

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ROBERT D. NICHOLSON and BARRIE A. SAUNDERS

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Appeal 2008-2227  
Application 09/753,127  
Technology Center 2600

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Decided: August 25, 2008

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Before KENNETH W. HAIRSTON, JOSEPH F. RUGGIERO, and JOHN  
A. JEFFERY, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's rejection of claims 9-18. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM-IN-PART. We also enter a new ground of rejection under 37 C.F.R. § 41.50(b).

## STATEMENT OF THE CASE

Appellants invented a method and system of selecting advertisements to display on a television channel. A set top box is used to receive and manage advertisements presented to viewers. Advertisements are downloaded to the set top box in response to a download triggering event. The download triggering event includes a change in the viewing channel, a change in the viewing channel for a given time, and a change in time. The set top box also receives advertising trigger signals from the operator head end at a given time and replaces the current television broadcast with an advertisement. As a result, merchants can reach and target advertisements to a more appropriate audience.<sup>1</sup> Claim 9 reads as follows:

9. A method of selecting advertising for display on a subscriber-selected television channel using a set top box comprising:

    sending a download trigger signal responsive to a download event from the set top box via an out-band-channel to a cable television operator head end signaling the readiness of the set top box to receive advertisements, wherein the download event is selected from the group consisting of a change of channel, a change of channel coupled with continuous viewing for a minimum time period, and a change of time;

    receiving at the set top box advertisements from the cable television operator head end appropriate to the subscriber's subscribed television channels;

    receiving at the set top box at a time determined at the cable television operator head end an advertising trigger signal sent from the cable television operator head end via the out-of-band channel; and

    substituting at the set top box an advertisement appropriate to the subscriber-selected television channel for a television broadcast feed in response to receipt of the advertising trigger signal.

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<sup>1</sup> See generally Spec. 2:7-20, 3:22-4:7, 7:1-16, and 8:20-9:8.

The Examiner relies upon the following as evidence in support of the rejection:

Swix	US 6,718,551 B1	Apr. 6, 2004 (filed Dec. 21, 1999)
Zigmond	WO 99/66719	Dec. 23, 1999

1. Claims 9-16 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Zigmond.

2. Claims 17 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Zigmond and Swix.

Rather than repeat the arguments of Appellants or the Examiner, we refer to the Briefs<sup>2</sup> and the Answer<sup>3</sup> for their respective details. In this decision, we have considered only those arguments actually made by Appellants. Arguments which Appellants could have made but did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

#### REJECTION OVER ZIGMOND

We first address the rejection of claims 9-16 under 35 U.S.C. § 102(b) as being anticipated by Zigmond. Regarding independent claim 9, the Examiner's rejection finds that Zigmond discloses a method with every claimed feature (Ans. 3-4). Appellants argue that Zigmond fails to disclose

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<sup>2</sup> We refer to the most recent Appeal Brief filed November 9, 2006, and the Reply Brief filed February 22, 2007, throughout this opinion.

<sup>3</sup> We refer to the most recent Examiner's Answer mailed April 4, 2007, throughout this opinion.

the step of sending a download trigger signal as recited in claim 9 (App. Br. 7-11; Reply Br. 3-5).

### ISSUES

The issues are: (1) whether Zigmond discloses the step of sending a download trigger signal responsive to a download event from the set top box to a cable television operator head end and (2) whether there is ample reason to combine Zigmond and Swix to meet limitations of claim 17.

### FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence.

1. Claims 9 and 17 recite the step of “sending a download trigger signal responsive to a download event from the set top box via an out-band-channel to a cable television operator head end signaling the readiness of the set top box to receive advertisements.”
2. Claim 13 recites “a set top box . . . . adapted to: send to the cable television operator head end a download signal responsive to a download event via an out-band-channel signaling the readiness of the set top box to receive advertisements.”
3. Zigmond discloses that viewer responses stored in statistics collection 61 are periodically sent to a clearinghouse. Zigmond states the viewer responses are made available to advertisers, the operator of an advertising source, or other parties (Zigmond, 6:17-21, 13:14-27, 14:10-17, 25:12-16, and 27:28 – 28:1; Figs. 4-6).

4. Zigmond discloses the viewer responses data are reported from an advertising insertion device or set top box to the originating advertisement provider, an operator of the advertisement source or third party (Zigmond, 9:24-27, 11:15-25, and 25:13-16).
5. Zigmond discloses the advertisement insertion device 60 or 80 can be a WebTV box. The WebTV box transmits viewer responses statistics through a phone line, cable modem or the Internet (Zigmond, 10:21-22, 11:8-14, and 14:10-17; Figs. 4-5).
6. Zigmond discloses the advertisement source 62 is separate from the programming source 66 (Zigmond, 12:21-25; Fig. 4)
7. Zigmond discloses the cable provider may compile household data relating to several households at a central location (Zigmond, 10:31-11:1).
8. Zigmond discloses a method and system of selecting advertisements for display on a subscriber-selected television station (Zigmond, Abstract, 5:16-18, 8:16-22, and 25:22-31; Fig. 7).
9. Zigmond discloses receiving at the set top box advertisements from a content provider or cable network appropriate to the subscriber's television channel (Zigmond, 9:23-29, 10:17-11:6 and 14:18-23; Figs. 1 and 3).
10. Zigmond further describes receiving at the set top box at a time determined at the provider an advertising trigger signal sent from the provider through an out-of-band channel (Zigmond, 11:2-6, 11:30-12:13, 22:9-23, and 23:5-12).

11. Zigmond explains that an advertisement is inserted or substituted at the set top box for the broadcast feed in response to receipt of the advertising trigger signal (Zigmond, 10:9-11, 22:24-29, 25:1-5; Fig. 6).
12. Zigmond discloses sending a download trigger signal responsive to a download event, including a change of time or at periodic intervals (Zigmond, 13:7-8 and 25-27).
13. Zigmond describes monitoring viewer response, including a change of channel, and applies this method to aggressive channel surfers in order to ensure all viewers see portions of the advertisement regardless of the channel the user is viewing (Zigmond, 13:10-11 and 18:27- 19:6).
14. Zigmond discloses using a filter when there is smaller or insufficient memory to select an advertisement appropriate to a subscriber-selected television channel and serving the advertisement to the set top box through an in-band channel for display on a television connected to the set top box on the fly (Zigmond, 21:27-31, 23:2-9, and 24:21-26; Figs. 5-6).
15. Swix teaches sending the results of the viewer's response directly to where the advertisements originate or a cable operator head end in order to modify and update the selection of advertisements in accordance with the viewer's current interests and viewing habits. Swix teaches recording download events, including changes in channels (Swix, col. 3, ll. 29-47 and 56-59, col. 4, ll. 34-38, col. 9, ll. 25-26, col. 10, ll. 54-58, and col. 11, l. 34-43; Figs. 1-2).

16. Swix communicates the viewer responses from the set top box to the operator head end so that advertising is better targeted to the viewer, advertising money is more efficiently spent, and profit margins increase (Swix, col. 2, ll. 6-13 and col. 5, ll. 39-42).
17. Swix teaches sending the signal at various times, including at predetermined intervals, in response to a command by the merge processor, when a new targeted advertisement must be inserted, or at any time (Swix, col. 7, ll. 7-10, col. 8, l. 29-38, col. 10, ll. 52-58, and col. 11, l. 3-6).
18. Swix teaches filtering advertisements when the memory of the set box is insufficient in order to save on the set box's memory and include only appropriate advertisements in the viewer's set box (Swix, col. 11, ll. 43-57).

#### PRINCIPLES OF LAW

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

## ANALYSIS

Claim 9 recites the step of “sending a download trigger signal responsive to a download event from the set top box via an out-band-channel to a cable television operator head end signaling the readiness of the set top box to receive advertisements” (FF1). The Examiner has relied on various passages in Zigmond to disclose this step (Ans. 3-4), including a discussion that the set top box transmits viewer response information over a phone line, a cable modem, or the Internet (FF5) and the viewer responses are periodically sent to a clearinghouse (FF3).

Upon review, we find that Zigmond falls short of showing the step of sending a download trigger signal responsive to a download event from a set top box to a cable television operator head end as recited in claim 9.

Zigmond states the viewer responses may be sent or reported to a clearinghouse or an advertisement source operator from a set top box or WebTV box (FF3, FF4). Zigmond, however, does not describe or show that either the advertisement source or the clearinghouse is a part of the head end of the cable operator (FF3, FF6). In fact, Figure 4 shows the advertisement source separate from the programming source or content provider, such as cable television (FF6). Additionally, Zigmond does not disclose the other parties that are sent the viewer responses from the set top box (FF4).

Finally, Zigmond does not explain how the viewer responses are made available to advertisers (FF3) or how the compilation of household data at the cable provider (FF7) was sent. For instance, the reports could possibly be mailed rather than sent to an out-of-band channel from the set top box to these parties. Thus, we are constrained to find that Zigmond does not expressly disclose the step of sending a download trigger signal responsive

to a download event from the set top box to a cable television operator head end as recited in claim 9.

Moreover,

[i]f the prior art reference does not expressly set forth a particular element of the claim, that reference still may anticipate if that element is “inherent” in its disclosure. To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill . . . Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.’

*In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (quoting *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991)) (internal citations omitted). No evidence has been provided that the advertising source operator, the clearinghouse, or the third party (FF3, FF4, and FF6) is necessarily a cable television operator head end. We are, thus, also constrained to find that Zigmond also does not inherently disclose the limitation of sending a download trigger signal responsive to a download event from the set top box to a cable television operator head end as recited in claim 9. The Examiner has, therefore, not shown that each and every element as set forth in claim 9 is found, either expressly or inherently described, in Zigmond.

For the foregoing reasons, Appellants have shown error in the Examiner’s anticipation rejection of claim 9 based on Zigmond. As independent claim 13 includes a limitation that is commensurate in scope with the above-discussed limitation in claim 9 (FF2), Appellants have also shown error in the Examiner’s anticipation rejection of claim 13 based on

Zigmond. Accordingly, we will not sustain the Examiner's rejection of independent claims 9 and 13 or dependent claims 10-12 and 14-16.

#### REJECTION OVER ZIGMOND AND SWIX

We next turn to the rejection under 35 U.S.C. § 103(a) of claims 17 and 18 as being unpatentable over Zigmond and Swix. The Examiner finds the combination of Zigmond and Swix teaches the limitations of claim 17 (Ans. 6-7). Appellants reiterate the arguments made with respect to Zigmond and its purported deficiencies (App. Br. 12-13).

Independent claim 17 recites a method of selecting advertising for display on a television that includes the step of sending a download signal that is commensurate in scope to claim 9 (FF1) and “serving the advertisement to the set to [sic] box via an in-band channel for display on a television connected to the set top box in real-time” if the set top box has insufficient memory. Zigmond discloses a method of selecting advertisements for display on a subscriber-selected television station (FF8). Zigmond discloses receiving at the set top box advertisements from a content provider or cable network appropriate to the subscriber's television channel (FF9). Zigmond further describes receiving at the set top box at a time determined at the provider an advertising trigger signal sent from the provider through an out-of-band channel (FF10). Zigmond explains that an appropriate advertisement is inserted or substituted at the set top box for the broadcast feed in response to receipt of the advertising trigger signal (FF11).

Zigmond, however, does not fully disclose sending a download trigger signal from a set top box to a cable television operator head end. Zigmond discloses the method includes sending viewer responses over a phone line, a

cable modem or the Internet from a set top box to a clearinghouse, an operator of an advertising source, or a third party to more effectively target audiences (FF3, FF5). Without providing any details how the information is made available, Zigmond also discloses the information goes to advertisers (FF3).

Swix teaches another known method and system for providing targeted advertisements to a subscriber-selected television channel. Swix recognizes the need to send the results of the viewer's response directly to where the advertisements originate or a cable operator head end and to modify and update the selection of advertisements in accordance with the viewer's current interests and viewing habits (FF15). Swix provides a solution to this need by communicating the viewer responses from the set top box to the operator head end so that advertising is better targeted to the viewer, advertising money is more efficiently spent, and profit margins increase (FF16). One skilled in the art would have recognized the Swix method would improve the Zigmond method by transmitting the viewer response data sent by the set top box in Zigmond to the originating advertisement provider (FF3) or cable television operator head end in a similar manner. That is, the reporting of the results to the cable television operator head end, which originally contains the advertisements before sending them to the advertising source, would allow for updating the advertising source in Zigmond with appropriate and targeted advertisements and would increase efficiency and profit margins based on the user's viewing habits and current interests.

Furthermore, Zigmond discloses sending a download trigger signal responsive to a download event, including a change of time or at periodic

intervals (FF12). Swix similarly teaches sending the signal at various times, including at predetermined intervals, in response to a command by the merge processor, when a new targeted advertisement must be inserted, or at any time (FF17). Thus, one skilled in the art would have recognized to include the step of sending a download trigger signal from a set top box to a cable television operator head end in response to a download event of a change of time in order to target viewers effectively with appropriate advertisements on a periodic basis.

Lastly, Zigmond describes monitoring viewer response, including a change of channel, and applies this method to aggressive channel surfers in order to ensure all viewers see portions of the advertisement regardless of the channel the user is viewing (FF13). Zigmond, however, does not explicitly disclose sending a download trigger signal response to the change of channel from the set top box to a cable television operator head end. As discussed above, Swix teaches such a technique to record download events, including changes in channels, so as to report the viewer's habit by sending signals from the box to an operator head end and to target the viewer (FF15). Thus, one skilled in the art would have recognized including Swix's teaching of sending signals from the box to the head end during different events, including when the user changes the channel, into the Zigmond system so as to ensure that the aggressive channel surfer viewer will eventually receive the commercial message as Zigmond desires (FF13). The combination of Zigmond and Swix, as such, teaches the limitation of the sending of a download trigger signal responsive to a download event of the change of time or the change of channel from the set top box through an out-

band channel to a cable television operator head end signaling the readiness of the set top box to receive advertisements as recited in claim 17.

With regards to the recitations to sufficient and insufficient memory at the set top box, Zigmond discloses using a filter when there is smaller or insufficient memory to select an advertisement appropriate to a subscriber-selected television channel and sending the advertisement to the set top box through an in-band channel for display on a television connected to the set top box on the fly or in real time (FF14). Moreover, Swix teaches filtering advertisements when the memory of the set top box is insufficient in order to save on the set top box's memory and include only appropriate advertisements in the viewer's set top box (FF18). Thus, one skilled in the art would also have recognized the inclusion of selecting appropriate advertisements and serving them in real time in order to save on memory while delivering relevant advertisements to the viewer.

For the foregoing reasons, Appellants have not shown error in the Examiner's obviousness rejection of independent claim 17 based on Zigmond and Swix. Accordingly, we will sustain the Examiner's rejection of independent claim 17 and claim 18 which falls with claim 17.

*New Ground of Rejection Under 37 C.F.R. § 41.50(b)*

Under 37 C.F.R. § 41.50(b), we enter a new ground of rejection under 35 U.S.C. § 103(a) for claims 9 and 13.

Claims 9 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Zigmond and Swix. Claim 9 includes limitations that are commensurate in scope to claim 17, excluding the sufficient memory

recitations. We, thus, refer to our previous discussion of the combination of Zigmond and Swix with respect to claim 17.

With respect to claim 13, Zigmond discloses in Figure 3 a content provider, which can be cable television network, and an advertising server 54 at the head end (Zigmond, 9:22–10:2). Furthermore, Swix teaches a known arrangement for distributing advertisements that includes a cable television operator head end 110 with an advertisement server 102 (Swix, col. 4, ll. 7-12 and col. 7, l. 19-28; Fig. 1). As discussed above, one skilled in the art would have recognized using the Swix arrangement in the Zigmond system in order to target the advertising audience better and more economically. For the remaining limitations addressing the set top box, we find claim 13 includes limitations commensurate in scope to claim 17, also excluding the sufficient memory recitations. We, therefore, refer to our previous discussion of the combination of Zigmond and Swix with respect to claim 17 and how the set top box is adapted to perform the recited functions.

Although we decline to reject every claim under our discretionary authority under 37 C.F.R. § 41.50(b), we emphasize that our decision does not mean the remaining claims are patentable over Zigmond and Swix. Rather, we merely leave the patentability determination of these claims to the Examiner. *See* MPEP § 1213.02.

#### DECISION

We have sustained the Examiner's rejections with respect to claims 17 and 18. We, however, have not sustained the Examiner's rejections with respect to claims 9-16. The decision of the Examiner rejecting claims 9-18

is affirmed-in-part. We have also entered a new ground of rejection under 37 C.F.R. § 41.50(b) for claims 9 and 13.

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides that “[a] new ground of rejection . . . shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that the Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

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-IN-PART  
37 C.F.R. § 41.50(b)

Appeal 2008-2227  
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