

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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PRIME FOCUS CREATIVE SERVICES CANADA INC.,  
Petitioner,

v.

LEGEND3D, INC.,  
Patent Owner.

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Case IPR2016-01243  
Patent 7,907,793 B1

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Before LYNNE E. PETTIGREW, CARL M. DEFRANCO, and  
KAMRAN JIVANI, *Administrative Patent Judges*.

JIVANI, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
*35 U.S.C. § 318(a) and 37 C.F.R. § 42.73*

## I. INTRODUCTION

Prime Focus Creative Services Canada Inc. (“Petitioner”) sought *inter partes* review of claims 1–20 (the “Challenged Claims”) of U.S. Patent No. 7,907,793 B1 (Ex. 1001, “the ’793 patent”), owned by Legend3D, Inc. (“Patent Owner”). Paper 1 (“Petition” or “Pet.”). On September 23, 2016, Patent Owner filed a Preliminary Response. Paper 12 (“Prelim. Resp.”). Upon consideration of the Petition and Preliminary Response, we instituted an *inter partes* review pursuant to 35 U.S.C. § 314 of the Challenged Claims on the grounds specified below. Paper 14 (“Decision on Institution” or “Dec. on Inst.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. Based on the record before us, we determine that Petitioner has shown, by a preponderance of the evidence, that claims 1, 2, 7–14, 19, and 20 of the ’793 patent are unpatentable. Petitioner has failed to show, however, that claims 3–6 and 15–18 of the ’793 patent are unpatentable. We also deny Patent Owner’s Motion to Amend.

## II. BACKGROUND

### A. Procedural History

After institution, Patent Owner requested rehearing of our Decision on Institution. Paper 17. We considered Patent Owner’s arguments in support of its request and denied Patent Owner’s request pursuant to 37 C.F.R. § 42.71(d) for failure to show that we overlooked or misunderstood any argument made by Patent Owner in the Preliminary Response. Paper 30.

During the trial, Patent Owner filed a Patent Owner Response (Paper 36, “PO Resp.”), and Petitioner filed a Reply thereto (Paper 43, “Reply”). Patent Owner also filed a Contingent Motion to Amend the Claims (Paper 41, “Motion to Amend”). Petitioner filed an Opposition to Patent Owner’s Contingent Motion to Amend the Claims (Paper 44) and Patent Owner filed a Reply in Support of the Motion to Amend (Paper 46).

Both parties requested an oral hearing, and we scheduled the requested hearing for September 14, 2017. Paper 51. On September 11, 2017, Patent Owner notified us that it had “decided to rest on its papers in IPR2016-01243 and save the expense of participating in the oral hearing.” Ex. 3001, 1–2. The next day, Petitioner confirmed that it wished to continue with the oral hearing. *Id.* at 1. The oral hearing was held as scheduled on September 14, 2017, and the record contains a transcript of the hearing (Paper 53, “Tr.”). Petitioner presented arguments in support of its Petition and against Patent Owner’s Motion to Amend. *See generally id.* Patent Owner did not attend the hearing. *Id.* at 3:4–7.

On October 4, 2017, the Court of Appeals for the Federal Circuit issued its decision in *Aqua Products, Inc. v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017) (en banc) addressing the burden of proof that the Board applies when considering the patentability of substitute claims presented in a motion to amend filed under 35 U.S.C. § 316(d). Given Patent Owner’s pending Motion to Amend, we requested that the parties inform us whether they believed a conference was necessary to discuss what impact, if any, *Aqua Products* has on resolution of Patent Owner’s Motion to Amend. Ex. 3002. Neither party responded to our request.

*B. Related Proceedings*

The '793 patent is the subject of ongoing litigation between the parties: *Prime Focus Creative Services Canada Inc. v. Legend3D, Inc.*, Central District of California, Case No. 2:15-cv-2340-MWF-PLA, filed on April 21, 2016 (C.D. Cal.) (the “District Court litigation”). Pet. 1. The District Court litigation is stayed and administratively closed until resolution of the instant *inter partes* review. Order, Case No. 2:15-cv-02340-MWF-PLA, Dkt. No. 62 (filed 05/02/16).

*C. Overview of the '793 patent (Ex. 1001)*

The '793 patent relates to an image sequence depth enhancement system and method that allows for the rapid conversion of a sequence of two-dimensional images into three-dimensional images. Ex. 1001, 1:21–25. The '793 patent describes two tasks: colorizing black-and-white feature films (*id.* at 1:27–65) and converting two-dimensional images to three-dimensional images (*id.* at 1:65–2:16). To perform either of these tasks, the '793 patent classifies elements from movie scenes into two separate categories: “either background elements (i.e. sets and foreground elements that are stationary) or motion elements (e.g., actors, automobiles, etc.) that move throughout the scene.” *Id.* at 2:21–25. In one embodiment, the background elements are combined to create a composite background image, and colorization or depth information is applied to the background elements. *Id.* at 15:15–25. In another embodiment, the motion elements are masked throughout a scene, and colorization or depth information is applied to the masked motion elements. *Id.* at 2:29–3:5.

*D. Illustrative Claims*

Claims 1, 13, and 20 are independent claims. Claims 1 and 13 are reproduced below.

1. A method for modifying a set of time ordered digital images comprising:

associating a plurality of images comprising common background elements;

obtaining a composite background comprising said plurality of images wherein said composite background excludes a set of motion objects moving in relation to said common background elements;

setting at least one depth parameter associated with a region within said composite background;

applying said at least one depth parameter to at least one image selected from said plurality of images using a computer.

13. A method for modifying a set of time ordered digital images comprising:

associating a first mask with a motion object in a first image;

copying said first mask to create a second mask associated so with a second image;

moving said second mask to a location of said motion object in said second image;

reshaping said second mask to fit said motion object in said second image using a computer;

setting at least one depth parameter associated with said first mask;

applying said at least one depth parameter to said second image using said computer.

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