

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 36

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte NOBORU NAKAMARU, SHINJI SUZUKI,  
TOSHIYUKI KATSU, AKIRA KIKUCHI, TATSUSHI IIZUKA,  
MASAHARU SAKAMOTO

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Appeal No. 96-0209  
Application 07/922,501<sup>1</sup>

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HEARD: July 14, 1997

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Before JERRY SMITH, LEE and CARMICHAEL, Administrative Patent Judges.

LEE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-15.<sup>2</sup> We reverse. We also enter a new ground of rejection against claims 4-11 and 13-15.

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<sup>1</sup> Application filed July 31, 1992.

<sup>2</sup> The appellants' amendment filed on April 7, 1994, under 37 CFR § 1.116 has not been entered. See advisory Office action (Paper No. 12).

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References Relied on by the Examiner

Yoshio (Yoshio `073) (European Patent)	0 384, 073	Aug. 29, 1990
Yoshio et al. (Yoshio)	5,130,966	Jul. 14, 1992
Otsubo et al. (Otsubo)	5,177,728	Jan. 5, 1993

The Rejections on Appeal

Claims 1, 4, 6, 8 and 10-15 stand finally rejected under 35 U.S.C. § 102(b) as being anticipated by the European '073 reference.

Claim 2 stands finally rejected under 35 U.S.C. § 103 as being unpatentable over the European '073 reference and Otsubo.

Claims 3, 5, 7 and 9 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over the European '073 reference and Yoshio.

The Invention

The invention is directed to a recorded information reproducing device for reproducing a music sound from an information recording medium on which recorded music information and control information are recorded according to MIDI standards. The recorded information reproducing device includes a music information reproduction means for decoding the encoded music information to output a reproduced music signal, and a control information reproduction means for decoding the control

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information to output a clock signal for timing control.

In one aspect of the invention, e.g., independent claim 1, the device further includes a control means for controlling a reproduction sequence of the music information of the music information reproduction means in accordance with the clock signal. In another aspect of the invention, e.g., independent claim 4, the device further includes a data storage means, operable in accordance with the clock signal, for storing the reproduced music signal temporarily and then outputting the same. In still another aspect of the invention, e.g., independent claim 6, the device further includes a controllable delay means for delaying the reproduced music signal in accordance with the clock signal. In still yet another aspect of the invention, e.g., independent claim 8, the device further includes a controllable storage means for storing the reproduced music signal in accordance with the clock signal.

Claim 1 is reproduced below:

1. A recorded information reproducing device for reproducing a music sound from an information recording medium on which encoded music information and control information are recorded according to the MIDI standards, said recorded information reproducing device comprising:

music information reproduction means for decoding said encoded music information to output a reproduced music signal;

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control information reproduction means for decoding said control information to output a clock signal for timing control; and

control means for controlling a reproduction sequence of said music information of said music information reproduction means in accordance with said clock signal.

#### Opinion

The rejection of claims 1, 4, 6, 8 and 10-15 as being anticipated by the European '073 reference

We do not sustain the rejection of claims 1, 4, 6, 8, and 10-15 as being anticipated by the European '073 reference.

Section 102 of Title 35, United States Code begins:

"A person shall be entitled to a patent unless -- . . . ."

The language is not ambiguous but quite clear. The examiner has the initial burden of establishing prima facie anticipation by coming forward with evidence tending to disprove novelty.

In re Wilder, 429 F.2d 447, 450, 166 USPQ 545, 548 (CCPA 1970).

A prima facie case means the evidence of prior art would reasonably allow the conclusion the examiner seeks and compels such a conclusion if the applicant produces no evidence or argument to rebut it. In re Spada, 911 F.2d 705, 707 n.3, 15 USPQ2d 1655, 1657 n.3 (Fed. Cir. 1990).

"Rejection for anticipation or lack of novelty requires, as the first step in the inquiry, that all the elements of the

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claimed invention be described in a single reference." In re Spada, 911 F.2d 705, 707 n.3, 15 USPQ2d 1655, 1657 n.3 (Fed. Cir. 1990). "It is axiomatic that an anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim and that anticipation is a fact question subject to review under the clearly erroneous standard." In re King, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986). In that regard, note that what a reference discloses is a question of fact. Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1579 n.42, 1 USPQ2d 1593, 1606 n.42 (Fed. Cir.), cert. denied, 481 U.S. 1052 (1987).

According to the examiner (answer at 3), (1) elements 10, 20-25 and 30-32 in the European '073 reference constitute the music information reproducing means of each rejected claim; (2) elements 10 and 30-31 in the European '073 reference constitute the control information reproduction means in each rejected claim; and (3) element 33 in the European '073 reference constitutes the control means in each rejected claim.

The finding with respect to the music information reproduction means lacks merit since elements 20-25 and 30-32 are on different processing paths and produce different outputs. What the examiner regards as the reproduced music signal from the

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music information reproduction means is entirely uncertain. For reasons discussed below, also, we find that elements 30-32 can not be read as part of a music information reproduction means within the meaning as defined in the appellants' specification.

Citing In re Donaldson, 16 F.3d 1189, 1192-1195, 29 USPQ2d 1845, 1848-1850 (Fed. Cir. 1994) (in banc), the appellants correctly assert (Br. at 18) that the examiner may not disregard the structure disclosed in the specification which correspond to the various claimed means-plus-function features. Indeed, it is not sufficient for the examiner to find that the recited function in a means-plus-function clause is performed by some element in the prior art reference. Instead, the elements relied on by the examiner to satisfy each means-plus-function feature claimed must be identical to or an equivalent of the appellants' disclosed structures, material or acts for performing the function.

The structures disclosed in the appellants' specification corresponding to the music information reproduction means, the control information reproduction means, and the control means recited in the claims are particularly specified on page 24 and again on page 27 of the specification. The music information reproduction means is composed of the information read system 200, the pre-amplifier part 2, and the audio data decode circuit

24. The control information reproduction means is composed of the information read system 200, the pre-amplifier part 2, the audio data decode circuit 24 and the control data decode circuit 25. On pages 24 and 27, the specification further states that audio data corresponds to musical information and control data corresponds to control information.

Thus, in the context of the appellants' specification, the claimed music information reproduction means provides an already decoded audio signal outputted from an audio data decode circuit, which is directly introducible to a digital/analog converter and an audio amplifier to furnish an audio output (spec. at 19-20). The control information reproduction means adds a control data decode circuit to the components of the music information reproduction means, which receives as input a signal from the audio data decode circuit (spec. at pages 19 and 22).

The examiner has provided no reasonable explanation, and certainly has not established, why it would be appropriate to regard elements 30, 31 and 32 in the European '073 reference as being identical to the appellants' claimed music information reproduction means or an equivalent thereof. Element 30 is a subcode error correction circuit; element 31 is a subcode decoder; element 32 is a memory unit (column 6, lines 24-40).

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Memory 32 stores decoded subcode MIDI data supplied from decoder 31, and outputs the same with an adjustable or variable interval between data items to change subsequent reproduction speed (column 8, lines 26-38). Memory 32 does not output an already decoded audio signal introducible to a digital/analog converter. Instead, further processing within some other musical instrument is necessary to convert the MIDI signal to an audio output.

Moreover, if elements 30, 31 and 32 of the European '073 reference constitute the music information reproduction means, nothing can then seem to constitute the claimed control information reproduction means. The examiner has not explained where in the European '073 reference is a control information decoder circuit which receives input from an audio data decoder circuit as in the case of the appellants' control information reproduction means, or an equivalent thereof. Interface unit 35 does not appear to be such a control information decoder circuit but merely consists of a transmitter and a line driver (column 7, lines 4-9).

Accordingly, we find unreasonable the examiner's position that an encoded MIDI signal can be the reproduced "musical signal" from the music information reproduction means. On this record, the examiner has not established sufficient basis to

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regard elements 30, 31 and 32 of the European '073 reference as the appellants' claimed music information reproduction means. Also, on this record, the examiner has not identified anything in the European '073 reference sufficient to constitute the appellants' claimed control information reproduction means, if elements 30, 31 and 32 of the European '073 reference were regarded as the music information reproduction means. Also, in our view, in the context of the European '073 reference, a corresponding music information reproduction means would have to comprise the series of components leading down the other path from demodulation circuit 10, i.e., elements 20-25 or a subcombination thereof (Figure 3), and not the processing path containing elements 30, 31 and 32.

With respect to claim 1, the European '073 reference does not disclose any part which controls a reproduction sequence of the music information from the music information reproduction means. The appellants correctly state (Br. at 19-20):

The EP '073 patent does not disclose control means for controlling the reproduction sequence of music information in accordance with the clock signal. The writing clock w is alleged to be the control information produced by control reproduction means 31 and applied to controller 33. However, the writing clock signal w merely controls the timing at which MIDI data generated in decoder 31 is written to memory 32. Elements 20-25 of the EP '073 patent perform the function of decoding the encoded music information to

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output a reproduced music signal. The writing clock signal w generated by decoder 31 is incapable of affecting the reproduction sequence of the music information and, thus, the output of the reproduced music signal, since the writing clock w is never applied to the elements in the generating path of the left and right audio signals. It should be noted and page 24, lines 3 and 4, specifically indicate that music information refers to audio data.

The read signal r also is incapable of affecting the reproduction sequence of reproduced music information from the music information reproduction means, because it, like the write signal w, is also not applied to the elements in the generating path of the left and right audio signals. The read signal r is also not derived from control information on the information recording medium.

The appellants are correct that in the European '073 reference the reproduction sequence of the musical information produced by the musical information reproduction means is unaffected by the clock signal w and that the read clock r is not a clock signal produced by a control information reproduction means which decodes the recorded control information. The appellants are also correct (Br. at 20) that even assuming that the encoded MIDI signal in the European '073 reference can constitute the appellants' reproduced music signal, the writing clock w controls the rate of operation of memory controller 33,

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not the sequence of MIDI data input to memory 32. Thus, from either perspective, the European '073 reference has not been shown to disclose a control means for controlling a reproduction sequence of the music information of the music information reproduction means according to a clock signal from the control information reproduction means, or an equivalent thereof.

Claim 4 recites a data storage means, operable in accordance with the clock signal derived from the control information reproduction means, for temporarily storing the reproduced music signal and then outputting the same. Claim 8 recites a controllable storage means for storing the reproduced music signal in accordance with the clock signal outputted from the control information reproduction means.

We have already determined above that elements 30, 31 and 32 cannot reasonably be considered a corresponding music information reproduction means. In the European '073 reference, the reproduced music signal is provided through the audio signal generating path leading to left and right channel outputs at filters 24 and 25. That music signal is not stored and the write clock signal w is not applied to anything within that path.

Claim 6 recites a controllable delay means for delaying the reproduced music signal in accordance with the clock signal

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generated by the control information reproduction means. We have already determined above that elements 30, 31 and 32 cannot reasonably be considered a corresponding music information reproduction means. Thus, the write clock signal w is not applied to a point along or following the generating path of the music signal produced by the music information reproduction means. The reproduced music signal in the European '073 reference is not delayed according to any clock signal from the control information reproduction means. We recognize no delay in the generating path of the left and right channel audio signals.

Claims 10, 11 and 15 each depends directly from claim 8. Claim 12 depends directly from claim 1. Claim 13 depends directly from claim 13. Claim 14 depends directly from claim 6. Because the European '073 reference does not anticipate any of independent claims 1, 4, 6 and 8, it also cannot anticipate the claims which depend from independent claims 1, 4, 6 and 8.

For the foregoing reasons, the European '073 reference does not anticipate claims 1, 4, 6, 8 and 10-15.

The rejection of claim 2 under  
35 U.S.C. § 103 as being unpatentable

over the European '073 reference and Otsubo

We do not sustain the rejection of claim 2 as being unpatentable over the European '073 reference and Otsubo.

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Claim 2 depends from claim 1 and thus includes every feature recited in claim 1, including the music information reproduction means, the control information reproduction means, and the control means controlling a reproduction sequence of the music information of the music information reproduction means in accordance with a clock signal provided from the control information reproduction means.

We have already determined with respect to claim 1 that the European '073 reference does not disclose a component which controls a reproduction sequence of the music information generated from the music information reproduction means. That deficiency is not made up by Otsubo. According to the examiner (answer at 3), Otsubo discloses "the presence of such sound signals on conventional LDD Karaoke disks and multiple disk-type selectable sound signal processing (including LDD Karaoke disks), to provide multi-disk-type reproduction capabilities and thus improved disk reproduction system selectability." The appellants correctly state (Br. at 32) that Otsubo "teaches nothing regarding controlling a reproduction sequence of the music information of the music information reproduction means in accordance with the clock signal." Indeed, note that the examiner has not relied on Otsubo for that teaching.

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Accordingly, on the examiner's rationale, the European '073 reference and Otsubo would not have rendered obvious the subject matter of claim 2.

The rejection of claims 3, 5, 7 and 9 under 35 U.S.C. § 103 as being unpatentable over the European reference and Yoshio

Claim 3 depends from claim 1. Claim 5 depends from claim 4. Claim 7 depends from claim 6. Claim 9 depends from claim 8. The dependent claims include all of the recited features of the claims from which they depend, 35 U.S.C. § 112, 4th paragraph. Additionally, they recite that the control information decoded by the control information reproduction means includes lyrics data, control data for an external musical instrument, and retrieval data having names of songs, names of singers, names of lyrics writers, names of composers and genres of songs.

According to the examiner (answer at 4), the European '073 reference discloses all of the features of independent claims 1, 4, 6 and 8, but not the additional features recited in the dependent claims concerning the control information's having lyrics data and retrieval data including names of composers. Yoshio is relied on by the examiner to meet the additional features of the dependent claims.

We have already determined and explained above that the

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European '073 reference does not anticipate any one of independent claims 1, 4, 6 and 8. Therefore, the examiner has made erroneous findings on the scope and content of the prior art and also on the differences between the claimed invention and the prior art. We note further that Yoshio does not make up for the deficiencies of the European '073 reference insofar as the features of the independent claims are concerned. Thus, the conclusion of obviousness of dependent claims 3, 5, 7 and 9, based on the examiner's rationale, cannot be sustained.

New Ground of Rejection

Pursuant to 37 CFR § 1.196(b), claims 4-11 and 13-15 are herein rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim that subject matter which the appellants regard as their invention.

Each of the independent claims contains means-plus-function limitations as authorized under 35 U.S.C. § 112, sixth paragraph. For such claim features, the appellants are correct that the examiner may not disregard the structure disclosed in the specification corresponding to the claim language (Br. at 18).

On page 24 of the specification, the following definition of various "means" is provided:

The information read system 200 and the pre-amplification part 2 and audio data decode circuit 24

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of the audio reproduction system 300 constitute the music information reproduction means. Also, the information read system 200 and the pre-amplification part 2, audio data decode circuit 24 and control data decode circuit 25 constitute the control information reproduction means. Further, the control system 500 corresponds to the control means.

Again, on page 27, essentially the same definition is provided:

The information read system 200 and the pre-amplification part 2 and audio data decode circuit 24 of the audio reproduction system 300 constitute musical information reproduction means. Also, the information read system 200 and the pre-amplification part 2, audio data decode circuit 24 and control data decode circuit 25 constitute control information reproduction means.

Thus, unmistakably, the reproduced music signal furnished by the music information reproduction means is an output of the audio data decode circuit 24, i.e., that output from the audio data decode circuit 24 which is provided to the digital/analog converter and then audio amplifier 28 (see Figure 2).

Means-plus-function limitations, according to 35 U.S.C. § 112, sixth paragraph, must be construed to cover "the corresponding structure, material, or acts described in the specification and equivalents thereof." Independent claim 4 requires a data storage means operable in accordance with a clock signal from the control information reproduction means for temporarily storing the reproduced music signal and then outputting the same. Independent claim 6 requires a controllable

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delay means for delaying the reproduced music signal in accordance with a clock signal from the control information reproduction means. Independent claim 8 requires a controllable storage means for storing the reproduced music signal in accordance with a clock signal from the control information reproduction means.

The appellants' specification, however, describes no embodiment in which the reproduced music signal, i.e., an output of the audio data decode circuit 24, is stored anywhere or otherwise delayed. According to the specification, that which is stored or delayed is the output of RF System Amplifier 21 (see Figures 4A and 4B), which is not the music signal from the music information reproduction means.

"Failure to describe adequately the necessary, structure, material, or acts in the written description means that the drafter [of claims] has failed to comply with the mandate of § 112 ¶ 2 -- (2)(a) in the model above -- the mandate that all claims must particularly point out and distinctly claim the subject matter which the applicant regards as his invention." In re Dossel, 115 F.3d 942, 42 USPQ2d at 1881-1884 (Fed. Cir. 1997). In Dossel, 115 F.3d, 942, 42 USPQ2d at 1884-1885, quoting In re Donaldson, 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994),

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the Court further stated:

Therefore, if one employs means-plus-function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112.

Since the appellants have not described any structure, material, or acts which implement the data storage means (for storing the "reproduced music signal") of claims 4 and 8, or the delay means (for delaying the reproduced music signal) of claim 6, the appellants have failed to particularly point out and distinctly claim that subject matter which they regard as the invention of claims 4, 6 and 8 and the claims depending thereon.

The output of the RF system amplifier 21 cannot itself be reasonably regarded as the music signal produced by the music information reproduction means. The specification, in not less than two instances, specifically and clearly defined something else as the music information reproduction means. Moreover, if the RF system amplifier 21 can be regarded as the music information reproduction means, that would substantially weaken the appellants' position that in the European '073 reference, components 30-32 cannot constitute the music information reproduction means, and we may come to a different conclusion

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with respect to the § 102 and § 103 prior art rejections. Note that the output from RF system amplifier has not gone through the audio data decode circuit 24 and would still be expected to contain control information.

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### Conclusion

For the foregoing reasons, the rejection of claims 1, 4, 6, 8 and 10-15 under 35 U.S.C. § 102(b) as being anticipated by the European '073 reference is reversed.

The rejection of claim 2 under 35 U.S.C. § 103 as being unpatentable over the European '073 reference and Otsubo is reversed.

The rejection Claims 3, 5, 7 and 9 under 35 U.S.C. § 103 as being unpatentable over the European reference and Yoshio is reversed.

Pursuant to 37 CFR § 1.196(b), claims 4-11 and 13-15 are herein rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim that subject matter which the appellants regard as their invention.

Any request for reconsideration or modification of this decision by the Board of Patent Appeals and Interferences based upon the same record must be filed within one month from the date of the decision (37 CFR 1.197). Should appellants elect to have further prosecution before the examiner in response to the new rejection under 37 CFR 1.196(b) by way of amendment or showing of facts, or both, not previously of record, a shortened statutory period for making such response is hereby set to expire two

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months from the date of this decision.

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37 CFR 1.136(a) does not apply to the times for taking any subsequent action in connection with this appeal.

REVERSED - 1.196(b)

JERRY SMITH	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	
JAMESON LEE	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
	)	
JAMES T. CARMICHAEL	)	
Administrative Patent Judge	)	

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Sughrue, Mion, Zinn, MacPeak & Seas  
2100 Pennsylvania Avenue, N.W.  
Washington, D.C. 20037