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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* CLEAR CHANNEL MANAGEMENT SERVICES, INC.,  
DAVID C. JELLISON, JR., DARREN GRANT DAVIS,  
and JEFFREY LEE LITTLEJOHN

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Appeal 2017-006995  
Application 14/231,833  
Technology Center 2600

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Before JOSEPH L. DIXON, JOHN A. JEFFERY, and  
MATTHEW J. McNEILL, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision to reject claims 1–3 and 5–20. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Appellants' invention schedules broadcast content automatically. In one aspect, a display facilitates recording custom voice tracks and indicates whether media items scheduled on either side of the voice track slot in a master log have been changed by local stations. To this end, the invention (1) obtains data in the form of logs that specify particular time intervals and

their associated media, namely voice tracks and other media items, (2) compares media items before and after a particular time interval, namely a voice track slot, and (3) displays the result of that comparison, namely by indicating whether there is full match, partial match, or no match. *See generally* Abstract; Spec. ¶¶ 106–07, 134–41; Fig. 26. Claim 1 is illustrative:

1. A method comprising:

obtaining a master broadcast log by executing a program instruction in a computer, the master broadcast log including a master voice track slot schedule in a predetermined position, a master prior slot adjacent to and preceding the master voice track slot, and a master subsequent slot adjacent to and following the master voice track slot:

obtaining a plurality of station broadcast logs associated with particular broadcast stations by executing a program instruction in a computer, the station broadcast logs including station voice track slots corresponding to the master log voice track slot, station prior slots adjacent to and preceding the station voice track slots, and station subsequent slots adjacent to and following the station voice track slots;

wherein the master prior slot, the master subsequent slot, the station prior slots, and the station subsequent slots specify a media item;

determining, on a station-by-station basis, by executing a program instruction in a computer:

whether the media item specified by the master prior slot matches the media items specified by the station prior slots of particular stations; and

whether the media item specified by the master subsequent slot matches the media items specified by the station slots of particular stations;

for station-by-station determinations that result in a determination that both the master prior slot specifies the same media item specified by the station prior slot, and the master subsequent slot specifies the same media specified by station subsequent slot, displaying full-match indicator on a voice track recording interface;

for station-by-station determinations that result in determination the either the master prior slot specifies the same media item specified by the station prior slot, or the master subsequent slot specifies the same media specified by station subsequent slot, displaying a partial-match indicator on the voice track recording interface; and

for station-by-station determinations that result in a determination that neither the master prior slot specifies the same media item specified by the station prior slot, nor the master subsequent slot specifies the same media specified by station subsequent slot, displaying a no-match indicator on the voice track recording interface.

#### THE REJECTIONS<sup>1</sup>

The Examiner rejected claims 1–3 and 5–20 under 35 U.S.C. § 101 as directed to non-statutory subject matter. Final Act. 15–17.<sup>2</sup>

The Examiner rejected claims 1–3 and 5–20 under 35 U.S.C. § 103 as unpatentable over Littlejohn (US 2011/0087796 A1; Apr. 14, 2011), Hickey

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<sup>1</sup> Because the Examiner indicates in the Advisory Action mailed November 18, 2016 that a proposed amendment filed after final rejection correcting “claim informalities” would be entered for appeal purposes, we presume that the Examiner’s indefiniteness rejection of claim 1 (Final Act. 15) was withdrawn in light of this entry. Therefore, the indefiniteness rejection is not before us.

<sup>2</sup> Throughout this opinion, we refer to (1) the Final Rejection mailed June 24, 2016 (“Final Act.”); (2) the Appeal Brief filed October 28, 2016 (supplemented December 19, 2016) (“App. Br.”); (3) the Examiner’s Answer mailed February 2, 2017 (“Ans.”); and (4) the Reply Brief filed March 29, 2017 (“Reply Br.”).

(US 6,223,210 B1; Apr. 24, 2011), and Phillips (US 2013/0007043 A1; Jan. 3, 2013). Final Act. 17–32.

### THE INELIGIBILITY REJECTION

The Examiner finds that the claims are directed to the abstract idea of (1) recording a voice track by receiving media items, (2) comparing and matching media items preceding and following the voice track, and (3) displaying matching results for indicating whether the user is permitted to mention a prior or subsequent media item. Final Act. 15–16; Ans. 5–6. According to the Examiner, this process is not only well-understood, routine, and conventional in the industry, steps (2) and (3) are similar to processes in cases involving (1) collecting and comparing known information, and (2) comparing new and stored information and using rules to identify options that our reviewing court has identified as abstract ideas. Final Act. 15–16; Ans. 5–6. The Examiner adds that recited limitations do not add significantly more to the abstract idea because they merely recite generic computing functionality to implement generic functions that are well-understood, routine, and conventional in the industry. Final Act. 16–17; Ans. 6–7.

Appellants argue that not only does the Examiner overgeneralize and oversimplify the claims, the claims are not directed to an abstract idea, but rather a technological tool that solves a problem in a technological context, namely involving centralized control of broadcasting content over different stations. App. Br. 6–13; Reply Br. 3–7. Appellants add that the claims recite significantly more than transmitting media files and feedback messages by addressing system complexities in generating meaningful

analysis results, nor does the claimed invention merely do something in a computer in the same way it was done outside of a computer. *Id.*

#### ISSUE

Has the Examiner erred in rejecting claims 1–3 and 5–20 by concluding that they are directed to ineligible subject matter under § 101? This issue turns on whether the claimed invention is directed to a patent-ineligible abstract idea and, if so, whether the claim’s elements—considered individually and as an ordered combination—transform the nature of the claim into a patent-eligible application of that abstract idea.

#### ANALYSIS

To determine whether claims are patent eligible under § 101, we apply the Supreme Court’s two-step test articulated in *Alice Corp. Proprietary Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014). First, we determine whether the claims are directed to a patent-ineligible concept: laws of nature, natural phenomena, and abstract ideas. *Id.* at 2354–55. If so, we then proceed to the second step and examine the claim’s elements—both individually and as an ordered combination—to determine whether the claim contains an “inventive concept” sufficient to transform the claimed abstract idea into a patent-eligible application. *Id.* at 2357.

#### *Alice Step One*

Applying *Alice* step one, we are not persuaded of error in the Examiner’s finding that the claimed invention is directed to an abstract idea.

Claim 1 recites, in pertinent part, obtaining master and station broadcast logs that include respective voice track slots as well as respective media-specifying slots before and after the voice track slots. Claim 1 also recites determining, on a station-by-station basis, whether media items in master slots before and after the master voice track slot match media items specified by corresponding station slots.

Claim 1 also recites displaying three different indications depending on the result of this determination. First, if the master and station slots before *and* after the voice track slot specify the same media item, then a full-match indicator is displayed on a voice track recording interface. Second, if the master and station slots either before *or* after the voice track slot specify the same media item, then a partial-match indicator is displayed. And third, if the master and station slots do not specify the same media item before or after the voice track slot, a no-match indicator is displayed.

In essence, the recited method of claim 1 (1) obtains data in the form of logs that specify particular time intervals and their associated media, namely voice tracks and other media items, (2) compares media items before and after a particular time interval, namely a voice track slot, and (3) displays the result of that comparison, namely by indicating whether there is full match, partial match, or no match.

Despite Appellants' arguments to the contrary (App. Br. 6–13; Reply Br. 3–7), we agree with the Examiner that claim 1 is directed to an abstract idea given the claimed invention's fundamental concept that essentially (1) gathers data, (2) compares at least some of that data to identify matches, and (3) displays the results of that comparison.

It is well settled that collecting information is within the realm of abstract ideas—even when the information is limited to particular content. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). It is also well settled that “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, [are] essentially mental processes within the abstract idea category.” *Id.* at 1354. And “merely presenting the results of abstract processes of collecting and analyzing information, without more (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis.” *Id.*

Similar to the claims at issue in *Electric Power*, the claimed invention here gathers, manipulates, analyzes, and presents information of a specified content, but does not use any particular inventive technology for performing those functions. *See also Berkheimer v. HP Inc.*, 881 F.3d 1360, 1366–67 (Fed. Cir. 2018) (holding claims directed to (1) evaluating parsed object structures according to previously-stored structures, and (2) presenting an evaluated structure were directed to the abstract idea of parsing and comparing data); *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057, 1067 (noting that “methods that simply collect and compare data, without applying the data in a step of the overall method”, may be ineligible under § 101). That the recited comparison-based determination is made on a station-by-station basis does not change our conclusion, for such plural comparisons are still part of the recited abstract idea, nor do they transform the abstract idea into a practical application of that idea.

Appellants' reliance on *McRO, Inc. v. Bandai Namco Games America, Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) on pages 7 to 10 of the Appeal Brief is misplaced. There, the claimed process used a combined order of specific rules that rendered information in a specific format that was applied to create a sequence of synchronized, animated characters. *McRO*, 837 F.3d at 1315. Notably, the recited process *automatically animated characters* using particular information and techniques—an improvement over manual three-dimensional animation techniques that was not directed to an abstract idea. *Id.* at 1316.

But unlike *McRo*, the recited process of claim 1 merely (1) gathers data, (2) compares at least some of that data to identify matches, and (3) displays the results of that comparison—an abstract idea as noted previously. That this comparison and display is used for centralized control of broadcasting content over different stations as Appellants indicate (Reply Br. 9) does not change our conclusion, for such field-of-use limitations do not render the recited abstract idea patent-eligible. *See Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010) (noting that *Parker v. Flook*, 437 U.S. 584 (1978) “stands for the proposition that the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of the [idea] to a particular technological environment”) (internal quotation marks omitted).

We, therefore, agree with the Examiner that claim 1 is directed to an abstract idea.

#### *Alice Step Two*

Nor do the recited elements—considered individually and as an ordered combination—transform the nature of claim 1 into a patent-eligible

application of the abstract idea to ensure that the claim amounts to significantly more than that idea. *See Alice*, 134 S. Ct. at 2357.

That a computer is used to obtain the master and station logs and make the recited station-by-station determinations does not change our conclusion. In short, this computer is merely a generic computing component that uses conventional generic computing functions, such as (1) gathering data, (2) comparing least some of that data to identify matches, and (3) displaying the results of that comparison. *Accord* Final Act. 16–17.

In short, the claimed invention merely uses generic computing components to do that which can be performed mentally or with a pen and paper—exclusive mental functions ineligible for patent protection under § 101. *See Cybersource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011).

We reach this conclusion even assuming, without deciding, that the recited components add efficiency, for any speed increase comes from the capabilities of the generic computer components—not the recited process itself. *See FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1095 (Fed. Cir. 2016) (citing *Bancorp Services, LLC v. Sun Life Assurance Co.*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (“[T]he fact that the required calculations could be performed more efficiently via a computer does not materially alter the patent eligibility of the claimed subject matter.”)). Like the claims in *FairWarning*, the focus of claim 1 is not on an improvement in computer processors as tools, but on certain independently abstract ideas that use generic computing components as tools. *See FairWarning*, 839 F.3d at 1095 (citations and quotation marks omitted).

In short, merely reciting these generic computing components cannot transform a patent-ineligible abstract idea into a patent-eligible invention. *Id.* at 2358. In other words, merely reciting an abstract idea while adding the words “apply it with a computer” does not render an abstract idea non-abstract: there must be more. *See Alice*, 134 S. Ct. at 2359. Nor does the claimed invention improve the computer’s functionality or efficiency, or otherwise change the way that device functions. *Cf. Enfish LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016).

That a computer is used to obtain the master and station broadcast logs is of no consequence here, for such data gathering steps are insignificant extra-solution activity that is insufficient to render the claim patent-eligible. *See In re Bilski*, 545 F.3d 943, 962 (Fed. Cir. 2008) (en banc), *aff’d on other grounds*, 561 U.S. 593 (2010) (“[T]he involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity.”); *see also id.* at 963 (characterizing data gathering steps as insignificant extra-solution activity).

We reach the same conclusion regarding the computer’s displaying the recited match indicators, for here again, merely displaying the result of a comparison is merely insignificant post-solution activity that does not add significantly more to the abstract idea to render the claimed invention patent-eligible. *See Bilski*, 545 F.3d at 957; *see also Parker v. Flook*, 437 U.S. 584, 590 (1978) (insignificant post-solution activity found to be insufficient to impart patentability). *Accord Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1242 (2016) (same). And, as noted previously, merely presenting the results

of abstract processes of collecting and analyzing information, without more (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis. *Elec. Power*, 830 F.3d at 1354.

Lastly, to the extent that Appellants argue that the particular elements recited in dependent claims 6, 7, 12, 13, 16, and 17 add significantly more to the abstract idea (*see* Reply Br. 11), Appellants did not argue these specific elements with particularity in the Appeal Brief. Compare App. Br. 6–14. Consequently, these additional arguments are waived. *See* 37 C.F.R. § 41.41(b)(2). Nevertheless, even if these arguments were timely raised (which they were not), we still find them unpersuasive, for Appellants have not persuasively rebutted the Examiner’s finding that recording voice tracks is well-understood, routine, and conventional in the industry, as is using an editor for such voice tracks with the recited sections. That the editor displays the recited match indications and waveforms under the recited conditions does not change our conclusion, for here again, Appellants do not persuasively rebut the Examiner’s finding that the recited functionality is generic computing functionality. *See* Final Act. 16–17.

For the foregoing reasons, then, the recited elements—considered both individually and as an ordered combination—do not contain an “inventive concept” sufficient to transform the claimed abstract idea into a patent-eligible application. Therefore, we are not persuaded that the Examiner erred in rejecting claims 1–3 and 5–20 under § 101.

### THE OBVIOUSNESS REJECTION

Regarding claim 1, the Examiner finds that Littlejohn discloses obtaining a master broadcast log and plural station broadcast logs as claimed, but does not determine, on a station-by-station basis, whether media items in a master slot before and after a master voice track slot matches media items specified by corresponding station slots. Final Act. 17–19. The Examiner, however, cites Hickey for teaching this feature. Final Act. 19–21.

Although the Examiner acknowledges that Littlejohn and Hickey do not display full-, partial-, or no-match indications for the respective recited station-by-station determinations, the Examiner cites Phillips for teaching this feature. Final Act. 21–23. According to the Examiner, displaying known parameters for visual assistance is a well-known practice, and the number of parameters and the particular arrangement or layout depends on an application’s requirements and is “user choice, not an inventive concept.” Ans. 9.

Appellants argue that the cited references do not compare corresponding slots of a master and station log, let alone compare the slots before and after a voice track as claimed. App. Br. 14–18; Reply Br. 14–16. Appellants add that the cited references do not display the recited full-, partial-, or no-match indicators. App. Br. 18–19. Appellants argue other recited limitations summarized below.

## ISSUES

Under § 103, has the Examiner erred by finding that Littlejohn, Hickey, and Phillips collectively would have taught or suggested:

- (1) the station-by-station media-item match determination and associated indications recited in claim 1?
- (2) the voice track editor recited in claim 6?
- (3) the displays in the editor's first and third sections recited in claim 7?
- (4) the match indicator of claim 12?

## ANALYSIS

### *Claims 1–3, 5, 8–11, 14, 15, and 18–20*

We are unpersuaded of error in the Examiner's obviousness rejection of claim 1. As noted above, a key aspect of the claimed invention is comparing, on a station-by-station basis, media items specified by corresponding slots before and after voice track slots in a master broadcast log and plural station logs. The claim further requires displaying a particular indicator depending on the result of this comparison. First, for determinations where the master and station slots before *and* after the voice track slot specify the same media item, then a full-match indicator is displayed on a voice track recording interface. Second, if the master and station slots either before *or* after the voice track slot specify the same media item, then a partial-match indicator is displayed. And third, if the master and station slots do not specify the same media item before or after the voice track slot, a no-match indicator is displayed.

These three determinations are directed to the three possibilities of determining a match for media items before and after a voice track, namely a full match, a partial match, or no match at all: indeed, these are the *only* three possibilities.

These possibilities are nevertheless conditional limitations that need not be satisfied to meet the claim. *See* MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) § 2111.04(II) (9th ed. Rev. 08.2017, Jan. 2018) (citing *Ex parte Schulhauser*, No. 2013-007847 (PTAB Apr. 28, 2016) (precedential)). But since one condition must occur from the recited determination, *only one* condition need be satisfied to meet claim 1—not all three. Therefore, to the extent that Appellants contend that all three recited conditional limitations must occur to meet the claim (*see* App. Br. 18–19), such arguments are not commensurate with the scope of the claim for that reason alone.

Nevertheless, we are unpersuaded of error in the Examiner’s rejection of claim 1 even if all recited conditions had to be satisfied to meet the claim (which they do not). First, it is undisputed that Littlejohn teaches obtaining master and station broadcast logs that specify media items associated with corresponding slots. *See* Final Act. 18–19; Ans. 9. As Littlejohn explains, multiple secondary audio servers can function as slaves to a single primary audio server 3, where the primary server plays media events specified in a media log 11 directly to the secondary audio servers in real time. *See* Littlejohn ¶¶ 28–29, 32, 35; Figs. 1–2, 4–5. Notably, a user interface on the secondary workstation associated with the secondary audio servers can permit playing or skipping particular media items with respect to the media events received from the primary server, including playing a rotation before

or after playing local audio as shown in Figure 4. *See* Littlejohn ¶ 34; *see also* Ans. 9 (noting Littlejohn’s ability to insert and skip media events with respect to associated logs in connection with the functionality of Figures 8, 9, and 12).

Although these scheduling and playback determinations are performed on a station-by-station basis, Littlejohn does not explicitly teach comparing, on a station-by-station basis, media items specified by corresponding slots before and after voice track slots in a master broadcast log and plural station logs. Nevertheless, we see no error in the Examiner’s reliance on Hickey for at least suggesting this comparison.

As shown in Hickey’s Figure 2, a client computer, which the Examiner equates with a local station (Ans. 8), receives a schedule log from on-air server 2 (via voice-tracking server 4) in step 64 that is then read and displayed. Hickey, col. 6, l. 65 – col. 7, l. 2. After the client computer marks the log with an insertion point for a voice track, the associated position is ultimately transferred to the on-air server that then checks a sequencer and schedule log for conflicts, and if no conflicts exist, edits the log accordingly in step 70. Hickey, col. 7, ll. 7–26. Then, the updated log is transferred to the voice tracking server that (1) generates a segment for the audio tracks before and after the insertion point (i.e., the “heads” and “tails” segments associated with the voice track),<sup>3</sup> and (2) stores the segments. Hickey, col. 7, ll. 24–31; Fig. 2 (step 72). After receiving the voice track’s position identification and file name, the client computer then checks whether the required segments are stored locally and, if not, they are

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<sup>3</sup> “Heads” and “tails” are segments created from the beginning and end of a track, respectively. *See* Hickey, col. 6, ll. 15–20.

retrieved via associated URLs. Hickey, col. 7, ll. 31–46; Fig. 2 (steps 74 and 76). For context, the client computer then plays the “heads” and “tails” segments while recording the voice track. Hickey, col. 7, ll. 46–49; Fig. 2 (step 78).

This functionality at least suggests that there is some form of master/station media-item comparison that occurs on a station-by-station basis not only in the on-air server’s conflict resolution process as the Examiner indicates (Ans. 8), but also in connection with the client computer’s determining whether the requisite “heads” and “tails” segments—namely those before *and* after a voice track—are stored locally. These comparisons at least suggest indicating a match between respective master and station “heads” and “tails” media items on both sides of a voice track slot. That is, a mismatch would not only suggest a log-based conflict at the on-air server, but also the need for the client computer to retrieve missing “heads” and “tails” media items remotely after determining they are not stored locally. Notably, such a mismatch would involve heads segments, tails segments, or both.

In addition, displaying an associated indicator indicating a full match, partial match, or no match on a voice track recording interface as claimed would have been at least an obvious variation, particularly in view of Phillips. Notably, Phillips’ voice track search interface in Figure 5 not only shows clips that match search results, but also associated spans 512 and timeline indicators 510.

Given this functionality, we see no reason why such indications could not be applied to “heads” and “tails” media items, such as those on either side of voice tracks in the Littlejohn/Hickey system, for such an application

would predictably indicate associated full matches, partial matches, or no matches, at least with respect to these media items. Such an enhancement uses prior art elements predictably according to their established functions—an obvious improvement. *See KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417 (2007). Appellants’ arguments regarding the cited references’ individual shortcomings in this regard (App. Br. 14–19; Reply Br. 14–16) do not show nonobviousness where, as here, the rejection is based on the cited references’ collective teachings. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

Therefore, we are not persuaded that the Examiner erred in rejecting claim 1, and claims 2, 3, 5, 8–11, 14, 15, and 18–20 not argued separately with particularity.<sup>4</sup>

*Claims 6, 13, and 16*

We also sustain the Examiner’s rejection of claim 6. Claim 6 depends from claim 5, and recites a voice track editor with (1) a first section corresponding to a media item specified by the master prior slot, (2) a second section corresponding to the master voice track slot, and (3) a third section corresponding to the media item specified by the master subsequent slot.

Although the Examiner cites Littlejohn and Phillips in the rejection, the Examiner nonetheless refers to the functionality associated with

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<sup>4</sup> To the extent that the Examiner also finds that claim 1 is indefinite under § 112 given the Examiner’s characterization in the obviousness rejection that various recited limitations ostensibly render the claim “*vague* and non-functional or *indefinite*” (Final Act. 23) (emphasis added), no such rejection is before us.

Hickey's display in Figure 5 in the Answer. *Compare* Final Act. 25–26 with Ans. 10. Despite this shift, we nonetheless see no harmful error in the Examiner's reliance on Hickey's Figure 5 for at least suggesting a voice track editor with the three recited sections, particularly in view of the graphic display 228 of audio tracks before and after the current voice track, and the associated controls, including a voice track recording control 230. *See* Hickey, col. 9, ll. 21–28.

That the appropriate media items are displayed both before and after the voice track in Hickey's Figure 5 at least suggests a match between respective master and station “heads” and “tails” media items on both sides of the voice track. That is, this very display of these media items suggests that there not only was not a conflict at the on-air server in step 70 of Figure 2 preceding the retrieval of these media items, but also that the client computer retrieved these items and stored them locally—a condition that at least suggests a match of “heads” and “tails” media items in respective master/station slots as noted previously. Appellants' arguments regarding Phillips' and Hickey's alleged shortcomings in this regard (App. Br. 19–20; Reply Br. 17–18) are unavailing and not commensurate with the scope of the claim.

Therefore, we are not persuaded that the Examiner erred in rejecting claim 6, and claims 13 and 16 not argued separately with particularity.

#### *Claim 7*

We also sustain the Examiner's rejection of claim 7 reciting, in the first section, (1) displaying a no-match indication *if* the master prior slot specifies a different media item than that specified by the station prior slot,

and (2) displaying a waveform *if* the master prior slot specifies the same media item specified by the station prior slot.

Similarly, claim 7 recites, in the third section, (1) displaying a no-match indication *if* the master subsequent slot specifies a different media item than that specified by the station subsequent slot, and (2) displaying a waveform *if* the master subsequent slot specifies the same media item specified by the station subsequent slot.

Our emphasis on the term “if” underscores that the recited limitations are conditional and, therefore, need not be satisfied to meet the claim. *See* MPEP § 2111.04(II) (citing *Schulhauser*). To be sure, the two limitations associated with each section specify the *only* two possibilities with respect to the corresponding master-slot media item, namely whether it is the same as that in its counterpart station slot or not. Nevertheless, these possibilities are conditional limitations that need not be satisfied to meet the claim. *See id.* But since one condition must occur for each section, *only one* condition for each section need be satisfied to meet claim 1. Therefore, to the extent that Appellants contend that *both* recited conditions for each section must be satisfied to meet the claim (*see* App. Br. 20), such arguments are not commensurate with the scope of the claim.

As noted previously, the fact that the appropriate media items are displayed both before and after the voice track in Hickey’s Figure 5 at least suggests a match between respective master and station “heads” and “tails” media items on both sides of the voice track. That is, this very display of these media items suggests that there not only was not a conflict at the on-air server in step 70 of Hickey’s Figure 2 preceding the retrieval of these media

items, but also that the client computer retrieved these items and stored them locally—a condition that at least suggests a match of “heads” and “tails” media items in respective master/station slots as noted previously.

Given this functionality in light of Phillips’ voice track search interface in Figure 5 that shows clips that match search results and associated spans, we see no error in the Examiner’s rejection at least to the extent that the cited prior art at least suggests displaying a waveform in the first and third sections if the same media item is specified by the respective master/station prior and subsequent slots. Conversely, the absence of these “heads” and “tails” media items in the first and third sections would indicate that there was no such match.

Although the media items in display 228 of Hickey’s Figure 5 are not shown explicitly as waveforms, they nonetheless represent audio tracks—and their associated waveforms—before and after a voice track. *See* Hickey, col. 9, ll. 20–23. In short, nothing in claim 7 precludes displaying such a waveform *representation*. Nevertheless, to the extent that Appellants contend that these displayed representations are not themselves waveforms, such a display would have nevertheless been an obvious variation to display not only the media items’ duration, but also their amplitude—a known audio display technique yielding a predictable result. *See* MICROSOFT COMPUTER DICTIONARY 561 (5th ed. 2002) (defining “waveform” as “[t]he manner in which a wave’s amplitude changes over time”); *see also* ADOBE AUDITION<sup>®</sup> 3 USER GUIDE, Adobe Sys. Inc. (2007), at 81–82 (describing displaying and editing audio waveforms).

Appellants' arguments regarding Phillips' individual shortcomings (App. Br. 20) do not show nonobviousness where, as here, the rejection is based on the cited references' collective teachings. *See Merck*, 800 F.2d at 1097.

Therefore, we are not persuaded that the Examiner erred in rejecting claim 7.

#### *Claim 17*

We also sustain the Examiner's rejection of claim 17. Claim 17 recites limitations commensurate with those in method claim 7, but rather recites a computer readable medium instead of a method.

The broadest reasonable interpretation of an apparatus claim with structure that performs a function, which only needs to occur if a condition precedent is met, still requires structure for performing the function should the condition occur. *Schulhauser* at 14–15. We see no reason to treat the medium claim any differently.

Therefore, our interpretation of medium claim 17 differs from method claim 7 because the structure, namely the medium comprising instructions to perform the recited steps, is present regardless of whether the condition is met and the step is actually performed. Nevertheless, we find that the cited prior art collectively at least suggests both recited conditions.

As noted previously, Figure 5 of both Hickey and Phillips collectively at least suggest displaying a waveform in the first and third sections if the same media item is specified by the respective master/station prior and subsequent slots—slots that are also adjacent to the voice track slot as

recited in claim 17. Conversely, the absence of these “heads” and “tails” media items in the first and third sections would indicate that there was no such match.

Therefore, we are not persuaded that the Examiner erred in rejecting claim 17.

### *Claim 12*

We also sustain the Examiner’s rejection of claim 12 reciting that each match indicator indicates one of (1) a preceding-slot match, (2) an after-slot match, and (3) a full match. Despite Appellants’ arguments to the contrary (App. Br. 20–21; Reply Br. 12), we find that the cited prior art collectively at least suggests at least one of the recited indicators for the reasons previously discussed.

### CONCLUSION

The Examiner did not err in rejecting claims 1–3 and 5–20 under §§ 101 and 103.

### DECISION

We affirm the Examiner’s decision to reject claims 1–3 and 5–20.

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).

AFFIRMED

<i>Notice of References Cited</i>	Application/Control No.	Applicant(s)/Patent Under Patent Appeal No.	
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U.S. PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
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NON-PATENT DOCUMENTS

*	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
U	ADOBE AUDITION® 3 USER GUIDE, Adobe Sys. Inc. (2007), p. 81-82
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# ADOBE® AUDITION® 3 USER GUIDE

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Adobe® Audition® 3.0 User Guide for Windows®

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Part Number: 90085010 (08/07)

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## Chapter 6: Editing audio files

### Displaying audio in Edit View

#### Choose an audio display

In Edit View, you can choose any of four displays for audio data. Each shows you a different visual representation of sound waves. If you open a stereo file, the left channel appears at the top and the right channel appears at the bottom. If you open a mono file, its single channel fills the total height of the Main panel.

❖ In the toolbar, select Waveform Display , Spectral Frequency Display , Spectral Pan Display , or Spectral Phase Display .

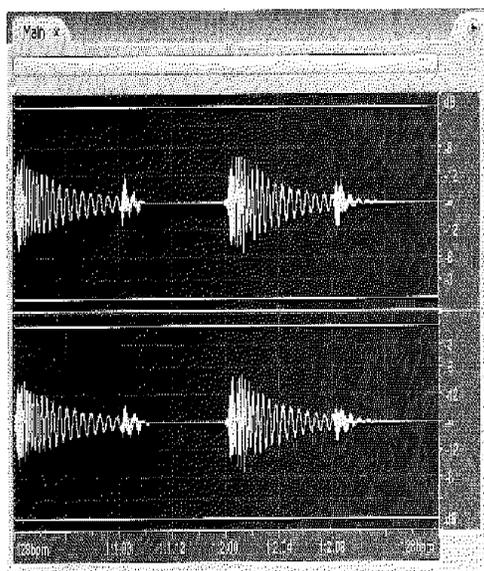
For more information, see “Sound fundamentals” on page 11 and “Comparing Edit View and Multitrack View” on page 30.

#### About Waveform Display

Waveform Display shows a waveform as a series of positive and negative peaks. The x-axis (horizontal ruler) measures time, and the y-axis (vertical ruler) measures amplitude—the loudness of the audio signal. Quiet audio has both lower peaks and lower valleys than loud audio. You can customize Waveform Display by changing the vertical scale, colors, and line visibility.

With its clear indication of amplitude changes, Waveform Display is perfect for identifying percussive changes in vocals, drums, and more. To find a particular spoken word, for example, simply look for the peak at the first syllable and the valley after the last.

 For information about customizing Waveform Display, search Adobe Audition Help for “Color preferences” and “Display preferences.”

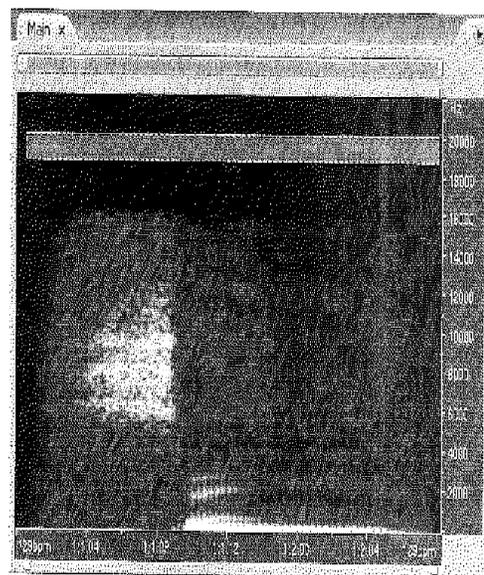


*Stereo file in Waveform Display*

### About Spectral Frequency Display

Spectral Frequency Display shows a waveform by its frequency components, where the x-axis (horizontal ruler) measures time and the y-axis (vertical ruler) measures frequency. This view lets you analyze audio data to see which frequencies are most prevalent. Brighter colors represent greater amplitude components. Default colors range from dark blue (low-amplitude frequencies) to bright yellow (high-amplitude frequencies). You can modify display settings for Spectral Frequency Display using the Spectral Controls panel.

Spectral Frequency Display is perfect for removing unwanted sounds, such as coughs and other artifacts. This is known as *frequency-space editing*.



*Spectral Frequency Display, with high frequencies selected*

For more information, see “Techniques for restoring audio” on page 100.

### About Spectral Pan Display

Spectral Pan Display shows the pan (left-right stereo) position of sound components. It visualizes the sound locations in the stereo plane. The x-axis (horizontal ruler) measures pan position, with the top of the display (0%) representing full left and the bottom of the display (100%) representing full right. Brighter colors represent greater amplitude components. You can modify display settings for Spectral Pan Display using the Spectral Controls panel.