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**Datasheet for the decision
of 27 October 2016**

Case Number: T 1188/13 - 3.5.05

Application Number: 08834963.4

Publication Number: 2321737

IPC: H04L12/58, H04B7/185,
G06F17/24, G08G5/00

Language of the proceedings: EN

Title of invention:

METHOD OF PRODUCING GRAPHICALLY ENHANCED DATA COMMUNICATIONS

Applicant:

Honeywell International Inc.

Headword:

Graphical display for air traffic/HONEYWELL

Relevant legal provisions:

EPC Art. 56, 112(1) (a)

Keyword:

Inventive step - (no)

Referral to the Enlarged Board of Appeal - (no)

Decisions cited:

G 0001/14

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 1188/13 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 27 October 2016

Appellant: Honeywell International Inc.
(Applicant) 115 Tabor Road
Morris Plains, NJ 07950 (US)

Representative: Houghton, Mark Phillip
Patent Outsourcing Limited
1 King Street
Bakewell, Derbyshire DE45 1DZ (GB)

Decision under appeal: **Decision of the Examining Division of the European Patent Office posted on 27 November 2012 refusing European patent application No. 08834963.4 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair A. Ritzka
Members: P. Cretaine
F. Blumer

Summary of Facts and Submissions

I. The appeal is against the decision of the examining division, posted on 27 November 2012, refusing European patent application No. 08834963.4 on the grounds of lack of novelty (Article 54 EPC) with respect to a main request and a first auxiliary request, having regard to the disclosure of

D1: US 2005/049762.

II. Notice of appeal was received on 25 January 2013 and the appeal fee was paid on the same day. The statement setting out the grounds of appeal was received on 27 March 2013. The appellant requested that the decision of the examining division be set aside and that the application be remitted to the department of first instance for further prosecution, based on the main request or the first auxiliary request on which the decision was based, or based on second and third auxiliary requests filed with the statement setting out the grounds of appeal. In addition, oral proceedings were requested as an auxiliary measure.

III. A summons to oral proceedings was issued on 18 July 2016. In an annex to this summons pursuant to Article 15(1) RPBA, the board expressed its preliminary opinion on the file. The board first indicated its intention to discuss and decide on the issue of novelty and inventive step during the oral proceedings, rather than remit the case to the first instance. The board further expressed its view that the main request and the first to third auxiliary requests did not meet the requirements of Article 56 EPC, having regard to the disclosure of D1 in combination with
D2: WO 02/100121,

corresponding to EP 1 397 924, labelled "D2" in the decision under appeal.

The following document, cited during the examination phase, was also cited by the board for exemplifying the well-known CPDLC protocol for text messages:

D7: US 2003/0006910.

IV. With a letter received 26 September 2016, the appellant submitted arguments in support of the main and auxiliary requests.

V. Oral proceedings were held as scheduled on 27 October 2016. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request, filed as first auxiliary request with letter dated 11 September 2012, or, subsidiarily, on the basis of any of the first, second and third auxiliary requests, the first auxiliary request filed as second auxiliary request with letter dated 11 September 2012, the second and third auxiliary requests as filed with the statement setting out the grounds of appeal dated 27 March 2013.

The appellant further requested that the following question be referred to the Enlarged Board of Appeal: "Should an advantage provided from the technical effect of an application not provided in the prior art even if that prior art does disclose all the features of the application be sufficient to establish inventive step on the basis of a second non-medical use in a method and/or apparatus claim?"

At the end of the oral proceedings, the decision of the board was announced.

VI. Independent claim 1 of the main request reads as follows:

"A method of producing graphical representation of a controller pilot data link communication (CPDLC) text message or of a Data Link Initiation Capability (DLIC) text message or of an Automatic Dependent Surveillance (ADS) text message, the method comprising:
receiving a datalink text message from an aircraft or an air traffic control center;
parsing the datalink text message into message components;
identifying elements of the message components capable of graphical representation by individual graphic components by using rules for applying graphical enhancements which command replacing said elements by individual graphic components;
retrieving appropriate individual graphic components from a graphics library corresponding to the identified message components using the rules for applying graphical enhancements;
assembling the individual graphic components into a composite graphic presentation using rules for assembling graphics; and
combining the datalink text message with the composite graphic presentation for display."

Claim 1 of the first auxiliary request has been amended with respect to claim 1 of the main request by limiting the definition of the text message to a CPDLC text message.

Claim 1 of the second auxiliary request and claim 1 of the third auxiliary request have been amended with

respect to claim 1 of the main and first auxiliary request, respectively, by replacing in their preamble the wording "a method of producing" with "an avionics computer in an aircraft implemented method of producing".

Each request comprises further independent claims directed to a corresponding computer program (claim 9) and a corresponding system (claim 11).

Reasons for the Decision

1. The appeal is admissible.
2. Prior art

D1 discloses a method for displaying textual air traffic control clearance messages simultaneously with one or more images representative of these messages (see the abstract). Examples of the generated display are shown in Figures 2 and 4 to 7.

D2 relates to a method for displaying on a mobile phone a text message and images corresponding to character strings detected in that message (see e.g. page 2, lines 8 to 14).

D7 shows in Figure 1 a table of messages used by a CPDLC system.

3. Main request
 - 3.1 Although the examining division found that D1 disclosed all the features of claim 1, the board acknowledges that the following features are not explicitly disclosed in D1:

- a) the feature that the text message is based on the CPDLC protocol,
- b) the step of parsing the text message into message components,
- c) the step of using rules for applying graphical enhancement which command replacing identified elements of the message components by individual graphic components,
- d) the step of retrieving graphic components from a graphic library corresponding to the identified message components using rules, and
- e) the step of assembling the graphic components into a graphic presentation using rules.

3.2 Feature a) is juxtaposed to the other distinguishing features in the sense that there is no synergistic effect, features b) to e) being able to be applied to any kind of data link message. Taking into account that CPDLC is a well-known protocol for air traffic control messages (see D7 for instance), the skilled person in this field would obviously consider applying to CPDLC messages the teaching of D1 in respect of air traffic messages. Feature a) therefore does not contribute to an inventive step of the subject-matter of claim 1.

3.3 With respect to features b) to e), the board agrees with the appellant that parsing of the text message is not implicitly disclosed in D1.

Since the description does not disclose a particular parsing method per se, the common understanding of the term parsing should be used to interpret this feature. To that end, the board relies on the definition given by the dictionary cited by the applicant during

the examination proceedings (see letter of 28 February 2012, page 4): in the field of computer science, which is the larger field to which the application belongs, parsing means "to analyse or separate (input, for example) into more easily processed components". The board agrees with the appellant that D1 is silent about how the textual messages are transformed into graphical representations, such as the diagrams shown in Figures 4 to 7. Therefore, as argued by the appellant, the method of D1 does not require that the message be parsed within the course of the transformation; rather the use of a look-up table linking whole text messages to diagrams has to be considered as a plausible alternative by the skilled person reading D1.

In the board's view however, the skilled person reading D1 and trying to implement the transformation of air traffic textual messages into graphical representations would not be limited to prior-art methods of air traffic communication but would look for documents dealing with graphical representation of textual messages on a display. The skilled person would thus consult document D2, which discloses (see page 2, lines 8 to 14; page 8, lines 15 to 28; page 11, lines 9 to 27):

- identifying consecutive characters or character strings in a text message, which amounts to a parsing of the text message according to the definition given above,
- identifying character strings capable of graphical representation,
- retrieving graphic components from a graphics library corresponding to the identified character strings,
- assembling the retrieved graphic components into a graphic presentation and combining the text message

with the graphic presentation for display.

By applying this specific teaching of D2 to the method of D1, the skilled person would arrive at features b) to e) of claim 1 without the exercise of inventive skill.

- 3.4 For these reasons, the board judges that the subject-matter of claim 1 does not involve an inventive step (Article 56 EPC), having regard to the disclosure of D1 in combination with D2.

Independent claims 9 and 11 contain the same features as claim 1 but expressed in terms of a computer program and a system, respectively. Thus, claims 9 and 11 likewise do not meet the requirements of Article 56 EPC.

4. Auxiliary requests

Claim 1 of the main request provides an alternative ("or" features) between the CPDLC, DLIC and ADS protocols. Since the inventive step assessment in section 3 above was based on the CPDLC alternative, restricting the data link communication to this alternative only, as foreseen by the respective claims 1 of the first and third auxiliary requests, does not represent an inventive contribution to the subject-matter of claim 1 of these requests.

The further feature added to claims 1 of the second and third auxiliary requests, defining that the method is implemented in an avionics computer in an aircraft, is already disclosed in D1 (see for instance paragraph [0016]). This feature too therefore does not represent an inventive contribution to the subject-matter of

claim 1 of these requests.

For these reasons, the board judges that the first to third auxiliary requests are also not allowable, because they do not involve an inventive step (Article 56).

5. The appellant argued that the skilled person would not consider the combination of D2 with D1 for the following reasons. Firstly, the lack of security of the SMS technology on which the text messages of D2 are based would dissuade the skilled person from considering the teaching of D2. The board however holds that the skilled person is aware that safety is a crucial issue in the field of air control messaging. In D1, this issue is mentioned (see paragraphs [0004] and [0005]) and the graphic representation is described as an additional display for the aircraft pilot, being simultaneously displayed with the text messages provided by the air traffic system. The skilled person would thus not consider replacing the text messaging system of D1 with an SMS-based system that was much less safe, but only improving or finding an alternative implementation for the graphic representation in addition to the text messages. The skilled person would thus consider the teaching of D2 only in respect of the graphical enhancement disclosed therein. Secondly, the appellant argued that the skilled person would not consider D2 because of the unlimited number of possible SMS messages, in contrast to the limited lexicon used by the CPDLC system. In the board's view however, the skilled person is a person skilled in the art of graphical displays and he would not limit his search to prior-art methods of air traffic communication only, but would consider all documents dealing with graphical representation of textual messages on a display,

irrespective of the sizes or the numbers of the messages dealt with.

The appellant further argued that D7 represented the closest prior art since it unambiguously related to a CPDLC messaging system (see paragraph [0004]) and addresses the same problem as the present application (see paragraph [0007]), namely reducing workloads for pilots and/or air traffic controllers, and proposes the same kind of solution (see paragraph [0018]), namely enhancing the text messages by information that can be understood more quickly. Starting from D7 as prior art, the skilled person would not, according to the appellant, be encouraged to replace the aural alternative representation of the text message with a graphic representation but would instead seek to further improve the aural representation. However, the board first holds that this argument cannot alter the outcome of the inventive-step assessment, set out in section 3 above, based on D1 as starting prior art. Further the board holds that D1 is more relevant prior art since it already discloses the simultaneous display of text messages and of their graphical representations.

A further argument of the appellant was that the graphic presentation in D1 was not "composite", as required by claim 1, in the sense that the text was displayed separately from the graphics, contrary to what is shown in Figure 3 of the present application. The board is however not convinced by this argument, since claim 1 defines only that the graphic presentation is composite, not the whole display. Further, paragraph [0022] of D1 teaches that the display may show a graduation of altitude values, which

is interpreted as a contribution to a composite graphic presentation of the air traffic message.

6. The conclusion is that the main request and the first to third auxiliary requests are not allowable for lack of inventive step (Article 56 EPC).
7. Request to refer a question to the Enlarged Board of Appeal.

According to Article 112(1) (a) EPC, the board of appeal, following a request from the appellant, refers a question to the Enlarged Board of Appeal if it considers that an answer to that question is required in order to ensure uniform application of the law, or if a point of law of fundamental importance arises.

In the present case, the appellant requested that the question set out in point V above be referred to the Enlarged Board of Appeal.

The appellant argued that providing an additional visual information representing the text message increased the safety of the controller pilot data communication and that this advantage was not provided in the prior art. D1 however clearly discloses that displaying air traffic clearance messages simultaneously in a textual and a graphical format (see for instance paragraph [0019]) is less cumbersome, less time-consuming and less distracting to a pilot (see paragraph [0005]). Therefore, in the board's judgement, the same advantage as relied on by the appellant in its question is provided by the prior-art system of D1.

The board further notes that D1 does not disclose all the features of the application (see point 3.1 above).

In particular, parsing a text message is not disclosed in D1.

Therefore, the prerequisite of the question posed that there exist "an advantage provided from the technical effect of an application not provided in the prior art even if that prior art does disclose all the features of the application" is not fulfilled.

The board thus judges that the question is not decisive in the present case and decides, in accordance with the case law of the boards of appeal (see for instance G0001/14, reasons 1 and 2), not to refer the question to the Enlarged Board of Appeal.

Order

For these reasons it is decided that:

1. The request for referral to the Enlarged Board of Appeal is refused.
2. The appeal is dismissed.

The Registrar:

The Chair:



K. Götz-Wein

A. Ritzka

Decision electronically authenticated