

**Internal distribution code:**

- (A) [ - ] Publication in OJ
- (B) [ - ] To Chairmen and Members
- (C) [ - ] To Chairmen
- (D) [ X ] No distribution

**Datasheet for the decision  
of 19 June 2015**

**Case Number:** T 1145/12 - 3.5.05

**Application Number:** 08728885.8

**Publication Number:** 2126664

**IPC:** G06F3/01

**Language of the proceedings:** EN

**Title of invention:**

HAPTIC FEEDBACK SYSTEM WITH STORED EFFECTS

**Applicant:**

Immersion Corporation

**Headword:**

HAPTIC FEEDBACK SYSTEM WITH STORED EFFECTS/IMMERSION

**Relevant legal provisions:**

EPC Art. 123(2), 56

RPBA Art. 15(3)

**Keyword:**

Amendments - added subject-matter (yes)

Inventive step - (no)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern  
Boards of Appeal  
Chambres de recours**

European Patent Office  
D-80298 MUNICH  
GERMANY  
Tel. +49 (0) 89 2399-0  
Fax +49 (0) 89 2399-4465

Case Number: T 1145/12 - 3.5.05

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.05**  
**of 19 June 2015**

**Appellant:** Immersion Corporation  
(Applicant) 30 Rio Robles  
San Jose, CA 95134 (US)

**Representative:** Hofstetter, Schurack & Partner  
Patent- und Rechtsanwaltskanzlei  
PartG mbB  
Balanstrasse 57  
81541 München (DE)

**Decision under appeal:** **Decision of the Examining Division of the European Patent Office posted on 30 December 2011 refusing European patent application No. 08728885.8 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chair** A. Ritzka  
**Members:** M. Höhn  
G. Weiss

## **Summary of Facts and Submissions**

I. This appeal is against the decision of the examining division, posted on 30 December 2011, refusing European patent application No. 08728885.8 on the grounds of Article 123(2) EPC and lack of inventive step (Article 56 EPC 1973) with regard to prior-art publications:

D1: EP 1401185 A1,  
D2: WO 2005/085981 A,  
D3: EP 1260949 A1,  
D4: WO 2006/019389 A1.

II. The notice of appeal was received on 8 March 2012. The appeal fee was paid on the same day. The statement setting out the grounds of appeal was received on 7 May 2012. The appellant requested that the appealed decision be set aside and that a patent be granted on the basis of the set of claims 1 to 12 filed with the notice of appeal. Oral proceedings were requested on an auxiliary basis.

III. With a communication dated 9 March 2015 the board summoned the appellant to oral proceedings on 19 June 2015. In an annex to the summons the board expressed its preliminary opinion that the set of claims did not fulfil the requirements of Article 123(2) EPC and inventive step (Article 56 EPC 1973). Publication D5 (WO 03032289 A1) was introduced according to Article 114(1) EPC in reaction to the appellant's arguments presented in the statement setting out the grounds of appeal. D5 originates from the appellant, which was therefore considered to be familiar with it.

IV. By letter dated 8 June 2015 the appellant informed the board that it would not attend the oral proceedings and requested that the oral proceedings take place without the attendance of a representative of the applicant.

V. Independent claim 1 according to the sole request reads as follows:

"1. A haptic feedback system comprising:  
a controller (12);  
a memory (20) coupled to said controller (12);  
an actuator drive circuit (16) coupled to said controller (12); and  
an actuator (18) coupled to said actuator drive circuit (16);  
wherein said memory stores at least one predefined haptic effect that drives the actuator (18), characterized in that  
the haptic effect comprises a plurality of pairs of data bytes, wherein a data byte of each pair defines a voltage level and the other data byte of the pair defines a time duration for which said voltage level is applied, and wherein the presence of a slope of the voltage level is indicated in each voltage level data byte, and when the slope is indicated in the voltage level data byte, the voltage level is adjusted by the slope."

VI. Oral proceedings were held on 19 June 2015. After due consideration of the appellant's arguments submitted in writing the chair announced the decision.

## **Reasons for the Decision**

### 1. Admissibility

The appeal complies with Articles 106 to 108 EPC (see Facts and Submissions, point II above). It is therefore admissible.

### 2. Non-attendance at oral proceedings

By letter dated 8 June 2015 the board was informed that the appellant would not be attending the oral proceedings. The board nonetheless considered it expedient to maintain the date set for oral proceedings. Nobody attended on behalf of the appellant.

Article 15(3) RPBA stipulates that the board is not obliged to delay any step in the proceedings, including its decision, by reason only of the absence at the oral proceedings of any party duly summoned who may then be treated as relying only on its written case.

Hence, the board was in a position to announce a decision at the end of the oral proceedings.

### 3. Article 123(2) EPC

- 3.1 In the decision under appeal, claim 1 was objected to under Article 123(2) EPC, because the definition of the haptic effect extended beyond that in the application as filed which was very specific in terms of the number of bytes and how they were used. In particular, it was argued that in the application the presence or not of a slope was indicated in each voltage level data byte, and two further data bytes defined the slope, if any,

associated with a pair of voltage level and time duration.

- 3.2 This objection has not been overcome by the wording of the characterising portion of present claim 1. It is still specified that there are pairs of data bytes. A data byte of each pair defines a voltage level and the other data byte of the pair defines a time duration. While this is correct for the embodiment according to table 2 of the present application (Set&Hold pair), the other embodiment according to table 3 to which the claimed subject-matter is directed (Set&Ramp pair) and which defines a slope requires further data bytes. While it is correct that the presence of a slope is coded using bit 7 of the first data byte, the further parameters relating to the slope require two further data bytes (labelled bytes 2 and 3 in table 3).

The board does not find a direct and unambiguous disclosure for realising an adjustment of the voltage level using a slope with a data format having only a plurality of pairs of data bytes by using a slope as claimed according to the characterising portion of claim 1.

- 3.3 Similar objections apply, *mutatis mutandis*, to corresponding independent claims 11 and 12.

Claims 1, 11 and 12 therefore do not fulfil the requirements of Article 123(2) EPC.

#### 4. Article 56 EPC - Inventive step

- 4.1 The afore-mentioned objection notwithstanding, the board agrees with the decision under appeal that D1 is to be regarded as the closest prior art and essentially

agrees with the analysis of D1 in the decision under appeal (see its point 3.1.1).

D1 hence discloses a haptic feedback system (Fig. 1, par. [0010]) comprising:

- a controller (sign 10 in Fig. 1, par. [0010]);
- a memory coupled to said controller (sign 40 in Fig. 1, par. [0010]);
- an actuator drive circuit coupled to said controller (sign 20 in Fig. 1, par. [0010]); and
- an actuator coupled to said actuator drive circuit (sign 30 in Fig. 1, par. [0010]);

wherein said memory stores at least one predefined haptic effect that drives the actuator (par. [0011]:

"The controller controls voltage applied to the vibration driver according to a vibration pattern stored in the memory"; par. [0013]: "the memory 40 stores [...] a plurality of vibration patterns"),

characterised in that the haptic effect comprises a plurality of data bits, said plurality consisting of pairs of bit-sets, wherein a bit-set of each pair defines a voltage level and the other bit-set of the pair defines a time duration for which said voltage level is applied (par. [0018]: "a storage format of vibration patterns [...] is as follows: {(Time Period, Vibration Intensity)}", it being implicit that in a processing device like that in D1 the memory stores values in bits).

- 4.2 The claimed subject-matter therefore differs from the teaching of D1 in that a slope can be provided for adjusting the voltage level, and in the specific data format using pairs of data bytes.

4.3 The board agrees with the decision under appeal that organising the data bits for the parameters of the haptic effect in bytes is a straightforward implementation choice that the skilled programmer would make in accordance with the circumstances (e.g. the desired range of values for voltage levels and time durations) and with routine skills. It was common practice to organise the information of bits in the form of bytes, as a basic principle in computer technology.

4.4 D1 discloses the embodiment called "Set&Hold" according to table 2 of the present application by specifying pairs of time periods and intensity levels (see e.g. Figure 6 of D1 and [0016] to [0019]).

The board notes that the alternative concept "Set&Ramp" of using linear increases or decreases between two levels/intensities defining so-called slopes or ramps was commonly known to the skilled person in the field and even had been used and described in publications originating from the appellant, as exemplified by D5 (see page 20, lines 6 and 7 "the haptic amplitude can be ramped down automatically back to a zero level"). That achieves the alleged advantage of avoiding unnecessary voltage levels (see page 4, last paragraph of the statement setting out the grounds of appeal).

4.5 Furthermore, the specific data format is also merely an obvious design alternative. Apart from the fact that the format of the embodiment according to table 3 of the application is not correctly specified in claim 1 (see point 3 above), it is only one of several alternatives from which the skilled person would choose when implementing the concept of linear increases/decreases. There are no specific advantages of the



particular format as shown in table 3, or technical hurdles to be overcome when implementing it.

- 4.6 The choice between the two alternatives according to tables 2 and 3 of the application is a mere trade-off between a data format having only two bytes with the need to define more level/intensity information (Set&Hold), whereas the other (Set&Ramp) needs more than two bytes per "pair" so that it can specify fewer levels/intensities.

The board therefore judges that the difference in the data format, on the one hand, and the slope concept on the other hand do not achieve any combined inventive technical effect going beyond that resulting from the mere juxtaposition of the individual effects.

- 4.7 Similar arguments apply, *mutatis mutandis*, to corresponding independent claims 11 and 12.
- 4.8 The subject-matter of claims 1, 11 and 12 is therefore obvious in view of D1 combined with the skilled person's common general knowledge or when combined with the teaching of D5 (Article 56 EPC).

**Order**

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

The appeal is dismissed.

The Registrar:

The Chair:



K. Götz-Wein

A. Ritzka

Decision electronically authenticated