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**D E C I S I O N**  
**of 27 January 1999**

**Case Number:** T 0668/97 - 3.5.1

**Application Number:** 88304457.0

**Publication Number:** 0292237

**IPC:** G06F 15/76

**Language of the proceedings:** EN

**Title of invention:**

IC card and IC card information processing system using the IC card

**Patentee:**

Hitachi Maxell Ltd.

**Opponent:**

Giesecke & Devrient GmbH

**Headword:**

IC card/SUGAWARA

**Relevant legal provisions:**

EPC Art. 56

**Keyword:**

"Inventive step - yes (as maintained by Opposition Division)"

**Decisions cited:**

-

**Catchword:**

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Boards of Appeal

Chambres de recours

Case Number: T 0668/97 - 3.5.1

**D E C I S I O N**  
**of the Technical Board of Appeal 3.5.1**  
**of 27 January 1999**

**Appellant:** Giesecke & Devrient GmbH  
(Opponent) Prinzregentenstrasse 159  
81677 München (DE)

**Representative:** Klunker, Hans-Frederich, Dr.  
Patentanwälte  
Klunker . Schmitt-Nilson . Hirsch  
Winzererstrasse 106  
80797 München (DE)

**Respondent:** Hitachi Maxell Ltd.  
(Proprietor of the patent) No 1-1-88, Ushitora  
Ibaraki-shi  
Osaka-fu (JP)

**Representative:** Senior, Alan Murray  
J.A. Kemp & Co.  
14 South Square  
Gray's Inn  
London WC1R 5LX (GB)

**Decision under appeal:** Interlocutory decision of the Opposition Division  
of the European Patent Office dated 21 April 1997  
concerning maintenance of European patent  
No. 0 292 237 in amended form.

**Composition of the Board:**

**Chairman:** P. K. J. van den Berg  
**Members:** R. Randes  
V. Di Cerbo

## Summary of Facts and Submissions

I. The appellant (opponent) lodged an appeal against the interlocutory decision of the opposition division to maintain the patent in amended form (Article 102(3) EPC). Opposition was filed against the patent as a whole and based on Article 100(a) together with Articles 52(1) and 56 EPC. The opposition division held that the grounds for opposition mentioned in Article 100(a) EPC did not prejudice the maintenance of the patent as amended, having regard *inter alia* to the following documents:

D2: EP-A-0 157 303

D6: EP-A-0 193 635

II. The opposition division based their decision *inter alia* on the finding, at paragraph 4.3 of the decision under appeal, that D6 taught a "1:1 relationship" between external units and their respective dedicated memory areas. They also stated that D6 was only concerned with data and not with the execution of programs.

III. On 21 October 1998 the Board sent a communication and appointed oral proceedings according to the auxiliary request of both parties. In particular, the Board pointed out that the description was not properly adapted to the granted claims. The respondent (proprietor) filed a response, dated 23 December 1998, containing amended pages 3, 4, 5, and 9 to 11 of the originally filed description, and claims being the same as those maintained by the opposition division. At the oral proceedings the appellant requested that the

decision under appeal be set aside and that the patent be revoked in full. The respondent requested that the appeal be dismissed and that the patent be maintained as amended in the reply dated 23 December 1998.

IV. Claim 1 of the amended patent reads as follows:

"An IC card comprising  
an operation/processing unit (1)  
storage means (3,4) for storing data and a plurality of  
processing programs to be executed by the  
operating/processing unit (1), and  
a terminal for communicating selection information  
designating execution of one of said processing  
programs with an external information processing unit,  
characterised in that:  
said selection information further identifies the  
external information processing unit; (5),  
said storage means (3,4) comprises a memory table for  
storing identification information identifying in  
respect of each one of a plurality of external  
information processing units whether or not each of the  
processing programs stored in said storage means is  
executable when the IC card is inserted in the  
respective external information processing unit; and  
the operation/processing unit (1) is arranged to look  
up said memory table to compare the selection  
information received via said terminal with the  
identification information stored in the memory table  
(33) and to execute said one of the plurality of  
processing programs designated by said selection  
information only when the identification information  
indicates that said one processing program to be  
executed is executable when the IC card is inserted in

the external information processing unit identified by said selection information."

Claim 14 of the amended patent is directed to "An IC card information processing system such system comprising an IC card (5) as claimed in any one of the preceding claims ..." It therefore contains all the features of claim 1.

V. The appellant argued as follows:

D6 disclosed an IC card with exclusive data storage areas for different terminals, such as a bank or a post office terminal. Furthermore, the passage in D6 at page 7, paragraph 2 suggested that each terminal could also have a program associated with it. Since the invention also allowed such an exclusive association of terminals and programs, D6 fell within the scope of claim 1.

Starting from D6, the problem to be solved was how to accommodate the various programs on the IC card.

The skilled person would have been driven by considerations of program space saving and program reusability to allow a common program to be run from more than one terminal. For example, the skilled person would have considered using a common password program, callable from either the bank or the post office terminal.

The provision of the claimed selection information for specifying a program to be run was a general procedure in this field and the skilled person would have

considered applying it to the IC card of D6 to arrive at the invention. The invention was therefore obvious from D6 and common knowledge.

Moreover, D2 disclosed an IC card with more than one program, one of which could be selected by the terminal. According to D2 at page 7, lines 17 to 25, the status of the program was checked using a table as in the invention. Although D2 used techniques, such as a counter, to hinder unauthorised access to programs, this was a further step which did not affect the basic technique of determining whether a given program had a specific property. The invention was therefore obvious from a combination from D6 and D2.

Finally, starting from D2, the problem to be solved was to adapt the IC card to be used in different terminals, such as the bank and shopping terminals. This would have been obvious to try, since at the priority date of D2, 1984, IC cards were primitive devices, whereas at the priority date of the patent, 1987, the memory capacity of the IC cards had increased, allowing the use of many more programs on the card. D6, which had a priority date of 1985, gave an example of this. The invention was therefore obvious from a combination of D2 and D6.

VI. The respondent argued as follows:

IC cards were originally conceived as a replacement for magnetic cards for data storage. The invention made the card multi-purpose by enabling a free selection of programs, including common programs, from different terminals.

D6 disclosed running different programs on the IC card. However, it taught making these programs exclusive to a given type of terminal. The invention went further by allowing the free selection of programs for each terminal. The IC card of the invention was different from D6 as it used two pieces of identification information, namely the program and the terminal type, whereas the IC card of D6 only used the terminal type.

Starting from D6, it was not fair to pose the problem of increasing the versatility of the IC card because only with knowledge of the invention was it apparent that D6 was too rigid.

D6 did not suggest that the terminal could specify a program to be run, as claimed. Nor did it suggest providing common programs for different terminals, which was also possible according to the invention. Thus, according to the invention, the card manufacturer could go to a service provider and offer to put their program on the IC card or to allow them to use somebody else's program.

D2 was not relevant because it only suggested using tables for counting the number of attempts to access a program, and did not mention or suggest using an IC card in different terminals. Even if the skilled person had considered D2 and had considered using more than one program for each terminal, he would have made these programs exclusive for each different terminal as in D6.

## Reasons for the Decision

1. The appeal is admissible.
2. *The Patent*
  - 2.1 The invention relates to the known type of IC card which contains a processing unit (CPU) and storage for programs and data. In particular, it provides an IC card containing programs which can be called up by different external processing units also called terminals, each terminal being free to select any program.
  - 2.2 Claim 1 (and implicitly claim 14) of the patent defines the implementation. Accordingly, the terminal provides selection information comprising terminal identifying information and information designating the program to be run. These two pieces of information are used to look up in a table, such as that shown in Figure 3 of the patent, whether the specified program is executable in the specified terminal. According to the example table in Figure 3 of the patent, the bank terminal and the shopping terminal can each execute two programs, one of which is the common program 30d.
3. *State of the art*
  - 3.1 The parties essentially agreed with the summary of the factual content of documents D2 and D6 given in the decision under appeal. Consequently the Board presents only a brief summary of this common ground.

3.2 D2 discloses an IC card for use in a specific type of terminal, the card containing several programs that can be called up by the terminal when it supplies the program name to the IC card. The card cannot be used in a terminal of a different type. A table determines whether the selected program is registered as a secret program or not. Various embodiments show how repeated execution of the secret programs can be prevented.

3.3 D6 discloses an IC card with exclusive data storage areas for different terminal types. The area allocated to a terminal is deduced by the IC card from the terminal type identification signal. This is shown in step n43 of Figure 6. D6 also discloses that each terminal type has a specific branch of the program associated with it. This is shown in the unlabelled step "processing for terminal of other type" at the extreme right of Figure 6.

#### 4. *The decision under appeal*

4.1 The Board essentially agrees with the opposition division's conclusion that in the light of the "1:1 relationship" between terminals and programs disclosed in D6 (see paragraph II above), the invention is not obvious over the combination of D6 with D2 and/or common general knowledge in the art. The Board would however augment the opposition division's arguments to take into account the parties' additional arguments in the appeal proceedings, especially concerning the above mentioned finding that D6 does, in fact, disclose that different branches of the program can be associated with different terminal types.

5. *Novelty*

5.1 The Board sees no significance in the appellant's observation that it is possible to arrange the programs on the IC card of the invention in an exclusive association with the terminals, thus achieving the functionality disclosed in D6, since the invention is capable of providing further functionality. In fact, it can be immediately seen that D6 does not destroy the novelty of the claim because, as pointed out by the respondent, D6 does not disclose a memory table that uses two items of identification information.

5.2 Claim 1 is therefore new.

6. *Inventive step*

6.1 The appellant argued that the invention was obvious from various combinations of D2, D6 and the skilled person's common general knowledge in the art. Starting from the respective documents, various objective problems were discussed and the subsequent actions of the skilled person were postulated.

6.2 The Board considers that in the best case for the appellant, that is starting from D2 and posing the problem of increasing the versatility of the card, the skilled person might well consider D6 which addresses at page 2 lines 3 to 5 the problem of providing an IC card with a large storage capacity to enable its use in various terminals.

6.3 However, the Board considers that all of the appellant's arguments fail because the combination of

D2 and D6 is different from the invention and there is no indication which leads to the invention therefrom. This follows from the above mentioned fact that D6 only teaches a "1:1 relationship" between the terminals and their associated memory areas. This is not changed by the fact that D6 is now considered to at least suggest that programs as well as data can be associated with the different terminal types. As a result, the Board agrees with the respondent that combining D2 and D6, to provide a card with selectable programs for use in more than one terminal, would mean that each terminal would be associated with an exclusive group of programs. Each group of programs may have a table identifying the programs in the group. However, the claimed table, identifying whether each of the programs is executable in each terminal, is missing from the combination. Moreover, the Board is of the opinion that, in the light of the exclusive association disclosed in D6, it would not be obvious to provide this missing feature.

- 6.4 The Board does not agree with the appellant that the missing feature is derivable from considerations of economising program memory space. These considerations may lead the skilled person to identify and separate out common elements in the application programs as is indeed the case for program 30d shown in Figure 3 of the patent. However, as in the case of the appellant's novelty objection, this is only a special case of the overall functionality of the invention. Moreover, this result could be achieved in ways other than by using the implementation of the invention. In other words this situation would still not imply a table indicating whether each program is executable or not.

6.5 The Board appreciates the appellant's view that an exact specification of each element of the solution is not always necessary to render a claim obvious, and that it might be possible to draw a general teaching from a document and from the skilled person's common general knowledge in the art. However, in this case the Board considers that D6 and D2 are so specifically directed to solving the problem of increasing the security of the programs on the card by using exclusive memory areas and hindering access to secret programs, respectively, that there is no suggestion to modify these disclosures and provide the free selection of programs on a card using the claimed table, even though the skilled person would realise with hindsight that this would have been possible.

6.6 Claim 1 accordingly involves an inventive step.

7. The claims may therefore be maintained as granted together with the amended description which has been adapted to the claims in view of the comments in the Board's communication.

## **Order**

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

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent with the claims as allowed by the opposition division and with a description as

amended before the opposition division and further  
amended before the Board of Appeal.

The Registrar:

The Chairman:

M. Kiehl

P. K. J. van den Berg