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**D E C I S I O N**  
**of 21 June 2005**

**Case Number:** T 0132/02 - 3.5.1

**Application Number:** 95304215.7

**Publication Number:** 0689152

**IPC:** G06K 7/14

**Language of the proceedings:** EN

**Title of invention:**  
Two dimensional management pattern

**Applicant:**  
International Business Machines Corporation

**Opponent:**  
-

**Headword:**  
Management pattern/IBM

**Relevant legal provisions:**  
EPC Art. 54

**Keyword:**  
"Functional features in product claims"

**Decisions cited:**  
T 1194/97

**Catchword:**

A functional feature in a product claim should be construed as an implicit definition of those structural features which are necessary to achieve a particular effect when the product is used or applied in accordance with the teaching inherent in the claim; the effect to be achieved and the use should be disclosed in the application. The capability of attaining such a particular effect may thus be considered as an implicit feature of the product itself, even if the realization of the particular effect requires a particular use or interaction with another product, system or apparatus, provided that such use or interaction are disclosed in the application.



Case Number: T 0132/02 - 3.5.1

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.1  
of 21 June 2005

**Appellant:** International Business Machines Corporation  
New Orchard Road  
Armonk, N.Y. 10504 (US)

**Representative:** Burt, Roger James, Dr.  
IBM United Kingdom Limited  
Intellectual Property Department  
Hursley Park  
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Hampshire SO21 2JN (GB)

**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 20 September 2001  
refusing European application No. 95304215.7  
pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** S. V. Steinbrener  
**Members:** R. R. K. Zimmermann  
G. E. J. Weiss

## Summary of Facts and Submissions

- I. European patent application number 95 304 215.7 (publication number 0 689 152), claiming a priority date from 1994, is for a two-dimensional management pattern enabling an image pick up means to detect information about an object to which the pattern is applied.
- II. By a decision dated 20 September 2001, the examining division refused the application on the basis of amendments filed by the applicant on 28 August 2001 including the following claim 1:
- "1. A tag (40) having a two-dimensional management pattern (30) for application to an object and for enabling information about an object to be detected from an image of at least part of an object, the pattern characterised by:
- a first region (52) located near the center of said two-dimensional management pattern (30) and having a locational reference pattern (60) for identifying the location and/or direction of said information;
- a second region (54) with unit patterns of at least one of multiple types arranged in a specified radial direction and forming a contiguous specified sequence, along a straight line between a specified point in said first region (52) and at least one point in the outer circumference of said two-dimensional management pattern, said sequence comprising one or more start identifiers  $44_{s1}$   $44_{s2}$  defining start positions for reading the information; and
- a third region (56) other than said first (52) and second (54) regions with said multiple types of unit

pattern said third region comprising one or more concentric circular regions of information centred on the first region, each circle having a starting identifier located in the second region."

The amendments also included independent claims directed to an image processing method for reading the tag (claim 5) and to an image processing method for enabling information about an object to be detected from an image on a tag (claim 8). The image processing method of claim 8 consists of three steps of "detecting" a first, a second and a third region, whereby these regions are defined by a literal repetition of the pattern definition given in claim 1.

III. The reason for refusal was lack of novelty in particular in claim 1. The decision, however, also stated, without giving any reasons, that the image processing method of claim 8 was new and inventive.

The two-dimensional management pattern and the various regions were said to be relevant only when they were read by an apparatus which interpreted such patterns as meaningful information. A mere reference (in the claim) to the function or use of a pattern in a particular region was not a distinguishing feature of the pattern itself but was rather a feature of the reading device used to interpret the patterns in the region. The tag as claimed could not be distinguished from the prior art document D1 (EP-A-0 336 769, published in 1989), for example, since there was no structural difference between the claimed and the known tags.

- IV. The applicant lodged an appeal against the refusal. The notice of appeal, including an order for payment of the appeal fee, was filed on 20 November 2001, the written statement setting out the grounds of appeal and including two further sets of amended claims on 18 January 2002.
- V. The appellant requested as main request that the claims of 28 August 2001 be granted in their entirety and, if the main request was not allowed, that the Board should consider the claims filed on 18 January 2002.
- VI. According to the appellant, the decision under appeal was based on erroneous reasoning of accidental anticipation. The examining division was not right to use the data pattern (the information, i.e. the third region) and the data feature (the structure enabling the identification of information, i.e. the first and second regions) equivocally when arguing that the invention was anticipated by the prior art and to dismiss the claim features with the argument of intended use and purpose.

### **Reasons for the Decision**

1. The appeal complies with the requirements of Articles 106 to 108 and Rules 1(1) and 64 EPC and is thus admissible.
2. The appellant's main request (see above) including the request that the claims be granted in their entirety cannot be allowed. Indeed, as can be seen from the following, a full examination of the application has

apparently not yet taken place so that an order to grant a patent would seem to be premature at this stage of proceedings.

3. However, the appeal is allowed in so far as the appellant requests reversal of the decision under appeal on the basis of its main request since the reason for the refusal, lack of novelty, is flawed by a substantial error in construing claims.
  
4. Considering the examining division's different result regarding novelty in claims 1 and 8 despite the important extent to which the definitions in both claims are literally identical, the Board concludes that the basis for denying novelty in claim 1 was the misconception that the functions and uses of a pattern are not features of the pattern or the tag itself but rather features of the reading device which is used to interpret the pattern and do not distinguish the tag or pattern from the prior art (see decision under appeal, point 4.1).
  
5. A functional feature in a product claim, however, should be construed as an implicit definition of those structural features which are necessary to achieve a particular effect when the product is used or applied in accordance with the teaching inherent in the claim; the effect to be achieved and the use should be disclosed in the application. The capability of attaining such a particular effect may thus be considered as an implicit feature of the product itself, even if the realization of the particular effect requires a particular use or interaction with another

product, system or apparatus, provided that such use or interaction are disclosed in the application.

6. It would thus be wrong generally to ignore functional features in product claims (see also decision T 1194/97 - Data structure product/PHILIPS, OJ EPO 2000, 525, points 2.2 to 2.5 and 4.2 of the reasons). In the context of novelty the right question to be answered is whether a product in the prior art is suitable to attain the very same effects as the claimed product, when used in accordance with the teaching of the invention.
  
7. In the present case for example, claim 1 defines that the information about the object to which the tag is attached is contained "in one or more concentric circular regions of the third region", which implies that the information is to be read out in a corresponding concentric pattern (see figure 14). Each "circle" has a starting point, the starting points are arranged "in a specified radial direction" and form "a contiguous specified sequence along a straight line between a specified point in said first region (52) and at least one point in the outer circumference of said two-dimensional management pattern", which implies further features of the encoding method.

Referring to document D1, for example, the question to be answered regarding these features would then be whether the prior art label when read out according to the teaching of the present invention, i.e. in a concentric pattern starting the information on a predetermined radially directed straight line, would attain the desired effect, namely to reproduce the



information about the object which is encoded in the honeycomb data array of that label, encoded according to the encoding method disclosed in document D1.

8. To avoid any misunderstanding the Board notes that after remittal the examining division will have to conduct a full examination of the application. Except for the legal question considered and the order given the appeal decision is not binding regarding the outcome of the further examination of the case.

## **Order**

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

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:

M. Kiehl

S. V. Steinbrener