**BESCHWERDEKAMMERN DES EUROPÄISCHEN PATENTAMTS**

**BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE**

**CHAMBRES DE RECOURS DE L'OFFICE EUROPEEN DES BREVETS**

| | | | | | |
|---|---|---|---|---|---|
| A | | B | X | C | |

File No.: T 0781/92 - 3.5.2

Application No.: 85 108 998.7

Publication No.: 0 167 177

Classification: G11B 7/08

Title of invention: Method and apparatus for recovering information from a selected track on a record disc

# D E C I S I O N
of 7 July 1993

Applicant: Discovision Associates

Proprietor of the patent: -

Opponent: -

Headword:

**EPC:** Art. 76(1)

Keyword: "Divisional application (allowed; not extending beyond content of parent application)"

## Headnote
## Catchwords

**Case Number:** T 0781/92 - 3.5.2

**D E C I S I O N**
**of the Technical Board of Appeal 3.5.2**
**of 7 July 1993**

**Appellant:** Discovision Associates
2183 Fairview Road
Suite 211
Costa Mesa
California 92627 (US)

**Representative:** Laight, Martin Harvey
W.H. Beck, Greener & Co.
7 Stone Buildings
Lincoln's Inn
London WC2A 3SZ (GB)

**Decision under appeal:** **Decision of the Examining Division 067 of the European Patent Office dated 16 April 1992 refusing European patent application No. 85 108 998.7 pursuant to Article 97(1) EPC.**

**Composition of the Board:**

**Chairman:** R.E. Persson
**Members:** A.G. Hagenbucher
W.J.L. Wheeler

## Summary of Facts and Submissions

I. European patent application No. 85 108 998.7 (publication No. 167 177) was refused by a decision of the Examining Division dated 16 April 1992. That decision was based on Claims 1 to 6 filed with letter of 29 October 1991. Auxiliarily it had been requested to substitute Claims 1 to 6 by Claims 1 to 5 filed with letter of 30 May 1989 or in several other ways as indicated in the letter of 29 October 1991, page 9.

II. The reason given for the refusal was that the subject-matter of Claim 1 according to the main and auxiliary requests of the application, which was a divisional application, extended beyond the content of the earlier (parent) application No. 82 109 936.3 (publication No. 78 060) as filed, contravening Article 76(1) EPC.

III. The Applicant appealed against the decision of the Examining Division.

IV. According to the decision of the Examining Division, the parent application started from prior art (EP-A-7 199) with a coarse and a fine positioning mode. The coarse positioning mode was carried out by a carriage for moving the optical head towards the target track. This mode was followed by a fine positioning mode in which a mirror incremented the beam by track jumps towards the target track. The object of the invention according to the parent application was to position the head more accurately and rapidly. Independent Claims 1 and 9 of the parent application as filed recited the combination of a coarse (high velocity mode of the optical means) and a fine positioning mode (incremental deflection

mode). According to figure 6 of the parent application a coarse positioning mode was indispensible for a conventional disc having more than 1 700 tracks.

Even though in the present divisional application only the fine positioning step was improved, coarse positioning should be retained in the present Claim 1 because a method without a coarse positioning step must be considered as new with regard to that shown in figure 6 of the parent application.

V. According to the Appellant, the parent application disclosed several inventions.

The first invention, which was claimed in the parent application, optimised both speed and accuracy by a proper selection of different forms of positioning modes (e.g. fast and medium speed in coarse positioning and two forms of multitrack jumps in fine positioning mode) in dependence on varying distances of the read beam from the target track. Figure 6 of the parent application made it clear that due to possible initial short distances all the possible forms of positioning modes, especially those of the coarse positioning mode, were not always necessary.

The second invention disclosed in the parent application, which was the subject-matter of the present divisional application, concerned a more specific problem of how to locate in a fine positioning mode the target track faster and more accurately avoiding the effects of eccentricity and distortion of tracks during multitrack jumps. In accordance with page 12, second paragraph, page 16, line 15 to page 17, line 4 and

figure 6 of the parent application (EP-A-78 060) and the characterising part of the present Claim 1 this problem was solved by performing in addition to jumps of M-tracks one final step of jumping said read beam a plurality N of tracks to the target track and carrying out each step of jumping in substantially less time than that required to rotate the disc through a half revolution. The time required influenced the design of the fine positioning mechanism, e.g. jump width. Present Claim 1 did not specifically exclude a coarse positioning step but, contrary to Claims 1 and 9 of the parent application, did not recite this step positively either, because it was not essential for solving the present problem.

A coarse positioning mode did not have to be included in Claim 1 of the present divisional application in view of decision T 331/87 (OJ EPO 1991, 22), because the skilled person would directly and unambiguously recognise that this feature was not indispensible for the function of the invention in the light of the technical problem it served to solve.

VI. In a communication, the Rapporteur suggested amendments to Claim 1 of the main request on file and indicated that, in his opinion, its subject-matter appeared not to extend beyond the content of the parent application as filed.

VII. In response thereto, the Appellant agreed to the amendments proposed by the Rapporteur. A patent should be granted on the basis of

Claims: 1, filed on 28 May 1993,

2-6, filed on 17 August 1992;

Description: pages 3-5, 7, 8, 11, 12, 14-19 as originally filed,
pages 1, 2, 2a, 6, 9, 10, 13 as filed with letter of 13 May 1989;

Drawings: sheets 1/6 to 6/6 as originally filed.

VIII. Claim 1 (main request) now reads:

"1. A method of locating an information-containing target track with a read beam of light from a plurality of substantially circular and concentric information-containing tracks on a rotatable optical recording disc, the method comprising the steps of:

rotating the disc in a prescribed fashion;

retrieving address information from one of said plurality of tracks to establish a present position for said read beam;

identifying a target track from said plurality of tracks;

moving said read beam from said present position radially of said disc toward said target track at a radial velocity greater than that exhibited during normal playback of the disc;

said radially moving step comprising a fine search mode in which said beam jumps towards said target track a prescribed number M of tracks; retrieving information from the track arrived at upon completion of said jumping step to establish an updated position for said read beam; and repeating said jumping and retrieving steps at least during each revolution of the disc, until

said updated position of said read beam is a track number N, less than M, from said target track,

characterised in that then one final step of jumping is performed by jumping said read beam a plurality N of tracks to said target track, and in that each step of jumping said read beam radially across tracks is carried out in substantially less time than that required to rotate the disc through a half revolution."

## Reasons for the Decision

1. The appeal is admissible.

2. The question to be decided in this case is whether Claim 1 on file of the divisional application complies with the provision of Article 76(1) EPC, i.e. whether its subject-matter extends beyond the content of the earlier (parent) application as filed (cf. Article 123(2) EPC).

3. As correctly stated by the Appellant, the present method Claim 1 does not recite the feature "radially moving the optical means at a relatively high velocity relative to the rotating disc, in the direction of the target track" (coarse positioning) of independent method Claim 9 of the parent application nor the function of the coarse positioning means recited in apparatus Claim 1 of the parent application.

4. In order to decide whether the omission of these features involves subject-matter which extends beyond the content of the parent application as filed, the relevant parts of this application have to be considered (cf. T 514/88 (OJ EPO 1992, 570)).

As correctly stated by the Examining Division, the parent application starts on pages 1 and 2 from prior art normally having a coarse and fine positioning mode. It is clear, however, from page 1, last paragraph that the use and duration of the respective modes depends on the remaining distance to the target track. Coarse positioning implies the use of a carriage for moving the optical head towards the target track. This mode is normally followed by a fine positioning mode in which the mirror increments the beam radially towards the target track. Page 2, lines 6 to 12 of the parent application shows that the object of the invention considered there was to position the head more accurately and rapidly. According to page 2, lines 6 to 10 and figure 6 the nub of this first invention of the parent application was to provide a more accurate indication of the current location of the information recovery device in relationship to the target track in order to allow a more appropriate selection of the available positioning modes in dependence on the distance from the target track. Figure 6 of the parent application makes it clear, however, that the moving step does not start with coarse positioning if the beam is spaced from the target track by less than 350 tracks. The Appellant's argument that for certain applications data on normal video discs may be organised in such a way that the beam is always so close to the target track to be addressed next that it can be reached only by fine positioning, is accepted by the Board. Hence, a radially moving step without coarse positioning is contained in the parent application and therefore not new. Even within a fine positioning mode the updated indication of the current location of the beam permits a proper sequence of M-track jumps followed by a single N-track

jump (where N can be 0). The parent application discloses on page 12, second paragraph, a further solution to the more specific problem of locating a target track during fine positioning not only faster but also more accurately by avoiding the effects of any disc eccentricity. It is specified that for this specific purpose it is necessary to carry out each step of jumping in substantially less time than that required to rotate the disc through a half revolution.

It is clear to a person skilled in the art that the disclosed solution to this more specific problem is not inextricably linked to the carrying out of a coarse positioning step before entering the fine search mode.

Hence, Claim 1 of the present divisional application cannot be considered to involve subject-matter extending beyond the content of the parent application as filed.

Accordingly, the decision under appeal must be set aside.

5. Although the Examining Division indicated in paragraph 10 of the impugned decision that there would be no objection to Claim 1 under Article 52, the Board has noticed other deficiencies in the present application (e.g. apparatus Claim 6 being appended to any preceding method claim, the description has not yet been adapted to the present claims, the reference on page 1 to GB-A-2 020 550 appears to be incorrect). Rather than deal with these matters, the Board makes use of its power under Article 111(1) EPC to remit the case to the Examining Division for further prosecution.

## Order

**For these reasons, it is decided that:**

1. The decision under appeal is set aside.

2. The case is remitted to the Examining Division for further prosecution on the basis of the application documents specified in paragraph VII above, having regard to the comments in paragraph 5.

The Registrar: The Chairman:

M. Kiehl E. Persson