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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ERIC HSIAO

Appeal 2015-003691
Application 13/687,375
Technology Center 2400

Before NABEEL U. KHAN, MICHAEL M. BARRY, and
AARON W. MOORE, *Administrative Patent Judges*.

KHAN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Final Rejection of claims 1 and 3–20. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

¹ According to Appellant, the real party in interest is Sony Corp. App. Br. 2.

INVENTION

Appellant's invention relates generally to using extra space on ultra high definition (UHD) displays when the UHD displays present high definition (HD) video. Spec. 1.

Exemplary independent claim 1 is reproduced below.

1. Assembly comprising;

ultra high definition (UHD) display configured for presenting video in 2160 pixel lines or 4320 pixel lines;

processor configured for controlling the UHD display; and

computer readable storage medium bearing instructions executable by the processor to;

present high definition (HD) video on the UHD display using at least 1440 of the pixel lines and no more than 1920 of the pixel lines, wherein portions of the display do not present HD video when HD video is being presented elsewhere on the display; and

present ancillary information in the portions of the display that do not present HD video, the ancillary information being receivable from a source of TV signals or from the Internet in real time with the HD video.

App. Br. 14 (Claims App'x).

REFERENCES and REJECTIONS

1. Claims 1 and 3–7 stand rejected under 35 U.S.C. § 112(a) as failing to comply with the written description requirement. Ans. 5.²

2. Claims 1 and 3–20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Urabe (US 2008/0143877 A1, June 19, 2008) and Onoda (US 2011/0187925 A1, Aug. 4, 2011). Final Act. 2–3.

² Throughout this Decision, “Answer” and “Ans.” refers to the 2nd or Subsequent Examiner’s Answer mailed February 17, 2015.

ANALYSIS

I. Rejection of Claims 1 and 3–7 for Failing the Written Description Requirement

The Examiner finds the Specification fails to describe subject matter supporting the limitation “no more than 1920 of the pixel lines” in such a way as to reasonably convey to one of skill in the art that the inventor had possession of this subject matter as recited in claim 1. Ans. 5.

Appellant argues the Specification discloses that HD could be presented using at least 1440 pixel lines, and that HD could be presented using at least 1920 pixel lines. Reply Br. 6. Because “at least 1920” encompasses exactly 1920, Appellant argues the Specification informs one of skill in the art that the Appellant possessed, at the time of filing, the concept that HD video could be presented in a range of 1440–1920 pixel lines, manifestly supporting a claim reciting “no more than” 1920 pixel lines for HD. *See id.* at 6–7.

A written “description must ‘clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed.’” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) (quoting *Vas-Cath v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991)). “In other words, the test for sufficiency is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Id.* (citing *Vas-Cath*, 935 F.2d at 1563). “Although [the applicant] does not have to describe exactly the subject matter claimed . . . the description must clearly allow persons of ordinary skill in the art to

recognize that [he or she] invented what is claimed.” *Vas-Cath*, 935 F.2d at 1563 (quoting *In re Gosteli*, 872 F.2d 1008, 1012 (Fed. Cir. 1989)).

We are persuaded by Appellant’s arguments. Claim 1 recites “instructions . . . to: present high definition (HD) video on the UHD display using at least 1440 of the pixel lines and no more than 1920 of the pixel lines.” App. Br. 14 (Claims App’x). Thus, claim 1 requires that HD video be presented in the range of 1440 to 1920 pixel lines. The Specification describes that “[t]he assembly also includes a computer readable storage medium bearing instructions executable by the processor to: present high definition (HD) video on the UHD display using at least 1440 of the pixel lines” Spec. 1–2. The Specification further explains “[t]he processor when executing the instructions presents the HD video may use at least 1920 lines of the UHD display.” Spec. 2. We agree with Appellant that these portions of the Specification describe that HD video could be presented in the claimed range between 1440–1920 pixel lines and that one of skill in the art would have understood the inventor to have had possession of the claimed invention as of the filing date of the application.

Accordingly, we do not sustain the Examiner’s rejection of claims 1 and 3–7 for failing to satisfy the written description requirement.

II. Rejection of Claims 1 and 3–20 as Obvious

A. *Claim 1*

The Examiner finds Urabe teaches or suggests “present[ing] high definition (HD) video on the UHD display using at least 1440 of the pixel lines and no more than 1920 of the pixel lines, wherein portions of the display do not present HD video when HD video is being presented

elsewhere on the display,” as recited in claim 1. Specifically, the Examiner finds Urabe discloses presenting video on a UHD display “from SD (standard definition) to higher definition (see Figures 6 and 7) and to present an ancillary information on a different portion of the UHD display (113 or operation guide in Figure 12).” Final Act. 2.

Appellant argues the Examiner errs because:

This allegation either ignores or misunderstands what these figures are showing. As shown in figure 6 and explained at paragraph 56, when Standard Definition (SD) video at less than 4 mbps is received, Urabe will not magnify it by more than two times; if the SD is received at 8mbps, Urabe will magnify by up to three times. ***HD video, however, is presented “FULL SCREEN”*** as clearly indicated in figure 6. Figure 7 shows the same concept as figure 6, except additionally accounting for format in determining maximum magnification.

App. Br. 6

We are unpersuaded of Examiner error. The Examiner’s findings show Urabe teaches that the video image size can be arbitrarily adjusted including in the range of 1440 to 1920 pixel lines. Ans. 6 (citing Urabe Figs. 6–7, ¶ 75). Urabe also shows that at certain resolutions the video signal will be presented only on a portion of the display. *See* Urabe Figs. 3A, 3B. Although Figures 6 and 7 of Urabe show that when the input resolution is at 720p or higher the video signal will be presented full screen on the display, we agree with the Examiner the teaching that a video signal is displayed only on a portion of a display when that signal is at a lower resolution (such as an SD video signal) than the native resolution of the display (such as an HD or UHD display) teaches or suggests the disputed limitation. Additionally, Appellant has not presented evidence sufficient to show that presenting HD video on a portion of a UHD screen was “uniquely

challenging or difficult for one of ordinary skill in the art” or “represented an unobvious step over” presenting SD video on a portion of an HD or UHD screen, as Urabe teaches. *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418–19 (2007)).

Accordingly, we sustain the Examiner’s rejection of claim 1. We also sustain the Examiner’s rejection of claim 7, which contains substantially the same limitations and for which Appellant makes substantially the same arguments for patentability. *See* App. Br. 10–11.

B. Claim 3

Claim 3 recites “the ancillary information is received from the source of TV signals along with the HD video in a common channel with the HD video.” App. Br. 14 (Claims App’x). The Examiner finds the HD signals in Urabe “inherently include subtitles and closed captions” which would be received along with the HD video in a common channel. Final Act. 3.

Appellant argues the Examiner has not demonstrated that subtitles would necessarily be included with the HD video signals and, thus, the Examiner’s finding that Urabe inherently teaches this limitation is erroneous. App. Br. 7. Appellant further argues that even if it is assumed that subtitles and closed captions are included in the HD video, Urabe does not teach that these subtitles and closed captions would be presented in a region of the display separate from where the HD video is displayed. *Id.*

We agree with Appellant and are persuaded of Examiner error. “[T]he examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art.”

Ex parte Levy, 17 USPQ2d 1461, 1464 (BPAI 1990). We agree with Appellant the Examiner has not demonstrated that even if subtitles were necessarily included in the HD video signals, the subtitles would be presented on a separate region of the display rather than being overlaid onto the video as is typically the case.

Accordingly, we do not sustain the Examiner's rejection of claim 3. We also do not sustain the Examiner's rejection of claim 10, which contains the same limitation and was rejected on the substantially the same basis.

C. Claims 4 and 11

Appellant does not present any arguments for separate patentability for claims 4 and 11. Therefore, we summarily sustain the Examiner's rejection of these claims.

D. Claims 5 and 12

Claim 5 recites "first and second user commands . . . the first user command being to present the HD video on the entire UHD display . . . the second user command being to present the HD video on a portion of the UHD display and to present on the UHD display the ancillary information along with the HD video." App. Br. 15 (Claims App'x). The Examiner finds Urabe teaches a GUI that allows the user to choose between automatically adjusting the video signal, manually adjusting the video signal, or setting the video signal to display on the full screen. Final Act. 3 (citing Urabe ¶¶ 88–89, Fig. 13).

Appellant argues the Examiner errs by finding "[p]aragraphs 88 and 89 address selecting between magnifying the video to fill the entire screen, or automatically adjusting the size of the area in which the video is presented

to something less than full screen. There is no discussion in the relied-upon subject matter concerning ancillary information.” App. Br. 8.

We are not persuaded by Appellant’s argument because it attacks Urabe individually and does not address the Examiner’s findings regarding Onoda. “[O]ne cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references.” *In re Keller*, 642 F.2d 413, 426 (CCPA 1981). The Examiner relies on Urabe’s user interface depicted in Figure 13 as teaching a first user command to present the HD video on the entire UHD display and a second user command to present the HD video on a portion of the UHD display. However, the Examiner relies on Onoda as teaching displaying ancillary information along with a video signal. Ans. 7.

Accordingly, we sustain the Examiner’s rejection of claim 5. We also sustain the Examiner’s rejection of claim 12 which was argued together with claim 5. *See* App. Br. 7–8.

E. Claim 6

Claim 6 recites “the ancillary information is configured for being ignored by non-UHD assemblies.” App. Br. 15 (Claims App’x). The Examiner finds “[i]n view of broadly claimed invention, there are at least one non-UHD assemblies ignores the ancillary information. For instance, elements 103 and 104 do not associate with the ancillary information.” Final Act. 7. The Examiner’s findings are based on interpreting “non-UHD assemblies” as “a broad claim term which can be met by anything that is not part of the UHD assembly.” Ans. 9. Appellant argues “[t]he term ‘assembly’ in Claims 1 -6 refers to the overall structure being claimed, which includes a UHD display. In contrast, the elements 103 and 104 of Urabe are,

respectively, a decoder unit and a scalar unit that are only portions of a display *assembly*.” App. Br. 9.

We agree with Appellant that the Examiner’s interpretation of the term “assembly” as including only components of a display is inconsistent with the Specification, which uses the term “assembly” to refer to the entire display device. *See* Spec. 1 (“An assembly includes an ultra high definition (UHD) display configured for presenting video in 2160 pixel lines or 4320 pixel lines and a processor configured for controlling the UHD display.”); *see also* Spec. 2 (“The ancillary information can be configured for being ignored by non-UHD assemblies.”). Thus, we disagree with the Examiner that elements 103 (decoder unit) and 104 (scaler unit) depicted in Figure 1 of Urabe teach “non-UHD assemblies.”

Accordingly, we do not sustain the Examiner’s rejection of claim 6. We also do not sustain the Examiner’s rejection of claim 13, which contains substantially the same limitation and was rejected on the same basis.

F. Claims 8 and 9

Claim 8 depends from claim 7 and recites “the UHD display presents video in 2160 pixel lines or 4320 pixel lines and the HD video uses at least 1440 of the pixel lines on the UHD display.” App. Br. 16 (Claims App’x). Claim 9 recites “the HD video uses at least 1920 lines of the UHD display.” *Id.* Appellant argues “these features appear nowhere in the references or in the rejection.” App. Br. 11. These limitations, however, are similar to those included in claim 1. The Examiner finds Urabe teaches UHD displays and displaying HD video using at least 1920 lines. Final Act. 2 (citing Urabe ¶ 4, Figs. 6–7). We agree with the Examiner that Urabe teaches UHD displays having 2160 pixel lines (*see* Urabe ¶ 4) and input HD video signals

with at least 1920 pixel lines (*see* Urabe Figs. 6 & 7). Further, we agree that Urabe’s general teachings of displaying lower resolution video on less than the entire screen of a higher resolution display applies to UHD displays, as recited in claim 8, and HD video at 1920 pixel lines, as recited in claim 9.

Accordingly, we sustain the Examiner’s rejection of claims 8 and 9.

G. Claim 14

Independent claim 14 recites limitations similar to those found in independent claims 1 and 7, but adds:

[R]eceiving a header indicating ancillary information may be presented along with the non-UHD video . . . responsive to . . . the header, presenting . . . an interface allowing a user to select between presenting the non-UHD video full screen and presenting the non-UHD video partial screen along with the ancillary information.

App. Br. 17 (Claims App’x).

The Examiner finds “Urabe inherently includes closed captioning data, which also means inherently including a header for indicating the closed captioning data.” Ans. 10–11 (citing Urabe Fig. 2). We find the Examiner has not provided enough evidence or reasoning demonstrating that the video in Urabe *necessarily* includes a header indicating ancillary information is present, as is required to establish inherency. *See Ex parte Levy*, 17 USPQ2d at 1464.

Accordingly, we do not sustain the Examiner’s rejection of claim 14. For the same reasons, we also do not sustain the Examiner’s rejection of claims 15–18, which depend from claim 14.

H. Claim 19

Claim 19 depends from claim 7 and recites:

[U]pscaling the HD video at least in part by interpolating first and second adjacent pixels having respective first and second pixel values in the HD video and inserting an extra pixel between the first and second pixels, the extra pixel having a value interpolated between the first and second pixel values.

App. Br. 18 (Claims App'x).

The Examiner finds “[t]he techniques for magnifying an image are clearly disclosed in paragraphs 0006 and 0007. Thus, the scaler unit 104 meets the upscaling step as claimed.” Final Act. 9. The Examiner further finds “[t]he pixel interpolation method as claimed is a well known conventional image enlarging or magnifying method. In fact, all image enlarging or magnifying methods use an extra new pixel or pixels inserted in between two original pixels to form a larger image, which is also known as pixel interpolation.” Ans. 11.

Appellant argues that although paragraphs 6 and 7 of Urabe, which the Examiner relies upon, mention magnifying video, they do not explain how such magnification takes place. *See* App. Br. 13. Appellant further argues that the Examiner has not provided evidence establishing that pixel interpolation, as claimed, was “well known.” Reply Br. 5.

We agree with Appellant. Although Urabe teaches magnifying video, it does not explicitly disclose pixel interpolation as the technique used for such magnification. And although pixel interpolation may be a well-known and conventional image enlarging method, the Examiner has not provided evidentiary support for such a finding.

Accordingly, constrained by the record before us, we do not sustain the Examiner’s rejection of claim 19.

I. Claim 20

Claim 20 depends from claim 7 and recites “receiving a user command to downscale HD video into an area of the UHD display that is less than an entire available display area of the UHD display.” App. Br. 18 (Claims App’x). The Examiner finds Urabe teaches downscaling in step S504 of Figure 11 of Urabe. Final Act. 3. Appellant does not present any arguments rebutting the Examiner’s specific findings with respect to this claim, other than to group claim 20 with other claims and argue generally that the Examiner’s findings are based on inherency without the requisite showing that the features are necessarily present in the prior art.

We do not agree the Examiner has relied on inherency for the rejection of claim 20. Instead, the Examiner makes a finding that Urabe affirmatively teaches the limitation. Final Act. 3 (citing Urabe, Fig. 11 step s504). Because such a finding is not rebutted, we sustain the Examiner’s rejection of claim 20.

DECISION

The Examiner’s rejections of claims 1, 4, 5, 7–9, 11, 12, and 20 are affirmed.

The Examiner’s rejections of claims 3, 6, 10, and 13–19 are reversed.

No time period for taking any subsequent action in connection with this appeal may be extended. *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART