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D E C I S I O N
of 10 May 2005

Case Number: T 0125/04 - 3.5.1

Application Number: 98966752.2

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Language of the proceedings: EN

Title of invention:

Comparative visual assessment method & system

Applicant:

Comparative Visual Assessments, Inc.

Opponent:

-

Headword:

Assessment system/COMPARATIVE VISUAL ASSESSMENTS

Relevant legal provisions:

EPC Art. 52(1)-(3), 56

Keyword:

"Presence of an invention (yes)"

"Inventive step (no)"

Decisions cited:

T 0115/85, T 0769/92, T 0931/95, T 1194/97, T 0049/99,

T 0244/00, T 0641/00, T 0643/00, T 0258/03

Catchword:

In general, the task of designing diagrams is non-technical. This is so, even if the diagrams arguably convey information in a way which a viewer may intuitively regard as particularly appealing, lucid or logical.



Case Number: T 0125/04 - 3.5.1

D E C I S I O N
of the Technical Board of Appeal 3.5.1
of 10 May 2005

Appellant: Comparative Visual Assessments, Inc.
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 28 July 2003
refusing European application No. 98966752.2
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: S. V. Steinbrener
Members: R. S. Wibergh
B. J. Schachenmann

Summary of Facts and Submissions

- I. This appeal is against the decision of the examining division to refuse European patent application No. 98 966 752.2 (published as WO-A-99/34313).
- II. The examining division held that the subject-matters of independent claims 1 and 10 as filed with letter of 19 June 2002 fell within the list of non-inventions as such pursuant to Article 52(2)(c), (d) and (3) EPC because they lacked technical character. The examining division added, in the form of an *obiter dictum*, that the subject-matter did not involve an inventive step (Article 56 EPC).
- III. Claims 1 and 10 in the version of 19 June 2002 read as follows:
- "1. A comparative visual assessment system comprising:
an input device;
an output device;
a computer system, the computer system connected to the input device and the output device, the computer system having a user interface connected to a comparative visual assessment engine, the comparative visual assessment engine comprising:
means for assigning a plurality of weights to a corresponding plurality of components representing a subject;
means for assigning a plurality of scores to the corresponding plurality of components representing the subject;
means for determining a functional score for each of the plurality of components;

means for determining an angle to be used for an output to the output device of a vector for each of the plurality of components;

means for assigning the functional score to a horizontal length of the vector for each of the plurality of components; and

means for displaying the vector on the output device."

"10. A method of displaying a plurality of vector strings on an output device comprising the steps of: providing a computer system, the computer system having a user interface for input a plurality of data of a first type, an assessment engine for processing the plurality of data of the first type and for calculating data of a second type;

constructing an outline of a product, the outline subdivided into a hierarchy of nodes and endpoints, each endpoint referring to a node with no corresponding subcomponents;

assigning a plurality of weights of importance to each of the plurality of endpoints and nodes within the hierarchy;

assigning a plurality of a multiple set of functional values to each of the plurality of endpoints throughout the entire hierarchy for each candidate of product;

calculating a plurality of a multiple set of functional values to each of the plurality of nodes throughout the entire hierarchy for each candidate of product,

wherein the step of calculating comprises the substeps of:

determining a sum of all multiplication products of each of the nodes subcomponents weight (W) times its corresponding functional value, all divided by the sum of the weights of all the subcomponents in the node

whereby every element in all hierarchies have a unique value, assigned and calculated for each candidate; determining a plurality of vectors for each of the plurality of nodes; building a first vector string from the plurality of vectors; and displaying the first vector string on the output device."

- IV. In the statement of grounds the appellants argued that the invention did not constitute a mere presentation of information since the data displayed were the result of an internal processing operation. Nor did the invention relate to methods for performing mental acts as such or programs for computers as such. It exhibited technical character for the reasons given in decision T 769/92 (OJ EPO 1995,525) and moreover involved an inventive step.
- V. The Board summoned the appellants to oral proceedings, giving as its preliminary opinion that the subject-matters of independent claims 1 and 10, although inventions within the meaning of Article 52(1) EPC, did not involve an inventive step.
- VI. The oral proceedings, which the appellants did not attend, were held on 10 May 2005. It was verified that the appellants had requested in writing that the decision under appeal be set aside and a patent be granted on the basis of the claims filed with letter of 19 June 2002. After deliberation, the Board announced its decision.

Reasons for the Decision

1. *Admissibility of the appeal*

The appeal complies with the requirements referred to in Rule 65(1) EPC and is therefore admissible.

2. *The invention*

The patent application relates to the comparative visual assessment of products ("subjects", in the wording of claim 1), such as automobiles. In order to assist a customer to evaluate a product, relevant product aspects ("components"), such as maintenance expenses or quality of engineering, are represented as a string of vectors (see eg figure 10). The horizontal length of a vector is proportional to the score attributed to the component, and the angle the vector forms with the horizontal indicates the importance of the component for the decision. The preferred embodiment is in the form of an add-in to a spreadsheet program (page 7, lines 3 to 7).

3. *Non-inventions as such pursuant to Article 52(2), (3) EPC*

3.1 In the examining division's view, the essence of the claimed invention was a computer program for aiding a user to make a visual assessment:

"Due to the fact that such a program processes data which is neither related to the operating parameters of a device (just non-technical data), nor affects the physical/technical functioning of the device (it just

supplies visual information) and as it does not solve a technical problem (it merely presents the data as a vector diagram chart), the claimed invention defined by such a program for computers refers also to methods for performing mental acts and programs for computers as such and is hence excluded from patentability by Art. 52(2), (c) and (3) EPC" (point 1.3 of the decision).

3.2 As will be further detailed below, the Board largely agrees with the enumerated "facts" but not with the inference drawn from them, namely that the invention would be excluded from patentability by virtue of Article 52(2), (3) EPC. According to decision T 931/95 (OJ EPO 2001,441) a computer system suitably programmed for use in a particular field is an invention within the meaning of Article 52(1) EPC (point 5). Decision T 258/03 (OJ EPO 2004,575) holds that the same applies to a method involving technical means (Headnote I). Applying the reasoning underlying these two decisions to claims 1 and 10, respectively, the Board finds that both claims define subject-matter which is an invention within the meaning of Article 52(1) EPC.

3.3 In the grounds of appeal, the appellants have for natural reasons presented the major part of their counter-arguments in connection with Article 52(2), (3) EPC. The Board will consider them *mutatis mutandis* for the issue of inventive step.

4. *Claim 1: Inventive step*

4.1 System claim 1 contains an "input device", an "output device" and a "computer system", which features are clearly conventional. As acknowledged in the

introductory part of the description ("Background of the Invention"), computer systems capable of assisting customers by processing and displaying information about products are already known. Such systems are taken to constitute the closest prior art.

- 4.2 Claim 1 carries on by listing various means for implementing specific functions or steps in the computerised system, which means are entirely defined by the functions to be achieved and may be realised by suitable programming (see figure 1 and associated text).

The description also acknowledges that the steps of "assigning a plurality of weights to a corresponding plurality of components representing a subject", "assigning a plurality of scores to the corresponding plurality of components representing the subject" and "determining a functional score for each of the plurality of components" (and hence corresponding means for carrying out these steps) are known (page 2, first paragraph). Moreover, these steps relate to activities falling under the concept of information modelling as such and thus cannot contribute to the technical character of an invention within the meaning of Article 52(1) EPC (see decision T 49/99 of 5 March 2002, not published in OJ EPO).

- 4.3 The means for

(a) "determining an angle to be used for an output to the output device of a vector for each of the plurality of components" and

(b) "assigning the functional score to a horizontal length of the vector for each of the plurality of components"

determine the way the information is presented ("displaying the vector").

It may be doubted whether feature a) actually limits the claim, since it covers the possibility of setting all angles to an arbitrary value, eg zero (horizontal). For the purpose of the present decision it will be interpreted in the light of the description (see eg page 12, lines 3 to 9). Thus, features (a) and (b) are regarded as stating that the vector angle is a function of the importance of a component and the vector length is such that the horizontal length of the vector corresponds to the functional score assigned to the component.

4.4 According to the description, vectors and their corresponding lengths and directions have already been used to measure quantitatively factors used in benchmarking (page 3, first paragraph). However, since no details of such prior art is given, it will here be assumed that features (a) and (b) have not been acknowledged in the description to be known. Neither was an objection of lack of novelty of the claimed subject-matter raised by the examining division. Since the present decision does not hinge upon this issue, as can be seen from the following, the Board directly assesses the presence of inventive step.

4.5 The overall effect of features (a) and (b) is simply to inform a customer about the properties of a product he

is interested in. This is exclusively an effect on a human being, and an intellectual one. The very claim wording supports this view, since it defines the invention as a *visual assessment* system.

The appellants, relying on the description, page 6, line 9 to page 7, line 2, have pointed out that the invention manipulates "raw data" to produce "final data" in a form helpful for human decision-making (statement of grounds, point 3.1.3). But some data manipulation is inevitable in any kind of presentation of information in the form of a figure or a diagram. The Board is of the opinion that, in general, the task of designing diagrams is non-technical (see decision T 244/00 of 15 November 2001, not published in OJ EPO). This is so even if the diagrams arguably convey information in way which a viewer may intuitively regard as particularly appealing, lucid or logical.

- 4.6 The appellants have quoted the Guidelines for examination in the European Patent Office, C-IV, 2.3.7, relating to presentations of information, and concluded therefrom that a vector diagram as a manner of representation, as distinguished from the mere information content, may well constitute a patentable technical feature (statement of grounds, point 3.1.2). But this argumentation is very general and does not specify which claimed aspect may hint at a technical feature.

The Board would like to add that insofar as a specific manner of representation is concerned in the present case, this manner has been conceived exclusively with regard to a human being's mental capabilities and with a view to aiding a user to visually analyse data and

make decisions on the basis of this analysis. It does not relate to any technical format or structure of the information processed, nor is it linked to the internal functioning of the system.

4.7 With reference to the case T 769/92 (*supra*) the appellants have argued (grounds of appeal, point 3.3.3) that the claimed vector diagram charts are comparable to the "transfer slip" which in the earlier case was found to reflect "technical considerations". However, the "technical considerations" mentioned in T 769/92 did not stem from the fact that the transfer slip was displayed but rather from its use as a single input form for different types of processing (point 3.7 of the Reasons). It is in fact plausible that tasks involving the format of input data are less likely to lack technical character than those concerning mere data output and display, because the input requires compatibility with the predetermined protocol of a machine whereas the output may be largely dictated by the more or less subjective preferences of a human being.

4.8 In this connection it may be useful to contrast the present situation with the one dealt with in decision T 643/00 of 16 October 2003 (not published in EPO OJ), which also concerned the display of data. The invention in that case was an apparatus for searching an image to be output. The invention was based on the idea of making the searching process easier to a user, who had conventionally to go through the images one by one on the display at a high resolution in order to select a particular image for output. This goal was achieved by arranging a plurality of images in a side-by-side

manner at a low resolution and providing for hierarchical display at higher resolutions so that a comprehensive survey as well as a fast check for details were possible. The board decided that this arrangement of images on a screen contributed to a technical solution to the problem of searching and retrieving images efficiently.

Also the present invention concerns an arrangement of images but is different in that only the information conveyed by the images, ie their "cognitive content" (cf T 1194/97, OJ EPO 2000,525, point 3.3), is relevant. The new features have to do with how this content is represented. Unlike the cited case the invention provides no information about the computer system itself, such as the location where the data are stored.

This also establishes a distinction between the present invention and the case T 115/85 (OJ EPO 1990,030), where it was found that giving visual indications automatically about conditions prevailing in an apparatus or system is basically a technical problem (Headnote I). The data in the present case are not indicative of any such conditions.

- 4.9 The last feature of claim 1, "means for displaying the vector on the output device", is trivial.

- 4.10 According to decision T 641/00 (OJ EPO 2003,352, Headnote I), features of a claim making no contribution to the technical character of an invention cannot support the presence of inventive step. Implementing the claimed steps by merely providing means for carrying out these steps is obvious. Summing up, the

Board cannot find that the steps performed by the features in claim 1 have any technical effects which go beyond those obtained by the normal use of a computer. It follows that the subject-matter of present claim 1 lacks an inventive step (Article 56 EPC).

5. *Claim 10: Inventive step*

Method claim 10 largely corresponds to apparatus claim 1 but additionally includes features relating to a hierarchical tree structure ("outline") consisting of nodes and end points (cf figure 2) for modelling the aspects of the products to be compared. Furthermore, the formula for calculating the "functional value" (corresponding to the "functional score" in claim 1) is given. But also these features serve merely to define the vector string presented to the user and must accordingly also be disregarded when assessing the inventive activity. Thus, the method of claim 10 also lacks an inventive step (Article 56 EPC).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

D. Sauter

S. Steinbrener