

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NETFLIX, INC.,
Petitioner,

v.

VL COLLECTIVE IP, LLC.,
Patent Owner.

Case IPR2023-00891
Patent No. 8,605,794

**PETITIONER’S REPLY TO PATENT OWNER RESPONSE IN *INTER*
PARTES REVIEW OF U.S. PATENT NO. 8,605,794**

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	PATENT OWNER’S CLAIM CONSTRUCTION ARGUMENTS ARE UNSUPPORTED.....	1
A.	“content-related...data segments”	2
B.	“first data file” and “second data file”	4
C.	“assignment rule”	4
III.	COMPS TEACHES “CONTENT-RELATED...DATA SEGMENTS”	7
IV.	COMPS TEACHES AN “ASSIGNMENT RULE”	11
V.	COMPS TEACHES OUTPUTTING “EACH” OF THE “CONTENT-RELATED SECOND DATA SEGMENTS” TOGETHER WITH A “CONTENT-RELATED FIRST DATA SEGMENT” BASED ON AN “ASSIGNMENT RULE”	14
VI.	COMPS TEACHES OUTPUTTING THE “CONTENT-RELATED...DATA SEGMENTS” “SEQUENTIALLY” AND “CHRONOLOGICALLY”	17
VII.	COMPS TEACHES AN “ASSIGNMENT RULE” THAT IS NOT BASED ON A TIMESTAMP	20
VIII.	COMPS AND WAN RENDER CLAIM 22 OBVIOUS	21
IX.	PATENT OWNER’S CURSORY ARGUMENTS ABOUT THE DEPENDENT CLAIMS FAIL.....	23
A.	Claim 2	24
B.	Claim 3	24
C.	Claims 7 and 8.....	25
D.	Claims 18 and 19.....	26
X.	CONCLUSION.....	27

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>Kennametal, Inc. v. Ingersoll Cutting Tool Co.</i> , 780 F.3d 1376 (Fed. Cir. 2015)	9
<i>Liebel-Flarsheim Co. v. Medrad, Inc.</i> , 358 F.3d 898 (Fed. Cir. 2004)	6
<i>Realtime Data, LLC v. Iancu</i> , 912 F.3d 1368 (Fed. Cir. 2019)	4
<i>Thorner v. Sony Comput. Ent. Am. LLC</i> , 669 F.3d 1362 (Fed. Cir. 2012)	5
<i>Unified Patents Inc. v. Cellular Commc'ns Equipment LLC</i> , IPR2018-00091, Paper 33 (P.T.A.B. May 22, 2019)	2
<i>Unified Patents, LLC v. VL Collective IP LLC</i> , IPR2022-01086 (P.T.A.B.).....	1, 2, 4, 5, 6
<i>Verizon Servs. Corp. v. Vonage Holdings Corp.</i> , 503 F.3d 1295 (Fed. Cir. 2007)	9
Other Authorities	
37 CFR § 42.23	2

EXHIBIT LIST

Exhibit Number	Description
1024	Deposition Transcript of Dr. Michael T. Goodrich
1025	<i>Data</i> , Merriam-Webster's Collegiate Dictionary (11th ed. 2012)
1026	<i>Data</i> , Merriam-Webster's Collegiate Dictionary (11th ed. 2006)
1027	Gaurav Bhatnagar et al., <i>Introduction to Multimedia Systems</i> (2002)

I. INTRODUCTION

The Petition established how the claims of U.S. Patent No. 8,605,794 (“the ’794 patent,” EX1001) are anticipated by Comps (EX1004) and/or rendered obvious by Comps over Wan (EX1005), Ahn (EX1006), or Kim (EX1007). In its response, Patent Owner (“PO”) abandons the positions it adopted in the POPR and in a related IPR challenging the ’794 patent, *Unified Patents, LLC v. VL Collective IP LLC*, No. IPR2022-01086 (“the ’086 IPR”) to advance unsupported claim constructions and import additional limitations into the claims in an attempt to define around the asserted prior art. PO also mischaracterizes the prior art, ignoring express disclosures to contend incorrectly that several claim limitations are not taught by those references. PO has thus failed to rebut the arguments made in the Petition, and the Board should find that all claims of the ’794 patent are unpatentable.

II. PATENT OWNER’S CLAIM CONSTRUCTION ARGUMENTS ARE UNSUPPORTED

No construction of any claim term is necessary. Pet., 21. As Petitioner’s expert, Dr. Bederson explained, Comps anticipates the claims even under PO’s constructions. EX1003, ¶69. This remains the case even with PO’s new constructions, offered for the first time in its POR. POR, 12-38; POPR, 13-27. Because PO’s proposed constructions are not required to resolve any disputed issue

and/or improperly seek to import additional limitations into the claims, they should be rejected.¹

A. “content-related...data segments”

After the Board rejected PO’s construction of “content-related...data segments” from its POPR, PO now contends this term should be construed to mean “segments of *content data* that have a syntactical meaning within the respective data file.” POR, 12 (emphasis added); Paper 17, 9-10; *see* POPR, 14.

In the ’086 IPR, the Board previously construed the term to mean “segments of content data that have a syntactical meaning.” ’086 IPR, Paper 37, 18. Although PO’s new construction seems similar to the Board’s construction in the ’086 IPR, PO’s interpretation of this limitation should be rejected.

¹ Citing no authority, PO incorrectly contends Petitioner “forfeited the right to contest [PO]’s proposed construction.” POR at 15. On the contrary, petitioners can respond to claim construction arguments made in the POR. *See, e.g.*, 37 C.F.R. § 42.23(b) (reply may “respond to arguments made in the corresponding...patent owner response”); *Unified Patents Inc. v. Cellular Commc’ns Equipment LLC*, No. IPR2018-00091, Paper 33 at 44-45 (P.T.A.B. May 22, 2019) (considering argument that “was not in the Petition” but was “responsive to [PO]’s construction”).

First, PO's current construction adds the phrase "within the respective data file," which is not in the Board's construction, and is not necessary to resolve any disputes since Comps teaches multiple data files. Paper 17, 9 n.7.

Second, the phrase "content data" appears nowhere in the '794 patent and was not part of "the inventors' express lexicography" for "content-related...data segments," as PO incorrectly contends. POR, 38; *see generally* EX1001. "Content data" was introduced to define "content-related...data segments" during claim construction in related proceedings. Indeed, the '794 patent's claims and specification consistently refer to "content-*related*...data segments" and "content-*based* data segments." *See, e.g.*, EX1001, 4:9-22. Despite this express language, PO improperly uses the phrase "content data" to limit the scope of "content-related...data segments" to only the content itself, *e.g.*, sampled audio, and not information relating to the content, introducing ambiguity into the meaning of this term. POR, 38-43; *see* Section III; EX1024, 39:9-40:13 (PO's expert unable to definitively confirm whether "content data segments" equated to "content-related data segments"). PO's narrow interpretation of "content-related...data segments" is unsupported and inconsistent with the '794 patent. If the inventors contemplated that the claims would be limited to synchronizing only the content itself, they would have only claimed "content" not "content-related...data segments," or they would have used "content data" in the disclosure and expressly described how it is

limited to sample audio, but they did not. *See* EX1001, 4:14-22. Thus, there is no basis to import PO's "content" only limitation into this claim term, and the Board should reject PO's attempt to do so.

Third, even if the phrase "content data" is included in the Board's construction, the word "data" should be given its plain and ordinary meaning. *See* EX1025 ("data" defined as "information in numerical form that can be digitally transmitted or processed"); EX1026 (same). A POSITA therefore would have understood the term "content data" would include any *information* relating to the content.

B. "first data file" and "second data file"

A construction for "first data file" and "second data file" is unnecessary because Comps plainly teaches multiple separate data files, which the Board acknowledged. EX1004, 2:6-9; Paper 17, 9 n.7. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) ("The Board is required to construe 'only those terms...that are in controversy, and only to the extent necessary to resolve the controversy.'" (citation omitted)). Accordingly, the plain and ordinary meaning is sufficient, and the Board need not adopt PO's proposal.

C. "assignment rule"

Although PO did not construe "assignment rule" in its POPR, PO now proffers a construction that departs from its construction for this term in other

related cases. *See* POR, 26-38; '086 IPR, Paper 37, 19. For example, in the '086 IPR, PO proposed that the “assignment rule” limitations mean “wherein the assignment is not performed by using exact timing information.” '086 IPR, Paper 37, 19. PO’s construction now proposes “assignment rule” mean the “assigning is not performed by adjusting the timing of the content-related data segments.” POR, 26. This “new” construction simply substitutes the phrase “adjust the timing” in place of “exact timing information.”

Although PO’s varying constructions are in conflict with each other (one uses “exact timing information” while the other is not so precise), PO recycles a prosecution disclaimer argument (that was already rejected by the Board in the '086 IPR) to try to support its new construction. PO similarly asserts that the applicant’s statements during prosecution regarding prior art references Shin (EX2013) and Rosenau (EX2014), resulted in disclaimer of claim scope such that “assignment rule” does not include “adjust[ing] the timing of the content-related data segments.” POR, 27-38. But prosecution disclaimer is a high bar that requires a “clear and unmistakable” disavowal of claim scope. *Thorner v. Sony Comput. Ent. Am. LLC*, 669 F.3d 1362, 1366-67 (Fed. Cir. 2012). As the Board already held in the '086 IPR, no such disavowal occurred here. '086 IPR, Paper 37, 20-22.

The Board specifically found that there was no clear and unmistakable disclaimer, concluding that “the prosecution history is more fairly characterized as

‘the applicant argu[ing] that claim 1 was distinguishable over Shin and Rosenau because these references consider time information for synchronization, rather than using an assignment rule for synchronization.’” *Id.*, 21-22 (citations omitted). The same analysis applies here, regardless of whether the supposed disclaimer was of “exact timing information” or of “adjusting the timing,” as the patentee made no disavowal regarding “adjusting the timing.”

Moreover, claims 20 and 21 of the ’794 patent, which depend from claims 1 and 9 respectively, recite “assignment rules” that are “not based on a timestamp.” Claim differentiation requires the scope of claims 1 and 9 to include “assignment rules” that *are* based on a timestamp. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) (“[T]he presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim.”). As the Board agreed in the ’086 IPR, claims 20 and 21 are strong evidence that the “assignment rule” of the ’794 patent can include timing information. ’086 IPR, Paper 37, 22-23.

There was no clear and unmistakable disclaimer of the scope of “assignment rule” during prosecution of the ’794 patent. And general principles of claim differentiation reinforce the conclusion that timing information can be included in an “assignment rule.”

Regardless, no construction is necessary, as Comps teaches an “assignment rule” even under PO’s current proposed construction; however, should the Board find it necessary to construe the term, it should reject PO’s attempt to import an “adjusting the timing” limitation.

III. COMPS TEACHES “CONTENT-RELATED...DATA SEGMENTS”

PO’s basis for contending that Comps does not teach this limitation is premised on an improper construction of “content-related...data segments” and mischaracterizing Comps.

PO asserts that the claimed “data segments...cannot be *any* kind of data—they must be *content* data,” such as “WAV data,” that has sampled audio, “MPEG-4 data,” or “subtitles.” POR, 38. As explained, Section II.A, the ’794 patent is not so limited. The ’794 patent’s specification that PO relies on actually undermines its untenable position. *See* EX1001, 3:4-10 (“[A]ccording to *at least one embodiment* of the invention, media data, in particular video or audio data, and/or metadata, in particular encoded according to the XML standard, *are described by way* of the first and/or second data file.”) (emphasis added).

Even under PO’s construction of “content-related...data segments,” Comps teaches this limitation. Comps repeatedly discloses that it synchronizes “content data.” *See, e.g.,* 2:24-2:27 (providing “a device for synchronizing *data in a*

multimedia file containing at least one track in which said *data* is stored and at least one synchronization command in each track”); 2:44-45 (“The *data* in a multimedia file according to the invention can comprise either time values or sound, text or picture coding values.”); 2:60-64 (“Each track of the file **50** can contain a single type of *data*. *For example*, track **60** can be a MIDI (Musical Instrument Digital Interface) format track for sound, track **70** can contain a *sequence of pictures*, and track **80** can contain *sequences of texts*.”); 3:11-19 (“Track **60**...contains only *MIDI sound data*. The *sound data could consist of sampled sounds* (speech, miscellaneous noises such as applause or microphone noise, etc.)....track **2** contains only *data corresponding to sequences of JPEG images*. This *data could equally be video data*. Track **80**...contains only *data corresponding to text messages*.”) (emphasis added); *see also* EX1003, ¶¶74-77.

Although PO admits that Comps has “data stored in its tracks,” PO makes the unavailing argument that Comps’ data is somehow not “content data.” POR, 39. PO argues because “Comps uses the words ‘events,’ ‘commands,’ and ‘fields,’” the data stored in Comps are actually “computer instructions, not content data.” *Id.*, 39-40, 42. This directly contradicts Comps’ express disclosures, as explained above. Moreover, Comps teaches that it organizes its “content-related...data segments” into events or fields for synchronization but that does not negate the fact that Comps teaches storing “content data” or “content-related...data

segments.” Nor does it mean that Comps stores only computer instructions. Indeed, Comps teaches “[e]ach track *also contains data organized in the form of commands* which are executed sequentially by the microprocessor (for example to display a picture or a text).” EX1004, 3:5-7. PO takes this disclosure out of context to assert that Comps only discloses commands to display a picture or text, and not the content itself. But Comps expressly teaches that “*data of a first type, of a second type, etc. is stored* in the first file, in the second file, etc., respectively, and *grouped into the form of at least one event-related command* characterizing an important event or an unimportant event.” EX1004, 2:10-14 (emphasis added).

PO also incorrectly asserts that “Comps’ sole embodiment relies on MIDI for generating sound data,” implying that Comps is limited to only MIDI. POR, 41. But Comps’ disclosure of MIDI data is expressly an exemplary embodiment of sound data. *See* EX1004, 2:61-62 (“*For example, track 60 can be a MIDI (Musical Instrument Digital Interface) format track for sound*”) (emphasis added); *see also id.*, 1:42-45; 3:23 (“Track 1 contains data relating to sound.”); *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1303 (Fed. Cir. 2007) (“This court has cautioned against limiting the claimed invention to preferred embodiments or specific examples in the specification.” (citation omitted)). Thus, Comps is not limited to only MIDI data for sound data, and Comps teaches other forms of media data including video data and text. *See, e.g.*, EX1004, 3:15-41. Comps is broad

enough to cover “content data” that would have been known to a POSITA, including various file formats for the different forms of media data available at the time. *See Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376, 1381 (Fed. Cir. 2015) (“[A] reference can anticipate a claim even if it ‘d[oes] not expressly spell out’ all the limitations arranged or combined as in the claim, if a person of skill in the art...would ‘at once envisage’ the claimed arrangement or combination.” (citation omitted)); *compare* EX1024, 23:20-25:17 (PO’s expert unable to identify any file types for storing audio other than what the ’794 patent identifies).

Furthermore, PO’s argument that “MIDI data does not include content data” because it is “merely instructions for how to play sound content data” is nonsensical. POR, 41. First, as explained above, “content-related...data segments” is not limited to only sampled audio data. Second, “MIDI data is a means of conveying musical performance information as electronic data.” EX2016, 2. Although MIDI data is transmitted in “‘MIDI messages’, which can be thought of as instructions,” MIDI data “represent[s] musical performance information” that is received by a “MIDI sounds generator or sound module” which will “respond to these [MIDI] messages by playing sounds.” *Id.*, 1-2. Thus, MIDI messages/MIDI data are just another way of representing sound and is necessarily would fall within the scope of “content-related...data segments.” This is no different than a .WAV

file that contains digital data representations of audio sound that informs a media player how to generate sounds. *See* POR, 43; EX1027, 55-60. Accordingly, Comps’ MIDI data, sound data, video data, and text messages are all examples of “content-related...data segments,” and Comps teaches the claimed “media data,” “video and audio data,” and “metadata” required in the dependent claims. Pet., 41-42, 44-45.

IV. COMPS TEACHES AN “ASSIGNMENT RULE”

As discussed in Section II.C, PO’s current construction of “assignment rule” is unsupported and should be rejected. Nonetheless, Comps teaches the limitation even under PO’s construction.²

In Comps, the SYNCH commands do not “adjust[] the timing of the content-related data segments,” as PO incorrectly suggests. POR, 43. The SYNCH

² PO misleadingly suggests that Comps is “indistinguishable” from Rosenau with respect to the “assignment rule” limitation. POR, 45-46. EX2014, 3:4–6; 6:5–45. The patentee argued that Rosenau did not disclose an “assignment rule” because it disclosed timestamps to facilitate the skipping of certain frames—meaning that not all video frames were assigned to a corresponding segment of audio data. But, as explained, Comps teaches using SYNCH commands and expressly does not use “temporal commands.” EX1004, 3:44-47.

command is just that—a command. Any adjustment to the timing at which various content is output to the user is a possible *result* of the SYNCH command. EX1003, ¶87 (synchronization is the “end result” of the use of SYNCH commands). Indeed, Comps makes clear that its SYNCH commands “are not temporal commands...but are instead dependent on a specific event,” and they are not “present in the tracks at regular time intervals.” EX1004, 3:44-47. The function of the SYNCH commands is to dictate which commands are executed when the master and slave tracks fall out of sequence, which is accomplished by assigning the “content-related...data segments” in tracks 2 and 3 to the “content-related...data segments” in track 1. *See id.*, 4:29-50. That is, the SYNCH commands do not operate by adjusting timing information.

Comps addressed the problem of using timing information to synchronize “content-related...data segments.” Comps recognized that the disadvantage of “temporal synchronization” used in the prior art was that certain content can be “stopped short,” meaning “the user does not receive the impression of fluid presentation of data.” EX1004, 1:41, 1:65-2:2. Comps’ system solved this problem, “most importantly,” the avoidance of “an important command stopping in the middle” of being presented to a user. *Id.*, 4:56-57. PO’s suggestion that Comps nevertheless adjusts the timing of or skips content disregards Comps’ approach that ensures “fluid presentation of data.” *See id.*, 1:65-2:2.

Attempting to bolster its already untenable position, PO takes out of context statements made by Dr. Bederson, during his deposition. POR, 46 (citing EX2012, 57:16-60:21, 64:5-66:11, 76:11-77:18). PO misleadingly suggests that Dr. Bederson “agree[d] that the tracks all include timing information and that the timing of certain events is adjusted...when a SYNCH command is executed.” But what Dr. Bederson actually said is that “a slave track, as it processes either its own synch commands or an incoming synch command from the master track, ***decides whether to continue along or to pause or to jump ahead.***” EX2012, 76:19-22 (emphasis added). In other words, Dr. Bederson confirmed Petitioner’s position that the SYNCH commands do not themselves adjust the timing of any “content-related...data segments”; any timing adjustments are the *result* of actions taken in response to the SYNCH commands. *Id.*, 57:5-7 (“[T]he synch commands can *result* in effectively speeding up or slowing down the execution of commands in a track” (emphasis added)). Because the SYNCH commands in Comps do not adjust the timing of any “content-related...data segments,” Comps teaches the “assignment rule” limitation even under PO’s proposed construction.

If PO’s proposed construction is not adopted, the claims require only that the “assignment rule” “assign[] each one of the content-related second data segments to one of the content-related first data segments.” *See, e.g.*, EX1001, cl. 1. The Petition explains in detail how Comps teaches an “assignment rule” absent PO’s

limiting construction. Pet, 32-35. PO did not attempt to rebut that showing in the POR, as its arguments regarding the “assignment rule” limitation focused exclusively on its erroneous proposed construction. *See* POR, 43-47.

**V. COMPS TEACHES OUTPUTTING “EACH” OF THE
“CONTENT-RELATED SECOND DATA SEGMENTS”
TOGETHER WITH A “CONTENT-RELATED FIRST DATA
SEGMENT” BASED ON AN “ASSIGNMENT RULE”**

PO has a fundamental misunderstanding of Comps and what the ’794 patent claims require, and it mischaracterizes Petitioner’s mapping of this limitation. PO asserts “Comps is about synchronizing a *subset* of the outputted events instead of *each* outputted event.” POR, 47. But the ’794 claims do not require *every event* in Comps be outputted together on the basis of an “assignment rule”; the claims only require “*each of the content-related second data segments* is output together with an associated one of the *content-related first data segments* on the basis of an assignment rule.” *See, e.g.,* EX1001, Claim 1 (emphasis added). Thus, only the “content-related...data segments” in Comps need to be output together. Conversely, data segments in Comps that are not “content-related data segments” do not need to be output together.

Comps classifies events as important and unimportant. PO disregards this critical distinction by asserting “[a]ny type of event can fall into either category.” POR, 52. Not true. Comps teaches data stored in the first and second files are

“grouped into the form of at least one event-related command characterizing an important event or an unimportant event.” EX1004, 2:10-14. An “important event corresponds to a command to display a text, a command to display a picture, or a command to reproduce a sound.” *Id.* The “content-related...data segments” associated with these important events are the claimed “content-related...data segments.” For example, in Figure 3, Nf_1 and Nd_1 define a first note, $JPEG_1$ and $JPEGd_1$ define an image, and $TEXT_1$, represents a syllable, which are all the claimed “content-related...data segments.” EX1004, 3:22-41; Pet., 27-28. A “synchronization command,” (*i.e.*, the claimed “assignment rule”) “is inserted before each event-related command characterizing an important event.” *Id.*, 2:17-19. “Thus each important command, *i.e.*, a command whose execution ***must not be interrupted***, is represented by a given field preceded by a field representing a synchronizing command.” *Id.*, 4:44-47 (emphasis added).

Unlike important events, Comps’ unimportant events, *i.e.*, its waiting time periods, can be interrupted. *See id.*, 2:10-14; 3:25-26; 3:36-37; 3:41. Comps’ waiting time between successive notes, images, and text, is unequivocally different from the duration information of content (*e.g.*, $JPEGd_1$). Indeed, Comps does not even disclose that the waiting times have a set duration. PO makes a feeble attempt to characterize Comps’ waiting times as content, contending “the absence of sound (on an image) itself constitutes sounds (or image) data.” POR, 54. But this

conflates silence *within content* with waiting times, which are categorically not part of the content. EX2012, 37:10-21, 39:8-40:16, 43:2-17. Thus, Comps' waiting times do not contain content or information about content, are not the claimed "content-related...data segments," and do not need to be output together with an "associated one of the content-related first data segments on the basis of an assignment rule." Pet., 30-31. Accordingly, Petitioner's mapping does not "cherry pick[] certain outputted events," as PO wrongfully accuses. POR, 48. Rather, Petitioner's mapping is consistent with the '794 patent and Comps.

PO then mischaracterizes Petitioner's analysis claiming the Petition "contends that certain sound and picture events (*e.g.*, Nf₂, JPEG1) and distinct events that describe the durations of those events (*e.g.*, Nd₂ and JPEGd₁) are not 'content-related...data segments' when considered independently, but when considered together, the combinations constitute 'content-related...data segments.'" POR, 51. But the Petition never analyzes or considers Nf₂ and Nd₂ or JPEG1 and JPEGd₁ as separate events, because they are not independent events. For example, Comps makes clear that *both* the frequency and duration fields, *i.e.*, Nf₂ and Nd₂, "define" a note. *See* EX1004, 3:22-24, 3:24-25 ("[F]ields N[f]₂ and Nd₂ *define* a second note.") (emphasis added), 3:27-28; EX1024, 85:13-17 (PO's expert, Dr. Goodrich, agreeing that Nf₂ and Nd₂ "define a second note"). Because both the frequency of a note and its duration define the note, both components

necessarily belong together and comprise the claimed “content-related...data segment” as consistently identified in the Petition. PO views the frequency and duration fields of a note as separate “content-related...data segments” simply to advance its argument that Comps does not teach the claimed outputting “each of the content-related...data segments” together. However, considering Nf₂ and Nd₂ as separate, independent events, as PO suggests, would run afoul of Comps’ disclosure that requires both components to define a note. The same applies for JPEG images and its duration fields. Regardless, Comps’ text fields (TEXT1 and TEXT2) do not have duration information for displaying text syllables, so “each” text field, which is the claimed “content-related second data segments” is “output together with an associated” sound segment, *i.e.*, the claimed “content-related first data segments,” and PO does not dispute this.

Accordingly, PO’s challenges to this limitation have no merit.

VI. COMPS TEACHES OUTPUTTING THE “CONTENT-RELATED...DATA SEGMENTS” “SEQUENTIALLY” AND “CHRONOLOGICALLY”

PO again misreads the ’794 patent’s claims to assert that Comps does not teach this limitation because “the *complete set of alleged data segments* in the alleged data files are not output based on the assignment rule, much less sequentially and chronologically.” POR, 55 (emphasis added). PO’s flawed interpretation of the claims would require *all* “alleged *data segments* in the alleged

data files” to be output “sequentially” and in “chronological sequence.” *Id.* (emphasis added). But the ’794 patent claims only require the claimed “content-related...data segments” to be output “sequentially” and in “chronological sequence” based on the assignment rule. As explained above, Comps’ waiting times in each track (*e.g.* D₁, JPEGD₁, TEXTD₁) are not “content-related...data segments,” and therefore they do not need to be output “sequentially” and in “chronological sequence” based on the “assignment rule.”

The waiting time events between the “content-related...data segments” in Comps do not prevent the “content-related...data segments” from being outputted “sequentially” and in “chronological sequence.” For example, in Comps’ Figure 3, “content-related second data segments,” which can be TEXT₁ and TEXT₂, are sequentially outputted “according to their chronological sequence” together with the third note in Track 1 (Nf₃:Nd₃) and the fourth note in Track 1 (Nf₄:Nd₄), respectively, which are the claimed “content-related first data segments.” Pet. 27-28.

PO further contends that this limitation is not met because “events in the slave tracks...may be skipped” resulting in events “that are not in chronological order.” POR, 56. Again, PO disregards the difference between important events and unimportant events. As explained above, important events “correspond[] to a command to display a text, a command to display a picture, or a command to

reproduce a sound.” EX1004, 2:20-24. Comps is definitive; “each important command” is “a command whose execution must not be interrupted.” *Id.*, 4:44-50. Contrary to PO’s argument, the “content-related...data segments” in slave tracks 2 and 3 are important events, and ***do not*** get skipped. POR, 56-57; *see id.* 3:32-35 (“JPEG1 and JPEG2 ***must be*** presented to the user for a given time” JPEGd₁ and JPEGd₂, respectively); 3:38-40 (“[T]wo syllables represented by the fields TEXT1 and TEXT2 ***must be*** presented to the user.”) (emphasis added).

Comps ensures that important events do not get interrupted or “skipped” because important events are “represented by a given field preceded by a field representing a synchronization command. Because of this, different tracks are resynchronized before any important command, if necessary.” *Id.* 4:45-50. Thus, when the slave microprocessor “is lagging behind, has not encountered the field SYNCH1 in track i, it continues to scan its file without executing the commands in encountered, in order to reach the field SYNCH1 as quickly as possible.” *Id.*, 4:30-37. The SYNCH commands are placed in such a manner that important events will get executed. Only unimportant events may not have their commands executed if the slave track is lagging. Indeed, Comps’ system solved the problem of content getting “stopped short, and the user does not receive the impression of fluid presentation data.” *Id.*, 1:65-2:2. Accordingly, Comps “synchronizes data...most

importantly without the execution of an important command stopping in the middle.” *Id.*, 4:51-57.

PO suggests that there are other multiple events indicated by the “squiggly line” before SYNCH2 in Figure 3. POR, 57. Not so. Nothing in Comps suggests that the “squiggly lines” in the respective delay periods in tracks 1, 2, and 3 are an indication that there are important events before SYNCH2 other than $Nf_2:Nd_2$ and JPEG1. Comps makes clear that the third note $Nf_3:Nd_3$ and first syllable TEXT1 occur simultaneously after SYNCH2, and the fourth note $Nf_4:Nd_4$, the second image JPEG2, and the second syllable TEXT2 occur simultaneously after SYNCH3. *See, e.g., id.*, Fig. 3, 3:57-4:2. If there were additional important events, such as multiple notes after the second note before SYNCH2, then the next note after SYNCH2 would not be the third note. Thus, PO’s argument, like its others, fails.

VII. COMPS TEACHES AN “ASSIGNMENT RULE” THAT IS NOT BASED ON A TIMESTAMP

PO’s argument that Comps’ SYNCH commands are somehow “based on a timestamp” is without merit. POR, 57-59.

As explained above, Comps makes clear that its SYNCH commands “are not temporal commands...but are instead dependent on a specific event,” and they are not “present in the tracks at regular time intervals.” EX1004, 3:44-47. PO reads

that disclosure too narrowly, arguing that Comps discloses only that the SYNCH commands lack “a time-based cadence.” POR, 59. But PO simply speculates that because the SYNCH commands lack such a cadence, they *must* nevertheless be “based on a timestamp.”

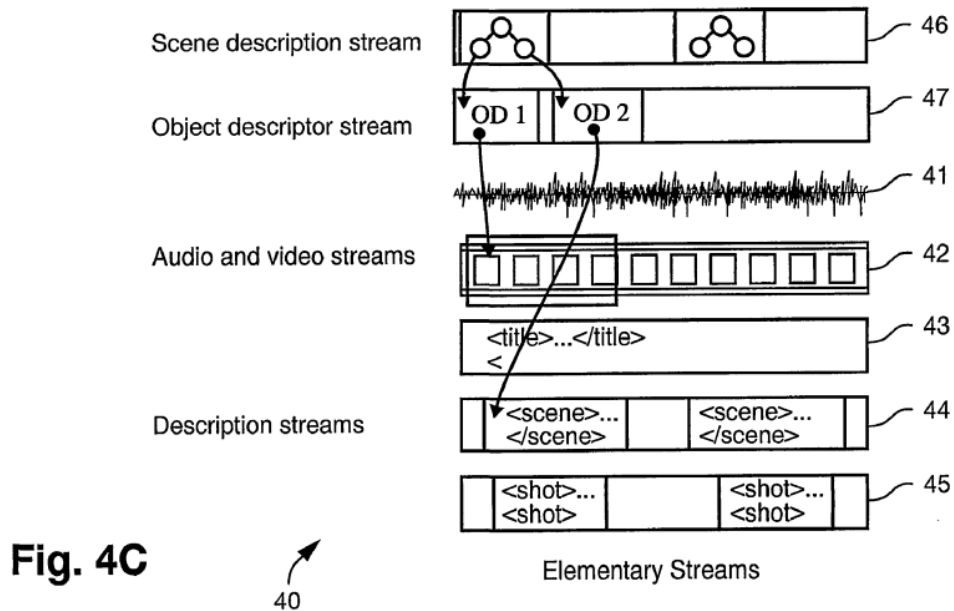
PO’s speculation is directly contradicted by the opinion of Dr. Bederson, who explained that the SYNCH commands in Comps are designed “to avoid the use of timestamps.” EX1003, ¶¶89, 125. And, as noted, Comps does not teach the use of timestamps *at all*. *See generally* EX1004. Rather, Comps discloses that its SYNCH commands “are not temporal commands.” *Id.*, 3:44-47. PO’s unsupported speculation to the contrary cannot outweigh Comps’ express disclosures and the opinions of Dr. Bederson.

VIII. COMPS AND WAN RENDER CLAIM 22 OBVIOUS

A POSITA would have combined the scene description stream disclosed in Wan with Comps’ system to arrive at the method of claim 22. Pet., 56-64. PO suggests, without support, that Wan’s scene description stream “does not order any data segments and is not a content-related marker.” POR, 60. PO ignores the express disclosures of Wan.

Wan’s scene description stream is comprised of “nodes of media objects” and has “leaf nodes...that point to object descriptors.” EX1005, [0053], Fig. 4C. As Figure 4C of Wan (reproduced below) illustrates, the scene description stream

46 refers to object descriptors that in turn refer to both content and descriptions of that content.



EX1005, Fig. 4C. The markers within the scene description stream “define a temporal relationship among the streamed content.” EX1003, ¶141 (citing EX1005, [0054]). That is, Wan’s scene description stream includes the claimed “content-related markers” that provide for the ordering of “content-related...data segments.” PO’s conclusory assertion is baseless.

Additionally, PO’s argument that adding Wan’s scene description stream to Comps would “further complicate matters” fails. *See* POR, 61. PO contends that there would have been no motivation to combine Wan and Comps because doing

so “would require reconfiguring the microprocessors to scan the tracks based on the content-related markers.” POR, 60.

PO’s general assertions about the alleged complexity of the combination are unpersuasive in view of Dr. Bederson’s detailed opinions on the motivation to combine Wan and Comps. First, Dr. Bederson opined that Wan and Comps are analogous art because they are both “directed to a method of synchronizing multimedia data.” EX1003, ¶148. Second, Dr. Bederson explained that a POSITA would have looked to Wan as disclosing a solution to the “resource constraints” identified in Comps. *Id.*, ¶149. Third, Dr. Bederson opined that because a POSITA would have had “strong background knowledge about synchronization of multimedia content” as well as technologies such as XML, the combination of Comps and Wan “would have been technically straightforward and there would be a reasonable expectation of success.” *Id.*, ¶151. PO does not meaningfully rebut any of these opinions, and the Board should therefore find that Claim 22 is obvious in view of Comps and Wan.

IX. PATENT OWNER’S CURSORY ARGUMENTS ABOUT THE DEPENDENT CLAIMS FAIL

PO makes several conclusory arguments as to why several limitations of the dependent claims are not disclosed by the prior art. In each case, PO’s arguments lack specifics and are insufficient to rebut Petitioner’s unpatentability analysis.

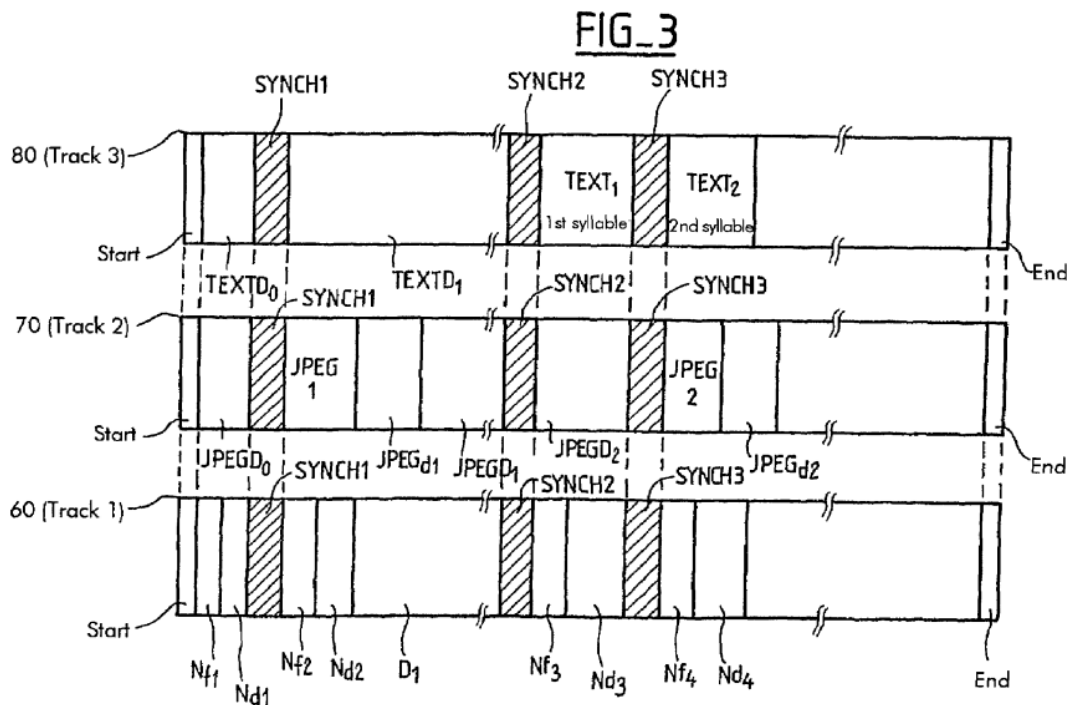
A. Claim 2

PO first misreads the Petition to argue that Petitioner “does not rely on Track 3 at all.” POR, 61. Not so. The Petition expressly contends that claim 1, from which claim 2 depends, has “text segments in track 80” that correspond to “content-related second data segments.” Pet., 28. PO next argues that some content-related second data segments, *e.g.*, JPEG₁ and JPEGd₁, are “assigned to multiple data segments in Track 1 (*e.g.*, Nf₂ and Nd₂).” POR, 61. But that ignores Petitioner’s mapping of the claimed “content-related...data segments,” which makes clear that Nf₂ and Nd₂ together constitute a single “content-related...data segment.” *See* Section III. Finally, PO speculates that “the squiggly lines near the middle of Track 1 and 2 in Figure 3” mean that “[t]here could be any number of first data segments between the assignment.” POR, 62. Not true, as explained above. But even if the “squiggly lines” meant that additional data segments could be present in the tracks, PO fails to square that suggestion with Comps’ express disclosure that important events (*i.e.*, “content-related...data segments”) are always preceded by a SYNCH command. EX1004, 4:44-47.

B. Claim 3

A basic examination of Figure 3 of Comps (shown below) refutes PO’s conclusory argument that the SYNCH commands in Comps “do[] not represent the position of the events within the order of the tracks. And the data segment numbers

do not assign the data segments to one another.” POR, 62. The numbers of the SYNCH commands are numbered in accordance with the ordering of the “content-related first data segments” in the master track. For example, SYNCH1 follows $Nf_1:Nd_1$, SYNCH2 follows $Nf_2:Nd_2$, etc.. EX1004, Fig. 3.



Id.

C. Claims 7 and 8

PO disputes that there is motivation to combine Comps and Wan because “[t]here is no need to determine which event is to be output first in Comps.” POR, 63. Even assuming there is no independent need to determine which event in Comps is to be output first, the resource constraints disclosed in Comps would have provided a motivation to combine Comps with Wan. *See* Section VIII. The

resulting system would use Wan's markers to determine which data segments are output first in time. EX1003, ¶134. Claim 7 is therefore obvious in view of Comps and Wan.

Claim 8 is also rendered obvious by Comps and Wan. Pet., 54-56. Ignoring Wan's teachings, PO suggests that Wan "is completely silent whether updates to scene graphs can be used" to determine which data segments are output first in time. POR, 63-64. As Dr. Bederson explained, however, the scene description stream of Wan, which is used to update scene graphs, "define[s] a temporal relationship among the streamed content." EX1003, ¶¶135-37, 141.

D. Claims 18 and 19

PO alleges, without support, that using a separate file to maintain the "assignment rule" of Comps "would break Comps" and "would require additional coordination between the tracks and the different file(s)." POR, 64-65. But this fails to rebut Dr. Bederson's opinions. For example, Dr. Bederson opined that "[a] POSITA would look to Kim and learn that any kind of information regarding management of information files," including the SYNCH commands of Comps, "could be stored in a file that was separate from the information files." EX1003, ¶165. PO also fails to rebut Dr. Bederson's other opinions on the motivation to combine. *Id.*, ¶¶169-171 (citing EX1004, 1:26-28). Thus, PO's bare assertions

Case No. IPR2023-00891

Patent No. 8,605,794

challenging the motivation to combine Comps and Kim cannot overcome
Petitioner's evidence on this issue.

X. CONCLUSION

PO's Response fails to rebut any of the arguments set forth in the Petition.

The Board should find that all claims of the '794 patent are unpatentable.

Respectfully submitted,

Dated: August 1, 2024

By: // Aliza George Carrano //
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Case No. IPR2023-00891

Patent No. 8,605,794

CERTIFICATE OF COMPLIANCE

The undersigned certifies that this Petition complies with the applicable type-volume limitations of 37 CFR § 42.24. Exclusive of the portions exempted by 37 CFR § 42.24(a), this Petition contains 5,553 words as counted by the word processing program used for its preparation (Microsoft Word 2021).

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Case No. IPR2023-00891

Patent No. 8,605,794

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, the undersigned certifies that on August 1, 2024, a copy of the foregoing document was served by email directed to the following counsel of record and distribution list:

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