readable storage medium having stored therein a display control program which is executed by a computer of a display control apparatus that displays a three-dimensional virtual space on a display apparatus capable of stereoscopic display, the display control program causing the computer to perform features comprising:

placing virtual objects including a first object in the three-dimensional virtual space;

specifying a distance between the first object placed in the three-dimensional virtual space and a viewpoint position based on positions of a left virtual camera and a right virtual camera used for virtually shooting the virtual space;

setting, in accordance with the specified distance, a degree of transparency of a part or entirety of the first object such that the longer the distance is, the higher the degree of transparency is;

generating an image for a right eye and an image for a left eye by shooting the three-dimensional virtual space with the right virtual camera and the left virtual camera, respectively, so that the first object, which is included in each of the image for a right eye and the image for a left eye, has the set degree of transparency; and

displaying the generated image for the right eye and the generated image for the left eye on the display apparatus.

## REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Snyder et al.	US 6,326,964 B1	Dec. 4, 2001
Mashitani	US 2005/0253924 A1	Nov. 17, 2005
Takahashi et al.	US 2010/0039504 A1	Feb. 18, 2010

Doc:2.4/Manual/World/Mist-BlenderWiki, [wiki.blender.org/index.php?title=Doc:2.4/Manual/World/Mist&oldid=84716](http://wiki.blender.org/index.php?title=Doc:2.4/Manual/World/Mist&oldid=84716), Blender, (last visited 3/14/14) (“Blender”)

## REJECTIONS

The Examiner made the following rejections:

Claims 1–4 and 10–19 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Mashitani in view of Blender.

Claims 5 and 6 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Mashitani and Blender as applied above, and further in view of Snyder.

Claims 7–9 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Mashitani and Blender, as applied above, and further in view of Takahashi.

## ANALYSIS

Appellants present similar arguments for independent claims 1 and 13–15 together. We address independent claim 1 as the illustrative claim for the group because the claims contain similar limitations.

With respect to illustrative independent claim 1, Appellants contend illustrative claim 1 recites “specifying a distance *between the first object* placed in the three-dimensional virtual space *and a viewpoint position based on positions of a left virtual camera and a right virtual camera* used for virtually shooting the virtual space” and “*setting, in accordance with the specified distance, a degree of transparency of a part or entirety of the first object such that the longer the distance is, the higher the degree of transparency is*” (emphasis in original). Appellants further contend that Mashitani and Blender fail to disclose or suggest such features, nor would it have been obvious to modify Blender’s technique with Mashitani. (App. Br. 13).

The Examiner responds to Appellants’ arguments by interpreting Appellants’ claim language using the broadest reasonable interpretation in light of the Specification. (Ans. 2). The Examiner finds that Appellants are arguing against the references individually and consequently that Appellants’ arguments are not persuasive. (Ans. 3–4). The Examiner finds that the Mashitani reference discloses a single camera embodiment and a multiple camera embodiment identifying paragraphs 80, 82, 144 and Figures 5–10, 26, and 29–32. (Ans. 4). With regards to Appellants’ arguments, the Examiner further finds that “the claim requires altering transparency of an object for rendering, rather than Appellants’[sic] assertion of altering the transparency of a stereoscopically displayed image” and “Blender reads on

limitation (2) [“setting, in accordance with the specified distance, a degree of transparency of a part or entirety of the first object such that the longer the distance is, the higher the degree of transparency is”] by making objects farther away (i.e., based on specified distance) from the camera more transparent. Blender, p. 2, ll. 57–61.” (Ans. 5). The Examiner finally concludes that:

by combining Mashitani and Blender based on the discussion above and previously cited in Final Rejection, one of ordinary skill in the art finds it obvious to “[specify] a distance between the first object placed in the three-dimensional virtual space and a viewpoint position based on positions of a left virtual camera and a right virtual camera used for virtually shooting the virtual space”; and (2) “[set], in accordance with the specified distance, a degree of transparency of a part or entirety of the first object such that the longer the distance is, the higher the degree of transparency is” to an enhance the illusion of depth, for example.

(Ans. 5–6).

Appellants contend that neither the Mashitani nor Blender references specify a viewpoint position based on positions of left and right virtual cameras in order to set a degree of transparency of an object in a virtual space. (Reply Br. 2). Appellants further contend that the Blender reference regarding the single virtual camera position in combination with the alleged three-dimensional display of the Mashitani reference would not suggest to indicate that the degree of transparency is set based on positions of left and right virtual cameras. That is, the claims require both “a left **virtual** camera and a right **virtual** camera” and the combination still fails to show the requisite nexus indicating that a degree of transparency of an object will be set based on positions related to the multiple virtual cameras. (Reply Br. 2). We agree with Appellants. Appellants further argue:

the three-dimensional image in Mashitani appears to be a result of multiple real cameras in combination with a single temporary camera placed in a virtual space. That is, Mashitani appears to generate the three-dimensional image using only a single temporary virtual camera placed in the virtual space, and does not appear to create the three-dimensional image using both left and right virtual cameras. While Mashitani indicates that it is possible to use multiple “temporary cameras,” Mashitani’s teachings are clear that only a single temporary camera is used in generating the three-dimensional image. Thus, even if combined with Blender, the combination appears to only result in a single virtual camera being used to create some type of alleged three-dimensional image.

(Reply Br. 3). Appellants further contend that even with the Examiner’s proffered extension of the Blender reference from a two-dimensional image to a three-dimensional image, the Examiner has not shown how the Blender reference teaches or suggests generating a “stereoscopically displayed image.” (Reply Br. 5–6). We agree with Appellants. As a result, we cannot sustain the rejection of illustrative independent claim 1.

With respect to dependent claims 2–4, 11, and 12, we cannot sustain the Examiner’s rejection, for the same reasons advanced with respect to illustrative independent claim 1.

With regards to independent claims 13–15, the Examiner relies upon the rejection set forth with independent claim 1. (Final Act. 8–9). We find these claims include similar limitations regarding the left and right virtual cameras addressed above. Additionally, while the language of the claims is not identical regarding “stereoscopically displayed image,” the claims include a limitation “display the generated image for the right eye and the generated image for the left eye on the display apparatus.” As a result, we

agree with Appellants that the Examiner's rejection based upon the combination of the Mashitani and Blender references does not teach or suggest the invention recited in independent claims 13–15 for the same reasons set forth with respect to independent claim 1 discussed above.

With respect to dependent claims 16–19, we need not address Appellants' arguments because we found the same deficiency in the Examiner's rejection of the base independent claims, and the Examiner has not addressed how the additional reference with the base combination remedies the deficiency.

With respect to dependent claims 5–9, the Examiner has not identified how the Snyder or Takahashi references remedy the deficiency in the base combination. Consequently, we need not address Appellants' arguments and cannot sustain the obviousness rejection of dependent claims 5–9 for the reasons addressed above.

#### CONCLUSION

The Examiner erred in rejecting claims 1–9 and 11–20 based upon obviousness under 35 U.S.C. § 103.

#### DECISION

For the above reasons, we reverse the Examiner's obviousness rejection of claims 1–9 and 11–20.

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).

Appeal 2015-007876  
Application 13/028,329

REVERSED