

NOTE: This disposition is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**PRISUA ENGINEERING CORP.,**  
*Appellant*

v.

**SAMSUNG ELECTRONICS AMERICA, INC.,**  
*Appellee*

**KATHERINE K. VIDAL, UNDER SECRETARY OF  
COMMERCE FOR INTELLECTUAL PROPERTY  
AND DIRECTOR OF THE UNITED STATES  
PATENT AND TRADEMARK OFFICE,**  
*Intervenor*

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2021-1960

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Appeal from the United States Patent and Trademark  
Office, Patent Trial and Appeal Board in No. IPR2017-  
01188.

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Decided: June 30, 2023

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JOHN C. CAREY, Carey Rodriguez Milian Gonya, LLP,  
Miami, FL, argued for appellant. Also represented by  
NICHOLAS J. DOYLE.

RICHARD L. RAINEY, Covington & Burling LLP, Washington, DC, argued for appellee. Also represented by BRADLEY KEITH ERVIN, ROBERT JASON FOWLER.

MARY L. KELLY, Office of the Solicitor, United States Patent and Trademark Office, Alexandria, VA, for intervenor. Also represented by PETER J. AYERS, SARAH E. CRAVEN, THOMAS W. KRAUSE, FARHEENA YASMEEN RASHEED.

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Before DYK, BRYSON, and STARK, *Circuit Judges*.

STARK, *Circuit Judge*.

Prisua Engineering Corp. (“Prisua”) appeals a decision of the Patent Trial and Appeal Board (“Board”) concluding that claims 1-4 and 8 of U.S. Patent No. 8,650,591 (“’591 patent”) are unpatentable as obvious. Because substantial evidence supports the Board’s findings, we affirm.

## I

The ’591 patent, titled “Video Enabled Digital Devices for Embedding User Data in Interactive Applications,” teaches apparatuses and methods that enable substituting a part of one video as a part of another video. For example, the technology could allow a user to substitute her own face for a character’s or actor’s face in a video game or movie.

Claims 1-4 and 8 of the ’591 patent are at issue on appeal. Claim 1, an apparatus claim from which claims 2-4 and 8 depend, is illustrative of the challenged claims and recites:

An interactive media apparatus for generating a displayable edited video data stream from an original video data stream, wherein at least one pixel in a frame of said original video data stream is digitally extracted to form a first image, said first image then replaced by a second image resulting from

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a digital extraction of at least one pixel in a frame of a user input video data stream, said apparatus comprising:

an image capture device capturing the user input video data stream;

*an image display device displaying the original video stream;*

*a data entry device, operably coupled with the image capture device and the image display device, operated by a user to select the at least one pixel in the frame of the user input video data stream to use as the second image, and further operated by the user to select the at least one pixel to use as the first image;*

wherein said data entry device is selected from a group of devices consisting of: a keyboard, a display, a wireless communication capability device, and an external memory device;

a digital processing unit operably coupled with the data entry device, said digital processing unit performing:

identifying the selected at least one pixel in the frame of the user input video data stream;

extracting the identified at least one pixel as the second image;

storing the second image in a memory device operably coupled with the interactive media apparatus;

receiving a selection of the first image from the original video data stream;

extracting the first image;

spatially matching an area of the second image to an area of the first image in the original video data stream, wherein spatially matching the areas results in equal spatial lengths and widths between said two spatially matched areas; and

performing a substitution of the spatially matched first image with the spatially matched second image to generate the displayable edited video data stream from the original video data stream.

'591 patent 7:14-54 (emphasis added). The two emphasized limitations are referred to as the “image display device limitation” and the “data entry device limitation” respectively. Both are at issue in this appeal.

After Prisua sued Samsung Electronics America, Inc. (“Samsung”) for infringing the '591 patent, Samsung petitioned the Board for *inter partes* review of claims 1-4, 8, and 11. See *Samsung Elecs. Am., Inc. v. Prisua Eng'g Corp.*, 948 F.3d 1342, 1349-50 (Fed. Cir. 2020) (explaining initial procedural history of this case). Samsung's grounds for unpatentability were based on, as relevant here, Patent Application Publication No. 2005/0151743 (“Sitrick”) and, alternatively, U.S. Patent No. 7,460,731 (“Senftner”).<sup>1</sup>

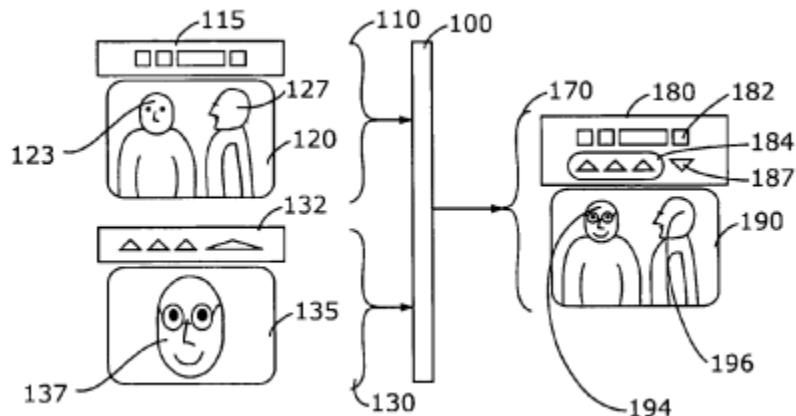
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<sup>1</sup> Samsung's grounds for obviousness for claims 3 and 4 relied on a combination of Sitrick, or alternatively, Senftner, with a third prior art reference. Because the issues presented in this appeal relate only to Sitrick and/or Senftner, for simplicity we refer just to these two references. Our discussion of the obviousness grounds based on those two references applies equally to the combination grounds with which Samsung challenges claims 3 and 4.

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Sitrick teaches “a system and method for processing a video input signal providing for tracking a selected portion in a predefined audiovisual presentation and integrating selected user images into the selected portion of the predefined audiovisual presentation.” J.A. 1970. Figure 1 of Sitrick is a “diagram of the [Sitrick] invention”:



J.A. 1971, 1980. As depicted in the figure, Sitrick teaches incorporating “a user specified image” (137) from image data (135) into an original video (120) to produce an output video (190) in which the user specified image replaces a portion of the original video (123).<sup>2</sup> J.A. 1980 (Sitrick ¶ 31). Senftner similarly teaches processes and devices for “creating personalized videos through partial image replacement.” J.A. 1953 (Senftner 1:36-37).

The Board instituted *inter partes* review and found claim 11 obvious in light of Sitrick. The Board further determined it could not assess the obviousness of claims 1-4 and 8 because they were indefinite under *IPXL Holdings*,

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<sup>2</sup> We follow the terminology of Sitrick and, when discussing the reference, refer to the original source and the output as “videos” but refer to the replacement source as an “image.” The parties do not suggest this difference is material.

*L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377 (Fed. Cir. 2005).  
*See Samsung*, 948 F.3d at 1350. Both parties appealed.

On appeal, we affirmed the Board's holding that claim 11 was invalid. *Id.* at 1355-59.<sup>3</sup> We further held that *IPXL*-type indefiniteness does not preclude the Board from addressing patentability on obviousness (or anticipation) grounds. *See id.* at 1355. Accordingly, we remanded for the Board to reconsider the validity of claims 1-4 and 8. On remand, the Board found that claims 1-4 and 8 were unpatentable as obvious over Sitrick and, alternatively, that claims 1, 3-4, and 8 (but not claim 2) were unpatentable as obvious over Senftner.

Prisua timely appealed.<sup>4</sup>

## II

A patent is obvious “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.” 35 U.S.C. § 103(a) (2011).<sup>5</sup> “Obviousness is a legal question based on underlying findings of fact.” *Fleming v. Cirrus Design Corp.*, 28 F.4th 1214, 1221

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<sup>3</sup> Claim 11, unlike the claims now before us, is a method claim. Claim 11 also does not contain the image display device limitation of the claims we are reviewing now and has a variation of the data entry device limitation.

<sup>4</sup> The Board had jurisdiction under 35 U.S.C. § 316(c). We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A) and 35 U.S.C. §§ 141(c), 319.

<sup>5</sup> The '591 patent has an effective filing date of March 9, 2010. Therefore, the version of § 103 that existed prior to the enactment of the Leahy-Smith America Invents Act governs. *See* 35 U.S.C. § 100 note.

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(Fed. Cir. 2022). Among those underlying issues of fact is what the prior art reference discloses to an ordinarily skilled artisan. *See id.*

We review the Board’s legal determinations de novo and its factual findings for substantial evidence. *See Almirall, LLC v. Amneal Pharms. LLC*, 28 F.4th 265, 271 (Fed. Cir. 2022). Substantial evidence is “such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.” *Consol. Edison Co. of N.Y. v. NLRB*, 305 U.S. 197, 229 (1938). “[T]he possibility of drawing two inconsistent conclusions from the evidence does not prevent an administrative agency’s finding from being supported by substantial evidence.” *Consolo v. Fed. Mar. Comm’n*, 383 U.S. 607, 620 (1966). Indeed, to the contrary, we have described such a situation as “the epitome of a decision that must be sustained upon review for substantial evidence.” *Elbit Sys. of Am., LLC v. Thales Visionix, Inc.*, 881 F.3d 1354, 1356 (Fed. Cir. 2018) (internal quotation marks and citation omitted). We “defer to the Board’s findings concerning the credibility of expert witnesses.” *Yorkey v. Diab*, 601 F.3d 1279, 1284 (Fed. Cir. 2010).

### III

Prisua identifies two purported errors in the Board’s analysis of claim 1.<sup>6</sup> First, Prisua argues that neither Sitrick nor Senftner discloses the image display device limitation. Second, Prisua contends that neither reference discloses the data entry device limitation. We find substantial evidence supports the Board’s conclusion that Sitrick discloses both of these limitations. Therefore, we do

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<sup>6</sup> Prisua presses no separate arguments with respect to dependent claims 2-4 and 8. Therefore, our analysis of claim 1 applies equally to the other claims, and no other issues need to be addressed.

not reach the issue of whether these limitations are also present in Senftner.

#### A

We start with the image display device limitation. According to Prisua, Sitrick does not suggest that the original image is displayed on an image display device. In Prisua's view, Sitrick's Figure 1 can only be reasonably understood as representing an undisplayed data manipulation process; it does not, Prisua asserts, depict a physical device. We disagree, as the Board's contrary finding is supported by substantial evidence.

Samsung's expert, Dr. Edward Delp, testified that a person of ordinary skill in the art would understand Sitrick's Figure 1 as including actual displays in its illustration. The Board was free to credit Dr. Delp over Prisua's expert, Dr. Yolanda Prieto (who is also the '591 patent's inventor), and we have no basis to question its decision to do so. *See Yorkey*, 601 F.3d at 1284. Sitrick explains that in Figure 1 "representations of two people . . . *are visible* in . . . program video 120," i.e., in the original video stream. J.A. 1980 (emphasis added). A reasonable mind – after considering the competing experts' testimony, choosing to credit that of Dr. Delp, and evaluating the record from the perspective of an ordinarily skilled artisan – could conclude that if the contents of the original video stream are "visible" in Figure 1 then the original video stream must be displayed and, therefore, Sitrick discloses "an image display device displaying the original video stream." Accordingly, substantial evidence supports the Board's findings with respect to the image display device limitation.

#### B

We now turn to the data entry device limitation. Prisua argues that this limitation requires "a specific kind of data entry device: one that is . . . operated by the user to select at least one pixel from the original video stream."



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Prisua's Br. 26, 29. Prisua further contends that the Board erred because it found only that Sitrick discloses a data entry device in which the user selects at least one pixel from the *replacement* image, not from the *original* video, and this finding does not demonstrate obviousness. *See id.* (citing J.A. 31-32).<sup>7</sup>

We acknowledge that the Board's analysis on this issue consisted only of an explanation of why Sitrick discloses user selection of at least one pixel from the replacement image; it could have more clearly addressed whether Sitrick discloses the user selecting at least one pixel from the original video stream. *See* J.A. 31-32. However, the Board's approach to this issue is the understandable consequence of Prisua's argumentation. Prisua argued to the Board that "Sitrick does not disclose that a user operates Sitrick's computer to 'select the at least one pixel.'" J.A. 836. Prisua did not argue to the Board that there was any meaningful difference between the user selecting "at least one pixel" in the original video and selecting "at least one pixel" in the replacement image, and it never asserted to the Board that Sitrick fails to teach the selection of at least one pixel in the original video. Hence, when the Board explained that Sitrick discloses user selection of at least one pixel from an image for use in the resulting video, it fully resolved the dispute presented to it. Notwithstanding Prisua's belated arguments to us, which are presented with

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<sup>7</sup> Prisua additionally argues that because (in its view) Sitrick does not teach the image display device it also does not teach the data entry device limitation, as the data entry device must be "operably coupled with . . . the image display device." Because we are affirming the Board's conclusion that Sitrick discloses the image display device, Prisua's contention lacks merit.

much greater specificity and clarity, the Board had no reason to believe its findings as to Sitrick were incomplete.

In addition, any error by the Board in this regard is harmless, as unappealed findings of the Board entail the conclusion that Sitrick teaches the user selecting at least one pixel from the original video. *See In re Watts*, 354 F.3d 1362, 1369 (Fed. Cir. 2004) (applying harmless error rule to Board); *Munoz v. Strahm Farms, Inc.*, 69 F.3d 501, 504 (Fed. Cir. 1995) (“The correction of an error must yield a different result in order for that error to have been harmful and thus prejudice a substantial right of a party.”). The Board explained that the system described in Sitrick “necessarily receives [a] selection [from the original video] in order to carry out the disclosed replacement.” J.A. 39. This selection necessarily requires the user to choose at least one pixel from the original video. *See* J.A. 1590 (Decl. Dr. Edward Delp ¶ 103) (Dr. Delp testifying that skilled artisan “would necessarily have to select one or more pixels in order to select an image or portion of an image”). As Sitrick explains, “[i]t is a further object of the present invention to provide various means for selecting . . . and substituting portions of” the original video with what becomes the replacement video. J.A. 1979 (Sitrick ¶¶ 7, 13).

Finally, substantial evidence supports the Board’s additional findings as to Sitrick’s disclosures that are relevant to the data entry device limitation. Claim 1 of the ’591 patent states that the “data entry device is selected from a group of devices consisting of: a keyboard” among other options. Sitrick represents that its invention can be implemented on a “general purpose computer,” J.A. 1982-83, 1988, 1990-91 (Sitrick ¶¶ 41, 46, 95, 115, 118, 121), and Prisua’s expert agreed that a “general purpose computer” includes a data entry device like a keyboard, J.A. 2299 (Yolanda Prieto Dep.). Samsung’s expert, Dr. Delp, testified that a skilled artisan would “recognize that the data entry device(s) connected to the general purpose computer

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would be operably connected to the image capture device as well, which would enable user interaction with the image capture device,” and that “the data entry device for the general purpose computer would be used to interact with the computer to select content for viewing on the display device, as well as to interact with that content.” J.A. 1589-90 (Decl. of Edward Delp ¶¶ 100-01). Indeed, Sitrick is unambiguous that the substituted image is “user specified,” suggesting (if not requiring) there exists a data entry system to allow for that selection. J.A. 1980 (Sitrick ¶ 31).

Thus, we find substantial evidence supports the Board’s finding that Sitrick teaches the data entry device limitation of claim 1 of the ’591 patent.

#### IV

We have considered Prisua’s other arguments and find them unpersuasive. For the reasons above, we affirm the Board’s determination that claims 1-4 and 8 of the ’591 patent are unpatentable as obvious.

### **AFFIRMED**

#### COSTS

Costs to Samsung.